

MID-MONTH

JUNE 1956

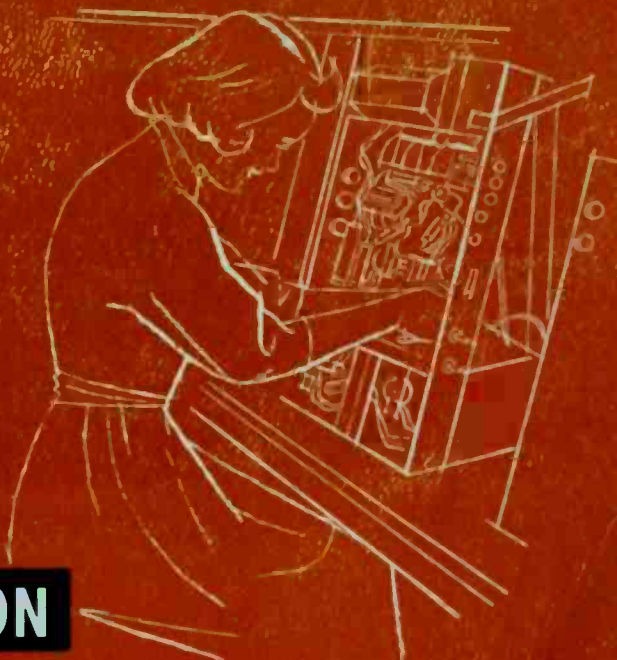
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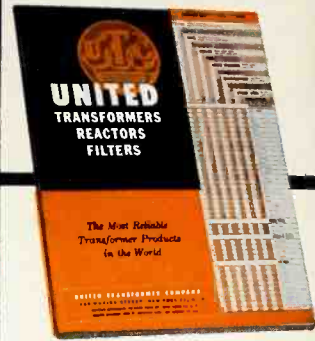
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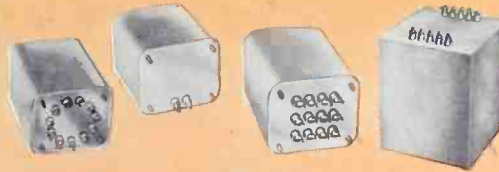
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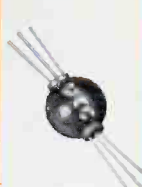
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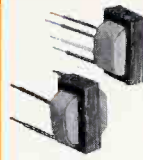
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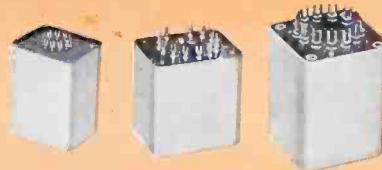
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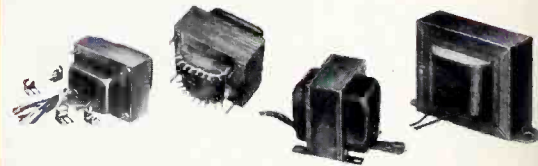
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June, 1956—Mid-Month

ELECTRONICS
Member ABC and AIEE

Vol. 29, No. 6A



Published monthly with an additional issue in June by McGraw-Hill Publishing Company, Inc., James H. McGraw (1860-1948), Founder, Executive, Editorial and Advertising Offices; McGraw-Hill Building, 330 W. 42 St., New York 36, N. Y. Longacre 4-3000. Publication Office, 219 So. American St., Philadelphia 5, Penna. Donald C. McGraw, President; Paul Montgomery, Executive Vice-President; Joseph A. Gerardi, Vice-President and Treasurer; John J. Cooke, Secretary; Nelson Bond, Executive Vice-President, Publications Division; Ralph B. Smith, Vice-President and Editorial Director; Joseph H. Allen, Vice-President and Director of Advertising Sales; J. E. Blackburn, Jr., Vice-President and Circulation Director.

Subscriptions: Address correspondence to Electronics—Subscription Service, 390 W. 42nd St., New York 36, N. Y. Allow one month for change of address. Subscriptions are solicited only from persons engaged in theory, research, design, production, maintenance and use of electronic and industrial control components, parts and products. Position and company connection must be indicated on subscription orders.

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FOR ALL COMMUNICATION AND INDUSTRIAL APPLICATIONS

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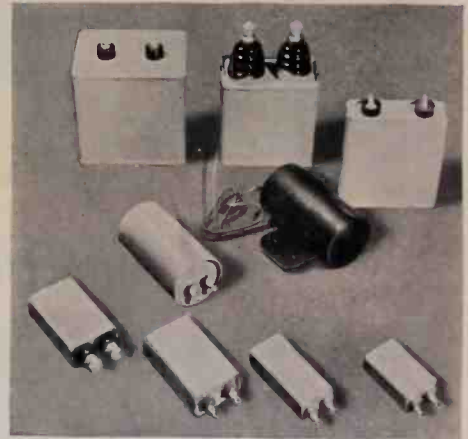
Ratings	D-c Voltage	μ f
Case Style 53	400	.05 to 1
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Case Style 61	400	.05-.05 to .50-.50

CAPACITORS

PERMAFIL CAPACITORS: Permafil high-temperature capacitors are designed to meet the performance requirements of MIL-C-25A Characteristic K capacitors, and are suitable for operation in ambient temperatures from -55 to $+125$ C at full rated voltage.

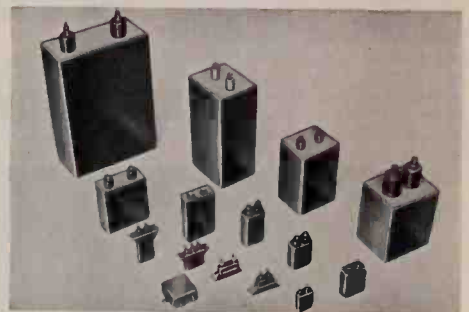
Permafil, used as the impregnant instead of mineral oil, is a solid resinous material having excellent electrical characteristics over a wide temperature range. Since it is a compound, the processing and manufacture of Permafil capacitors can be controlled to exacting requirements, and results in units that are more reliable at elevated temperatures. Because the impregnant is solid, it obviates possibilities of leaks. Write for Bulletin GEC-811.

CAPACITORS



STANDARD COMMERCIAL TYPES Fixed Paper-dielectric Capacitors

A-c/d-c dual-rated Pyranol* capacitors for motors, controls, electronic equipments, and other applications will reduce inventories, simplify design problems, and increase standardization. Capacitors in the voltage ranges 236 through 660 volts, a-c, and 400 through 1500 volts, d-c, are now dual-rated and can be used for either a-c or d-c applications. Other a-c and d-c ratings available: 0.01 to 75 μ f, 236 to 660 volts, a-c, and 100 to 100,000 volts, d-c. Write for Bulletin GEC-809.

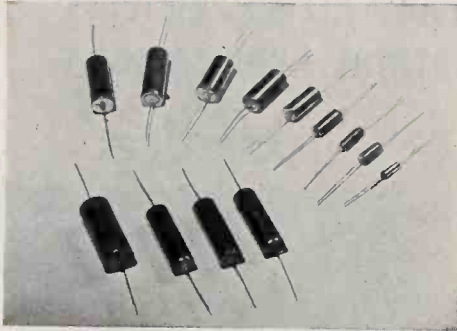


G-E CAPACITORS TO MEET MIL-C-25A SPEC. 100 to 12,500 Volts D-c—0.01 to 15 Microfarads

These fixed paper-dielectric capacitors are designed to meet the rigid requirements of the joint Army-Navy specifications for use in electronic equipment for the armed forces. Hermetically sealed in metallic containers, these capacitors for d-c applications are available in Characteristics E and F and in case styles CP-53, -54, -55, -61, -63, -67, -69, and -70. In addition to regular applications, these units may also be used at higher temperatures, higher voltages for short-life applications, and with a-c voltages. Write for Bulletin GEC-810.

* Registered trade-mark of General Electric Co.

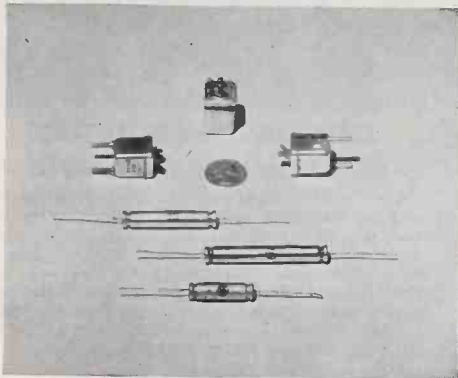
SUBMINIATURE METAL-CLAD TUBULAR CAPACITORS



Subminiature metal-clad tubular capacitors are now available with Permafil or Mineral-oil impregnation. The Permafil is a solid, resin dielectric for operating from -55°C to $+125^{\circ}\text{C}$ without derating. Silicone end seals of all-welded construction provide maximum resistance to thermal and physical shock. The Mineral-oil metal-clad tubular has KOVAR glass-to-metal seal appendages and operates from -55°C to $+85^{\circ}\text{C}$. Both capacitors meet performance requirements of MIL-C-25A. Right-angle leads in Permafil only. Supplied in standard case sizes in either inserted-tab or extended foil designs. Ratings range from 0.01 to 1.0 μf in voltages of 100, 200, 300, 400, and 600, d-c working.

Write for Bulletin GEC-987.

G-E TANTALYTIC* CAPACITORS



The Tantalytic capacitor was developed to fit low-voltage applications where superior performance and small size are the major factors.

The Tantalytic capacitor is a foil-type, tantalum-electrode, electrolytic unit, similar in construction to an aluminum electrolytic capacitor, but, because of the characteristics of tantalum foil and the electrolyte employed, is smaller in size. The Tantalytic capacitor has lower leakage currents, longer shelf life, and a wider range of temperature operation, without derating, than the conventional aluminum electrolytic capacitor. Tantalytic capacitors, in a wide range of ratings, are currently being used in telephone equipment and military communication and electronic equipment. They are available for 85 C and 125 C service.

Write for Bulletin GEA-6258.

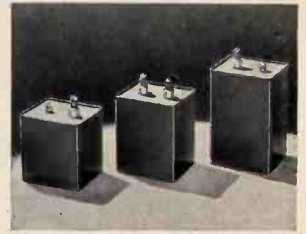
G-E DRAWN-OVAL CAPACITORS



G-E drawn-oval capacitors have found wide application in fluorescent-lamp ballasts, air-conditioning and refrigeration equipment, business machines, luminous-tube transformers, submersible pumps, and industrial control. They are smaller, lighter, stronger, and 10 to 20 per cent less costly than standard fabricated fixed paper-dielectric types. Ratings range from 1 μf to 20 μf at 236 to 660 volts, a-c, and 1 μf to 15 μf at 600 to 1500 volts, d-c. They are available in single-, double-, and triple-section types with a wide range of terminal styles. Drawn-oval capacitors can be mounted in any position with suitable brackets available.

Write for Bulletin GEA-5777.

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ENERGY STORAGE

These d-c Pyranol* capacitors for phototube and similar light-duty, energy-storage applications are the result of years of experience in the design and manufacture of capacitors for this type of service. They are relatively lightweight, small, stable capacitors having a life consistent with the application involved. Write for Bulletin GEC-1357.



MICRO-MINIATURE TANTALYTIC CAPACITORS

Designed for low-voltage applications where superior characteristics and size are important. Applications: In miniaturized assemblies with transistors: In hearing aids, and military applications employing transistors. Write for Bulletin GEA-6065.



PULSE-FORMING NETWORKS

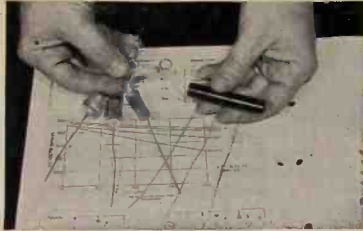
These capacitor pulse-forming networks, Type E, are for applications in radar and industrial equipment where the normal (exponential) capacitor discharge shape is not suitable and where an impulse having a definite energy content and duration is required. Write for Bulletin GEA-4996.

COMPONENT RECTIFIERS

Vac-u-Sel, * COPPER-OXIDE, AND GERMANIUM

Rectifiers for practically any d-c power requirement are available from General Electric. Vac-u-Sel rectifiers are a new, high-quality type of selenium rectifier produced by an exclusive G-E sphere-type, vacuum-

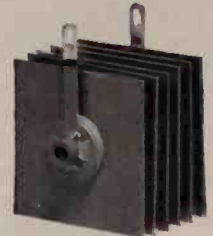
evaporation process. In addition, General Electric also makes a full line of copper-oxide and germanium rectifiers.



Miniature Vac-u-Sel rectifiers



Standard Vac-u-Sel rectifier stack construction



Tube-mounted Vac-u-Sel rectifier stack construction

GENERAL ELECTRIC Vac-u-Sel RECTIFIERS

• 63 VOLTS PEAK INVERSE

• 130 C AMBIENT OPERATION

• 80,000 HOURS LIFE EXPECTANCY

The special vacuum-evaporation process employed in making Vac-u-Sel rectifiers makes possible the outstanding performance characteristic of this selenium rectifier. With G-E Vac-u-Sel rectifiers, you can now match performance requirements for life expectancy, ambient operating temperature, and atmospheric protection, as well as electrical characteristics. Two (2) new rectifier cells make up the new line of Vac-u-Sel rectifiers: a 26-volt and a 45-volt cell. Both are high-temperature cells.

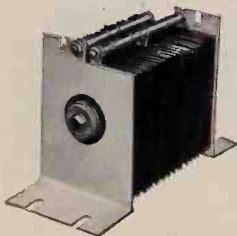
The 26-volt cell is a long-life, standard industrial cell with a life expectancy of 80,000 hours at normal current rating at 35 C ambient. The 26-volt cell can meet operating requirements up to 130 C at full voltage. Current need not be derated where shorter life is acceptable. Life expectancy at 130 C is 1000 hours.

The 45-volt cell has a 63-volt peak inverse voltage. Unlike most

45-volt rectifiers, this is a true, long-life industrial cell. Frequently, this rectifier may be substituted for those employing 26-volt cells. Since fewer cells are required, savings of up to 30 per cent in cost, and up to 35 per cent in the size of the stacks are possible. Life expectancy of the 45-volt cells at normal current rating at 35 C ambient is 60,000 hours, and they can be used at ambient temperatures up to 110 C.

All Vac-u-Sel rectifiers operate with exceptionally low forward-voltage drop and low reverse leakage, and their margin of superiority in these characteristics increases with service. All Vac-u-Sel rectifiers undergo extensive testing and grading, and matched cells are used in assembling stacks. A variety of finishes and mounting arrangements are available to meet virtually any requirements. Write for Bulletins GEA-5935 (miniatures); GEA-6273 (standard).

COPPER-OXIDE RECTIFIER STACKS



G-E copper-oxide rectifier stacks offer these outstanding features:

- No unforming
- Ability to withstand momentary current overloads
- Ability to withstand momentary voltage overloads
- Long life with little aging
- Highest efficiency at low voltages.

These features of G-E copper-oxide rectifiers make them especially suited for certain types of magnetizing circuits, which require the

rectifier to withstand high current inrush and momentary voltage overload.

Perhaps the most widespread use of copper-oxide rectifiers is in the field of circuit-breaker operation. Here, the unique characteristics of copper-oxide rectifiers are especially important.

The above features also make G-E copper-oxide rectifiers ideal for the following applications: • Blocking • Metering • Polarizing relays • High-speed relays • Electroplating • Electrolytic reduction • Telephone and telegraph equipment • Control contactors • Low-voltage, high-current power supplies • Testing equipment • High-voltage surge protectors • D-c welders. Write for Bulletin GEA-5699.

* Trade-mark of General Electric Co.

INDUSTRIAL GERMANIUM RECTIFIERS



G-E industrial rectifiers offer these outstanding features: • Lowest forward drop per ampere per square inch • Best current output, smallest size, and lightest weight per watt output of existing metallic rectifiers • High efficiency • No unforming • Negligible aging.

These G-E germanium metallic rectifiers are of the broad-area type. Their very low forward-voltage drop gives excellent regulation. The high

output voltage per cell permits the use of fewer cells, and rectifying properties are instantaneous since they do not require artificial forming. G-E germanium rectifiers can be operated at extremely high current densities, and a large d-c output is obtainable from a very small germanium rectifier.

The regulation is less than 6 per cent when operated at the high current densities permissible with germanium rectifiers. With most metallic rectifiers, regulation is usually between 15 and 20 per cent at their normal current densities. Germanium rectifiers have a broad application in power conversion where size and weight requirements are at a premium. Write for Bulletins GEA-5773 (industrial rectifiers); GEA-6224 (power supplies); GEA-6297 (anodizing and electroplating).

Complete information on Vac-u-Sel, copper-oxide, and germanium rectifiers is available from your nearest G-E Apparatus Sales Office, or by writing to Section 640-445, General Electric Company, Schenectady 5, New York.

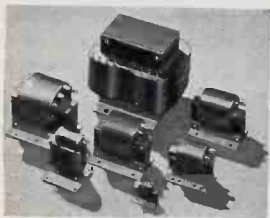
SPECIALTY TRANSFORMER PRODUCTS FOR ELECTRONIC EQUIPMENT



HERMETICALLY SEALED: A complete line of hermetic transformers in 22 standardized case sizes was specifically designed to meet the performance requirements of the government MIL-T-27 specifications. These units, featuring drawn-steel cases and silicone bushings, are the most dependable sealed transformers it is possible to provide and can be used on a wide range of applications.



OPEN TYPE: Usually applied where moisture resistance is not an important factor, and where size and weight must be kept to a minimum. Composed of automatically wound coils imposed on finest-grade silicon-steel core laminations, they are of the same uniform high quality as our encased transformers. Made to exacting tolerances to provide excellent electrical characteristics. Terminal boards top- or bottom-mounted, or with leads, and with mounting studs or brackets to meet special requirements.



EPERMIL TYPE: Three new encapsulated transformer lines now permit designers in the electronic industry to choose the best and least-expensive encapsulation for their applications: (1) an extremely durable elastomer formula for Class H, (2) Class A modified epoxy resin, and (3) other combinations of varnishes and epoxys or polyesters for less-rigid environmental conditions.



AIRCRAFT TRANSFORMERS

General Electric manufactures a complete line of standard 400-cycle aircraft transformers which includes general-purpose transformers, phase-changing transformers, high-temperature silicone transformers, ballasts for fluorescent lamps, ignition transformers for cabin heaters, de-icers, and jet engines. General Electric builds transformers to individual specifications, both military and commercial.



POTTED TRANSFORMERS

Particularly suitable for applications where moisture or humidity is excessive. For such applications, they are far superior to core-and-coil units. If immersionproof unit is not required, they are more economical than hermetically sealed transformers. They have wide application in the electronics field, such as in frequency-modulation, carrier-current, and speech-input equipment.

CONTROL, PANELBOARD, AND SIGNAL TRANSFORMERS



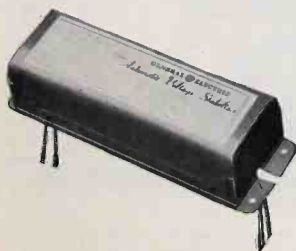
Two new lines of transformers for control and small, general-purpose loads designed to fit the needs of electronic-equipment and panel builders. Standard control transformers are available in dual-frequency, series-multiple ratings from 25 to 2000 va, enclosed construction, and from 25 to 250 va for open wiring. Panelboard transformers are available from 50 to 5000 va in a standardized line of 22 ratings featuring a choice of leads, circuit breakers, or 1-, 2-, and 4-fuse combinations. Special control transformers can be furnished for normal and high-reactance applications having special voltage and load requirements.

HIGH-VOLTAGE TRANSFORMERS

Are used as components of radio and television transmitter equipment, and allied devices which require high operating voltages above ground. Construction type shown in the photograph permits a substantial reduction in size and weight—critical factors in many installations. A cost saving is also effected over similar ratings of enclosed-type construction.



AUTOMATIC VOLTAGE STABILIZERS



For equipment which requires accurate line-voltage regulation in ratings of 15 to 10,000 va, standard G-E stabilizers can be used to cut costs and save space. Many of the standard models can be operated from either 115 or 230 volts and will deliver either 115 or 230 volts to the load, thus providing transformation, as well as regulation.

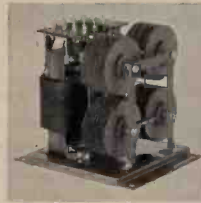
With line-voltage variations of 30 per cent, these stabilizers will maintain output voltages to within ± 1 per cent of the normal. Quiet, automatic, they provide correction within two cycles.

If your product is composed of one of the following items, it will pay you to investigate stabilizers: television and radio equipment; telephone apparatus; sound equipment; lighting circuits; photometers; x-ray equipment; rectifiers (full-wave); electrochemical apparatus; test equipment and precision processes; photographic equipment; electronic circuits; calibration devices; color comparators. Write for Bulletin GEA-5754. Special designs can be furnished in ratings in excess of 10,000 va, or with special voltages, if desired.

SPECIALTY TRANSFORMER PRODUCTS FOR ELECTRONIC EQUIPMENT

SATURABLE REACTORS

Their features are: 1. provide control in an a-c circuit by means of a direct current. 2. provide a wide range of control with smooth adjustment over entire range. 3. d-c control power required is small, obtainable from any reasonable combination of available current and voltage. 4. very efficient, even at light loads. 5. voltage drop in reactor at full saturation is small, permitting 93% or more of the voltage to be applied to load. 6. compact, sturdy, no moving parts. 7. control power readily obtained from inexpensive rectifier. 8. conveniently installed in least-crowded part of the building for remote-control operation. 9. provide a means of insulating the d-c control from the a-c circuit. These units are for use as control devices for numerous automatic and manual control applications.



AMPLISTAT

APPLICATION: The amplistat is a complete packaged d-c amplifier applicable to a wide range of control and instrumentation purposes. Standard ratings are available from 1 va to 930 va. The following are a few of the many possible combinations of SIGNAL SOURCES (Thermocouples, Strain gages, Thermistors, Photocells, Phototube amplifiers, Bismuth-wire magnetic-field sensitive resistors,

Shunts, Resistance-type temperature bulbs, other Amplistats) with CONTROLLED DEVICES (Relays, Solenoids, Small-motor fields, Generators, Amplidyne fields, Power rectifiers, Lamps, Heating elements, other Amplistats).

FEATURES: High Gain—Isolation—Input windings galvanically isolated from output. Reliable—Rugged construction, little, if any, maintenance. Static—No moving parts. No warm-up time—Has no tubes. Compact—Fits easily on control panels and chassis.

INDUCTION VOLTAGE REGULATORS

INDUCTROLS (Automatic, motor, or hand operation)



For electronic and industrial applications up to 600 v, automatic Inductrols (dry-type or liquid-immersed induction voltage regulators) provide a constant a-c output voltage as the supply voltage varies. Other controls hold a-c current, rectified d-c voltage or current. Hand- and motor-operated types are also available. NO BRUSHES TO WEAR OUT! NO OIL TO MAINTAIN! NO

RADIO INTERFERENCE! ABSOLUTELY STEP-LESS CONTROL! NO WAVE-FORM DISTORTION! AUTOTRANSFORMER EFFICIENCY! Inductrols are available for circuits up to 600 v. Popular 120/240-volt ratings give up to +100 per cent regulation. Write for Bulletins GEC-795, GEA-5824, GEA-6261.

SPECIALTY COMPONENT MOTORS

FRACTIONAL-HORSEPOWER MOTORS



Synchronous Induction Motors: High torque at slow synchronous speed for remote-control devices, indicating instruments, timing devices, etc. For

low-inertia applications requiring rapid changes in rotation. Synchronous speed: 75 rpm, 75 oz-in. torque. Motor starts, stops, reverses, within 1/2 cycle of power supply. Smaller size delivers 2 oz-in. at 100 rpm. Write for Bulletin GEC-1294.

Taxi Dynamotors: Compact, lightweight units convert low-voltage, d-c power to high-voltage, d-c for mobile radio transmitters in taxis, police cars, trucks, buses, railroads, fire departments, forestry radio transmitters, etc.



Input: 6-28 volts. Output: up to 660 v, 165 watts, 5 min on, 15 min off-duty cycle.



Permanent-magnet Motors:

Permanent-magnet, totally enclosed, shunt motors for aircraft operation (very high ambient), blower, actuator, tuner, and other applications. Can be dynamically braked by short-circuiting armature terminals, and reversed by use of relays. Explosion-proof, shock-resistant. 0.01 hp, 10,000 rpm, 27.5 v input, 130 rpm with gear reduction. With radio-interference filter. Write for Bulletin GEC-988.

ELECTRONIC AMPLIDYNE



An extremely responsive amplifier combined with a motor-amplidyne set, useful in many types of motor control where precise regulation of current, voltage, and speed is necessary or desirable.

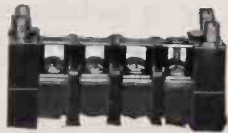
APPLICATION: Control speed, limit loads, hold tension, speed up acceleration, position precisely, assure quick stopping. Readily adaptable to programming and processing control.

RATED—As a regulated, adjustable-voltage power supply for d-c motors up to 1 1/2 hp. As regulated exciter for large, adjustable-voltage drives up to 200 hp. The unit has an output of 1 1/2 kw, 250 volts. Can be arranged for use on 220- or 440-volt, 3-phase, 60-cycle power supply.

The G-E electronic amplidyne is applied as a part of a complete control system. Write for Bulletins GEA-4053, GEA-4889.

SWITCHBOARD AND PANEL COMPONENTS

TERMINAL BOARDS



Typical EB-5 board with short-circuit strips



Typical EB-6 board with hinged cover

For use where leads are brought to any point for permanent or temporary connection, especially if many wires are involved.

Type EB-5 are fabricated terminal boards. Each is equipped with the necessary washer-head binding screws for circuit-wire connections.

Type EB-6 are fabricated terminal boards of the same construction and size as the Type EB-5, except that clamp-type connectors are furnished.

Boards will accommodate wire sizes from No. 18 to No. 10 inclusive. Completely assembled boards can be furnished, with or without covers, for any number of poles, 2 through 18.

CONTROL and TRANSFER SWITCHES



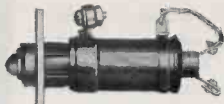
Type SB-1 design is extremely flexible and can be applied to meet special requirements. Features include: square operating shaft with cams to provide positive contact operation; silver-to-silver contacts; totally enclosed compact design; ample space for connecting leads; choice of operating handles; permanent-finish

Textolite* escutcheons; wide range of stages and contact positions, the number of circuits to be controlled determining the number of stages and contacts needed. Switches having up to 16 stages are commonly furnished. The maximum number of positions, or throws, is twelve.

Rating of Type SB-1 switches is 600 v, 20 amp continuous, 250 amp for 3 seconds. Interrupting rating depends upon voltage and character of circuit, as well as number of contacts in series. Write for Bulletin GEA-4746.

* Registered trade-mark of General Electric Co.

INDICATING LAMPS



Types ET-5 and ET-6 offer high visibility, low wattage, and long life. Consist of telephone-type lamp with contacts mounted within an insulated tube and with a ceramic resistor for any standard voltage up to 600 v.

For any panel thickness up to 2 in. Color cap provides excellent vision from any angle. Available in 6 colors: red, white, amber, blue, yellow, and clear.

AIR CIRCUIT BREAKER

Switching and better protection of power circuits is secured by using air circuit breakers. Type AK-1 breakers are available for switchboard mounting for use, for example, as main power-supply breaker in TV transmitters or are individually enclosed for remote installations. Current ratings from 15 through 4000 amperes, up to 600 volts, a-c, and 250 volts, d-c. See GEA-5915 for full details.



HIGH-INTERRUPTING-CAPACITY FUSES

The General Electric high-interrupting-capacity Type CLF fuse provides efficient and economical short-circuit protection for control power circuits, motor starters, feeders, and similar applications on systems 600 volts and below. Not only will the CLF fuse isolate faulty apparatus and circuits, but it also affords better protection by reducing the destructive energy associated with short circuits. Rated to interrupt available short circuits of 100,000 amp, these fuses are available in ratings from 6 through 200 amp, 250 v, d-c, and 600 v, a-c.



MOLDED-CASE CIRCUIT BREAKERS

Molded-case circuit breakers comprise a complete line of fuseless protection for distribution, power, lighting, and appliance circuits. They are used in individual mountings, built-in applications, separate enclosures, switchboards,

panelboards, and load centers. The sturdy, molded-phenolic cases and trip units are sealed against tampering. The circuit breakers are quick-make, quick-break; they are trip-free and trip-indicating.

Listed by Underwriters' Laboratories, Inc.

REPRESENTATIVE 50-AMPERE FRAME TYPES

5000-ampere, a-c, interrupting ratings

and independent magnetic trip.

Type R—single-pole, plug-in units for standard-duty applications from 15 to 50 amp, 120 v, a-c, 120/240 v, a-c, 2-wire, with thermal magnetic trip.

Type ALB-1—single-pole, plug-in unit meeting Navy Hi-shock requirements, 125 v, a-c/d-c, 5 to 50 amp, thermal and independent magnetic trip. Navy breakers not U/L listed.

Type TQ—single-pole, front and back mounting for heavy-duty applications from 10 to 50 amp, 120 v, a-c, 120/240 v, a-c, 2-wire, with thermal

Type TQL—single-pole, or two-pole with common trip, plug-in units for heavy-duty applications from 10 to 50 amp; single-pole, 120 v, a-c, 120/240 v, a-c, 2-wire; two-pole, 120/240 v, a-c, with thermal and independent magnetic trip. Other types are available in standard industry sizes from 10 to 600 amp for applications up to 600 v. For further information, write for Bulletin GEC-1032 to Trumbull Components Department, 41 Woodford Avenue, Plainville, Connecticut.



Type R



Type ALB-1



Type TQ



Type TQL

When ordering or seeking information please mention Electronics Buyers' Guide.

CONTROL ACCESSORIES



A-c or D-c SOLENOIDS, CR9500

Simplify complex installations: In direct or remote control requiring short, powerful thrusts. Wide selection: 24 different ratings, to 40 lb at 1/2-in. stroke or to 36 lb at 1-in. stroke, available in push- or pull-type operation and for use on a-c or d-c circuits up to 600 volts, maximum. Used to push or pull in a straight line, or to provide mechanical motion at a remote or inaccessible location. They may be operated remotely from a push-button station or automatically by limit switches, pressure switches, float switches, or other pilot-circuit devices. Write for Bulletin GEA-6215.

OILTIGHT PUSH-BUTTON UNITS, SELECTOR SWITCHES, INDICATING LIGHTS



Push-button unit

Selector switch

Indicating light

A push button with building-block construction. This provides flexibility to meet requirements for special units by simple combination of the basic elements, which consist of separable operators, a removable color ring for identification, and a basic contact block. Operators and contact blocks are furnished separately. Single, double, or tandem contact blocks are quickly and easily attached to any type of operator. A complete line of oiltight stations, units, selector switches, and indicating lights is offered. Write for Bulletin GEA-5779.

General-purpose Relays, CR2790E

Used to control pilot circuits in response to remote-control switch or thermostat. Also, for direct control of small motors driving pumps, fans, etc; as a f-hp motor starter, and in conjunction with a magnetic switch controlling larger motors, and for signal systems. Comes in open-type or in general-purpose case. Explosion-proof and watertight cases available as kits. Three contact arrangements available; double-pole, double-throw; double-pole, single-throw; single-pole, single-throw. Protection against hazard from restarts after power failures can be provided with the double-pole form when one pole is used as a holding interlock in the coil circuit together with a momentary-contact, push-button station. Enclosed forms have convenient conduit entrances at top and bottom. Write for Bulletin GEC-257.



GENERAL-PURPOSE PHOTOELECTRIC RELAY



This general-purpose, photoelectric relay, CR7505-K100G3, including a double-pole, double-throw magnetic relay, operates from the interruption of a beam of light, making it simple for items on a production line to be counted easily and quickly. The relay also makes possible automatic weighing with a beam scale and automatic signaling for elevators or doors to save valuable time. Available with a complete line of accessories to operate over light-beam distances of 9 to 30 feet, up to 150 operations per minute. Write for Bulletin GEA-3533.



15-AMP CONTACTOR, CR2810-1265

For small motors; this normally open, single-pole, single-throw contactor is small, self-contained, and inexpensive. The coil is of the layer-wound type, requires only a few watts of power, and is connected directly across the line. The connections are easily made: all terminals are in the top molded part. A form is available which includes a non-insulated interlock, permitting the use of a momentary-contact push button for operating the contactor; the combination provides undervoltage protection. Complete line of magnetic motor starters available.

Type	110 v	220 v
Open	1/2	1/2
Enclosed	1/2	1

ELECTRONIC TIMER, CR7504-A142



For 60- and 50-cycle, 115- or 230-volt, a-c circuits. Three standard models, with selection from 0.06 to 120 seconds in ranges of 20:1. Relay may be connected to be normally energized or normally de-energized during the stand-by period; it is always de-energized during the timed period and energized after timing out. Extremely useful for timing operations of short duration or to provide automatic control for various stages of industrial processes. Repetitive accuracy: $\pm 2\%$ on all settings above 0.5 second.

The unit includes one standard vacuum tube and a magnetic relay with double-pole, double-throw contacts rated 10 amperes, a-c, at 230 volts. Time setting is adjustable by a potentiometer with dial which reads directly in seconds. Potentiometer and dial-plate assembly may be removed easily for remote mounting, if desired. Write for Bulletin GEA-5255.

PUSH-BUTTON STATIONS

For control circuits of magnetic controllers designed for push-button control. Standard- and heavy-duty stations available which may consist of various combinations of momentary-contact buttons, maintaining-contact buttons, selector switches, and indicating lights, for surface or flush mounting. Standard-duty station recommended for use with contactors rated up to and including 150 amp. Write for Bulletins GEA-3469 (Standard-duty) and GEA-5043 (Heavy-duty).



SPECIALTY CONTROL



ULTRASONIC GENERATOR For Cleaning Small Parts

Quickly and thoroughly removes oil, grease, chips, dirt, lapping compounds, and other contaminants from surfaces, corners, and small holes of precision-built, irregularly shaped parts. Time, labor, and floor space are saved.

Equipment comprises an electronic power unit (essentially a high-frequency oscillator) in a 45-inch-high cabinet. A transducer assembly with a quartz crystal is housed in a 4-inch-

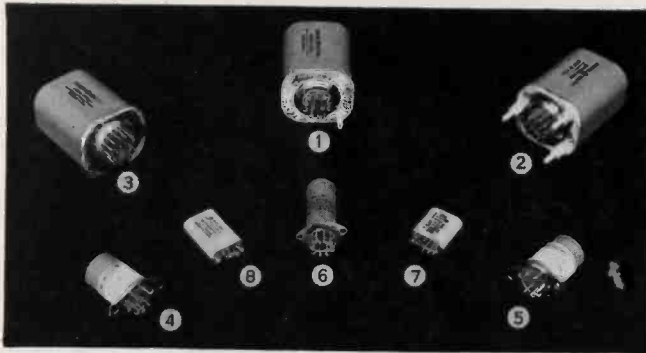
diameter well. Parts are cleaned in any suitable container placed in this well. Operated at 300 kc, 500 kc, 750 kc, or 1 megacycle. Power input is 500 w at 115 v, 50/60 cycles. Write for Bulletin GEA-6056.

SELSYNS, CR9890



Indicating or control selsyns are a highly accurate and rapid means of communication. They are used successfully in such applications as indicating the positions of valves, governors, bridges, turntables, dampers, etc. Selsyns have been very successful in servo systems where the selsyns operate to guide action of power units.

Two types of selsyns are available—the high-accuracy type which has an accuracy of ± 1 degree and the general-purpose type which has an accuracy as close as ± 5 degrees. Selection can be made from a variety of sizes suited for each application. A complete line of indicators and transmitters including selsyns is available. Write for Bulletin GEA-2176.



HERMETICALLY SEALED RELAYS

The General Electric family of hermetically sealed relays has been designed to meet, or better, all provisions of applicable military specifications. Operating in its own atmosphere, completely independent of conditions outside of its rugged electro-tin-plated, drawn-steel housing, each relay offers greater reliability, longer life, and reduced size and weight for both military and industrial applications.

MINIATURE, CR2791

1. G121 series—For military applications; coil voltage 1 to 300 volts, d-c; coil resistance 10-30,000 ohms; AN 3304 type relay; designed for special reliability.
2. G126 series—For industrial and military applications; operates from 115 volts, a-c; for long-life switching, currents up to 5 amp at 115/220 volts, a-c, or 30 volts, d-c. (Example: pulsing coil of similar relay, expected life, 50 million operations.)
3. K110 series—High-speed polarized relay; switching up to 10 milliamp; operates in as little as $\frac{1}{4}$ millisecond (250 microseconds); AN 3304 size can—4PDT or 4 independent single-pole, double-throw elements.

SUBMINIATURE, CR2791

4. G152 series—Designed to give reliability of AN 3304 type relay

in subminiature-size enclosure; weighs less than one ounce; $\frac{3}{4}$ inch in diameter and $1\frac{1}{4}$ inches long; single-pole, double-throw.

5. G125 series—Same size and weight as G152. Design is modified to permit operation from 400-cycle, a-c voltage.
6. G160 series—High reliability in subminiature size; exceptionally resistant to shock and vibration; two-pole, double-throw.

MICRO-MINIATURE, CR2791

7. G200 series—Standard model—two-pole, double-throw in tiny size (weighs approximately $\frac{1}{3}$ ounce and measures only 0.350 in. by 0.785 in. by 0.875 in.); contacts rated 2 amp; has a sensitivity of 300 milliwatts.
8. G210 series—Current-sensitive model with a sensitivity of 190 milliwatts; designed for lower operating power; possesses same features as standard model, but about 0.31 in. longer.



LOW-CAPACITY RESISTANCE-WELDING CONTROL

CR7503-A140A2 synchronous spot-welding control, including heat control, for low-capacity welders.

The CR7503-A140 low-capacity resistance-welding control, designed for bench-type welding heads, provides precise timing and transient-free operation—two factors essential for consistently high weld quality. Therefore, it is ideal for jobs requiring minimum rejects without sacrifice of production speed.

Welding time is adjustable in one-cycle steps, from one to 10 cycles, by means of a single, calibrated control. Control of weld current is achieved by the phase-shift, heat-control method, providing smooth, stepless adjustment of current from 20% to 100%, regardless of rated voltage. Since both weld time and current are held constant, welding results are consistent.

PORTABLE TESTING AND RECORDING INSTRUMENTS



PHOTOELECTRIC RECORDER—Type CE: For temperature measurements, developmental testing, high-speed recording, laboratory investigations, physiological research, and equipment tests. Provides direct ink records, and is ideal for any test where only a small amount of energy is available for the operation of the recorder. Sensitivities obtained as low as 1.0 microampere or 0.2 millivolt, full-scale. Response periods as fast as 1/5 second. Four different motor arrangements provide chart speeds from 1/2 inch per hour to 72 inches per minute. Write for Bulletin GEC-254.



AC & DC PORTABLE INDICATING INSTRUMENTS

A line of instruments which is functionally designed to give the greatest convenience and readability. Precision components and spring-mounted moving elements are used to achieve sustained accuracy. These precision instruments are suitable for laboratory use, as well as for field applications and production tests.

INSULATION-RESISTANCE METER: An electronic instrument designed to measure insulation resistance over a range of 0 to 20,000 megohms. Measurements indicate poor insulating materials and materials contaminated by dirt or moisture. This instrument also makes possible the study of the effects of temperature and humidity on insulation. Consists of an electronic rectifier, a bridge circuit which contains Thyrite* resistance material, and an electronic-tube voltmeter, all in one enclosure. Meter is available in range of 0.20,000 to 20,000 megohms and has four scales. Over the range of 5 to 20,000 megohms, tests are made at a constant 500-volt d-c potential; and from 0 to 5 megohms at 0 to 250 volts. The meter is small, compact, portable—convenient for production and service testing, simple to operate. Write for Bulletin GEC-753.



* Registered trade-mark of General Electric Co.

CURRENT-LIMITED HIGH-POTENTIAL TESTER: By limiting the output current to a maximum of 5 milliamperes, the tester effectively minimizes most of the hazards encountered with high-potential testing equipment. Features: output current limited to below the maximum current which an operator can let go; nondestructive testing; line surges virtually eliminated in output; indicates voltage on sample regardless of wave shape, internal voltage drop, or variation in line voltage; faults indicated by glow lamp on panel. Output voltage: 0-3500 volts (peak $\sqrt{2}$).

Output current limited to less than 5 milliamperes when shipped. Maximum load for full output voltages: 0.005 μ f. Write for Bulletin GEC-700.



GAUSS METERS: Used for measuring: Flux density in gaps of instrument magnets; of blocked d-c relays and breakers; of blocked-rotor generators or motors. Field gradient across air gaps. Direction and density of leakage flux emitted from perimeter of magnets. Flux density in iron portions of magnetic circuits. Strength and direction of stray fields of many permanent and electromagnets. Magnetic properties encountered in laboratory work. Available in d-c ranges from 25 to 20,000 gauss; a-c ranges—60 cycles from 0-35,000 gauss. Write for Bulletin GEC-777.



INDICATING FLUXMETER: A convenient means for accurately measuring flux densities and total flux. Determines magnetic properties of permanent magnets and d-c electromagnets. Measures flux distribution in a magnet gap, leakage flux along sections of a permanent magnet or electromagnet. Write for Bulletin GEC-777.

THERMOCOUPLE VACUUM GAGE: Measures pressures encountered in laboratory studies and in many manufacturing and chemical processes. Range of 1 to 200 microns of mercury for glass vacuum systems and from 1-1000 microns of mercury for metal systems. Valuable for checking pressures for vacuum-tube evacuation, vacuum dehydration, and vacuum heat-treatment of metals, metalizing, and vacuum processing of vitamins. The thermocouple vacuum gage is sensitive to both condensable and non-condensable gases. Three different mountings are offered; portable-case style, relay-rack type, and panel type. Write for Bulletin GEC-385.

Types AP-11 (a-c) and DP-11 (d-c): Designed for general testing where a dependable, easily read instrument with 1/2 of 1% accuracy is required. Ideal for trouble shooting and maintenance work where accurate readings must be taken under adverse lighting conditions. Size—7 3/4 by 7 7/8 by 3 1/4 in. Scale length—5.5 inches. Pointer—Knife edge with mirror scale. Damping—Magnetic. Zero Adjuster—External. Shielding—Excellent shielding from stray magnetic fields.

Types AP-12 (a-c) and DP-12 (d-c): Specifications are similar to DP-11 above, except accuracy is to 1/4 of 1% full-scale.

GENERAL-PURPOSE OSCILLOGRAPH Type PM-20



Uniquely designed for fast operation and maintenance, the PM-20 will record up to 71 variables on one oscillogram. A wide range of frequencies, from d-c to 6000 cps, can be recorded. Record speed may be adjusted from 4 to 500 feet per minute. Many additional features are provided, including automatic record numbering, timing lines, trace interruption for identification, automatic record-length control adjustable from 1/2 to 5 feet, and remote control. Write for Bulletin GEA-6348.

Type PM-18: Records 2, 3, or 4 rapidly or slowly changing currents and voltages simultaneously. Transient phenomena of short duration can be recorded by means of a synchronizing switch. Records may be made using continuous-drive holder, film-pack holder, or Polaroid-Land film holder, which produces finished oscillograms in one minute without the use of a darkroom. Write for Bulletin GEC-580.

G-E INDUSTRIAL SOLDERING IRONS

General Electric soldering irons are highly efficient for all work requiring soft soldering. Reserve heat capacity of G-E irons makes them outstanding for continuous, high-speed production soldering. Write for Bulletin GEC-1318.

FEATURES

COLORIZED COPPER TIPS

Durable, interchangeable, designed for extra-long life. Colorized coating retards corrosion and oxidation, prevents freezing of tips to tip holder—increases tip life.

IRONCLAD COPPER TIPS

Couple quick heat transfer of copper with long-wearing qualities of iron—for extra-long life.

TUBULAR HEATING ELEMENTS

Provide quick, more dependable heating.

STAINLESS-STEEL SHELL

Provides high corrosion resistance and low heat loss.

MIDGET SOLDERING IRONS

Ironclad tips only



25-watt, 6-volt, 1/4-in.-dia chisel tip. Also available in 1/8-in.-dia pyramid tip and 3/16-in.-dia chisel and pyramid tips.

LIGHTWEIGHT INDUSTRIAL IRONS

Ironclad tips only



60-watt, 120-volt, 3/16-in.-dia pyramid tip. Also available in 1/4- and 3/8-in.-dia chisel tips.

INDUSTRIAL SOLDERING IRONS

75, 100, 110, 125, 200, 300 w
115 or 230 v
Colorized or Ironclad tips



THY-MO-TROL* DRIVE

Electronically Operated, Adjustable-speed Drive; Stepless Speed Control; Standard Ratings from 1/50 to 30 Hp

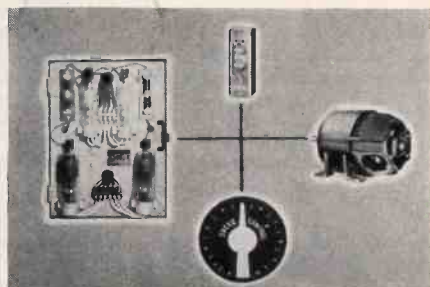
A complete equipment consists of an anode transformer, if required, control and rectifier panel, a control station, and a suitable d-c motor. It operates from an a-c power line. Starting, stopping, reversing, and adjustment of speed are all controlled from the single, compact control station.

OPERATING FEATURES

- FULL RANGE**—A single dial—small as a radio volume control—gives complete adjustment of motor speed.
- HOLDS SPEED**—Regardless of ordinary load fluctuations, Thy-mo-trol drive holds speed constant within extremely narrow limits.
- CURRENT-LIMIT ACCELERATION**—Regardless of the speed-control setting

when the START button is pushed, acceleration of full-wave Thy-mo-trol drive is smooth. Starting is extremely fast because of sustained maximum torque during acceleration. No sudden application of excessive torque; therefore, no shock to the machine. No current peaks on the line.

- FULL TORQUE**—Although motor may be scarcely turning over, it can deliver



full torque right up to the current-limit point. This means maximum machine output.

- OTHER ADVANTAGES**—Speed can be preset before starting; saves space; no stop for speed change; easy to control automatically; operates direct from a-c line.

* Registered trade-mark of General Electric Co.

BULLETINS COVERING G-E APPARATUS PRODUCTS

Space does not permit description of all G-E products related to the electronic field. For full details and bulletins write your nearest G-E Apparatus Sales Office.

Accelerometers GEC-1242	Temperature GEC-1005	Indicators	Photoflash Equipment,
Amplifiers	Vacuum Write for details	Antenna-position GEA-2176	Electronic GEC-337
Magnetic See Page 5	Welding GEA-3058	Dew-point GEC-588	Potentiometer GEC-367
Power See page 5	Converters	Film-thickness GEC-318	Self-balancing GEC-357
Strain-gage GEC-1248	High-frequency GEA-5604	Illumination GEA-4926	Pots, Soldering GEC-512
Analysts	Low-frequency GEA-5551	Liquid-level GEA-3833	Pots and Tanks, Heating GEC-1005
Surface Analyzers and	Detectors Write for details	Material-thickness GEC-319	Power Supplies, D-c See page 3
Comparators GEC-774	Leak Write for details	Nuclear-radiation Write for details	Pyrometers & Potentiometer GEA-8020, GEC-713
Vibration GEC-1369, GEC-1370	Radiation Write for details	Photographic-exposure GEA-4926	Recorders
Antennas, Radar GEA-2779	Smoke, Electronic GEA-5234	Positioning GEA-2176	Potentiometer GEC-1362
Arresters, Lightning GEA-2977	Vibration GEC-1212	Smoke & Combustion GEA-5254	Temperature GEC-1362
Balancing Equipment,	Dielectrics, Liquid Write for details	Strain GEC-888	Resistors GEC-817
Dynamic GEC-320	(Pyranol*) Write for details	Telemetering GEA-5233	Rheostats GEC-487
Battery Chargers GEC-826	Dynamometers GEA-5923	Temperature GEC-218	Shunts, Meter GEC-218
Bearings, Jewel GEC-370	Dynamotors See page 5	Timing GEA-5108	Spectrometers, Mass GEC-587
Bus Bar Systems GEA-5160	Elements, Heating GEC-1005	Timing GEC-385, GEC-986	Spectrophotometers Write for details
Cells, Photovoltaic GEC-690	Furnaces,	Inverters Write for details	Starters, Magnetic GEA-6198
Communication Systems,	Electric or Gas-fired Write for details	Jewels, Glass GEC-370	Switches
Carrier Current Write for details	Gages	Kilovoltmeters GEC-218, GEC-380	Limit GEA-6131
Controls	Comparator GEC-774	Magnetic Analysis GEC-380	Pressure-operated Write for details
Elevator Levelling Write for details	Ionization Write for details	Equipment GEC-777	Vacuum Write for details
Heat-treating Write for details	Paint-depth GEC-319	Meters	Synchros GEA-2176
Illumination Write for details	Strain GEC-888	Electrical Quantities See pages 7, 11	Telemetering Systems,
Machine-safety GEA-6131	Vacuum GEC-385, GEC-986	Foot-candle GEC-811	Electronic GEA-5233
Mechanical Switch GEA-6131	Galvanometers GEC-694	Frequency GEC-218	Testers
Motors GEA-6198	Generators	Light GEA-4926	Coating-thickness GEC-3110
Package-wrapping GEA-4371	Gas-engine-driven GEA-5299	Vibration Write for details	Insulation GEC-700, GEC-794
Positioning GEA-2176	Induction Heating GEC-1250	Viscosity GEC-330	Thermocouples GEC-714
Pressure Write for details	Motor GEC-920, GEC-921, GEC-302	Fractional-hp GEC-1026	Thermocouples, Vacuum GEC-383
Printing GEA-5614	Heating	Gear GEA-1437, GEC-1026	Thermostats GEC-1350
Register GEA-4371, GEA-5947	Electronic—Accessories &	Single-phase Integral-hp GEC-1026	Timers
Register-cutter Write for details	Associated Equipment GEC-921	Polyphase Integral-hp GEC-1026	Automatic, Cycle GEC-1223
Servo GEC-7897	Electronic Induction GEA-4945	Servo GEA-2176	Automatic, Interval GEC-1223
Smoke & Comination GEA-5254		Synchronous GEA-5426, GEC-344	Automatic-reset GEC-525, GEC-1223
		Mounts, Antenna GEA-6270	Motor-operated GEA-5063
		Networks, Pulse-forming See page 2	Sequence GEC-1223
		Ohmmeters See pages 7, 11	Vibration Analysis
			Equipment GEC-1369, GEC-1370
			Voltmeter, Electrostatic GEC-403

General information may be secured from the following bulletins: Industrial Heaters, GEC-1005; Measuring Equipment for Laboratory and Production Testing, GEC-1016; Motors, GEC-1026; and Control, GEC-1260.

When ordering or seeking information please mention Electronics Buyers' Guide.



SPECIFY G-E ELECTRONIC TUBES FOR YOUR EQUIPMENT

Essential characteristics of typical G-E Electronic Tubes to aid you in selecting tube complements for your circuits.



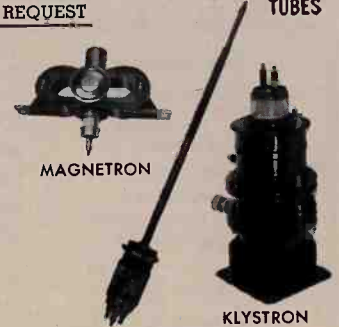
FULL INFORMATION, DETAILED DATA ON ANY G-E TUBE SENT ON REQUEST

"Custom-Design" Service for High-power Klystrons, Magnetrons and Traveling-wave Tubes

The General Electric Tube Department offers "custom-design" service on high-power klystrons, traveling-wave tubes and magnetrons to meet your most specialized requirements.

The design and development of new types, where volume justifies, is accomplished in relatively short time, since General Electric has complete research, development and manufacturing facilities for such work. Moreover, trained staffs of G-E scientists and engineers—specialists in the field of high-power beam devices—will work closely with you in all phases of tube design and development.

To take advantage of this service, contact your Tube Department sales representative at your nearest Regional Tube Department Office listed on page 16.



MAGNETRON

KLYSTRON

TRAVELING-WAVE TUBE

THYRATRONS — Grid-controlled Gaseous-discharge Rectifier Tubes

Type No.	No. of Electrodes	Cathode		Anode			Control Characteristics		Temp Range
		Volts	Amp	Peak Inverse Volts	Peak Amp	Avg Amp	100 V	1000 V	
GL-2D21	4	6.3	0.6	1300	0.5	0.1	-1.8	-4.2@450V	-55 - +90 *
GL-3C23	3	2.5	7.0	1250	6.0	1.5	-2.5	-5.5	-40 - +80 §
GL-5C21/C6J	3	2.5	21.0	1250	77.0	6.4			-55 - +75 §
FG-27-A	3	5.0	4.5	1000	10.0	2.5	-2.0	-8.0	40 - 80 §
FG-81-A	3	2.5	5.0	500	2.0	0.5	-3.0	-5.25@500V	-20 - +50 *
FG-97	4	2.5	5.0	1000	2.0	0.5	+0.5	-13.0	40 - 80 §
FG-98-A	4	2.5	5.0	500	2.0	0.5	-5.0	-11.0@500V	-20 - +50 *
FG-105	4	5.0	10.0	2500	40.0	6.4	+1.0	-9.0	40 - 80 §
		15.5	11.0	750	77.0	2.5	+1.0	-9.0	30 - 95 §
		15.5	10.0	10000	16.0	4.0	+1.0	-9.0	25 - 50 §
FG-154	4	5.0	7.0	500	10.0	2.5	-4.0	-9.0@500V	-20 - +50 *
FG-172	4	5.0	10.0	2000	40.0	6.4	+1.0	-9.0	40 - 80 §
		15.5	11.0	750	77.0	2.5	+1.0	-9.0	30 - 95 §
GL-393-A	3	2.5	7.0	1250	6.0	1.5	-2.5	-5.5	-40 - +80 §
GL-414	4	5.0	19.0	2000	100.0	12.5	0	-10.0	40 - 80 §
GL-502-A	4	6.3	0.6	1300	1.0	0.100	-1.0	-3.5@650V	-55 - +90 *
GL-5544	3	2.5	12	1500	40.0	3.2	0	-7.0	-55 - +70 *
GL-5557/FG-17	3	2.5	5.0	5000	2.0	0.5	-2.0	-7.0	40 - 80 §
GL-5559/FG-57	3	5.0	4.5	1000	15.0	2.5	-1.75	-6.5	40 - 80 §
GL-5560/FG-95	4	5.0	4.5	1000	15.0	2.5	+1.0	-9.0	40 - 80 §
		15.5	4.5	1000	30.0	0.5	+1.0	-9.0	40 - 80 §
GL-5632/C3J	3	2.5	9.0	1250	30.0	2.5	-1.0	-6.0	-55 - +70 *
GL-5662	3	6.3	0.15	200	Fuse Tube		-3.5	-5.0@160V	-55 - +90 *
GL-5663	4	6.3	0.150	500	0.06	0.020	-1.5	-2.5@500V	-55 - +90 §
GL-5665/C16J	3	2.5	31.0	1250	100	18.0	-0.5	-4.8@1250	-55 - +75 *
GL-5720/FG-33	3	5.0	4.5	1000	15.0	2.5	+9.5	+9.5	35 - 80 §
5727 #	4	6.3	0.60	1300	0.5	0.1	-1.0	-3.5@450V	-75 - +90 *
GL-5728/FG-67	3	5.0	4.5	1000	15.0	2.5	+4.0	0	40 - 80 §
GL-5830/FG-41	3	5.0	20.0	10000	75.0	12.5	+8.0	+2.0	40 - 65 §
GL-5855	3	2.5	34.0	1500	160	18.0	+8.0	-9.0	-55 - +70 *
GL-5948	3	6.3	30.0	25000	1000	1.0			-50 - +75 *
GL-6011	3	2.5	9.0	1250	30.0	2.5	0	-6.0	-40 - +80 §
GL-6014/C1K	3	2.5	6.3	1250	8.0	1.0	0	-4.8@1250	-55 - +75 *
GL-6044	3	2.5	17.0	500	77.0	6.4	-0.5	-2.5@500V	-55 - +85 *
6525 #	4	6.3	0.15	500	0.060	0.020	-2.25	-6.25@450	-55 - +90 *
GL-6807 **	3	2.5	21.0	1500	80.0	6.4	0	-7.0	-55 - +70 *
GL-6808	3	2.5	21.0	1500	80.0	6.4	0	-7.0	-55 - +70 *
GL-6809	3	2.5	21.0	1500	80.0	6.4	0	-7.0	-55 - +70 *
GL-6855/716	3	2.5	6.3	1250	8.0	1.0	-1.5	-5.2@1250	-40 - +80 §
GL-6856/740	3	2.5	16.0	1500	50.0	2.5	-1.0	-5.2@1250	-40 - +80 §
GL-6857/740P..	3	2.5	16.0	1500	50.0	2.5	-1.0	-5.2@1250	-40 - +80 §
GL-6858/760	3	2.5	21.0	1500	77.0	6.4	-2.8@200	-5.5@1250	-40 - +80 §
GL-6859/760P..	3	2.5	21.0	1500	77.0	6.4	-2.8@200	-5.5@1250	-40 - +80 §
GL-6860/C6J/F	3	2.5	21.0	1250	77.0	6.4	-0.5	-5.8@1250	-55 - +75 **

General Electric also offers the following Military, Industrial and Commercial Tubes:

- Hydrogen Thyratrons
- Vidicons
- Image Orthicons
- Medium and High-power Traveling-wave Tubes
- CW, Pulse and Voltage-tunable Magnetrons
- TV, CW and Pulse-amplifier Klystrons
- Glass and Metal-ceramic Lighthouse Tubes
- Metal-ceramic UHF-VHF Triodes and Tetrodes
- High-vacuum Rectifier Tubes
- Gaseous and Mercury-vapor Rectifiers
- Power and Control Ignitrons

* Temperature ratings are expressed in terms of the ambient temperature range over which the tubes will operate.
 † These ratings apply only when the tube is used for ignitor firing.
 ‡ These ratings apply only when the tube is used in thyatron welding-control service.
 § Temperature range condensed mercury C.
 # Bracket base for panel mounting.
 ** Replaces GL-5545.
 # 5-Star high-reliability type.

See following pages for additional listings of G-E Electronic Tubes. All data subject to change without notice. The listing of any tube type does not necessarily imply immediate availability.



QUICK-SELECTION CHART

GENERAL ELECTRIC

High-reliability Types for Critical

Classification		Tube Type	Similar to **	Applicable MIL-E-1 Spec.	Heater		
					Volts	Amperes	
Diodes	Low Current Rectifiers	5726	6AL5	5726/6AL5W	6.3	0.3	
		5896 ⊙	None	5726/6AL5W/6097 5896	6.3	0.3	
	Full-wave Power Rectifiers	6087 #	5Y3GT †	None	5.0	2.0	
		6202	6X4 *	6X4WA	6.3	0.6	
		6203	None	6203	6.3	0.9	
Triodes	Single	$\mu < 40$	5718 ⊙	None	5718	6.3	0.15
			6135	6C4 ‡	6135	6.3	0.175
		$\mu > 40$	5719 ⊙	None	5719	6.3	0.15
	Twin	$\mu < 40$	5670	2C51 ‡	5670	6.3	0.35
			5814-A	12AU7 ‡	5670WA 5814-A 5814WA	6.3/12.6	0.35/0.175
			6021 ⊙	None	6021	6.3	0.3
		$\mu > 40$	6111 ⊙	None	6111	6.3	0.3
			6386	5670 §	None	6.3	0.35
			5751	12AX7 ‡||	5751	6.3/12.6	0.35/0.175
			6072	12AY7 ‡	5751WA 6072	6.3/12.6	0.35/0.175
			6112 ⊙	None	6112	6.3	0.3
			6201	12AT7	12AT7WA	6.3/12.6	0.3/0.15
		6829	5965	In Process	6.3/12.6	0.45/0.225	
Pentodes	Voltage Amplifiers	Sharp-Cutoff	5654	6AK5	5654/6AK5W	6.3	0.175
			5840 ⊙	None	5654/6AK5W/6096 5840	6.3	0.15
			6134 △	6AC7	6AC7WA	6.3	0.45
		6136	6AU6	6AU6WA	6.3	0.3	
		6205 ⊙	None	6205	6.3	0.15	
		6265	68H6	In Process	6.3	0.175	
	Remote-Cutoff	5749	68A6	5749/68A6W	6.3	0.3	
		5899 ⊙	None	5899	6.3	0.15	
	Dual-Control	6137 △	6SK7	6SK7WA	6.3	0.3	
		5636 ⊙	None	5636	6.3	0.15	
		5725	6AS6	5725/6AS6W 5725/6AS6W/6187	6.3	0.175	
Power Amplifiers	5686	None	5686	6.3	0.35		
	5902 ⊙	None	5902	6.3	0.45		
	6005	6AQ5	6005/6AQ5W 6005/6AQ5W/6095	6.3	0.45		
Heptodes		5750	68E6	5750/68E6W	6.3	0.3	
Thyratrons		5727	2D21	5727/2D21W	6.3	0.6	

** Analysis of the electrical characteristics of the Five-Star type will indicate that it is essentially similar to the type listed in this column, except as keyed.

Key to specific electrical differences of Five-Star types:
 * Reduced peak and output current ratings
 † Unipotential cathode and lower tube drop
 ‡ Heater current approximately 17% higher
 § Remote-cutoff characteristic
 || Lower μ

FIVE-STAR RELIABILITY PLUS SPECIAL COMPUTER TUBE DESIGN NOW COMBINED IN FIRST FIVE-STAR COMPUTER TUBE



9-pin twin-triode
Five-Star Computer
Tube developed for
airborne computers.

6829

6829 Ratings

MAX CATHODE CURRENT, PER SECTION	20 MA
MAX PLATE DISSIPATION, PER PLATE	2.2 W
MAX TOTAL PLATE DISSIPATION, BOTH PLATES	4.0 W
GRID VOLTAGE (MAX) FOR PLATE CURRENT CUTOFF, PER SECTION	-7.5 V
HEATER CURRENT (PARALLEL)	0.45 AMP
HEATER POWER	2.8 W

Additional Five-Star Computer Tubes are soon to be released. Watch for them!

All data subject to change without notice. The listing of any tube type does not necessarily imply immediate availability.

QUICK-SELECTION CHART

FIVE-STAR TUBES

Military and Industrial Applications



Average Characteristics							Publication Number for Technical Data ##
Plate Volts	Screen Volts	Grid Volts	Plate ma	Screen ma	Gm μhos	μ	
Voltage drop = 10 V @ 60 ma; max d-c current = 9.0 ma							ET-T 1088
Voltage drop = 10 V @ 50 ma; abs max d-c current = 10.0 ma							ET-T 1097
Voltage drop = 50 V @ 125 ma; max d-c current = 125 ma							ET-T 1103
Voltage drop = 22 V @ 50 ma; max d-c current = 50 ma							ET-T 1111
Voltage drop = 22 V @ 70 ma; max d-c current = 70 ma							ET-T 1112
100	—	R _k = 150	8.5	—	5800	27	ET-T 1085
250	—	—8.5	10.5	—	2200	17	ET-T 1107
100	—	R _k = 1500	0.73	—	1700	70	ET-T 1086
150	—	R _k = 240	8.2	—	5500	35	ET-T 1083
250	—	—8.5	10.5	—	2200	17	ET-T 1095
100	—	R _k = 150	6.5	—	5400	35	ET-T 1101
100	—	R _k = 220	8.5	—	5000	20	ET-T 1104
100	—	R _k = 200	9.6	—	4000	17	ET-T 1113
250	—	—3	1.0	—	1200	70	ET-T 1092
250	—	—4	3.0	—	1750	44	ET-T 1102
100	—	R _k = 1500	0.8	—	1800	70	ET-T 1105
250	—	R _k = 200	10.0	—	5500	60	ET-T 1110
150	—	R _k = 220	8.5	—	6700	47	ET-T 1250
120	120	R _k = 200	7.5	2.5	5000	—	ET-T 1082
100	100	R _k = 150	7.5	2.4	5000	—	ET-T 1096
300	150	R _k = 160	9.5	2.5	9000	E _{c3} = 0	ET-T 1106
250	150	R _k = 68	10.6	4.3	5200	E _{c3} = 0	ET-T 1108
100	100	R _k = 150	7.5	2.4	5000	E _{c3} = 0	ET-T 1235
250	150	R _k = 100	7.4	2.9	4600	E _{c3} = 0	ET-T 1063A
250	100	R _k = 68	11.0	4.2	4400	E _{c3} = 0	ET-T 1090
100	100	R _k = 120	7.2	2.0	4500	—	ET-T 1098
250	100	—3	9.2	2.6	2000	E _{c3} = 0	ET-T 1109
100	100	R _k = 150	5.3	3.6	3200	E _{c3} = 0	ET-T 1241
120	120	—2	5.2	3.5	3200	E _{c3} = 0	ET-T 1087
250	250	—12.5	27	3.0	3100	P _o = 2.7	ET-T 1084A
110	110	R _k = 270	30	2.2	4200	P _o = 1.0	ET-T 1099
250	250	—12.5	45	4.5	4100	P _o = 4.3	ET-T 1100
250	100	—	2.5	7.5	G _o = 500	—	ET-T 1091
abs max PIV = 1300; abs max d-c current = 100 ma							ET-T 1089

⊙ Indicates subminiature type
 # Glass octal base } NOTE: All other types are miniatures
 Δ Metal tubes
 The ratings and characteristics of all twin-section types are given for each section.
 Complete interchangeability between a Five-Star tube and its prototype depends on individual applications.

Complete technical data on any G-E Five-Star tube may be obtained by publication number from the G-E Tube Department, Building 3 C.A.R.T., One River Road, Schenectady, N. Y.

GENERAL ELECTRIC MICRO-MINIATURE METAL-CERAMIC RECEIVING TUBES

The 6BY4 is the first in a series of micro-miniature metal-ceramic receiving tubes developed by General Electric. The advantages offered by this unique construction are greater resistance to shock, vibration and heat, and low noise-figure with high gain.

Additional micro-miniature types for other applications will be announced in the future. Your G-E Tube Department sales representative will be happy to discuss your requirements for tubes of this nature and to keep you abreast of latest developments. Contact him at your nearest G-E Tube Department Regional Office listed on the next page.

6BY4

*First micro-miniature type developed by
General Electric*

**RF AMPLIFIER FOR
UHF-VHF TV TUNERS**

**8.5 db noise figure
15 db gain**

(Measured in grounded-grid circuit
at 900 mc., with 10 mc. bandwidth.)

All data subject to change without notice. The listing of any tube type does not necessarily imply immediate availability.

G-E RECOMMENDED TYPES for Radio and TV receivers

Classification		Heater Current in Milliamperes					
		600	300	150	50	Other	
DIODES	TV High-Voltage Rectifiers					1B3-GT 2B3 3C2	
	Low-Current Rectifiers	3AL5	6AL5				
	Power Rectifiers	6X4 6X5-GT	12X4	35W4		5U4-GA	
	Half-Wave Full-Wave	12AX4-GTA 19AU4-GTA				6AU4-GTA 6AX4-GT 6W4-GT 6BJ7	
TV Damping Diodes							
Triple							
TRIODES	Single	$\mu < 40$	2AF4-A 2BN4 6S4-A 12B4-A	12B4-A	6C4	6AF4-A 6AH4-GT 6BN4	
		$\mu > 40$			6AB4		
	Twin	$\mu < 40$	4BC8 4BQ7-A 4BZ7 6SN7-GTB 7AU7 12BH7-A 6CG7	7AU7 12AU7-A 12BH7-A	12AU7-A		6BC8 6BQ7-A 6BZ7 6J6
		$\mu > 40$	5BK7-A	12AT7	12AT7		6BK7-A
		2 Diodes	6BV8 6CN7	6AV6 6CN7	12AV6		
	With Diodes	3 Diodes	5T8		19T8		6T8
		Dissimilar Double	$\mu < 40$	6CM7			
	PENTODES	Voltage Amplifiers	Sharp-Cutoff	3AU6 3BC5 3CB6	6AU6 6BC5 6CB6	12AF6 12AU6	1U4
			Remote-Cutoff	3BZ6	6BA6 6BZ6	12BA6	1T4
			With 1 Diode				1U5
With Triode			5CG8 5U8 6AU8 6BH8				6CG8 6U8
		Output Amplifiers	12BY7-A 12C5 12CA5 12L6-GT 12W6-GT	12BY7-A 25C5 25L6-GT	35C5 50C5	3S4 3V4	6A05 6V6-GT 6W6-GT 12V6-GT
Power Amplifiers		Horizontal-Deflection Amplifiers	12AV5-GA 12DQ6 25CD6-GB				6AV5-GA 6CD6-GA 6DQ6
		Twin	3BU8	6BU8			
HEPTODES			3BY6 3CS6	6BE6 6BY6 6CS6	12AG6 12BE6	1R5	
GATED-BEAM TUBES			3BN6	6BN6			

Type designations of miniature tubes are shown in italics.

GENERAL ELECTRIC ALSO OFFERS A COMPLETE LINE OF COMMERCIAL RECEIVING TUBES INCLUDING SERIES-STRING TYPES WITH 600 MA, 450 MA AND 300 MA HEATERS FOR UNIFORM WARM-UP, COLOR RECEIVING TUBES, COMPUTER TUBES AND TYPES FOR MOBILE COMMUNICATIONS.

Tube Department
Regional Sales Offices

EASTERN REGION

General Electric Company
Tube Department
200 Main Avenue
Clifton, New Jersey

Telephone—
Clifton, GRegory 3-6387
(N.Y.C. dial direct—
Wisconsin 7-4065-6-7-8)

CENTRAL REGION

General Electric Company
Tube Department
3800 North Milwaukee Avenue
Chicago 41, Illinois
Telephone—SPring 7-1600

WESTERN REGION

General Electric Company
Tube Department
11840 West Olympic Boulevard
Los Angeles 64, California
Telephones—BRadshaw 2-8566
GRanite 9-7765

TUBE DEPARTMENT

GENERAL ELECTRIC

Schenectady 5, N. Y.

G-E CATHODE-RAY TUBES — Industrial & Military Types

Tube Type	Screen Dia in.	Focus	Deflection	Fluorescence	Phosphorescence	Persistence	Maximum Anode Rating KV
2BP1	1 3/4	Electrostatic	Electrostatic	Green	Green	Medium	2.5
3KP1	2 3/4	Electrostatic	Electrostatic	Green	Green	Medium	2.5
3ACP1A	2.68	Electrostatic	Electrostatic	Green	Green	Medium	2 Post-Accel. 6
5FP7A	4 1/4	Magnetic	Magnetic	Blue-White	Yellow	Long	8.0
5FP14A	4 1/4	Magnetic	Magnetic	Purple	Orange	Med-Long	8.0
5FP25	4 1/4	Magnetic	Magnetic	Orange	Orange	Long	12.0
5QP4A	4 1/4	Magnetic	Magnetic	White	White	Short	12.0
5UP1	4 1/2	Electrostatic	Electrostatic	Green	Green	Medium	2.5
5UP7	4 1/2	Electrostatic	Electrostatic	Blue-White	Yellow	Long	2.5
5AHP4, 4A *	4 1/4	Electrostatic	Magnetic	White	White	Short	10.0
5AHP7, 7A *	4 1/4	Electrostatic	Magnetic	Blue-White	Yellow	Long	10.0
5AHP14, 14A *	4 1/4	Electrostatic	Magnetic	Purple	Orange	Med-Long	10.0
5AHP19, 19A *	4 1/4	Electrostatic	Magnetic	Orange	Orange	Long	10.0
7UP7 *	6	Magnetic	Magnetic	Blue-White	Yellow	Long	10.0
7UP25 *	6	Magnetic	Magnetic	Orange	Orange	Long	12.0
7VP1	6	Electrostatic	Electrostatic	Green	Green	Medium	4.0
7ABP7A *	6	Electrostatic	Magnetic	Blue-White	Yellow	Long	10.0
7ABP14A *	6	Electrostatic	Magnetic	Purple	Orange	Me 1-Long	10.0
7ABP19A *	6	Electrostatic	Magnetic	Orange	Orange	Long	10.0
10KP7	9	Magnetic	Magnetic	Blue-White	Yellow	Long	10.0
10UP14, 14A *	9	Electrostatic	Magnetic	Purple	Orange	Med-Long	12.0
12SP7, 7B *	11	Magnetic	Magnetic	Blue-White	Yellow	Long	10.0

* Aluminized

G-E ALSO FURNISHES A COMPLETE LINE OF TV PICTURE TUBES

All data subject to change without notice. The listing of any tube type does not necessarily imply immediate availability.

When ordering or seeking information please mention Electronics Buyers' Guide.

G-E WIRE AND CORDS FOR ELECTRONIC EQUIPMENT



MAGNET WIRE

General Electric has the correct type in standard shapes and a wide range of sizes for every duty requirement.

Alkanex† magnet wire, a new, polyester film-insulated wire for Class B applications. Withstands "hot spot" temperatures up to 150 C and has outstanding mechanical properties.

Formex* magnet wire, the leading film-insulated wire for Class A applications. Well known for its excellent dielectric strength, toughness, flexibility, heat aging, moisture resistance, and solvent resistance.

Deltabeston* magnet wire for Class B applications either glass- or asbestos-insulated with or without Formex wire under the insulation. For Class H applications, glass or asbestos types impregnated with silicone varnishes and wires film-insulated with Teflon** are available.



SILICONE RUBBER FIXTURE AND APPLIANCE WIRE

For applications requiring high-temperature and excellent moisture resistance such as for interior lighting fixtures and other high wattage units, up to 200 C copper temperature. Listed by Underwriters' Laboratories, Inc.



PORTABLE CORDS

An extensive variety of cords for light- and medium-duty applications where long life, flexibility, and resistance to acids, alkalis, and moisture are important.

* Registered Trade-mark General Electric Company

** DuPont Trade-mark for Tetrafluoroethylene Resin

† Trade-mark applied for by General Electric Company

Among the other
G-E WIRES & CABLES
applicable to
electronic equipment are:

Communication cables
Control cables
Flamenol* wire
Heating cable
Radio hook-up wire

SPECIAL APPLICATIONS

In cases where products may require special applications, G-E engineers, constantly engaged in the development of new or improved wires, cables, and cords, will gladly give assistance to product designers and manufacturers.

For information on special applications, please write to the nearest General Electric Construction Materials Division office or the Wire and Cable Department, General Electric Company, Bridgeport 2, Connecticut.

Section 19-236
Wire and Cable Department
Construction Materials Division
General Electric Company
Bridgeport 2, Connecticut

Please send the publication indicated
..... General Electric Magnet Wire, Pub. No. 19-273
..... Wires, Cables, Cords for Product Designers, Pub. No. 19-470

Name

Title

Company

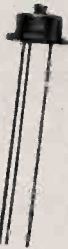
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City Zone State

GENERAL ELECTRIC OFFERS WIDEST SELECTION OF SEMICONDUCTORS AVAILABLE ANYWHERE

HIGH & LOW FREQUENCY PNP TRANSISTORS

High gain, medium power audio: 2N43, 2N44, 2N45. For USAF requirements: 2N43A. Commercial equivalent: 4JD1A17. Computer switching: 2N123. RF and IF amplifiers and oscillators: 2N135, 2N136, 2N137. Hobbyist type at low cost: 2N107.



HIGH & LOW FREQUENCY NPN TRANSISTORS

RF and IF amplifiers for broadcast receivers: 2N168, 2N169, 2N169A. Converters: 2N168A. Reliable industrial/military linear amplifiers: 2N78. Computer switching: 2N167. Low level amplifiers at low cost: 2N170.



SILICON POWER TRANSISTOR

8 watt dissipation at 85° centigrade.



SILICON HIGH FREQUENCY TRANSISTOR

15 megacycle operation. Designed for printed circuit board insertion.



SILICON DOUBLE BASE DIODE

Operation up to 200°C. Replaces 2 junction transistors in computer circuits.



NPN TETRODE TRANSISTOR

Up to 150 megacycle operation.



NPN HIGH FREQUENCY TRIODE TRANSISTOR

15 megacycle operation at temperatures up to 85°C.



SILICON LOW CURRENT RECTIFIER

¼ amp per cell, 150°C. rated free ambient. 175°C. storage temperature. Designed for machine assembly.



SILICON HIGH CURRENT RECTIFIER

50 amps per cell at 300 PIV. 150°C. rated stud temperature. 200°C. storage temperature.



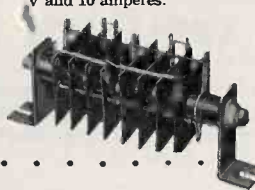
GERMANIUM JUNCTION RECTIFIERS

For 99% rectification efficiency: 1N91, 1N92, 1N93. Single cell unit ratings are increased up to 5 times by adding single copper fin. For 500 ma output current: 1N151, 1N152, 1N153.



GERMANIUM RECTIFIER STACKS

More than 160 circuit possibilities for use up to 900 V and 10 amperes.



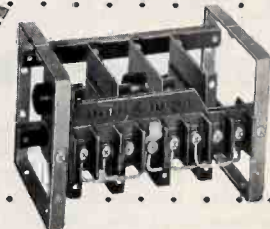
GERMANIUM HIGH TEMPERATURE AND MAGNETIC AMPLIFIER RECTIFIERS

Ideal for use in magnetic amplifiers, high operating temperature — up to 85°C.: 1N315. Very low reverse current, high d-c reverse voltage: 1N368.



GERMANIUM MEDIUM POWER RECTIFIERS AND RECTIFIER STACKS

Rectifier losses reduced to ¼ or less. Stacked in series or parallel, ratings in thousands of watts: 4JA3011.



Now, an expanded line of G-E transistors and rectifiers provides greater power performance at extended frequency and temperature limits.

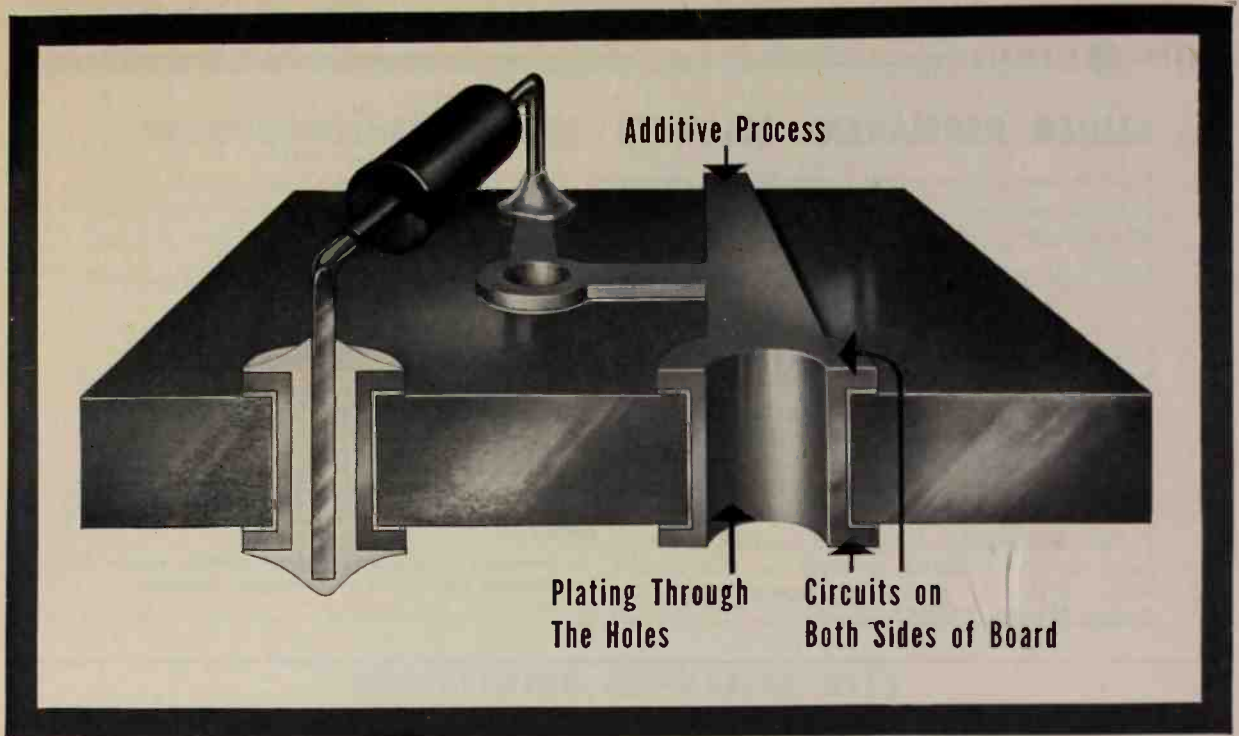
Recent G-E developments in germanium and silicon for semiconductors have opened roads to important new ap-

plications for industry and the military.

See your General Electric Semiconductor Specialist for detailed specifications of the semiconductors shown here, or write today to: *General Electric Company, Semiconductor Products, Section X76, Electronics Park, Syracuse, N. Y.*

Progress Is Our Most Important Product

GENERAL ELECTRIC



Order General Electric "Thru-Con" Boards for positive connections through the holes

"Thru-Con" insures accurate solder filleting top and bottom for extreme strength and easier assembly.

Original Design Features. Original General Electric additive-method production techniques provide continuous copper plating through the holes. Positive connections do away with separate staking pins, assure perfect circuits. Costly rejects due to difficult soldering problems are eliminated. If desired, G-E "Thru-Con" boards may provide patterns on both sides, further reducing size and weight.

"Thru-Con" Boards Serving Many Industries. Important economies afforded by dependable G-E "Thru-Con" boards are helping manufacturers cut costs and improve profit pictures. Producers of lamps, radios, fans, street lighting

and traffic control units, television receivers, appliances, and control equipment are using "Thru-Con" now.

Full Production Facilities. The G-E "Thru-Con" plant is devoted to full-time production of printed circuit boards. New, specially-designed equipment is capable of producing thousands of boards each day. The combination of custom wiring patterns, sizes, and shapes is virtually limitless.

Investigate G-E "Thru-Con" Boards, Today. It will pay you to look into the savings "Thru-Con" boards make possible in manufacturing techniques. For a full discussion of your printed circuit program, and a sample "Thru-Con" board, call or write: *General Electric Company, Electronic Components Department, Section X76, Auburn, N. Y.*

ADVANCED COMPONENTS FOR THE ELECTRONICS INDUSTRY

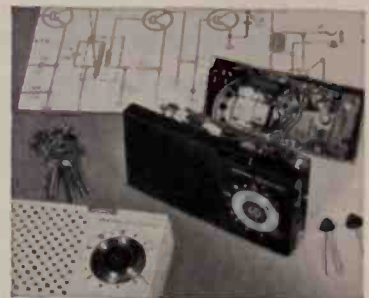
★ Printed Circuit Boards ★ Ferrites ★ Distributed Constant Delay Line ★ Ceramics

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G-E "Thru-Con" Printed Circuit Boards offer positive connection through the holes, without staking pins, patterns on both sides if needed. Printed circuitry cuts assembly time; eliminates product bulk, weight; reduces inspection time, parts inventory.



Positive Proof. This new transistorized portable radio features a full printed circuit using a G-E "Thru-Con" Board. Combining other advances in electronics with a "Thru-Con" circuit makes possible sweeping changes in size, weight, and styling.

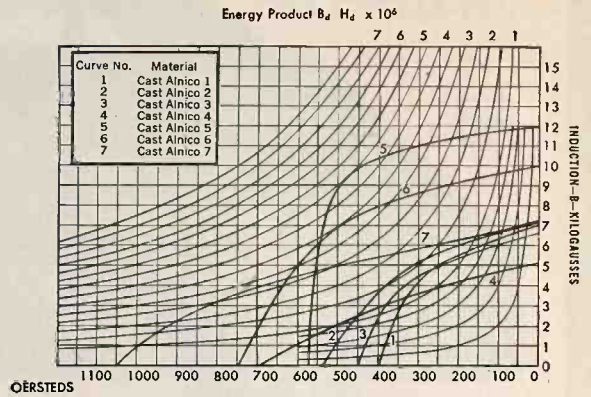
ALNICO PERMANENT MAGNETS

Provide constant, powerful magnetic field energy in a given space . . . with a minimum of volume and weight

G-E Alnico Permanent Magnets can simplify design, reduce size and cost of meters, instruments, controls, motors, and communications equipment. Guaranteed minimum external energy product up to 6,000,000 gauss-oersteds.

Available cast or sintered; stocked in a wide range of sizes and shapes. Other styles can be made to your specifications. Magnets can be furnished with steel inserts, close tolerance holes, die-cast aluminum sheaths or other coatings.

Complete magnet design and product development service available to work on your problems. Write for price lists, specifications, or Design Manual PM-101.



Demagnetization and energy product curves for General Electric Alnico Permanent Magnets

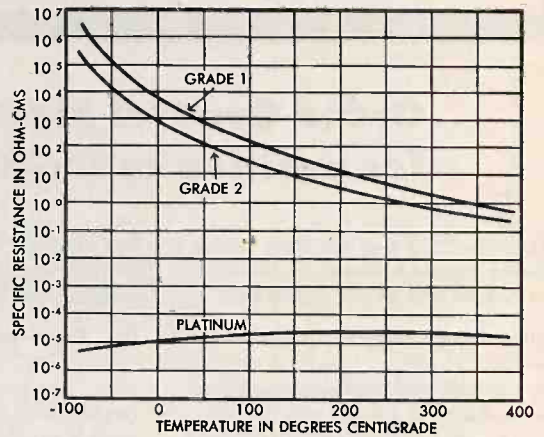
THERMISTORS

Detect, measure, compensate for minute changes in temperature

G-E Thermistors have large *negative* temperature coefficients. As circuit elements, they provide highly sensitive responses to relatively minute temperature changes.

In addition to uses in thermometry, Thermistors can provide time delay, suppress surges, control warning circuits and sequence switching.

Two grades available; stocked in rods, disks, and washers, with or without leads. Write for design assistance or Thermistor Manual TH-13.



Temperature resistance values of Carboloy Thermistors compared to a representative metal

THYRITE* VARISTORS

Nonlinear resistance material provides current that varies as a power of applied voltage

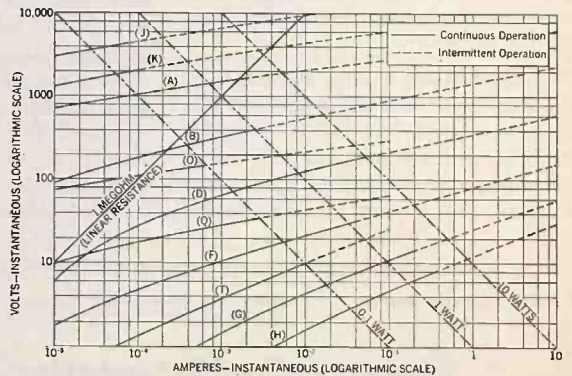
Because of their unique properties, G-E Thyrite Varistors can be used to limit voltage surges, to stabilize circuits supplied by rectifiers, to control voltage-sensitive circuits.

Also used as nonlinear resistance parameters, potentiometers, and frequency multipliers.

Thyrite Varistors are manufactured with a wide variety of volt-ampere characteristics. Stocked in disks and rods, with or without leads.

For help on your circuit-design problems, or for Thyrite Bulletin TY-101, write today.

*Registered trademark of the General Electric Company.



Typical volt-ampere characteristics of representative General Electric Thyrite Varistors.

(Sizes range from 1/2" to 6" diameter disks and from 1" to 2" long, 1/4" diameter rods. Curves from Thyrite Bulletin TY-101.)

VACUUM-MELTED ALLOYS

Have tremendously improved mechanical and electrical properties through elimination of impurities and gases

Vacuum-melting provides greater ductility, greater impact and fatigue strength, improved corrosion resistance and electrical conductivity.

Two new G-E vacuum-melted alloys—1570 and M-252—are now available. In addition, special steels and other alloys can be job-melted, and new alloys can be developed.

Vacuum-melted metals yield more pieces per pound; rejects are lower. Alloy Development Service is available to work on your design problems. Or write for the Vacuum-Melted Alloys Bulletin VM-101.

HIGH TEMPERATURE MECHANICAL PROPERTIES (NOMINAL VALUES)

M-252 — VACUUM MELTED

Temp. F.	Stress to Rupture (X 10 ³ psi)		Fatigue Strength (X 10 ³ psi) @ 10 cycles	Tensile Strength (X 10 ³ psi)	Yield Strength (X 10 ³ psi) 0.02% offset	Elongation % 2" gage length
	100 hrs.	1000 hrs.				
1200	95	75	68	161	101	13
1300	70	54	60	141	98	9
1400	55	34		120	92	10
1500	34	18	45	91	84	16
1600	20	11		60		35
1700	10			40		
1800			10			

1570 — VACUUM MELTED

Temp. F.	Stress to Rupture (X 10 ³ psi)		Fatigue Strength (X 10 ³ psi) @ 10 cycles	Tensile Strength (X 10 ³ psi)		Elongation % 2" gage length
	100 hrs.	1000 hrs.		0.2% offset	0.2% offset	
1200	95	78	55	140	72	12
1300	74	55		118	72	8
1400	52	37		100	68	10
1500	33	24	48	82	58	14
1600	23	15		52	45	25
1700	14			33		40
1800				15		
1900						

ENGINEERING APPRAISAL KITS

For laboratory testing of Thermistors and Thyrite Varistors

THYRITE VARISTOR KITS



Kit No. 1—Miniature disk-type varistors. Contains: two each of six ratings, color-coded with connecting leads. Price: \$5.00.*



Kit No. 2—Rod-type varistors. Contains: two each of five ratings, color-coded with connecting leads. Price: \$5.00.*

*Plus applicable sales and use taxes.

THERMISTOR KITS



Kit No. 1 contains 18 Thermistors: two of each in three styles and three sizes. Price: \$20.00.*



Kit No. 2 contains 104 Thermistors: 26 sizes and four styles, plus lead, steel, and fiber washers, and tubing for building assemblies. Price: \$125.00.*

Order kits directly from:

Carboloy Department of General Electric Company, 11139 E. 8 Mile Drive, Detroit 32, Michigan.

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DETROIT 32, MICHIGAN

E. 8 Mile, near Van Dyke
Jefferson 6-9100

LOS ANGELES 18, CALIF.

2106 West Washington Blvd.
REpublic 1-8286

NEWARK, N.J.

254 Elizabeth Ave.
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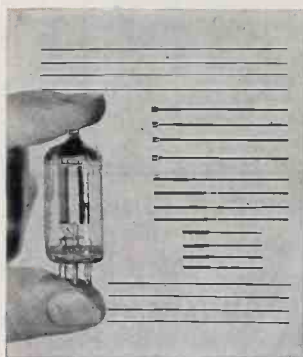
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G-E QUALITY IN RADIO AND ELECTRONIC COMPONENTS—AT A PRICE YOU WANT TO PAY!

THE Lamp Leads and Bases Department of General Electric is one of the true pioneers in the electronics industry. We were solving design and production problems at a time when only a handful of companies recognized its potential. Today we

stand ready to furnish you with the highest quality radio and electronic components you can buy—as we continue to develop new processes and better materials to insure the best products at the lowest possible price.



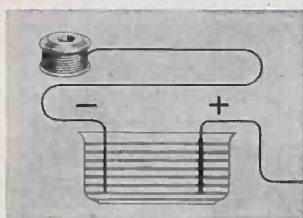
Leads

General Electric is the largest manufacturer of all types of lead-in wires for electronic devices, radio tubes and other applications.



Dumet

To successfully seal lead wire to soft glass, the expansion coefficients must be reasonably close. Dumet, a General Electric development, meets this requirement. It is made of copper tubing, and iron-nickel core rod—and is used for sealing to lead or lime glass.



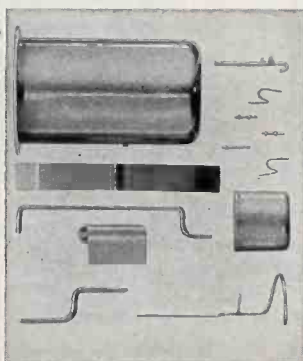
Plated Wire

General Electric produces Nickel Plated Iron Wire and Nickel Plated Copper Wire from low carbon (Armco or Low Basic) iron wire and oxygen-free high conductivity copper wire—in a variety of diameters and plate thickness.

RANGE OF SIZES

Symbol	Base Material	% of Plate	Diameter Range
Cu (NP)	Copper	*	10—50
Fe (NP6)A	Armco	2—8	20—70
Fe (NP6)B	Low Basic	2—8	20—70

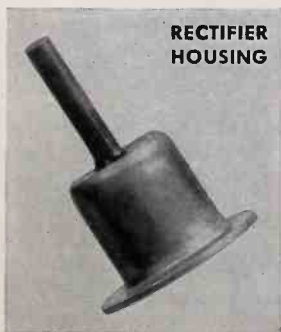
*Plate thickness for all sizes of (CuNP) wire approximates .0001"



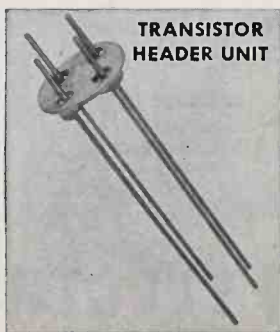
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Our development laboratory and fabricating facilities are offered to electronic manufacturers to design, test and produce parts from many types of metals to meet your requirements.

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BOTH THESE FINE NEW PRODUCTS are offered with full assurance that quality craftsmanship and precision assembly are used throughout. Both are made to G-E's strict quality standards—and you get all the price benefits of high volume production.

TO GET THE FULL STORY on all our radio, television and electronic components, write: General Electric Company, Lamp Leads and Bases Department, Nela Park, Cleveland 12, Ohio.

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molded printed circuit sockets

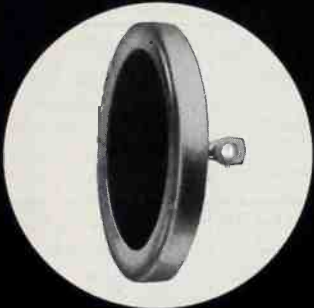


- available in 7 or 9 pin types
- with or without center shields
- above or below board soldering
- in mica-filled or black phenolic material
- with or without ground straps

JAN sockets and shields

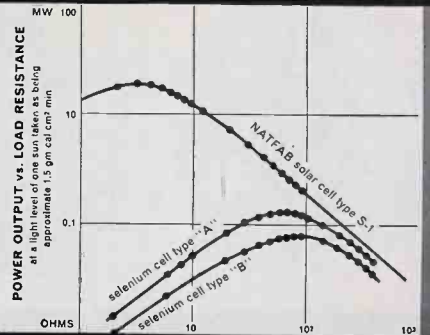


Available in a variety of JAN-types in molded plastic or ceramic materials.



silicon junction solar cells*

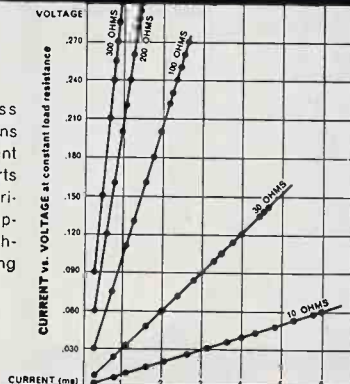
- Instantaneous response (40 microseconds).
- Not affected by moisture.
- No deterioration due to atmospheric conditions.
- Cannot oxidize or corrode.
- Permanent life-time p-n junction.
- Compact size ideal for miniaturization.
- Operates over temperature range from -65°C to +175° C.
- Needs no auxiliary power source.
- Operates on infra-red light.



silicon junction photoelectric cells*



For use in countless photometric applications to replace less efficient selenium cells. Converts light directly into electrical energy. Fully encapsulated in plastic to withstand rugged operating conditions.



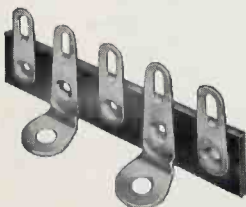
* Licensed by Western Electric Co., Inc.

octal sockets



Available in a variety of types in plastic, ceramic and wafer materials.

terminal strips



Standard terminal strips, 3/8" wide, 1/16" thick, all Bakelite insulation, are available in any combination of 1, 2, 3 or 5 lug types.

battery sockets



antenna connector sockets



write for complete NATFAB catalog
Samples available upon request

natfab

a division of **Hoffman**
electronics corporation



NATIONAL FABRICATED PRODUCTS

2650 West Belden Avenue
Chicago 47, Illinois



national SEMICONDUCTOR

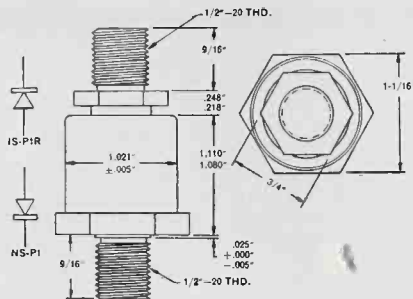
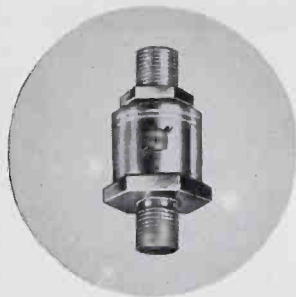
The electrical and physical data presented on these pages cover the principal characteristics of National Semiconductor Silicon Junction Diodes, High-Power Rectifiers and Zener Reference Diodes and Elements. Many of the products described are available in production quantities. Whatever your needs for semiconductors, it will pay you to discuss the significant advantages of using these reliable units with your nearby NS Representative. Additional information, including specific applications, environmental and performance data is available upon request. Write National Semiconductor, Dept. EBG, 930 Pitner Avenue, Evanston, Illinois.

silicon junction DIODES

ZENER REFERENCE DIODES

HIGH POWER RECTIFIERS

a division of **Hoffman** electronics corporation



HIGH POWER SILICON JUNCTION RECTIFIER types NS-P1 and NS-P1R

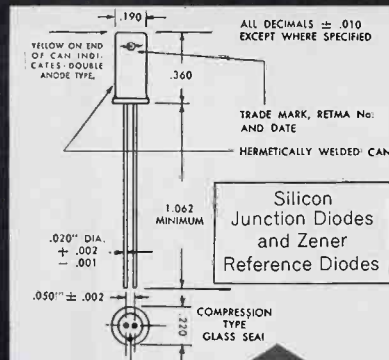
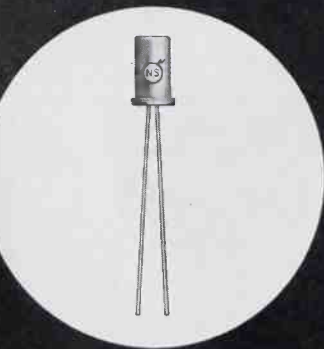
Case Temperature (°C) ¹	50	75	100	150	200
Average Rectified Current (amps)	40	36	30	20	8
Average Forward Voltage Drop (volts)	0.90	0.87	0.85	0.75	0.65
Peak Rectified Current (amps)	125	113	94	63	25
RMS Rectified Current (amps)	62	56	47	31	12
Peak Inverse Voltage ² (volts)	60	60	60	60	60
RMS Voltage (volts)	42.5	42.5	42.5	42.5	42.5
Average Inverse Current (ma) ²	25	25	25	25	30
Dissipation (watts)	90	75	60	30	11

notes

- Heat Sink—Rectifiers should be properly connected to a heat sink either by bolting to a large area copper or aluminum bus bar or by means of forced air cooling or both.
- Measured while rectifier is passing maximum rated average forward current in a half wave circuit with a resistive load.

DC inverse current at an inverse voltage of 60 volts dc and 25°C is 5ma maximum.

Above ratings measured for continuous operation in ambient temperatures ranging from -55°C to +200°C.



ZENER REFERENCE DIODES AND ELEMENTS

Available in production quantities in four standard types	ZENER REFERENCE DIODE		ZENER REFERENCE ELEMENTS									
	TYPE 1N429			TYPE 1N430			TYPE 1N430A			TYPE 1N430B		
	Min.	Avg.†	Max.	Min.	Avg.†	Max.	Min.	Avg.†	Max.	Min.	Avg.†	Max.
Operating Voltage (volts)	5.9*	6.2*	6.5*	8.0‡	8.4‡	8.8‡	8.0‡	8.4‡	8.8‡	8.0‡	8.4‡	8.8‡
Dynamic Impedance (ohms)		10	20		11	15		11	15		11	15
Ambient Temperature (°C)	-65		+200	-65		+150	-65		+150	-65		+150
Dissipation at 25°C Ambient (mw) (Derate 1mw/°C above 25° ambient)			200			250			250			250
Change in Voltage Drop (%/°C) -55°C to +100°C -55°C to +150°C			±.01*			±.002‡			±.001‡			±.001‡

notes

† Average values based on entire production of this type.

* Rated at 7.5 ma and 25°C

‡ Rated at 10ma and 25°C



DIODES - Notes

(1) Special Marking of Diodes: The following suffix numbers have been assigned to cover most of the special testing and selection required by customers. Diodes having no suffix numbers following the RETMA number have Zener (break-down) Voltage ranges of approximately $\pm 10\%$ voltage tolerance.

- 1 All characteristics as per specification, but no maximum Zener Voltage limit. (Thus: 1N209-1 etc.)
- 2 Close tolerance Zener Voltage $\pm 5\%$. (Thus: 1N465-2 etc.)
- 3 Close tolerance Zener Voltage $\pm 1\%$. (Thus: 1N203-3 etc.)
- 4 Special selection for back current or test of back current at special temperature.
- 5 Special selection for forward current or test of forward current at special temperature.
- 6 Tested to limits on Zener Voltage temperature coefficient.

(2) These ratings are based upon the maximum dissipation rating of 150 mw @ 25°C ambient. The de-rating schedule for elevated ambients is 1 mw per °C above 25°C.

(3) Steady state dc on basis of reduced dissipation for this type of application

(4) Zener Impedance is determined by measuring the ac voltage developed across the diode when operated with 1 ma rms ac current superimposed on 10 ma dc.

(5) Average values are based on entire production of type shown. There is no assurance that the average values of small, randomly selected groups will be as shown.

(6) Maximum dissipation at 25°C. Derating schedule for elevated ambients is 1 mw per °C above 25°C.

(7) Measured at $E_b = 3$ v.

(8) Forward Voltage measured at 15 ua; 0.45 v min; 0.50 v avg.; 0.55 v max.

silicon junction
DIODES

ZENER
REFERENCE
DIODES

HIGH POWER
RECTIFIERS

a division of Hoffman electronics corporation

DIODES - ELECTRICAL CHARACTERISTICS

(All data at 25°C ambient unless otherwise noted)

TYPE	Part No.	Maximum Reverse Working Voltage		Zener (Breakdown) Voltage ¹		Forward Current		Reverse Current @ E_b max ²				Maximum Rating ²				Zener Impedance ⁴		Diode Capacitance		Leakage Current Maximum		Maximum Power Dissipation		Ambient Operating Temperature (°C)		
		E_{Rmax} (v)	E_{Rmin} (v)	E_z min. (v)	E_z max. (v)	I_F avg. (ma)	I_F min. (ma)	I_R @ 25°C (μA)	I_R @ 100°C (μA)	I_{FS} (ma)	I_{FR} (ma)	I_{FO} (ma)	I_{FR} (ma)	Z_z avg. (Ω) max.	C_{AVG} (pF) @ I_F dc (ma)	C_{T1} (pF) @ E_b (v)	I_{Lmax} (μA) @ 25°C	I_{Lmax} (μA) @ 100°C	P_{Dmax} (mw) @ Apd. Voltage (v)	T_{min} (°C)	T_{max} (°C)					
STANDARD DIODES	1N200	6.8	7.5	10	0.2	100	50	1	0.5	5	260	130	85	12.5			507	6			150	-65	+150			
	1N201	8.2	9	12	0.2	70	35	1	0.5	5	230	115	77	10			35	6			150	-65	+150			
	1N202	10	11	14.5	0.2	60	30	1	0.5	5	210	105	70	7.5			30	6			150	-65	+150			
	1N203	12	13.5	18	0.2	46	23	1	0.5	5	190	95	63	6			28	6			150	-65	+150			
	1N204	15	17	21	0.2	34	17	1	0.5	5	170	85	56	5			25	6			150	-65	+150			
	1N805	18	20	27	0.2	24	12	1	0.1	10	150	75	50	4			20	6			150	-65	+150			
	1N806	22	26	32	0.2	18	9	1	0.1	10	135	67	45	3.3			15	6			150	-65	+150			
	1N807	27	30	39	0.2	14	7	1	0.1	10	120	60	40	2.7			12	6			150	-65	+150			
	1N808	33	37	45	0.2	11	5.5	1	0.1	10	105	52	35	2.2			10	6			150	-65	+150			
	1N809	39	43	54	0.2	9	4.5	1	0.1	10	95	45	30	2			8	6			150	-65	+150			
	1N810	47	52	64	0.2	7	3.5	1	0.1	10	85	42	27	1.7			6	6			150	-65	+150			
	1N211	56	62	80	0.2	5.5	2.7	1	1	50	72	36	23	1.3			5.6	6			150	-65	+150			
	1N212	68	75	100	0.2	4	2	1	1	50	60	30	19	1			5.2	6			150	-65	+150			
	1N213	82	90	120	0.2	3	1.5	1	1	50	50	25	16	0.7			4.8	6			150	-65	+150			
	1N214	100	110	145	0.2	2.5	1.2	1	1	50	40	20	12.5	0.7			4.5	6			150	-65	+150			
	1N215	120	135	180	0.2	1.8	0.9	1	1	50	35	17	11	0.6			4.2	6			150	-65	+150			
	1N216	150	170	210	0.2	1.5	0.7	1	1	100	30	15	9.5				3.5	6			150	-65	+150			
	1N217	180	200	270	0.1	13	6.5	4	5	100	28	14	9				3.5	6			150	-65	+150			
	1N218	220	260	380	0.1	12	6	4	5	100	26	13	8				3.2	6			150	-65	+150			
	1N219	270	300	400	0.1	8	3	4	5	100	24	12	7.5				3	6			150	-65	+150			
	1N220	330	370	450	0.1	6.5	2.2	4	5	100	22	11	7				2.8	6			150	-65	+150			
	1N221	390	430	540	0.1	5	2	4	5	100	20	10	6				2.6	6			150	-65	+150			
1N222	470	520	640	0.1	4	1.5	4	5	100	18	9	5.5				2.4	6			150	-65	+150				
LOW VOLTAGE DIODES	1N465		2	2.2	5		50	0.9	75	100						45	80	10			200	-65	+200			
	1N466		3	3.3	5		50	0.9	50	100						40	55	10			200	-65	+200			
	1N467		3.7	4.5	5		35	0.9	5	100						30	45	10			200	-65	+200			
	1N468		4.2	5.1	5		35	0.9	5	100						25	38	10	275μF	1.5	200	-65	+200			
	1N469		4.8	5.8	5		55	1	5	100						10	20	10	250μF	1.5	200	-65	+200			
	1N470		5.2	6.4	5		55	1	5	50						5	10	10	150μF	3	200	-65	+200			
DOUBLE ANODE DIODES	1N471		3	3.9	5											50	85	10		85	100	1	200	-65	+200	
	1N472		3.7	4.5	5											45	80	10		5	100	1	200	-65	+200	
	1N473		4.3	5.4	5											35	50	10		5	100	1.5	200	-65	+200	
	1N474		5.2	6.4	5											20	40	10		5	100	1.5	200	-65	+200	
	1N475		6.2	8	5											10	25	10		5	50	3.5	200	65	+200	
	1N225		7.5	10	0.2																0.5	5	0.8	150	-65	+150
	1N226		9	12	0.2																0.5	5	0.8	150	-65	+150
	1N227		11	14.5	0.2																0.3	5	10	150	-65	+150
	1N228		13.5	18	0.2																0.3	5	12	150	-65	+150
	1N229		17	21	0.2																0.3	5	15	150	-65	+150
	1N230		20	27	0.2																0.1	10	18	150	-65	+150
	1N231		25	32	0.2																0.1	10	22	150	-65	+150
	1N232		30	39	0.2																0.1	10	27	150	-65	+150
	1N233		37	45	0.2																0.1	10	33	150	-65	+150
	1N234		43	54	0.2																0.1	10	39	150	-65	+150
1N235		52	64	0.2																0.1	10	47	150	65	+150	
1N236		62	80	0.2																1	50	86	150	-65	+150	
1N237		75	100	0.2																1	50	88	150	-65	+150	
1N238		80	120	0.2																1	50	88	150	-65	+150	
1N239		10	145	0.2																1	50	100	150	-65	+150	
OTHER DIODES	1N477A	36	40	70	0.2	3	1	0.03		70	30	21								7.5μF	6	125	-65	+150		
	1N478A	18	20	43	0.2	5	1	0.01		110	50	35								15μF	6	125	-65	+150		
	1N479A	68	75		0.2			0.1 @ 100°C	1.0 @ 60V (80°C)		35	17	10									150	-65	+150		

STEP ATTENUATORS

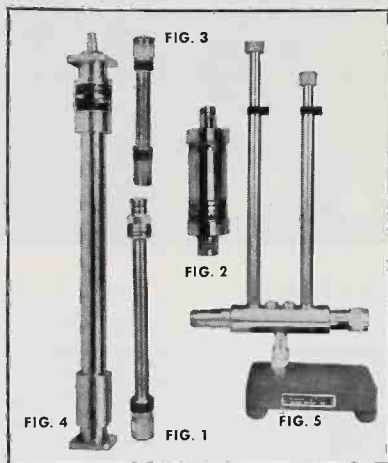


PRECISION STEP ATTENUATOR MODEL #64. The only step attenuator containing low V.S.W.R., 0.1 db steps. Three drums cover the range of 0-64 db in steps of 0.1 db from DC to 1,000 MC. Long life switches and exceptional stability are among the reasons this instrument is used by standard laboratories who cannot afford to make mistakes. Impedance is 50 ohms, connectors type "N"; power capacity

100 mw. CW Calibration chart showing insertion loss, and V.S.W.R. at DC and 1,000 MC supplied. Change of insertion loss of all pads between 0 and 10 db does not exceed .1 db between DC and 1,000 MC, and 0.1 db per 10 db at 1,000 MC for pads between 20 and 50 db. Accuracy of pads at DC is better than .05 db to 10 db, and 0.1 db to 50 db. Ask for Bulletin #37.

COAXIAL ATTENUATOR PADS

Design and Manufacture of Coaxial Pads to Specific Requirements Is Our Specialty.



Not shown is our Model 50 attenuator pad. It has small attenuation errors from DC to 1,000 MC, and is available in steps of 1 db in range 1-10 db and 10 db steps in the 10-40 db range. Accuracy at DC is .05 db from 1 to 10 db, and .1 db between 20 and 40 db. Frequency sensitivity not greater than .2 db from DC to 1 KMC, except for the 30 and 40 db pads which have .3 and .4 db. Will handle average powers of 1 watt with proper termination, and 1 KW peak. Ask for Bulletin #44.

Fig. 1: Type 210 Pad, "lossy line" construction, 50 ohm impedance, with type "N" connectors. Frequency range 1 KMC to 10 KMC; loss range 3, 6, 10, 12, 20 db. Average power varies from 5 to 1 watt, peak power from 10 to 2 KW. Also available with type "C" connectors. Ask for Bulletin #17.

Fig. 2: Precision Power Pads, 50 ohms impedance, type "N" connectors, ± 1 db accuracy from DC to 1,000 KMC. Model 10, 10 watt power pad, "T" type, range 1-3 db, bilateral with male and female connectors. Model 11, range 4-10 db, is unilateral with female input and male output. Model 12, same range as model 11, is also unilateral with male input, and female output. Maximum input V.S.W.R. 1.10. Ask for Bulletin #27.

Fig. 3: "S" Band attenuators, 50 ohms impedance, type "N" connectors, CN 42, CN 43, CN 29, provide insertion losses of 10, 16, and 20 db. Our commercial versions cover the range 1-20 db in models, 301, 303, 306, etc. (1 db, 3 db, 6 db, etc.). Also similar are types 410, and 416 having an OD less than $\frac{3}{4}$ " for use with TS-125 power meter, Ask for Bulletin #43.

Fig. 4: $\frac{7}{8}$ " Rigid Line Pad, types CN 168, CN 169, CN 110, provides losses of 3, 6, and 10 db. Frequency range is 1 KMC to 4 KMC. Max. average power input is between 10 and 5 watts, peak power input is between 20 and 10 KW. Also available for $\frac{7}{8}$ " rigid line are type 46 pads with frequency range from DC to 1 KMC and insertion losses of 3, 6, 10, and 20 db. Ask for Bulletin #42.

Fig. 5: Double Stub Tuner; Model DS 109 covers 750 MC to 10 KMC; Model DS 109L covers 400 MC to 4 KMC. Stub tap positions are adjustable facilitating ease of adjustment for impedance matching. The specially designed shorts carry low current through the sliding contacts giving exceptionally smooth adjustment. Ask for Bulletin #19.

INSERTION LOSS TEST SETS, PARTS FOR:



BOLOMETER PREAMPLIFIER MODEL BA-1: Measures insertion loss between 0 and 30 db at low R.F. power levels in conjunction with recommended bolometer and VTVM. Bolometer burnout from other than R-F overload is practically impossible. Bolometer can be inserted and removed without disconnecting DC. Combined with low noise level are freedom from hum pickup, and wide dynamic linear range of

60 db with linearity better than 0.1 db. Frequency is 1 KC with band-width of 35 cps. Adjustable gain, 10,000 maximum. Equivalent input noise from 200 ohm source less than 30×10^{-9} volts RMS. Input impedance above 2,000 ohms for operation from 200 ohm Bolometer. 30 volts max. linear output into 1 megohm. Ask for Bulletin #23.



CATHODE FOLLOWER MODEL CF-1: Input impedance matches output of BA-1 Bolometer Preamplifier. Utilizes a 2,000 ohm precision attenuator with an accuracy of .01 db at 1 KC; eliminates errors in insertion loss measurements caused by accuracy limitations of VTVM. For further details ask for Bulletin #38.

MODULATED OSCILLATOR MODELS MS-1, MS-2, MS-3, R. F. sources for insertion loss measurement, cover the frequency ranges 50-250 MC, 250-920 MC, and 900-2,000 MC with 1 KC ± 5 cps. square wave modulation (100%). Minimum peak output is 100 MW into 50 ohms with excellent long-time amplitude stability. Ask for Bulletin #40.

OTHER PRODUCTS

KEYBOARD OSCILLATOR MODEL 150: Used extensively for checking filters where it is necessary to explore small portions of the curve in detail. Covers range from 1 to 100,000 cycles with rapid, accurately repeated, frequency selection. Drift less than 0.02% per hour. Steps of .1 cps. to 1 KC, 1 cps. to 10 KC, continuous tuning to 10-100 KC. Full details in Bulletin #41.

POWER PULSE GENERATOR MODEL PG-1, for the generation of high power pulses for test-

ing of components by video pulses. Output: maximum of 1,500 volts into 50 ohms, with pulse lengths of 1 to 5 microseconds, variable in 1 microsecond steps, and PRF of 20 to 2,000 cps limited by the capacity of the power supply. Ask for Bulletin #39.

MODIFICATION OF STD. PRODUCTS. There is now available in the microwave field a wide range of Weinschel engineered coaxial attenuators. In most cases this selection is large enough to cover the needs of the average laboratory. However, if special requirements call for modification

of standard equipment, our design department will gladly answer your inquiries.

CALIBRATION SERVICE: Our insertion loss calibration service for coaxial equipment, is available to certify up to 50 db from 50 MC through 10,000 MC. Two accuracies of measurement are available: A) .01 db per 5 db. B) .05 db per 5 db.

NOTE: Class "A" calibrations are usually not justified for coaxial equipment above 1,000 MC, due to inaccuracy of impedance measurements in coaxial devices.

We are also able to offer DESIGN and QUANTITY PRODUCTION of:

Bolometer Mounts,
Thermistor Mounts,

Insertion Loss Test Sets,
Coaxial Terminations,

Power Measuring Bridges,
Micro Potentiometers

Weinschel Engr. & Mfg. Corp.

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Oscillators
Oscilloscopes
Power Meters
Power Supplies
Pulse Generators
Signal Generators
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VHF Bridge
Video Test Oscillators
Waveform Analyzers
Waveguide Equipment

**SHORT FORM
CATALOG**

HEWLETT-PACKARD COMPANY
275A Page Mill Road • Palo Alto, California, U.S.A.

-hp- Oscillators — .01 to 10,000,000 cps

-hp- 200 SERIES AUDIO OSCILLATORS



Four widely used *-hp-* oscillators have been redesigned into two compact, lightweight instruments offering wider frequency range, more operating simplicity, highest accuracy and stability. New Models 200AB and 200CD replace Models 200A through 200D, retain the time-tested RC circuits that insure constant output, low distortion; require no zero set. *-hp-* also offers Model 202A for sub-audio and audio tests; and Model 200J, a spread-scale oscillator for interpolation or where frequency must be known precisely.

-hp- 650A TEST OSCILLATOR



Highly stable, wide band (10 cps to 10 MC) multi-purpose test oscillator for audio, supersonic, video, and rf measurements. Output variable 30 μ v to 3 v. Frequency response flat \pm 1 db. Output impedance 600 ohms, or 6 ohms with voltage divider. \$490.00 Δ .

Instrument	Primary Uses	Frequency Range	Output	Price
-hp- 200AB	Audio tests	20 cps to 40 KC	1 watt/24.5 v	\$120.00
-hp- 200CD	Audio, ultrasonic tests	5 cps to 600 KC	160 mw/10 v *	150.00
-hp- 200J	Interpolation and frequency measurements	6 cps to 6 KC	160 mw/10 v *	275.00
-hp- 200T	Telemetry, carrier current tests	250 cps to 100 KC	160 mw/10 v *	350.00
-hp- 201C	High quality audio tests	20 cps to 20 KC	3 w/42.5 v	225.00
-hp- 202A	Low frequency measurements	.008 to 1,200 cps	20 mw/10 v	465.00 Δ
-hp- 202C	Low frequency measurements	1 cps to 100 KC	160 mw/10 v *	300.00
-hp- 205AG	High power tests, gain measurements	20 cps to 20 KC	5 watts	440.00 Δ
-hp- 206A	High quality, high accuracy audio tests	20 cps to 20 KC	+15 dbm	565.00 Δ
-hp- 233A	Carrier test oscillator	50 cps to 500 KC	3 w/600 ohms	475.00
-hp- 650A	Wide range video tests	10 cps to 10 MC	15 mw/3 v	490.00 Δ

*Open circuit 20 volts. Internal impedance 600 ohms.

-hp- Distortion, Wave Form Analyzers — 20 cps to 20 KC

-hp- 330B DISTORTION ANALYZER



Measures distortion as low as 0.1%, 20 cps to 20 KC. Measures noise voltages as low as 100 μ v. High sensitivity, high stability, broad applicability for broadcast, laboratory or production.

Wide band 20 db gain input amplifier. Built-in VTVM usable separately. \$410.00 Δ .

Instrument	Primary Uses	Frequency Range	Characteristics	Price
-hp- 300A	Wave form analyzer	30 cps to 16 KC	Variable selectivity; measuring range 0.1 mv to 500 v	\$775.00
-hp- 330B	Measures total audio distortion	20 cps to 20 KC	Includes input amplifier, VTVM	410.00 Δ
-hp- 330C	For FM broadcast measurements	20 cps to 20 KC	Special VU meter to meet F.C.C. requirements	440.00 Δ
-hp- 330D	For AM-FM broadcast measurements	20 cps to 20 KC	AM detector and VU meter to meet F.C.C. requirements	455.00 Δ

-hp- Vacuum Tube Voltmeters — 10 to 700,000,000 cps

-hp- 400D VACUUM TUBE VOLTMETER



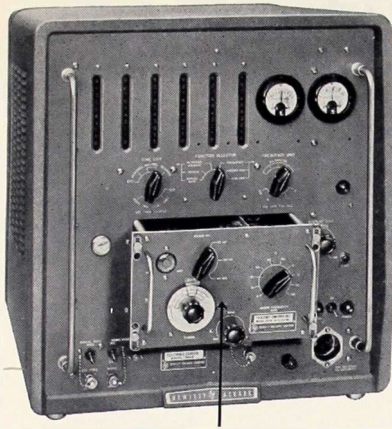
Best *-hp-* voltmeter ever built! Covers all frequencies 10 cps to 4 MC. Extremely sensitive, wide range, accurate within 2% to 1 MC, measures 0.1 mv to 300 v. Direct reading in dbm. 10 megohm input impedance insures negligible loading on circuits under test. New amplifier circuit with 56 db mid-range feedback assures utmost stability, freedom from change due to external conditions. \$225.00.

Instrument	Primary Uses	Frequency Range	Voltage Range	Input Impedance	Price
-hp- 400AB	General purpose ac measurements	10 cps to 600 KC	0.3 mv to 300 v 11 ranges	10 megohms 15 μ mf shunt	\$200.00
-hp- 400D	Wide range ac measurements. High sensitivity	10 cps to 4 MC	0.1 mv to 300 v 12 ranges	10 megohms 15 μ mf shunt	225.00
-hp- 400H	Extreme accuracy measurements	10 cps to 4 MC	0.1 mv to 300 v 12 ranges	10 megohms 15 μ mf shunt	325.00
-hp- 410B	Audio, rf, VHF measurements; dc voltages; resistances	20 cps to 700 MC	0.1 to 300 v 7 ranges	10 megohms 1.5 μ mf shunt	245.00

-hp- Voltmeter Accessories (not listed) include voltage dividers, connectors, shunts and multipliers to extend the useful range of your equipment.

Δ Includes new lightweight all-metal cabinet with carrying handles. Also available for rack mounting at slightly lower prices.

Data subject to change without notice. Prices f.o.b. factory.



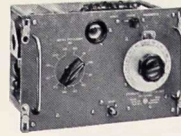
-hp- 524B COUNTER with -hp- 525A FREQUENCY CONVERTER

Frequency 10 cps to 220 MC, interval 1 μ sec to 100 days and period 0 cps to 10 KC—all measured instantly, automatically, directly by the revolutionary new *-hp- 524B* and its plug-in units. You buy just the instrumentation you need; later add inexpensive plug-ins to double, triple the versatility of this complete coverage instrument. For extended coverage to 12,000 MC, see *-hp- 540A* Transfer Oscillator below. *-hp- 524B* without plug-ins. \$2,150.00 Δ .

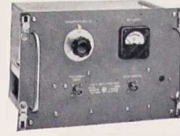


524B ELECTRONIC COUNTER

with plug-in units to fit your exact measuring need



**-hp- 525B
Frequency Converter**



**-hp- 526A
Video Amplifier**



**-hp- 526B
Time Interval Unit**

Instrument	Primary Uses	Frequency Range	Characteristics	Price
<i>-hp- 524B</i> Electronic Counter	Wide range highly accurate frequency, period measurements	10 cps to 10 MC	Without plug-in units measures frequency 10 cps to 10 MC, and period 0 cps to 10 KC, 1 volt rms minimum input	\$2150.00 Δ
<i>-hp- 525A</i> Frequency Converter	Extends <i>-hp- 524B</i> range to 100 MC	10 cps to 100 MC	10 mv rms minimum input 10 MC to 100 MC 0.1 volt from 10 cps to 10 MC	250.00
<i>-hp- 525B</i> Frequency Converter	Extends <i>-hp- 524B</i> range 100 to 220 MC	100 MC to 220 MC	0.2 volt rms minimum input	250.00
<i>-hp- 526A</i> Video Amplifier	Increases sensitivity of <i>-hp- 524B</i>	10 cps to 10 MC	App. 10 millivolt rms minimum input	150.00
<i>-hp- 526B</i> Time Interval Unit	Used with <i>-hp- 524B</i> to measure time interval	Range: 1 μ sec to 10 ⁷ seconds Revolution: 0.1 μ sec	Start and stop channels separately adjustable for triggering from - 192 v to + 192 v	175.00

Other -hp- Frequency Measuring and Monitoring Equipment

-hp- 521A INDUSTRIAL COUNTER



Most useful, accurate, low cost industrial counter. Measures frequency, speed, rpm, random events, other phenomena. Direct readings 1 cps to 120 KC. Time of count 0.1 or 1.0 seconds; variable display time. High accuracy plug-in crystal controlled time base, \$100 extra. Sturdy, rugged, simple to operate. \$475.00.

-hp- 523B ELECTRONIC COUNTER



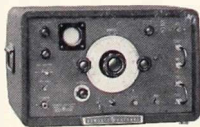
Revolutionary new all-purpose counter measures frequency 10 cps to 1.1 MC, time interval 3 μ sec to 27.8 hours, period 0.00001 cps to 10 KC. Stability 2/1,000,000 per week. Results displayed in sec, msec, μ sec or KC, automatic decimal. Display time variable 0.1 sec to 5 sec or indefinitely. Accuracy ± 1 count plus crystal stability. 5 gate times, usable with 100 KC primary standard. \$1,175.00.

-hp- 522B ELECTRONIC COUNTER



Compact, low cost, versatile instrument for frequency, period or time measurements. Range 10 cps to 120 KC. Reads direct in cps, KC, seconds or milli-seconds. Count automatically reset, action repetitive. Stability of time base 5/1,000,000. Display length variable. Easily used by untrained personnel. \$915.00 Δ .

-hp- 540A TRANSFER OSCILLATOR



Extends frequency counter accuracy to microwave region. With *-hp- 524B* and *-hp- 525B* measures frequency of CW, pulse, or FM^d signals to 5,000 MC. With external detector extends range to 12,000 MC. \$615.00 Δ .

Instrument	Primary Uses	Frequency Range	Characteristics	Price
<i>-hp- 100D</i> Secondary Standard	Frequency, time measurements	100 KC, 10 KC, 1 KC, 100 cps, 10 cps	Stability 1/1,000,000 (short-time) Sine or rectangular output. Marker pips	\$ 615.00 Δ
<i>-hp- 335E</i> TV Monitor	TV visual, aural and % mod. monitor	Channels 2 through 83	Indicates visual, aural carrier frequency deviation, carrier separation, % modulation aural carrier	2,050.00
<i>-hp- 500B</i> Frequency Meter	Rapid frequency measurements	3 cps to 100 KC	9 ranges $\pm 2\%$ accuracy. Input 0.2 to 200 volts Provides expanded scale.	285.00
<i>-hp- 500C</i> Electronic Tachometer Indicator	Measurements of high speed machinery	180 to 3,000,000 rpm	9 ranges $\pm 2\%$ accuracy. Provides expanded scale.	285.00
<i>-hp- 506A</i> Optical Tach. Pickup	Phototube transducer	300 to 300,000 rpm	Utilizes reflected beam of light to permit measurement without loading	100.00
<i>-hp- 508A</i> Tachometer Generator	Low torque transducer	15 to 40,000 rpm	Provides 60 output pulses per rpm of rotating shaft	100.00
<i>-hp- 508B</i> Tachometer Generator	Low torque transducer	15 to 40,000 rpm	Provides 100 output pulses per rpm of rotating shaft	100.00
<i>-hp- 512A</i> Frequency Converter	Extends <i>-hp- 524A</i> range to 100 MC	100 KC to 100 MC	Fast, direct readings of signals to 100 MC with 524A. No charts. Interpolation. Min. input 0.01 v	350.00
<i>-hp- 512B</i> Frequency Converter	Gives <i>-hp- 524A</i> range 100 to 220 MC	100 MC to 220 MC	Same as 512A except for frequency coverage and input 0.2 v RMS min.	350.00
<i>-hp- 520A</i> Nuclear Scaler	For counting high-rate pulses	Capacity 100 counts in 2 decades. 10,000,000 pps counting rate	100:1 divider for operation of low speed scalars	615.00 Δ
<i>-hp- 521A</i> Industrial Counter	Wide-range frequency, speed, measurements	1 cps to 120 KC	Gate time 1/10 or 1 second Input sensitivity control, 60 cycle time base. Crystal plug-in \$100.00	475.00
<i>-hp- 522B</i> Electronic Counter	Wide-range frequency, period, time interval measurements	10 cps to 120 KC	Measures rate of occurrences 0.00001 to 100,000 sec.; time interval 10 μ sec to 27.8 hrs.; periods of frequency count 1/1,000, 1/100, 1/10, 1, 10 sec.	915.00 Δ
<i>-hp- 523B</i> Electronic Counter	Wide-range frequency, period time interval measurements	10 cps to 1.1 MC	Measures rate of occurrences 0.00001 to 100,000 sec.; time interval 3 μ sec to 27.8 hrs.; periods of frequency counted 1 or 10 cycles of unknown.	1,175.00
<i>-hp- 540A</i> Transfer Oscillator	UHF, SHF frequency measurement	Fundamental frequency 100 MC to 220 MC	With 524B and 525B measures frequencies to 5,000 MC; with ext. detectors to 12 KMC	615.00 Δ

Δ Includes new lightweight all-metal cabinet with carrying handles. Also available for rack mounting at slightly lower prices.

Data subject to change without notice. Prices f.o.b. factory.

Microwave Impedance Measuring Equipment



-hp- 415B STANDING WAVE INDICATOR

For all waveguide or coaxial slotted sections. Gives readings in SWR or db. Single frequency operation; 315 to 3,000 cps. Low noise level, 0.1 μ v (full scale) sensitivity, 60 db. calib. attenuator. \$200.00.



-hp- 416A RATIO METER

Automatically combines forward and reverse signals and displays their ratio directly, irrespective of amplitude variations. Contains rf power monitor indicating proper power level. Rear terminal signal available to operate oscilloscope or recorder. Suitable for single and swept frequency operation. \$450.00 Δ .

Instrument	Primary Uses	Frequency Range	Characteristics	Price
-hp- 360A-D Low Pass Filters	Eliminate harmonic voltages from UHF systems	Cutoff frequencies A-700 MC B-1,200 MC C-2,200 MC D-4,100 MC	50 db rejection at 1.25 cutoff freq.	\$ 40.00
-hp- 415B Standing Wave Indicator	SWR indicator or null indicator	315 to 3,000 cps Normal freq. 1,000 cps	0 to 60 db. attn. Max. sensitivity 0.1 μ v full scale	200.00
-hp- 416A Ratio Meter	Measures reflection coefficient, SWR	1,000 cps \pm 40 cps	Min. 3 millivolts and 0.3 μ v; accuracy \pm 2%	450.00 Δ
-hp- 417A VHF Detector	VHF bridge detector (for -hp- 803A)	10 to 500 MC	Approx. 5 μ v sensitivity	250.00
-hp- 803A VHF Bridge	Measurement of VHF impedance, SWR	50 to 500 MC	2 to 2,000 ohms impedance - 90° to + 90° phase angle	495.00
-hp- 805A Coaxial Slotted Section	Measurement of SWR	500 to 4,000 MC	For Type N Connectors, flexible cables	475.00
-hp- 805B Coaxial Slotted Section	Same as above	Same as above	For rigid 3/8" RG44/U line	475.00
-hp- 806B Coaxial Slotted Section	Same as above (Mounts in 809B)	3,000 to 12,000 MC	For Type N Connectors, flexible cables	200.00
-hp- 809B Universal Probe Carriage	Supports 806B section, also G, J, H, X and P810B Waveguide sections		Accepts 442B and 444A probes	160.00

-hp- Waveguide Test Equipment - 2.6 to 18 KMC

Basic, low-cost elements offer utmost flexibility for assembly of exact instrumentation required. Each unit covers entire range of its waveguide size. Simple, sturdy mechanical design; accurate, multi-purpose operation.

Instrument	Coaxial Type N Conn.	3" x 1 1/2"	2" x 1"	1 1/2" x 3/4"	1 1/4" x 5/8"	1" x 1/2"	.702" x .391"
		2.6-3.95 KMC	3.95-5.85 KMC	5.2-8.2 KMC	7.05-10.0 KMC	8.2-12.4 KMC	12.4-18.0 KMC
Adapter, Waveguide to Coax		S281A \$75.00	G281A \$55.00	J281A \$50.00	H281A \$45.00	X281A \$35.00	
Cover to choke flange		S290A \$65.00	G290A \$50.00	J290A \$35.00	H290A \$25.00	X290A \$15.00	P290A \$20.00
Attenuators, Fixed, 3, 6, 10, 20 db		S370 \$75.00	G370 \$65.00	J370 \$65.00	H370 \$60.00	X370 \$55.00	P370 \$60.00
Flap, 25 db max.		S375A \$110.00	G375A \$100.00	J375A \$90.00	H375A \$80.00	X375A \$50.00	P375A \$65.00
Calibrated, precision		S380A \$260.00	G382A \$450.00	J382A \$300.00	H382A \$300.00	X382A \$250.00	P382A \$250.00
Detector Mounts	420A \$50.00	S485D* \$145.00	G485D \$140.00	J485D* \$135.00		X421A \$75.00	P421A \$85.00
	440A† \$85.00	S485A‡ \$125.00	G485B† \$95.00	J485B† \$90.00	H485B† \$85.00	X485B† \$75.00	P485C‡ \$110.00
Thermistor Mounts (Fixed tuned) ■	477B \$75.00		G487A \$95.00	J487A \$90.00	H487A \$80.00	X487A \$75.00	
Frequency Meters, Reaction				J530A/B**	H530A \$120.00	X530A \$120.00	P530A \$150.00
Directional Couplers, Cross Guide: 20, 30 db		S750 \$100.00	G750 \$85.00	J750 \$70.00	H750 \$60.00	X750 \$50.00	
Directional Couplers, Multi Hole: 3, 10, 20 db		S752 \$260.00	G752 \$170.00	J752 \$140.00	H752 \$120.00	X752 \$100.00	P752A \$135.00
Universal Waveguide Carriage		809B for frequencies 3,000 to 18,000 MC \$160.00					
Slotted Sections, Waveguide		S810A* \$450.00	G810B§ \$90.00	J810B§ \$90.00	H810B§ \$90.00	X810B§ \$90.00	P810B§ \$90.00
Waveguide Tees, Series		S840A \$100.00	G840A \$85.00	J840A \$65.00	H840A \$50.00	X840A \$35.00	P840A \$40.00
Shunt		S841A \$100.00	G841A \$85.00	J841A \$65.00	H841A \$50.00	X841A \$35.00	P841A \$40.00
Hybrid		S845A \$130.00	G845A \$115.00	J845A \$100.00	H845A \$75.00	X845A \$50.00	P845A \$55.00
Transformers, Slide Screw		S870A \$170.00	G870A \$140.00	J870A \$135.00	H870A \$130.00	X870A \$125.00	P870A \$130.00
E-H		S880A \$225.00	G880A \$155.00	J880A \$145.00	H880A \$135.00	X880A \$130.00	P880A \$135.00
Waveguide Phase Shifter				J885A \$300.00		X885A \$250.00	P885A \$250.00
Waveguide Horn						X890A \$25.00	P890A \$30.00
Terminations, Low Power		S910A \$45.00	G910A \$40.00	J910A \$35.00	H910A \$30.00	X910A \$25.00	P910A \$30.00
Terminations, High Power		S912A \$125.00				X912A \$75.00	
Moving Load		S914A \$100.00	G914A \$75.00	J914A \$70.00	H914A \$60.00	X914A \$50.00	P914A \$55.00
Standard Reflections						X916 \$100.00	
Adjustable Shorts		S920A \$80.00	G920A \$70.00	J920A \$65.00	H920A \$60.00	X920A \$50.00	P920A \$55.00
Broad Band Probe	442B \$35.00						All Frequencies
Broad Band Probe, Untuned	444A \$50.00						All Frequencies

†For use with barretter or crystal.

‡For use with barretter only.

*Complete assembly including carriage.

§Mounts in 809B Carriage—See next page.

■ Includes Thermistor, installed. See page 5. ** J530A, 5.85 to 8.2 KMC, \$120.00; J530B, 5.30 to 7.05 KMC, \$150.00. †† Includes barretter; checked for square law characteristics.

Δ Includes new lightweight all-metal cabinet with carrying handles. Also available for rack mounting at slightly lower prices. Data subject to change without notice. Prices f.o.b. factory.

Microwave Power Measuring Equipment

-hp- 430C MICROWAVE POWER METER



No computations! Provides instantaneous, automatic power readings *direct* in dbm or mw at all frequencies for which there are suitable bolometer mounts. For CW measurements, uses either 1/100 amp. fuse or Sperry 821 barretter. Also measures CW or pulsed power with negative coefficient thermistor. Provides up to 16 ma bias current. Operates with all mounts in adjacent table. \$250.00.

-hp- 764D-767D DUAL DIRECTIONAL COUPLERS



New high directivity dual-coaxial couplers make reflectometer measurements practical in vhf and uhf coax systems. Flat response, high power capacity, low insertion loss. Four models, covering 216 to 4,000 MC collectively. \$125.00.

-hp- 477B COAXIAL THERMISTOR MOUNT



For frequency range 10 MC to 10 KMC. SWR less than 1.5. Thermistor element is 200 ohm negative. \$75.00 (including thermistor).

Instrument	Primary Uses	Frequency Range	Characteristics	Price
-hp- 430C Microwave Power Meter	Measurement of rf power	Depends on Bolometer mount	.01 to 10 mw \pm 5% accuracy	\$250.00
-hp- 475B Tunable Bolometer Mount	Measurement of rf power	1,000 to 4,000 MC	Matches 50 ohm line to 100 or 200 ohms	200.00
-hp- 476A Universal Bolometer Mount	Measurement of rf power	10 to 1,000 MC	No tuning required SWR less than 1.25	85.00
-hp- 477B Coaxial Thermistor Mount	Measurement of rf power	10 to 10,000 MC	Broad band, low SWR, no tuning	75.00
-hp- 485 Waveguide Detector Mount	Measurement of rf power	2,600 to 18,000 MC	Full coverage of waveguide band	See Table page 4
-hp- 487A Waveguide Thermistor Mount	Measurement of rf power	4,000 to 12,000 MC	Full coverage, no tuning, 1.5 SWR	See Table page 4
-hp- 764D Dual Directional Coupler	Reflectometer and rf power measurements	216 to 450 MC	Coupling attenuation* 20 db, directivity 30 db	125.00
-hp- 765D Dual Directional Coupler	Reflectometer and rf power measurements	450 to 940 MC	Coupling attenuation* 20 db, directivity 30 db	125.00
-hp- 766D Dual Directional Coupler	Reflectometer and rf power measurements	940 to 1,975 MC	Coupling attenuation* 20 db, directivity 26 db	125.00
-hp- 767D Dual Directional Coupler	Reflectometer and rf power measurements	1,900 to 4,000 MC	Coupling attenuation* 20 db, directivity 26 db	125.00

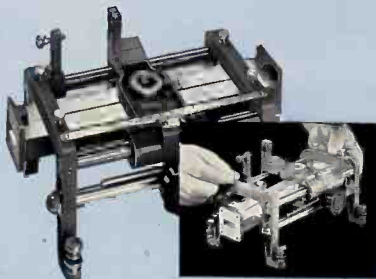
*Power handling capacity all 764/767 series couplers 50 watts CW, 10 Kw peak.

Equipment below available for most waveguide frequencies

See table at left for data, prices.

-hp- 809B UNIVERSAL PROBE CARRIAGE

-hp- 810 WAVEGUIDE SLOTTED SECTIONS



Convenient, all-purpose -hp- 809B carriage operates with six different -hp- slotted sections, waveguide and coaxial. Mounts sections covering frequencies 3,000 to 18,000 MC—sections interchange in 30 seconds! Precision-built carriage calibrated in mm to 0.1 mm; dial gauge may be mounted. Operates with -hp- 442B Broad Band Probe and -hp- 440A Coaxial Detector in combination; or with -hp- 444A Untuned Probe.

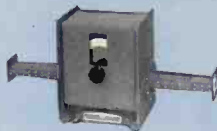
-hp- 810A/B Slotted Sections. -hp- 810B, for mounting in 809B carriage, is a flanged waveguide section with accurately machined slot tapered at ends to minimize reflection. Available in 5 waveguide bands, 3.95 thru 18.0 KMC. -hp- S810A, complete slotted section assembly including probe carriage. Available for 2.6 to 3.95 KMC band only.

-hp- 420A/B CRYSTAL DETECTORS



Employs a silicon crystal to detect rf signals in Type N coaxial line. Covers frequencies 10 MC to 12.5 KMC. Model 420B, for reflectometer measurements, \$75.00. 420A, \$50.00. Uses modified 1N26 crystal.

-hp- 382A PRECISION ATTENUATOR



Precision broad band attenuation to 50 db. Completely independent of frequency; phase shift constant all attenuations. Calibrated range 0 to 50 db, maximum error \pm 2% of db reading. G, J, H, X and P bands available covering 3,950 to 18,000 MC. SWR less than 1.15 full range.

-hp- 281A WAVEGUIDE-COAX ADAPTERS



For convenient transition between waveguide and coax systems. Each unit covers a full waveguide range with SWR less than 1.25. Equipped with Type N connectors.

-hp- 444A UNTUNED PROBE



A 1N26 crystal plus small antenna in a convenient, easy-to-use housing. Variable penetration depth, no tuning required. Sensitivity equal to single- or double-tuned probes. Frequency range: 2.6 to 18.0 KMC. Mounts in 809B Carriage.

-hp- 487A THERMISTOR MOUNT



For fast, accurate waveguide power measurements. Each mount covers full range of its waveguide frequency. No tuning required, SWR less than 1.5. Rugged construction, high temperature coefficient permanent thermistors virtually eliminate delays due to detector element burn-out.

-hp- 885A PHASE SHIFTER



For accurate, precisely controlled phase variation throughout frequency band. Ideal for microwave impedance, transmission measurements, antenna and system design. Direct reading, low power absorption, 360° (electrical) range.

-hp- 752 MULTI-HOLE COUPLER



Directional couplers available in 2 models with coupling factors of 3, 10 and 20 db \pm 0.7 db over full range of a waveguide. SWR better than 1.05. Directivity 40 db or better over entire range. Available as a 3-terminal equal power splitting network.

-hp- 485B DETECTOR MOUNTS



To measure power over complete waveguide range in conjunction with -hp- 430C Power Meter and barretter. Also measures relative level, or detects rf energy using 1N21 or 1N23 crystal. Semi-tuned by movable short to SWR 1.25.

-hp- 870A SLIDE SCREW TUNERS



For flattening waveguide systems. The position and penetration of a probe is adjusted to set up an SWR which is used to cancel existing SWR in system. SWR values up to 20 can be corrected with accuracy of 1.02 SWR.

Δ Includes new lightweight all-metal cabinet with carrying handles. Also available for rack mounting at slightly lower prices.

Data subject to change without notice. Prices f.o.b. factory.

-hp- Signal Generators — 10 to 21,000 MC

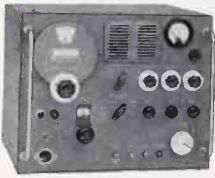
-hp- 608D vhf SIGNAL GENERATOR



10 to 420 MC. Highest stability. No incidental FM or frequency drift. Calibrated output 0.1 μ v to 0.5 v throughout range. Built-in crystal calibrator provides frequency check accurate within 0.01% each 5 MC. Master-oscillator, intermediate and output amplifier circuit design. Premium quality performance, direct calibration, ideal for aircraft communications equipment testing. \$1,050.00.

-hp- 608C vhf Signal Generator. High power (1 v max.) stable, accurate generator for lab or field use. 10 to 480 MC. Ideal for testing receivers, amplifiers, driving bridges, slotted lines, antennas, etc. \$950.00.

-hp- 626/628A shf SIGNAL GENERATORS



New instruments, bringing high power, wide range, convenience and accuracy to 10 to 21 KMC range. Frequencies, output voltage directly set and read. Output 10 to 20 db better than previous spot-frequency sets. SWR better than 1.2 at 0 dbm and

lower. Internal pulse, FM or square wave modulation; also external pulsing or FM'ing. **-hp- 626A**, 10 to 15.5 KMC, \$3,250.00. **-hp- 628A**, 15 to 21 KMC, \$3,000.00.

-hp- 212A PULSE GENERATOR



Provides continuously variable, high power "fast pulses" of superior wave form. Combines broad general usefulness with 0.02 μ sec rise and decay time to meet requirements

of radar, TV and nuclear work. Pulse length variable 0.07 to 10 μ sec; minimum overshoot; 50 watt peak power (50 v to 50 ohms load). Low impedance means accurate pulses can be delivered at a distance from the instrument. Repetition rate variable 50 to 5,000 pps; controlled internally or externally. Synchronizing pulses available in advance of, or following output pulse. \$565.00 Δ .

Instrument	Frequency Range	Characteristics	Price
-hp- 608C	10 to 480 MC	Output 0.1 μ v to 1 v into 50 ohm load. Pulse or CW modulation. Direct calibration.	\$ 950.00
-hp- 608D	10 to 420 MC	Output 0.1 μ v to 0.5 v into 50 ohm load. Pulse or CW modulation. Direct calibration and crystal calibrator check	1,050.00
-hp- 612A	450 to 1,220 MC	Output 0.1 μ v to 0.5 v into 50 ohm load. Pulse, CW or amplitude modulation to 5 MC Direct calibration.	1,200.00
-hp- 614A	800 to 2,100 MC	Output 0.1 μ v to 0.223 v into 50 ohm load. Pulse, CW or FM modulation. Direct calibration.	1,950.00
-hp- 616A	1,800 to 4,000 MC	Output 0.1 μ v to 0.223 v into 50 ohm load. Pulse, CW or FM modulation. Direct calibration.	1,950.00
-hp- 618B	3,800 to 7,600 MC	Output 0.1 μ v to 0.223 v into 50 ohm load. Pulse, CW, FM or square wave modulation. Direct calibration.	2,250.00
-hp- 620A	7,000 to 11,000 MC	Output 0.1 μ v to 0.223 v into 50 ohm load. Pulse, CW, FM or square wave modulation. Direct calibration.	2,250.00
-hp- 623B	5,925 to 7,725 MC (in three bands)	Output 70 μ v to 0.223 v into 50 ohm load. FM or square wave modulation. Separate power meter and wave meter section.	1,750.00
-hp- 624C	8,500 to 10,000 MC	Output 3.0 μ v to 0.223 v into 50 ohm load. Pulse, FM or square wave modulation. Separate power meter and wave meter section.	2,265.00 Δ
-hp- 626A	10,000 to 15,500 MC	Output 1 μ watt to 10 mw. Internal or external pulse, FM, or square wave modulation. Direct calibration.	3,250.00
-hp- 628A	15,000 to 21,000 MC	Output 1 μ watt to 10 mw. Internal or external pulse, FM, or square wave modulation. Direct calibration.	3,000.00

SWEPT FREQUENCY OSCILLATORS

-hp- 670SM	2,600 to 4,000 MC	Output app. 10 mw entire frequency range. Automatic, adjustable, mechanical sweep.	1,175.00
-hp- 670GM	4,000 to 6,000 MC	Output app. 10 mw entire frequency range. Automatic, adjustable, mechanical sweep.	1,175.00
-hp- 670JM	5,850 to 8,200 MC	Output app. 10 mw entire frequency range. Automatic, adjustable, mechanical sweep.	1,175.00
-hp- 670HM	7,000 to 10,000 MC	Output app. 10 mw entire frequency range. Automatic, adjustable, mechanical sweep.	1,175.00

SQUARE WAVE AND PULSE GENERATORS

-hp- 211A Square Wave Generator	1 cps to 1 MC	Output 55 v peak to peak into 600 ohm load. Free running or external sync. .02 μ sec rise time. Low or high impedance output.	265.00
-hp- 212A Pulse Generator	50 to 5,000 pps	Output 50 v peak into 50 ohm load. Free running or external sync. Variable delay. .02 μ sec rise time	565.00 Δ

-hp- Regulated Power Supplies

-hp- 715A POWER SUPPLY



-hp- 715A is a versatile source of regulated beam and reflector voltage for operating most test bench klystron tubes. Beam voltage 250 to 400 v; reflector voltage 0 to 900 v; 6.3 v filament. Internal, 1,000 cps square wave modulation, also 60 cps FM modulation, both on reflector voltage. \$300.00.

-hp- 712B POWER SUPPLY



This new **-hp-** instrument features high regulation of 0.01%, 0.1 millisecond transient response, internal impedance 0.1 ohms in series with 25 μ H; full-load maximum

hum less than 500 μ v, sealed transformers, chokes and condensers. 0 to 500 v, 200 ma supply and fixed —300 v tap providing a 50 ma, 300 to 800 v variable supply for klystron operation. \$365.00 Δ .

Instrument	Primary Uses	Characteristics	Price
-hp- 710B Power Supply	For low power bench and permanent setups	100 to 360 volts at 75 milliamperes	100.00
-hp- 711A Power Supply	For powering experimental bench setups requiring wide voltage range, low power	0 to 500 volts at 100 milliamperes	225.00
-hp- 712B Power Supply	Meets requirements for heavy duty field and lab work	0 to 500 volts at 200 milliamperes 0.01% regulation	365.00 Δ
-hp- 715A Klystron Power Supply	Regulated beam, reflector source for low power klystrons	Beam 250 to 400 volts at 50 milliamperes. Reflector 0-900 volts	300.00
-hp- 717A Klystron Power Supply	Regulated beam, reflector source for Type 5721 klystrons and for -hp- 670 series Swept Frequency Oscillators	800 to 1,000 volts at 25 milliamperes	375.00

Δ Includes new lightweight all-metal cabinet with carrying handles. Also available for rack mounting at slightly lower prices.

Data subject to change without notice. Prices f.o.b. factory.

Amplifiers for General Use and Fast-Circuit Work

-hp- TRAVELING-WAVE TUBE AMPLIFIERS



Now -hp- offers Traveling-Wave Tube Amplifiers for all frequencies 2 to 12.4 KMC. -hp- 490B, 2 to 4 KMC, supersedes -hp- 490A and is similar except for 30 db gain and helix modulation provision. -hp- 491, also 2 to 4 KMC, has higher output of 1 watt. -hp- 492A and 494A are low level, high

gain amplifiers with 30 and 25 db gain; they offer amplitude, pulse, phase or FM modulation. All amplifiers have exclusive -hp- helical coupling system, and employ encapsulated traveling-wave tubes that can be readily replaced. -hp- 490B/491A, \$1,100.00. -hp- 492A/494A, \$1,500.00.

-hp- 460A/B FAST PULSE AMPLIFIERS



-hp- 460A Wide Band Amplifiers, in cascade with -hp- 460B Fast Pulse Amplifiers, provide up to 90 db gain, 125 v open circuit. This permits full deflection of 5XP CRT, or 2" deflection of 5CP tubes. Rise time 0.0026 μ sec. Will amplify millimicro-second pulses. Over 100 MC band width for scopes. -hp- 460A, \$185.00. -hp- 460B, \$225.00.

Instrument	Primary Uses	Frequency Range	Characteristics	Price
-hp- 450A Amplifier	General purpose lab amplifier	5 to 1,000,000 cps	20 and 40 db gain, freq. response $\pm 1/2$ db	\$ 140.00
-hp- 460A Amplifier	Wide band, pulse amplification	100 KC to 140 MC	20 db gain, rise time 0.0026 μ sec.	185.00
-hp- 460B Amplifier	Pulse amplification, high output	100 KC to 140 MC	15 db gain, 125 peak volts	225.00
-hp- 490B Traveling-Wave Tube Amplifier	Amplification and pulse modulation	S-Band—2 to 4 KMC	High gain, low noise, broad band 30 db gain	1,100.00
-hp- 491A Traveling-Wave Tube Amplifier	Power gain to 1 watt	S-Band—2 to 4 KMC	30 db gain, can be pulse modulated	1,100.00
-hp- 492A Traveling-Wave Tube Amplifier	AM, FM, pulse, phase modulation	4 KMC to 8 KMC	Low level, high gain, 30 db gain	1,500.00
-hp- 494A Traveling-Wave Tube Amplifier	AM, FM, pulse, phase modulation	7 KMC to 12.4 KMC	Low level, high gain, 25 db gain	1,500.00

-hp- Low Frequency, High Frequency Oscilloscopes

A completely new design philosophy enables these new instruments to set revolutionary standards for oscilloscope usefulness, convenience and long-term dependability.

Both instruments have universal automatic triggering where one preset adjustment provides optimum triggering for all conditions. Other features include unitized circuits, etched, mounted on "see-through" plastic; highest quality components, ultra conservative design; concentric color-coded controls, direct sweep-time selection.



-hp- 130A Low Frequency Oscilloscope has 1 mv/cm sensitivity, dc to 300 KC, sweeps 1 μ sec/cm to 15 sec/cm, may be triggered by internal source, line voltage or external sources 2 v or more. 21 calibrated ranges, direct reading. Similar vertical, horizontal amplifiers, input attenuator; 14 ranges, continuous vernier. Amplitude calibration 1 KC square wave, 5% accuracy. \$450.00.

-hp- 150A High Frequency Oscilloscope, dc to 10 MC, has plug-in pre-amplifiers offering either high gain or dual trace. Model 150A sweeps 0.02 μ sec/cm to 15 sec/cm. 24 calibrated sweep ranges, direct reading. Triggered internally, line voltage, or externally. Horizontal amplifier with magnification feature expanding horizontal sweep 5, 10, 50 or 100 times. Vertical amplifier rise time less than 0.035 μ sec; signal delay line permits leading edge of triggering signal to be seen. Amplitude calibrator 18 1 KC square wave voltages, accuracy 3%. Supplied separately are: -hp- 151A High Gain Amplifier, \$100.00 and -hp- 152A Dual Channel Amplifier, \$200.00. -hp- 150A Oscilloscope (without plug-in amplifiers), \$1,000.00.

Cabinet, End Frame, Or Rack Mounting



To give you greatest flexibility in your setup, -hp- equipment having the standard 19" panel can be mounted in the new, streamlined all metal cabinets; with end frames; or in standard relay racks. -hp- AC-44 aluminum-and-steel cabinets are attractive, sturdy, easily removable, equipped with carrying handles. With instrument, \$15.00. Separate \$25.00.

Smaller -hp- instruments, too, are now being delivered in new-streamlined cabinets. This rugged, lightweight metal cabinet is now offered with such instruments as -hp- 200AB, 200CD, 410B and 715A.

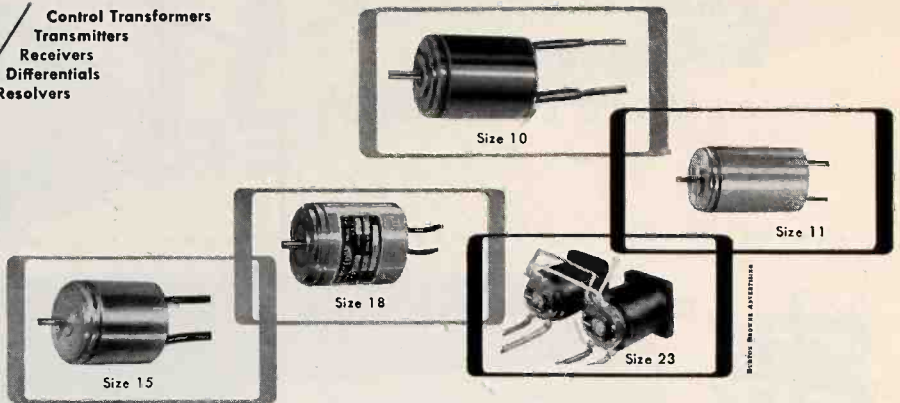
Many -hp- instruments are basically rack mounting and can be installed directly in 19" racks. Other instruments can be equipped for relay rack mounting at slight additional charge. Write for details.

SYNCHROS

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Transmitters
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Differentials
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TYPE SYNCHRO	SIZE	OSTER TYPE	Frequency C.P.S.	Input Rotor Volts	Input Rotor Amps	Input Rotor Watts	Output Stator Volts	Input Stator Volts	Input Stator Amps	Input Stator Watts	Output Rotor Volts	Rotor Resistance Ohms	Stator Resistance Line to Line Ohms	Null Voltage	Angular Accuracy Maximum Spread
Control Transformer	10	3G-4055	400	26	0.030	0.30	11.8	11.8	0.060	0.20	21.3	160	45	0.050	30'
Control Transformer	10	3G-4079	400	26	0.008	0.10	11.8	11.8	0.018	0.10	20.3	510	200	0.050	30'
Transmitter	10	3G-4075	400	26	0.180	1.4	11.8	—	—	—	—	25	11	0.070	30'
Receiver	10	3G-4059	400	26	0.180	1.4	11.8	—	—	—	—	25	11	0.070	1½°
Differential	10	3G-4071	400	—	—	—	—	11.8	0.070	0.30	11.8	90	45	0.050	30'
Resolver	10	3G-4063	400	26	0.033	0.40	11.8	11.8	0.050	0.20	18.0	235	42	0.050	30'
Resolver	10	3G-4067	400	26	0.011	0.10	11.8	11.8	0.018	0.10	20.3	450	165	0.050	30'
Control Transformer	11	2C-4105	400	26	0.040	0.030	11.8	11.8	0.085	0.19	22.5	91.5	14.2	0.050	20'
Transmitter	11	2C-4125	400	26	0.150	0.80	11.8	—	—	—	—	20	4.3	0.050	20'
Transmitter	11	2C-4123	400	26	0.230	1.0	11.8	—	—	—	—	10.3	4.0	0.070	20'
Control Transformer	15	2G-4005	400	26	0.065	0.40	11.8	11.8	0.150	0.40	21.4	40	10.2	0.050	15'
Transmitter	15	2G-4025	400	26	0.225	1.25	11.8	—	—	—	—	9.5	3.8	0.070	20'
Receiver	15	2G-4009	400	26	0.10	0.45	11.8	—	—	—	—	16	6.7	0.070	45'
Differential	15	2G-4021	400	—	—	—	—	11.8	0.325	0.9	11.8	—	—	0.040	20'
Differential	15	2G-4041	400	—	—	—	—	11.8	0.120	1.3	11.8	14	10.2	0.050	15'
Resolver	15	2G-4017	400	26	0.014	—	18.0	18.0	0.015	—	21	239	180	0.050	40'
Transmitter 12 Power	18	3H-3309	400	26	0.77	2.3	11.8	—	—	—	—	1.032	0.675	0.050	20'
Differential	18	3H-3301	60	—	—	—	—	90	0.070	2.0	90	730	385	0.125	24'
Transmitter	23	3J-4222	60	115	0.120	3.2	17.0	—	—	—	—	140	8.3	0.050	30'

MANY OTHER VARIATIONS AVAILABLE. YOUR DETAILED SPEC GOVERNS:

Angular accuracy
Impedance
Transformation ratio

Input and output
Phase shift
Humidity treatment

Fungus treatment
Mil specs to be met
Operating temperature range

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Other products include Actuators, Servos, AC Drive Motors, Servo Mechanism Assemblies, DC Motors, Motor-Gear-Trains, Fast Response Resolvers, Servo Torque Units, Reference Generators, Tachometer Generators, Motor Driven Blower and Fan Assemblies and Synchro Indicators.

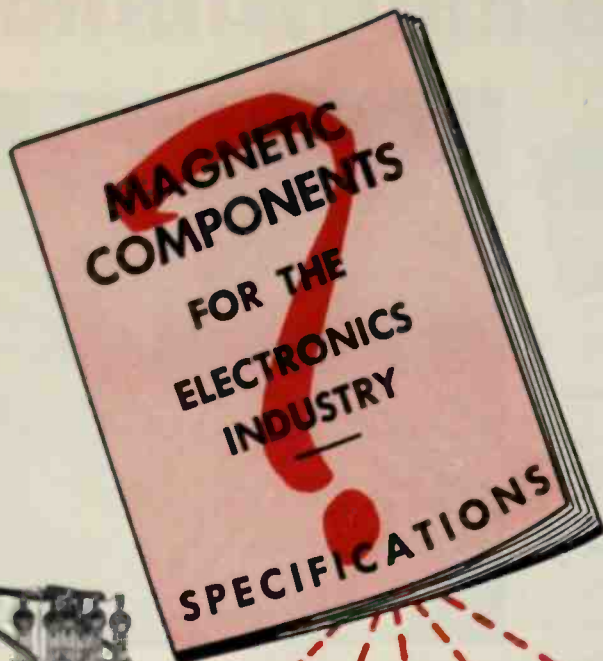
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Avionic Division
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CHOOSE and USE
the
transformers of
proven
performance and
quality**



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Magnatran transformers have become "Standard" for many of America's largest Electronic Manufacturers.

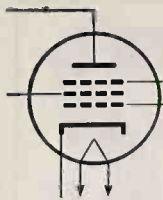
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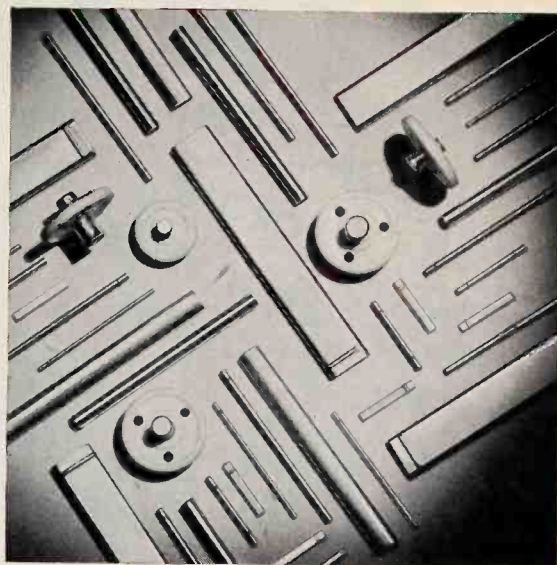
P.O. Box 211

KEARNY, NEW JERSEY, U. S. A.



Cathodes and Tubular

Superior Tube Company is the world's largest independent supplier of cathodes and other tubular parts for use in electron tubes. Products include nickel cathode sleeves, disc cathodes, stainless anodes for cathode ray and TV guns, transistor envelopes, glass-sealing alloys, and connectors for klystrons and magnetrons. Besides offering the widest variety of stock alloys, Superior produces special alloys to specifications. Recently Superior introduced a new series of cathode alloys called Cathalloys, with several highly significant advantages. For complete technical information on Superior's line of electronic products, write for Catalog 50, Superior Tube Company, 2504 Germantown Ave., Norristown, Pa.



CATHODES

ACTUAL SIZE

Typical cathode sleeves and disc cathodes made by Superior Tube Company. In a wide variety of sizes and shapes. To extremely close tolerances in Seamless, Weldrawn,* Lockseam† form.

PROPERTIES OF CATHODE MATERIALS CHEMICAL ANALYSIS

Alloy	ASTM Grade	Form	Cu max. %	Fe %	Mn max. %	C max. %	Mg %	Si %	S max. %	Ti max. %	Other	Ni+Co min. %
Active CATHALOY A-30		L, W Discs	0.05	0.10 max.	0.05	0.03/0.10	0.01/0.06	0.02 max.	0.005	0.01	A1 0.05/0.10	99.25
CATHALOY A-31	7	L, W Disc	0.10	0.10 max.	0.05	0.03/0.10	0.01/0.06	0.02/0.06	0.005	0.02	W 3.75/4.25	94.50
CATHALOY A-32		L, W Disc	0.05	0.10 max.	0.05	0.03/0.10	0.01/0.06	0.02 max.	0.005	0.01	A1 0.05/0.10 W 2.00/2.50	96.25
Passive CATHALOY P-50	21	L, W Disc	0.04	0.05 max.	0.02	0.05	0.01 max.	0.02 max.	0.005	0.01		99.50
Active D-H 799	2	L & Disc	0.04	0.05/0.10	0.05	0.08	0.01/0.10	0.12/0.20	0.005	0.01		99.25
INCO 225	3	L, S Disc	0.20	0.20 max.	0.20	0.08	Not Specified	0.15/0.25	0.008	Not Specified		99.00
D-H 599	4	L & Disc	0.04	0.05/0.10	0.10	0.08	0.01 max.	0.15/0.25	0.005	Not Specified		99.25
D-H 399	6	L	0.04	0.05 max.	0.02	0.08	0.01 max.	0.15/0.25	0.005	Not Specified		99.25
INCO 330	10	L, W Disc	0.15	0.20 max.	0.30	0.08	Not Specified	0.10 max.	0.008	Not Specified		99.00
INCO 220	11	L, S Disc	0.20	0.20 max.	0.20	0.08	0.01/0.10	0.01/0.05	0.008	Not Specified		99.10
Passive D-H 499	21	L Disc	0.04	0.05 max.	0.02	0.05	0.01 max.	0.02 max.	0.005	0.01		99.50

*Used for Disc Cathodes.

When ordering or seeking information please mention Electronics Buyers' Guide.

Parts for Electron Tubes



SEND FOR COMPLETE 20-PAGE CATALOG

All the basic data you need on Superior's broad line of cathodes, anodes, grid cups and other tubing—including uses, dimensional tolerances, and physical properties of 23 alloys.

Complete Information on Cathalloys. The catalog furnishes complete information on these new cathode alloys developed by Superior—their low sublimation, reduced interface impedance, and other characteristics.

QUICK FACTS ABOUT CATHALOYS

Cathaloy* A-32. ‡ Active cathode alloy with extremely low interface impedance and increased strength.

Cathaloy P-50. Only passive alloy commercially available in Weldrawn as well as Lockseam cathode form.

Cathaloy A-31. For ruggedized tubes. Twice as strong as ordinary cathode alloys.

Cathaloy A-30. † Active cathode alloy with extremely low interface impedance and long life.

The table below is taken from the catalog. Send for your free copy.

GLASS-SEALING ALLOYS

Glass-to-metal seals for conductor leads into vacuum tubes, hermetically sealed chambers, or controlled atmospheres. Superior offers 8 standard uniform-expansion alloys cold drawn to close tolerances. Write for Data Memorandum # 15.

*T.M. Reg. U.S. Pat. Off.—Superior Tube Co.

†Manufactured under U.S. patents

‡Patent applied for

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The big name in small tubing
NORRISTOWN, PA.

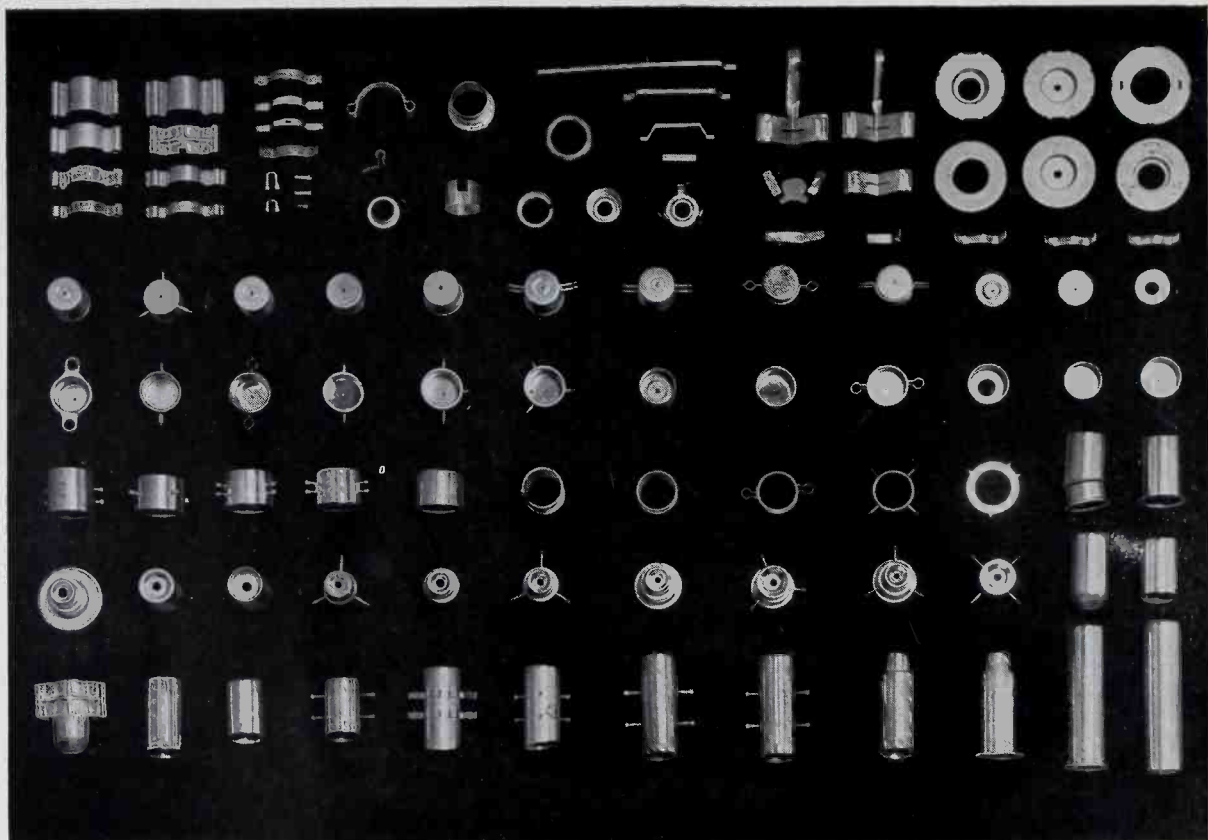
PROPERTIES OF CATHODE MATERIALS

MECHANICAL PROPERTIES (See Note)

PHYSICAL PROPERTIES

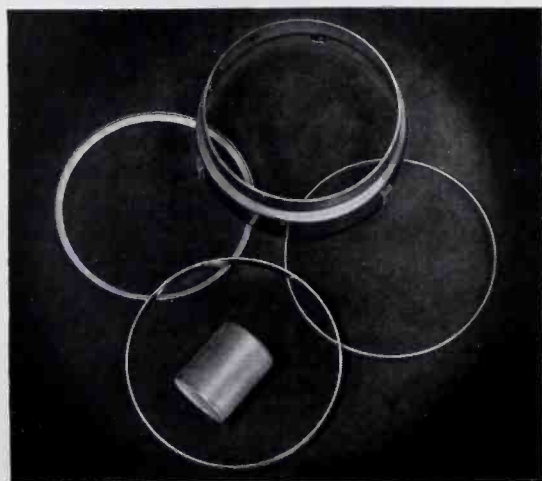
Temper	Tensile Strength (x 1000 psi)	Yield Strength (x 1000 psi) 0.2% Offset	% Elongation in 2 in.	Rockwell Hardness	Thermal Expansion Coefficient (x10 ⁻⁶ in./in. ² F.)	Electrical Resistivity (μohms-cm) 68°F. 1000°F.	Temperature Coefficient of Resistivity (ohm/ohm/°F.)	Density lb./in. ³	Special Features	
1 2 3	75 max. 75/95 95/120	15/30 40/70 75/110	50/30 25/12 10/4	B 70 max. B 75/90 B 90/105	8.97	9.14	26.41	0.00276	0.322	Aluminum alloy for long life.
1 2 3	85 max. 85/105 105/130	15/40 50/80 85/120	50/30 25/12 10/4	B 80 max. B 80/95 B 95/110	8.74	16.04	24.12	0.00169	0.323	Tungsten alloy for strength.
1 2 3	85 max. 85/105 105/130	15/40 50/80 85/125	50/30 25/12 10/4	B 80 max. B 80/95 B 95/110	Tentative 8.42	Tentative 12.78	Tentative 26.00	Tentative 0.00199	0.323	Tungsten & Alum. alloy for shock resistance and no interface impedance.
1 2 3	75 max. 75/95 95/120	15/35 40/70 75/110	50/30 25/12 10/4	B 70 max. B 70/90 B 90/105	8.69	7.65	26.55	0.00368	0.322	Very pure, for extremely long life.
1 2 3	85 max. 85/105 105/130	15/40 50/80 85/125	50/30 25/12 10/4	B 80 max. B 80/95 B 95/110	7.83			0.0025	0.321	High silicon alloy.
1 2 3	85 max. 85/105 105/130	15/40 50/80 85/125	50/30 25/12 10/4	B 80 max. B 80/95 B 95/110					0.321	High silicon alloy.
1 2 3	85 max. 85/105 105/130	15/40 50/80 85/125	50/30 25/12 10/4	B 80 B 80/95 B 95/110	7.40			0.0025	0.321	High silicon, very low magnesium alloy.
1 2 3	85 max. 85/105 105/130	15/40 50/80 85/125	50/30 25/12 10/4	B 80 max. B 80/95 B 95/110	7.40			0.0026	0.321	High silicon, very low magnesium & manganese alloy.
1 2 3	85 max. 85/105 105/130	15/40 50/80 85/125	50/30 25/12 10/4	B 80 max. B 80/95 B 95/110					0.321	Low silicon alloy.
1 2 3	75 max. 75/95 95/120	15/30 40/70 75/110	50/30 25/12 10/4	B 70 max. B 75/90 B 90/105					0.321	Low silicon, low magnesium alloy.
1 2 3	75 max. 75/95 95/120	15/30 40/70 75/110	50/30 25/12 10/4	B 70 max. B 75/90 B 90/105	7.40			0.0026	0.321	Very pure.

NOTE: Mechanical properties apply only to Seamless and Weldrawn Cathodes



Illustrated are some of the standard and special precision parts currently being produced by Johnson & Hoffman.

Johnson & Hoffman ingenuity



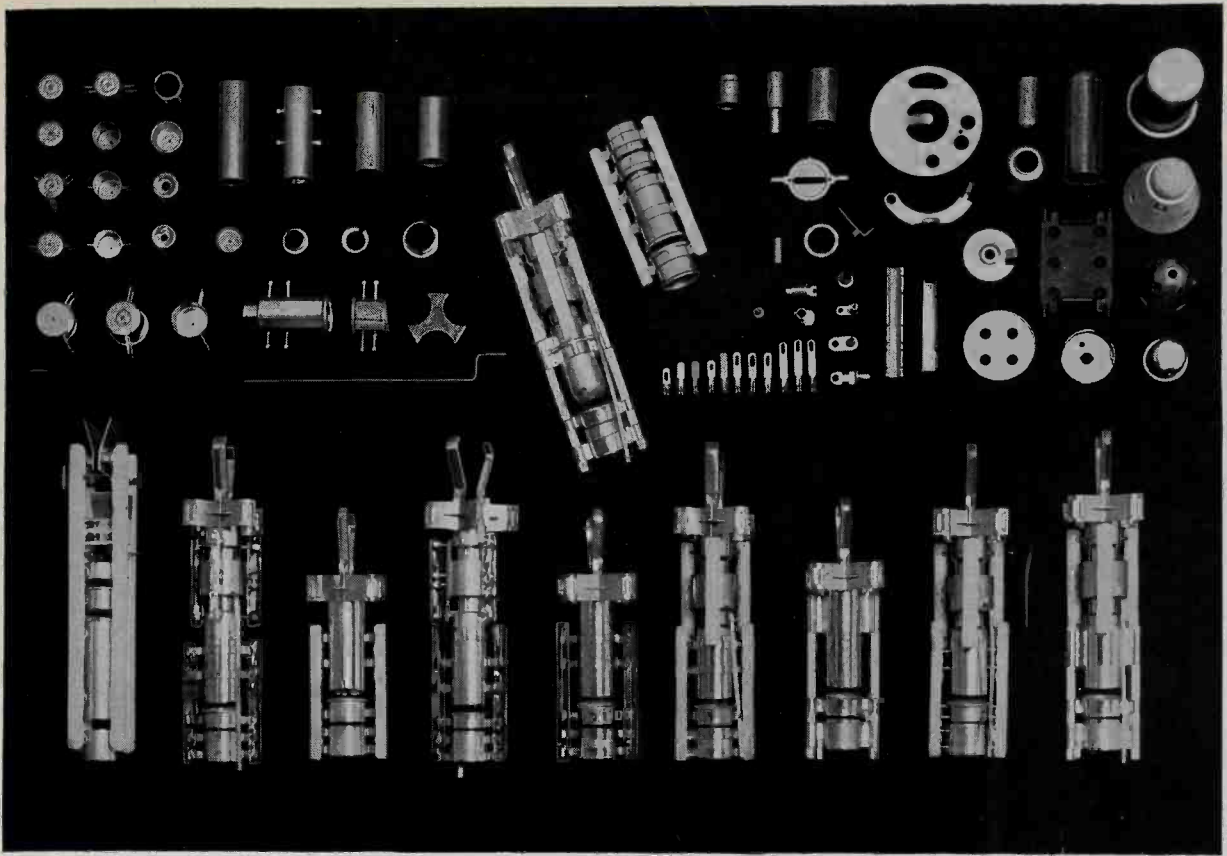
Deep-drawing techniques perfected by Johnson & Hoffman are now being used to produce larger precision parts, such as the convergence cup for 15 in. color tube, grid rings, shroud ring, and variable diameter can shown above.

Reducing the cost of small, precision metal stampings and deep-drawn parts—while maintaining quality—is a problem facing many manufacturers of radio, TV and other electronic equipment. The solution isn't easy.

However, the cost picture often can be improved considerably by ingenious design and tooling . . . combining two parts in one, for instance, or reducing the number of operations required to produce a given part.

At Johnson & Hoffman we cultivate this sort of creative engineering. It has resulted in significant savings for many of our customers, while maintaining or actually improving product quality. It can do the same for you.





All metal components of the TV gun assemblies pictured above, except heater, getter and cathode, were manufactured by Johnson & Hoffman.

keeps costs down, quality up

COLOR TUBE COMPONENTS—Johnson & Hoffman is equipped to furnish you a complete line of cylindrical color picture tube parts. The same deep-drawing techniques pioneered by Johnson & Hoffman for black and white CR tubes are now being applied to the production of anodes, grids, and lens assemblies employed in the new color gun designs. The absence of seams, plus exceptional surface luster obtained by tumbling techniques and by electropolishing, makes these Johnson & Hoffman components especially desirable for tubes operating under high voltage. Also available from Johnson & Hoffman are lockseam anodes produced on

multi-slide equipment. If you should have technical problems with your particular gun design, remember that our experience may suggest possibilities for improving your product or reducing costs.

WHATEVER YOUR REQUIREMENTS in black and white or color tube components or other radio and electronic parts, you can depend on Johnson & Hoffman as a fast, reliable source for precision metal stampings and deep-drawn parts—often produced at substantial savings to you. We have an extensive line of standard designs and are equipped to develop special components if you need them. Write for information and quotations.

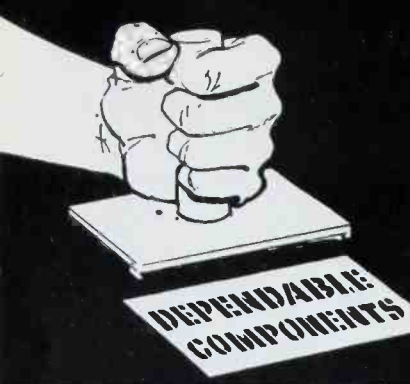
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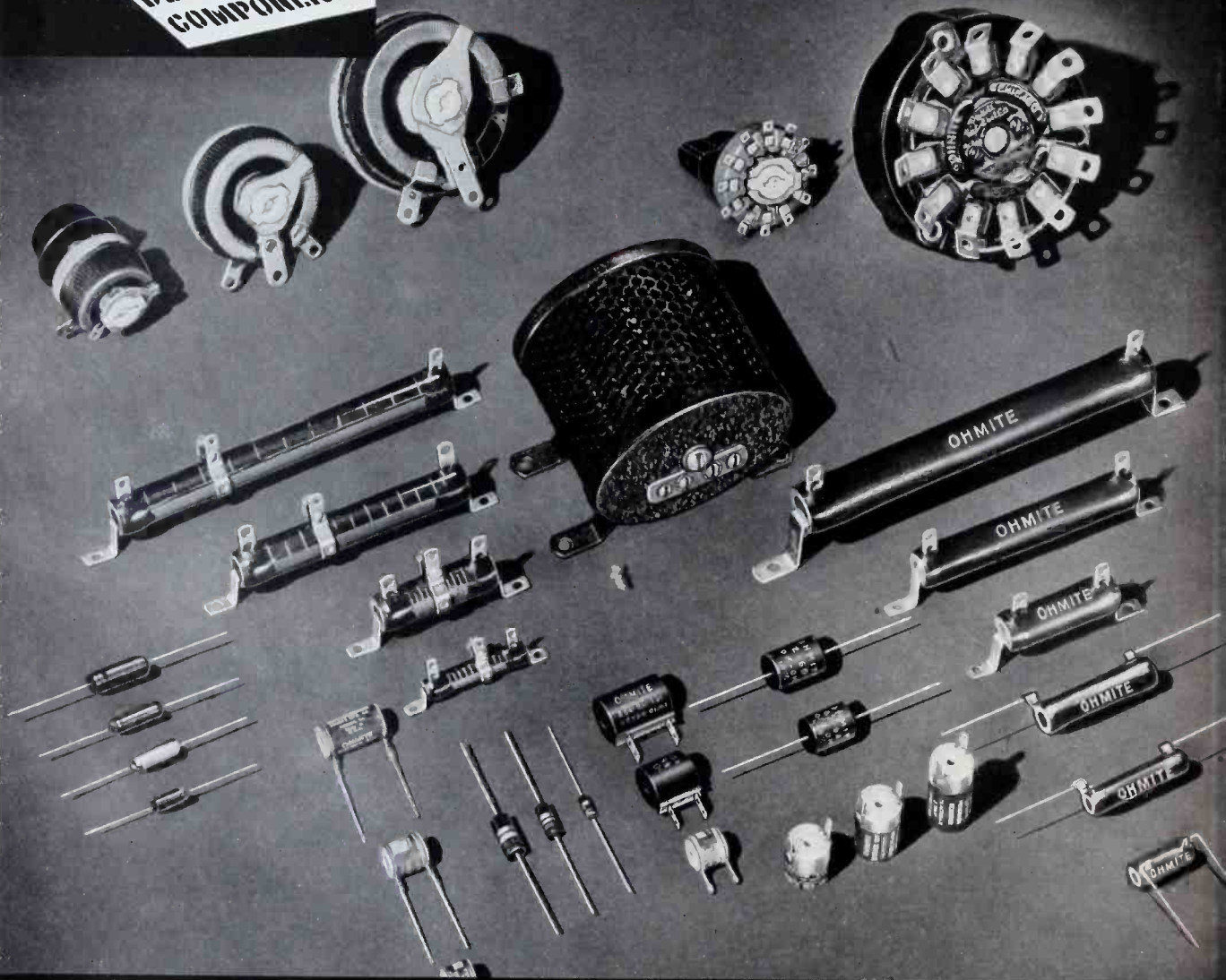
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All-ceramic and metal, close control rheostats for unsurpassed dependability and smoothness of operation. Ten stock sizes, 25 to 1,000 watts.

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A wide range of dependable, fixed, adjustable, tapped, and non-inductive, power wire-wound resistors. Also a wide range of precision resistors.

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Five compact models, 10 to 100 amperes, AC, up to 12 taps. All-ceramic and metal construction. Silver-to-silver contacts, with self-cleaning rotor contact.

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Single layer R. F. plate chokes and power line chokes, on steatite or plastic cores. Protected by a special moisture-resistant coating.

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OHMITE®

AMRECON®

Relays



**HIGH QUALITY, ALL-PURPOSE RELAYS...
RUGGED, DEPENDABLE FOR LONG LIFE!**

65 types in four stock models

Ohmite Amrecon relays have proven their exceptional ruggedness and long life in years of service. Now, four popular stock models—DOS, DOSY, DO, and CRU, in 65 different types—are available from stock.

Models DO and DOS fill many industrial needs for a compact, lightweight relay that handles power loads usually requiring much larger, heavier units. They are particularly adaptable to aircraft and mobile equipment where severe shock and vibration are encountered. The increased operating sensitivity of Model DOSY relay, equipped with twin coils, makes the DOSY adaptable to a wide range of electronic control circuits, such as plate circuit controls. At 115 VAC or 32 VDC, noninductive load, Models DOS and DOSY have contact ratings of 15 amp; Model DO, 10 amp; and Model CRU, 5 amp. Available in a wide range of coil operating voltages and contact combinations.

Current ratings up to 25 amp, AC or DC.
Also made-to-order models in many contact combinations and coil voltages.



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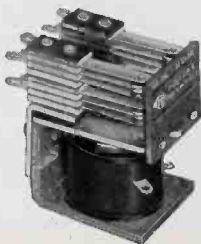
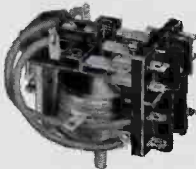
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LOW COST—HIGH QUALITY

Relays-a-Plenty



Potter & Brumfield, with its many years of Engineering and Production experience, builds relays to all quality levels.

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Let Potter & Brumfield engineers become part of your design group in selecting the correct type of relay to meet all requirements.

For quick delivery over 350 different standard relays stocked by 500 Franchised Electronic Parts Distributors throughout the United States and Canada.

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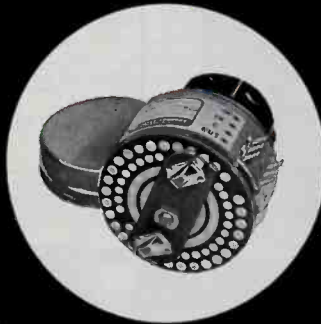
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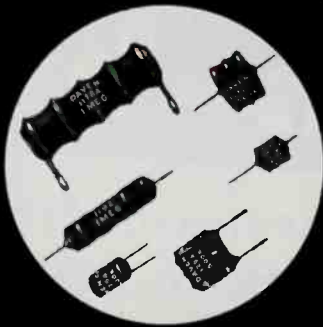
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Outstanding achievement in the design of precision wire wound resistors, rotary step-type switches, attenuators and test equipment has established DAVEN as the leading producer and supplier of precision electronic components and instruments.



When confronted with a procurement or design problem concerning precision wire wound resistors, rotary switches, attenuators or test equipment, consult DAVEN's sales department or engineering staff first.

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0.001% Load Regulation 0.1 Millivolts Ripple
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** As listed in the 1955 Electronics Buyers' Guide Pages D-128 to D-130



Model UHR-240

***Featuring
ULTRA-HIGH
REGULATION
over the
ENTIRE
OPERATING
RANGE**



Model UHR-220

Model	Voltage	Current	Impedance		Other Outputs		Price
			D.C.	A.C.	Bias	Heaters	
UHR-240	0-500v	0-500ma	0.005	0.05	0-150v, 0-5ma	6.3v ac, 10a 5-13v dc, 2.5a 6.3v ac, 10a	\$550.00
UHR-245	150-500v	0-500ma	0.01	0.05	—	6.3v ac, 10a 6.3v ac, 10a	\$375.00

Model	Voltage	Current	Impedance		Other Outputs		Price
			D.C.	A.C.	Bias	Two Heaters	
UHR-220	0-500v	0-200ma	0.01	0.1	0-150v, 0-5ma	6.3v ac, 5a 6.3v ac, 5a	\$350.00
UHR-230R	Dual Supply consisting of two Models UHR-220, Rack Mounted						\$710.00
UHR-225	150-500v	0-200ma	0.02	0.1	—	6.3v ac, 5a 6.3v ac, 5a	\$250.00
UHR-235R	Dual Supply consisting of two Models UHR-225, Rack Mounted						\$510.00



krohn-hite

VARIABLE ELECTRONIC filters 0.01 cps to 200 kc

THE MOST WIDELY SOLD ELECTRONIC FILTERS IN THE WORLD



Model-330 A

Krohn-Hite is recognized as the leading supplier of Variable Electronic Filters with Wide Frequency Coverage and Adjustable Band Width.

Model	Type	Frequency Range	Frequency Accuracy	Noise & Hum	Power Consumption	Price
310-AB**	Band Pass	20 cps to 200 kc	10%	1 mv	40 watts	\$275.00
330-A**	Band Pass	.02 cps to 2 kc	5%	0.1 mv	50 watts	\$450.00
330-M**	Band Pass	0.2 cps to 20 kc	5%	0.1 mv	50 watts	\$450.00
340-A	Servo	.01 cps to 100 cps	5%	10 mv	40 watts	\$350.00
350-A**	Rejection	.02 cps to 2 kc	5%	0.1 mv	50 watts	\$450.00
360-A**	Rejection	20 cps to 200 kc	10%	5 mv	40 watts	\$275.00

**Available for rack mounting at \$5.00 additional.



power amplifier

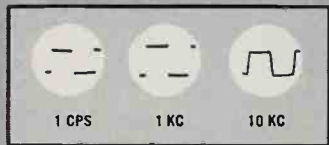
THE ULTIMATE IN POWER AMPLIFICATION

delivering **99.9999999%****

DISTORTION-FREE POWER



Model UF-101



SQUARE WAVE RESPONSE

*Featuring
ULTRA-FIDELITY
MODEL UF-101
ULTRA-LOW DISTORTION
POWER AMPLIFIER

SPECIFICATIONS

POWER OUTPUT...50 watts from 15 cps to 30 kc	DYNAMIC RANGE.....110 db
FEEDBACK.....80 db	OUTPUT IMPEDANCE . 2, 4, 8, 16 and 450 ohms
FREQUENCY RESPONSE ±0.5 db from 0.5 cps to 30 kc ±3 db from 0.03 cps to 70 kc	VOLTAGE GAIN . 14 db or 30 db to 16 ohm output
	PRICE.....\$350.00

** Typical harmonic distortion at 1,000 cps is 0.003% in voltage or 0.00000009% in power at 50 watts.

presents...

WIDE RANGE RC oscillators 0.001 cps to 520 kc

KROHN-HITE . . . pioneer of the past decade . . . leading in the development of a New Complete line of Wide Range and Ultra-Low Frequency RC Oscillators. KROHN-HITE the FIRST to introduce the Wide Range, Continuous Push-Button Oscillator.

Model -440A



Model	Frequency Range	Frequency Accuracy	Output	Dis-tortion	Power Consumption	Price
400-A	.009 cps to 1.1 kc	2%	25 mw/10v	1%	45 watts	\$350.00
410-A***	.02 cps to 20 kc	2%	10 mw/5v	1/10%	150 watts	\$950.00
420-A	.35 cps to 52 kc	2%	25 mw/10v	1%	45 watts	\$290.00
430-AB**	4.5 cps to 520 kc	2%	50 mw/10v	1%	45 watts	\$120.00
400-C***	.009 cps to 1.1 kc	2%	100 mw/10v	1%	65 watts	\$375.00
420-C***	.35 cps to 52 kc	2%	100 mw/10v	1%	65 watts	\$325.00
440-A**	.001 cps to 100 kc	1%*	100 mw/10v	1/10%*	120 watts	\$495.00
440-B**	1 cps to 1 kc	1/20%*	100 mw/10v	1/10%	110 watts	\$950.00

All oscillators except 430-AB and 440-B have both sine wave and square wave.
 *Higher at end of range **Available for rack mounting at \$5.00 additional. ***Rack panel construction.

Write for Free Catalog D
krohn-hite Instrument Co.
 580 Massachusetts Ave.
 Cambridge 39, Mass. U.S.A.

AE 16



A FASTER-BETTER ROSN CORE SOLDER

A New scientific development designed to improve and speed up your soldering operations and meet the highest standards of the Electronics Industry

"AE16" Rosin Flux is a combination of a superior grade of water white, natural rosin and a minute amount of a unique oxide removing agent, which conditions surfaces to be soldered to meet today's high speed production requirements. "AE16" Rosin Core Solder is non-corrosive, non-hydroscopic, non-conductive and exceeds the requirements of Federal Specifications QQ-S-571b and MIL-S-6872. The solder is a homogeneous alloy of Virgin Metals, scientifically blended and quality controlled assuring continuous peak performance. "AE16" Rosin Core Solder is manufactured to conform to rigid industrial standards and may be obtained in any combination of Tin, Lead and related metals. It is supplied in any diameter with controlled flux percentages.

Reports of laboratory tests furnished upon request.

Furnished on 1-5-25-50 lb. spools.



Representatives:

NATE ZIMMER
251 Freeman Street
Brooklyn 22, New York

ELIOT SCHWARTZMAN
135 Sperry Boulevard
New Hyde Park, New York

"WW" a natural ROSN CORE SOLDER

A natural, water white, gum rosin and turpentine distillate flux core solder. Standard for many years for use on all electrical and electronic soldering. Guaranteed to be non-corrosive and non-conductive.

Manufactured in all commercial sizes and alloys.

Available on 1-5-25-50 lb. spools.



FLUXES

Rosin Fluxes specifically created for printed circuitry and hot dip tinning applications. Without parallel for speed and spreading power. Long shelf life. Easily and safely bites through oxides and any residues remaining, yet gives resistance in excess of 50,000 megohms after soldering or when baked dry.



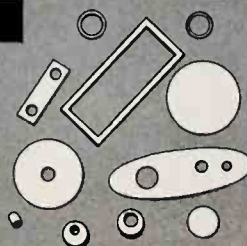
ELECTRO SOLDER PASTE

A New non-corrosive Solder in Paste form. Especially designed for electrical and electronics soldering. Excellent for intricate and blind soldering operations. Ideal for induction and oven soldering where continuous and automatic production is required. Obtainable in any alloy. Available in 1 and 5 lb. cans.



PRE-FORMS

Rings — Washers — Pellets in flux-cored and solid forms. Engineered to meet your specific requirements. Packaged to eliminate damage and distortion resulting in ease of handling.



Manufactured and Guaranteed by

BOW SOLDER PRODUCTS CO., INC.

251 FREEMAN STREET • BROOKLYN 22, N. Y. • EVERGREEN 9-4863

KARL D. ENGLE CO.
4724 No. Sheridan Road
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JOHN V. MUDDLE ASSOCIATES
P.O. Box 130
Framingham, Massachusetts

MEL SCHWARTZ
39-16 Tierney Place
Fairlawn, New Jersey

KEPCO

VOLTAGE REGULATED POWER SUPPLIES

for powering electronic equipment

SERIES

with **NEW-IMPROVED FEATURES**

★ **FAST RECOVERY TIME**

★ **GOOD STABILITY**

★ **LOW OUTPUT IMPEDANCE**

KR Voltage Regulated Power Supplies are conservatively rated and are designed for continuous duty at 50°C ambient.

REGULATION: Less than 0.2 volts for line fluctuation from 105-125 volts and less than 0.2 volts for load variation from 0 to maximum current.

RIPPLE: Less than 3 mv. rms.

STABILITY: The output voltage variation is less than the regulation specification for a period of 8 hours.

RECOVERY TIME: Less than 50 microseconds. The excursion in the output voltage during the recovery period is less than the regulation specification.

OUTPUT IMPEDANCE: Less than 0.1 ohms from 20 cycles to 100KC. Less than 0.5 ohms from DC to 20 cycles. Many units have very much lower output impedance.



KR-3M

KR-18MC

FEATURES:

- Fast Recovery Time, Suitable for Square Wave Pulsed Loading.
- Voltage Range continuously variable without Switching.
- Either Positive or Negative may be Grounded.
- Oil Filled Condensers.
- Wire Harness and Resistor Board Construction.
- Power Requirements 105-125 volts, 50-60 cycles.
- Terminations on rear of unit.
- Locking type voltage control AC, DC Switches, Fuses, and Pilot Lights.
- Color Grey Hammertone.
- Guarantee One Year.

All models available for 400 cycle operation on special order.

1.5 Amp. **KR** SERIES

Model	Volts	6.3V AC	Rack Mount			Price
			W	H	D	
KR16	0-150	Each supply	19"	12¼"	17"	\$625
KR17	100-200	has two	19"	12¼"	17"	\$625
KR18	195-325	15 Amp.	19"	12¼"	17"	\$695
KR19	295-450	outputs	19"	12¼"	17"	\$695

600 ma. **KR** SERIES

Model	Volts	6.3V AC	Rack Mount			Price
			W	H	D	
KR 8	0-150	Each supply	19"	10½"	13"	\$330
KR 5	100-200	has two	19"	10½"	13"	\$240
KR 6	195-325	10 Amp.	19"	10½"	13"	\$240
KR 7	295-450	outputs	19"	10½"	13"	\$250

300 ma. **KR** SERIES

Model	Volts	6.3V AC	Rack Mount			Price
			W	H	D	
KR 12	0-150	Each supply	19"	7"	11"	\$270
KR 3	100-200	has two	19"	7"	11"	\$180
KR 4	195-325	5 Amp.	19"	7"	11"	\$180
KR 10	295-450	outputs	19"	7"	11"	\$190

125 ma. **KR** SERIES

Model	Volts	6.3V AC	Rack Mount			Price
			W	H	D	
KR 11	0-150	Each supply	19"	7"	11"	\$180
KR 1	100-200	has one	19"	7"	7½"	\$ 90
KR 2	195-325	3 Amp.	19"	7"	7½"	\$ 90
KR 9	295-450	output	19"	7"	7½"	\$ 97

To include 3" Current and Voltage Meters. Add M to Model number (e.g. KR 16-M) and Add \$30.00 to the Price.

To include Dust Cover and Handles for Table Mounting. Add C to Model number (e.g. KR16-C) and Add \$10.00 to the Price.

To include Meters, Dust Cover and Handles. Add MC to Model number (e.g. KR-16 MC) and Add \$40.00 to the Price.

PRICES F.O.B. Flushing.

A LINE OF 50 MODELS

Available from Stock - Catalog on Request

KEPCO LABORATORIES

131-38 SANFORD AVENUE • FLUSHING 55, N.Y. • INDEPENDENCE 1-7000



KEPCO

Voltage R



141B



4500



4300



4008



815B

FEATURES:

- Fast recovery time. Suitable for square wave pulsed loading.
- Voltage Range continuously variable without switching.
- Either positive or negative may be grounded.
- Oil filled condense.
- Wire harness and resistor board construction.
- Power requirements 105—125 volts, 60 cycles.
- Terminations on front and rear of unit.
- Voltage controls, AC, DC switches, fuses and pilot lights on front panel.
- Color Grey Hammertone.
- Guarantee one year.

Most models available for 400 cycle operation on special order.



1250B



150B



1520B



2600

0-2
0-15
0-12
0-100
0-1000
0-600
0-600
0-600
0-600
0-600
0-150 Bias
0-600
0-150 Bias
0-600
#1 0-600
#2 0-600
Parallel #1 & #2 0-600
Series #1 & #2 0-1200
0-600
0-150 Bias
#1 200-500
#2 200-500
Parallel #1 & #2 200-500
Series #1 & #2 400-1000
200-500

REGULATION: is less than the to 125 volts an

RIPPLE: Less th

STABILITY: The fication for a per

RECOVERY TIME: put voltage during cation for line fluct 0 to maximum cur in output voltage du

For Models 3100B seconds for line fluct with an output volta period.

Regulated Power Supplies

DC POWER SUPPLY SPECIFICATIONS

CURRENT	REGULATION LOAD 0-Max.		RIPPLE (RMS)	6.3V ± AC CT	RACK MOUNT			MODEL
	LINE 105-125	105-125			W	H	D	
0-50 ma.	0.1 V	0.2 V	3 mv.		19"	12¼"	17"	2500
0-200 ma.	0.1 V	0.2 V	3 mv.		22½"	22¾"	16"	1520B
0-20 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10½"	13"	1220B
0-500 ma.	0.1 V	0.2 V	3 mv.		22½"	28"	16"	1250B
0-50 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10½"	13"	1020B
0-3 Amp.	0.1 V	0.2 V	3 mv.		22½"	50"	18"	780B
0-2.25 Amp.	0.1 V	0.2 V	3 mv.		22½"	50"	18"	770B
0-1.5 Amp.	0.1 V	0.2 V	3 mv.		22½"	33½"	18"	760B
0-750 ma.	0.1 V	0.2 V	3 mv.	20 Amp.	19"	10½"	17"	750B
0-500 ma.	0.1 V	0.2 V	3 mv.		22½"	28"	16"	605
0-5 ma.	0.1 V	10 mv.	1 mv.	10 Amp.	19"	10½"	13"	615B
0-300 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10½"	13"	500RB
0-5 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	12¼"	17"	800B
0-100 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10½"	13"	815B
0-10 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10½"	13"	510B
0-10 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	12¼"	17"	245B

VOLTS	CURRENT	REGULATION LOAD 0-Max.	LINE 105-125	RIPPLE (RMS)	6.3V ± AC CT	RACK MOUNT			MODEL
						W	H	D	
#1 0-400	0-300 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	12¼"	17"	430D
#2 0-400	0-300 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	12¼"	17"	430D
Parallel #1 & #2	0-600 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	12¼"	17"	430D
0-400	0-300 ma.	0.1 V	0.3 V	5 mv.					
Series #1 & #2	0-300 ma.	0.1 V	0.2 V	3 mv.					
#1 0-400	0-150 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10½"	17"	2400B
#2 0-400	0-150 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	10½"	17"	2400B
#3 0-150 Bias	0.5 ma.	0.1 V	0.2 V	10 mv.	10 Amp.	19"	10½"	17"	2400B
Parallel #1 & #2	0-300 ma.	0.1 V	0.2 V	3 mv.					
0-400	0-150 ma.	0.1 V	0.3 V	5 mv.					
Series #1 & #2	0-150 ma.	0.1 V	0.2 V	3 mv.					
0-400	0-150 ma.	0.1 V	0.2 V	3 mv.					
0-150 Bias	0.5 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	7"	11"	400B
0-400	0-150 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	7"	11"	315B
0-150 Bias	0.5 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	7"	11"	141B
0-400	0-150 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	7"	11"	2000B
0-350	0.3 Amp.	0.1 V	0.2 V	3 mv.		22½"	50"	18"	730B
0-350	0-2.25 Amp.	0.1 V	0.2 V	3 mv.		22½"	33½"	18"	720B
0-350	0-1.5 Amp.	0.1 V	0.2 V	3 mv.		22½"	33½"	18"	710B
0-350	0-750 ma.	0.1 V	0.2 V	3 mv.		22½"	33½"	18"	700B
#1 0-300	0-75 ma.	Unregulated	30 mv.	5 Amp.	16"	8"	8"	103	
#2 0-300	0-75 ma.	Unregulated	30 mv.						
#3 -50 to +50	0-5 ma.	Unregulated	30 mv.						
Parallel #1 & #2	0-300	Unregulated	30 mv.						
#1 0-150	0-150 ma.	Unregulated	30 mv.						
#2 0-150	0-75 ma.	0.1 V	0.2 V	3 mv.	10 Amp.	19"	8¾"	17"	450D
Series #1 & #2	0-300	0.1 V	0.2 V	3 mv.					
0-150	0-75 ma.	0.1 V	0.3 V	5 mv.					
0-60	0-50 ma.	0.1 V	0.2 V	3 mv.					
0-60	0-2 Amp.	5 mv.	5 mv.	1 mv.	19"	7"	7½"	150B	
1-13	0-5 Amp.	5 mv.	5 mv.	1 mv.	19"	10½"	17"	2600	
1-13	0-10 Amp.	10 mv.	10 mv.	10 mv.	22½"	28"	19"	2650	
	0-500 ma.	10 mv.	10 mv.	3 mv.	22½"	22¾"	16"	3200B	
					19"	10½"	13"	3100B	

output voltage range the output voltage variation shown in the table for line fluctuations from 105 variations from 0 to maximum current.

value shown in the table.
voltage variation is less than the regulation specification shown in the table.

an 50 microseconds. The excursion in the output recovery period is less than the regulation specification from 105 to 125 volts and load variations from Models 2000B, 2600 and 2650 the excursion recovery time is less than 50 millivolts.

00B the recovery time is less than 100 microseconds and less than 0.1 seconds for load variations, and less than 1 volt during the recovery

OUTPUT IMPEDANCE: Less than 0.1 ohms from 20 cycles to 100KC. Less than 0.5 ohms from DC to 20 cycles. Many units have very much lower output impedance. Write for exact data specifying model.

***REGULATION FOR BIAS VOLTAGE:** In the range 0 to 150 volts the output voltage variation is less than 10 millivolts for line fluctuation from 105 to 125 volts. At 150 volts the output voltage variation is less than ½% for load variation from 0 to 5 ma. At settings below 150 volts the internal resistance of the supply will increase to a maximum of 25,000 ohms.

† All AC Voltages are unregulated.
‡ These units are supplied in cabinets. The chassis, when removed from their cabinets, will mount directly in to a standard 19" wide relay rack. All units are designed for relay rack mounting or bench use.
All units contain voltage and current meters except Models 103, 315B, 450D, and 2500. The Model 150 contains a voltmeter only.

PCO LABORATORIES

131-38 SANFORD AVENUE • FLUSHING 55, N.Y. • INDEPENDENCE 1-7000



1020B



150B

TAPE WOUND and BOBBIN CORES

Only Magnetix, Inc. offers Tape Wound Cores and Bobbin Cores *guaranteed* to meet your performance specifications. They are immediately available made from Hy Mu-80, 4-79 Mo Permalloy, 48 Alloy, Orthonol,[®] Magnesil,[®] and all other commercial high permeability materials. Cores are hydrogen annealed to meet your performance specifications.

TAPE WOUND CORES:

In addition to standard sizes, the following combinations may be had:

Inside Diameters . . . 0.375-in. to 4.500-in. Heights 0.125-in. to 4.500-in.
 Outside Diameters . . . 0.500-in. to 6.500-in. Tape Thickness .001, .002, .003, .004, .006-in.

Only Magnetix, Inc. Tape Wound Cores are furnished in the revolutionary Aluminum Core Box.* They will withstand (1) temperatures to at least 450°F., (2) vacuum impregnation, (3) heavy winding stresses, and (4) unusual shock and vibration.

*Patent Pending [®]Registered Trade Mark

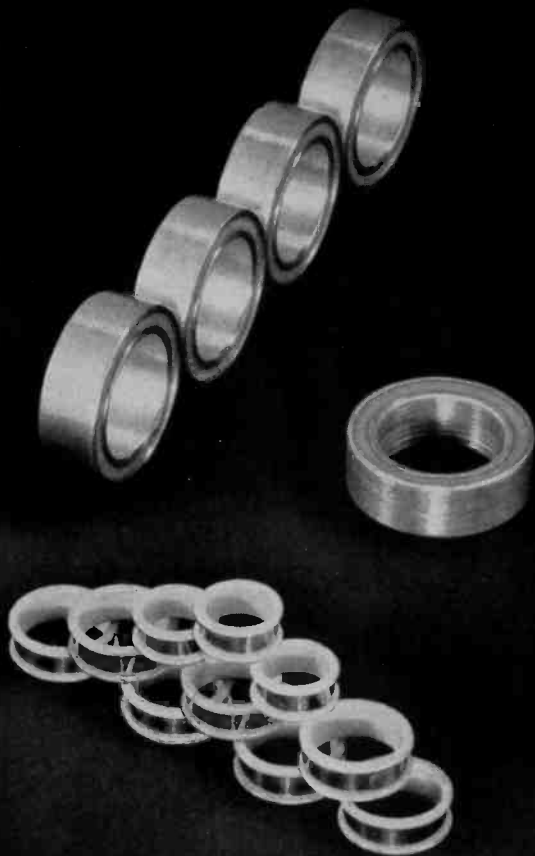
BOBBIN CORES:

Furnished in 14 standard sizes, and a wide choice of special bobbin and tape sizes. Wound on ceramic bobbins for rigidity.

Bobbin Diameters from 0.125-in. through 1.25-in.**
 Tape Width from 0.0625-in. through 0.25-in.**
 Tape Thickness from 0.000125-in. through 0.001-in.

**Larger sizes available upon request.

For Complete Details: Write for Tape Wound Core Catalog '100
 Bobbin Core Bulletin 102



MOLYBDENUM PERMALLOY POWDER CORES

These are the industry's first "Performance-Guaranteed" molybdenum permalloy Powder Cores.* Made of 2% molybdenum, 81% nickel, and the remainder iron, this core material was developed to meet the need for a loading coil material which would have suitable response in the audio and carrier frequency ranges.

Magnetix, Inc. molybdenum permalloy Powder Cores are available in a variety of standard sizes and permeabilities. As an extra, cores will be graded by nominal inductance.

Inside Diameters 0.500 to 0.950-in. Heights 0.250 to 0.570-in.
 Outside Diameters 0.800 to 1.570-in. Permeabilities 14, 26, 60, 125

Permeability	Core Loss Ohms/Henry/Unit of μ	Common Frequency Ranges
125±10	0.24 max.	up to 15 kc
60±5	1.70 max.	10 to 50 kc
26±2	76 max.	30 to 75 kc
14±1	65 max.	50 to 200 kc

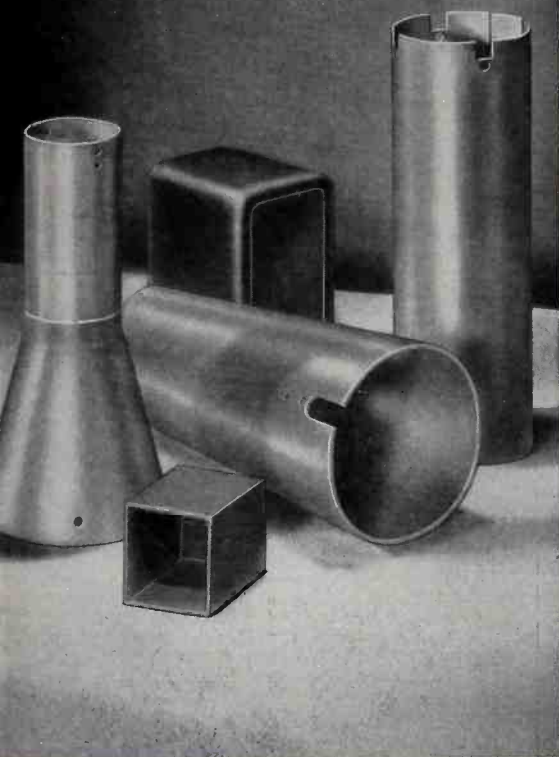
*Manufactured under a license agreement with Western Electric Co.

Finishes: Powder cores may be furnished with standard baked enamel and wax tight varnish finishes, or with no finish at all. All units with finishes which will sustain 500 or more volts may be wound directly with heavy Formex-coated wire.

For Complete Details: Write for Powder Core Bulletin 103



Performance - Guaranteed



MAGNETIC SHIELDS

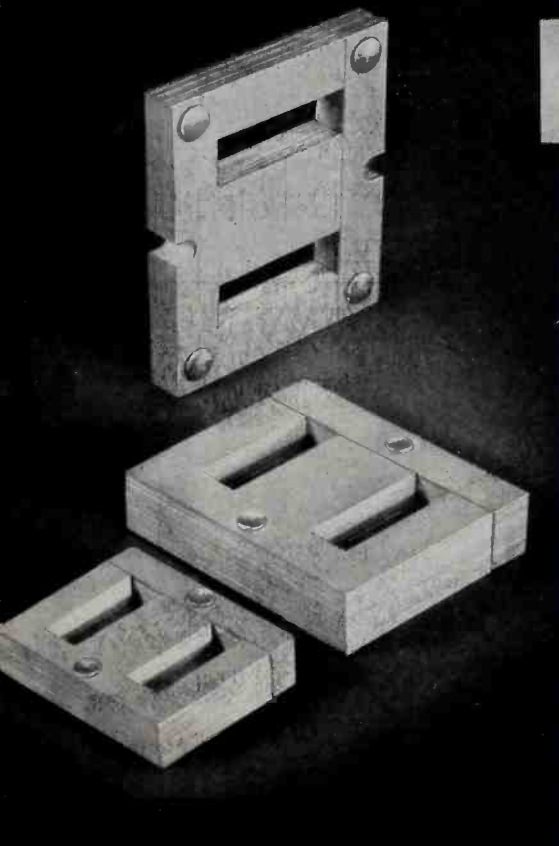
Magnetics, Inc. can guarantee performance of its Magnetic Shields because of its extensive experience with dry hydrogen annealing. Annealing in other atmospheres will not permit optimum magnetic shielding properties to be realized . . . and since hydrogen annealing is an art as well as a science, for best results it should be done only by specialists such as those who compose the Magnetics, Inc. staff.

Shields for use in moderate or high flux external fields are usually made from Mu Metal or A.E.M. 4750, respectively, but can be made from any other commercially available magnetic and non-magnetic materials when required by performance specifications. Shields are usually 18- (.050"), 24- (.025") or 29- (.014") gauge, but other thicknesses can be supplied upon request.

They can be fabricated or drawn, depending upon economy for a particular requirement, and can be furnished painted, lacquered or unfinished. Paint color can be matched to any equipment shade you select, pre-painting by Magnetics eliminating danger of damage to shields in painting operations in your plant.

The Magnetics, Inc. Engineering Department will assist in all phases of your shield design, including magnetic and mechanical design, and production engineering to your cost requirements.

For Complete Details: Write for Shield Catalog 104



Performance - Guaranteed



MAGNETIC LAMINATIONS

"Performance-Guaranteed" magnetic laminations are substantially burr-free and flat for precision stacking. They are punched at Magnetics, Inc. by progressive tungsten-carbide dies for high-production, fine tolerance laminations, and by hi-carbon, hi-chrome dies for shorter production runs. Special dies can be made to fit individual customer specifications when standard laminations are not suitable.

Nickel-iron and all grades of silicon steel laminations are available in standard shapes such as EE 24-25, EE 26-27, EE 186-187, EI 11, EI 12, EI 13, EI 21, EI 75, EI 187, EI 375, EI 625, F-12, F-13, F-20, U-1 and Rings. Standard gauges are from 0.025" through 0.006". Laminations are hydrogen annealed when necessary, to meet performance specifications.

Magnetics, Inc. is very well staffed and equipped to supply special shapes of laminations. Its tool design staff, special shop facilities and general production flexibility permit speedy and high quality work on both large and small production runs. In addition, all Magnetics, Inc. technicians are experts at heat treating high permeability alloys for your particular magnetic properties.

Complete core assemblies, providing the same Performance-Guarantee as the laminations, can be supplied.

For Complete Details: Write for Laminations Catalog 101

BUTLER, PENNSYLVANIA



Sierra 121 Wave Analyzer

LINE BRIDGING TRANSFORMERS

Converts voltmeter and wave analyzer inputs from single-ended to balanced operation. Model 130 bridges both 135 and 600 ohm balanced lines. Frequency range 3 KC to 500 KC. Write for details.

LINE FAULT ANALYZER



Sierra 124A Line Fault Analyzer

Operates on most open wire power, communications lines. Instantly pinpoints shorts, opens, grounds. Direct reading, easy to use, range 1/2 to 200 miles. Sweep marker continuously adjustable from 5 to 100 miles; locates faults with accuracy of 1/4 mile. Request Bulletin 102. (Sierra now offers Model 169 Line Coupling Network rated at 5 KV. Ideal for coupling Model 124A to "dead" power lines. Affords protection to personnel and equipment.)

REFLECTION COEFFICIENT METER

Compact, moderately-priced instrument giving great speed, convenience for measuring coaxial transmission line reflection coefficient, VSWR, or matching loads to line. High accuracy. Sensitivity permits operation with any standard CW signal generator. Provides continuous monitoring at any frequency over the range 32 MC to 1125 MC. Employs Sierra wideband directional couplers to sample incident and reflected voltage. Attenuator calibrated in reflection coefficient and VSWR. Request Bulletin 106.

COAXIAL READOUT DEVICES

Insure sensitive readout for Sierra vhf-uhf Directional Couplers. Model 148K Crystal Detector, low VSWR, high sensitivity to 3300 MC. Model 148 Crystal Detector, low VSWR, higher sensitivity to 1200 MC. Model 157 Bolometer Mount for pulse work. All models incorporate 50 ohm input impedance and filtered output. Type N input, BNC output connectors. Request Bulletin 113.

DOUBLE STUB TUNERS

New tuners match to a 50 ohm line any load having a 2:1 VSWR. Three models: 151 (155 MC to 300 MC); 152 (380 MC to 825 MC); 153 (900 MC to 1750 MC). Operates up to 1.5 KW peak power. Request Bulletin 110.

CALIBRATED RF LOAD



Sierra 141 Calibrated RF Load

Model 141 Variable Impedance Calibrated RF Load provides for direct power measurements from 25 to 250 watts at 2 mc to 30 mc. Load impedance resistance and reactance adjustable over wide range. High accuracy instrument with comprehensive individual impedance calibration charts for all frequencies, or typical charts for general purpose use. Accuracy: $\pm 5\%$ (impedance magnitude), $\pm 10\%$ (power). Request Bulletin 105.

WAVE ANALYZERS

Model	Frequency Range	Selectivity		Accuracy		Direct Reading in dbm	
		Down 3db	Down 45db	Frequency	Measuring	Balanced	Unbalanced
121	15 KC-500 KC	± 100 cps	± 1000 cps	± 3 KC	± 2 db	Note D	600 ohms
158	500 KC- 10 MC	± 2000 cps	± 5000 cps	± 0.08 MC	± 2 db	—	600 ohms

CARRIER FREQUENCY VOLTMETERS

101B	20 KC-500 KC	± 550 cps	± 2900 cps	Note A	± 3 db	Note D	600 ohms
103A†	3 KC- 40 KC	± 400 cps	± 3000 cps	± 0.5 kc	± 3 db	Note D	600 ohms
104	5 KC-150 KC	± 300 cps	± 1500 cps	± 1 kc	± 3 db	Note D	600 ohms
108A	15 KC-500 KC	± 550 cps	± 2900 cps	± 3 kc Note B	± 2 db Note C	135 ohms Note D	600 ohms
114	100 KC-800 KC	± 550 cps	± 2900 cps	Note A	± 3 db	Note D	600 ohms

All Models feature built-in calibration oscillators and circuits for level calibration, have aural monitoring jacks, and (except 103A) are furnished with Sierra Model 149A Precision Spiral Scale Dials.

†Contains carrier re-insertion oscillator for monitoring suppressed carrier systems. Furnished with planetary drive dial. Note A. Ranges from ± 2 KC at low end of dial to ± 3 KC at upper end. Note B. ± 1 KC in the 48 KC to 256 KC region. Note C. ± 1 db for $+30$ db to -40 db attenuator steps on 135 ohm balanced measurements. Note D. All models may be converted for 135 and 600 ohm balanced line measurements by convenient plug-in bridging transformer, Model 130.

IMPEDANCE METER

Sierra Model 166 Carrier Systems Impedance Meter is specifically designed for the measurement of impedances on circuits with high noise levels at any frequency over the range 30 KC to 300 KC. Either high or low power signal sources may be used. Measurements may be made on "hot" power lines through a series carrier coupling capacitor. Request Bulletin 112.

LOW PASS FILTERS



Model 184 Series Low Pass Filters have an insertion loss of not more than 0.4 db in pass band, sharp cut-off, 1.5 VSWR or less, and rejection greater than 60 db from 1.25 to 10 times cut-off frequency. Five models: for cut-off frequencies of 44, 76, 135, 230, 400

MC. Power range 250 watts in pass band, 25 watts in rejection band. Request Bulletin 115.

WIDEBAND DIRECTIONAL COUPLERS

Coupling Factor: (In db ± 1 db)

Model	10 kc	3 mc	10 mc	30 mc	100 mc	300 mc	1000 mc	2000 mc
137, 137A				73	63	53	43	37
138, 138A				59	49	39	29	
145		52	42	32	22	12		
150				53	43	33	23	
139	50	50						

Directivity: 12 db ± 3 db greater than coupling factor at each frequency.
Impedance: Models 137 and 138 are 51.5 ohms. Models 137A, 138A, 145 and 150 are 50.0 ohms. Model 139 may be matched to most impedances.
Power: Usable to 1000 watts throughout frequency range.



PHASE CHANGER

Model 191 Phase Changers, ideal for life-testing tubes, are offered with ac or dc motor for 1 1/4" x 3/8" or 1" x 1/2" waveguides. VSWR preset at 1.5 but adjustable from 1.02 to 1.6. For powers to 200 Kw peak, average power rating 500 watts. Request Bulletin 117.

SIERRA ELECTRONIC CORPORATION

FIELD, LAB POWER MEASURING INSTRUMENTS



TERMINATION WATTMETERS



Sierra 195A-X
Termination Wattmeter

Sierra 185A Series Average Reading Termination Wattmeters and Sierra 195A Series Peak-Reading Termination Wattmeters are broadly useful, dependable new instruments for terminating rf coaxial transmission systems and measuring rf powers. All models are ruggedly built, conservatively rated, and ideal as dummy loads for testing and adjusting pulsed transmitters and oscillators. Request bulletin.

Model 185A Average-Reading and 195A Peak-Reading Wattmeters

Model Number	Connector	Frequency Range, MC	Power Range, Watts	Accuracy % of F. S.	Max. Power Dissipation	Max. VSWR
185A-15FN	N	20-1000	0-5/15	± 5%	15 watts	1.2
185A-100FN	N	20-1000	0-30/100	± 5%	100 watts	1.2
185A-500FN	N	20-1000	0-150/500	± 5%	500 watts	1.2
Model Number	Connector	Frequency Range, MC	Peak Power Range, KW	Max. Average Power	Pulse Width, μ sec	Repetition Rate, PPS
195A-Z	N	250-1000	0-1/3/10	15 watts	1.0 minimum	400 minimum
195A-X	LC	250-1000	0-10/30/100	100 watts	1.0 minimum	400 minimum
195A-Y	LC	250-1000	0-100/300/1000	500 watts	1.0 minimum	400 minimum
195A-W	N	950-1250	0-1 and 0-3	15 watts	3.0 to 5.0	48 to 300
195A-V	N	450-1250	0-3 and 0-10	100 watts	3.0 to 5.0	300 to 7200
195A-U	HN	450-1250	0-5 and 0-15	500 watts	3.0 to 5.0	300 to 7200

NOTE: Female connectors are standard unless otherwise specified.

BI-DIRECTIONAL POWER MONITORS



Sierra 164A
Power Monitor

Model 164 Series. Two plug-in elements cover 25 MC to 1,000 MC, measure incident and reflected power of 10, 50, 100 and 500 watts full scale. Also four lower power elements covering same range at 1, 5, 10 and 50 watts full scale. Power is read direct on linear scale

accurate within $\pm 5\%$. Insertion VSWR less than 1.08 (Type N connectors) except on 1 watt ranges where VSWR is 1.15. 50 ohm impedance. Model 164 available with Type N, Type C or UHF connectors, male or female. Request Bulletin 111.

Plug-In Elements for Model 164 (Note: Model 164 does not include plug-ins. Order separately as needed.)

180 Series—1, 5, 10, 50 watts full scale

180-52: 25 MC to 52 MC
180-148: 50 MC to 148 MC
180-470: 144 MC to 470 MC
180-1000: 460 MC to 1000 MC

181 Series—10, 50, 100, 500 watts full scale

181-250: 25 MC to 250 MC
181-1000: 200 MC to 1000 MC

Accessories Available: Model 164-LS Equivalent Transmission Line Section; Model 164-CC Carrying Case.

THERMOPILE

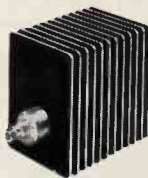


Model 189A Differential Thermopile converts differential temperatures in flowing liquids to electrical energy. Internal resistance approx. 5 ohms, output voltage approx. 1 mv per $^{\circ}$ C, max. pressure 75 psi. Request Bulletin 119.

50 OHM COAXIAL TERMINATIONS

New compact, light weight Model 160 series coaxial terminations feature stable operation over a wide frequency range and up to high ambient temperatures. High surface to volume ratio provide a very low VSWR from dc to 3300 MC.

Model 160-5: 5 watts; Model 160-20: 20 watts; Model 160-100: 100 watts; Model 160-500: 500 watts. Request Bulletin 114.



CALORIMETER, X-BAND WATER LOAD

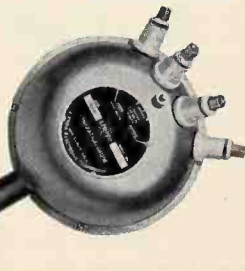


Model 190A Calorimeter and XB187A Water Load provide fast, accurate power measurement from a few watts to kilowatts. Accuracy $\pm 2\%$. Calorimeter ranges 300, 600, 1,500, 3,000 watts, max. 50 psi, sensitivity 1.5 mv. Water Load range 7 KMC to 10 KMC, VSWR less than 1.2, power 1 Kw CW, 300 Kw peak. Request Bulletin 116.

MODEL 194 PEAK-READING POWER MONITOR

New bi-directional instrument for radar and other pulsed measurements. Quickly measures incident and reflected powers. Measures peak power directly, independently of duty cycle. Write for bulletin.

IONIZATION GAUGE AND AMPLIFIER



Model 193A Ionization Gauge and Model 192A Ionization Gauge Amplifier provide convenient, dependable and accurate monitoring of pressures during processing from 10^{-4} to 10^{-7} mm Hg. Monel-encased Phillips type ion gauges operate for months without attention; amplifier includes high voltage rf power supply, VTVM, heater transformer and low voltage supply. Request Bulletin 118.

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use ROHN communication and micro-wave towers

*featuring these
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GET COMPLETE INFORMATION, PRICES AND CATALOG. WRITE, PHONE OR WIRE FOR NEAREST SOURCE OF SUPPLY

ROHN Representatives coast-to-coast

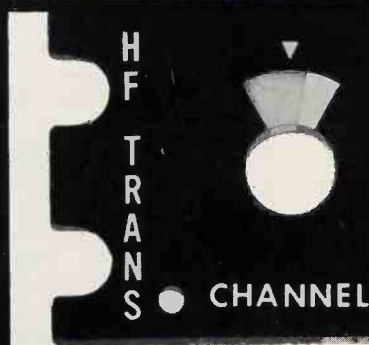
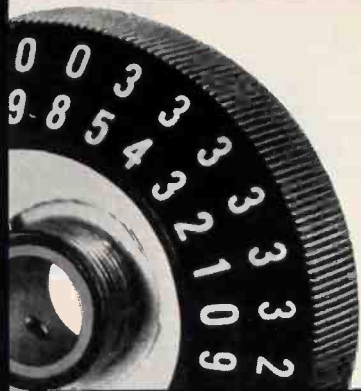
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The Lackon® engineering staff of the United States Radium Corporation will readily assist your panel engineering department during the initial design stage. The cooperative application of their skill and experience in lighting techniques to your panel design will speedily resolve design difficulties, result in decided production economies, and yield a remarkably superior finished product. For information write Dept. EBG-6

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Range: -150° F. to +500° F.
Size: 4 cu. ft. to 72 cu. ft.

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CONRAD Inc.

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MEMBER OF ENVIRONMENTAL EQUIPMENT INSTITUTE

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MERCURY can supply any input voltage — output voltage — current — regulation — ripple — size — finish — quantity.

For a long time the MERCURY organization has been designing and producing reliable REGULATED POWER SUPPLIES for general use. These units were considered catalog items although frequently modifications were made to suit customers requirements.

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Some typical units designed and manufactured by **MERCURY**



Electronic Inverter
 Input: 220 V. D.C.
 Output: 115 V. A. C. 60 Cycles
 1000 Watts
 Regulation: 5%
 Special Features included
 Size, weight, shape, finish
 and application



Model 508-A
 Input: 117 volts AC
 50/60 cycles
 Output: 0-600 volts DC at
 1 amp.
 Regulation: .25% from
 10-600 volts



Model 721-A
 Input: 117 volts AC
 50/60 cycles
 Output: 0-500 volts DC at
 300 Ma.
 Regulation: .25% from
 10-500 volts




Model E-1A Converter
 400 cycle Regulated Power
 Supply
 Input: 110 volts AC
 380/1000 cycles
 Output: 300 volts DC at
 400 Ma.
 Regulation: 1% at 300 volts
 300 volts
 Ripple: 80 millivolts



Model E-1B Converter
 400 cycle Regulated Power
 Supply
 Input: 117 volts AC
 380/1000 cycles
 Output: 150 volts DC at
 100 Ma.
 Regulation: .1% at
 150 volts
 Ripple: Less than 3 millivolts

DEVELOPMENT

DESIGN



PRODUCTION



Model 610-A
 Regulated Power Supply
 Input: 117 volts AC
 50/60 cycles
 Output: 0-600 volts DC at
 600 Ma.
 Regulation: .25% from
 10-600 volts
 Ripple: 5 millivolts

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MERCURY, long a recognized leader in the Continuously Variable Regulated D. C. Power Supply field, would like to send you their latest catalog of Standard Regulated Power Supplies and related items.

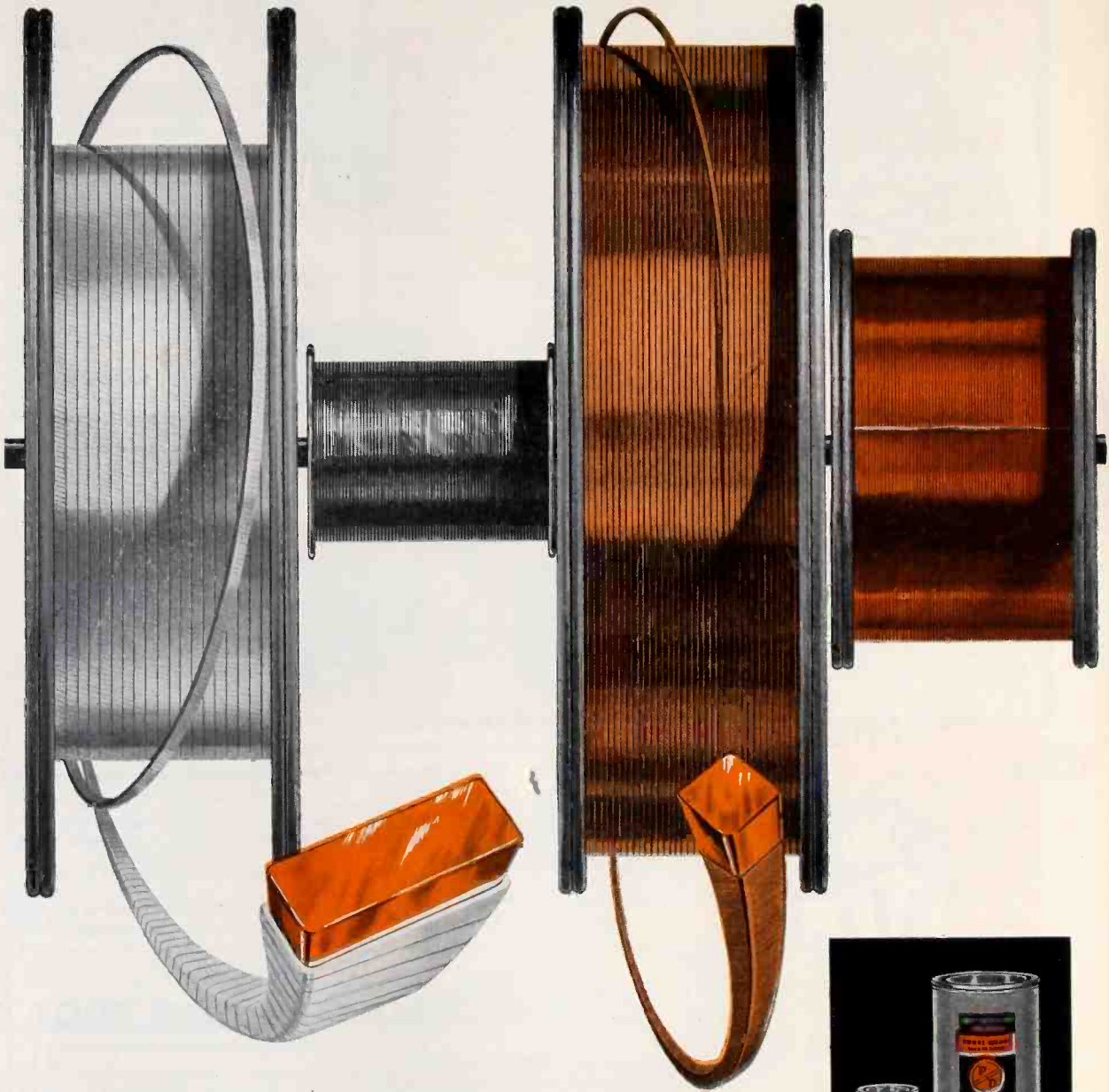
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QUICK-DISCONNECTING SELF-ALIGNING

SERIES "QRE"

6, 12, 18, 24, 34, 208 Contacts

MINIATURE and SUB-MINIATURE

ELECTRICAL CONNECTORS

The Accepted Standard for
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LIGHT WEIGHT • DEPENDABILITY



Precision-manufactured Connectors... to the highest quality control standards in the industry... have established Winchester Electronics, Inc. components as the finest in the electrical connector art. These and many others... or completely new designs... are quickly available to you... for long and dependable trouble-free service.

SUB-MINIATURE SERIES "SMRE"



7, 14, 20, 26, 29, 34 Contacts

ACTUAL SIZE

HEAVY DUTY TYPES "200" to "900"



Used in "AN" Shells

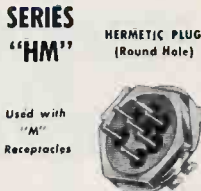
1/4 ACTUAL SIZE



SERIES "M" MINIATURE

4, 5, 7, 9 Contacts

ACTUAL SIZE



SERIES "HM" HERMETIC PLUG (Round Hole)

Used with "M" Receptacles

ACTUAL SIZE



SERIES "XMRE" 1/2 ACTUAL SIZE

External, Miniaturized, JackScrew locking, Potting, Shells, Mounting plate



SERIES "MRE" MINIATURE

7, 8, 9, 14, 18, 20, 21, 26, 34, 41, 50, 75 Contacts

1/2 ACTUAL SIZE



SERIES "HMRE" HERMETIC PLUG

Used with "MRE" Receptacles

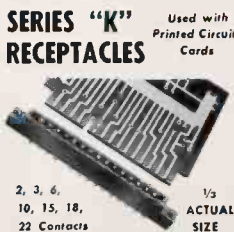
ACTUAL SIZE



AIRCRAFT SERIES "A"

7, 10, 15, 18 Contacts

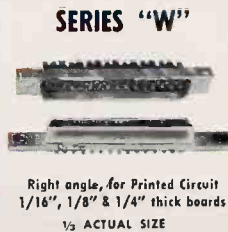
1/2 ACTUAL SIZE



SERIES "K" RECEPTACLES Used with Printed Circuit Cards

2, 3, 6, 10, 15, 18, 22 Contacts

1/2 ACTUAL SIZE



SERIES "W"

Right angle, for Printed Circuit 1/16", 1/8" & 1/4" thick boards

1/2 ACTUAL SIZE

Many features are covered by our Patents: Nos. 161900, 162792, 2411861, 2466370, 2513080, 2526325, 2532538, 2633482

Wire or write for catalog of other types or advise your special requirements.

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Pioneered and developed by ETC. 2 to 10 traces. Round or square faces . . . 3" to 12". Electron guns are electrostatic deflection type. Cross talk eliminated by adequate shielding.

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Built and tested with same care. Standard RETMA and MIL-types as well as "special purpose" tubes. Can be designed to answer your particular radar and instrumentation problems.

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Modern, well-equipped plant staffed by highly skilled workers assures dependable manufacture to your special specifications—facilities are open for industry problems as well as military.



MULTI-CHANNEL OSCILLOSCOPES

. . . for which there are no substitutes, are called upon when complete information is required. Convenient for visual observation as well as photographic recording.

AT A
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 PRICE



K-26

DUAL CHANNEL

K-26 Handles 90% of applications for 1- or 2-channel scopes. Separate single shaft controls for each channel. Concentric controls for positioning, intensity, focus. Extended sweep range from below 2 sec. to 50,000 cps. Illuminated graticule.

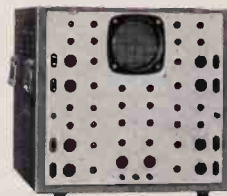
K-215 Dc to 15 mc. High accelerating potential. Spiral band CRT. Sweep 0.1 μ sec/cm to 1 sec./cm.

4-CHANNEL

H-43 For use primarily with continuous film type recording cameras. Each channel individually controlled for focus, intensity, positioning. Frequency range 0 to 200 kc, \pm 3 db. Deflection sensitivity better than 0.5 v. dc/in.

H-21A General purpose, versatile instrument. Sweep circuits 2 cps. to 50 kc/sec. Continuous calibration 0 to 1.5 v. peak to peak. Frequency range, dc to 100 kc, \pm 1 db or better.

H-23 For work requiring greater band width and gain. Combines high sensitivity and high gain with h-f response flat within 3 db-dc to 1 mc.



H-25 Applicable to telemetering, radar and associated uses. Direct coupling, wide band width and delayed sweep control. Rise time dc to 0.05 μ sec or better.

H-45 DC amplifiers usable to beyond 300 kc. Available with 1 or more AC amplifiers for higher frequency application. Vertical amplifier 10 mv., rms sensitivity. Individual Z-axis inputs (above).

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MULTI-CHANNEL FREQUENCY SHIFT TONE TELEGRAPH SYSTEMS

These Multi-Channel Telegraph Systems are audio carrier systems capable of multiplexing such circuits as telephone lines, VHF, UHF, or radio frequency links—or practically any type circuit from which a two-wire audio circuit can be derived. Designed to meet any speed requirements, these systems are fully electronic, without relays or moving parts to wear. They can be used for high-speed printer, Morse or time division Multiplex circuits, as well as such applications as Telemetering, Control Circuits and Servo-Mechanisms. Instantaneous and complete sending and channel control permits any binary code groups, either "Clear Text" or "Cryptographic," to be channelized without need for additional phasing or synchronizing equipment, while paralleling of channels will allow for transmission of other type codes, such as 3 element cable code. The completely independent operation of each channel, including its own power supply, localizes faults to one channel only, leaving other channels unaffected. Individual

channel separation filters are used at both transmitting and receiving ends. This arrangement

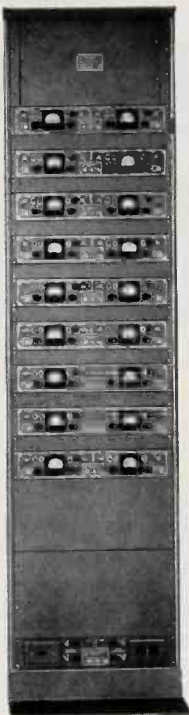


DUAL FS TONE KEYS; TYPE 153 MODEL 2:

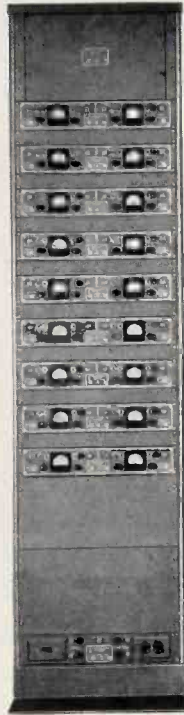
Keying Input. . . . Relay contacts, \pm DC current or voltage pulses, neutral or polar.

Input Level. . . . DC voltage: \pm 10 volts min. DC current: 45 ma min., \pm or polar. Relay: contact rating 5 ma min.

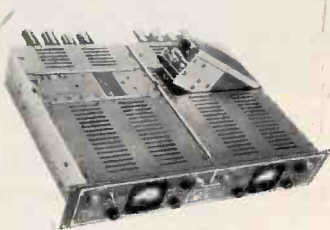
Keying input Z. . . . DC voltage: 100K ohms DC current: 220 ohms.



TRANSMITTER



RECEIVER



DUAL FS TONE CONVERTER; TYPE 152 MODEL 2:

Input Z: 600 ohms, unbalanced.

Input Level: -40 dbm to 0 dbm.

Input Frequencies: 18 channels, 425-3315 cps, 170 cycle spacing.

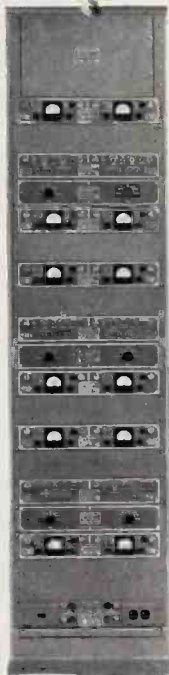
Keying Speed: 45 dot cycles.

NEW! DUPLEX TELEGRAPH SYSTEM FOR MULTI-CHANNEL TONE EQUIPMENT

SEVEN NEW FEATURES in this system—simple 4-position switch selects from 12 possible duplex combinations; duplex operation between stations connected via carrier telegraph channels; all-electronic, without relays or moving parts; polar or neutral for either half duplex or full duplex; break-in now also possible for all half-duplex circuits; provided with positive feature to prevent space signal lock-out; includes individual line battery for each channel.

The Northern Radio Duplex Telegraph System consists of one each Dual Frequency Shift Tone Keyer, Type 153 Model 3; Dual Duplex Selector Panel, Type 200 Model 1; Dual Loop Switch Panel, Type 200A Model 1; and Dual Frequency Shift Tone Converter, Type 152 Model 3. The Frequency Shift Tone Keyer and Converter are our latest improved Model 3's, specifically designed for use with this system.

The Dual Duplex Selector Panel and Dual Loop Switch Panel make possible complete duplexing and break-in operation of a Northern Radio or similar multi-channel Frequency Shift tone telegraph system. Such a system meets the requirements of any standard telegraph line or terminal apparatus for either full duplex or half-duplex operation. Because this system is all-electronic, it meets all speed require-



ments and yet has the flexibility and isolation heretofore possible only with relays.

The Dual Loop Switch Panel rapidly selects half-duplex and/or full duplex mode of operation for any of the 4 standard loop options by front panel switching available from the 12 loop options in the Dual Duplex Selector Panel.

The Dual Selector Panel provides 12 loop options, patching facilities for monitoring purposes and channel routing, including the possibility of patching-in another teleprinter loop circuit (T-junction). Any of the 12 loop options are available and may be selected for the Dual Loop Switch Panel by simple strapping arrangement. It has an individual line battery for each channel for greatest circuit flexibility. Battery and line fuses are also provided for maximum protection.

The Dual Duplex Selector Panel is provided with positive non-lockout features. An accidental "spacing" of the line, even over prolonged periods of time, such as caused by patching errors, will not lock the system into a permanent space (no loop current) condition. The system will instantly be ready to operate as soon as the fault is removed. This is due to a novel arrangement of the internal batteries which at all times can provide power to the telegraph loops.



DUAL DUPLEX SELECTOR PANEL Type 200 Model 1



DUAL LOOP SWITCH PANEL, Type 200A Model 1



Pace-Setters in Quality Communication Equipment

NORTHERN RADIO COMPANY, inc.

147 WEST 22nd ST., NEW YORK 11, NEW YORK

In Canada: Northern Radio Mfg. Co., Ltd., 1950 Bank St., Billings Bridge, Ottawa, Ontario.

Write for FREE CATALOG BG-56

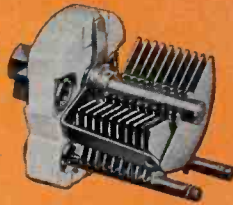
For VARIABLE CAPACITORS...



"BFC" butterfly-type capacitor with isolated rotor, very low minimum capacity and low inductance. For VHF applications as series capacitor with no rotor connection.



"MAC" Low minimum capacity and very low inductance. Ideal for VHF-UHF applications. Designed for use in miniaturization. Also available as butterfly type "MACBF".



"APC" A compact, high quality air dielectric trimmer. Extremely high resistance to temperature changes, moisture and vibration.

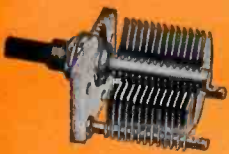


"MAPC" A scaled down version of the "APC". Designed to fill the needs of miniaturization. Suitable for VHF use.



"HF" A high frequency design featuring extra long sleeve bearing and positive contact nickel-plated phosphor bronze wiper. Also available as a dual unit.

naturally,



"HFA" Similar to "HF" model, but with larger air gaps for higher breakdown ratings. Used for high-frequency, low-power transmitting. Also available as dual unit.



"MC" Designed for maximum versatility in mountings, connections and capacity characteristics. Rotor stop permits 180° clockwise rotation with increasing capacity. Also available as dual unit.



"RMC" Similar to "MC-S" but featuring extra rigid design. Heavy frame of aluminum tie rods and end plates.



"NZ" Compact transmitting neutralizing capacitor designed for easy and accurate adjustment. Long leakage paths to ground from both rotor and stator.



"VU" Permits use of "lumped constant" circuits up to 500 MC. Two sections in series eliminate rotor wiper. Pyrex glass ball bearings eliminate noise from usual metal-to-metal bearings.

it's HAMMARLUND



For commercial, military and industrial applications, you just can't beat Hammarlund Variable Capacitors for uniformly high quality design, materials and workmanship. The capacitors illustrated here are just a small representative portion of the complete Hammarlund line. In addition to stock designs, Hammarlund offers you unparalleled variable capacitor know-how in development, design and production. Whatever your needs, when it comes to special or standard variable capacitors, naturally, come to Hammarlund.

HAMMARLUND MANUFACTURING COMPANY, INC.
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● Send for your copy of Bulletin EBG 56



Ultra-Sensitive Relays, D-C Motors...A-C Motors



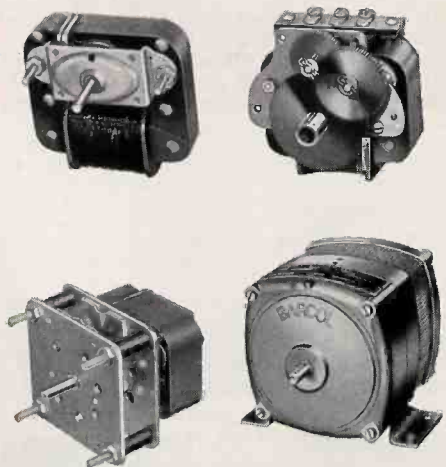
polarized ultra-sensitive relays

Operating on input powers of 40 to 1000 microwatts, the Barber-Colman Micropositioner, a polarized d-c relay, is ideal for use as a differential relay in electronic plate circuits, a null detector in resistance bridge circuits, and an amplifier in photo-electric circuits. Can be operated in excess of 100 cps. This ultra-sensitive relay is widely used in many control applications — in nucleonics, communications, instrumentation, process control, railway signal transmission, and aircraft control and remote positioning. Various types: Octal plug-in; solder lug; hermetically sealed; screw terminal.



compact, powerful d-c motors...up to 1/10 hp.

Looking for a d-c fractional hp motor of unusually high quality, high dependability? Specify Barber-Colman, the *versatile* line of small motors in both permanent magnet and split series types . . . in various mountings and speeds, and outputs up to 1/10 hp. Ideally suited to power electro-mechanical actuators, switches, blowers, and programming devices. Also excellent for use as tachometer generators. Barber-Colman small d-c motors are also available with lightweight radio noise filters to meet radio interference requirements of USAF. Whatever your problem involving d-c motors, consult Barber-Colman Company for an expert solution.



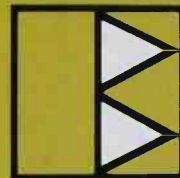
high torque shaded pole a-c motors . . . up to 1/20 hp.

Barber-Colman shaded pole induction motors are available in unidirectional, reversible, and synchronous types up to 1/20 horsepower with or without reduction gearing. Unidirectional motors are designed for long life and dependable service driving cooling fans and blowers for electronic equipment and powering office machines and other industrial equipment. Reversible motors are ideal for follow-up and positioning mechanisms and are easily adapted for control by electronic circuits. Synchronous motors combine accurate timing and high torque with small dimensions and light weight. Geared-head motors are available with hundreds of reductions, open or enclosed, to fit a wide range of applications. Barber-Colman engineers will be glad to help select the right motor for your application.

Barber-Colman Company

DEPT. F, 1459 ROCK STREET, ROCKFORD, ILLINOIS

summer, 1956



BERKELEY
SHORT FORM CATALOG
C 703

introducing
NEW BERKELEY
INSTRUMENTS and
COMPONENTS:

- FERRISTORS*
- DECIMAL COUNTING UNITS
- COUNTERS & PRESET COUNTERS
- TIME INTERVAL METERS
- EPUT* (Events-Per-Unit-Time) METERS
- UNIVERSAL EPUT* METERS
- FREQUENCY METERS
- NUCLEAR SCALERS, COUNT RATE METERS
- NUCLEAR AUTOMATIC SAMPLE COUNTERS

EASE* COMPUTERS

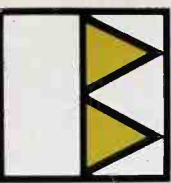
EASE* COMPUTER-QUALITY CONTROL SYSTEM
COMPONENTS

Systems for:

- DATA REDUCTION
- DATA HANDLING
- DATA LOGGING
- INDUSTRIAL MEASURING & RECORDING
- INDUSTRIAL PROCESS CONTROL

*Trademark

Berkeley division of Beckman Instruments Inc.

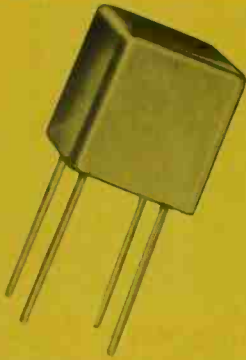


FERRISTORS* for Magnetic Amplifier and Counter Circuitry

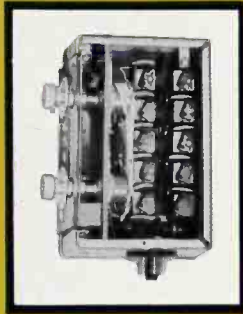
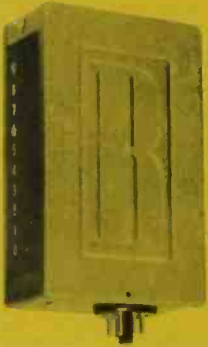
FERRISTORS® are reliable, light weight, low-power replacements for tubes consisting of simple wire-wound coils on ferro-magnetic cores, and encapsulated in epoxy resin. They are immune to damage by shock, vibration, overload, humidity or temperature, and are ideally suited for industrial electronics where long-term reliability is an important factor.

In BERKELEY's new line of long life counter-controllers, FERRISTORS® are used to perform all the functions of vacuum tubes in input amplifier, gate, time base, decimal counting unit, coincidence amplifier and control circuitry. Complete technical data and prices will gladly be supplied on request.

Compact FERRISTOR* is encapsulated in 9/16" cube, with 4 pigtail leads.



MAGNETIC Decimal Counting Units



Models 716-717 Magnetic DCU measure only 1 7/8" x 5 1/2" x 3 1/2". Model 716 has 10,000 cps max. counting rate; Model 717, 40,000 cps. Price (either model), \$110.00.

Model 736 Dual Preset Magnetic DCU produces output signal at any two pre-settable counts, handles up to 10,000 cps. Measures 1 7/8" x 5 1/2" x 3 1/2". Price, \$130.00.

Magnetic DCU's are capable of counting up to 40,000 pulses a second. Units may be cascaded indefinitely to achieve a counter of any capacity. Each DCU counts from 0 to 9, presenting an illuminated reading on the front panel.

Elimination of vacuum tubes permits an overall size reduction of up to 32% and a weight reduction of up to 59% over other units. Illustrated magnetic DCU's are plug-in units fitting standard octal sockets. Lower heat generation resulting from decreased power requirements permits more compact assembly than vacuum tube types.

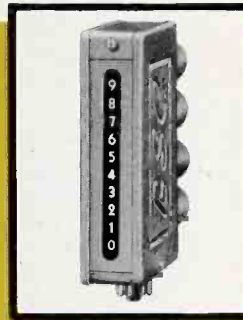
VACUUM TUBE Decimal Counting Units

All DCU's are designed for a four-line binary coded output to drive Berkeley digital printers, remote in-line readouts, or data converters. Counts are displayed in digital form on the illuminated front panel; units may be cascaded to provide any desired total count capacity, and plug into standard sockets.

Model 705AH—100 kc max. count rate. Price, \$33.00.

Model 707AH—1 mc max. count rate. Price, \$95.00.

Model 711AH—2 mc max. count rate. Price, \$110.00. Designed to drive 713AH (200 kc count rate, \$75.00) which in turn drives the 705AH.



VACUUM TUBE Preset Decimal Counting Units



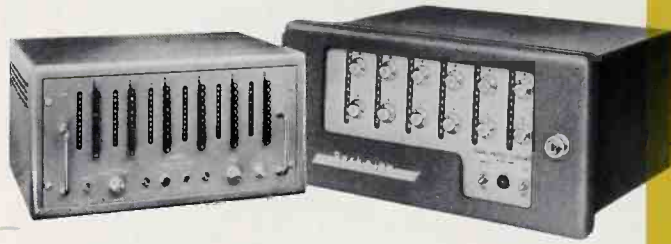
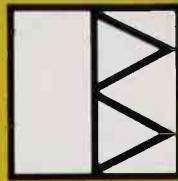
Model 730A Single Preset DCU produces output pulse at any single preset count. Price, \$65.00.

Model 732A Dual Preset DCU produces output pulses at any two preset counts. Price, \$75.00.

Berkeley Single and Dual Preset Counters count and display information at rates to 40,000 cps, and produce output pulses at any preset total count (Model 730A) or any two preset counts (Model 732). Output pulses will operate relays, audible or visual signals, solenoids, etc.

*Trademark

PRESET COUNTER-CONTROLLERS



Count at rates to 40,000 cps, produce output signals at any desired preset total (or any two preset counts with dual preset models). Operate on input pulse of ± 1 volt peak, or more. Instantaneous reset to zero after final count. Reliable, simple to operate. Available in 2,3,4,5 and 6-digit capacities. Long-life magnetic Model 5840 dual preset features FERRISTOR* circuitry for continuous-duty reliability.

Series 5420 single preset models range in price from \$435.00 for 2-digit capacity to \$740.00 for 6-digit capacity. Dual preset Series 5440 range from \$560.00 (2-digit) to \$840.00 (6-digit).

Series 5840 long-life magnetic dual preset counter features FERRISTORized* circuitry; 6-digit, Model 5846, \$1,295.00.

TIME INTERVAL METERS



Model 7250 Berkeley Time Interval Meters provide a direct, digital reading of elapsed time between any two events, or the duration of a single event, in microsecond (Model 7260) or 10-microsecond increments.

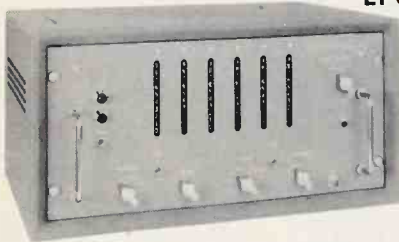
Any occurrences that can be changed to varying voltages may be so timed. Both models may be standardized against WWV or other external standards, and have connections for driving digital printers or data converters. Provisions are also made to measure period of input signals or use as a high-speed electronic counter or frequency ratio meter.

APPLICATIONS

Timing of relays, shutters, solenoids, controls; ballistics research; measurement of viscosity; elasticity, velocity; accurate low frequency and period measurements; calibration of pulse generators, precision phase measurements, frequency ratio measurements, etc.

BRIEF SPECIFICATIONS	Model 7250	Model 7260
Range:	10 μ sec to 1 sec	1 μ sec to 1 sec
Accuracy:	$\pm 10 \mu$ sec, ± 1 part in 10^5	$\pm 1 \mu$ sec, ± 1 part in 10^6
Input Requirements:	0.1 v rms, 10 megohms, ac or dc-coupled	
Display Time:	Adjustable, 0.1 to 5 seconds (automatic reset) Manual reset also provided.	
Price: (f.o.b. factory)	\$595.00	\$830.00

EPUT* (Events-Per-Unit-Time) METERS



APPLICATIONS

Precision tachometry; measurement of pressure, flow, temperature, viscosity, velocity, frequency, frequency period; process control or data reduction systems; calibration of frequency generating equipment; measurement of any electrical, mechanical, optical or other physical event occurring during a precise time interval.



Berkeley EPUT* Meters automatically count and display the number of events that occur during a precise time interval. Events may be any physical occurrences that can be represented by changing voltages occurring either regularly or at random at rates to 1,000,000 per second, depending on model.

7000 Series units may be used to measure frequency or period, and also as high speed electronic counters with manual on-off control.

Model 7650 Long-Life Magnetic EPUT* Meter

BRIEF SPECIFICATIONS

	Model 7150	Model 7160	Model 7650
Count Capacity:	5 digits	6 digits	5 digits
Count Rate:	0 cps to 100 kc	0 cps to 1 mc	0-40,000 cps
Time Bases: (decade steps)	10 μ sec to 1 sec	1 μ sec to 1 sec	0.1 to 10 sec
Price:	\$775.00	\$995.00	\$1,495.00

Performs the same function as models described above. Employs Berkeley FERRISTORS* in all critical circuits to assure continuous-duty reliability. Ideally suited to industrial test applications such as jet and piston-engine test cells, etc. Has digital "count-down" time base for precise gating; no adjustment of time base required.

*Trademark

MODELS 7250 and 7260 UNIVERSAL EPUT* METERS

APPLICATIONS

Counting, time interval, EPUT* measurements for precision tachometry, measurement of pressure, flow, frequency, velocity, viscosity, elasticity; timing relay, shutter action, etc.

Measurement of unknown frequencies, frequency ratios, periods, etc.

BRIEF SPECIFICATIONS

	Model 7350	Model 7360
Ranges-Frequency:	0 cps to 100 kc	0 cps to 1 mc
Time Interval:	10 μ sec to 10 ⁶ sec	1 μ sec to 10 ⁷ sec
Period:	0 cps to 100 kc	0 cps to 1 mc
Time Bases:	10 μ sec to 10 sec	1 μ sec to 10 sec
Price:	\$890.00	\$1,175.00



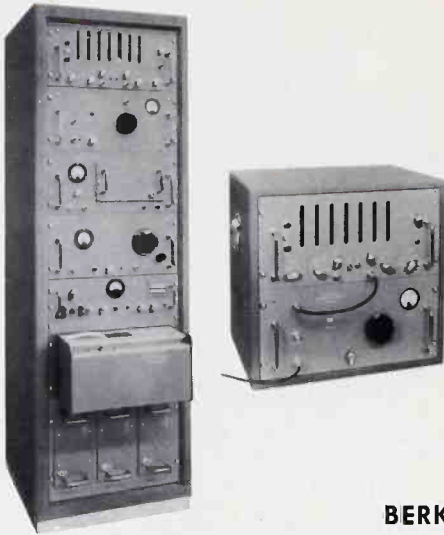
These truly universal instruments combine high-speed electronic counting with a precision time base in multi-purpose circuitry. They function as counters, timers, time-interval meters, EPUT* meters, frequency, frequency ratio or period meters, or as secondary frequency standards.

Frequency Meters and Frequency Measurement Systems

Basic instrument is the Model 5571, capable of measuring frequencies from 0 cps to 42 mc. Addition of the Model 5580 UHF-VHF converter and suitable plug-ins extends the range to 515 mc; Model 5582B VHF converter with plug-ins extends the range to 1,000 mc. Results are displayed in direct-reading digital form. Unit will drive a Model 1452 digital printer to provide a complete frequency logging system in which results are printed on standard adding machine tape. Model 5571 is also a Universal EPUT* and Timer with same specifications as Model 7360.

Model 5571 with 5580 converter and 5580 series plug-ins for frequencies to 515 mc. Model 5571 price, \$1,745.00. Model 5580 converter, \$300.00; 5581 series plug-ins, \$100 to \$150.00 each. All are FCC-approved.

Complete frequency logging system for frequencies to 1,000 mc. Model 5571 (with 5582B converter and plug-ins), drives Model 1452 digital printer to record results automatically on adding machine tape; 5590 WWV receiver and 5585 2 to 42 mc Selective Amplifier also shown.



BERKELEY DOUBLE PULSE GENERATORS

Produce paired or single pulses. Pulse amplitude, width, polarity, repetition rate and pulse-to-pulse spacing are independently adjustable. Outputs may be mixed internally or externally. Model 903 (\$440.00) can be driven externally by pulses; Model 4904 (\$595.00) by pulses or sine wave generators.



BERKELEY TEST ACCESSORIES

TACHOMETER PICKUPS

Consist of magnetic pickup and toothed tachometer gear (number of teeth optional). Offered in 3 types, also explosion proof. Photo-cell pickups and light sources also available.

MODEL 1452 DIGITAL PRINTER

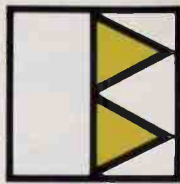
Connects directly to any Berkeley 5510, 5571 or 7000 Series instrument, prints data in digital form on standard adding machine tape. May be modified to print "Time" or "Code" information simultaneously with data. Rack mounted; available in up to 8 digits. Price (6 digit), \$850.00.

MODEL 5916 IN-LINE READOUT

Large, illuminated in-line IN-PLANE figures reduce fatigue and error. Ideal for remote observation of data. Connects directly to any Berkeley 5510, 5571 or 7000 Series instrument. Price (6 digit) \$775.00.

*Trademark





FIELDS OF ACTIVE PARTICIPATION

1. High speed, high accuracy analog-to-digital and digital-to-analog conversion
2. Digital timing and recording systems
3. Automatic logging systems (static or dynamic)
4. High speed telemetered data handling
5. Industrial tachometry-fuel flow measuring and recording systems
6. Complete closed loop analog control systems
7. Industrial batching-sorting control systems
8. Automatic nuclear sampling and recording systems
9. Special-purpose digital computers
10. General-purpose data handling and data reduction systems
11. Machine tool control



Telemetered Data Handling Systems

Among recent systems developed by Berkeley is one capable of high speed measurement and recording of FM and FM-commutated data. Analog data represented by a frequency-modulated signal is continuously decommutated, measured, operated on, and the corrected data presented at the output in both digital and analog form. Features include:

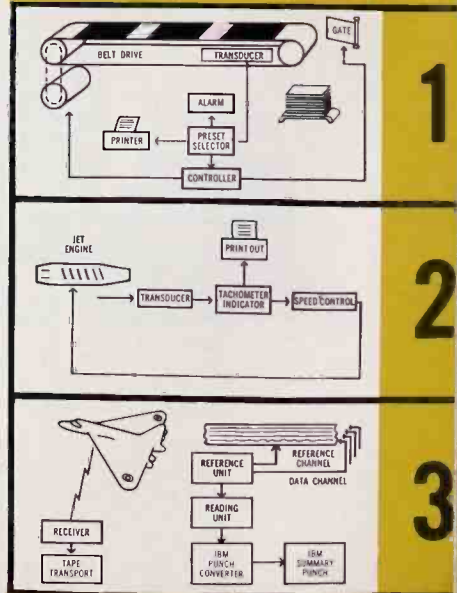
1. Compensation for tape wow and flutter
2. Compensation for transducer drifts
3. Accuracy to $\pm 0.1\%$
4. High speed digital computation

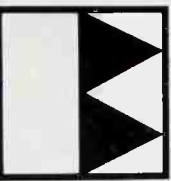
Other systems can be provided for pulse code telemetering, featuring an airborne electronic commutator, a reliable airborne magnetic analog-to-digital converter, and on-line computation of data on the ground.

Standard component blocks have also been developed for use in telemetering systems handling Pulse-Width and Pulse-Amplitude modulated signals.

Typical Systems

1. Steel mill counter-controller. Counts, stocks, batches and records steel sheets. Eliminates costly give-away.
2. Jet engine tachometer controller. Measures high rotational speeds to an accuracy of 0.001%.
3. Tape-data-to-punch-card system. Reduces multiple channels of magnetic tape data to punch cards; does in 30 minutes a task that formerly required 80 hours.





Model 5692 Digital Flow Indicator

Automatic Logging Systems

Berkeley division has long been actively engaged in the investigation and manufacture of complete data handling systems. The approach used is to accumulate standard blocks which can be assembled into a complete system to meet individual customer requirements.

Both dynamic and static logging systems can be provided for the sampling and recording of temperature, pressure, RPM, fuel flow, position and other analog quantities. Speed of sampling may range from 1 sample per second to 40,000 samples per second with accuracies to $\pm 0.1\%$. Inputs can be from thermocouples, strain gages, or digital transducers.

Typical systems include either mechanical or electronic commutator, analog to digital converter, programmer, output storage unit and recording device.

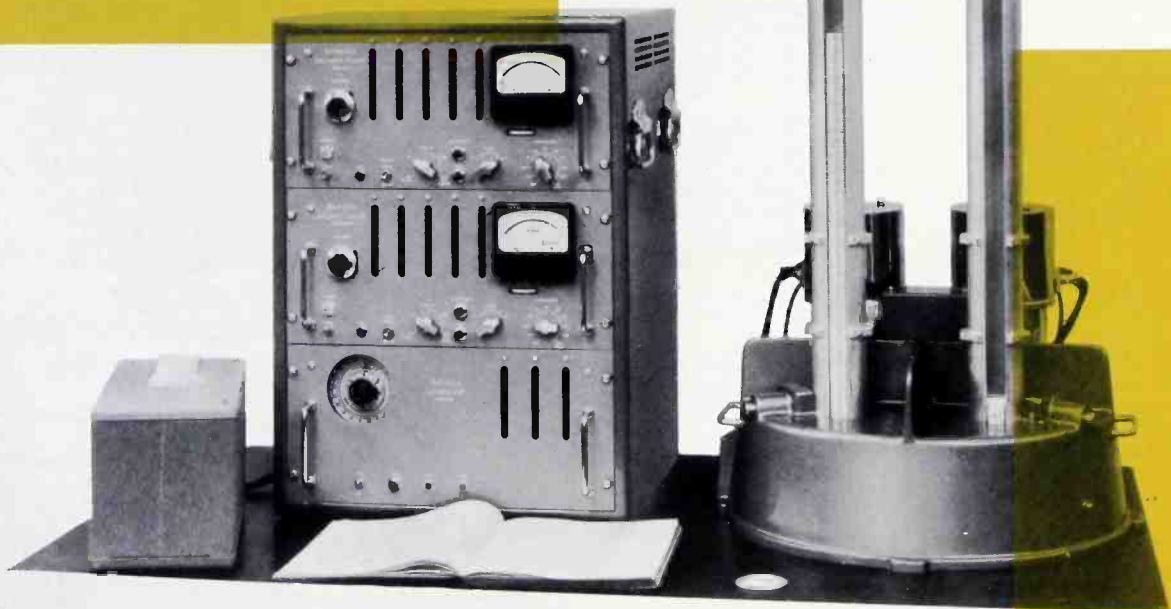
Timing and Recording Systems

With the use of modified digital time interval meters and digital recorders, as manufactured by Berkeley division, complete industrial timing and recording systems can be manufactured to meet individual requirements.

Timing accuracies to $\pm .1$ microsecond can be provided with recordings on standard adding machine tape, paper punched tape, magnetic tape, IBM cards, typewriter, teletype machine, by the use of Berkeley data reduction converters which operate with all Berkeley instruments.

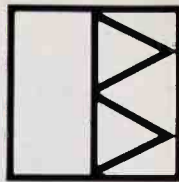


Model 5692 Digital Flow Indicator provides four-digit presentation, reading directly in pounds or gallons per hour either as a flow indicator or totalizing meter. Works with any digital flow meter.



Automatic Nuclear Sample Counter automatically counts and records data on printed tape; handles up to 250 samples. Berkeley's complete line of Nuclear instruments includes decimal scalars, count rate meters, scintillation counting systems.

BERKELEY EASE* COMPUTERS

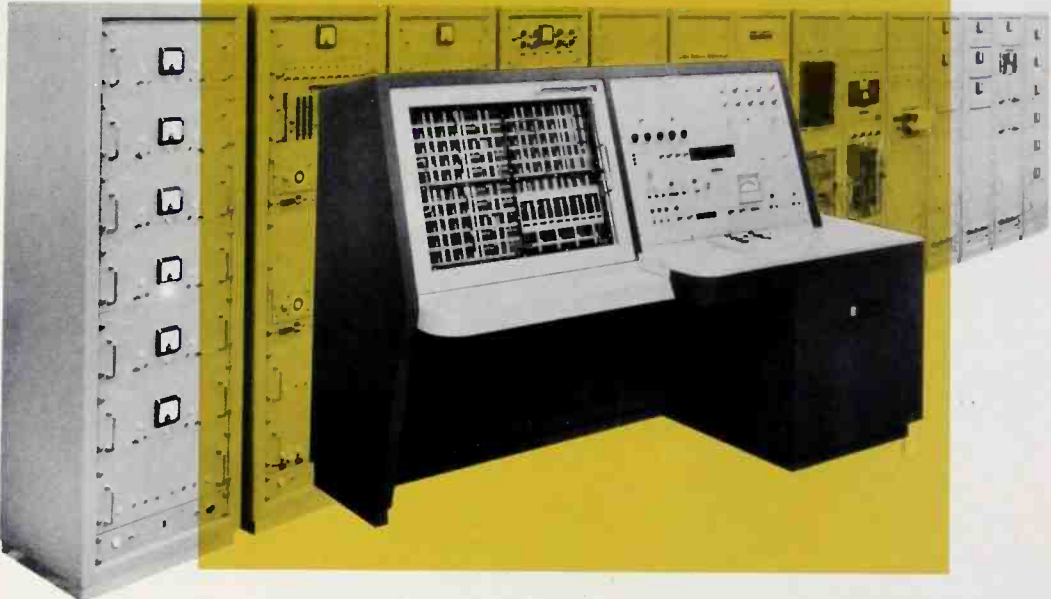


New EASE* 1200 Series Analog Computers

The EASE* 1200 series represents maximum convenience and accuracy in large scale analog computers, including completely automatic and/or remote control of all attenuator settings by a serial type keyboard and/or punched tape input. In the EASE* 1200, the user finds tomorrow's computer today.

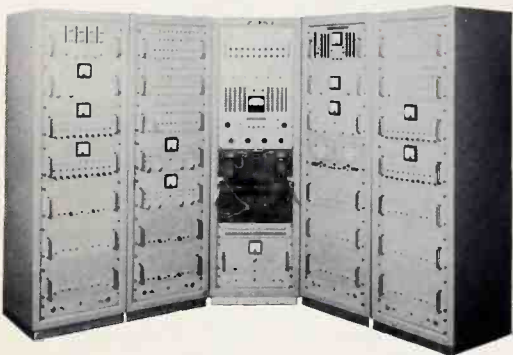
The patch bay system is all new, featuring complete shielding and insulation to eliminate accidental shorting of patch cords. The patch bay has sufficient capacity (3600 terminals) to interconnect more than:

- 100 dc amplifiers
- 16 servos
- 350 keyboard-controlled attenuators
- 30 electronic multipliers
- 250 spare terminals
- Adequate trunk lines and terminals for limiters, biases, etc.



Features That Set Tomorrow's Standards Today

1. High accuracy and stability
2. Complete keyboard control of all problem parameters including initial conditions and coefficients
3. Automatic punched tape or card attenuator setting
4. Complete and automatic recording of all problem parameters
5. Built-in problem checking system
6. Built-in 6-channel chart recorder
7. Completely shielded patch cord and patch board system
8. "Human engineered" centralized console design
9. Instantaneous and "stored" overload indication
10. Unitized design for complete flexibility and future expansion
11. Modular construction

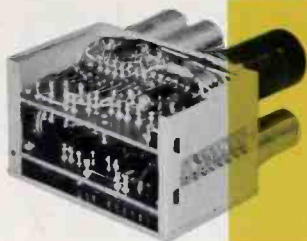


MEDIUM-PRICED — .05% accuracy; includes pushbutton control unit to handle up to 100 servo-set pots, 50 amplifiers, 16 electronic multipliers. Various combinations of function generators, servo multipliers and special equipment available.

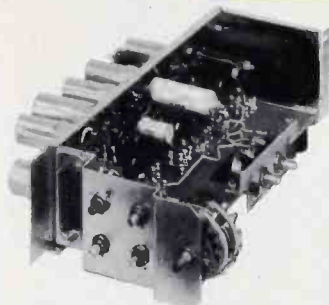


LOW-PRICED — 1% accuracy; as shown includes 10 amplifiers (stabilized or unstabilized), 16 coefficient pots, 10 initial condition voltages for integrators. Model 1031 patch board accommodates up to 42 decade stepping resistors and multiturn pots, 30 amplifiers, for future expansion.

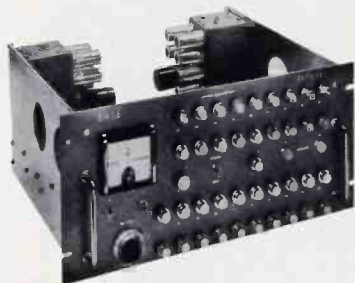
*Trademark



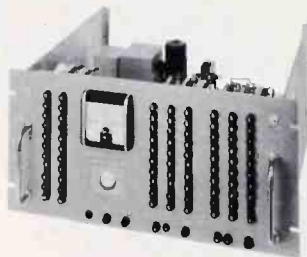
Model 1048 DC Amplifier... a chopper-stabilized operational amplifier with open loop gain in excess of 10^8 and extremely low drift. Adaptable to many computing functions where accuracy and stability are important such as amplification, inversion, addition or integration. These amplifiers have also been used as isolation devices, as highly stable recorder drives, as difference amplifiers, etc.



Model 1056B Electronic Multiplier... a highly stable device with less than 0.2% drift in any 8-hour period, static accuracy of 0.2% of full scale, and frequency response flat within 1/2 db to 500 cps. Useful wherever accurate, fast multiplication of dc voltages is desired at reasonable cost.



Model 1073 Function Generator... a self-contained diode function generator requiring no patching or external connections. Approximates non-linear function by 20 straight-line segments, using locking-type knobs for adjustments, accurate null-reading meters, and precision potentiometer. Can be used for linearizing outputs of transducers or non-linear metering devices, to compensate for non-linear values or transfer characteristics in process control, or for simulating characteristic behaviour of physical systems.



Automatic Setup Function Generator... completely self contained diode function generator; one control unit sets up to 10 function generators automatically. Can be used in combination with a Berkeley servo as a "mapreader" to generate functions of two variables.

Complete technical data price and delivery information on any Berkeley product will gladly be supplied on request. Call your nearest Berkeley representative (listed below), or write us now; please address Dep't G13.

*Trademark

BERKELEY REPRESENTATIVES

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Edward A. Ossmann & Associates
28-C Weis Road

ALBUQUERQUE, NEW MEXICO
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8009 Bellamah, N.E.

ATLANTA 9, GEORGIA
Murphy & Cota
2110 Peachtree St., N.W.

BOSTON, MASSACHUSETTS
Broger Instrument Sales Co.
48 Pearl St.
Brookline 46, Massachusetts

CHARLOTTE, NORTH CAROLINA
Murphy & Cota
2036 Norton Rd.

CHICAGO 39, ILLINOIS
Ridgway Engineering & Assoc.
6100 W. North Ave.

CLEVELAND 28, OHIO
J. R. Dannemiller Assoc.
3955 Lee Road

DALLAS 7, TEXAS
John A. Green Co.
137 Parkhouse

DAYTON, OHIO
J. R. Dannemiller Assoc.
384 W. First St.

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J. R. Dannemiller Assoc.
2980 W. Davison

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Gene Piety
2030 Home Rule St.

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John A. Green Co.
P.O. Box 6445
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1606 N. Illinois St.

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Hamburg, New York

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2230 West 11th St.

MIAMI 43, FLORIDA
Murphy & Cota
11375 S.W. 46th St.

MINNEAPOLIS 3, MINNESOTA
Pinkney & Hine
1925 Nicollet Ave.

MONTREAL QUEBEC, CANADA
Electrodesign
736 Notre Dame St., West

NEW HAVEN, CONNECTICUT
Broger Instrument Sales Co.
42 Church Street

NEW YORK, NEW YORK
Gawler-Knoop Co.
178 Eagle Rock Ave.
Roseland, New Jersey

PHILADELPHIA, PENN.
Gawler-Knoop Co.
835 Glenside Ave.
Wyncote, Penn.

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Edward A. Ossmann & Assoc.
650 Linden

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200 South Main St.,
(Room 822)

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422 La Jolla Avenue
San Mateo, California

SEATTLE, WASHINGTON
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701 Administration Bldg.
Boeing Field

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Box 911

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Silver Springs, Maryland
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Murphy & Cota
35 Burke St.

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RICHMOND 3, CALIFORNIA
PHONE: LANDSCAPE 6-7730



KESTER SOLDERFORMS®

BIG STEP in
Production Cost-Cutting!

You take a giant step forward in lowering assembly costs when you figure Kester Solderforms into your production. Labor costs are reduced, assembly operations speeded up. There's no solder waste, and the end result is a neater, more expertly finished product. If you don't know all about Kester Solderforms and the technique of using pre-formed solder, better write today for complete information.

WHERE TO USE KESTER SOLDERFORMS:

Relays • Transformers • Resistors
TV and Radio Tuners • Capacitors • Switches
Gauges • Small Metal Assemblies and
Controls . . . and so many others

KESTER SOLDER COMPANY

4204 Wrightwood Avenue
Chicago 39, Illinois

Newark 5, New Jersey
Brantford, Canada

FIXED Composition RESISTORS

In all standard ranges and tolerances for industrial and military uses

The widespread use of Stackpole 1/2-, 1-, and 2-watt fixed composition resistors in much of today's finest equipment clearly attests their dependability. Accurate, stable electrical ratings combined with firmly anchored, readily soldered leads assure maximum reliability and ease of use. Types available to MIL-R-11A Specifications in styles RC20, RC30, RC31, and RC42.

PACKAGED FOR AUTOMATION—All Stackpole resistors are available packaged in strips, stacked layers, or reels to suit your automation program.

NOW AVAILABLE FROM LOCAL PARTS DISTRIBUTORS

Stackpole resistors are stocked by local parts distributors throughout the country. For the name of the distributors nearest you, write: Distributors' Division, Stackpole Carbon Co., 26 Rittenhouse Place, Ardmore, Pennsylvania.

VARIABLE Composition RESISTORS

- Metal or Phenolic Shafts
- Midget types for Transistor Sets
- Lug, Printed-wiring, or Wire-wrap terminals
- Choice of 9 Switch Types

Single, and dual concentric-shaft Stackpole controls are offered in one of the largest selections available today . . . and in the smallest sizes consistent with real dependability.

Write for the new "Quick Guide to Stackpole Variable Resistors" for complete list of types, features, and readily available modifications.

FIXED Composition CAPACITORS

Cost-Saving, Low-Value Types for VHF or UHF
Originated by Stackpole, these tiny capacitors not only represent the simplest, most inexpensive composition capacitor design yet produced—but likewise have characteristics that make them more desirable than larger, higher-priced capacitors for many uses. 47 standard types, 0.1 to 10.0 mmf. Write for full details.

NEW CeraMAGNET[®]

... the low-cost all-ceramic permanent magnet material

By combining the low-cost and light-weight of non-critical ceramic with fully available magnetic energy, exceptional resistance to demagnetization, and almost infinite electrical resistance, Stackpole Ceramagnet opens new engineering possibilities in many fields—mechanical as well as electrical.

Important new developments using this unique new Stackpole permanent magnet material are daily being engineered in television, aviation, automotive, heavy-duty electrical, and allied fields.

A full description of Ceramagnet, with detailed graphs of characteristics is available in Bulletin RC-10A.

TYPICAL CHARACTERISTICS	
Coercive Force	1650 oersteds
Residual Induction	2010 gauss
Energy product	0.915x10 ⁶ gauss-oersteds (Max.)

Electrical Resistance	6x10 ¹⁰ ohm/cm ³ @ 25° C
Linear Temp. Characteristics (including retrace)	to 400° C
Specific Gravity	4.85



IRON CORES

Insert cores

Side-molded Cores

Sleeve Cores

Cup cores

Threaded cores

"EE" CORES . . . STANDARDIZED FOR ECONOMY

Stackpole "EE" Cores meet over 80 percent of all engineering requirements with cost savings up to 300 percent over conventional cores that require set-up charges. More than 18 standard insert and threaded core types are stocked for same-day delivery in any quantity.

"CUSTOM" CORES . . . for special requirements

. . . in practically any desired size, shape, or iron grade and with assured uniformity of both electrical and mechanical characteristics.

Write for data on any type.

Ceramag®

FERROMAGNETIC CORES

High Perm, Low Loss Cores for TV, Radio, and Industrial Electronics

Look to Stackpole Ceramag for the latest cost-saving grades and types that set new higher standards of efficiency in flyback transformers, deflection yokes, width control, and other applications. Regardless of size, shape, grade, or production quantity, Ceramag characteristics are maintained with remarkable uniformity so that each production unit is like the engineering sample.

Write for full details on the latest available grades.

IRON COIL FORMS

Real Space-Savers for High-Q Coils.

Stackpole Coil Forms reduce coil sizes and cut assembly costs through simplified point-to-point wiring with fewer soldered connections. Carefully molded of high resistance powdered iron and with easily soldered leads firmly anchored to the body.

Write for handy chart giving complete specifications on all sizes and grades.

SLIDE & SNAP SWITCHES

. . . for real switch economy and versatility in less space.

Standard Stackpole Slide Switches cover practically every circuit configuration needed for instruments, record players, radios, small motors, appliances, TV, electrical toys and similar uses. Over 15 inexpensive types with AC and/or DC ratings from 0.5 to 15.0 amperes . . . many UL inspected. Stackpole Snap-Switches with outside toggles provide dependable, snap-action switching for a host of applications—from push button tuners, record changers, to other indirectly-operated switching assemblies.

For complete details write for Bulletins RC-10B and RC-10D.



STACKPOLE

Electronic Components Division **STACKPOLE CARBON COMPANY** St. Marys, Pa.



For Connecting Wires



In Terminal Strips

HUBBELL Interlock

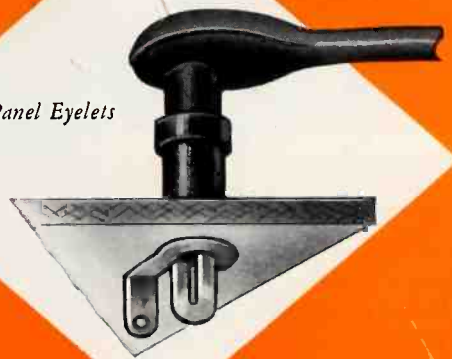
AUTOMATIC LOCKING — QUICK DISCONNECT

PLUGS and CONNECTORS

For Printed Circuits
(Type "C")



In Panel Eyelets



Insulated



Non-Insulated



TYPE "B" MINIATURE PLUGS AND CONNECTORS

Current Capacity: 5 Amperes
Wire Sizes: #18 to #22

TYPE "C" SUB-MINIATURE JACKS AND CONNECTORS

Current Capacity: 1 Ampere
Wire Sizes: #20 to #22



Insulated



Non-Insulated

TYPE "A" PLUGS AND CONNECTORS

Current Capacity: 10 Amperes
Wire Sizes: #14 to #18

VIBRATION PROOF!



Left: With an Interlock Plug and Jack securely mounted, test begins with platen vibrating at 10 cycles per second. Right: at 50 cycles per second, camera stops motion to show plug still locked in its jack! Tested for 18 hours at an amplitude of .06 inch and at a varying frequency from 10 to 50 to 10 cycles per second, conductive quality remained steady with no current interruption during vibration.



For Further Information, Write Dept. C:

HARVEY HUBBELL, INC.

Interlock Electronic Connector Dept., Bridgeport 2, Conn.



Pats. & Pld. Pats.

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ENGINEERING
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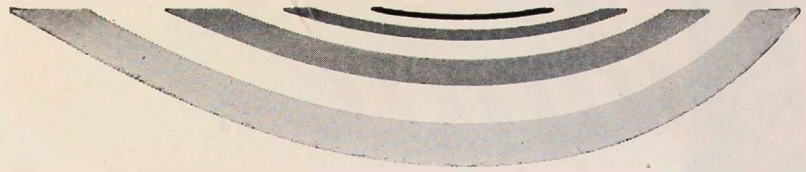
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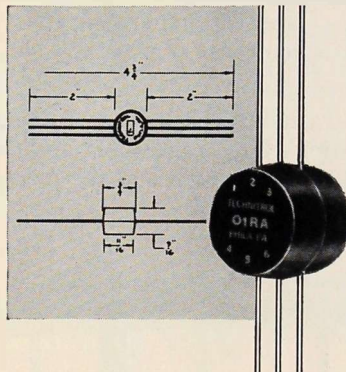


**miniature
ENCAPSULATED**

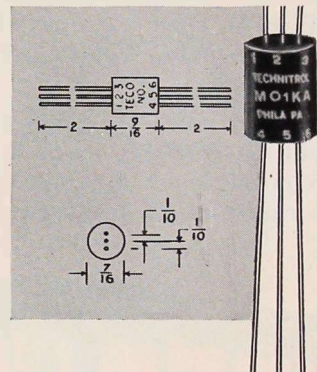
pulse transformers

custom-wound for your needs

**Type MILX... for extreme
environmental conditions**



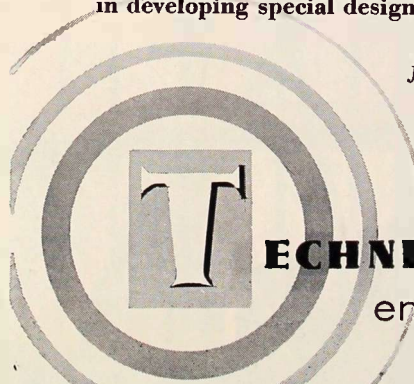
**Type M... for subminiature
and transistor circuits**



Technitrol is equipped to design and produce pulse transformers to meet your particular requirements. Simply let us know your performance specifications. Technitrol's staff of engineers will test sample transformers under actual circuit conditions—assuring proper performance. All charges for this service are included in our low sample quantity price.

Technitrol also makes a full line of lumped and distributed parameter Delay Lines. You may choose from a variety of mountings, or again, our engineers will aid you in developing special designs.

*for additional information,
write for Bulletin EB166.*



TECHNITROL

engineering company

2751 North Fourth Street • Philadelphia 33, Pennsylvania

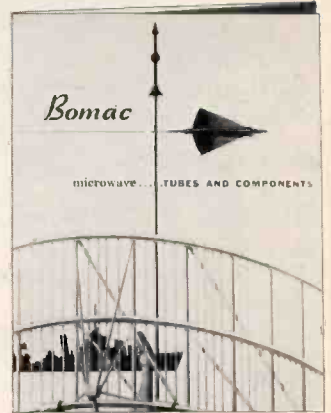
Bomac...

FIRST

in microwave tubes and components

Here are three important reasons why more buyers insist on BOMAC microwave tubes and components: *first*, because every tube, every component is 100% tested for peak performance and maximum uniformity . . . *second*, BOMAC offers a complete line — over 500 microwave tubes and components . . . *third*, BOMAC offers a complete engineering and development service.

Whatever your needs — a single tube, a modification, or a completely new product — BOMAC, one of the nation's largest designers and manufacturers in this highly specialized field, has the men and the means to meet your most exacting requirements.



FOR MORE INFORMATION
write for Bomac's free, six page file-size folder containing details and specifications on more than 300 different microwave tubes and components.



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1860 Broadway
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Circle 5-5700



TR

A type for every known application — all bands — fixed-tuned or tunable — special types: shorted, dual and triple.



ATR

All standard types and many more developed in our laboratories — nearly all fixed-tuned — highly specialized, required: low-Q or high-Q, miniaturized, special shapes and mounts.



PRE-TR

Several L-band and X-band types, fixed-tuned, for operation at power levels of 550 and 3000 KW peak.



SHUTTERS

Bomac was the first to develop shutter tubes and integral TR combinations for continuous crystal protection. Today, the line includes a wide variety of tubes for the C, Ku, K, S and X-bands.



REFERENCE CAVITIES

High precision, fixed-frequency, vacuum-sealed, transmission type for use in pressurized waveguide systems. Temperature compensated to ± 0.3 MC from 0° C to 100° C.



HYDROGEN THYRATRONS

Bomac thyratrons provide the following advantages: — precise triggering — high repetition rates — high power levels — zero bias operation — electrical stability.



SILICON DIODES

The most sensitive, uniform and stable diodes available (JN23D). Also available in matched pairs for X-band and S-band. Can also be supplied as mixer diodes with either normal or reverse polarity.

MAGNETRONS

High frequency, tunable and fixed-tuned magnetrons are a Bomac specialty. Frequencies range from Ku to millimeter bands that are classified. Special types designed to meet your particular requirements.



KLYSTRONS

Bomac klystrons offer maximum performance at high altitudes without pressurization, and can be installed in existing systems without disrupting the associated equipment.



DUPLEXERS

Bomac will design, develop, and produce complete duplexers to customer specifications.



PRESSURIZING WINDOWS

Bomac has windows available for all wave guide sizes, broad band characteristics with low insertion loss, temperature range — 55° C to 100° C and 30 lb./sq. in. gage pressure in either direction.



TRAVELING WAVE AMPLIFIER TUBES

These Bomac tubes are designed to meet conditions where wide band high gain operations are required. Two types are available now — others will be available shortly.



SYSTEMS

Bomac engineers design, manufacture and assemble complete systems for any microwave band to meet your specific requirements.



SURGE PROTECTORS

Bomac surge protectors are hold-off diode tubes. A wide range of breakdown voltages is available: from 100 to 33000. Consult our engineering department for your particular applications.



Bomac

LABORATORIES, INC.
Beverly, Massachusetts

RCA PROUDLY PRESENTS AN...

OUTSTANDING NEW LINE OF

Now from the RCA Commercial Electronic Products Division, you are offered a line of precision instruments designed to the same exacting standards as the electron microscope, film projectors, television cameras and similar highly precise RCA electronic equipment. Heralding RCA's entry into the field of precision apparatus, these well-built instruments will facilitate the design, development and production of a wide range of complex electronic equipment and systems.

DC NULL VOLTMETER

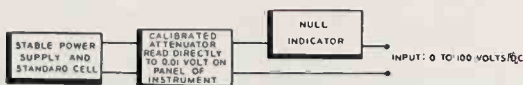
(TYPE LV-15,
0-100 V)



This DC Voltmeter has the ability to measure DC voltage levels to a much higher order of accuracy than is possible with deflection type instruments. Other outstanding features include high resolution, negligible loading, high sensitivity, wide range and internal calibration.

SPECIFICATIONS

- | | | |
|--|--|--|
| RANGE:
0-100 volts DC, positive or negative grounded. | ABSOLUTE ACCURACY:
0.1% ± 100 microvolts between 0 and 1 volt.
± 1 millivolt between 1 and 100 volts. | INPUT CURRENT:
Less than 10-11 amperes. |
| EFFECTIVE SCALE LENGTH:
114 feet, 30,000 indicating divisions. | LINEARITY:
0.05% on any one range, 0.1% overall. | POWER SUPPLY:
95-135 volts, 60 cycles, 40 watts. |
| RESOLUTION: | TUBES USED:
1—12AT7, 3—12AX7, 1—5879 | DIMENSIONS:
10 3/4" W x 9 3/4" H x 11" D. |
| At least 50 microvolts between 0 and 1 volt.
500 microvolts between 1 and 10 volts.
5 millivolts between 10 and 100 volts. | | |



STANDARD SIGNAL GENERATOR

(TYPE LG-21,
50 KC TO 50 MC)



This Standard Signal Generator is designed for broad application and consists of an RF oscillator, a buffer modulator, an AF oscillator, an attenuator, a diode voltmeter, a multivibrator, and a stabilized power supply. Features internal or external modulation, adjustable modulation depth, variable metered output. Choice of modulated RF CW or audio through output attenuator.

SPECIFICATIONS

- | | | |
|--|--|--|
| FREQUENCY RANGE:
50 KC to 50 MC in six direct reading ranges (plus one range spread IF 420 to 500 KC). | AF FREQUENCY ACCURACY:
± 5%. | METER ACCURACY:
± 5%. |
| READING ACCURACY:
1% to 15 MC (correction chart for the range 15 to 50 MC). | MODULATION DEPTH:
Adjustable from 0 to 80% (± 5% accuracy). Also external modulation. | STRAY RADIATION:
Negligible. |
| RF OUTPUT LEVEL:
0.3 μv to 0.1 V variable. 1 V at separate connector. | AF OUTPUT LEVEL:
3 μv to 10 V. | POWER SUPPLY:
115 V, 50-60 cps. |
| AF MODULATION FREQUENCIES:
60—150—400—1000—1500—3000 cps. | ATTENUATOR ACCURACY:
± 5% from 50 KC to 6 MC; ± 10% from 6 MC to 20 MC; ± 20% from 20 MC to 50 MC. | TUBES USED:
3—6J5, 2—EL3N, 1—5Z4, 1—Ballast tube 25/75 V, 0.5 A. |
| | | WEIGHT:
50 lbs., 9 ozs. |
| | | DIMENSIONS:
21 x 12 3/4 x 9 3/4 inches. |

**INSTRUMENTS
OF
LABORATORY
PRECISION**

Get all the facts about this outstanding new line of RCA precision apparatus, available from leading representatives throughout the United States. Write for the name of the representative nearest you. Address Radio Corporation of America, Precision Electronic Instruments, Department F-46, Building 15-1, Camden, New Jersey.

PRECISION INSTRUMENTS

Effective for the design, development and testing of radar, computers, fire control systems, radio and television receivers, communications and sound equipment, the instruments provide a high degree of precision measurement and accuracy. Many feature characteristics that are completely new in their field. We take genuine pride in offering them to you.

**PULSE GENERATOR • RF POWER METERS • NULL VOLTMETERS
IMPEDANCE BRIDGES • SIGNAL GENERATORS • VACUUM TUBE VOLTMETER
MULTIMETER • CRYSTAL MODULATOR AND OTHER ACCESSORIES**

BACKED BY THE RCA REPUTATION FOR ENGINEERING EXCELLENCE

VACUUM TUBE VOLTMETER

(TYPE LV-10)



This is an extremely versatile instrument, combining an AC voltmeter covering a range from audio to UHF frequencies, a DC voltmeter with 100 megohms input resistance, and an ohmmeter capable of measuring resistance from zero to 1,000 megohms. Features high stability, specially balanced and rugged meter movement. Accessories include both DC and AC Probes and Adapters.

SPECIFICATIONS

DC VOLTS:
7 ranges: 1.6, 5, 16, 50, 160, 500, 1600.
Accuracy: $\pm 3\%$ full scale deflection.
Input resistance: 100 megohms $\pm 2\%$ on all ranges.

AC VOLTS:
5 ranges: 1.6, 5, 16, 50, 160.
Accuracy: $\pm 3\%$ full scale deflection.
Input impedance: equivalent to 2.2 mmf in parallel with 15 megohms.
Frequency response: ± 0.1 db near 20 cps to 500 MC.
Relative measurements: possible to 1000 MC.

DECIBELS:
Scale -4 to +6 db.
10 db between consecutive ranges.
Accuracy: ± 1 db.
0 db = 0.775 V (1 mW in 600 ohms).
RESISTANCES:
7 ranges: 1 K ohm—10 K ohms—100 K ohms—1 M ohm—10 M ohms—100 M ohms—1000 M ohms.
Mid-scale readings: 20 ohms—200 ohms—2 K ohms—20 K ohms—200 K ohms—2 M ohms—20 M ohms.
Accuracy: $\pm 5\%$ between divisions 10 and 100 on the scale.

STABILITY:
Ranges 1.6 V AC and DC, $\pm 1\%$ for 15% power supply variation. On other ranges, variation is negligible.

POWER SUPPLY:
115 V, 50-60 cps, 12 VA.

TUBES USED:
1—12AX7, 2—6DN2, 1—6X4.

DIMENSIONS:
Case: $12\frac{3}{4}''$ H x $7\frac{1}{2}''$ W x $5\frac{1}{4}''$ D.
AC Probe: diam. $1\frac{1}{4}''$, length 4".

WEIGHT:
13 lbs.

RF POWER METER

(TYPE LP-91, 1000 MC to 10,000 MC)

(TYPE LP-90 SIMILAR TO LDP-91 EXCEPT COVERS RANGE FROM 20 MC to 1000 MC)



This rugged Power Meter consists of an RF power bridge and a complete set of calibrated RF accessories which are mounted in the instrument cover and provide both high and low power ranges. Features high reliability, direct reading and CW or pulse power measurements from 1000 MC to 10,000 MC.

SPECIFICATIONS

POWER RANGE:
5 Microwatts to 5 Watts.

MODULATION ENVELOPE:
Pulse through CW.

FREQUENCY RANGE:
1,000 MC to 10,000 MC.

ACCURACY:
5% under all operating conditions.

COMPENSATION:
Automatic for all frequency and temperature variations.

INDICATION:
Direct reading, average RF power.

BOLOMETERS:
Both high power and high sensitivity types.

POWER SUPPLY:
Fully regulated for $\pm 10\%$ change in 115 volt, 50-1,000 cps line voltage.

RF PLUMBING:
 $\frac{3}{8}$ Inch coaxial, 50-ohm.

VSWR:
Less than 1.30, all RF components.

TEMPERATURE RANGE:
From -40° C. to $+55^{\circ}$ C.

CONSTRUCTION:
Rugged, meets all MIL requirements.

ACCESSORIES:
2—3 db calibrated Attenuator ($\frac{3}{8}''$ coaxial).
2—7 db calibrated Attenuator ($\frac{3}{8}''$ coaxial).
1—Bolometer Mount.
2—High Sensitivity Bolometer Element.
2—High Power Bolometer Element.
1—Calibrated RF Cable.
1—Calibration Chart.

TUBES USED:
1—5Y3GT, 1—6AS7G, 1—6AU6, 2—5651

NET WEIGHT:
45 lbs.
SHIPPING WEIGHT:
60 lbs.

COMPLETE INFORMATION ON THESE AND OTHER ITEMS ON REQUEST

Specifications subject to change without notice



RADIO CORPORATION of AMERICA

COMMERCIAL ELECTRONIC PRODUCTS

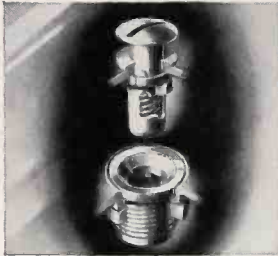
CAMDEN, N. J.

5 Simmons Fasteners offer

Economy • Quick installation • Flexibility of design •

Whatever your application, Simmons Fasteners will fill your needs. Leading manufacturers are using Simmons Fasteners with perfect results in a wide range of products.

QUICK-LOCK



Millions in use on weather-tight lighting units, battery chargers, truck heaters, engine cowlings, access panels and doors, radio equipment covers, gas tank covers, map and data cases, transmitter cases, voltage regulators...

Easy to install, QUICK-LOCK is ideal for assembling removable panels and access doors. A 90° turn locks it in place. Stud is self-ejecting when unlocked; visual inspection shows whether fastener is locked. Spring loading takes initial load; solid supports carry increased load. Available in various sizes with choice of stud and receptacle types.

SPRING-LOCK



The perfect, proved fastener in such applications as removable covers and panels on electric and electronic equipment, railroad locomotives and diesels, all sheet-metal automobile parts, shipboard equipment, home appliances...

SPRING-LOCK, one-piece fastener for blind holes, has load-carrying steel spring wire. Spring steel arms lock it securely, prevent loosening under vibration. SPRING-LOCK is self-adjusting for various material thickness, locks with a twist of the wrist.

Plastic SPRING-LOCK Shelf Supports, with the strong "heart of steel," are available in your specified color...used by all major appliance manufacturers to cut costs, speed production, simplify servicing in refrigerators, ranges. Custom molded to your design requirements.



ROTO-LOCK



Ideal for portable Arctic region shelters, partitions, cabinets, built-ins of all kinds, desks, tables and other demountable furniture, knock-down shipping boxes, demountable refrigeration units, caskets, point-of-sale display assemblies...

ROTO-LOCK makes butt or right-angle joints easily. Tapered cam design permits secure locking even in misaligned or semi-open position. Carries heavy tension and shear loads; can be used for air and water-tight seals. Solidly built without springs or delicate mechanical parts; unaffected by sub-zero temperatures.

you every advantage...

Strength • Positive locking • Smooth fastening action

LINK-LOCK



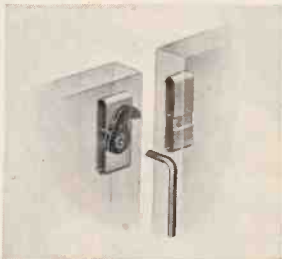
Available in 3 sizes—heavy, medium, light duty. The perfect latching device where positive or heavy locking pressures are necessary, and where lock will have to withstand rough service. Proved in portable aircraft hangar construction, containers, military transit cases, instrument cases...

The springless latching device for use wherever pre-loaded closure is required. (Also spring-loaded. See below.) Impact and drop-resistant, LINK-LOCK provides heavy fastening pressure and high load-carrying capacity. Excellent for water and pressure-tight sealing. Withstands 70-below temperatures.

New! Spring-Loaded LINK-LOCK...medium and heavy duty...ideal for less expensive containers where costs won't permit precision production. Spring provides take-up to compensate for set in gasketing, irregularities of sealing surfaces.



DUAL-LOCK



An absolutely vibration-proof, impact-proof high-load fastener that will not accidentally unlock or loosen...ideally suited for demountable structures, guided missile assemblies, shipping containers, aircraft cowlings and sheet metal guards, and all butt-joint fastening...

Double-acting take-up in DUAL-LOCK insures heavy closing pressure with minimum pressure on operating tool. Trigger action of DUAL-LOCK assures full open and closed positions. Can be recessed in panels or surface mounted. Withstands 7000-lb. tension, and can be readily modified for light load applications.



Send today for your copy of the 40-page Simmons Fastener catalog, which gives specifications, applications, installation instructions. Samples of all Simmons Fasteners are available.

SIMMONS

FASTENER CORPORATION

1750 North Broadway, Albany 1, New York

ALLIED'S HERMETICALLY SEALED RELAYS



MECHANICAL SPECIFICATIONS											ELECTRICAL SPECIFICATIONS			
ALLIED TYPE	TYPE OF TERMINAL	OUTLINE			WT. (OZ.)	MOUNTING DIMENSIONS		TYPE MOUNTING	CONTACT RATING (AMPS.)	CONTACT FORM MAX.	COIL DATA			
		AA	A	B		C	D				E	MAX. D.C. OHMS	OPERT.	
ASH	SOLDER	2 3/8	2 1/4	1 3/8	1 7/8	3.5	.938	1.187	{3}#6-32 Studs	5	SPDT	3500 3485	AC DC	
ASHO	PLUG-IN	3	2 3/8	1 3/8	1 7/8	4			Octal Plug-in	5	SPDT	3500 3485	AC DC	
BJHR	SOLDER	3 3/8	2 3/8	1 3/8	1 1/2	7.5	.875	1.625	{3}#6-32 Studs	5	DPDT	3700 5000	AC DC	
BJHRO	PLUG-IN	3 3/8	3 3/8	1 3/8	1 1/2	7.5			Octal Plug-in	5	DPDT	3700 5000	AC DC	
BOH	SOLDER	3 1/2	2 3/8	2 3/8	DIA.	7.5	1.856	1.856	{4}206 Dia. Holes	10	DPDT	2675 5000	AC DC	
BOHO	PLUG-IN	3 3/8	3	2 3/8	DIA.	8			Octal Plug-in	5	DPDT	2675 5000	AC DC	
BOHR	SOLDER	3 3/8	2 1/8	1 3/8	1 3/8	8.5	1.250	1.250	{3}#8-32 Studs	10	DPDT	2675 5000	AC DC	
BOHRO	PLUG-IN	3 1/2	2 3/8	1 3/8	1 3/8	8.5			Octal Plug-in	5	DPDT	2675 5000	AC DC	
BOYH	SOLDER	3 1/2	2 3/8	2 3/8	DIA.	8.5	1.856	1.856	{4}206 Dia. Holes	10	DPDT	10,000	DC	
BOYHO	PLUG-IN	3 3/8	3	2 3/8	DIA.	8.5			Octal Plug-in	5	DPDT	10,000	DC	
BOYHR	SOLDER	3 3/8	2 1/8	1 3/8	1 3/8	8.5	1.250	1.250	{3}#8-32 Studs	10	DPDT	10,000	DC	
BOYHRO	PLUG-IN	3 1/2	2 3/8	1 3/8	1 3/8	8.5			Octal Plug-in	5	DPDT	10,000	DC	
CNAH	SCREW	4 1/2	3 3/8	2 1/2	2 3/8	22	1 1/4	2"	{3}#10-32 Studs	50	SPST	600 4460	AC DC	
DSH	SOLDER	3 3/8	3 3/8	3 1/2	1 3/8	13	1.375	3.125	{4}206 Dia. Holes	5	DPDT	8,000	DC	
DSHR	SOLDER	3 3/8	3 3/8	2 1/4	1 1/2	9.5	.687	1.750	{3}#8-32 Studs	5	DPDT	8,000	DC	
KH-3-1D	PLUG-IN	1 3/4	3/4	3/4	3/4	0.33			7 Pin Plug-in	1/2	SPDT SPST NO	1,500	DC	
KH-3-2D	PLUG-IN	1 3/4	3/4	3/4	3/4	0.33			7 Pin Plug-in	1/2	SPDT SPST NC	1,500	DC	
KH-6C	PLUG-IN	1 3/4	3/4	3/8	800	0.33			8 Pin Plug-in	1/2	DPDT	5,000	DC	
LKH-4D	SOLDER	3 3/8	3 3/8	1 3/8	1 3/8	8.5	1.375	1.500	{3}#6-32 Studs	2	DPDT	11,000	DC	
LKH-4C	SOLDER	3 3/8	2 1/8	1 3/8	1 3/8	6	.938	1.187	{3}#6-32 Studs	2	4PDT	11,000	DC	
LKHO	PLUG-IN	3 3/8	3	1 3/8	1 3/8	5.5			Octal Plug-in	2	DPDT	11,000	DC	
MEH-6	SOLDER	2 3/8	1 3/8	1 3/8	1"	3	.672	1.047	{3}#6-32 Studs	5	DPDT	1330 2930	AC DC	
MEHG	PLUG-IN	2 3/8	1 3/8	1 3/8	1"	3.5	.750	1.125	Note 1 {3}#6-32 Studs	5	DPDT	1330 2930	AC DC	
MEHX	SOLDER	2 3/8	2 1/8	1 3/8	1 7/8	5.3	.938	1.187	Note 2 {3}#6-32 Studs	5	4PDT	7260	AC DC	
MH-6D	SOLDER	1 3/4	1 3/4	1 3/4	DIA.	1	CTR/CTR	.875	{2} Holes 125 Dia.	2	DPDT	15,900	DC	
MH-12	SOLDER	1 3/4	1 3/4	1 3/4	DIA.	2.5	CTR/CTR	1.406	Note 3 {2}#6-32 Studs	2	4PDT	16,000	DC	
MH-18	SOLDER	1 3/4	1 3/4	1 3/4	DIA.	4	CTR/CTR	1.562	Note 3 {2}#6-32 Studs	2	6PDT	22,100	DC	
MHT-12	SOLDER	2 1/8	1 1/8	1 3/8	DIA.	3	CTR/CTR	.625	Note 3 {2}#6-32 Studs	2	4PDT	16,000	DC	
MHT-18	SOLDER	2 1/8	1 1/8	1 3/8	DIA.	4.5	CTR/CTR	.625	Note 3 {2}#6-32 Studs	2	6PDT	22,100	DC	
MHK-12	SOLDER	1 3/8	1 1/2	1 3/4	DIA.	3.5	.938	1.187	{3}#6-32 Studs	2	4PDT	16,000	DC	
MHUO-12	PLUG-IN	1 3/8	1 3/4	1 3/4	DIA.	2.5	CTR/CTR	1.406	Note 4 {2}#6-32 Thd.	2	4PDT	16,000	DC	
MHLO-12	PLUG-IN	1 3/8	1 3/4	1 3/4	DIA.	2.5	CTR/CTR	1.531	Note 4 {2}#10-32 Thd.	2	4PDT	16,000	DC	
MHUO-18	PLUG-IN	1 3/8	1 3/4	1 3/8	DIA.	4.0	CTR/CTR	1.562	Note 4 {2}#6-32 Thd.	2	6PDT	22,100	DC	
MHLO-18	PLUG-IN	1 3/8	1 3/4	1 3/8	DIA.	4.0	CTR/CTR	1.687	Note 4 {2}#10-32 Thd.	2	6PDT	22,100	DC	
*MHJ-12	SOLDER	1 3/8	1 3/4	1 3/4	DIA.		CTR/CTR	1.406	{2}#6-32 Studs	2	4PDT	16,000	DC	
*MHJ-18	SOLDER	1 3/8	1 3/4	1 3/4	DIA.		CTR/CTR	1.562	{2}#6-32 Studs	2	6PDT	22,100	DC	
MHY-6	SOLDER	1 1/8	1 3/8	1 3/4	DIA.		CTR/CTR	1.406	{2}#6-32 Studs	10	DPDT	16,000	DC	
MHY-12	SOLDER	1 3/4	1 3/4	1 3/8	DIA.		CTR/CTR	1.562	{2}#6-32 Studs	10	4PDT	22,100	DC	
PBHW-6	SOLDER	2 3/8	2 1/4	1 3/8	1 3/8	6	CTR/CTR	1.468	Note 3 {2}#6-32 Studs	10	DPDT	380 4800	AC DC	
PBH-6	SOLDER	2 3/8	2 1/4	1 3/8	1 3/8	6	1.218	1.218	{4}#6-32 Studs	10	DPDT	380 4800	AC DC	
PBH-9	SOLDER	2 3/8	2 1/4	1 3/8	1 3/8	6	1.218	1.218	{4}#6-32 Studs	10	3PDT	380 4800	AC DC	
PBH-12	SOLDER	2 3/8	2 1/4	1 3/8	1 3/8	6.5	1.218	1.218	{4}#6-32 Studs	10	4PDT	380 4800	AC DC	
PBHN-6	PLUG-IN	3 3/8	2 3/8	1 3/8	1 3/8	9	Note 3		"AN" CONNECTOR	10	DPDT	380 4800	AC DC	
PBHN-9	PLUG-IN	3 3/8	2 3/8	1 3/8	1 3/8	9	Note 3		"AN" CONNECTOR	10	3PDT	380 4800	AC DC	
PBHN-12	PLUG-IN	3 3/8	2 3/8	1 3/8	1 3/8	9.5	Note 3		"AN" CONNECTOR	10	4PDT	380 4800	AC DC	
PDH-6	SOLDER	2 1/8	2 1/8	1 3/8	1 7/8	6	.938	1.187	{3}#6-32 Studs	2	DPDT	475 4800	AC DC	
PDH-9	SOLDER	2 1/8	2 1/8	1 3/8	1 7/8	6	.938	1.187	{3}#6-32 Studs	2	3PDT	475 4800	AC DC	
PDH-12	SOLDER	2 1/8	2 1/8	1 3/8	1 7/8	6.5	.938	1.187	{3}#6-32 Studs	2	4PDT	475 4800	AC DC	
PDHG	PLUG-IN	2 3/8	2 3/8	1 3/8	1 3/8	6.5	Note 1		14 Pin Plug {3}#6-32 Studs	2	4PDT	475 4800	AC DC	
POHR-9	SOLDER	3 1/8	3 3/8	1 3/8	1 7/8	12	1.375	1.437	{3}#8-32 Studs	10	3PDT	870 5000	AC DC	
POHR-12	SOLDER	3 1/8	3 3/8	2 1/4	2 1/8	13.5	1.625	1.812	{3}#8-32 Studs	10	4PDT	870 5000	AC DC	
POHRO-12	PLUG-IN	4 1/8	3 3/8	2 1/4	2 1/8	13.5			14 Pin Plug-in	5	4PDT	870 5000	AC DC	
PRH	SOLDER	3 3/8	2 3/8	3 1/4	1 1/2	9.5	CTR/CTR	2.687	{2} .161 Dia. holes	10	4PDT	620	DC	
RSH-3D	SOLDER	2 3/4	1 1/4	3/4	DIA.	2.0	CTR/CTR	.973	{2}.125 dia. clearance holes	2	SPDT	14,000	DC	
RSH-6D	SOLDER	2 3/4	1 1/4	3/4	DIA.	2.0	CTR/CTR	.973	{2}.125 dia. clearance holes	2	DPDT	14,000	DC	
RSHO-6D	8 PIN PLUG-IN	2 3/4	1 1/4	3/4	DIA.	2.0	CTR/CTR	.973	8 pin plug-in + keyway + {2}.125 dia. clearance holes	2	DPDT	14,000	DC	
RSH-3D	7 PIN PLUG-IN	2 3/4	1 1/4	3/4	DIA.	2.0			7 Pin Plug-in	2	SPDT	14,000	DC	
SKH	SOLDER	2 3/8	2 1/8	1 3/8	1 3/8	4.5	.938	1.187	{3}#6-32 Studs	2	4PDT	4,500	DC	
SKHO	PLUG-IN	3	2 3/8	1 3/8	1 3/8	5			Octal Plug-in	2	DPDT	4,500	DC	
SKHW	SOLDER	2 3/8	2 1/8	1 3/8	1 3/8	4.5	.938	1.187	Note 3 {3}#6-32 Studs	3	4PDT	4,500	DC	
SKHG	PLUG-IN	2 3/8	2 3/8	1 3/8	1 3/8	5	Note 1		14 Pin Plug-in {3}#6-32 Studs	2	4PDT	4,500	DC	
SKHN	PLUG-IN	3 3/8	2	1 3/8	1 3/8	6.8	Note 3		"AN" CONNECTOR	2	4PDT	4,500	DC	
SWHO	PLUG-IN	2 1/8	2 1/8	1 3/8	1 3/8	5.5			Octal Plug-in	2	DPDT	13,800	DC	
SWH	SOLDER	2 3/8	2 1/8	1 3/8	1 3/8	5.5	.938	1.187	{3}#6-32 Studs	2	DPDT	13,800	DC	
7RH	SOLDER	5 1/8	3	5	4 1/2	17	4	3.812	{6} .157 Holes	.2 Amp. at 16000V.	SPDT	110 2630	AC DC	

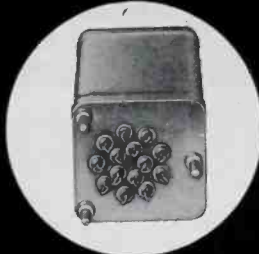
*NOTE: MHJ type relays are available in all MH type mountings.

NOTE 1: Use 14 pin miniature socket
NOTE 2: Two Relays in one enclosure
NOTE 3: Air Force approved
NOTE 4: Sockets available from Allied Control

TYPES OF MOUNTINGS AND TERMINALS



2 STUDS



3 STUDS



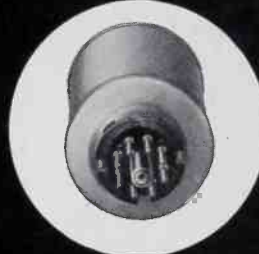
4 STUDS



"AN" PLUG-IN



2 HOLE

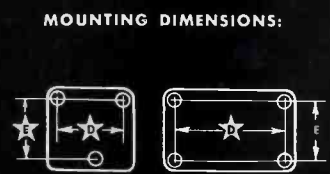
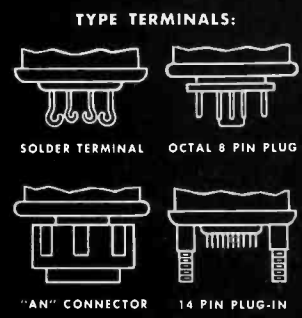
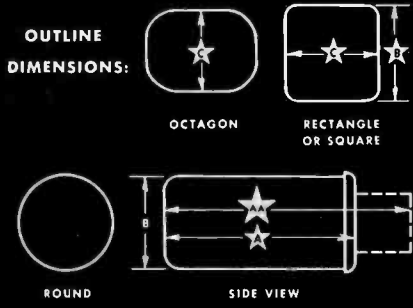
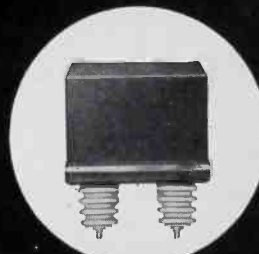
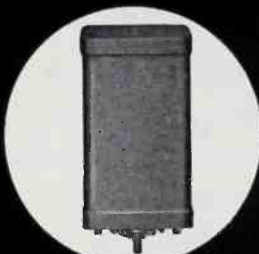
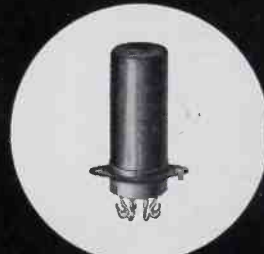
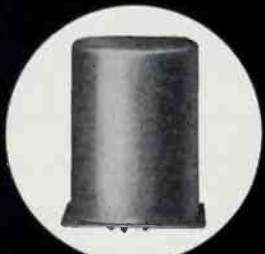


OCTAL PLUG

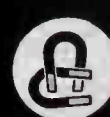


14 PIN PLUG-IN

TYPES OF HOUSINGS

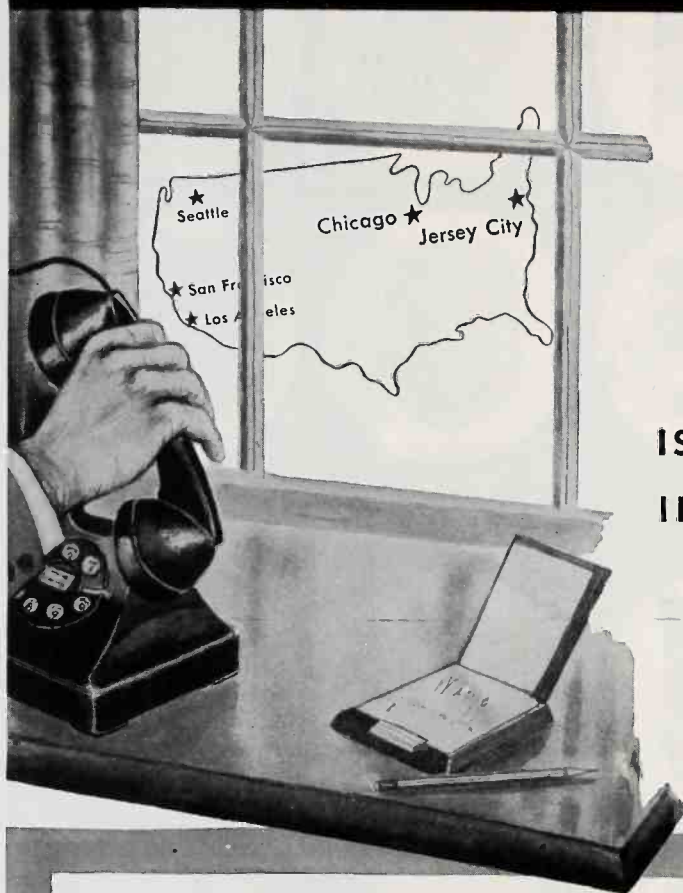


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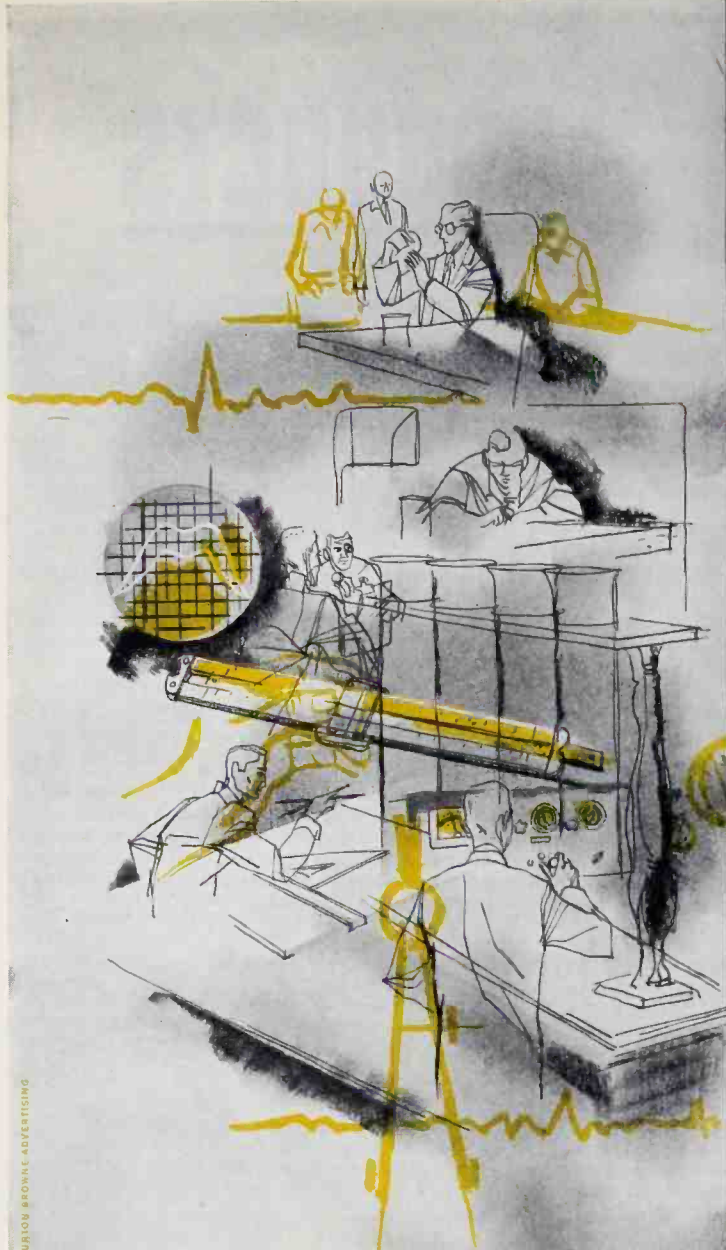
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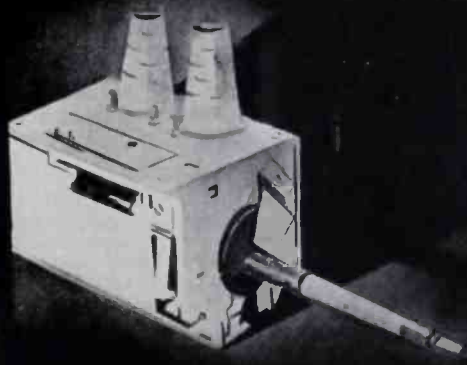
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S-14-C



S-4-C

S-5-C



S-14-B



S-15-A



S-14-C COMPUTER POKETSCOPE is a portable oscilloscope, especially designed for computers and business machine service. Lightweight and small size together with simplicity of operation makes this instrument IDEAL for field servicing. In addition . . . signal amplifier with $0.35 \mu\text{s}$ pulse rise from dc, with signals of 1 mv observable . . . calibrated fixed sweeps and continuously adjustable linear time base from 20 μs to 2 seconds . . . 5x stable time base expansion with complete parading for accurate pulse position . . . sync limiting . . . special intensification circuits permits observation of pulses shorter than 10 μs at repetition rates slower than 1 pps . . . accessory attenuating and amplifying probes . . . make this instrument a MUST for computer type service.

S-4-C SAR PULSESOPES are improved JANized equivalents to the Gov't Model AN/USM-25. These portable instruments (only 31.5 lbs. each) are for precision pulse time measurements in radar, TV and all electronics equipment. Portray all attributes of the pulse . . . internal crystal controlled markers of 10 and 50 μs available for self-calibration . . . in R operation a small segment of the A sweep is expandable for detailed observation with a direct-reading calibrated dial accurate to 0.1%. Video amplifier band-pass up to 11 mc . . . optional video delay 0.55 μs . . . pulse rise time better than 0.05 μs . . . R pedestal (sweep) 2.4 to 24 μs . . . video sensitivity of 0.1 v rms/in. Easily convertible from μs to yards. Operates from 50 to 400 cycles at 115 volts.

S-5-C LAB PULSESOPES are JANized equivalents to the Gov't Model AN/USM-24C. These portable, AC, wide band-pass laboratory oscilloscopes are ideal for pulse as well as general purpose measurements. Internal delay of 0.55 μs permits observation of pulse leading edge. Includes precision amplitude calibration, 10X sweep expansion, internal trace intensity time markers, internal trigger generators and many other features. Video amplifier .06 v RMS/inch . . . pulse rise time of 0.07 μs or response to 11 mc . . . 5 to 50,000 μs /in. triggered or repetitive sweep . . . internally generated markers from 0.2 to 500 μs . . . trigger generator from 50 to 5000 pps. for internal and external triggering. Operates from 50 to 400 cycles at 115 volts AC.

S-11-A INDUSTRIAL POKETSCOPE is a small, compact, and lightweight instrument for observing electrical circuit phenomena. The flexibility of the POKETSCOPE permits its use for ac measurements as well as for dc. The vertical and horizontal amplifiers are capable of reproducing within—2 db from dc to 200 kc with a sensitivity of 0.1 v rms/in. . . repetitive time base from 3 cycles to 50 kc continuously variable throughout its range . . . variations of input impedance, line voltage or controls do not "bounce" the signal—the scope stabilizes immediately.

S-14-A HI-GAIN POKETSCOPE provides the optimum in oscilloscope flexibility for analysis of low-level electrical impulses. Vertical and horizontal channels: 10 mv rms/inch with response within—2 db from dc to 200 kc and pulse rise of 1.8 μs . . . non-frequency discriminating attenuators and gain controls with internal calibration of trace amplitude . . . repetitive or trigger time base with linearization from 1/2 cycle to 50 kc with \pm sync or trigger.

S-14-B WIDE BAND POKETSCOPE is ideal for investigations of transient signals, dc signals, aperiodic pulses or recurrent waveforms. Vertical channel: 50 mv rms/in. within—2 db from dc to 700 kc . . . pulse rise time of 0.35 μs . Horizontal channel: 0.15 v rms/in. within—2 db from dc to 200 kc . . . pulse rise of 1.8 μs . Attenuators and gain controls are non-frequency discriminating . . . trace amplitude calibration . . . repetitive or triggered time base from 1/2 cycle to 50 kc . . . \pm sync or trigger . . . trace expansion, filter graph screen and many other features.

S-15-A POKETSCOPE is a portable, twin tube, high sensitivity oscilloscope with two independent vertical as well as horizontal channels. It is indispensable for investigation of electronic circuits in industry, school and laboratory. Vertical channels 10 mv rms/in. with response within—2 db from dc to 200 kc and pulse rise time of 1.8 μs . . . horizontal channels 1 v rms/in. within—2 db from dc to 150 kc . . . non-frequency discriminating controls . . . internal signal amplitude calibration . . . linear time base from 1/2 cycle to 50 kc, triggered or repetitive, for both horizontal channels.

S-12-B RAKSCOPE admirably fills the need for a small oscilloscope of wide versatility. With all the features of the S-11-A POKETSCOPE, the RAKSCOPE is JANized (Gov't Model No. OS-11), and has many additional advantages; the sweep, from 5 cycles to 50 kc, is either repetitive or triggered . . . vertical and horizontal amplifiers are 50 mv rms/inch with band-pass from 0 to 200 kc . . . special phasing circuitry for frequency comparison.

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PANELSCOPES®

RAYONIC TUBES®

SYSTEMS CONCEPT



RAKSCOPE S-12-C

The Waterman SYSTEMS RAKSCOPE, S-12-C series is a rack mounted oscilloscope with SYSTEMS CONCEPT. Systems concept is a basic means for rapid monitoring of desired signals with minimum operative effort and without the use of auxiliary switching or jack panels. S-12-C series provide the following:

1. BASIC UNIT—The basic S-12-C SYSTEMS RAKSCOPE is a complete combination systems monitoring and trouble-shooting oscilloscope with outstanding physical and electrical characteristics. The RAKSCOPE occupies but 7 inches of a standard 19" rack and extends only 10 inches behind the front panel. Identical vertical and horizontal amplifiers are DC type having rise times better than 0.35 usec, and 50 or 71 millivolts rms per inch of deflection respectively. Signal calibration method uses a direct reading accurate meter. Time base sweeps are from 1/2 cps to 50KC in trigger or repetitive operation. Sync from internal or external sources provide stable operation by means of new sync lockout circuits. Special plug-in elliptical sweep circuit for easy phase and frequency checks greatly increase its systems utility. Construction is ruggedized throughout. Tube type options include standard commercial, ruggedized commercial or ruggedized military. Operable from 50 to 400 cycles.

2. CUSTOM MODIFICATION—Desired flexibility is obtained with the optional signal input selector. For the first time it is possible to select up to eleven different signal sources with the necessary built-in attenuation (supplied by us or by you) for each source. Thus the entire switching panel can be omitted from an overall system resulting in circuit and space economics. Standard elliptical sweep is 60 cycles, but plug-in units for other frequencies can be supplied. Accessories such as attenuating, direct, and amplifying probes are available.

Improve your existing or contemplated systems by including the S-12-C SYSTEMS RAKSCOPE as an integral part. Your local Waterman representative is ready to assist you in determining specific requirements.



PANELSCOPE®

The Waterman PANELSCOPE is a custom-built cathode ray tube oscilloscope, with simplified operation, and yet available at a low price. The PANELSCOPE concept provides for the following:

(1) MINIATURIZATION—Panel space required is only 5 1/4" x 5-3/16"—depth is 10" and the weight is less than 7 lbs. The PANELSCOPE can be installed in practically any equipment—mobile or stationary—air, sea, or land—military or commercial.

(2) SIMPLICITY OF OPERATION—Twist of a single rotary switch provides a synchronized pattern of desired incoming signal (up to 11 circuits) against proper linear time base. This is ideal for monitoring and trouble shooting, as it removes the need of fiddling with knobs as is done now on general purpose oscilloscopes. The static controls, such as beam, focus, positioning, and graticule brightness are located in tube escutcheon.

(3) CUSTOM DESIGN—A wide variety of—signal amplifiers with response from dc to megacycles and sensitivities from 5 millivolts—synchronized or triggered linear time base generators from 1/2 cycle (and lower if need be) to 2 microseconds—can be specified by you to fit your needs for particular equipment.

(4) PARTIAL KIT FORM—the PANELSCOPE comes fully wired and tested with chosen signal amplifier, linear time base generator and attendant sync. amplifier. The desired signal attenuators, frequency and amplitude determining components, and method of synchronization can be installed either by us or by you.

(5) POWER REQUIREMENT—Less than 10 watts of line power for built-in high voltage supply—The required B+ and heater current as selected by your requirements. For those cases where B+ and heater power is not available, auxiliary power pack can be supplied.

There is a place in your equipment for Waterman PANELSCOPE, a custom built oscilloscope at production prices, although your needs may be but one or two. Ask for specification sheets either from our representatives or direct from the factory.

RAYONIC CATHODE RAY TUBES BY WATERMAN

TUBE	PHYSICAL DATA		STATIC VOLTAGE		DEFLECTION*		LIGHT OUTPUT**
	FACE	LENGTH	A3	A2	VERT	HOR	
3JP1	3"	10"	3000	1500	111	150	40
3MP1	3"	8"		750	99	104	4
3RP1	3"	9.12"		1000	61	86	5
3SP1	1.5x3"	9.12"		1000	61	86	5
3XP1	1.5x3"	8.875"		2000	33	80	22

*Deflection in volts per inch.

**Light output of a line in millifoot lamberts per millimeter at line width not to exceed .65mm.

The basic properties of the cathode ray tube that concern the designer or the user are: deflection sensitivity, unit line brightness, line width, static voltage requirements and physical size. A comparison between cathode ray tubes manufactured by Waterman Products Company is shown in the table adjoining. These tubes are available in P1, P2, P7 and P11 phosphors. 3JP1, 3JP2, 3JP7, 3RP1, 3SP1 and 3XP1 are available as JAN tubes.

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Rome Cable during the last 20 years has manufactured millions of feet of especially designed cables for electronic and communication uses, both commercial and military. Its research and engineering staffs are well trained; its manufacturing and test facilities are of latest design.

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Multiple Conductor Cables. Multiple conductor cables are invariably made to customer specification to meet specialized application requirements. Therefore, Rome's ability to manufacture a wide variety of constructions is important.

Conductors can be solid or stranded in the normal range of sizes.

Insulations can be of rubber, polyvinyl chloride (Rome Synthanol and Rome Synthanol 901) or polyethylene (RoLene).

Cable assembly can be supplied to specification with regard to direction of lay, grouping of conductors, polarity identification and type of fillers.

Polarity identification is available by means of solid colored compounds, printing of spiral stripes or colored braids with tracer threads.

Electrostatic shieldings are usually braided copper or metallic tapes.

Protective sheaths can be rubber, neoprene (RoPrene), nylon (RoLon), polyvinyl chloride (Rome Synthanol), polyethylene (RoLene) or fibrous braids.

High-frequency Coaxial Cable. Rome Cable is approved by the Armed Services Electro Standards Agency (ASESA) to supply high-frequency solid dielectric coaxial cables (RG-8/U, RG-11/U, RG-58/U, RG-59/U), manufactured in accordance with Military Specification Jan-C-17A.

Commercial Type Hook-up Wires. Rome Hi-temp rubber insulation, UL approved for 75° C. Rome Synthanol-thermoplastic, resistant to heat, moisture, corrosion, oils, UL approved for 90° C. Rome Synthanol 901—extreme resistance to heat deformation, shrinkage, cracking, UL approved for 105° C.

Military Type Hook-up Wires. Rome manufactures military types SRIR, SRHV and WL, complying with JAN-C-76, Joint Army and Navy Specification. Also shipboard types SRI and SRIB conforming to Specification MIL-C-915 A (SHIPS). Full range of sizes.

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240 Shea Place
KANSAS CITY 11, MO.
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It Costs Less to Buy the Best



ROME CABLE
Corporation
ROME · NEW YORK
and
TORRANCE · CALIFORNIA

CINCH -- THE STANDARD COMPONENT ... SOCKETS -- CONNECTORS ...

STANDARD SOCKETS:

CINCH automatically assembled parts assure the uniformity and quality mandatory for use in AUTOMATION in the end user's equipment.

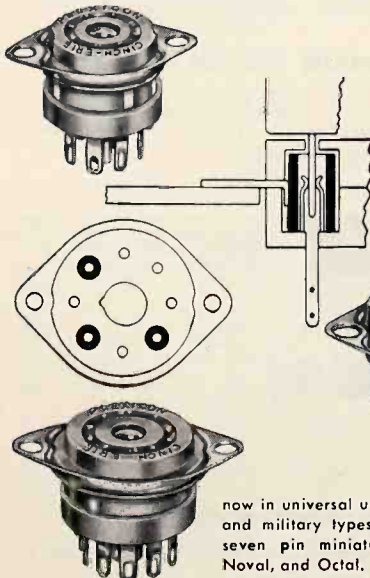


CINCH SOCKETS

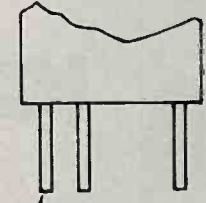
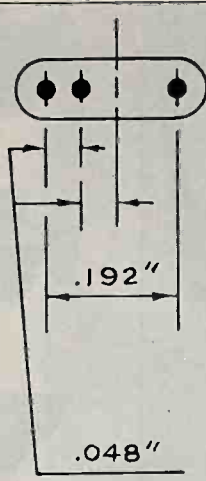
- Tube (Receiver, Transmitter and Special): Battery, all types
- C-R Tube
- Crystal
- Electrolytic
- Glass Type: 4 to 7 prong laminated
- Infra-red Ray Tube
- High Altitude Airborne Types
- Kinescope: Magnal, Duodecal, Diheptal
- Loktal-Miniature-Multiplug-
Noval-Octal (Molded bakelite, steatite, teflon, Kel-F and laminated)
- Plexicon
- Printed Circuit
- Special Sockets to Specs
- Sub-Miniature: Hearing Aid Types
- TV: 110V Circuit Breakaway
- Vibrator
- Pencil Tube Transistor
- Diode

CINCH-ERIE PLEXICON VACUUM TUBE SOCKETS

With built-in ceramic condensers, Plexicon Tube Sockets, no larger than standard receiver socket, provide the most effective method of by-passing... with condenser close to tube element providing shortest path to the ground... capacity up to 1,000 MMF—the tube element may be coupled or by-passed as desired.

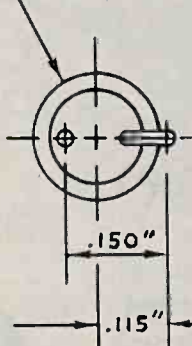


now in universal use, commercial and military types, available in seven pin miniature, nine pin Noval, and Octal.



3-LEADS
.017" $\begin{smallmatrix} +.002 \\ -.001 \end{smallmatrix}$
DIAMETER

BASE SHELL



46A 22468



46A 20928



46AZ20248



46P 22485
Printed Wire Socket



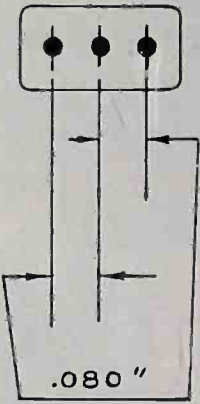
46A 22452
Printed Wire Right
Angle Socket



54A 17431

TRANSISTOR SOCKETS

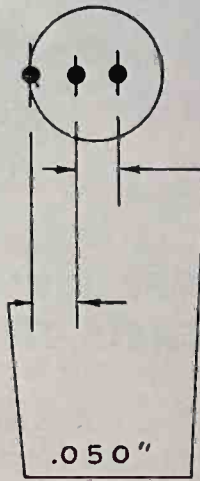
The CINCH Sub-miniature socket insures positive electrical contact, holds transistors securely in place, permits easy maintenance and replacement, provides maximum insulation resistance and minimum high frequency loss.



54A 14148



54A 14273



These sockets (above) are five contact printed wire subminiature sockets having .040" centers.

SOCKETS SHOWN ENLARGED TWICE



54A 16995



CINCH components available at leading electronic jobbers — everywhere.

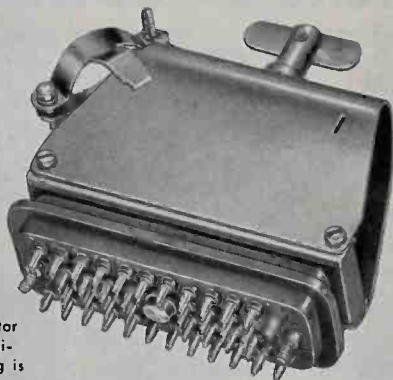
CINCH MANUFACTURING CORPORATION

1026 South Homan Ave., Chicago 24, Illinois

Subsidiary of United-Carr Fastener Corporation, Cambridge, Mass.

NEW COMPRESSION TYPE CONNECTORS

28, 32, 40, 48 and 52 contacts. Center engaging screw with wing nut or screw driver slot and spring action contacts — permits easy, quick and reliable engagement and dis-engagement. Receptacle side available for pressurized applications.



40 contact connector "A" style for applications where plug is "live voltage" side.

CINCH MICRO CONNECTORS

Available in two styles for alternate applications where either the plug or receptacle side is the "live" voltage side. (Protective Hoods and Cable Clamps Available.) Molded of orlon filled diallyl per MIL-P-14D. Contacts gold plated; other hardware is passivated stainless steel. (Multiple polarization available.)



52 contact connector "B" style for applications where receptacle is "live voltage" side.

BARRIER TYPE TERMINAL STRIPS, PLUGS, SOCKETS, FANNING STRIPS



No. 2-141



No. 2-141-Y



No. 2-141-3/4-W

JONES Barrier Terminal Strips: Increased insulation, better connections. Leakage path is increased—direct shorts from frayed terminal wires prevented by Bakelite barriers placed between terminals. Binder screws and terminals brass, nickel plated. Insulation, black molded Bakelite. Finest construction. Add much to equipment's effect.

JONES

JONES PLUGS AND SOCKETS



Jones 300 Series are small in size with good separation between contacts. Made in two to thirty three contacts. Plugs and sockets are polarized. A popular, inexpensive connector adaptable to a thousand uses. Phosphor bronze "knife switch" socket contacts engage both sides of heavy brass plug contacts for positive connections. Molded Bakelite insulation. Can also be supplied with contacts that will take the Faston or Quick Connect solderless terminals.



Jones 2400 Series are designed for highest electrical and mechanical efficiency. Ideal for Public Address, Radio, Electronic Controls, Vending Machines, or wherever a quality connector is required. Maximum creepage distances between contacts and contact to ground makes this series a must when Underwriter label is required. Made in 2, 4, 6, 8, 10 and 12 contact. Molded Bakelite insulation. Caps are of steel with black wrinkle finish.



Jones 202 Series: Shielded type low loss plugs and sockets for high frequency connections. Ideal for antenna connections, photo-cell work, microphone connections. Phosphor bronze knife-switch type socket contacts engage both sides of flat plug contact—double contact area. Plugs and sockets have molded Bakelite insulation.



JONES FANNING STRIPS



Jones fanning strips simplify connections to the barrier strips. Makes the replacement of units an easy matter and assures correct connections after servicing. Supplied with straight or right angle terminals.

The steadily expanding variety of plugs and sockets produced at the JONES Division has a wide range of the highest quality electrical and mechanical parts to efficiently fill every need.

JONES MEANS PROVEN QUALITY!

Hundreds of standard JONES terminal panels available; complete latest equipment for specials, send your specifications for prompt quotation.



No. 6-172

Jones 172 Series—A miniature barrier strip $\frac{5}{8}$ " wide with terminals mounted on $\frac{1}{4}$ " centers. Screw size: 2-56 x $\frac{1}{4}$ ". Molded Bakelite insulation. Made in one to fourteen contacts. Also supplied in the $\frac{3}{4}$ "W and W types.



No. 6-173

Jones 173 Series—A small single contact barrier strip with terminals mounted on $\frac{5}{8}$ " centers. Made in one to eight contacts. Screw size: 4-40 x $\frac{5}{16}$ ". Molded Bakelite insulation.

The components are shown here for variety, types and uses, and are not necessarily in comparative size.

**HOWARD B. JONES DIVISION
CINCH MANUFACTURING CORPORATION**

ETCHED CIRCUITRY AND RELATED ASSEMBLIES

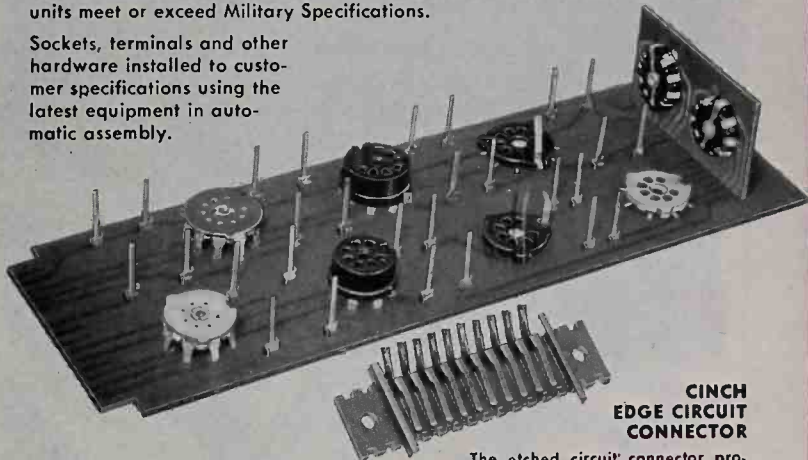
GRAPHIK CIRCUITS

Graphic Circuits Reduce Wiring Costs • Cut Down Assembly Time • Eliminate Errors • Miniaturize • Guarantee Uniformity

RIGHT ANGLE BOARD (Right)

Developed and produced for right angle application. The right angle board accommodates all of the CINCH socket sizes, and can be bonded with epoxy resin or snapped in and retained by newly developed CINCH hardware. All units meet or exceed Military Specifications.

Sockets, terminals and other hardware installed to customer specifications using the latest equipment in automatic assembly.

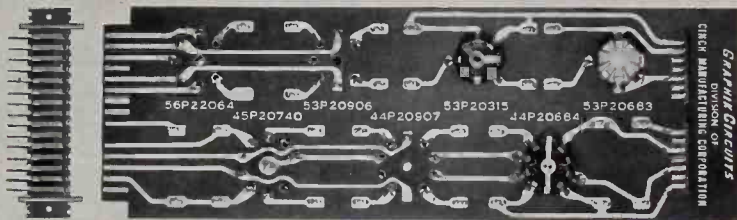


CINCH EDGE CIRCUIT CONNECTOR

The etched circuit connector provides fast, easy assembly. Does not require precision tolerances on board thickness. Eliminates moisture trap. Allows greater flexibility of configuration. Lower cost.

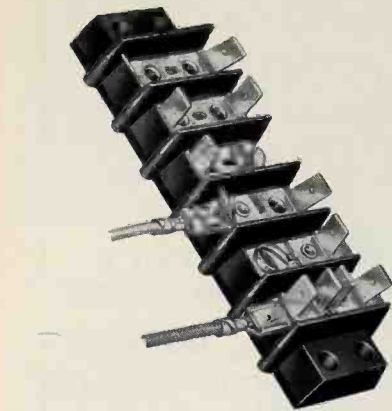
AUTOMATION: Solderless wrapped connections. CINCH Graphic Circuits is tooled to provide wire wrap terminals on etched circuit boards. Reduction in cost of component assembly is accomplished by speeding up production and the elimination of soldering.

Complete facilities for engineering production design, drafting, artwork, development, prototyping and manufacturing photo-printing, silk screen, etching, machining and punching, fabricating, mechanical assembly, electrical assembly, encapsulating, quality control, and fluoroscopic inspection.



GRAPHIK CIRCUITS DIVISION OF
CINCH MANUFACTURING CORPORATION

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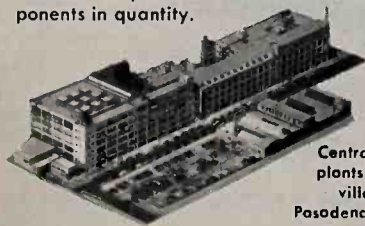


BARRIER STRIPS FOR SOLDERLESS TERMINALS. The 164, 141 and 142 series are now available for the solderless "Faston" or "Quick Connect" terminals. Illustration shows various angles that the terminals can be supplied. The terminal is of the extruded type so that it can be tapped making the addition of screw terminals. A most flexible line of barrier strips for every requirement.

The list below comprises the products of both CINCH and JONES. It is indicative of their wide scope; and also indicates the myriad of variations and redesigning that is possible with this background of production experience.

ANTENNA JACKS
BANANA PINS AND JACKS
BARRIER TERMINAL STRIPS
FANNING STRIPS
BATTERY PLUGS & SOCKETS
BINDING POSTS
DIODE SOCKET
CONNECTORS, MULTI CONTACT
FUSE STRIPS, BLOCKS & BOARDS
GRID CAPS
GRID CAP SHIELDS
HERMETICALLY SEALED TUBE
SOCKETS
METAL STAMPINGS
MICRO-CONNECTORS
MOUNTING DEVICES
PHONO TIP JACKS
PRINTED CIRCUIT, CONNECTORS.
SHIELDS, TUBE-MINIATURE &
NOVAL & BASES SOLDERING
LUGS—200 VARIATIONS
STRAP NUTS
TRANSISTOR SOCKET
TUBE HOLDERS—SPRING TYPE
VIBRATOR PLUGS AND SOCKETS

Quantity production of low loss Mica components. Finest molding machines and equipment operated under most experienced guidance and engineering supervision with adequate and unequalled facilities has advanced CINCH to the foremost in production of low loss Mica components in quantity.



Centrally located plants in Shelbyville, Chicago, Pasadena, St. Louis.



CINCH will design new, or re-design parts within the category of their manufacture to fit your particular plans, and will also assist in the introduction in the assembly of CINCH'S specially designed component in your radio and TV equipment.

CONSULT CINCH

CINCH MANUFACTURING CORPORATION

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CORNISH

Electronic

WIRES and CABLES

The Symbol of **QUALITY** and **PERFORMANCE**

Staunch allies of Progress from the infancy of Radio to the present era of Television! Typical of today's modern CORNISH Wire Products are:—

MICROPHONE CABLES

Designed for low capacitance, high insulation resistance, low attenuation—in plastic or rubber insulation to stand severe service.

ANTENNA CONTROL CABLES

Made both flat and round, of polyethylene and vinyl plastic in varied range of conductors to meet all installation problems.

T-V LEAD-IN CABLES

Made both flat and hollow, in pure virgin polyethylene to insure best electrical properties and long life in severe operating conditions.

SHIELDED CABLES

When installation conditions dictate, shielded cables are recommended. Made with internal or external shield — 2 and 3 conductors.

INTERCOMMUNICATION CABLES

These quality cables are made in various constructions, utilizing plastic insulation for both conductors and jacket.

“MADE BY ENGINEERS FOR ENGINEERS”

CORNISH WIRE COMPANY, Inc.

50 Church Street

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- ◆ ATLANTA ◆ BOSTON ◆ BRIDGEPORT ◆ CHARLOTTE ◆ CHICAGO ◆ CINCINNATI ◆ CLEVELAND
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CRUCIBLE PERMANENT MAGNETS

**CRUCIBLE
PERMANENT
MAGNETS
PROVIDE
CONSISTENTLY
HIGHER
ENERGY
PRODUCT**

Most Crucible Permanent Magnets are produced to custom specifications. They're sand cast, shell molded or investment cast in any shape, tolerance and finish needed . . . in any size from a fraction of an ounce to several hundred pounds.

However, Crucible does stock, for immediate delivery, permanent magnets in the shapes and sizes most frequently needed for both pilot and full-scale production. These standard items, with their physical and magnetic properties, are listed below.

In each case the sub-grade bearing the letter "B" is the standard for that grade. Thus Alnico VB is standard Alnico V. The other sub-grades are modifications of the standard grade to produce special magnetic characteristics. For additional technical information, call your nearest Crucible representative. Crucible Steel Company of America, Henry W. Oliver Building, Pittsburgh 22, Pa.

Compositions and Properties of Crucible Permanent Magnet Alloys

ALLOY	NOMINAL CHEMICAL COMPOSITION	MAGNETIC DATA				PHYSICAL DATA			MECHANICAL DATA		
		RESIDUAL FLUX DENSITY B_r (GAUSS)	COERCIVE FORCE H_c (OERSTEDS)	MAXIMUM ENERGY PRODUCT (BH) ^{max} (1/2 ERGS/CM ³ OR INCH ³ 10 ⁻⁴)	$B_{0.1}$ (GAUSS)	DENSITY (LBS./CUBIC INCH)	MEAN COEFFICIENT OF TEMPERATURE EXPANSION (20° C-300° C) (INCHES/INCH/°C/10°)	ELECTRICAL RESISTIVITY AT 25°C (OHM-CM/SQ.CM. 10 ¹¹)	TENSILE STRENGTH (AS USED) (LBS./SQ.INCH)	TRANSVERSE MODULUS OF RUPTURE (LBS./SQ.INCH)	HARDNESS (AS USED) (RC—ROCKWELL C)
Alnico IA	12 Al, 22.5 Ni, 5 Co, Bal. Fe	6,600	540	1.40	4,100	0.249	12.6	75	4,000	13,900	45 RC
Alnico IB	12 Al, 21 Ni, 5 Co, Bal. Fe	7,100	450	1.40	4,700	0.249	12.6	75	4,000	13,900	45 RC
Alnico IC	12 Al, 19.5 Ni, 5 Co, Bal. Fe	7,600	400	1.40	5,200	0.249	12.6	75	4,000	13,900	45 RC
Alnico IIA	10 Al, 18 Ni, 12.5 Co, 6 Cu, Bal. Fe	7,000	650	1.70	4,300	0.256	12.4	65	3,000	7,200	45 RC
Alnico IIB	10 Al, 19 Ni, 12.5 Co, 3 Cu, Bal. Fe	7,500	580	1.70	4,700	0.256	12.4	65	3,000	7,200	45 RC
Alnico IIC	10 Al, 16 Ni, 12.5 Co, 6 Cu, Bal. Fe	8,000	425	1.60	5,500	0.256	12.4	65	3,000	7,200	45 RC
Alnico IIA	10 Al, 19 Ni, 14.5 Co, 3 Cu, Bal. Fe	8,400	600	2.10	5,400	0.256	12.4	65	3,000	7,200	45 RC
Alnico IIIA	12 Al, 26 Ni, 3 Cu, Bal. Fe	6,400	560	1.35	3,900	0.249	13.0	63	12,000	22,500	45 RC
Alnico IIIB	12 Al, 25 Ni, 3 Cu, Bal. Fe	6,800	490	1.35	4,300	0.249	13.0	63	12,000	22,500	45 RC
Alnico IIIC	12 Al, 24 Ni, 3 Cu, Bal. Fe	7,500	400	1.35	5,000	0.249	13.0	63	12,000	22,500	45 RC
Alnico IIA	12 Al, 28 Ni, 5 Co, Bal. Fe	5,500	730	1.35	3,200	0.253	13.1	75	9,000	24,000	45 RC
Alnico IIB	12 Al, 25 Ni, 5 Co, 2 Cu, Bal. Fe	6,000	660	1.45	3,600	0.253	13.1	75	9,000	24,000	45 RC
Alnico IIA	12 Al, 26 Ni, 9 Co, 2 Cu, Bal. Fe	6,000	790	1.65	3,500	0.253	13.1	75	9,000	24,000	45 RC
Alnico IIA	8 Al, 15 Ni, 24 Co, 3 Cu, Bal. Fe	12,000	720	5.00	9,100	0.264	11.3	47	5,450	10,500	50 RC
Alnico IIA	8 Al, 14.5 Ni, 24 Co, 3 Cu, Bal. Fe	12,500	685	5.50	10,000	0.264	11.3	47	5,450	10,500	50 RC
Alnico IIA	8 Al, 14 Ni, 24 Co, 3 Cu, Bal. Fe	12,700	650	5.50	10,400	0.264	11.3	47	5,450	10,500	50 RC
Alnico IIA	8 Al, 13 Ni, 24 Co, 3 Cu, Bal. Fe	13,200	580	5.50	11,200	0.264	11.3	47	5,450	10,500	50 RC
Alnico IIA	8 Al, 15 Ni, 24 Co, 3 Cu, 0.5 Ti, Bal. Fe	11,000	700	4.50	8,400	0.264	11.3	47	5,450	10,500	50 RC
Alnico IIA	8 Al, 14 Ni, 24 Co, 3 Cu, Bal. Fe	13,300	725	6.50	10,500	0.264	11.3	47	5,450	10,500	50 RC
Alnico IIA	8 Al, 17 Ni, 23 Co, 3 Cu, 4 Ti, Bal. Fe	7,500	975	2.75	4,600	0.268	11.4	50	23,000	45,000	56 RC
Alnico IIA	8 Al, 16 Ni, 23 Co, 3 Cu, 2 Ti, Bal. Fe	8,400	860	3.00	5,400	0.268	11.4	50	23,000	45,000	56 RC
Alnico IIA	8 Al, 15 Ni, 23 Co, 3 Cu, 1 Ti, Bal. Fe	10,500	760	3.65	7,000	0.268	11.4	50	23,000	45,000	56 RC
Fortmag I	BaO + 6Fe ₂ O ₃	2,000	1,500	0.80	1,030	0.170		>100 x 10 ¹¹			

*Directional Magnetic Properties.

†Tentative magnetic properties.

‡B_{0.1} = flux density at point of maximum energy product.

§Intrinsic coercive force, H_{ci}.

CRUCIBLE

first name in special purpose steels

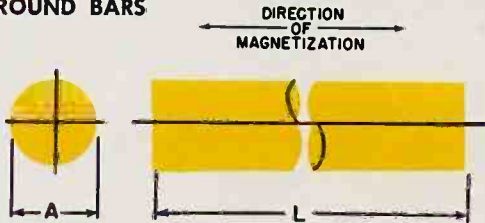
Crucible Steel Company of America

CRUCIBLE PERMANENT MAGNETS AVAILABLE

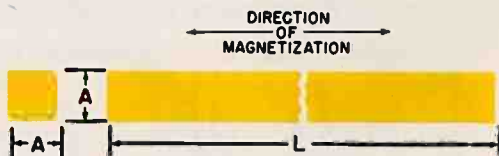
BAR MAGNETS

Dimensions shown are for Crucible bar magnets as cast — not ground. Order bar magnets in length desired. Cutting Tolerance $\pm .015$. Specify with order whether bars are to be supplied magnetized or not. Available only in Alnico VB.

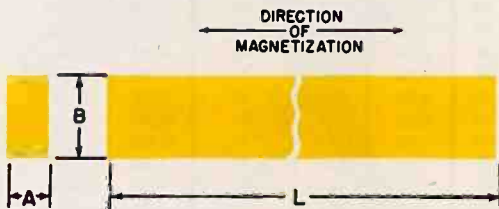
ROUND BARS



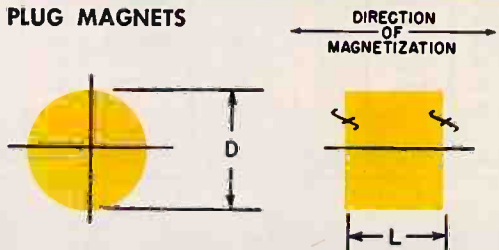
SQUARE BARS



RECTANGULAR BARS



PLUG MAGNETS



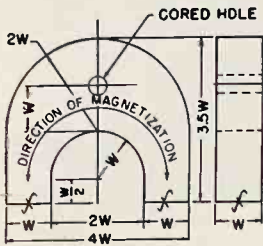
Catalog No.	Dim. A, in.	Max. Dim. L, in.	Est. Wght. Lbs.
MA 1000	$\frac{1}{8}$	4	.013
MA 1001	$\frac{3}{16}$	5	.037
MA 1002	$\frac{1}{4}$	6	.078
MA 1003	$\frac{3}{8}$	6	.176
MA 1004	$\frac{1}{2}$	6	.312
MA 1005	$\frac{5}{8}$	6	.488
MA 1006	$\frac{3}{4}$	6	.702
MA 1007	1	6	1.25
MA 1008	$1\frac{1}{2}$	6	2.81
MA 1009	2	6	5.00

Catalog No.	Dim. A, in.	Max. Dim. L, in.	Est. Wght. Lbs.
MA 1010	$\frac{3}{16}$	4	.037
MA 1011	$\frac{1}{4}$	4	.066
MA 1012	$\frac{3}{8}$	6	.224
MA 1013	$\frac{1}{2}$	6	.398
MA 1014	$\frac{5}{8}$	6	.621
MA 1015	$\frac{3}{4}$	6	.894
MA 1016	$\frac{7}{8}$	6	1.22
MA 1017	1	6	1.58
MA 1018	$1\frac{1}{2}$	6	3.58
MA 1019	2	6	6.36

Catalog No.	Dim. A, in.	Dim. B, in.	Max. Dim. L, in.	Est. Wght. Lbs.
MA 1042	$\frac{1}{4}$	$\frac{3}{8}$	6	.149
MA 1043	$\frac{1}{4}$	$\frac{1}{2}$	6	.199
MA 1044	$\frac{1}{4}$	$\frac{3}{4}$	6	.298
MA 1045	$\frac{1}{4}$	1	6	.398
MA 1046	$\frac{1}{2}$	$\frac{3}{4}$	6	.596
MA 1047	$\frac{1}{2}$	1	6	.795
MA 1048	$\frac{1}{2}$	$1\frac{1}{2}$	6	1.19
MA 1049	$\frac{3}{4}$	1	6	1.19
MA 1050	$\frac{3}{4}$	$1\frac{1}{2}$	6	1.80
MA 1051	$\frac{3}{4}$	2	6	2.39
MA 1052	1	$1\frac{1}{2}$	6	2.39
MA 1053	1	2	6	3.18
MA 1054	1	$2\frac{1}{2}$	6	3.98
MA 1055	$1\frac{1}{2}$	2	6	4.77

Catalog No.	Dia. D, in.	Dim. L, in.	Est. Wght. Lbs.	Nom. Wt. Oz.
LG 1	.689	.430	.042	.68
LG 2	.759	.522	.062	1.00
LG 3	.840	.626	.092	1.47
LG 4	.908	.535	.092	1.47
LG 5	.998	.648	.134	2.15
LG 6	1.114	.765	.198	3.16
LG 7	1.224	.633	.198	3.16
LG 8	1.365	.748	.290	4.64
LG 9	1.523	.880	.425	6.80
LG 9A	1.450	.970	.425	6.80
MA 93	1.672	1.080	.628	10.0

FOR IMMEDIATE DELIVERY FROM STOCK

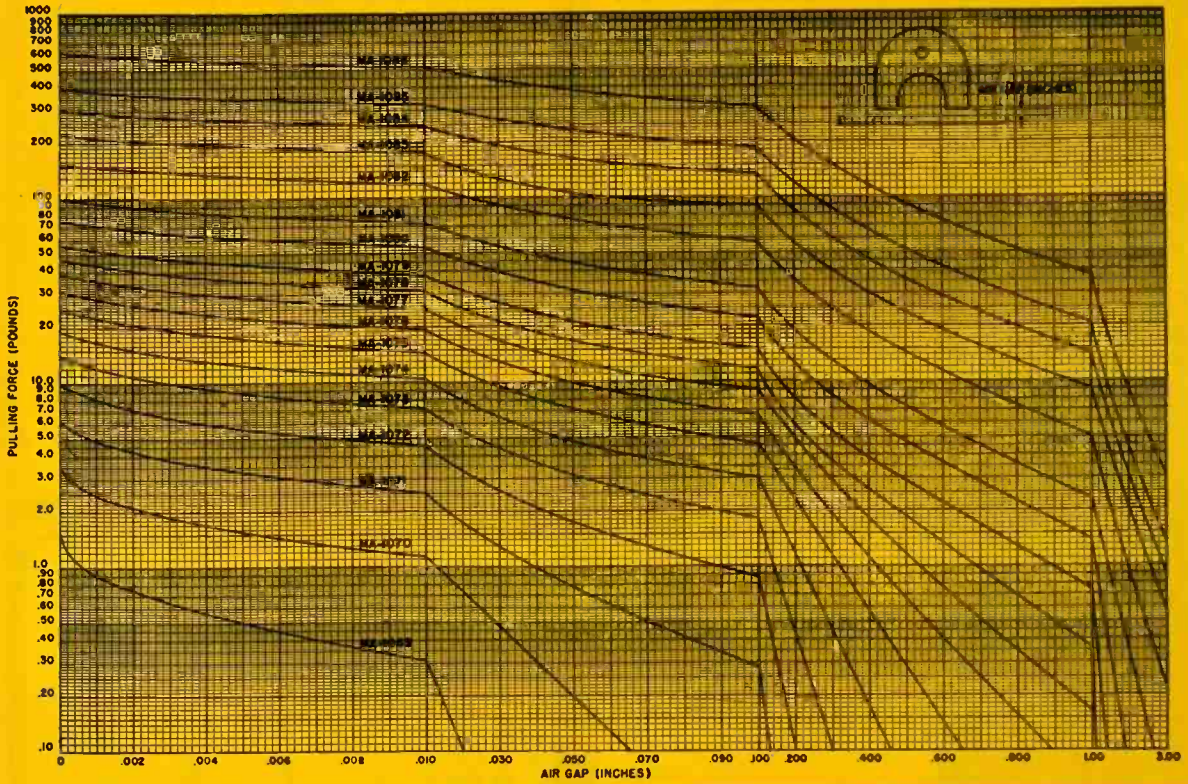


HORSESHOE MAGNETS

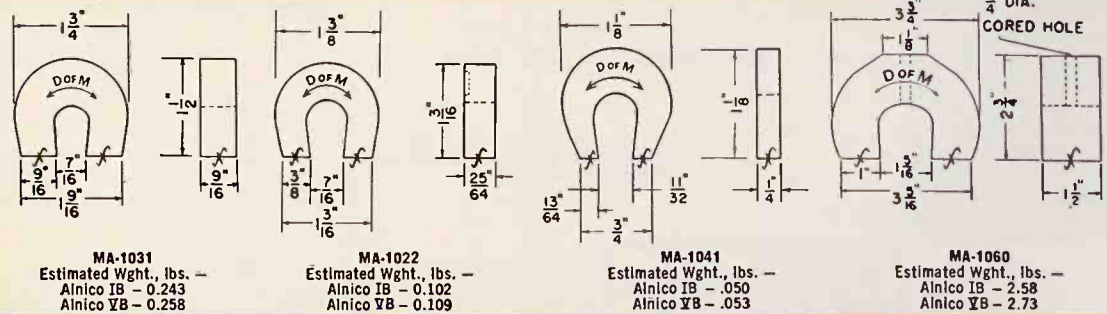
All Crucible horseshoe magnets are ground on pole faces and painted red, and supplied magnetized with keepers. Series MA-1069 through MA-1086 are available from stock only in Alnico VB.

Catalog No.	W, in.	Hole Diameter, in.	Est. Wght. Lbs.
MA 1069	1/8	0	.005
MA 1070	3/16	0	.017
MA 1071	1/4	0	.040
MA 1072	3/8	1/8	.078
MA 1073	3/8	3/16	.134
MA 1074	7/8	11/64	.213
MA 1075	1/2	3/16	.318
MA 1076	3/8	3/32	.453
MA 1077	5/8	15/64	.621
MA 1078	11/16	15/64	.826
MA 1079	3/4	3/32	1.07
MA 1080	7/8	3/8	1.70
MA 1081	1	15/32	2.55
MA 1082	1 1/4	15/32	4.97
MA 1083	1 1/2	3/16	8.59
MA 1084	1 3/4	3/32	13.6
MA 1085	2	3/4	20.4
MA 1086	2 1/2	15/16	39.8

PULLING FORCE VS. DISTANCE OF CRUCIBLE HORSESHOE MAGNETS



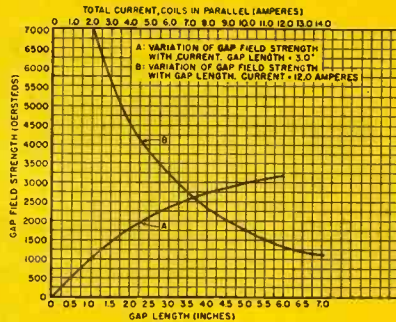
SPECIAL HORSESHOE MAGNETS OF ALNICO IB AND ALNICO VB



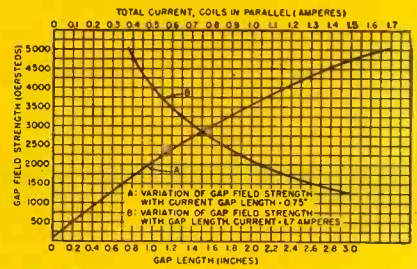
Crucible Magnet Accessories

ELECTRO-MAGNETIC MAGNETIZER

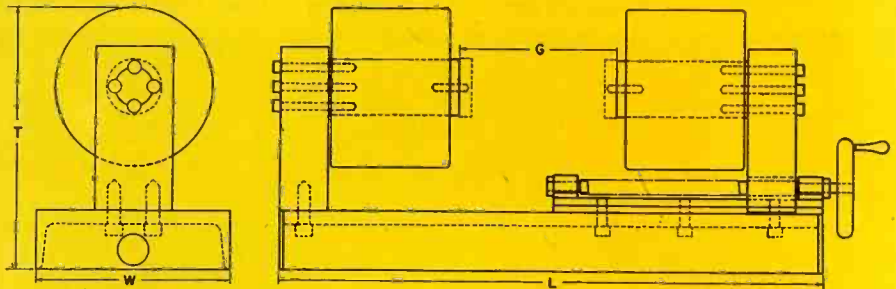
Electromagnetic Magnetizers are general purpose magnetizers for any grade of Alnico ... of any size that will fit given space limitations.



Variation of gap field strength with current and gap length for 50,000 ampere turn magnetizer—Catalog No. MC-124.



Variation of gap field strength with current and gap length for 10,000 ampere turn magnetizer—Catalog No. MC-120.



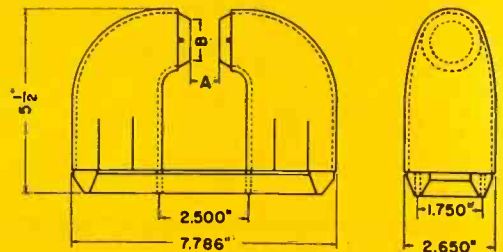
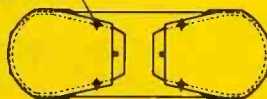
Catalog No.	Total Ampere Turns	Amperes Drawn by Magnetizer at		G (Inches)	Pole Face diameter (Inches)	L (Inches)	W (Inches)	T (Inches)
		115 Volts DC (Coils in parallel)	230 Volts DC (Coils in series)					
MC-120	10,000	1.8	0.9	0 to 4	2	16%	6	9 $\frac{3}{4}$
MC-124	50,000	14.0	7.0	0 to 8 $\frac{1}{2}$	3	28	10	13 $\frac{3}{4}$
MC-129	125,000	46.0	23.0	0 to 14 $\frac{1}{2}$	4	43%	15	18 $\frac{1}{2}$

PERMANENT-MAGNET MAGNETIZER MA-3364

Permanent-Magnet Magnetizers are suitable for magnetizing small Alnico magnets in the sizes indicated by dimensions A and B.

NOTE: DIMENSIONS (A) & (B) TO VARY IN ACCORDANCE WITH CUSTOMER'S REQUIREMENTS. MAX. VALUE OF (A) = 1 $\frac{1}{2}$ " (B) MAY VARY FROM $\frac{1}{2}$ " TO 1 $\frac{5}{8}$ "

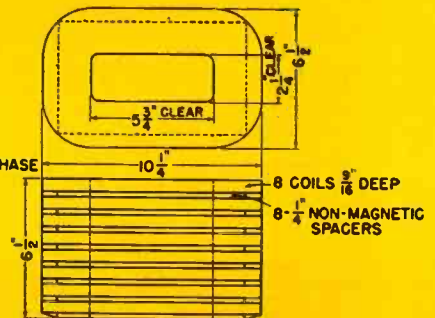
(4) 12-24NC TAP THRU



For further technical information on the selection or application of Crucible Permanent Magnets or Accessories—call your Crucible representative. Crucible Steel Company of America, Henry W. Oliver Bldg., Pittsburgh 22, Pa.

DEMAGNETIZER, CAT. MC-9

FIELD STRENGTH: 1700 OERSTEDS
VOLTAGE: 230, 60 CYCLES, SINGLE PHASE
CURRENT: 75 AMPERES



CRUCIBLE

Crucible Steel Company of America

... known and respected throughout the industry

Good-ALL
capacitors



This condensed tabulation is presented for your convenience in selecting the proper capacitor type for your particular application.

PAPER DIELECTRIC TYPES

	Case Construction	Impregnant	Good-All Type No.	Voltage Range	Temp. Range	Typical Sizes										
TV Radio and Instrument Designs	Sealed in Plastic	Solid Plastic	503M	100-600V	100° C	503M (200V) .01 312x1 .047 375x1 1/4 .1 500x1 1/4 .47 750x2										
						503M Miniature	100-600V	100° C	503M Miniature (200V) .01 218x3/4 .047 312x1 1/8 .1 375x1 1/4 .47 718x1 1/4							
									Ceramic Tube	Solid Plastic	503S	100-600V	100° C	503S (200V) .01 312x1 .047 438x1 1/4 .1 531x1 9/16 .47 781x1 7/8		
														Plastic Treated Tube	Oil	520M (Ext. Foil) 521M (Tab.)	100-1600V	85° C	520M (200V) .01 ..... 375x1 .05 ..... 437x1 3/4 .1 ..... 562x1 5/8 .5 ..... 875x2
	Ceramic Tube	Oil	520S	100-1600V	85° C														520S (200V) .01 ..... 312x1 .047 ..... 438x1 1/4 .1 ..... 531x1 9/16 .47 ..... 781x1 7/8
						Miracle X	522M (Ext. Foil) 523M (Tab.)	100-1600V											125° C	522M (200V) .01 ..... 375x1 .05 ..... 437x1 3/4 .1 ..... 562x1 5/8 .5 ..... 875x2
									Miracle X	522S	100-1600V	125° C	522S (200V) .01 312x1 .047 438x1 1/4 .1 531x1 9/16 .47 781x1 7/8			
													Military Designs	Hermetically Sealed	Miracle X	100-600V	-55 to +125° C	512G (Circ. 3, Ext. Foil) 513G (Circ. 1, Ext. Foil) 514G (Circ. 3, Tab.) 515G (Circ. 1, Tab.)
	"Op" Designs	GOOD-ALL ELECTRIC manufactures Types CP04, 05, 08, 09, 10, 11, 53, 54 and 55 in accordance with Specification MIL-C25-A														
		Miniature Designs	Hermetically Sealed	Halowax	100-400V	-55 to +85° C	504G (Circ. 3, Ext. Foil) 505G (Circ. 1, Ext. Foil) 501G (Circ. 3, Tab.) 502G (Circ. 1, Tab.)									

SPECIAL TYPES and VARIATIONS

HIGH VOLTAGE DESIGNS—Good-All Series 5000 capacitor designs are aimed at applications involving voltages from 1500 volts to 10,000 volts. Specialized internal construction, including combinations of dielectrics and impregnants, can provide unusual properties as well as high IR and long life at high temperatures.

TEFLON HIGH TEMPERATURE DESIGNS—Teflon is largely used in applications requiring operation between 150°C and 200°C. Good-All Series 700 capacitors are housed in hermetically sealed metal cases and exhibit unusually high insulation resistance.

POLYSTYRENE HIGH STABILITY DESIGNS—Good-All Series 800 capacitors utilize polystyrene dielectric. Their application lies largely where close tolerance, high leakage resistance and low dielectric absorption are required. External cases vary with individual customer's requirements.

METALLIZED MYLAR SUB-MINIATURE DESIGNS—Metallized Mylar designs are designated as X600. Their principal advantage is in applications requiring extremely small sizes and high insulation resistance. The greatest advantage in size can be secured in units of .1 mfd and above.

MYLAR* DIELECTRIC TYPES

	Case Construction	Good-All Type No.	I.R. at 25° C	Temp. Range	Typical Sizes
Miniature Designs	Impregnated Paper Tube	620M (Ext. Foil) 621M (Tab.)	50,000 megohm-mfd	85° C without derating	620M (200V) .01 223x27/32 .047 363x27/32 .1 363x31/32 .47 450x1 5/8
					Ceramic Tube
	Metal Enclosed (Hermetically Sealed)	612G 613G (Ext. Foil) 614G 615G (Tab.)	50,000 megohm-mfd	85° C without derating	
					"Uncoated" Miniature Designs
High-Temperature Designs	Metal Enclosed (Hermetically Sealed)	616G (Ext. Foil) 617G (Tab.)	50,000 megohm-mfd	125° C without derating	

*DuPont trademark for polyester film.

TEMPERATURE STABLE TYPES

	Temperature Characteristics	Case Construction	Good-All Type No.	Voltage Range	Typical Sizes
Color TV and Instrument Designs	Typical capacity changes with temperature range as follows: 25° C to +125° C 1 1/2% 25° C to -55° C 3%	Plastic Treated Tube	542M, 543M	100-1600V	542M (200V) Equal to or smaller than type 522M
					Ceramic Tube	542S, 543S	100-1600V	542S (200V) Equal to or smaller than type 522S
Military Designs	Same as above	Hermetically Sealed	532G, 533G (Ext. Foil) 534G, 535G (Tab.)	100-600V				533G (200V) Same as 513G

CERAMIC DISCS WITH EPOXY COATING

	Refr. Class No.	Good-All Type No.	Capacity Range	FEATURES OF EPOXY COATING:
Temperature Compensating	Class 1	A	1.0 mmf to 470 mmf	• High voltage breakdown strength.
By-Pass	Class 2, Z5Z	B	.00047 mfd to .05 mfd	• Excellent moisture resistance.
Dual Shielded	.....	C	2x.0008 mfd to 2x.02 mfd	• Attractive appearance.
AC Line	.....	D	.0003 mfd to .01 mfd	• No premium cost.
Stable	Class 2, Y5Y	E	220 mmf to 10,000 mmf	
High Voltage	.....	F	80 mmf to 5,000 mmf	
Transistor Circuit	.....	G	.001 mfd to .1 mfd	

We welcome the chance to submit data and prices. Write or wire today.

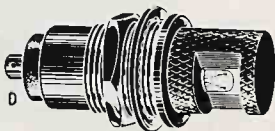


GOOD-ALL ELECTRIC MFG. CO. OGALLALA, NEBRASKA

In automation...indication...miniaturization

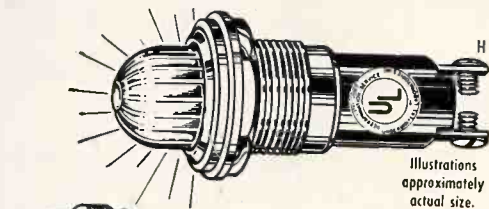
PILOT LIGHTS

perform vital functions...Assure maximum dependability—specify:

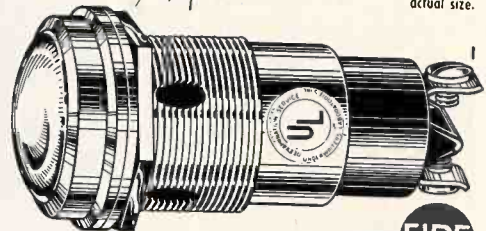


THE COMPLETE LINE designed to meet every requirement. *Dialco* offers the most extensive selection of Pilot Lights — from *sub-miniature* types to *giant* units with 1½" lenses. Special features such as MIL spec insulation, water-tightness, special finishes, etc. can be furnished as standard. For NEON lamps, *Dialco* provides Pilot Lights with **built-in resistors** (patent #2,421,321) for operation on 105-125 V, or 210-250V; also simple external resistors for higher voltages.

Every assembly is available complete with lamp: Assure complete satisfaction — let the *Dialco* Engineering Dept. assist in selecting the *right* lamp and *most suitable* pilot light for your needs.



Illustrations approximately actual size.



DISCS tell the story!

In both military and civilian equipment, *Discs* inserted behind lenses can be used to deliver specific messages. A significant safety feature!



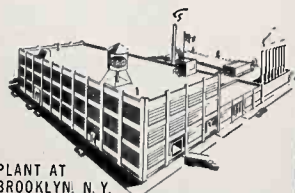
Sub-Miniature Units: (A) No. TT-51; No. TT-51A with No. 327 lamp. For edge lighting. Red or other color filters, black top... (B) No. 8-3730-111, for MIL-P-7788 panel... (C) No. 101-3830-951 two-terminal unit with omnidirectional lens... (D) No. 4-1930, light shield... (E) Patented "Press-to-Test" unit with dimming or non-dimming lens cap... (F) No. 8-1930-111, non-dimming... (G) No. 11-1930-111, mechanical dimmer; No. 3-1930-111, polaroid dimmer.
(H) No. 521308-991, for neon lamps, with multi-vue cap... (I) No. 313502-111, a 1" unit with friction cap.

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FREE: Brochure on "Selection and Application of Pilot Lights."

Contains consolidated information on pilot light assemblies and small lamps, working tables, data, photographs, and product information.

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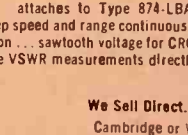


Bridges

For Highest Accuracy

Every design is a result of decades of experience acquired in the manufacture of precision electronic-test and measuring apparatus. The G-R trademark guarantees highest accuracy, rugged construction, and dependable operation year after year.

Measurement Frequency	Range of Measurements	Accuracy	Typical Uses	Instrument
dc	R: 1 to 1, 111, 1111 Ω	$\pm 0.5\%$ as limit bridge $\pm 0.25\%$ by null method	Production testing and inspection of laboratory work.	1652-A Resistance Limit Bridge \$475
dc	R: 0.1 to 1,000,000 M Ω	$\pm 3\%$ to 1000 M Ω $\pm 4\%$ to 100,000 M Ω	Measures high resistance — insulation, volume resistivity, etc.	544-B Megohm Bridge a-c power supply, \$355 battery operated, \$250
60 c	C: 5 $\mu\mu\text{f}$ to 1100 μf D: 0 to 50%	$\pm 1\%$ $\pm 1.5\%$ of full scale	Production-test tool — measures ungrounded capacitors	740-B Capacitance Test Bridge \$250
60 c	C: 0 to 11,000 μf D: 0 to 60%	$\pm 1\%$ $\pm 2\%$	Testing insulators, bushings, cables, grounded capacitors	1611-A Capacitance Test Bridge \$525
dc 1 kc 1 kc 1 kc 1 kc	R: 0.001 Ω to 1 M Ω L: 1 μh to 100 h C: 1 $\mu\mu\text{f}$ to 100 μf D: 0.002 to 1 Q: 0.02 to 1000	$\pm 1\%$ $\pm 2\%$ $\pm 1\%$ $\pm 20\%$ $\pm 20\%$	Completely self-contained, general-purpose laboratory and production bridge	650-A Impedance Bridge \$270
20 c to 20 kc	R: 0 to $\pm 1000 \Omega$ G: 0 to $\pm 1000 \mu\text{mho}$ X: 0 to $\pm 1000 \Omega$ B: 0 to $\pm 1000 \mu\text{mho}$	$\pm 1\%$ $\pm 1\%$ $\pm 1\%$ $\pm 1\%$	Directly measures quadrature components of any impedance, 0 to ∞	1603-A Z-Y Bridge \$355
60 c to 10 kc	L: 0.1 μh to 1 h	$\pm 0.2\%$	Variety inductance measurements	667-A Inductance Bridge, \$470
400 c, 1 kc, 5 kc	Z: 2 Ω to 20 M Ω Z : $\pm 0.1\%$ to $\pm 20\%$ D: 0.0002 to 0.075	$\pm 0.1\%$	Rapid components testing, sorting to close tolerances — dial read % difference between unknown and external standard.	1604-B Comparison Bridge \$440
100 c, 1 kc 10 kc, 100 kc	Z: 2 Ω to 20 M Ω Z : $\pm 0.01\%$ to $\pm 10\%$ ϕ : ± 0.0001 to ± 0.1 radians	$\pm 0.01\%$	Panel meters simultaneously indicate % differences in magnitude and phase angle between unknown and external standard — precision and speed in one instrument	1605-A Impedance Comparator \$790
1 kc 0.1, 10, 100 kc 0.1, 1, 10, 100 kc 0.1, 1, 10, 100 kc	C: 100 $\mu\mu\text{f}$ to 1 μf C: 100 $\mu\mu\text{f}$ to 1000 $\mu\mu\text{f}$ C: 0.1 $\mu\mu\text{f}$ to 1000 $\mu\mu\text{f}$ D: 0.00002 to 0.56	$\pm 0.2\%$ of full scale $\pm 0.2\%$ of full scale $\pm 0.2\%$ (substitution) $\pm 2\%$	For capacitance standardization, precision measurements dielectric tests and studies	716-CM Capacitance Bridge \$580
0.5 to 3 Mc	C: 0.1 to 1100 $\mu\mu\text{f}$ D: 0.00002 to 0.56	$\pm 0.2\%$ $\pm 0.2\%$	High-frequency model of 716-C	716-CM51 Capacitance Bridge \$580
50 kc to 5 Mc	X: $\pm 11,000 \Omega$ at 100 kc R: 0 to 1000 Ω	$\pm 2\%$ (X-range varies inversely as frequency) $\pm 1\%$	Measures impedances of antennas, transmission lines, low impedances simply and directly at R-F	916-AL Radio-Frequency Bridge \$590
400 kc to 60 Mc	X: $\pm 5,000 \Omega$ at 1 Mc R: 0 to 1000 Ω	$\pm 2\%$ (X-range varies inversely as frequency) $\pm 1\%$	Improved model — same uses as 916-AL but for higher frequencies	1606-A Radio-Frequency Bridge \$590
460 kc to 40 Mc	C: 0 to 1000 $\mu\mu\text{f}$ G: 0 to 100 μmhos at 1 Mc B: $\pm 6000 \mu\text{mhos}$ at 1 Mc	$\pm 0.2\%$ (G & B ranges vary directly as frequency) $\pm 2\%$	Measures high impedances, parallel components, chokes, resonant impedance, solution conductivity, etc.	821-A Twin-T Bridge \$590
10 to 165 Mc	X: $\pm 200 \Omega$ at 100 Mc R: 0 to 200 Ω	$\pm 5\%$ (X-range varies inversely as frequency) $\pm 2\%$	For measurements on either lumped or coaxial circuits	1601-A V-H-F Bridge, \$490
1 kc	μ : 0.001 to 10,000 τ : 50 Ω to 20M Ω gm : 0.02 to 50,000 μmho	$\pm 2\%$ $\pm 2\%$ $\pm 2\%$	Adaptors furnished with instrument for measuring characteristics of receiving tubes and transistors	561-D Vacuum Tube Bridge (also measures transistor low-frequency parameters) \$795
20 to 1500 Mc	B: ± 0.2 to ± 1000 mmho. G: 0.2 to 1000 mmho X: ± 1 to $\pm 5000 \Omega$ R: 1 to 5000 Ω	$\pm 3\%$ $\pm 3\%$ $\pm 3\%$ $\pm 3\%$	Slotted Line and Admittance Meter for Measurements to 5000 MC	
300 to 5000 Mc	VSWR: impedance, power	$\pm 1\%$ or better	For impedance and VSWR measurements on coaxial lines, antennas, networks and components	1602-B U-H-F Admittance Meter, \$295; 874-LBA Slotted Line, \$220



1610-A Capacitance Measuring Assembly \$2030
 for two- or three-terminal measurements of capacitance and dissipation factor (D) . . . direct-reading accuracy is $\pm 0.2\%$ for capacitance and ± 0.0005 for D; $\pm 0.1\%$ capacitance accuracy and ± 0.00005 for D with correction chart supplied . . . consists of 716-C Capacitance Bridge, 716-P4 Guard Circuit, 1302-A Oscillator, 1231-B Amplifier & Null Detector and 1231-P5 Adjustable Filter, in standard relay rack with all interconnection provisions. 1610-A2 for two-terminal work only, without Guard Circuit, \$1735.



874-MD Sweep Drive . . . \$280

attaches to Type 874-LBA Slotted Line for automatic sweeping . . . sweep speed and range continuously adjustable even while probe carriage is in motion . . . sawtooth voltage for CRO horizontal deflection permits rapid and accurate VSWR measurements directly on scope face.

1690-A Dielectric-Sample Holder . . . \$435

for precise determinations of dielectric constant and dissipation factor of solid dielectric materials . . . 2" dia. electrodes ground to optical flatness and driven by micrometer arrangement for highest accuracy. Attaches to terminals of a wide variety of G-R bridges and high-frequency measuring devices, including Types 544-B, 1611-A, 716-C, 821-A, 1602-B, 874-LBA, and 1610-A . . . for measurements and investigations at dc, 60c, rf, vhf and uhf.



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GENERAL RADIO Company

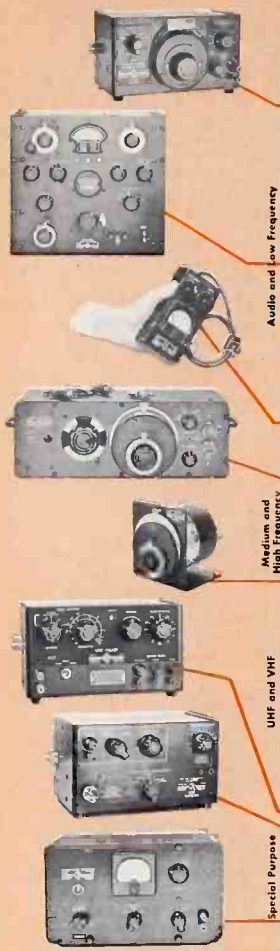
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GR Oscillators 2 Cycles to 7425 Mc

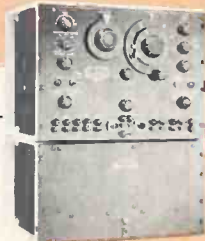
Type	Frequency Range	Output	Nominal Load Impedance	Harmonic Distortion	Additional Features
1210-B RC Oscillator, \$165 ★	20 cycles — 0.5 Mc (sine or square waves)	80 mw/7v 40 mw/45v 0-30v, p-p	50Ω 12,500Ω 2,500Ω	<1.5% <2.5% square waves	Multi-purpose lab signal source — converts to Sweep Oscillator with 1210-P1 Discriminator and 908-P Synchronous-Dial Drive.
1301-A Low-Distortion Oscillator, \$505	20-15,000 cycles (27 fixed frequencies)	18 mw/6.6v 100 mw/30v	600Ω balanced or grounded 5000Ω grounded	<0.1%	Drift not greater than 0.02% per hour after first 10 min. — frequency range extends to 2 cycles with 1301-P1 Extension Unit.
1302-A Oscillator, \$450	10-100,000 cycles	40 mw/10v 20 mw/5v 80 mw/20v	600Ω balanced 300Ω grounded 5000Ω grounded	<0.5% <0.5% <1%	Output Voltage Constant ±1.0 db.
1303-A Two-Signal Audio Generator, \$1550	(1) 20-20,000 cycles (2) 20,000-40,000 cycles (3) Two signals separately adjustable (4) Two signals with a fixed difference	Normal-10 mw/5v High-1 w/50v	600Ω grounded	<0.2% <1%	Ideal for intermodulation distortion testing — drift less than 7c in first hour, completed in 2 hrs. — output constant within ±0.3 db.
1304-B Beat-Frequency Oscillator, \$575	20-20,000 cycles 20,000-40,000 cycles	1 w/50v	600Ω balanced or grounded	<1%	Converts to Sweep Oscillator with 908-P — high stability, low hum.
1214-A Unit Oscillator, \$68 ★	400, 1000 cycles (2 fixed frequencies)	200 mw/80v	8000Ω grounded or ungrounded	<3%	Has built-in power supply unlike most Unit Instruments.
1307-A Transistor Oscillator, \$80	400, 1000 cycles (2 fixed frequencies)	6 mw/2v	600Ω	<5%	Battery operated, with output meter — small and compact.
723-C and D Vacuum Tube Forks, \$185 & \$200	400 or 1000 cycles (2 models)	50 mw/31v max.	50, 500, 5000Ω	<0.5%	Frequency accurate to ±0.05% — max. drift 0.2% occurs first 30 min.
1330-A Bridge Oscillator \$540	400 cycles, 1000 cycles 5 kc — 50 Mc	0.75 w/12v 1 w/10v	50Ω 20-80Ω	<3%	Internal 400- and 1000-cycle modulation — excellent shielding for bridge work.
1211-B Unit Oscillator, \$265 ★	0.5-5 Mc 5-50 Mc	2 w 200 mw	50Ω		Compact, inexpensive well-shielded — frequency increments of 0.2% per division.
1215-B Unit Oscillator, \$190 ★	50-250 Mc	80 mw	50Ω		Converted to Sweep Oscillators with unique 1750-A Sweep Drive output regulated with 1263-A Amplitude-Regulating Power Supply.
1208-B Unit Oscillator, \$200 ★	65-500 Mc	100 mw	50Ω		Semi-butterfly tuned circuit with no moving contacts.
1209-B Unit Oscillator, \$235 ★	250-920 Mc	200 mw	50Ω		Very wide range, thorough shielding.
1218-A Unit Oscillator, \$465 ★	900-2000 Mc	200 mw	50Ω		Butterfly circuit avoids untuning difficulties — excellent stability.
1220-A Klystron Oscillator \$205 without tube ★	8 Klystrons available to cover 2700 to 7425 Mc range.	40 mw	50Ω		Audio, pulse, square-wave or frequency modulation from external source.
1217-A Unit Pulser, \$235 ★	30 c — 100 kc (12 fixed frequencies)	20 v	200Ω positive pulses, 1500Ω negative pulses		Compact, low cost microwave source — internal 1-kc square wave modulation; pulse or frequency modulation from external source.
1213-C Time/Frequency Calibrator, \$195 ★	5 Mc crystal provides 10 kc, 100 kc, 1 Mc, 10 Mc fundamentals and harmonics to 1000 Mc	10-30 v, p-p video output	cath. follower approx. 300Ω	Harmonic Spectrum	Rise time, 0.05μs — durations continuously variable 0.2 to 60,000μs.
1390-A Random Noise Generator, \$240	30 cycles — 20 kc 30 cycles — 500 kc 30 cycles — 5 Mc	1v	800Ω grounded	Noise Spectrum	Compact secondary frequency standard — accurate timing source for scope calibration, etc. — stability 1 ppm/°C after 1-hr. warmup.

★ Unit Instruments except 1214-A require Unit Power Supplies
1203-A Unit Power Supply, \$40 — 1201-A Unit Regulated Power Supply, \$30
1202-A Unit Vibrator Power Supply, \$125, for operation from 6v or 12v storage battery



GR Signal Generators

Type	Frequency Range	Output	Characteristics
1001-A \$795	5kc — 50 Mc 8 direct-reading ranges	0.1μv-200 mv; 10Ω jack becomes 50Ω with series unit supplied, 25Ω at end of output cable — 2v at 300Ω from 2nd jack	Incremental dial indicates 0.1% of frequency per division — modulation adjustable 0-80%, indicated on meter; 400c internal or 20-15,000c external am — ±1% calibration, high stability, low drift and negligible leakage and incidental fm.
805-C \$1650	16 kc — 50 Mc 7 direct-reading ranges	Less than 0.1μv to 2 v — 75Ω at panel; 75Ω cable has termination impedance of 37.5, 7.1 and 0.75Ω	Internal and external modulation variable 0 to 100%, indicated on meter — drift less than ±0.1% during 5 hrs. continuous operation — ±1% calibration; frequency increments as small as 0.01% — less than 0.05% incidental fm for full 100% modulation — no leakage or excessive harmonic distortion, no cable errors.
1021-AV \$640	40-250 Mc in one band	0.5μv — 1v at 50Ω	Butterfly-tuning circuit has no sliding contacts, no noise, good stability and very low drift — internal 1 kc and external amplitude modulation adjustable from 0 to 50% — incidental fm under 100 ppm over most of range.
1021-AU \$640	250-920 Mc one band	0.5μv — 1v at 50Ω	UHF pencil tube with tuned plate and cathode, remarkably free of noise modulation — ±1% calibration; incremental frequency control for small adjustments — drift under 0.1% per day — 100-10,000 cycles square-wave modulation from external source — stray fields cannot be detected with receiver having 2μv sensitivity.
1021-AW \$890	900-2000 Mc one band	0.5μv — 1v at 50Ω	



1391-A Pulse, Sweep and Time-Delay Generator . . . \$1745.
Complete, Accurate, Time-Domain Measurements With One Instrument
Pulse Duration: 0.05μsec — 1.1 sec.
Pulse Repetition Rate: 0-250 kc
Time Delay: 1μsec — 1.1 sec.
Delay Repetition Rate: 0-400 kc
Output Impedance: 0-600 ohms

Superior Pulse Characteristics . . . Excellent Rise and Decay Times: 0.025 ± 0.01μsec. No Duty-Ratio or Frequency Restrictions on the Pulse
High Basic Timing Accuracy . . . Timing Scales are Linearly Calibrated and Accurate to 1%
Extreme Versatility . . . Panel controls for all important instrument characteristics. Binding posts provide ready access to triggers, gates, delayed signals, pulses and internal sweeps.

For Modulating Oscillators and Signal Generators Over Wide Ranges with Negligible fm . . .

- 1000-P6 Crystal-Diode Modulator \$40** for wide-band amplitude modulation over 20-1000 Mc carrier range . . . 50 mv, rl and 0.2v at modulation terminals produces 30% am; modulating frequencies from 0 to 5 Mc.
- 1000-P7 Balanced Modulator . . . \$200** for 0-20 Mc amplitude modulation over 60 to 2300 Mc carrier range — particularly designed for 100% linear modulation and pulsing with fast rise time and short duration.
- 1000-P4 Dummy Antenna . . . \$15** connects to Signal Generator 50Ω output, providing IRE Standard output characteristics for testing radio receivers.
- 1000-P5 VHF Transformer . . . \$27.50** converts generator 50Ω unbalanced output to 300Ω balanced for measurements on fm and tv receivers — 50 to 250 Mc range.

GENERAL RADIO Company

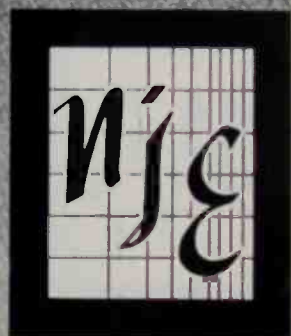
275 Massachusetts Avenue, Cambridge 39, Massachusetts, U.S.A.

90 West Street NEW YORK 6 8055 13th St., Silver Spring, Md. WASHINGTON, D. C.
1150 York Road, Abington, Pa. PHILADELPHIA
920 S. Michigan Ave. CHICAGO 5 1000 N. Seward St. LOS ANGELES 38



1000-P10 Testing Loop, \$40 . . . copper-shielded, 3-turn loop for testing radio receivers by IRE Preferred Method — 1000-P3 Voltage Divider, \$17.50, used with 1001-A Generator, provides accurately-known voltage for use with loop antenna.

POWER SUPPLIES UNLIMITED



Pages
111-122

881 STOCK MODELS!



NJEC CORPORATION

ELECTRONIC DEVELOPMENT & MANUFACTURING
345 Carnegie Ave., Kenilworth, New Jersey • CHestnut 1-1500



nje

Thyratron - Regulated HIGH-CURRENT D-C Power Supplies

FLEXIBILITY AND ECONOMY—These economical, versatile dc power sources offer many distinctive advantages.

- **WIDE OUTPUT RANGE:** Adjustable over more than 2.5 to 1 range. Wider range on special order.
- **FAST RECOVERY:** Less than 75 milli-seconds recovery time constant, for a 50% load step or a 10% line step.
- **PRECISE REGULATION:** Less than 50 millivolts from 0 - 100% of full load rating. Less than 50 millivolts for a 10% line change.
- **REMOTE SENSING:** External, remote sensing of load voltage permits correction for static line drop.
- **LOW RIPPLE:** Less than 1% RMS at any output or input condition within rating. Lower ripple available on special order.
- **SIMPLICITY:** No "trick" tubes, critical adjustments, precision mechanics. Circuit design is straightforward, uses standard tubes and components.

NEW
IMPROVED
SPEC!

Maximum
Output
Current
Amperes
d-c

	4-10	8-20	16-40	32-80	64-160
4	ET-10 \$395	ET-20 \$405	ET-30 \$425	ET-40 \$445	ET-50 \$470
10	ET-11 \$445	ET-21 \$475	ET-31 \$520	ET-41 \$570	ET-51 \$615
18	ET-12 \$650	ET-22 \$685	ET-32 \$785	ET-42 \$865	ET-52 \$950
30	ET-13 \$870	ET-23 \$990	ET-33 \$1180	ET-43 \$1455	ET-53 \$1810
50	ET-14 \$1150	ET-24 \$1300	ET-34 \$1550	ET-44 \$1750	ET-54 \$2140
100	ET-15 \$1790	ET-25 \$2110	ET-35 \$2520	ET-45 \$3120	ET-55 \$3960

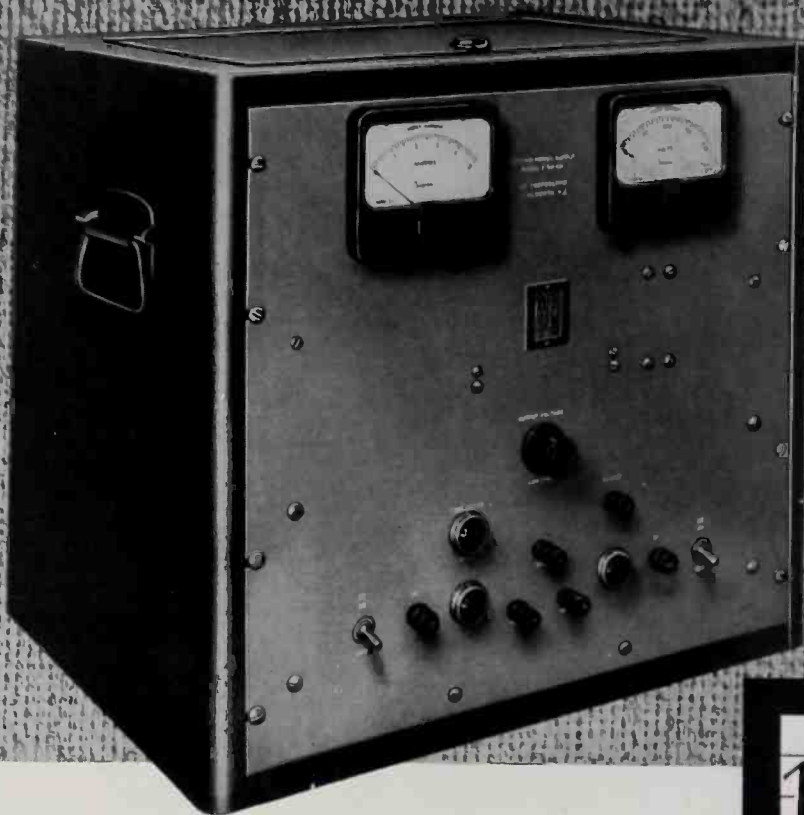
Voltage
Range*
for
Rated
Regulation
and
Ripple

120
STOCK
MODELS

NOTE: Prices are for Rack models. Cabinet model prices slightly higher. Metered models: \$40.00 extra.
*Most supplies operate well down to 1/10 of the maximum rated output voltage, but the regulation deteriorates somewhat below rated minimum.

Request Catalog E-5 for complete data.

● POWER SUPPLIES UNLIMITED ●



ZERO-LAG D-C Power Supplies

The Modern Electronic Battery

In the Zero-Lag system, the principal objection to conventional high-current DC regulators (magnetic amplifiers or saturable reactors) has been eliminated. Instead of the 200 to 500 millisecond time lag (between a step-change of line or load and the correction for it), in the Zero-Lag system the voltage never leaves the regulated region!

LOAD REGULATION —

STATIC: At constant nominal line input within rating, the output voltage will not vary by more than 1% when the output current is slowly varied from zero to full rated load.

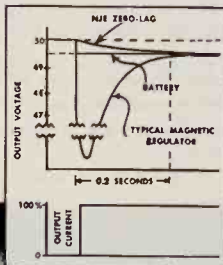
TRANSIENT: For any instantaneous change in output current which does not exceed 25% of full load rating*, the output voltage will not leave the regulated region!

*This rating can be extended to 100% of full load rating on special order, at an increase in size, weight, and price.

LINE REGULATION —

For any change (slow or instantaneous) in line supply voltage which does not exceed $\pm 10\%$ of the nominal rated value, at any constant output within rating, the output voltage will not change by more than 1%.

RIPPLE: 0.1% RMS



Maximum Output Current Amperes d-c

	4-10	8-20	16-40	32-80	64-100
4	Z-10 \$490	Z-20 \$510	Z-30 \$530	Z-40 \$550	Z-50 \$580
10	Z-11 \$745	Z-21 \$775	Z-31 \$800	Z-41 \$840	Z-51 \$880
18	Z-12 \$1190	Z-22 \$1260	Z-32 \$1330	Z-42 \$1400	Z-52 \$1480
30	Z-13 \$1815	Z-23 \$1780	Z-33 \$1980	Z-43 \$2360	Z-53 \$2505
50	Z-14 \$2720	Z-24 \$2970	Z-34 \$3220	Z-44 \$3470	Z-54 \$3740
100	Z-15 \$4840	Z-25 \$4940	Z-35 \$5180	Z-45 \$6130	Z-55 \$6270

Voltage Range* for Rated Regulation and Ripple

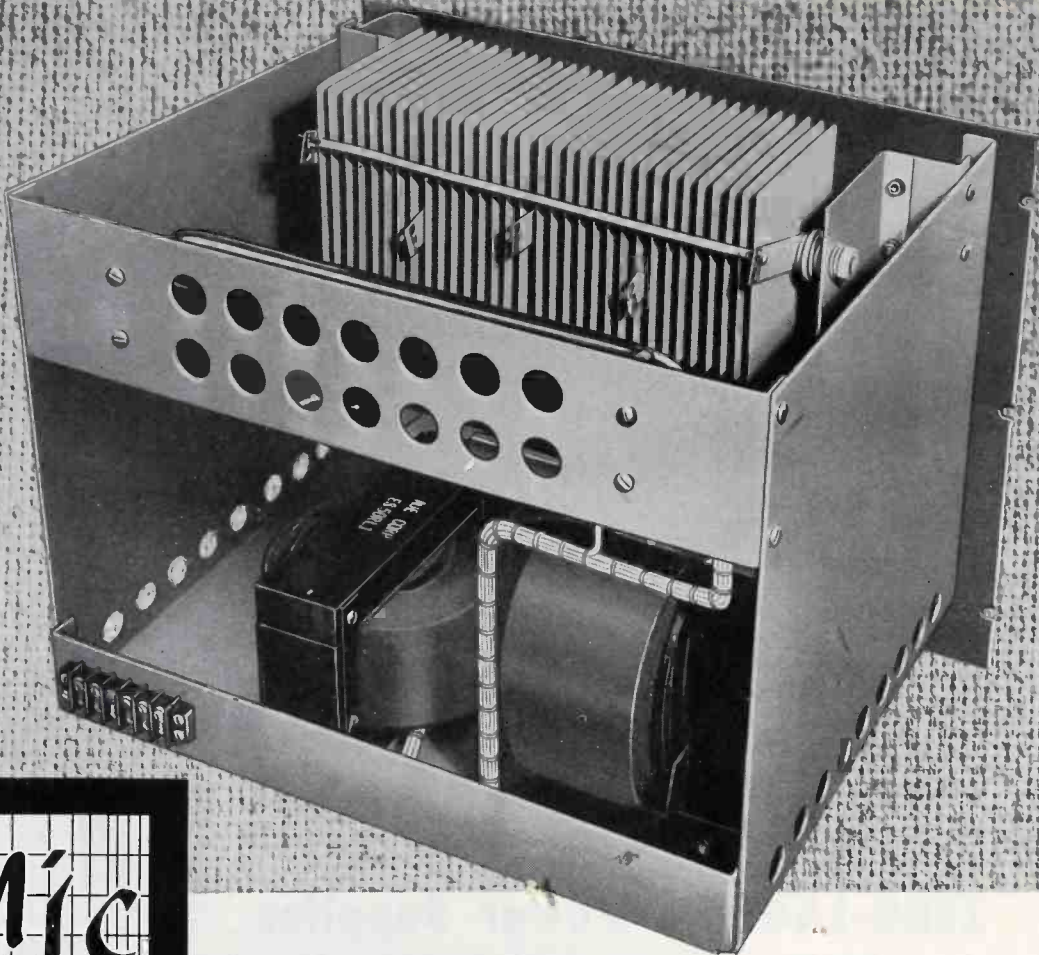
120 STOCK MODELS

NOTE: Prices are for Rack models. Cabinet model prices slightly higher. Metered models: \$40.00 extra.

*Most supplies operate well down to 1/10 of the maximum rated output voltage but the regulation deteriorates somewhat below rated minimum.

Request Catalog Z-5 for complete data.

• POWER SUPPLIES UNLIMITED •



SELENIUM RECTIFIER D-C POWER SUPPLIES

This fine equipment lifts selenium out of the "battery charger" class.

Less than 10% regulation, NL-FL, at maximum output voltage.

Ripple less than 1% RMS over entire output range. (Generously preloaded choke-input filter.)

Smooth, continuous, 0-100% output control. Available at reduced prices with fixed (or tapped) output.

The ELS models are line-regulated to $\pm 0.5\%$ for $\pm 10\%$ line changes. Premium rectifier cells, conservative transformers and chokes, finest workmanship.

Maximum
Output
Current
Amperes
d-c

	0-10	0-20	0-40	0-80	0-160
4	ES/ELS-10 \$145/195	ES/ELS-20 \$155/255	ES/ELS-30 \$165/265	ES/ELS-40 \$215/415	ES/ELS-50 \$340/540
10	ES/ELS-11 \$175/250	ES/ELS-21 \$190/290	ES/ELS-31 \$230/430	ES/ELS-41 \$380/680	ES/ELS-51 \$640/1090
18	ES/ELS-12 \$200/300	ES/ELS-22 \$230/430	ES/ELS-32 \$360/660	ES/ELS-42 \$525/975	ES/ELS-52 \$1095/2040
30	ES/ELS-13 \$260/360	ES/ELS-23 \$365/565	ES/ELS-33 \$460/760	ES/ELS-43 \$735/1185	ES/ELS-53 \$1330/2285
50	ES/ELS-14 \$340/450	ES/ELS-24 \$450/745	ES/ELS-34 \$635/1085	ES/ELS-44 \$1295/2250	ES/ELS-54 \$2145/3900
100	ES/ELS-15 \$600/895	ES/ELS-25 \$650/1100	ES/ELS-35 \$1250/2150	ES/ELS-45 \$1995/3750	ES/ELS-55 \$4335/7850

Voltage
Range
for
Rated
Regulation*
and Ripple

240
STOCK
MODELS

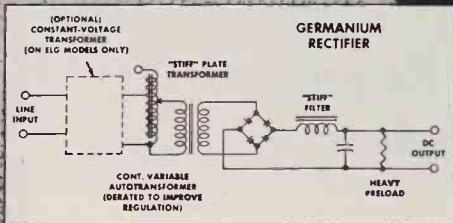
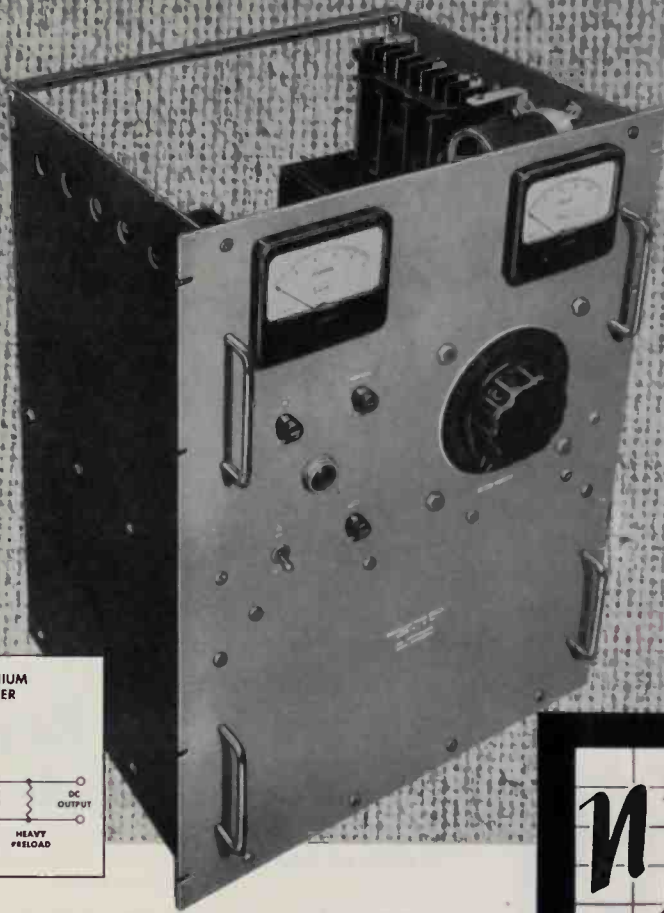
NOTE Prices are for Rack models. Cabinet model prices slightly higher. Metered models \$40.00 extra.

*Regulation is fixed in magnitude, variable in percentage.

Request Catalog E-5 for complete data.

• POWER SUPPLIES UNLIMITED •

EG/ELG Germanium Rectifier D-C Power Supplies



ELIMINATES COMPLEX REGULATED POWER SUPPLIES

The diagram above shows how to eliminate many of the complex regulated power supplies required in electronic equipment. Replace them with NJE tubeless, unregulated, stiff germanium supplies, with or without line-voltage compensation.

Load Regulation

The load regulation of these supplies is held to less than 4% no-load to full-load, at the maximum rated output voltage of the supply. By derating, better than 1% regulation is easily achieved.

Line Regulation

Line regulated (ELG) units hold constant output voltage to within approximately $\pm 0.5\%$ for $\pm 10\%$ line-voltage variations, at any fixed load within rating.

Ripple 1% RMS Max.

Maximum
Output
Current
Amperes
d-c

	0-10	0-20	0-40	0-80	0-160
4	EG/ELG-10 \$185/235	EG/ELG-20 \$200/300	EG/ELG-30 \$215/315	EG/ELG-40 \$285/485	EG/ELG-50 \$460/660
10	EG/ELG-11 \$225/300	EG/ELG-21 \$250/350	EG/ELG-31 \$310/510	EG/ELG-41 \$520/820	EG/ELG-51 \$880/1330
18	EG/ELG-12 \$265/365	EG/ELG-22 \$310/510	EG/ELG-32 \$490/790	EG/ELG-42 \$605/1155	EG/ELG-52 \$1455/2400
30	EG/ELG-13 \$340/440	EG/ELG-23 \$495/695	EG/ELG-33 \$630/930	EG/ELG-43 \$1015/1465	EG/ELG-53 \$1800/2755
50	EG/ELG-14 \$460/570	EG/ELG-24 \$620/815	EG/ELG-34 \$865/1315	EG/ELG-44 \$1750/2705	EG/ELG-54 \$2945/4700
100	EG/ELG-15 \$820/1115	EG/ELG-25 \$890/1340	EG/ELG-35 \$1700/2600	EG/ELG-45 \$2725/4480	EG/ELG-55 \$5970/9485

Voltage
Range
for
Rated
Regulation
and Ripple

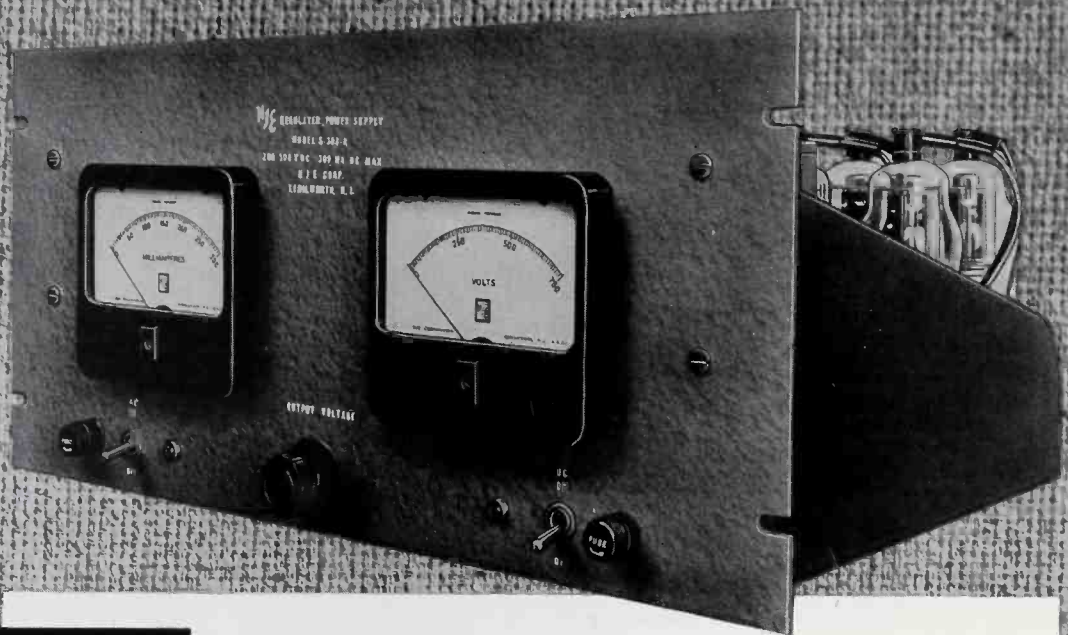
240
STOCK
MODELS

NOTE: Prices are for Rack models. Cabinet models slightly higher. Metered models: \$40.00 extra.

*Regulation is fixed in magnitude, variable in percentage.

Request Catalog E-5 for complete data.

• POWER SUPPLIES UNLIMITED •



Standard Grade Regulated Plate Power Supplies

STANDARD GRADE NJE POWER SUPPLIES conform to these rigid specifications:

- Specifications held throughout normal tube life.
- Generous safety-margins prevent self-damage due to overload.
- No electrolytics.
- All components within manufacturer's ratings.
- 45° C maximum temperature-rise on all iron-core components.
- No "surplus" components.

STANDARD GRADE SINGLE POWER SUPPLIES (Input 105-125V AC, 60-400 cps)

Model	Regulated Voltage Range Continuously Variable	Current Range MA DC	Regulation Line Load		% Total	Unregulated Filament Supply AC Volts	Amps.	Price	Add for Cabinet	Add for Meters
S-100	200 to 325	0 to 100	0.5	0.3	0.7	6.35 CT	3.0	\$52.00	\$10.00	\$25.00
S-150	200 to 325	0 to 200	0.3	0.3	0.5	(Two) 6.35 CT	3.0	96.00	15.00	25.00
S-200	100 to 200	0 to 100	0.5	0.3	0.7	6.35 CT	3.0	60.00	10.00	25.00
S-250	100 to 200	0 to 200	0.5	0.5	0.8	(Two) 6.35 CT	3.0	104.00	15.00	25.00
S-300	200 to 500	0 to 300	0.5	0.3	0.7	6.35 CT	5.0	160.00	15.00	30.00
S-350	200 to 325	0 to 300	0.3	0.3	0.5	(Two) 6.35 CT	5.0	128.00	15.00	30.00
S-400	0 to 300	0 to 300	0.5*	0.5*	0.8*	6.35 CT	5.0	160.00	15.00	30.00
S-900	0 to 600	0 to 300	0.3†	0.3†	0.5†	(Two) 6.35 CT	5.0	280.00	20.00	30.00

* or 1 volt, whichever is larger.

† or 0.5 volts, whichever is larger.

RIPLLE: 10 millivolts RMS (28 millivolts, peak-to-peak).

BIAS SUPPLY: Fixed or adjustable, 150 volts, available as optional extra.

POLARITY: positive, negative, or "floating"

Request Catalog S-5 for Complete Data.

• POWER SUPPLIES UNLIMITED •

32
STOCK
MODELS

These versatile supplies offer *four distinct modes of operation at the turn of a knob*:

unique interconnection forces accurate load sharing

PARALLEL

AIDING

generous insulation margins permit any ground and any polarity choice within single-supply ratings

OPPOSING

permits operation down to zero without loss of regulation efficiency. Preload automatically connected to permit full current pumpback

ISOLATED

complete independence is achieved through circuit isolation of all elements of each single supply

DUAL OUTPUT

POS

GND

NEG



Standard Grade DUAL Regulated Plate Power Supplies

STANDARD GRADE DUAL POWER SUPPLIES (Input 105-125 volts, 60-400 cps)

Model	Isolated Single-Supply Ratings (Two Furnished)		Series Aiding Ratings		Series Opposing Ratings		Parallel Ratings		Price	Add for Cabinet	Add for Meters
	Volts	MA DC	Volts	MA DC	Volts	MA DC	Volts	MA DC			
S-2100	200-325	0-100	400-650	0-100	0-125	0-100	200-325	0-200	\$125.00	\$15.00	\$50.00
S-2200	100-200	0-100	200-400	0-100	0-100	0-100	100-200	0-200	140.00	15.00	50.00
S-2300	200-500	0-300	400-1000	0-300	0-300	0-300	200-500	0-600	335.00	20.00	60.00
S-2400	0-300	0-300	0-600	0-300	0-150	0-300	0-300	0-600	345.00	20.00	60.00
S-2900	0-600	0-300	0-1200	0-300	0-300	0-300	0-600	0-600	600.00	30.00	60.00

20 STOCK MODELS

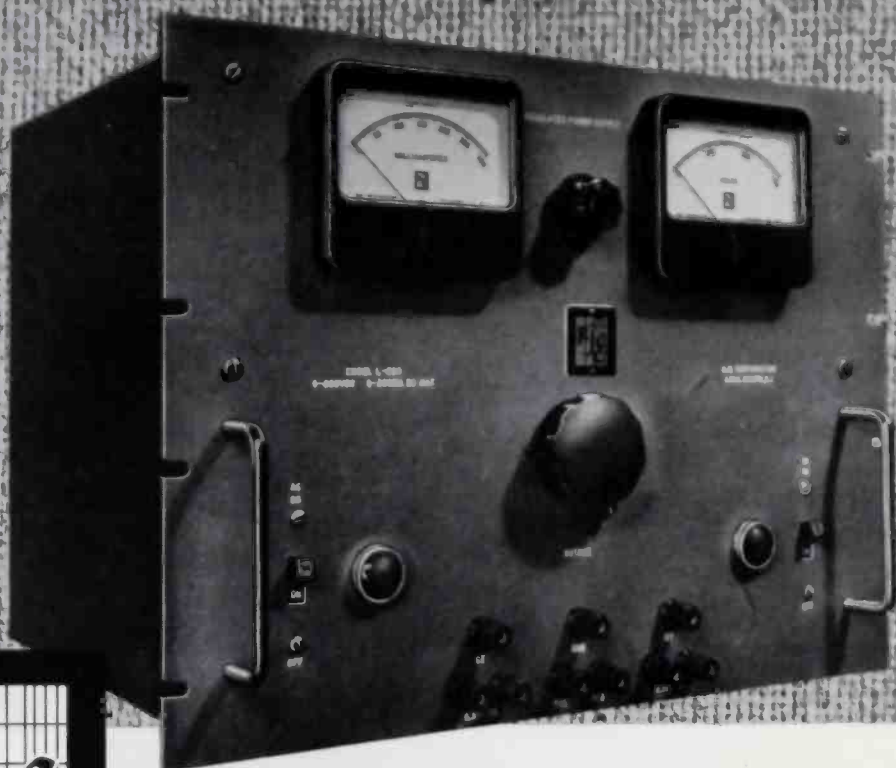
NOTE: Duals of the S-150, S-250, and S-350 are available on a short delivery cycle, but are not currently stock items.

METERS: Metered Models are supplied with four meters.

BIAS, RIPPLE, AND REGULATION: Same as equivalent single supplies.

Request catalog S-5 for complete data.

• POWER SUPPLIES UNLIMITED •



Laboratory Grade Regulated Plate Power Supplies

NJE Laboratory grade supplies conform to the following exceptional specifications:

- Only 10,000-hour and super-reliable vacuum tubes are used.
- No carbon resistors, except as parasitic suppressors. Wire-wound or metal-film only.
- All fixed iron-core components fully steel-encased, vacuum-impregnated. Temperature rise less than 30° C.
- 5651 voltage-reference standard.
- Power rectifiers long-life selenium.
- All components derated at least 30% for still-air conditions. Efficient, quiet blower provides additional safety margin.
- No electrolytics. All capacitors are oil-filled.
- Main-line circuits protected by trip-free circuit breakers, resettable from front panel.

LABORATORY GRADE SINGLE POWER SUPPLIES

Model	Output Voltage Range Volts DC	Output Current Range MA DC	Regulation %			Price	Add for Cabinet	Add for Meters
			Line	Load	Total			
L-500	0-300	0-300	0.3*	0.3*	0.5*	\$345.00	\$15.00	\$30.00
L-600	0-600	0-300	0.3†	0.3†	0.5†	400.00	15.00	30.00
L-700	0-300	0-600	0.3*	0.3*	0.5*	415.00	15.00	30.00
L-800	0-600	0-600	0.3†	0.3†	0.5†	485.00	15.00	30.00

* Or 0.5 volt, whichever is larger.

† Or 0.8 volt, whichever is larger.

RIPPLE: Less than 4 millivolts RMS (11 millivolts peak-to-peak).

BIAS SUPPLY: Fixed or adjustable 150 volts available as optional extra

POLARITY: Positive, negative, or "floating"

Request catalog L-5 for complete data.

• POWER SUPPLIES UNLIMITED •

16
STOCK
MODELS



Laboratory Grade DUAL Regulated Plate Supplies



These versatile supplies offer *four distinct modes of operation at the turn of a knob.*
For explanation of dual operation, see page 7.

LABORATORY GRADE DUAL POWER SUPPLIES

Model	Isolated Single-Supply Ratings (Two Furnished)		Series Aiding Ratings		Series Opposing Ratings		Parallel Ratings		Price	Add for Cabinet	Add for Meters
	Volts	MA DC	Volts	MA DC	Volts	MA DC	Volts	MA DC			
L-2500	0-300	0-300	0-600	0-300	0-150	0-300	0-300	0-600	\$750.00	\$25.00	\$60.00
L-2600	0-600	0-300	0-1200	0-300	0-300	0-300	0-600	0-600	860.00	25.00	60.00
L-2700	0-300	0-600	0-600	0-600	0-150	0-600	0-300	0-1200	890.00	25.00	60.00
L-2800	0-600	0-600	0-1200	0-600	0-300	0-600	0-600	0-1200	1050.00	25.00	60.00

16
STOCK
MODELS

BIAS, RIPPLE, AND REGULATION: Same as equivalent single supplies.

METERS: Metered Models are supplied with four meters.

Request catalog L-5 for complete data.

• POWER SUPPLIES UNLIMITED •



High Voltage Power Supplies



H-line supplies incorporate the famous BASIC 20 safety and performance features:

- Reversible polarity over-current trip out
- Adjustable over-voltage trip-out
- Three-range grounded voltmeter
- Three-range grounded millimeter output-grounding switch
- Automatic interlock — with bypass
- Zero-start interlock protection on doors
- Provision for auxiliary interlock
- Self-holding primary contactor
- Adjustable over-voltage
- Three-range grounded voltmeter
- Automatic output-grounding switch
- Zero-start interlock — with bypass
- Double-interlock protection on doors
- Provision for auxiliary interlock
- Self-holding primary contactor
- Safety resistor in output lead
- Output continuously adjustable, 0 to 100%
- Low corona levels
- RF interference effectively suppressed
- Neon-gap protection on meters, relays
- Three-wire primary circuit
- Six pilot lamps indicate circuit status
- Blown-fuse indicators on all fuses
- All panel elements "dead-front" connected
- Meters are hand-calibrated to 2%

Maximum Output
MA DC

	2.5	5	10	20	30	50	60	120
5		H-20 \$450.00	H-30 \$450.00	H-40 \$500.00	H-50 \$630.00	H-60 \$1,070.00		H-80 \$1,690.00
10				H-41 \$660.00	H-51 \$740.00	H-61 \$1,240.00	H-71 \$1,440.00	
15						H-62 \$1,420.00		
20		H-23 \$500.00	H-33 \$625.00	H-43 \$900.00				
35		H-24 \$600.00			H-54 \$1,000.00			
50	H-15 \$560.00		H-35 \$800.00	H-45 \$1,020.00				
100	H-16 \$620.00	H-26 \$740.00	H-36 \$1,100.00					
200		H-27 \$900.00						

Maximum Output
Kilovolts DC

77
STOCK
MODELS

AC/DC Output and Line Regulator Available at Extra Charge.
Casters Available on Tank Models Only, at Extra Charge.

Write for catalog H-5

• POWER SUPPLIES UNLIMITED •

HP-SERIES 2 MA DC INDUSTRIAL LOW-CURRENT HI-POT TESTERS

HP-1	HP-2	HP-3	HP-5
\$175.00	\$200.00	\$250.00	\$350.00
0-2.5 KV	0-5 KV	0-10 KV	0-30 KV
0-2MA DC	0-2MA DC	0-2MA DC	0-2MA DC

Cabinet prices quoted. Rack mounting, \$35 extra.
RETAIN MANY H-LINE FEATURES.
NO SACRIFICE IN QUALITY!

Brand
New!

CUSTOM is Standard at NJE

We offer a unique combination of facilities to the engineer in need of a special design:

- The most flexible and experienced engineering staff in the power supply field.
- A production program geared to custom work, and to a short delivery cycle.
- Everything under one roof: sheetmetal, finishing, transformer design and production, engineering, drafting, assembly and test. We buy only resistors, capacitors, and tubes. Everything else is under tight production control.
- A design file containing over 2000 previously engineered circuits.

A list of our engineering representatives follows on page 122. They offer prompt, informed cooperation in preparing specifications and obtaining quotations from our factory

NJE is the CUSTOM LEADER



0-30A
1-300V

Constant-current supply with upper voltage limit, for electrolytic capacitor forming.

Chopper - stabilized standard-cell referenced super-regulated power supply. Stability 50 parts per million. Settability, 100 parts per million.

POWER SUPPLIES UNLIMITED

COMPETENT Engineering Representation EVERYWHERE . . .

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514 University Bldg., Syracuse, N. Y.
SYracuse 2-6253

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DIgby 9-1240

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BURLINGAME ASSOCIATES LTD.
222 Long Lane, Upper Darby, Pa.
SHerwood 7-9080

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BURLINGAME ASSOCIATES LTD.
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DEcatur 2-8000

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W. A. BROWN & ASSOCIATES
3610 Mt. Vernon Ave., Alexandria, Va.
OVERlook 3-6100 • OVERlook 3-6333

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THE SATULLO COMPANY
16801 Euclid Ave., Cleveland, Ohio
IV 1-6200

ROYAL OAK, MICH.

THE SATULLO COMPANY
4512 N. Woodward Ave., Royal Oak, Mich.
JORDan 6-2375 • LIBerty 9-3910

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RIDGWAY ENGINEERING ASSOCIATES, INC.
1606 N. Illinois, Indianapolis, Ind.
WA 5-6464

CHICAGO, ILL.

RIDGWAY ENGINEERING ASSOCIATES, INC.
6100 West North Ave., Chicago 39, Ill.
TU 9-5715

KANSAS CITY, MO.

LEE-MARK ASSOCIATES
P. O. Box 8467, Kansas City, Mo.
JACKson 3-9299

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G. S. MARSHALL CO.
2015 So. El Camino Real, Redwood City, Calif.
EMerson 6-8214

PASADENA, CALIF.

G. S. MARSHALL CO.
40 So. Los Robles Ave., Pasadena, Calif.
SY 5-2022 • RY 1-9663

DALLAS, TEXAS

ARNOLD BARNES COMPANY
5526 Dyer St., Dallas 6, Texas
EMerson 6716

MONTREAL, CANADA

RADIONICS, LIMITED
8230 Mayrand Street, Montreal 9, Canada
REgent 3-3937

All information subject to change without notice.

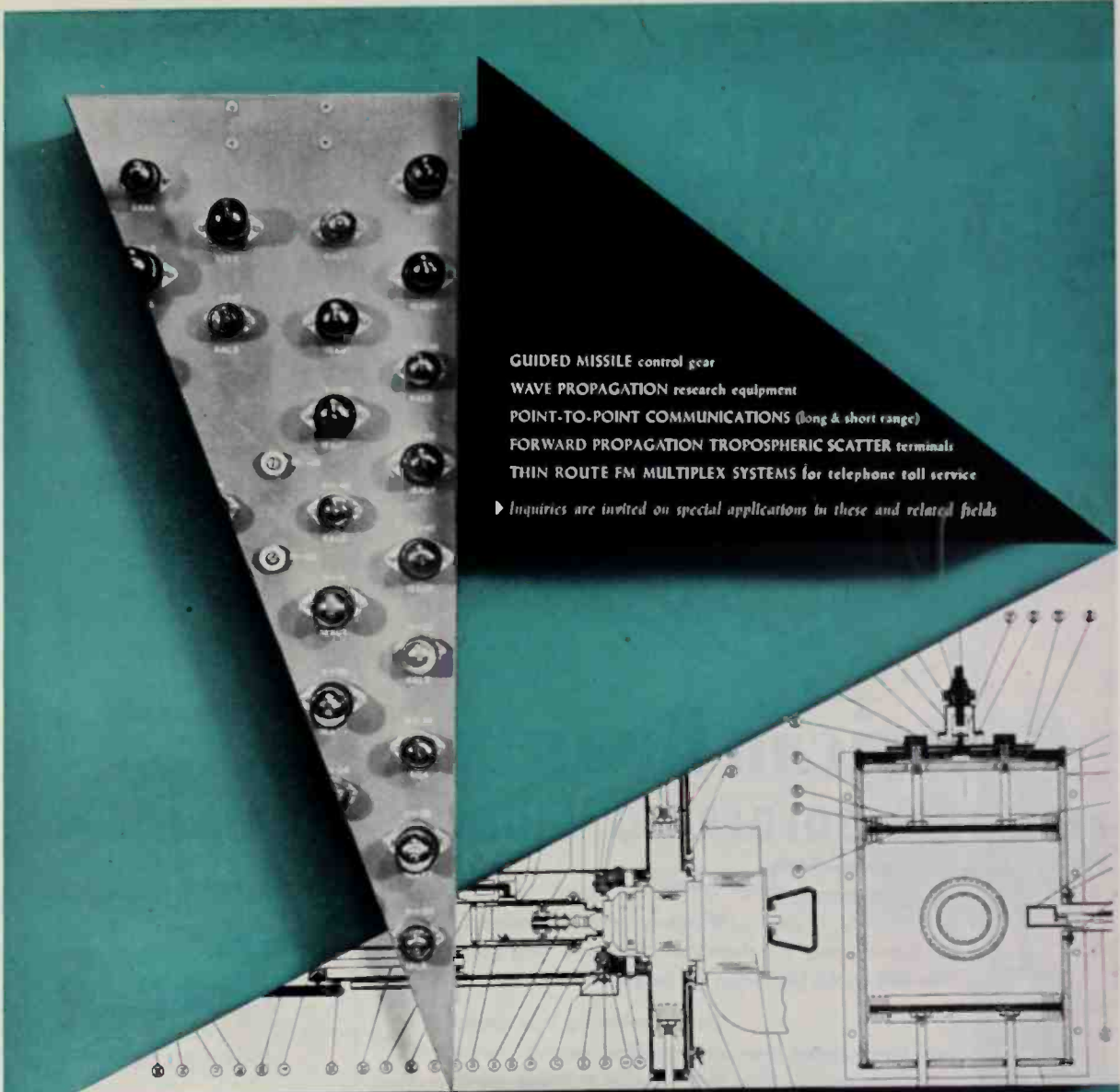
Really Complete Catalog Information

NJE CORPORATION

345 Carnegie Ave., Kenilworth, New Jersey

CHestnut 1-1500





GUIDED MISSILE control gear
 WAVE PROPAGATION research equipment
 POINT-TO-POINT COMMUNICATIONS (long & short range)
 FORWARD PROPAGATION TROPOSPHERIC SCATTER terminals
 THIN ROUTE FM MULTIPLEX SYSTEMS for telephone toll service
 ▶ Inquiries are invited on special applications in these and related fields



Radio Engineering
 Laboratories - Inc.

36-40 37th St. Long Island City 1, N. Y.
 Stillwell 6-2100 • Telex: NY 4-2816

Canadian representative:
 Ahearn & Soper Co., P. O. Box 715, Ottawa

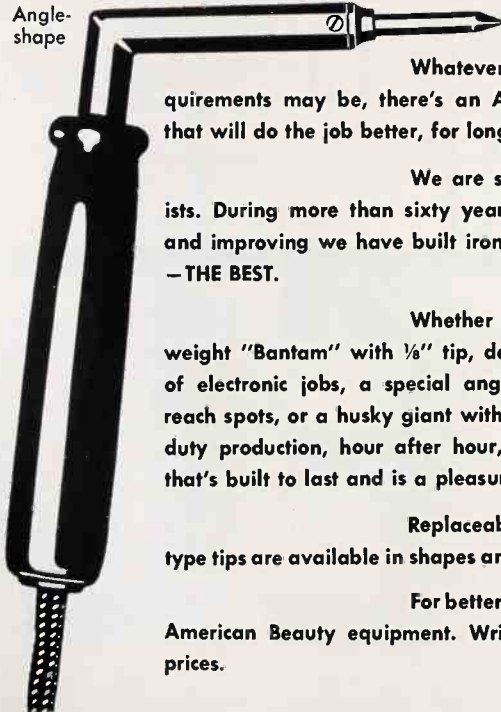
REL

**1/8 to 1 1/8
TIP DIAMETERS—
30 to 550 WATTS**



American Beauty ELECTRIC SOLDERING IRONS

Angle-
shape



Whatever your soldering requirements may be, there's an American Beauty iron that will do the job better, for longer.

We are soldering iron specialists. During more than sixty years of constant testing and improving we have built irons of only one quality — THE BEST.

Whether you choose a feather-weight "Bantam" with 1/8" tip, designed for the finest of electronic jobs, a special angle-shape for hard to reach spots, or a husky giant with 1 1/8" tip for heaviest duty production, hour after hour, you'll have an iron that's built to last and is a pleasure to handle.

Replaceable, hi-efficiency, plug-type tips are available in shapes and sizes you will want.

For better soldering, investigate American Beauty equipment. Write for literature and prices.

AMERICAN ELECTRICAL HEATER COMPANY



153-H

DETROIT 2, MICHIGAN

Engineers,
designers,
specifiers,
and technicians
have found the "Guide"
to be
up-to-date,
the most accurate
and the only
complete source
available.

These key people
of the industry
(the buying influences)
rely on the "Guide"

as the answer
to all their
product problems

choose
and
use

the
**electronics
BUYERS'
GUIDE**

Making Electrical Connections Under Pressure

by Andy Wyzenbeek, Chief Engineer

Fusite Hermetic Terminals with new V-24 glass use the principles of both fusion and compression between the metal and glass to assure a rugged air tight electrical connection.

Where great pressures are involved either internally or externally the limiting factor is often solder or other method of sealing rather than the junction of materials on the terminal itself.

The same is true of Fusite Terminals in applications subject to extreme vibrations, or mechanical or thermal shock.

Where one or more of these conditions exist, Fusite threaded bushing terminals have proved themselves capable of withstanding great punishment. The threaded mechanical seal together with soft solder, suitable gasket or epoxy resin extends the capacity of the connection and brings it more nearly to the high limits engineered into the Fusite Terminal itself.

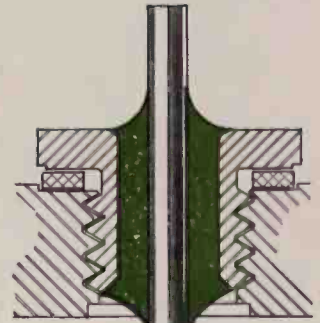
Each of the three illustrated terminals are available in five different electrode treatments and come with standard threads as shown. In addition, for extreme pressure conditions, these terminals are made with tapered pipe plug threads.

We were gratified and a little bit alarmed by a letter of inquiry received recently from a new user of a Fusite pipe plug terminal.

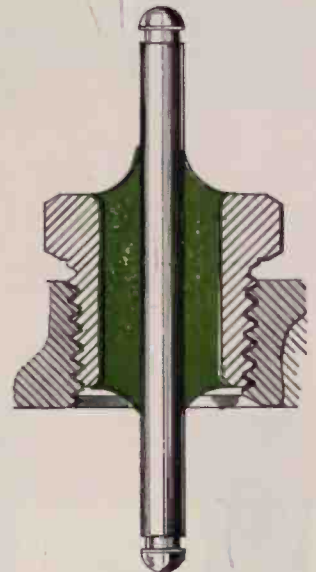
"Thank you for the samples of your terminal and drawings of 1/8 pipe plug. We tested several of these units to 29,500 PSI at 212° and they did not fail. We are curious as to how much higher pressure they will stand."

We had to plead ignorance as to maximum pressure possibilities, but if you would like to test them in your own application, samples are yours for the asking.

Write FUSITE, Dept. W-1, 6026 Fernview Avenue, Cincinnati 13, Ohio



Threaded Bushing Terminal with Gasket



Pipe Plug Terminal



104 TB Series
8-32 Thread $\frac{3}{16}$ " Hex Head



105 TB Series
 $\frac{1}{4}$ -28 Thread $\frac{3}{8}$ " Hex Head



109 TB Series
 $\frac{3}{8}$ -24 Thread $\frac{1}{2}$ " Hex Head



THE **FUSITE** CORPORATION

6026 FERNVIEW AVE.,

CINCINNATI 13, OHIO

Why they come to UNITED ELECTRONICS



***TYPE 3B24WA**

Ruggedized version of JAN 3B24W rectifier.

Height 4.8125 Diam 1.5625

MAX ELECTRICAL RATINGS

Ef 5 volts epx 20 kv
If 3 amps ib 300 ma

lb 60 mAdc

SHOCK RATING 450 G

employs banded thorium tungsten core filament



TYPE 582, Half-Wave

High vacuum rectifier for use in airborne equipment where gas tubes give short life on 400 cps or higher source.

Height 5.75 Diam 1.57

MAX ELECTRICAL RATINGS

Ef 2.5 volts If 5 amps
55,000 ft. epx 9 kv
ib 1 amp lb 200 mAdc
surge 5 amps tk 40 (min.) sec.

SHOCK RATING 300 G



**TYPE 583
Clipper Diode-Rectifier**

Designed under latest concepts of rugged and reliable objectives, UNITED type 583 has the industry's esteem for good performance.

Height 4.875 Diam 1.445

MAX ELECTRICAL RATINGS

epx 17 kv ib 8 amps
lb 65 mAdc

SHOCK RATING 375 G



**TYPE 596
Full Wave Rectifier**

Reliable, high altitude (60,000 ft.) version of JAN 1641

MAX DIMENSIONS

Height 5.75 Diam 2.250
Ef 5 volts If 3 amps

TYPICAL RATINGS

cond input	choke input
epx 2300 v	2750 v
ib 825 mAdc	360 ma
lb 275 mAdc	275 mAdc



**TYPE 589 Rectifier-Clipper
External Anode Type**

Designed for oil or air operation weights only 3/4 oz. and has **SHOCK RATING** of 300 G, Ef 6.3 V; If 1.65 Aac length less leads 1.875

MAX ELECTRICAL RATINGS

Clipper	Rectifier
epx 10 kv	16 kv
ib 8 amps	.250 amp
lb .020 Adc	.065 Adc

These reliable tubes were all originated and developed by UNITED ELECTRONICS COMPANY. Types indicated by (*) embody "bonded thorium tungsten core filament" developed by UNITED and available only in tubes made by this company. This filament is essentially non-fracturable. Its emissivity life is far superior to that provided by ordinary thoriated tungsten.

Write for new 40-page booklet.

UNITED ELECTRONICS, 42 Spring Street, New

Originators and Manufacturers

with

LEADERSHIP IN

extreme test

CRITERION TUBES

Manufacturers of modern electronic equipment have encountered instrumentation problems, demanding unprecedented performance of electron tubes.

They have come to UNITED ELECTRONICS, where they find unique engineering initiative, and an ever growing *success experience* in their quest for better tubes. They find here a refreshing atmosphere of knowledge, practicality and friendliness. They find here, minds that are not too inhibited by precedent and outmoded concepts of design approach. **RESULT:** New **EXTREME-TEST CRITERION TUBES** which, understandably, other tube manufacturers are trying hard to copy.



***TYPE 554 Rectifier-Clipper**
External Anode Type

Designed for oil or air operation
max length (minus leads) of
inches. **SHOCK RATING** 300 G
3 volts; If 3.5 Aac

MAX ELECTRICAL RATINGS

Rectifier	18 kv
Clipper	.470 amp
	150 mAac



TYPE 576-A
Rectifier-Clipper

Ruggedized and up-rated version
of our type 576 good for 500 ma
lb without forced air.

MAX ELECTRICAL RATINGS

Rectifier	25 kv
Clipper	2.5 amps
ex 25 kv	.500 Adc
ib 14 amps	5 volts
lb .030 Adc	14 amps
Ef 5.4 volts	
If 15 amps	



***TYPE 705WA**
Half Wave Rectifier

Here again UNITED engineers
came up with a much needed im-
provement over JAN type 705A.
This tube has a **SHOCK RATING**
of 300 G and high dependability
due to bonded thoriated filament and
graphite anode in enormously rug-
ged assembly.



***TYPE 561**
Rectifier-Clipper

This is a low impedance companion
to our famous X-80. Has same
filament characteristics as X-80 but
rated for ex of 30 kv.

MAX ELECTRICAL RATINGS

Clipper	30 kv
Rectifier	2.7 amp
ex 30 kv	.860 amp
ib 80 amps	
lb .075 amp	



***TYPE X-80**
Rectifier-Clipper

Employs exclusive UNITED bonded
thoria filament and powerful rug-
ged graphite anode.
Height 9.75

Clipper	40 kv
Rectifier	2.5 amps
ex 40 kv	.800 amp
lb 80 amps	
lb .075 amp	
Ef 11.5 volts	14 15.5 amps
	Diam 3.63



Bendix Red Bank

YOUR BEST SOURCE FOR...



**High-Altitude and Missile
INVERTERS**



**High-Temperature
AC GENERATORS**



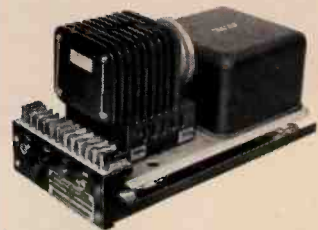
**AC Voltage Regulators
(Magnetic Amplifier Type)
and
SYSTEM COMPONENTS**



**Special-Purpose Tubes
featuring
HARD GLASS TYPES**



**High-Temperature
DC GENERATORS**



**DC VOLTAGE REGULATORS
and
CONTROL PANELS**

When it comes to special-purpose electron tubes, or electrical power equipment of the types shown above, you can be sure of getting top quality from Bendix Red Bank. That's because we offer the unbeatable combination of skillful design and expert engineering plus quality control over every step of manufacture. Call on us at any time for recommendations.

Write today for brochure detailing our engineer-

ing, production and service facilities. RED BANK DIVISION, BENDIX AVIATION CORPORATION, EATONTOWN, NEW JERSEY.

West Coast Sales and Service: 117 E. Providencia Ave., Burbank, Calif.
Canadian Distributor: Aviation Electric Ltd., P.O. Box 6102, Montreal, P.Q.

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Bendix International Division, 205 E. 42nd St., New York 17, N. Y.

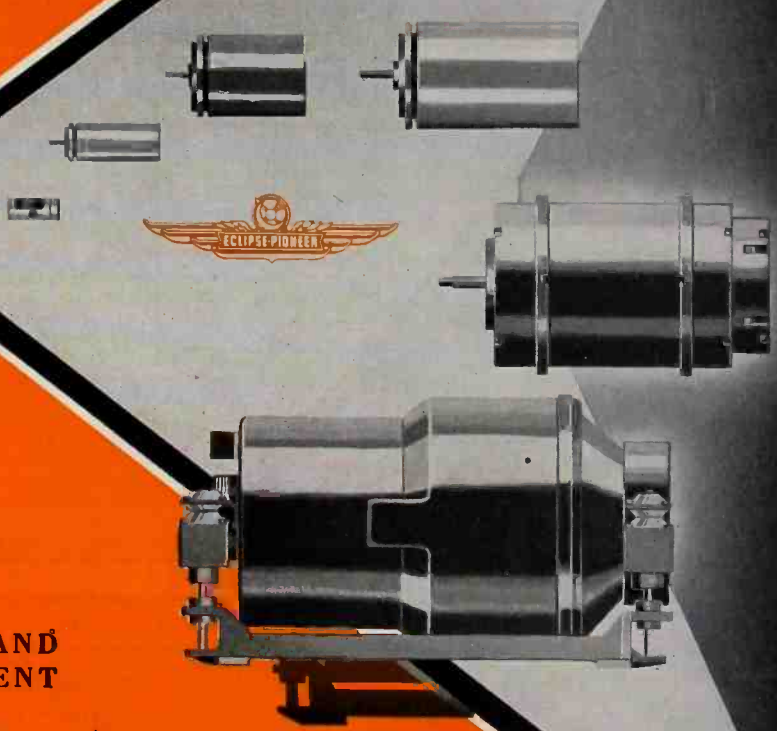


REFERENCE CATALOG

PRECISION components



FOR
SERVO MECHANISM AND
COMPUTING EQUIPMENT



ECLIPSE-PIONEER
DIVISION BENDIX AVIATION CORPORATION, TETERBORO, N. J.

Precision Gyros for All Applications

VERTICAL GYRO TRANSMITTER



Type 14110

FOR RADAR AND AUTO PILOT CONTROL

FEATURES: includes quick erecting mechanism which makes the remote unit ready for operation within 3 minutes. • Two erection ball system. • Non-tumbling stops. • Inclined axis (1 degree) to minimize turn error.

Power Requirement . . . 115 v, 1 phase, 400 cps Starting . . . 19 w .9 P.F. Running . . . 13 w .85 P.F.

Gyro Speed . . . 22000 RPM

Erection rate (normal) . . . 3°/minute

Weight . . . 2¾ lbs.

Size . . . 3½ diameter x 5 13/16 long

Gyro Moment . . . 600 gram cm²
Autosyn excitation . . . 26 v, 400 cps

THREE GYRO

STABLE PLATFORM



FREE GYRO

Type No. 14108-1-A

Overall Size—3 3/8" x 5 5/16"



The Three Gyro Stable Platform was designed for use as a combined vertical and directional gyro. As a master reference, it eliminates all vertical and directional gyros used for such functions as indication, auto-pilot control, fire control, radar stabilization and navigation. While the platform can be used as either free or slaved, it is normally slaved to vertical. No gimbal locks are incorporated, the instrument functioning through loops, rolls, turn in 360° rotation about any aircraft axis without encountering gimbal lock.

WEIGHT: 28 pounds without shockmount

POWER REQUIREMENTS: 115 Volts, 3 Phase, 400 Cycles, 70 Watts
28 Volts D.C. 20 Watts

INPUT: Magnetic slaving C-2 Compass Transmitter

HORIZONTAL GYRO DRIFT RATE: Less than 1° per hour

VERTICAL GYRO DRIFT RATE: 2° per hour

NORMAL ERECTION RATE: .5° per minute

ERECTION TIME: Approximately 2 minutes to within 1° minimum of vertical.

MOTOR: 26 volts, 400 cps, 3 phase with rated speed of 22,000 rpm and a rotor moment of inertia of 1260 gram-cm². Other motors can be supplied that will meet alternate requirements.

DRIFT RATE: Will not exceed 1° per minute when subjected to Scorsby test at amplitude of ± 15° and rate of approximately 6 cpm (corrected for earth's rotation). Two degrees maximum during vibration.

PICK OFF: Autosyn type with peak value of 20 volts. Initial slope of output voltage curve about null position is 0.35 volts per degree ± ten per cent. Phase shift is less than 10 degrees. Residual voltage is less than 50 mv.

WARM-UP TIME: Within two minutes.

OPERATING LIFE: Rated at 500 hours.

ENVIRONMENTAL CHARACTERISTICS: Maximum operating temperature of 195°F. and a minimum of -20°F. Maximum allowable shock is 60g. with maximum operating vibration of 7g. (from 10 to 550 cps). Maximum excursion not to exceed 0.5 inches. Positive hermetic seal.

WEIGHT: Approximately 4.5 pounds.

CAGING AND UNCAGING: Can be caged by applying 26 volts, 400 cps, single phase. Caging time is within 30 seconds for ± 15° initial displacement of roll axis about the normal caged position and within one minute for all other positions of gimbals. Uncaging time—within 0.1 seconds.



HERMETICALLY SEALED

ROLL GYRO

TRANSMITTER

Type 790412

Power requirements	45 volts, 3 phase, 800 cps
Gyro speed	22000 RPM
Gyro moment	3300 gram cm ²
Acceleration time	7 minutes @ 45 volts
	15 minutes @ 75 volts
Weight	6.0 pounds
Size	4 7/8" dia.—5 3/64" long
Drift	below 0.5°/minute
	below 1.2°/minute
Precision under 3RPS	
Caging time	1 minute (28 volts D.C.)
Pickoff excitation	6 volts, 5000 cps 1 Φ and 26v 400 ~ 1Φ
Pickoff output	60 mv./degree

COMPLETE FREEDOM ON 2 AXES

Publication No. 564-5
Superseding Pub. No. 563-1

VERTICAL GYRO

TRANSMITTER

14119-1-A
14120-1-A
14121-1-A



These vertical gyro transmitters were designed for installations where a remote vertical stabilization reference is required. Essentially they consist of an electrically driven, vertical-seeking gyro with separate Autosyn transmitter pick-offs on the pitch and bank axis. A new feature incorporated in these transmitters is an erection to true vertical instead of vertical in relation to the instrument case, at a rate of approximately 150°/min. Other features are a sensitive measuring vertical detection system with an accuracy of better than ¼° and an improved gimbal construction resulting in greater operational stability

Size: 5" diameter, 7¾" in length

Weight: 7 lbs. 3 oz.

Power requirements: Gyro Motor and Erection System—115 volts, 400 cycles, 3 phase

Autosyn—26 volts, 400 cycles, 1 phase

Vertical Gyro

Non pendulous

Momentum: 3.5 x 10⁶ gm cm²/sec.

Freedom: 360° in roll. Controlled tumbling near ±85° in pitch.

Stops prevent minimum error at 10°/sec. rate of loop.

Type 14120-1-A: Has provision for attachment of external rate switch.

Type 14121-1-A: Mercury switch for T & B compensation.

Type 14122-1-A: Has rate switch incorporated in housing.

eclipse-pioneer division

TETERBORO, NEW JERSEY

AVIATION CORPORATION



Bendix

SCINSEAL

WIRING ASSEMBLIES SEALED
FOR ENVIRONMENTAL PROTECTION

Here is the ideal protection for wiring assemblies requiring a high degree of environmental resistance without the use of metal conduit.

Scinseal, originated and developed by the Scintilla Division of Bendix*, is a multi-purpose thermo-plastic material designed to protect and seal vital wiring assemblies from every operational hazard.

By the combination of plasticizers, stabilizers, pigments and fillers, Scinseal has been formulated to meet the requirements of many adverse conditions.

For example, one usage may require low-temperature flexibility, while another is concerned primarily with a high temperature condition, and still other applications may present fuel and acid problems—or perhaps a combination of all of these characteristics is the desired result.

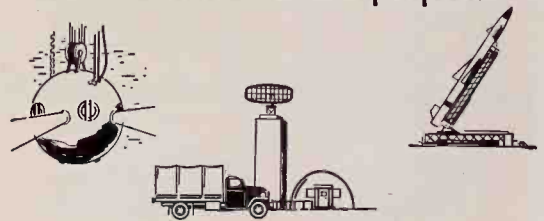
That is why Scinseal is virtually a miracle material, for it can be "tailored" to meet a wide range of requirements, and at the same time, minimize the weight of the finished product.

Scinseal can be provided in a variety of solid colors, and can be hot stamped to provide positive identification. Many electrical connector adapter molds are available, as well as the T's, Y's and variable molds necessary to provide reliable assemblies of any configuration.

Detailed information and data on Scinseal available on request.

*TRADEMARK

Can be tailored to meet
individual needs and purposes



Scinseal is used in such specialized fields as underwater devices, ground radar equipment, missile control wiring.

SCINTILLA DIVISION OF BENDIX AVIATION CORPORATION
SIDNEY, NEW YORK

**SCINTILLA
DIVISION**

Bendix
AVIATION CORPORATION



Original 120 TRIMPOT

BOURNS now offers an expanded line of

TRIMPOTS®

... 7 stock models of sub-miniature potentiometers to serve many special needs—at no extra cost!

First there's the 120 Wirewound TRIMPOT, with features common to all other BOURNS TRIMPOTS. It's a 25-turn potentiometer, easily adjusted, and weighing only 0.1 oz. Rectangular in shape, it fits readily into miniature electronic circuits. You can mount it individually, or stack it compactly with standard screws. Mountings are interchangeable with those on all other TRIMPOTS.

The self-locking shaft holds stable settings under extreme environmental conditions. All parts are corrosion resistant. Every unit is inspected 100% for guaranteed specifications. Resistances: 10 to 20,000 ohms, with resolutions as low as 0.2%.

Now, to give designers greater latitude, BOURNS has developed and is manufacturing the following standard models—variations of the Model 120.



120 TRIMPOT
— Carbon

Infinite resolution is provided by the carbon element. Resistances are higher, ranging from 20,000 ohms to 1 megohm.



130 TRIMPOT
— Solder Lug

For wiring direct to the instrument, using soldering iron or dip soldering techniques. Usable range of 98%.



132 TRIMR
— Variable Resistor

High resistances—up to 50,000 ohms in a wirewound rheostat.



209 TWINPOT
— Dual Potentiometer

Two outputs electrically independent, and controlled simultaneously by one adjustment.



160 TRIMPOT
— High Temperature

Operates at 175°C. High power rating: 0.6 watt at 50°C.



230 TRIMPOT
— Humidity-proof

Completely sealed, unit meets MIL-E-5272A Specifications for humidity.



BOURNS LABORATORIES

General Offices: 6135 Magnolia Ave., Riverside, Calif.
Plants: Riverside, California—Ames, Iowa

Write for literature on the BOURNS TRIMPOT line.

When...

YOU BUY

or

REQUEST ADDITIONAL PRODUCT INFORMATION

be sure to
mention the...

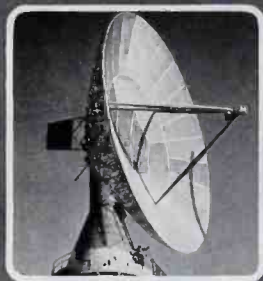
electronics BUYERS' GUIDE

THIS WILL ASSURE YOU OF PROMPT ATTENTION

—
A McGraw-Hill Publication

THE WORLD'S LARGEST ANTENNAS

are coming from **KENNEDY**



TRACKING ANTENNAS



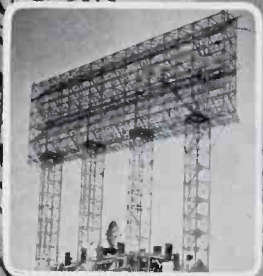
RADIO TELESCOPES



RADAR ANTENNAS



TROPOSPHERIC SCATTER



IONOSPHERIC SCATTER

ALL round the globe, mighty antennas like these are serving as electronic eyes and ears for the free world . . . ample proof that Kennedy has the know-how and the facilities to solve your antenna problems, large or small — all the way from design through installation.



ANTENNA EQUIPMENT

D. S. KENNEDY & CO.

COHASSET, MASS. — TEL: CO4-1200



Design, Development
**DEFLECTION YOKES
 TRANSFORMERS**

For ... Military and Commercial Avionics

Leading system manufacturers now depend on CELCO for their difficult and critical applications on many of these components.

Our design development, production and quality control experience — combined with CELCO's highly skilled operators, production foremen and engineers — comprises a team that has proven their outstanding performance for quality components.

Apply the CELCO "know-how" to your production requirements!



We specialize in the design and manufacture of **PRECISION DEFLECTION YOKES** for military and commercial applications. CELCO can give you immediate engineering evaluation on your critical display problems.

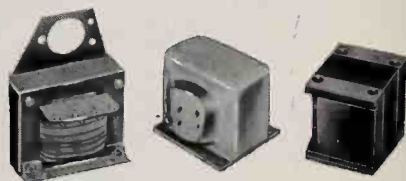


COILS FOR TRAVELING WAVE TUBES — precision wound for minimum transverse magnetic fields. High temperature windings are a CELCO engineering development —

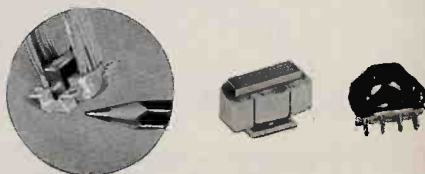
Unit illustrated is 12" long.



HIGH TEMPERATURE TRANSFORMERS — high temperature windings and impregnations on CELCO TRANSFORMERS permit high operating temperature with reduced size and weight.



MINIATURE TRANSFORMERS & SATURABLE REACTORS — specially produced for the Transistor and Plug-in type amplifier assembly. CELCO designs these units wherever reduction in size and weight must be made.



TOROIDAL COILS — CELCO is equipped to cover an extremely wide range of toroidal windings.

No. 50 wire on a .062" ID Toroid

No. 15 wire on 9" OD Toroid



Constantine Engineering Laboratories Co.

ISLAND AVE. PHONE: RAMsey 9-1123 MAHWAH, N. J.

and Production of:

MAGNETIC AMPLIFIERS AIRCRAFT MOTOR COMPONENTS

...Nuclear and Computer Industries

Celco

MAGNETIC AMPLIFIERS—encapsulated with epoxy resins or silicone rubber. CELCO experience with proper treatment of Toroidal Coils assures designed performance.



Celco

TOROIDAL COMPONENTS — for use in system assemblies. Sub-assemblies of chokes, Transformers and Saturable Reactors are manufactured at CELCO for packaging into a single unit.



Celco

PRECISION TRANSFORMERS — CELCO develops Precision Transformers for such applications as Computer Components with high accuracy of turns ratio and output voltages.



Celco

HERMETICALLY SEALED MAGNETIC AMPLIFIERS & TRANSFORMERS — with various types of terminations, evacuation and inert gas pressurization give CELCO components minimum weight with high-breakdown voltage resistance.



Celco

R.F. CHOKES — Transformers and specialized universal winding types of coils and assemblies. These CELCO windings are used when minimum distributed capacitance is required and space does not permit use of mechanical supports.



Celco

MOTOR COMPONENTS—Centrifugally cast squirrel cage rotors for low inertia motors, armatures, stators, field coils and special type rotor coils — are a CELCO production speciality.



Call RAMsey 9-1123 — for immediate engineering evaluation price and delivery quotations on any of these component requirements.

Your plant is only hours away the Celco Air Fleet



Celco

Constantine Engineering Laboratories Co.

ISLAND AVE. PHONE: RAMsey 9-1123 MAHWAH, N. J.

Celco

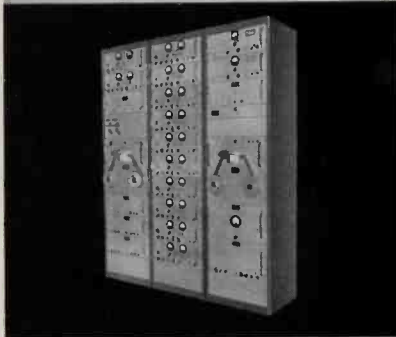
Constantine Engineering Laboratories Co.

DAVIES magnetic tape equipment for instrumentation



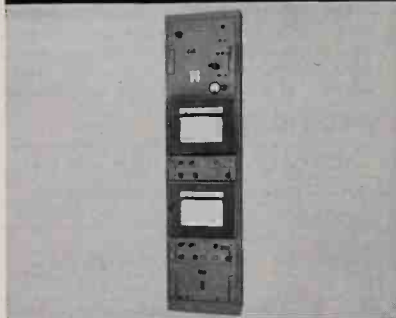
AIRBORNE RECORDERS

Data recorders for all airborne, mobile, and other applications subject to extreme environmental conditions; will record under vibration, shock, temperature extremes, and high altitude; operate from 28 v. DC and/or 115 volts 400 cps. Self-contained units incorporating tape transport and all electronic circuitry include miniature 7" cube unit (left), with six channels, and 10½" reel recorder with 14 channel capacity. Four models of tape transports with capacities ranging from 450 ft. to 3600 ft. (1 mil base tape), with associated power supplies and electronic housings provide complete flexibility in solving any problem. Plug-in electronic units for direct recording, FM carrier, PWM, or digital pulse. Tape speeds ½" to 60" per sec. Provision for Davies perfected wow and flutter compensation in all units. Bulletin 2600.



LABORATORY RECORDERS AND REPRODUCERS

Recording and reproduction by any technique—direct, FM, PWM, digital. Davies perfected wow and flutter compensation, together with chopper-stabilized amplifier-oscillators and high-stability discriminators, provide unprecedented accuracy in FM carrier recording; proper system design almost eliminates "drop-outs" in FM, PWM, and digital recording. Multispeed tape transports, with 6 or more speeds selected by front panel switch, automatic rewind and restart—electronic equipment automatically controlled by tape speed switch—remote control speed changing—these and other improvements are paving the way to automatic data handling. Standard tape speeds from 0.1 to 60 inches/sec. Unitized assemblies and plug-in components for maximum flexibility. Standard systems available completely assembled and wired in standard relay racks—specially designed systems to your order. Bulletin 2700.



AUTOMATIC WAVE ANALYZER

Heterodyne type analyzer provides completely automatic fourier analysis (amplitude versus frequency) of vibration, seismic, power line, transient, noise, shock, and similar data. When necessary, an amplitude versus time plot for a given frequency can be obtained. Suited for operation from any source supplying a repetitive signal, such as a magnetic tape loop. Frequency range 3 to 2000 cps, variable bandwidth ½ to 45 cps, amplitude accuracy ±5% of reading on logarithmic scale, frequency accuracy ½% of reading, output voltage range 60 db, input impedance 2½ megohms. Analysis recorded, and up to 14 inputs can be handled and selected automatically. Bulletin 9100.



STANDARD HEADS

Series	Tracks Width C.toC.	L mh.	R ohms	Cross- talk Rejection	Number of Tracks for Various Tape Widths								
					¼"	½"	¾"	1"	1¼"	1½"	1¾"	2"	
700	.050	.140	70	55	50+ db	2	4	5	7	9	11	13	14
800	.040	.125	57	55	50+ db	2	4	6	8	10	12	14	16
1000	.040	.100	63	55	50+ db	3	5	8	10	13	15	18	20
1300	.026	.078	35	55	30 db	3	6	10	13	16	19	22	26
1400	.040	.072	30	36	45 db	3	7	10	14	17	21	24	28
51400	.032	.070	67	55	34 db	4	7	11	14	18	21	25	28
2000	.020	.050	5.7	18	22 db	5	10	15	20	25	30	35	40

Precision multi-track instrumentation heads, developed to meet the rigid standards set for our equipment. Precise gap alignment (total scatter 0.2 mil per inch of tape width), maximum shielding for minimum cross-talk, completely encapsulated in thermosetting resin. Gaps from ¼ mil to 2.5 mil. Table shows standard series, including inductance and resistance for ¼ mil gap—lower inductances available in all except 2000 series. Special designs can be furnished. Bulletin 3300 gives complete details.



LABORATORIES INCORPORATED

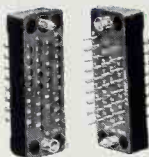
4705 QUEENSBURY ROAD • RIVERDALE, MARYLAND • APPLETON 7-1133

THE SOURCE FOR YOUR PRECISION CONNECTORS

U. S. C O M P O N E N T S

for **Avionics** **Controls** **Portable Equipment**
Automation **Instrumentation** **Printed Circuits**
Communication **Missiles** **Test Apparatus**

MINIATURE & SUB-MINIATURE



SERIES MI
(miniature)

7, 12 (8-4), 14,
18, 20, 21, 26, 34,
41, 50, 75 contacts



REMEMBER,
TWICE THE
SPEED WITH
DOUBLE
LEAD!

SERIES MI-SL

(double-lead miniature screw-lock)
7, 12 (8-4), 14, 18, 20, 21, 26, 34,
41, 50, 75 contacts.



SERIES SMI-SL

(subminiature screw-lock)
7, 11, 14, 20, 26, 34 contacts. Also
available, SMI rack and panel
series.



SERIES MH
(miniature hexagonal)

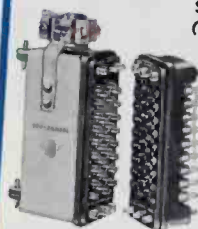
4, 5, 7, 9 contacts.

POWER



SERIES 980
(heavy duty)

12, 18, 24, 34
contacts. Solder
type or solder-
less (SDL)
taper-pin termi-
nals.



SERIES 980-SL
(heavy duty double-
lead screw-lock)

12, 18, 24, 34
contacts

REMEMBER,
TWICE THE
SPEED WITH
DOUBLE
LEAD!

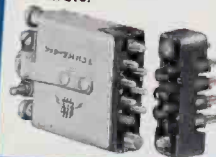
SERIES 990 (heavy duty)



7, 10, 15, 18
long or short
(S) contacts
available.
Solder type or
solderless
(SDL) taper-
pin terminals.

SERIES 990-SL
(heavy duty double-lead screwlock)

7, 10, 15, 18 contacts. Solder type or
solderless (SDL) taper pin termi-
nals.



REMEMBER,
TWICE THE
SPEED WITH
DOUBLE
LEAD!

PRINTED CIRCUIT



SERIES UPCC
(printed card connector)

7, 11, 15, 19, 23 contacts for 1/16,
1/8 and 1/4 cards.

SERIES UPCR
(printed card
receptacle)



6, 10, 15, 18,
22 contacts.
Single row for
1/16 cards —
wire solder.
Double row for
1/16 & 3/32
cards — wire
solder, wire-
wrap, taper
pin, or taper
tab terminals.

SPECIAL FEATURES: Side or rear cable entrance hoods available. Alkyd or Melamine molding compounds.

- Other U.S.C. products are available such as pressure seals, adapters, mounting brackets.
- Over 1500 stock sizes and types for standard and special applications.
- Special types custom-designed to meet miniaturization and performance requirements.
- All connectors meet or surpass MIL-Q-5923B and MIL-C-8384 specifications where applicable. Rigid quality control with 100% inspection and testing.

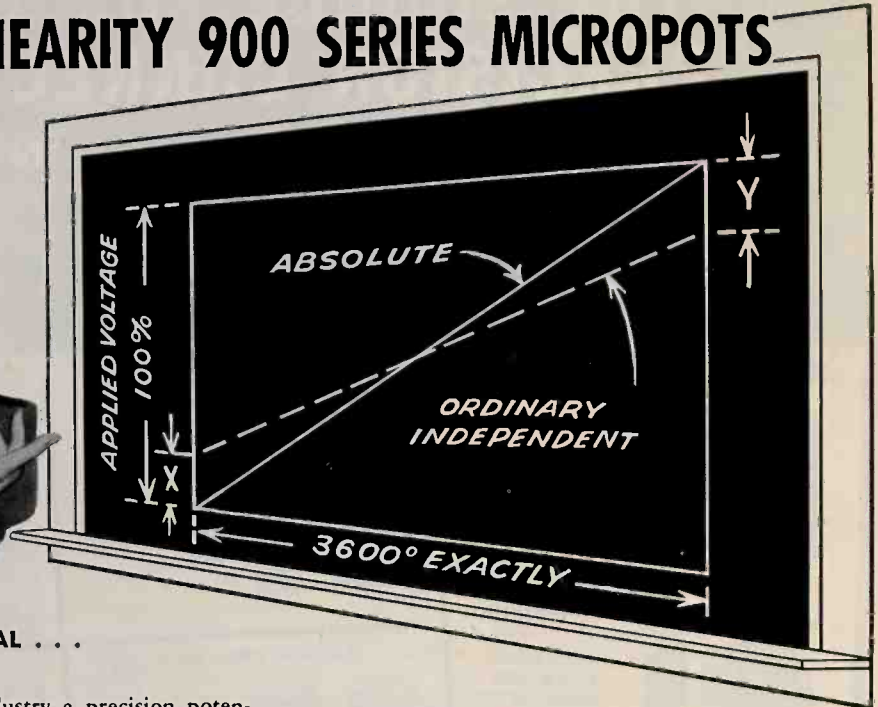


U. S. COMPONENTS, INC. associated with U. S. Tool & Mfg. Co., Inc.

454 East 148th Street • New York 55, N. Y.

CYpress 2-6525

NO TRIMMING NECESSARY WITH BORG ABSOLUTE LINEARITY 900 SERIES MICROPOTS



BORG ACHIEVES THE IDEAL . . . ABSOLUTE LINEARITY

Borg offers the electronics industry a precision potentiometer with Absolute Linearity inherent in the pot itself. It requires no trimming of any kind!

THE END OF UNCERTAINTY

Embodied in Borg's new 900 Series 10-turn and 3-turn Precision Potentiometers are exclusive advantages that provide this high degree of accuracy. You get from zero to 100% of applied voltage over exactly 3600° (or 1080°) of shaft rotation.

This means no such parameters as electrical rotation tolerances, end resistance or jump-off resistance need be considered error in output. Many doors, formerly closed to electronic design engineers, are now opened by Borg Absolute Linearity.

ORDINARY INDEPENDENT LINEARITY

Note the line marked "Ordinary Independent" on the blackboard diagram. This line is unable to go to zero and 100% of applied voltage because of X and Y known as end resistances. Therefore, trimming is required to compensate for the potentiometer errors of end resistances X and Y.

Now, note that the line marked "Absolute" goes through zero applied voltage output at zero shaft rotation and through 100% applied voltage output at 3600° of shaft

rotation. This is the reference line for absolute linearity and is inherent in the Borg 900 Series potentiometer. Thus Borg achieves absolute linearity without trimming of any kind.

SIMPLICITY ASSURES RELIABILITY AND ACCURACY

Simplicity of the Borg 900 Series Micropot affords greater accuracy and reliability. It eliminates such possible sources of error as trimming errors, unstable trimming, resistances, etc. Another Borg advantage simplifies assembly and reduces possibility of error. The Borg CCW mechanical stop is set up to provide a phasing point. This exclusive advantage reduces field replacement to the purely mechanical process of attaching leads and phasing from the present stop.

ABSOLUTE LINEARITY REDUCES COST

The accuracy and reliability of your equipment is improved with a Borg 900 Series potentiometer which also effects a savings in time and money. Your cost is lowered by eliminating trimming resistors and the technically trained labor competent to install them.

Many other advantages of the Borg 900 Series can help solve your potentiometer problems as they are now doing in all types of equipment from jet engines to steel mills.

Write for Complete Engineering Data • CATALOG BED-A15B

BORG EQUIPMENT DIVISION
THE GEORGE W. BORG CORPORATION
JANESVILLE, WISCONSIN



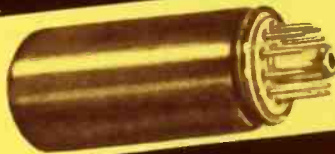
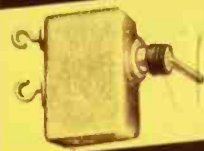
Built by Borg

Choke



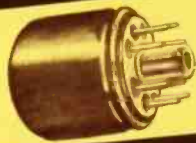
Chopper

Circuit Breaker



Ferrac

Inverter



Magmeter

Transformer



Vibrator

Airpax Products



PRODUCTS BY AIRPAX



AIRPAX PRODUCTS CO. specializes in components that have, as essential features, magnetic circuits. This fundamental approach leads to the variety of products under which you find Airpax listed in this Buyers' Guide—all related by the common feature of a ferro-magnetic structure.

Amplifiers

Ferrac magnetic amplifier Type M-943 is a highly stable and linear DC amplifier that you can use directly in the analog computer portion of your control and guidance equipments. In such applications, you achieve the reliability characteristic of magnetic amplifiers and much of the accuracy usually associated with electronic

Instrument Type Magnetic Amplifier

Gain:	100 microamperes into either of two 120-ohm control windings produces 2.5 volts output into a 1000-ohm load; peak output within linear operating range is 7.5 volts
Bandwidth:	at least 8 CPS for each 1000 ohms in a control loop
Supply Power:	3 watts at 115 volts, 400 CPS
Package:	hermetically sealed with 11 pin header, 1.5 inches in diameter by 3 inches high, weighs only 9 oz.

amplifiers. For example, two signals can be summed or subtracted in a Ferrac amplifier even if they have no common ground.

The Ferrac amplifier is basically an improved form of single-stage full-wave center-tapped push-pull DC-to-DC magnetic amplifier. Variations of the original Ferrac amplifier include Type M-1039, which is especially designed for use in integrators, and Type M-1040, whose input is specifically designed to operate from a thermocouple.

Choppers

A wide variety of Airpax choppers enables you to select the type appropriate for each application. These choppers are manufactured in a completely air-conditioned plant on precision machines that assure you of uniformly high quality. All Airpax choppers are adjusted to design centers by skilled setup operators before being hermetically sealed. Every chopper is tested for conform-

How to GET BEST RESULTS from this Buyers' Guide

This insert is designed to help you get the best results from your Buyers' Guide. Here is what it does for you.

FIRST: Look in the alphabetical directory section of the Buyers' Guide under the products you need.

SECOND: Wherever you find Airpax listed refer to this insert. Here you find, under similar headings, brief descriptions of the particular products and services that you can obtain from Airpax.

THIRD: Write, wire, or 'phone for complete details. In this way you know immediately how much of your problems you can solve by turning to Airpax.

ance to its requirement for low noise before it leaves the Airpax plant.

These choppers find wide application in automatic controls. All units have break-before-make action for maximum life and are SPDT. Contacts are usually rated for 2 milliamperes at up to 100 volts and consequently withstand occasional equipment transients.

Typical Signal Choppers

Type	Frequency (CPS)	Packaging
100	400	octal base, hi. temp. 200 C
150	400	7 pin miniature, hi. temp. 200 C
175	60	7 pin miniature
176	60	175 with drive leads out top
199	100	50 ohm coaxial
300	400	7 pin miniature
307	400	300 with mu metal can
310	400	7 pin miniature, hi. temp. 125 C
320	400	7 pin miniature, hi. temp. 150 C
400	400	300 with drive leads out top
520	400	octal base, 90 deg. phase
580	400	octal base, 120 volt drive thru external network to produce 0 deg. phase
586	60	octal base

Drive is 6.3 volts unless otherwise noted.

Circuit Breakers

To protect individual electronic chassis, Airpax introduced a series circuit breaker that mounts in the same panel space as a conventional toggle switch; it extends only about 1.5 inches behind the panel. This

RPAX

RPAX

RPAX



RPAX



breaker also serves as On-Off switch. Trip level is unaffected by temperature.

Type 401 is rated up to 50 volts DC. Type 410 is rated up to 120 volts AC (60 to 1000 CPS). Both types are available in current ratings as low as 50 milliamperes and as high as 10 amperes. Two standard time delays are available: rapid response A for protecting conventional electronic equipments, and slow response B for equipments that draw substantial starting surges.

Indicators, Frequency

The novel Airpax Magmeter audio frequency detector converts signals of varying frequency to an output whose average DC value is directly proportional to frequency. Magmeter type frequency detectors respond within the period of one cycle to changes in frequency and are relatively insensitive to changes in signal amplitude and wave shape. Appropriately driven, a Magmeter detector can also count pulses or form the basis for a simple tachometer.

Each type Magmeter detector is designed for operation with an indicating instrument having a full scale sensitivity listed in the accompanying table. About 1 watt of signal power is all that is required by a Magmeter detector. Standard types are wound for a nominal

Standard Magmeter Detectors

Type	Range (CPS)	Full Scale Output (Microamperes)
F-948	0-500	500
F-979	0-100	100
F-980	0-1,000	1,000
F-981	0-2,000	200

input of 120 RMS volts and have octal bases. They stand less than 1.5 inches above the pin base and are about 1.5 inches in diameter. Variations with other full scale frequencies and output currents within the tabulated ratings can be provided to meet your needs.

Inverters

Perfection of several 400 CPS power vibrators at Airpax has led to the custom design and manufacture of compact low power inverters for changing from DC to AC. By way of indicating the ratings that can be achieved, Type 512 is hermetically sealed and weighs

Do You Need Data in a Hurry?

You can obtain further details quickly on any of these products from the sales office nearest you. Addresses and phone numbers of Airpax sales representatives are listed on the back of this page.

AIRPAX

DESIGNERS
PRODUCTS
COMPANY
ENGINEERS

only about 14 ounces, occupies about 7.5 cubic inches, withstands accelerations of more than 50 g, and has an efficiency of about 75%. Its output is essentially a square wave, 15 watts at 110 volts, 400 CPS.

Power Supplies

Inverter power supplies are described above. Airpax manufactures compact light-weight power supplies for battery operated equipment based on 400 CPS power vibrators such as Airpax Type 500 described below. These vibrator supplies provide AC and/or DC outputs; transformers can be wound by Airpax to provide you with any specified combination of voltages and currents within the power capacity of the vibrator.

Conventional power supplies are manufactured also to your specification to assure minimum size and weight consistent with required power output and temperature limitation. Experienced Airpax engineers can optimize whatever characteristic is most important to you.

Transformers

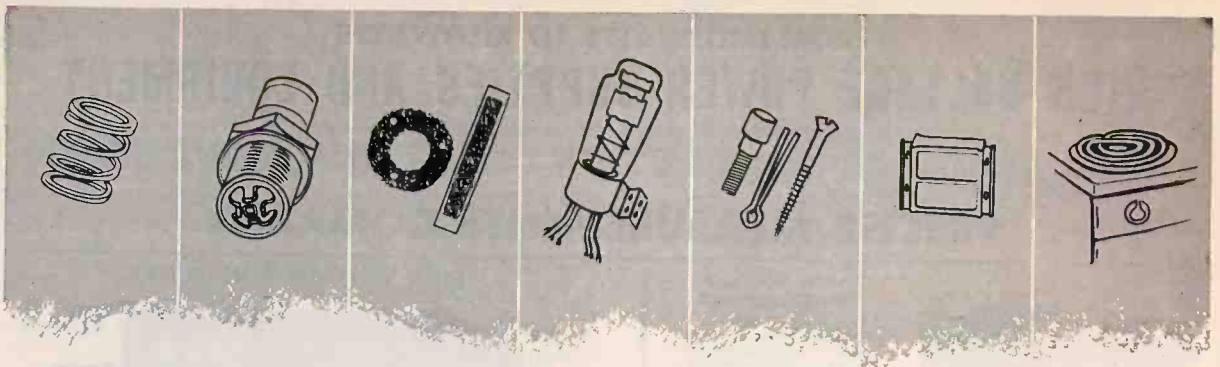
Where you need premium performance, whether for an equipment with an expected life of 10 years or for one that must operate with certainty only a few minutes, you need Airpax transformers. These units are designed by seasoned transformer engineers, thoroughly tested in the Airpax laboratory in accordance with applicable specifications such as MIL-T-27A, and manufactured under strict quality control.

Winding equipment at Airpax includes toroidal machines, multiple winders, and universal machines. Transformers ranging in size from units for miniaturized equipment to power transformers rated for a KVA are regularly in production for Airpax customers. Along with power, audio, and related transformers, and iron core inductors, Airpax designs and manufactures audio, filter, and power chokes to your specifications. These components can be vacuum impregnated to withstand usual field conditions or hermetically sealed for the utmost in environmental protection.

Vibrators

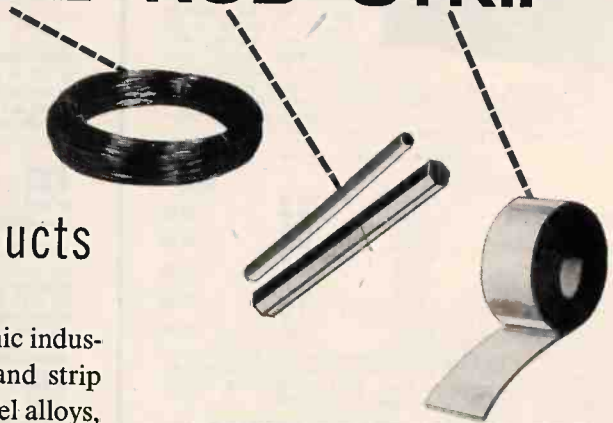
Airpax pioneered high frequency power vibrators because of the substantial savings in size and weight of the transformers and chokes usually associated with vibrator power supplies. These savings are especially significant in airborne equipment.

Type 500 vibrator is a 400 CPS interrupter type unit for use in power supplies having a moderate continuous or a heavy intermittent load. Being hermetically sealed, its operation is unaffected by changes in atmosphere and altitude; it operates in any position. This vibrator and variations of it are used in airborne transceivers, guidance equipment, and portable sets.



ALLOY WIRE • ROD • STRIP

for Electronic,
Electrical and
Electro-Mechanical Products



Alloy Metal Wire Division offers the electronic industry a wide selection of alloys in wire, rod and strip forms in a full range of sizes. Among the nickel alloys, stainless steels, resistance alloys and special alloys we fabricate, you can find a material with outstanding heat resistance, corrosion resistance, good electrical properties, special magnetic properties, good spring characteristics or a combination of these properties to suit your needs.

Nickel-clad copper wire and other clad materials are also available.

Alloy wire can be obtained in a variety of cross-sectional shapes including oval, square, hexagonal, teardrop, half-oval, half-round, wedge, D-shape and keystone.

Alloy Metal Wire Division engineers will be glad to help you select the right material for your application. Write today for our informative technical handbooks.

ALLOY METAL WIRE MATERIALS CHART		
NICKEL ALLOYS INTERNATIONAL NICKEL COMPANY PRODUCTS	Nickel—Grade A Grade D Grade E	"K" Monel "KR" Monel (Free Machining)
	Duranickel ("Z" Nickel) Monel "R" Monel (Free Machining)	Inconel Inconel X Inconel W
STAINLESS STEELS	Chromium Nickel Grades	Straight Chromium Grades
	302 314 304 316 304 ELC 316 ELC 17-7PH 317 305 330 308 347 309 C-20 310	405 410 420 430 434 442 446
ELECTRICAL RESISTANCE ALLOYS	Alray A (80 Ni—20 Cr) Alray C (62 Ni—15 Cr—Bal Fe) Alray D (35 Ni—18 Cr—Bal Fe) Excelsior (55 Cu—45 Ni)	



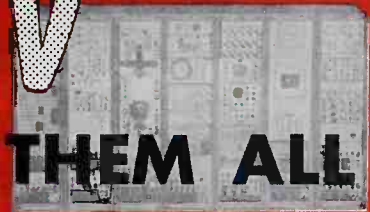
ALLOY METAL WIRE DIVISION

HKP

H. K. PORTER COMPANY, INC.
Prospect Park, Pennsylvania

COLOR TV

ONLY TELECHROME MAKES THEM ALL



COMPLETE FACILITIES FOR TV STATIONS, MANUFACTURERS & LABORATORIES

Finest color film chains, colorplexing, transmitting, analyzing, monitoring, testing equipment.



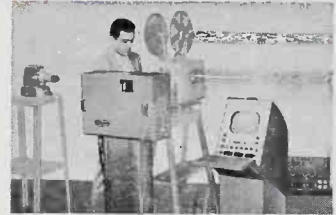
617-BR AUTOMATIC BALANCE CONTROL FOR ALL COLORPLEXERS
(Regardless of Manufacture)

An ingenious circuit locks the entire encoding equipment in balance within 20 seconds after being turned on. Thereafter balance is held under even the most difficult operating conditions.



1003-A VIDEO TRANSMISSION TEST SIGNAL GENERATOR

Portable. Completely self-contained, portable. Produces multi-frequency burst, stairstep, modulated stairstep, white window, composite sync. Regulated power supply. 12 1/4" standard rack mounting or in carrying case.



700-A 3V COLOR FILM CHAIN

Finest in quality, lowest in price. 3V provides greatest latitude in selection of color films. Designed specifically for broadcast application, requires little space. Multiplexes 35 or 16mm film, slides, opaques.



1073-A SINE-SQUARED SQUARE WAVE GENERATOR

Newest test unit produces new type of wave forms for testing any part or all of a TV or pulse system for amplitude and phase characteristics. "Go-No-Go" indication simplicity.



1601-BR CHROMASCOPE

Signal Certification Equipment. Accurately measures the performance alignment, and phase errors of color TV equipment. Presents on a cathode ray screen a continuous polar plot of the phase and amplitudes of all colors. In a composite color video signal. Capable of a .005° accuracy with 1604-AR phase magnifier.

New secondary phase standard for accurate readings to .01°



1604-AR PHASE MAGNIFIER

Expanded phase indicator of a signal for measurements of differential phase to .2° or better accuracy at chroma frequencies.



302-AR DRIVE GENERATOR

Small, portable, inexpensive unit. Provides horizontal blanking, horizontal sync, vertical drive and burst flag for driving most signal generating equipment where standard sync is not available.



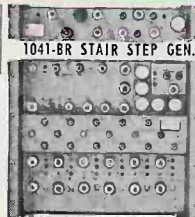
1071-AR WINDOW GEN.



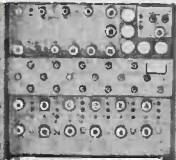
OSCILLOSCOPE CAMERA MODEL 1521-A

VIDEO TRANSMISSION TEST EQUIPMENT

Provides stairstep, window and multiburst signals. Now in wide use by the leading TV stations, networks and common carriers. Checks video facilities for color and monochrome. Polaroid camera recording.



1070-BR MULTI-BURST FREQUENCY GEN.



1041-BR STAIR STEP GEN.



636-B CHROMALYZER

Portable Precision Color Bar Generator for checking color broadcast studio and transmission facilities, receivers and monitors. Can be tied into a system. Provides complete composite color signals at 100 or 75% chroma.



1603-AR PHASE SLOPE (ENVELOPE DELAY) CURVE TRACER

Instantaneous slope or meter reading of the envelope delay and amplitude characteristics of any network, video amplifier, or system. Precision timing. Has separate transmitter and receiver units which allow one way or loop measurements.

DELIVERY 30 DAYS

Literature on these and more than 150 additional instruments for color TV by TELECHROME are available on request.



The Nation's Leading Supplier of Color TV Equipment
88 Merrick Road Amityville, N. Y.
AMITYVILLE 4-4446

Stupakoff

PRODUCTS for ELECTRICAL

Ceramics, Hermetic Seals and Kovar Alloy

STUPAKOFF DIVISION

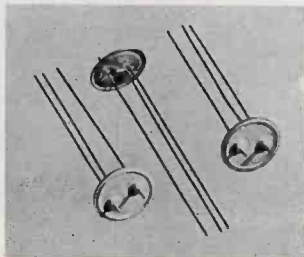
For many years Stupakoff has specialized in the manufacture of precision ceramic parts, involving production runs into the tens of thousands. They are made in plain, ground, metallized and assembled types—for any voltage, frequency or temperature.

Stupakoff Hermetic Seals are made with Kovar alloy and hard glass. Oxidation of these materials at their interfaces forms a strong, vacuum- and pressure-tight, corrosion-proof bond.

Stupakoff facilities include large, well-equipped laboratories; extensive modern production and testing equipment; and an experienced staff of quality-conscious engineers and technicians.

TRANSISTOR

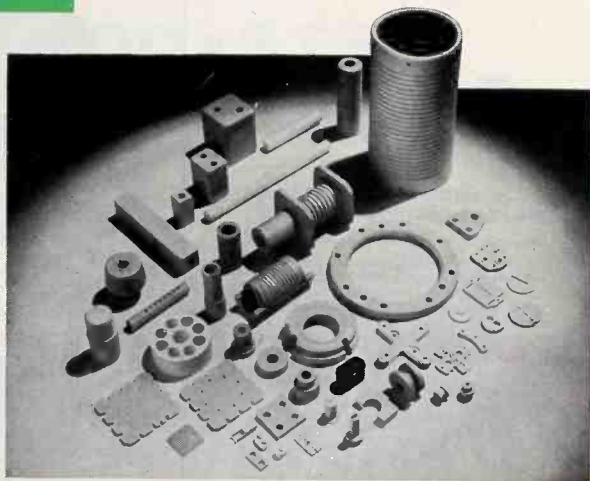
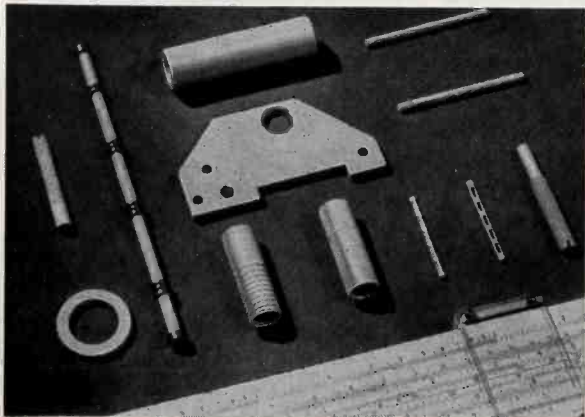
HEADERS—Kovar-glass headers for transistors are designed for soft soldering or projection welding. Can be made to meet JAN specifications.



PRECISION CERAMICS—In the assembly of electrical or electronic equipment, the use of precision-made components means faster production and the correct functioning of the equipment in service.

Through the application of experience-developed engineering and technical skills and modern equipment, Stupakoff produces, in large volume, parts that meet most exacting tolerances and specifications.

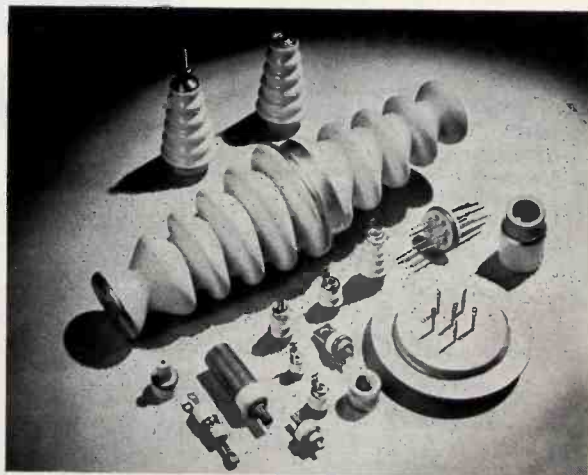
Stupakoff precision ceramics may be simple or complex; and made from various ceramic materials.



CERAMIC PARTS—Stupakoff is a leading manufacturer of ceramic products for electrical and electronic applications for all voltages, frequencies and temperatures. Parts are made by modern production methods of Alumina, Cordierite, Forsterite, Magnesia, Zircon, Stupalith® and Steatite—plain, ground, metallized or assembled.

Where thermal shock conditions prevail, parts made of Stupalith will withstand extremely severe service.

Coil forms, insulators, brazing fixtures and vacuum tube spacers are among the popular items.



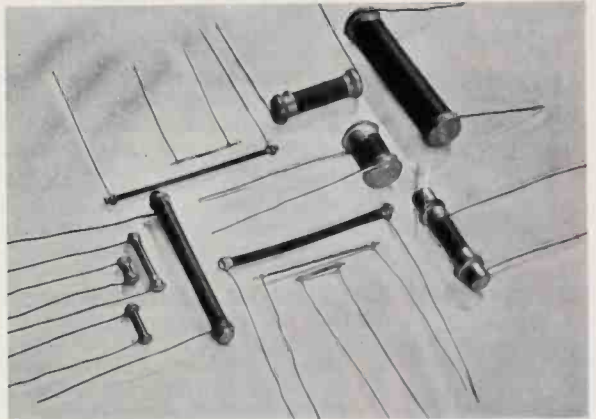
METAL BONDED TERMINALS—Combine a specially developed metal bond and rigidly controlled alumina to give a strong, durable, vacuum-tight product. Terminals are supplied with Stupakoff Metal Bond which significantly reduces assembly costs by withstanding exposure to soldering temperature for prolonged period without losing bond strength.

and ELECTRONIC applications

of The **CARBORUNDUM** Company, Latrobe, Pennsylvania



KOVAR GLASS SEALS—Single terminals with tubular, solid or flattened and punched center lead; high voltage terminals for feed-through applications; multi-header terminals for applications requiring a number of leads in limited area; stand-off terminals; strain relief terminals and Special Seals made for exacting applications.



THERMISTORS—Stupakoff Negative Temperature Sensitive Resistors are used for surge suppression and for temperature-measuring or -indicating equipment. Widely used as the temperature element for Radiosonde. Supplied as rods or tubes complete with leads. Furnished plain or with reflective or moisture proof coatings.



METAL-CERAMIC SHAFTS—Made in a wide variety of sizes and designs, Stupakoff Metal-Ceramic Shafts consist of metal bands permanently attached to ceramic rods. Through care in manufacture, exceptional precision is maintained on a mass-production basis. For example, it is not unusual to hold the concentricity of components to a T. I. R. of 0.001 in.



KOVAR ALLOY—The ideal alloy for glass sealing, Kovar matches the expansivity of hard glass over the entire working temperature range. It resists mercury attack, has ample mechanical strength and seals readily with simple oxidation procedure. It is available as sheet, strip, foil, rod, tube, wire—or fabricated into cups, eyelets, leads and other shapes. Kovar produces a permanent vacuum-tight seal, is usable in any thickness, and can be welded, soldered and brazed to other metals.

HICKOK

ELECTRONIC Test Instruments

HICKOK

9 TUBE TESTERS FILL ALL REQUIREMENTS

LABORATORY TUBE TESTER

All Voltages Variable and Metered

Model 700: Most complete and accurate Tube Tester. Covers wide ranges of values to duplicate the results in tube manuals. This instrument is invaluable for electronic developmental and research work. Model 7001: Null Reading Apparatus, for use with the Model 700 to obtain bridge type Null readings with an accuracy of 1%. Most complete and accurate Tube Tester available.



MODEL 7001 MODEL 700
with an accuracy of 1%. Most complete and accurate Tube Tester available.

PORTABLE TUBE TESTER

Most Accurate

Model 539B: Features simplicity of operation in providing a complete and accurate evaluation of electron tubes. Has Mutual Conductance circuits, 6 micromho ranges, 4 AC Signal voltages, metered line voltage, metered grid voltage and other important features.



MODEL 539B

7 OSCILLOSCOPES MEET SPECIALIZED REQUIREMENTS

LABORATORY CATHODE RAY OSCILLOSCOPE

Wide Range . . . Versatile

Model 770: Provides unusually wide range of DC to 5 MC. 10 M.V. RMS per inch sensitivity. Built-in calibrating voltages. New flat-faced tube. Illuminated calibrated screen. Metal shield. Shock mounted. This highly stable 'Scope is laboratory quality throughout.



MODEL 770

TECHNICIANS' OSCILLOSCOPE

5-Inch Portable or Rack Mount

Model 670R: DC to 600 KC, within 3 db. Useable to beyond 2MC. .015 RMS volts per inch sensitivity. Sweep circuit oscillator; 3 cycles to 50 KC. Fixed sweep frequencies; 30 and 7875 cycles. Input impedance: vertical, 2.2 megohms—15 mmf; horizontal, 1 megohm—35 mmf. Features illuminated calibrated screen. Also available in portable case as Model 670A.



MODEL 670R

1 megohm—35 mmf. Features illuminated calibrated screen. Also available in portable case as Model 670A.

SMALLER SIZE LABORATORY OSCILLOSCOPE

3-Inch Portable

Model 385: DC to 4 MC, within 3 db, 0.75 RMS volts per inch sensitivity. Sweep circuit oscillator; 3 cycles to 50 KC. Input impedance: vertical and horizontal amplifiers; 2.2 megohms—25 mmf. Features replaceable circuit sections. High quality throughout. Also available in portable, moisture-proof, weather-proof aluminum carrying case as preferred by field engineers.



MODEL 385

able, moisture-proof, weather-proof aluminum carrying case as preferred by field engineers.

INDUSTRIAL LABORATORY OSCILLOSCOPE

3-Inch Rack Mount

Model 387R: Popular rack-mount style in an accurate 3-inch oscilloscope. Features identical vertical and horizontal amplifiers. DC to 500 KC response. 10 MV RMS sensitivity. Designed to permit versatile use in all phases of electronic work.



MODEL 387R

11 GENERATORS WITH SPECIALIZED FUNCTIONS

SINE-SQUARE WAVE GENERATOR

For Laboratory & Industrial Use

Model 710: Provides an accurately calibrated source of sine wave and square wave functions over a wide frequency range. Sine wave total harmonic distortion below 1%. Hum level better than 90 db down. Square wave rise time less than .1 Micro- in five ranges on both sine and square waves.



MODEL 710

second. 20 cycles to 1 MC waves.

MICROVOLT SIGNAL GENERATOR

125 KC to 175 MC on Fundamentals

Model 295X: Ideal for mobile radio and other communication equipment design and maintenance. Output 0.1 microvolt to 100,000 microvolts. 125 KC to 175 MC continuous on fundamentals. 400 cycle modulation—approximately 30%. Attenuation down to 0.1 microvolt—no external attenuator pad required. Vernier Control permits hairline settings. Silverplated copper cage shielding. Test leads are furnished.



MODEL 295X

to 0.1 microvolt—no external attenuator pad required. Vernier Control permits hairline settings. Silverplated copper cage shielding. Test leads are furnished.

5 VTVM and VOM INSTRUMENTS

TRUE VACUUM TUBE

Laboratory Size and Accuracy

Model 209A: Contains large 9" meter with zero-center scale. Highly accurate for servicing industrial electronic equipment. DC Volts: 0-1200 in 6 ranges. AC Peak-to-Peak Voltage: 0-1200 V, in 6 ranges. Capacitance 0.1 to 10,000 MMF in 2 ranges, 0-1000 MF in 5-ranges. 50 MH to 100 henries. 0.1 ohm to 10,000 megohms in 7 ranges.**



MODEL 209A

0-1000 MF in 5-ranges. 50 MH to 100 henries. 0.1 ohm to 10,000 megohms in 7 ranges.**

NEW VOLT-OHM-MILLIAMMETER

You Can't Burn It Out!

Model 455: New design portable VOM. Includes all practical ranges. Features patented protection system which protects both the meter and associated circuits from damage due to accidental overload. Quality designed for utility and attractiveness. Neoprene carrying case available.



MODEL 455

HIGHLY ACCURATE DC and AC PORTABLE INSTRUMENTS

Ammeters, Milliammeters, Microammeters, Voltmeters, Millivoltmeters, Volt-Ammeters. Thermometers are contained in a phenolic case lined with heavy steel shell which shields from the effects of stray magnetic fields. Scale divisions are spaced equal distances apart. Accuracy within 1/2 of 1%. On special order, Model 14 can be supplied with a calibration chart to provide accuracy to 0.2%. Also available is a complete line of pocket portables.



MODEL 14

accuracy to 0.2%. Also available is a complete line of pocket portables.

METERS

The many special movements developed by HICKOK are: electro-dynamometers, self-contained frequency meters, galvanometers, true logarithmic deflections, special curves for special purposes and ruggedized designs for highest shock tests. Full technical information on the complete line of HICKOK instruments and test equipment is available on request. Kindly list details of your requirements and ask for Catalogs No. 32 and 33.

THE HICKOK ELECTRICAL INSTRUMENT COMPANY

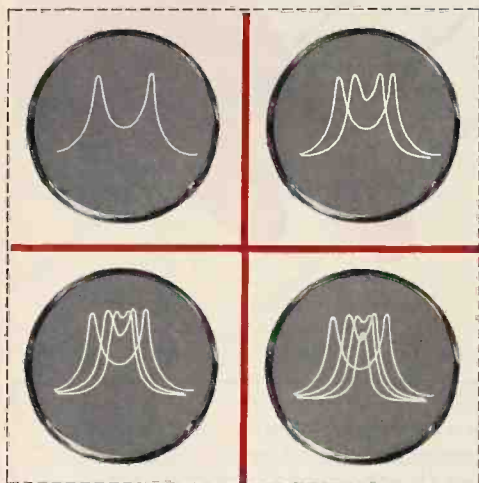
10514 DUPONT AVENUE

CLEVELAND 8, OHIO

HIGHEST QUALITY ELECTRICAL AND ELECTRONIC TEST INSTRUMENTS

*Hughes announces
3 new direct-display
cathode ray*

STORAGE TUBES



MEMOTRON®

The MEMOTRON, a direct-display cathode ray storage tube, retains traces and transients until intentionally erased. Analysis and comparison are possible without photography because MEMOTRON visually displays successive transient writings. All displays occur at uniform brightness, regardless of writing speeds, so are easily photographed for file records. Applications: viewing transients in shock testing, read-out of solutions from analog computers, curve plotting at high and low speeds, electrocardiography, vectorcardiography and heart sounds.

Photos, left, show a technique for plotting a family of curves, representing a coupled circuit with varied parameters.

General Specifications:

RESOLUTION...50 to 60 written lines per inch.

WRITING SPEED...0 to at least 100,000 inches/second (selected tubes in excess of 100,000 ips).

BRIGHTNESS...50 foot-lamberts.

USABLE SCREEN DIAMETER...4 inches, maximum.

DIMENSIONS...

Over-all length: 18 1/2 inches, ± 1/2-inch.

Bulb diameter: 5 5/8 inches, maximum.

Neck diameter: 2 1/4 inches, ± 3/32-inch.

TONOTRON®

The TONOTRON, a direct-display cathode ray storage tube with a 5-inch screen, presents a complete spectrum of grey shades. Extremely high light output of 600 foot-lamberts is available. This high light output makes a hood unnecessary, even when viewing in full daylight. TONOTRON's length of persistence and rate of decay are controllable. Superior presentation of the grey scale assures "high fidelity" picture reproduction. Applications: radar, Narrow Band Television, instrumentation, etc.

Photos: left, a TONOTRON ppi display; right, a TONOTRON TV application.



TYPOTRON®

The TYPOTRON is the first commercially available storage tube for displaying printed data rapidly. A choice of 63 characters is available for the presentation of data in words, numbers or symbols. As a high-speed digital read-out device, the TYPOTRON writes characters 1/8 inch in size at speeds of at least 25,000 characters per second. The written information remains visible indefinitely without fading or blooming, until intentionally erased. This feature makes TYPOTRON an ideal read-out device in many digital computer applications.

Photo: presentation of all available characters.

Our applications engineers invite your inquiries regarding specific uses of these tubes. For further information and descriptive literature please write to:

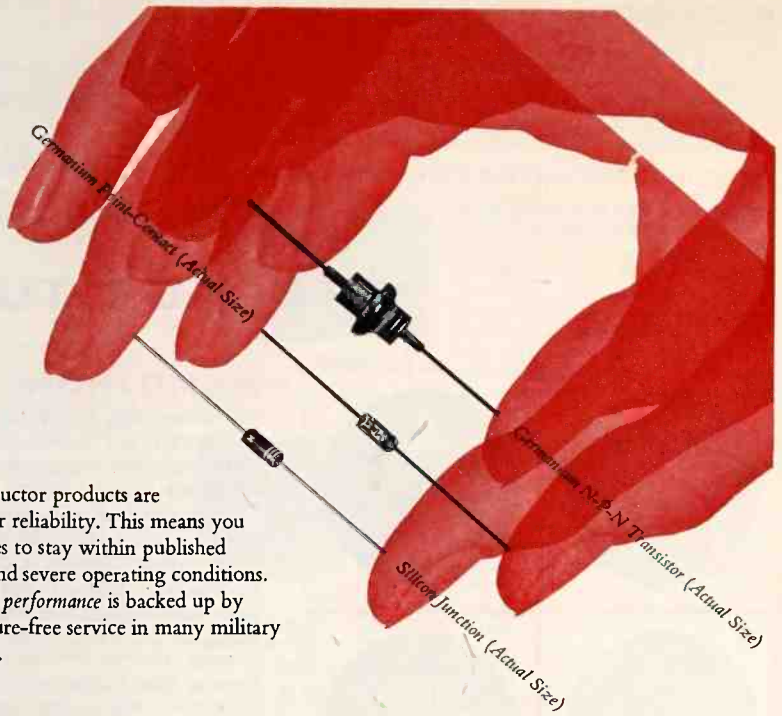
**HUGHES PRODUCTS
ELECTRON TUBES
Los Angeles 45, California**

HUGHES PRODUCTS

A DIVISION OF THE HUGHES AIRCRAFT COMPANY

SPECIFY HUGHES

... because Hughes semiconductor products are manufactured, first of all, for reliability. This means you can *depend* on Hughes devices to stay within published specifications under varied and severe operating conditions. And their reliability *in actual performance* is backed up by a phenomenal record of failure-free service in many military and commercial installations.



GERMANIUM POINT-CONTACT DIODES



In addition to standard RETMA and JAN types, scores of special germanium diode types are available. They are especially tested to meet customer specifications for: high or low temperatures . . . pulsing and switching . . . specific recovery time . . . matching in pairs and quads.

Working Inverse Voltage	Electrical Specifications at 25°C							
	FORWARD CURRENT (MA) @ +1V							
	3-5	5	10	20	50	100	150	200
30						HD2152 200μA @ -20V		
40	1N128* 10μA @ -10V							
60		1N126* 850μA 1N90 500μA 1N116 100μA	1N95 500μA 1N117 100μA	1N96 500μA 1N118 100μA	HD2155 500μA HD2166 100μA HD2167 50μA	HD2162 500μA HD2174 100μA HD2173 50μA		HD2172 500μA HD2171 100μA HD2160 50μA
80	1N89 100μA 1N67A 50μA	1N192 250μA 1N198* 250μA 1N191 125μA	1N97 100μA 1N99 50μA	1N98 100μA 1N100 50μA	HD2169 500μA HD2168 100μA HD2151 50μA	HD2175 500μA HD2163 100μA HD2150 50μA		HD2159 500μA HD2157 100μA HD2158 50μA
100	1N68A 625μA @ -100V 1N127* 300μA				HD2170 500μA @ -100V	HD2165 500μA @ -100V	HD2154 180μA @ -90V	HD2161 500μA @ -100V
150		1N55B 500μA @ -150V						

*JAN Type

NOTE: All back currents at -50V, unless otherwise indicated.

SILICON JUNCTION DIODES



Electrical Characteristics

Ambient operating temperature range: minus 80°C to plus 200°C. In addition to high temperature operations, Hughes silicon junction diodes feature these characteristics: excellent forward conductance . . . extremely high back resistance . . . extremely low saturation current throughout wide temperature ranges.

RETMA Type No.		Saturation Voltage; (E_s) (Minimum)	Forward Current at + IV; (I_f) (Minimum)	Back Current (Maximum)	
				at 25°C	at 150°C
1N461	(HD 6001)	30V	15mA	.5 μ A @ - 25V	.030mA @ - 25V
1N462	(HD 6002)	70V	5mA	.5 μ A @ - 60V	.030mA @ - 60V
1N463	(HD 6003)	200V	1mA	.5 μ A @ - 175V	.030mA @ - 175V
1N456	(HD 6005)	30V	40mA	.025 μ A @ - 25V	.005mA @ - 25V
1N457	(HD 6006)	70V	20mA	.025 μ A @ - 60V	.005mA @ - 60V
1N458	(HD 6007)	150V	7mA	.025 μ A @ - 125V	.005mA @ - 125V
1N459	(HD 6008)	200V	3mA	.025 μ A @ - 175V	.005mA @ - 175V
1N464	(HD 6009)	150V	3mA	.5 μ A @ - 125V	.030mA @ - 125V

GERMANIUM JUNCTION TRANSISTORS



Electrical Specifications at 25°C

Hughes transistors offer excellent performance characteristics, even at the high power ratings, together with high gain. A new package design permits the dissipation of more heat, makes it possible to maintain high performance characteristics.

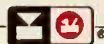
HUGHES Type	Maximum Power Dissipation @25°C** (mW)	Maximum Collector Current (mA)	Maximum Reverse Voltage (V_m)	Minimum Alpha-cutoff Frequency f_{α} * (MC/S)	Short Circuit Current Amplification Factor Alpha (α)*	Output-Admittance h_{22} * (Micromhos)
HA-5001	500	100	30.0	≥ 2.0	> 0.975	< 1.0
HA-5002	500	100	20.0	≥ 0.5	> 0.950	< 2.0
HA-5003	500	100	30.0	≥ 1.0	> 0.975	< 2.0

*Small signal parameters measured at $V_c = 5.0$ volts $I_e = 1.0$ mA.

**Maximum junction temperature 85°C.

The Hughes research program is devoted to the vigorous development of new semiconductor devices, and to the improvement of existing types in the continuing effort to match the ever-increasing requirements of the industry. In the extensive Hughes line, there is a device best suited to *your* circuit applications. So, when it comes to semiconductors, specify Hughes—with confidence.

For descriptive literature please write: HUGHES



SEMICONDUCTORS
HUGHES PRODUCTS
Los Angeles 45, California

HUGHES PRODUCTS

A DIVISION OF THE HUGHES AIRCRAFT COMPANY

Transitron[®]

SILICON

RECTIFIERS

MILITARY TYPES

Available in voltage ratings up to 570V PIV, Transitron's military type rectifiers are preferred types for new designs in all rectifier applications. Write for Bulletin TE-1336.

STUD MOUNTED TYPES

High current ratings are achieved through efficient conduction cooling. Rugged construction and rigid mountings give high shock and vibration resistance. Write for Bulletin TE-1321.

LEAD MOUNTED TYPES

The proven performance and dependability of the stud mounted types are now available in a versatile lead mounting arrangement. High forward conductance assures both high efficiency and good regulation. Write for Bulletin TE-1335.

MINIATURE TYPES

Ideal for low current power supply and magnetic amplifier circuits, the miniature rectifiers are particularly useful in aircraft, missile, or other critical applications requiring small size and high temperature reliability. Write for Bulletin TE-1338.

MEDIUM POWER TYPES

Transitron's medium power silicon rectifiers are rated up to 20 amperes per cell at 125°C. Their small size and high efficiency permits the design of compact lightweight circuits. Complete environmental protection is assured through hermetic sealing and rugged construction. Write for Bulletin TE-1337.

HIGH POWER TYPES

Transitron's high power silicon rectifiers are designed for reliable high temperature service in power supply and magnetic amplifier circuits requiring up to 35 amperes per cell. Their heavy duty flexible anode lead and 3/8" stud offer a high degree of mechanical ruggedness. Write for Bulletin TE-1337.

RATINGS AT 135°C CASE TEMPERATURE

Type	Peak Recurrent Inverse Voltage (volts)	Maximum Average Forward Current (ma)	Peak Recurrent Forward Current (amps)
1N253*	95	1000	4.0
1N254*	190	400	1.2
1N255*	380	400	1.2
1N256*	570	200	0.6
*JAN Types			
1N332	400	400	2.5
1N334	300	400	2.5
1N336	200	400	2.5
1N338	100	1000	6.0

RATINGS AT 100°C AMBIENT

Type	Peak Recurrent Inverse Voltage (volts)	Maximum Average Forward Current (ma)	Peak Recurrent Forward Current (amps)
TL-12	100	350	2.0
TL-22	200	350	2.0
TL-42	400	350	2.0
TL-61	600	200	1.0
TJ-5	50	100	.5
TJ-10	100	100	.5
TJ-20	200	100	.5
TJ-30	300	100	.5

RATINGS AT 125°C CASE TEMPERATURE

Type	Peak Recurrent Inverse Voltage (volts)	Maximum Average Forward Current (ma)	Peak Recurrent Forward Current (amps)
1N248A	50	20	90
1N249A	100	20	90
1N250A	200	20	90
1N411A	50	35	140
1N412A	100	35	140
1N413A	200	35	140

DIODES

HIGH CONDUCTANCE TYPES

Transitron's subminiature glass silicon diodes feature high forward conductance and reliable operation at high temperatures. They are ideal for miniaturized circuitry and other applications requiring high voltage ratings and low inverse current. Write for Bulletin TE-1339.

HIGH FREQUENCY TYPES

The silicon bonded diodes are small area junction diodes specifically designed for high frequency circuits up to 1000 mc, and fast switching applications requiring recovery times of .15 microseconds or less. They are particularly useful in detector, discriminator, logic and high speed transistor circuitry. Write for Bulletin TE-1308-A.

SPECIFICATIONS AT 150°C

Type	Maximum Forward Voltage @ 100 ma @ 25°C (volts)	Inverse Current at Specified Voltage (µa @ volts)	Minimum Saturation Voltage (volts)
1N482B	1.0	5 @ -30	40
1N483B	1.0	5 @ -60	80
1N484B	1.0	5 @ -125	150
1N485B	1.0	5 @ -175	200
1N486A	1.0	25 @ -225	250

SPECIFICATIONS AT 100°C

Type	Forward Current at +1V (ma, min.)	Inverse Current at Specified Voltage (µa @ V)	Maximum Operating Voltage (volts)
1N251	2	10 @ -10	30
1N252	4	10 @ -5	20
S5G	1	10 @ -10	30
S6G	4	50 @ -5	15

In addition to the above products, a wide variety of standard, as well as special, types are also available. Transitron's special engineering group is available to help with specific applications. Inquiries concerning your particular problems are invited.

...leadership in semiconductors

GERMANIUM

SPECIFICATIONS AND RATINGS AT 25°C

Type	Minimum Common Emitter Current Gain, B	Maximum Power Dissipation (milliwatts)	Maximum Collector Voltage (volts)
2N200	30	100	30 @ 75°C
2N204	15	100	30 @ 75°C
2N205	50	100	30 @ 75°C
2N195	100	100	12
2N196	50	100	25
2N197	40	100	25
2N198	30	100	25
2N199	15	100	25
2N43	33	150	45
2N44	15	150	45
2N45	9	150	45

SPECIFICATIONS AND RATINGS AT 25°C

Type	Minimum DC Common Emitter Current Gain (B @ 1c)	Maximum Collector Voltage V _{ce} Peak (volts)	Maximum Collector Current (amps)	Maximum Power Dissipation (watts)
2N83A	8 @ 1.0A	60	3	10
2N83	8 @ .5A	60	2	10
2N84A	12 @ 1.0A	45	3	10
2N84	12 @ .5A	45	2	10

TRANSISTORS

Transitron's PNP junction transistors are designed for high reliability applications requiring exceptional performance under severe operating conditions. Welded hermetic sealing and 100% inspections for shock, vibration and moisture resistance insure dependability and permanent environmental protection.

A variety of types are available covering a wide range of uses. Included is the type 2N200, which is specifically intended for military applications where ambient temperatures up to 75°C are encountered. Other types feature low I_{co}, high gain and low noise figure. Write for Bulletin TE-1320.

POWER TYPES

Transitron's power transistors are intended for use in Class A or Class B output stages, servo motor drivers and similar applications requiring up to 30 watts load power at 25°C. Operation up to 75°C is possible at reduced ratings. Low saturation voltage and useful current gain up to 3 amperes permits efficient switching. Write for Bulletin TE-1320.



SPECIFICATIONS AND RATINGS AT 25°C

Type	Forward Current at +1V (ma)	Inverse Current at Specified Voltage (μa @ V)	Maximum Operating Voltage (volts)	Description
1N270	200	100 @ -50	80	JAN TYPES
1N277	100	250 @ -50 75 @ -10 @ 75°C	100	
1N281	100	500 @ -50 30 @ -10	60	
1N126	5	1850 @ -50 50 @ -10	60	
1N127	3	300 @ -50 25 @ -10	100	
1N128	3	10 @ -10	40	
1N198	5	250 @ -50 75 @ -10 @ 75°C	50	
1N38A	4	500 @ -50 6 @ -3	100	
1N69	5	500 @ -50 30 @ -10	60	
1N70	3	300 @ -50 25 @ -10	100	
1N81	3	10 @ -10	40	
1N283	200	20 @ -10	20	COMPUTER TYPES
T16G	40	100 @ -50 20 @ -10	60	
1N191	5	125 @ -50 25 @ -10 @ 55°C	60	HI TEMPERATURE TYPES
1N278	20	125 @ -50 @ 75°C	50	
T20G	20	500 @ -50 30 @ -10 @ 75°C	50	
T22G	40	20 @ -10 @ 75°C	15	HI RESISTANCE TYPES
T9G	100	20 @ -50 2 @ -10	60	
T13G	40	2 @ -10	20	
1N67A	5	50 @ -50 5 @ -5	80	

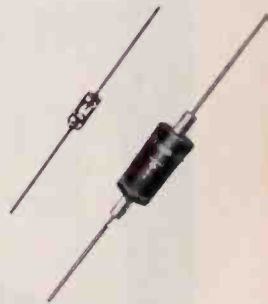
GOLD BONDED DIODES

Features

- Complete Reliability.
- Superior Forward Conductance.
- Higher Inverse Resistance
- More Uniform Characteristics.
- Greater Ruggedness.

The proven performance and superior characteristics of Transitron's gold bonded germanium diodes are available in a wide variety of military and commercial types. Millions of these gold bonded diodes are in use in such applications as airborne computers, high temperature magnetic amplifiers, and business machines. They have established an outstanding record of dependability in critical applications.

Mechanical and electrical ruggedness is "built in" to the Transitron diode through the unique gold bonding process and close manufacturing control. An all-glass hermetically sealed case insures complete environmental protection. All Transitron diodes are subjected to rigid 100% inspections, including shock, vibration and temperature and humidity cycling. Write for Bulletins TE-1300 and TE-1319.



Transitron

electronic corporation

MELROSE 76, MASSACHUSETTS



Typical advanced relays
from the complete

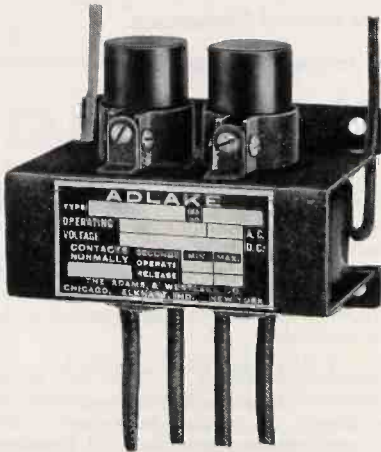
Adlake



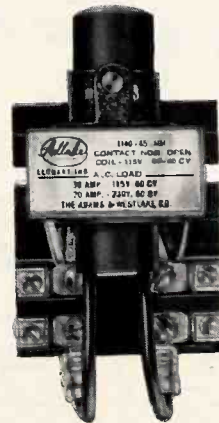
1040 MODEL



1101 MODEL



1123 MODEL



1140 MODEL

line of mercury plunger-type relays

1040 MODEL

Contact arrangement: Normally open or Normally closed. Single pole—Single throw

Available in:

Time delay Slow operate—Quick release
types of Slow operate—Slow release
Quick operate—Slow release

Maximum time delay: 20 minutes

Contact rating: Time delay relays to 15 amps.

Load type: Quick operate—Quick release

Load relays to 50 amps. Non-inductive, 115 v, 60 cy.

Voltage Coil: Up to 440 volts A.C. (25-50-60 cy.)

Maximum size: Height 5 $\frac{5}{8}$ "—width 2 $\frac{1}{2}$ "—projection 2-19/32"

Also available in quick acting, contact normally open or contact normally closed.

1101 MODEL

Available with same features as Companion 1040 Model. Complete information on all relays illustrated available on request. Height is 5 $\frac{1}{2}$ ".

1123 MODEL

Double Pole Load Relay

(Also available with time delay contacts)

Contact Arrangement: 2 contacts Normally open or
2 contacts Normally closed
Double pole—Single throw

Contact rating: Time delay contacts up to 15 amperes. Load relays to 50 amperes. Non-inductive 115 v, 60 cy.

Voltage Coil: Up to 440 v., 50/60 cy. or 220 v. d.c.
Maximum size: Height, 3 $\frac{1}{4}$ "—width, 3 $\frac{3}{4}$ "—projection, 2 $\frac{5}{8}$ "

1140 MODEL

"MIGHTY MIDGET"

Contact Arrangement: Normally open or normally closed—Single pole—Single throw.

Available in: Quick acting load type only.

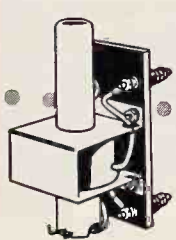
Contact rating: 30 amperes non-inductive 115 volts, 60 cy.

Voltage Coil: Up to 440 v, 60 cy. and 220 v. d.c.

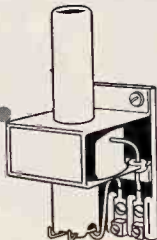
Maximum size: Height, contact normally closed, 3 $\frac{7}{8}$ "; contact normally open, 4 $\frac{1}{4}$ "—width 2-17/32"—projection 2 $\frac{3}{8}$ ".

Equipped with compression type terminals to simplify installation.

Special mounting arrangements for Adlake mercury plunger type relays



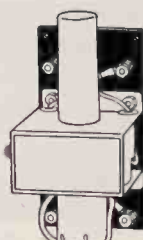
(A) Type No. 1040



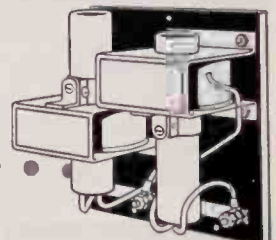
(B) Type No. 1040



(C) Type No. 1040



(D) Type No. 1040



(E) Type No. 1101

(A) Type No. 1040—Normally open relay with back panel equipped with screw terminals for back connecting. (No. 1040-83 series)

(B) Type No. 1040—Normally open time delay or quick-acting relay with back panel equipped with compression type terminals. (No. 1040-44 series)

(C) Type No. 1040—Normally closed time delay or quick-acting relay with back panel equipped with compression type terminals. (No. 1040-45 series)

(D) Type No. 1040—Normally open time delay relay with back panel equipped with screw terminals for front connecting. (No. 1040-85 series)

(E) Type No. 1101—Double unit relay assembly. Can be made with two-time delays, or time delay and load relay, or two-load relays. (No. 1101-53 series)

These are but a few of the possible mounting arrangements. Our engineering department is at your disposal to assist in developing any ideas to fit your requirements.

For complete details of the broad ADLAKE Relay line, send for your copy of the new ADLAKE Relay Catalog.

Address: The Adams & Westlake Company, 1953 N. Michigan, Elkhart, Indiana. In Canada, write Powerlite Devices Limited, of Toronto.

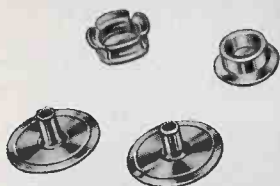
The Adams & Westlake Company

Established 1857 • ELKHART, INDIANA • New York • Chicago

the original and largest manufacturers of mercury plunger-type relays

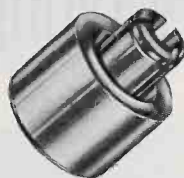


Tailor-Made Fasteners in Volume Quantities



MINIATURE BATTERY CONNECTORS

For use with small "B" batteries; afford quick and positive polarized electrical connections and worthwhile space savings on small electronic equipment.

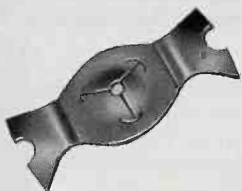


POLYETHYLENE MOUNTING FOOT

No mar no scratch glide for use on TV receivers, record changers and small appliances. Assembles into round hole in either wood or metal cabinets.

FISHTAIL RATCHET PLATE

Made in a wide range of sizes to hold on smooth metal, die-cast or plastic studs. For use on refrigerators, radio cabinets, washing machines and other products to hold medallions, name plates, etc.



VIBRATOR GROUNDING FASTENERS

Holds 1 1/2" dia. beaded or non-beaded vibrator. Vibrator Can grounded to chassis. Holding prongs designed to hold several types of Cans.



RUBBER FOOT

Snap-in Rubber Foot for Record Changers and Phonograph Mountings eliminates threaded member, lock washer and nut thereby speeding assembly time and reducing costs.

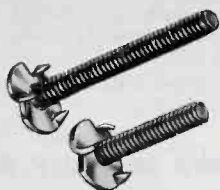


NYLON COIL NUT

Designed to snap into a TV tuner and receive a 4-40 or 4-48 coil adjusting screw. No coil form or coil form fastener required.

SPEAKER MOUNTING BOLT

Pronged head prevents bolt from turning in speaker panel during application of nut and lock washer, permits one-side attachment providing production-line savings.



NYLON SNAP-IN NUT

Serves as insulator between "hot TV chassis" and cabinet. Snaps into square chassis hole and secures to cabinet with sheet metal screw.



PLUG BUTTONS

Made to snap into hole sizes 1/8" to 3". Can be embossed with ornamental or functional designs. Removable. Supplied with various finishes, in a variety of shapes and sizes.



QUICKEY FASTENER

Eliminates need for welding or swaging studs to sheet metal stampings, facilitates nesting, eliminates damage in transit because Quickey snaps in just before final assembly.

TRIMOUNT STUDS

Designed to hold two or more thicknesses of material together. Easily installed by hand. Insure vibration proof attachment. Permanent or removable attachment. Wide variety of shapes and sizes.



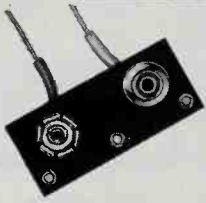
UNITED-CARR
FASTENER CORP.

CAMBRIDGE 42, MASSACHUSETTS

DOT

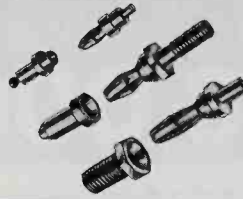
Parts illustrated are representative of the thousands of different specialized fasteners and allied devices designed and manufactured in volume by United-Carr and its subsidiaries for leading manufacturers of electronic equipment. United-Carr's wide and varied experience with special fastening problems in the automotive, aviation and appliance fields provides an unequalled background of technical knowledge which may well be applicable to your special needs.

Ucinite Electrical Assemblies



BATTERY CONNECTORS

Wired snap-on units for use with batteries equipped with United-Carr electrical snap fasteners. Wiring to customer's specifications.



BANANA PINS

Four sizes of plugs with one-piece beryllium copper springs. Adaptable mounting ends in threaded, staking, or solder lug types. Similar Mating Jacks also available.

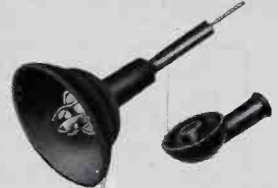
SHOCK MOUNTS

Offered in several sizes — brackets and durometer of rubber bushings can be varied. With threaded Teenuts or plain bushings. Insulated versions if needed.



ANODE CONNECTORS

Plug button contacts for positive firm connections. Corona resistant neoprene or silicon shields in straight or right angle types. Wiring to customer's specifications.



TUBE CAPS

Positive gripping, heat treated steel springs in corona resistant metal housing. Insulated or non-insulated. Wired to specifications. Type shown has silicon shield for special application.

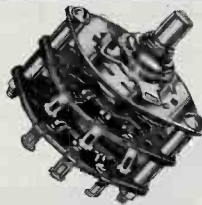


MAGNETRON CONNECTORS

For heater and heater cathode terminals of magnetrons. Available in many variations to answer specific needs.

SWITCHES

Oak type switches manufactured as a licensee. Variety of rotary and push-button assemblies to specifications.



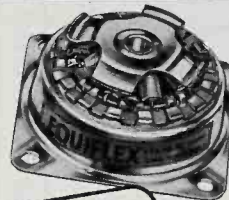
SNAP SWITCHES

Precision, momentary contact push-button switches. Small and dependable. Several circuit arrangements. Water tight version shown.



TEST JACK

Ucinite's quality jack for .080 probes. Beryllium copper contacts. Nylon insulation in colors. Metal shell for firm dependable mounting.

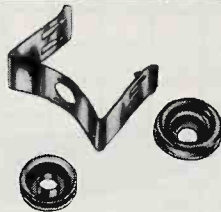


VIBRATION ISOLATORS

Equiflex (1 to 1 ratio) metal mounts ensure long life, fit small spaces, can be used in any direction. Three sizes, cup or plate mountings.

METAL STAMPINGS

Volume production in Metal stampings. Years of engineering and tooling skill available to solve your particular problem.

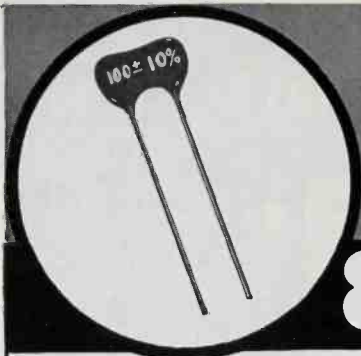


With years of specialized experience in the electronics field and complete facilities for the volume production of small metal stampings as well as the assembly of metal to plastic and ceramic components, Ucinite is fully equipped to supply you with special electrical parts and assemblies...designed, assembled, wired and marked to your specifications. For complete design, engineering and production service, call your nearest Ucinite field engineer.

The UCINITE Company

DIVISION OF UNITED-CARR FASTENER CORP.

Newtonville 60, Massachusetts



ELMENCO DUR-MICA CAPACITORS

8,000 HOURS OF PROVEN COMPONENT RELIABILITY*

The Dur-Mica Capacitor is a silvered mica capacitor coated with a specially developed material which provides maximum protection at environmental extremes of moisture and temperature. This combination provides a reliability and life expectancy which far surpasses anything heretofore obtained.

COMPONENT RELIABILITY:*
 Life tests presently being performed at 125°C. and 150% rated voltage have passed 8000 hours without a single failure. This is roughly equivalent to more than 15 years of operation under normal operating conditions.

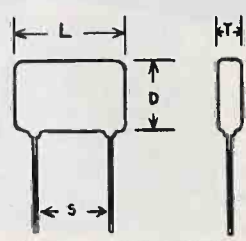
OPERATING TEMPERATURE RANGE
 -55°C. to +125°C.

MINIMUM INSULATION RESISTANCE:
 25000 megohms at 25°C.
 1000 megohms at 125°C.

STABILITY (Capacity Drift):
 ±0.05% +0.1 mmf. MAX.

DIMENSIONS:

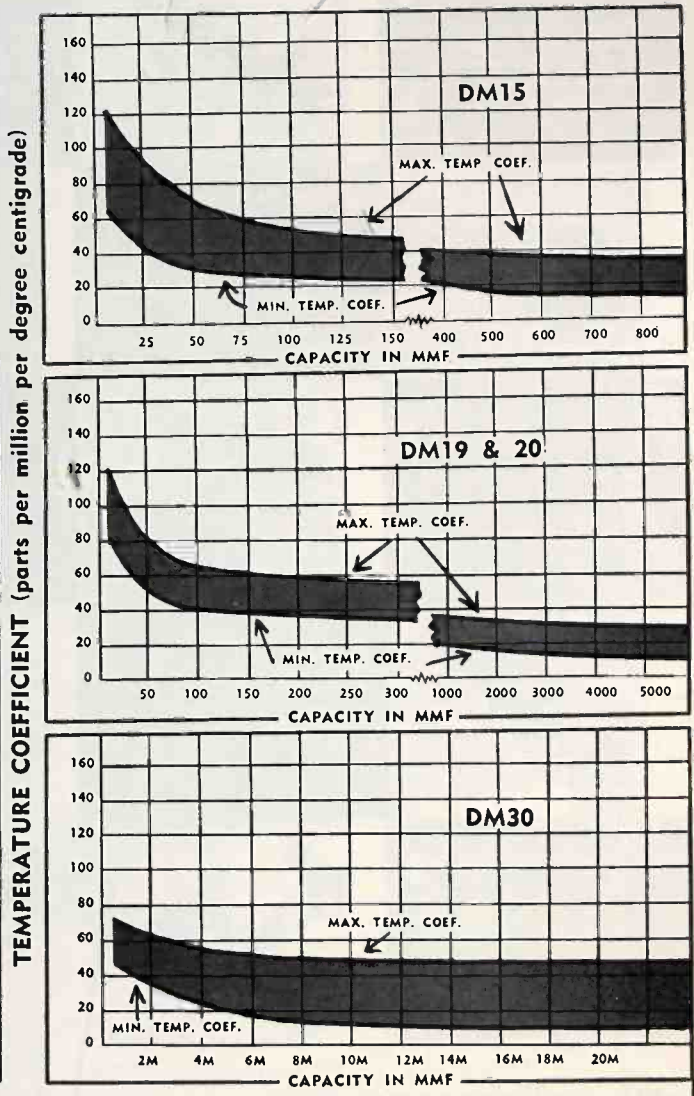
	DM15	DM19	DM20	DM30
L	7/16	5/8	23/32	25/32
D	11/32	15/32	15/32	27/32
T	5/32 min. to 7/32 max.			5/16
S	15/64	11/32	7/16	7/16



Leads are #22 tin-coated copper, 1/4" minimum.
 Dimensions shown are maximum except "S", the tolerance of which is ±1/64".

CAPACITY RANGES: (mmf.)	DM15	DM19	DM20	DM30
MAX. CAP. 500VDCW	400	3000	3900	10000
MAX. CAP. 300VDCW	820	3900	5100	15000
MAX. CAP. 100VDCW	820	5100	7500	20000

Minimum tolerance available is ±1/2% or ±0.5 mmf., whichever is greater.



All other specifications meet or exceed applicable MIL-C-5A and RETMA standards for similar sized molded mica capacitors.

ARCO ELECTRONICS INC.
 NEW YORK 13, NEW YORK

MICROWAVE

Associates INCORPORATED

SILICON DIODES
MAGNETRONS
DUPLEXER TUBES
REFERENCE CAVITIES
WAVE GUIDE COMPONENTS
and TEST EQUIPMENT



MICROWAVE MIXER DIODES

FORWARD POLARITY	REVERSE POLARITY	MATCHED PAIR ⁶		REVERSIBLE POLARITY ⁵	TEST FREQUENCY	MAX. CONVERSION	MAX. OUTPUT NOISE RATIO	MAX. VSWR IN STD. MIXER	POWER LEVEL	BURN-OUT	CALC. OVERALL REC'R NOISE FIGURE		STD. LOAD IMP.	IF IMP.	STANDARD MIXER
		Forward Pair	Forward & Reverse								D.C.	A.C.			
	(FIXED)				(mc)	LOSS (db)	(times)		(mw)	(ergs)	Nif 1.5 DB		(ohms)		
1N21	1N21R	—	—	1N416	3060	8.5	4.0	—	0.5	2.0	14.94	100 400Ω	200-800*	JAN 124 & 125	
1N21A	1N21AR	—	—	1N416A	3060	7.5	3.0	—	0.5	2.0	12.83	100 400Ω	200-800*	JAN 124 & 125	
1N21B	1N21BR	1N21BM	1N21BMR	1N416B	3060	6.5	2.0	—	0.5	2.0	10.34	100 400Ω	200-800*	JAN 124 & 125	
1N21C	1N21CR	1N21CM	1N21CMR	1N416C	3060	5.5	1.5	—	0.5	2.0	8.33	100 400Ω	200-800*	JAN 124 & 125	
1N21D	1N21DR	1N21DM	1N21DMR	1N416D	3060	5.0	1.3	1.5	0.5	2.0	7.34	100 400Ω	325-475	JAN 124 & 125	
1N150	1N150R	1N150M	1N150MR	MA-419A	6750	6.0	2.0	1.5	1.0	1.0	9.83	100 400Ω	250-500	MA-570	
1N160	1N160R	1N160M	1N160MR	MA-419	6750	6.5	2.7	—	1.0	1.0	11.44	100 400Ω	200-500*	MA-570	
1N23	1N23R	—	—	1N415	9375	10.0	3.0	—	1.0	0.3	15.34	100 400Ω	300-600*	JAN 105 & 106	
1N23A	1N23AR	—	—	1N415A	9375	8.0	2.7	—	1.0	0.3	12.93	100 400Ω	300-600*	JAN 105 & 106	
1N23B	1N23BR	1N23BM	1N23BMR	1N415B	9375	6.5	2.7	—	1.0	0.3	11.43	100 400Ω	300-600*	JAN 105 & 106	
1N23C	1N23CR	1N23CM	1N23CMR	1N415C	9375	6.0	2.0	1.5	1.0	0.3	9.83	100 400Ω	325-475	JAN 105 & 106	
1N149	1N149R	1N149M	1N149MR	MA-414	9375	5.5	1.5	1.5	1.0	1.0	8.32	100 400Ω	325-475	JAN 105 & 106	
1N23D	1N23DR	1N23DM	1N23DMR	1N415D	9375	5.0	1.7	1.3	1.0	1.0	8.25	100 400Ω	350-450	JAN 105 & 106	
MA-400 ¹	—	—	—	MA-400	10000	6.0	2.0	1.6	1.0	0.3	9.83	100 500Ω	350-550	MA 650 ²	
MA-407 ¹	—	—	—	MA-407	10000	6.5	2.0	—	1.0	0.3	10.30	100 500Ω	400-800	MA 650 ²	
1N78	—	—	—	—	16000	7.5	2.5	—	1.0	0.3	12.14	100 500Ω	325-625	JAN 201	
1N78A	—	—	—	—	16000	7.0	1.5	1.6	1.0	0.3	9.82	100 500Ω	365-565	JAN 201	
1N26	—	—	—	—	23984	8.5	2.5	—	1.0	0.1	13.14	100 500Ω	300-600	JAN-107	
1N53	—	1N53M	—	—	34860	8.5	2.5	1.6	1.0	0.1	13.14	100 500Ω	400-800	JAN-174	
1N53A ³	—	—	—	—	34860	8.5	2.5	1.6	1.0	0.3	13.14	100 500Ω	400-800	JAN-174	

MA-401 Classified Mixer Crystal for Use in RG-98/U Waveguide
³Nominal Range Not Part of Specification

MA-611

MICROWAVE VIDEO DETECTOR DIODES

VIDEO DIODE TYPES ⁴										
FORWARD POLARITY	REVERSE POLARITY	REVERSIBLE POLARITY ⁵	TEST FREQUENCY	POWER LEVEL	FIGURE OF MERIT	PULSE BURN-OUT	D.C. BIAS	MINIMUM SENSITIVITY	VIDEO IMPEDANCE	STANDARD HOLDER
	(FIXED)		(mc)	(μW)	(MIN.)	(volts)		(dbm)*	(ohms)	
1N32	1N32R	MA-417	3295	5.0	85	6	—	—	4000-22000	JAN-152
MA-408	MA-408R	MA-418	9000	1.0	130	6	+50μA	-50	1700-3100	MA-611
MA-408A	MA-408AR	MA-418A	9000	1.0	160	6	+50μA	-51	1700-3100	MA-611

²Theoretical tangential sensitivity for a receiver bandwidth of 10 mc/s.

¹Overall Length of MA-400 and MA-407 is .086 inches shorter than standard cartridge diode assemblies.

²Designed for use with 0.2 x 0.750 X-band Miniature Waveguide.

³1N53A is intended as a replacement for the JAN 1N53 in applications requiring broad bandwidth (12%) and increased burnout resistance.

⁴The 1N32 and MA-408 series are interchangeable with 1N21 and 1N23 series mixer diodes but insure improved signal to noise video receiver performance.

⁵In the past, mixer and video cartridge types were manufactured only in forward or reverse polarity cartridges but now for the first time are available in convenient reversible assemblies. The new reversible cartridge diodes are electrically and mechanically equivalent to and are directly interchangeable with standard types and meet all requirements of MIL-E-1 specifications.

⁶Matched pairs of all Microwave Associates mixer diodes are available and are matched to the following limits: Conversion loss ± 10%; IF Impedance ± 15 ohms; Rectified Current ± 10%; VSWR unbalance less than 10% of applied signal.

Mixers and holders for all of the above MA types are available from Microwave Associates, Inc. Write for our illustrated silicon diode brochure 56S.

MICROWAVE ASSOCIATES INC

22 CUMMINGTON STREET, BOSTON, MASSACHUSETTS Copley 7-7577 • Western Union FAX • TWX BS-942 (U)



X-Band Pulsed Magnetrons (FIXED TUNED)

TUBE TYPE	FREQUENCY	NOMINAL PEAK OUTPUT	PEAK VOLTAGE ANODE	VOLTAGE RATE OF RISE	AV. ANODE CURRENT	PEAK ANODE CURRENT	PULSE DURATION	DUTY CYCLE	PULLING FACTOR (Max)	INITIAL HEATER	
										VOLTAGE	CURRENT
	MC/S	KW	KV	KV/μS	MA	A	μS		MC	V	A
2J42	9345-9405	8	5.3-5.7	60	9.0	4.5	1.0	.002	15	6.3	0.43-0.60
	9345-9405	8	5.3-5.7	60	4.0	4.5	2.2	.0009	15	6.3	0.43-0.60
	9345-9405	8	5.3-5.7	60	1.44	4.5	0.4	.00032	15	6.3	0.43-0.60
6270 6272 6273 6274 6275	9501-9600 9406-9500 9101-9200 9000-9100 9201-9345	All Other Characteristics Same As 2J42									
2J42H	9435-9405	2J42 Modified for High Altitude Unpressurized Operation to 60,000 Feet									
6817 6818 6819 6820 6821 6822	9000-9100 9101-9200 9201-9300 9301-9400 9401-9500 9501-9600	All Other Characteristics Same As 2J42H									
6027 (2J42A)	9345-9405 9345-9405	20 10	6.4-7.4 6.0-7.0	60 60	7.5 7.0	7.5 3.5	1.0 1.0	.001 .002	15 15	6.3 6.3	0.43-0.53 0.43-0.53
MA-201	9345-9405	20	7.4-7.8	60	7.5	7.5	1.0	.001	18	6.3	0.43-0.53
	9345-9405	6027 Modified for High Altitude Unpressurized Operation to 40,000 Feet.									
MA-201-F1 MA-201-F2 MA-201-F3 MA-201-F4 MA-201-F5 MA-201-F6	9000-9099 9100-9199 9200-9299 9300-9399 9400-9499 9500-9600	All Other Characteristics Same As MA-201									

X-Band CW Magnetrons (FIXED TUNED)

TUBE TYPE	FREQUENCY Mc	NOMINAL OUTPUT (watts)	ANODE VOLTAGE V	ANODE CURRENT MA	PULLING FACTOR (Max) mc/s	VOLTAGE	INITIAL HEATER CURRENT A
ESM-48 6444-F1	9800-10000	1	450-500	15	10	6.0	0.4-0.5
6444-F2 6444-F3 6444-F4 6444-F5 6444-F6	9600-9799 9400-9599 9200-9399 9000-9199 8800-8999	All Other Characteristics Same As 6444-F1					

NOTE: The 6444 series may be pulse-modulated to peak powers of approximately 5 watts. Tubes for use at specific frequencies are available on special order.

35,000 mc/s Pulsed Magnetrons (FIXED TUNED)

TUBE TYPE	FREQUENCY MC	NOMINAL PEAK OUTPUT KW	ANODE OPERATION			PULSE DURATION μS	DUTY CYCLE	PULLING FACTOR (Max) Mc/s	INITIAL HEATER	
			PEAK VOLTAGE KV	AVERAGE CURRENT MA	PEAK CURRENT A				VOLTAGE V	CURRENT A
5789	34512-35208	40	10.0-13.0	5.0	20.0	0.25	.00025	40	6.0	2.0-2.4
		30	10.0-13.0	6.0	15.0	0.5	.0004	40	6.0	2.0-2.4
		20	10.0-13.0	6.0	10.0	1.0	.0006	40	6.0	2.0-2.4
MA-200*	34700-35000	40	11.0-13.0	5.0	20.0	0.25	.00025	40	12.6	2.6-3.0
MA-206*	34700-35000	20	11.0-13.0	5.0	10.0	0.25	.0005	40	12.6	2.6-3.0
MA-207*	34700-35000	60	11.0-13.0	8.0	20.0	0.25	.0004	—	12.6	2.6-3.0

* No Change in Operating Characteristics During Vibration of 15G up to 1000 cps. Ideally suited for Airborne or Mobile Use. Same Physical Outline.

CONTACT MICROWAVE ASSOCIATES, INC. OR THE SALES OFFICE IN YOUR AREA FOR FURTHER DETAILS ON ANY OF THE ABOVE TYPES AND CLASSIFIED OR DEVELOPMENTAL TYPES NOT YET LISTED.

MICROWAVE Associates INCORPORATED

MICROWAVE DUPLEXER TUBES



S-Band TR Tubes

TUBE TYPE	FREQUENCY	PEAK POWER	DESCRIPTION	WAVEGUIDE TYPE	
	(Mc/s)	(KW)		INPUT	OUTPUT
1B58	2664-2969	750	Band-Pass, Fixed-Tuned TR 1B58 with Extra Holes for Pressurization	RG-48/U	RG-48/U
6117	2664-2969	750		RG-48/U	RG-48/U
5853	2900-3200	750	Band-Pass, Fixed-Tuned TR	RG-48/U	RG-48/U
5927	3100-3500	750	Band-Pass, Fixed-Tuned TR	RG-48/U	RG-48/U

X-Band TR-ATR Tubes

TUBE TYPE	FREQUENCY	PEAK POWER	DESCRIPTION	WAVEGUIDE TYPE	
	(Mc/s)	KW		INPUT	OUTPUT
1B24A	8490-9600	100	Integral Cavity Tunable TR	RG-52/U	RG-52/U
1B63A	8490-9578	200	Band-Pass, Fixed-Tuned TR	RG-52/U	RG-52/U
MA-316/6232	8490-9578	200	Similar to 1B63A	RG-51/U	RG-52/U
5863	8490-9578	250	Band-Pass TR	RG-51/U	RG-51/U
6164	8500-9600	200	Band-Pass, Fixed-Tuned TR Controlled Phase & VSWR	RG-51/U	RG-51/U
MA-311	8490-9578	250	6164 Outline, 5863 Electrical Specs	RG-51/U	RG-51/U
6163	8500-9600	250	ATR Used in Tandem in Special Mount for RG-51/U Waveguide	—	—
6334	8490-9600	200	Dual 1B63-A	RG-52/U	RG-52/U
MA-303	8490-9578	250	Dual 6164 TR, No Phase Control	RG-51/U	RG-52/U
MA-306	8490-9578	250	Dual Band-Pass TR	RG-51/U	RG-52/U

X-Band Shutter TR Tubes

TUBE TYPE	FREQUENCY	PEAK POWER	SHUTTER VOLTAGE	DESCRIPTION	WAVEGUIDE TYPE	
	(Mc/s)	(KW)			INPUT	OUTPUT
MA-319/6565	8490-9600	100	14	Tunable 1B24A with Shutter, no reservoir	RG-52/U	RG-52/U
MA-313	—	100	14	Fixed Tuned 1B24 with Shutter for High Altitudes, Potted Leads, Temperature Compensated	RG-52/U	RG-52/U
MA-314/6015	8490-9578	200	28	1B63A with Shutter	RG-52/U	RG-52/U
MA-309/6613A	8490-9600	200	28	6334 Dual TR with Shutters	RG-52/U	RG-52/U
MA-322	8490-9578	250	17-30	MA-306 Dual TR with Shutters	RG-51/U	RG-52/U

WAVEGUIDE PRESSURE WINDOWS



Reference Cavities



TUBE TYPE	RESONANCE FREQUENCY	DESCRIPTION
	(Mc/s)	
MA-318 series	9250-9350 (fixed tuned)	New temperature compensated reference cavities practically half the size of 1Q22-1Q24 series require no matching. Ideal for airborne radar beacon applications where weight, space, pressure extremes and vibration considerations are of concern.

DESIGNATION	MAX. POWER ⁽¹⁾	FREQUENCY RANGE ⁽¹⁾	CENTER FREQ.	WAVEGUIDE SIZE	MAX. PRESSURE	WINDOW DESCRIPTION ⁽²⁾
	(Kw)	(Kmc/s)	(Kmc/s)		(PSI)	
MA-1301	20	8.8 - 9.2	9.0	RG-52/U	45	Narrow Band Rectangular Narrow Iris
MA-1302	100	8.9 - 9.5	9.2	RG-52/U	60	Narrow Band Rectangular Large Iris
MA-1303	150	9.50-10.25	9.8	RG-52/U	45	Narrow Band Rectangular Extra Large Iris
MA-1306	170	3.25- 3.35	3.3	RG-48/U	60	Narrow Band Rectangular Narrow Iris
MA-1311	200	8.2 - 12.4	9.9	RG-52/U	30	Broad Band Rectangular Triple Iris
MA-1312	100	9.0 - 9.6	9.3	RG-52/U	60	Narrow Band Rectangular Large Iris
MA-1314	150	9.85-10.55	10.15	RG-52/U	45	Narrow Band Rectangular Extra Large Iris
MA-1317	140	8.35-11.0	9.6	RG-52/U	30	Broad Band Rectangular Triple Iris
MA-1318	170	2.75- 2.85	2.8	RG-48/U	60	Narrow Band Rectangular Narrow Iris
MA-1319	100	9.1 - 9.7	9.375	RG-52/U	60	Narrow Band Rectangular Large Iris
MA-1320	100	8.7 - 9.3	9.0	RG-52/U	60	Narrow Band Rectangular Large Iris
MA-1321	100	8.5 - 9.1	8.8	RG-52/U	60	Narrow Band Rectangular Large Iris
MA-1322	100	9.3 - 9.9	9.6	RG-52/U	60	Narrow Band Rectangular Large Iris
MA-1323	100	9.6 - 10.2	9.9	RG-52/U	60	Narrow Band Rectangular Large Iris
MA-1325	1200	2.45- 3.15	2.8	RG-48/U	45	Broad Band Rectangular Triple Iris
MA-1326	1200	2.45- 3.15	2.8	RG-48/U	45	Broad Band Gasket Mounted Triple Iris
MA-1327	100	8.6 - 9.8	9.0	RG-52/U	45	Broad Band Double Iris Rectangular
MA-1328	100	10.0 - 11.4	10.7	RG-52/U	45	Broad Band Double Iris Rectangular

*Maximum VSWR at center and limit frequencies, 1.05 and 1.25, respectively.
 (1) Consult latest catalog for complete window specifications.
 (2) Unless otherwise noted, all windows are of the solderable type.
 (3) Maximum power under operating conditions of 1 microsecond pulse duration at 1000 cps.
 Ratings above include a 100% safety factor for power.

Write for catalog...





WAVEGUIDE COMPONENTS AND TEST EQUIPMENT

ARRANGED BY FUNCTION AND WAVEGUIDE SIZE

UNITED STATES

Gassner & Clark Co.
6644 N. Western Avenue
Chicago 45, Illinois
Rogers Park 4-6121
TWX: CG 2328

Ken Randall Co.
1303 Midvale Avenue
Baltimore 28, Maryland
Ridgeway 7-5260

Engineering Services Co.
4550 Main Street
Kansas City, Missouri
Jefferson 1-7765

E. H. Jordan
2024 Glen Drive
Jackson, Michigan
2-0694

Southwest Electronic Ind.
4515 Prentice Street
Dallas, Texas
F0rest 8-8306

Reed-Tollefson Corp.
2815 Monroe Avenue
Rochester 18, New York
Hillside 0450

J. E. Hachten Company
8413 Las Tunas Drive
San Gabriel, California
CUMberland 3-3860
TWX: ALhambra 7642

Ken Randall Co.
121 N. Broad Street
Philadelphia 7, Pa.
LOCust 4-2151
TWX: PH 1065

E.R.A., Inc.
340 Great Neck Road
Great Neck, New York
Hunter 2-9320
TWX: Great Neck, N. Y. 3516

Engineering Services Co.
6635 Delmar Blvd.
St. Louis 5, Missouri
VOLunteer 3-3661

Rush S. Drake Associates
1806 Bush Place
Seattle 44, Washington
EAsT 1737

W. Ben Wimberly Co.
39 N. Pine Circle
Clearwater, Florida
Clearwater 32-0431

CANADA

E. G. Lomas
227 Laurier Ave., West
Ottawa, Ontario, Canada
Central 2-8504

To place orders or for additional information and helpful assistance, write, phone or wire the Sales Representative in your area or contact the factory direct.

Specifications given in this brochure subject to change without notice.

Waveguide Frequency Range	8.2-12.4 kmc/s.	12.4-18.0 kmc/s.	18.0-26.5 kmc/s.	26.5-40.0 kmc/s.	50.0-75.0 kmc/s.
Waveguide Type Waveguide Size Band	RG-52/U 1 x 1/2 X	RG-91/U .702 x .391 KU	RG-53/U 1/2 x 1/4 K	RG-96/U .360 x .220 KA	RG-98/U .228 x .154 V
Waveguide Accessories					
E-Plane 90° Bends	MA-635 \$30	MA-632 \$30	MA-555 \$30	MA-556/A \$30	MA-630 \$35
H-Plane 90° Bends	MA-636 \$30	MA-633 \$30	MA-553 \$35	MA-557/A \$30	MA-631 \$35
Waveguide 90° Twists	MA-642 \$35	MA-643 \$30	MA-644 \$30	MA-558/A \$30	MA-645 \$30
Waveguide to Type N Transition Adaptors	MA-562A/B \$35				
Tube Mount for ESM-48/6444	MA-521 \$98			MA-550A/B/C/D \$30	
Power Dividers					
E-Plane (Series) Tees	MA-620 \$30	MA-616 \$33	MA-618 \$33	MA-560 \$40	MA-622 \$45
H-Plane (Shunt) Tees	MA-621 \$30	MA-617 \$33	MA-619 \$33	MA-561 \$40	MA-623 \$45
Hybrid Tees	MA-637 \$50	MA-638 \$55	MA-639 \$55	MA-640 \$60	MA-641 \$75
Magic Tees	MA-541 \$75				
Rat Races		MA-569/A \$150	MA-605 \$165	MA-538/A/B \$175	MA-606 \$410
Directional Couplers (10, 15, 20 db)			MA-552A/B \$85	MA-1036A/B/C \$167	
Directional Couplers (30 db)					
Detection & Power Measurement Instruments					
Crystal Mounts (Fixed Tuned)	MA-536 \$55 (for 1N23) MA-611 \$95 (for MA-408) MA-570 \$80 (6) (for 1N150, 1N160)	MA-595/A \$95 (for 1N78) MA-610 \$95 (for MA-402)	MA-1043A/B \$105 (for 1N26) MA-1039A/B \$140 Cross Bar Type (for 1N26)	MA-513B/C \$85 (for 1N53) MA-1028A/B \$110 Cross-Bar Type MA-539A/B \$140 MA-513A \$95 (for 1N53) MA-571 \$20 (1N53 Geometry) MA-525 \$220 MA-101A/B \$990	*MA-607 \$80 (for MA-401)
Crystal Mounts (tunable)					
Barretors					
Thermistor Mounts (tunable)					
Water Load Calorimeters					
Water Loads with Heater	MA-563A \$350 (5)				
Frequency Meters					
Narrow Band Frequency Meters (Reaction Type)	MA-548, 549 \$110 (8.55-9.80) kmc/s			MA-506 \$142 (34.37) kmc/s	MA-1152 \$250 (68-73) kmc/s
Wide Band Frequency Meters		MA-582/A \$150	MA-588 \$150	MA-518 \$150	
Attenuators & Terminations					
Fixed Pads (10, 20, 30 db)	MA-609A/B/C \$50 MA-554A/B \$95	MA-577A/B/C \$50	MA-575A/B/C \$50	MA-576A/B/C \$55	MA-579A/B/C \$60
High Power Attenuators (6, 12 db)	MA-534 \$50	MA-578 \$185 MA-580 \$195	MA-586 \$150 MA-587 \$190	MA-1023A/B/C \$160 MA-527A/B \$198	MA-1151 \$210
Power Set Attenuators		MA-646 \$30 MA-594 \$60 (simulates 1N78)	MA-621 \$30 MA-1010 \$60 (simulates 1N26)	MA-540A/B \$25 MA-1029B \$60 (simulates 1N53)	MA-626 \$40
Precision Variable Attenuators	MA-648 \$30			MA-537/A \$95	
Low Power Terminations					
Dummy Loads, Low Power	MA-533 \$100				
Dummy Loads, High Power					
Tuners & Standing Wave Detectors					
Adjustable Waveguide Shorts	MA-546 \$36	MA-568 \$50		MA-567 \$41 MA-526 \$1075	MA-597 \$60
High Power Roving Stub Tuners				MA-559 \$125	MA-598 \$190
E- and H-Plane Tuners	MA-520 \$120	MA-615 \$120	MA-654 \$120	MA-1022/A \$650, \$625 MA-545A/B \$1075	MA-584 \$900
Low Level Standing Wave Detectors					
Hi-Power Standing Wave Detectors					
Antenna Components					
Precision Standard Horns	MA-647 \$100 (15 db)	MA-628 \$110 (20 db)	MA-653 \$110 (20 db)	MA-572 \$110 (25 db)	MA-627 \$150 (25 db)
Antenna Rear Feeds	MA-625 \$150	MA-624 \$150		MA-1046 \$125 MA-1045 \$320	
Hog Horns				MA-1037A/B \$300, \$280	
Rotary Joints		MA-651 (4)			
RF Switches					
Precision RF Switches				MA-1041A/B \$310	
Rotary Crystal Shutters				MA-1034 \$185	
Radar System Components					
Balanced Mixers		MA-596 \$350		MA-1026A/B \$410 MA-531/A \$950	*MA-649 \$795
Double Balanced Mixers				MA-519A/B \$250 MA-1032/A/B \$250	
Harmonic Generator & Mixers				MA-1031 \$1876 MA-0111 \$1800	
Duplexers			MA-1030 \$250	MA-530A/B \$825	
Radar RF Heads					
Echo Boxes					
Spectrum Analyzer Adaptor					
Test Benches				MA-1019 \$1315	MA-1018 \$1472
Circular Waveguide Equipment (3)					
Circular Waveguide Rotary Joints	MA-593A (4)	MA-593D (4)	MA-593B (4)	MA-593C (4)	*
Circular Waveguide Mode Absorbers	MA-589A \$280	MA-589D \$250	MA-589B \$250	MA-589C \$250	*
Circular Waveguide Bends	MA-600A \$385	MA-600D \$385	MA-600B \$325	MA-600C \$325	*
Circular Waveguide Transitions	MA-601A \$375	MA-601D \$375	MA-601B \$350	MA-601C \$350	*
Circular Waveguide Male Connectors	MA-612A \$6.50	MA-612D \$6.50	MA-612B \$5.50	MA-612C \$5.50	*
Circular Waveguide Female Con'tors	MA-613A \$8.50	MA-613D \$8.50	MA-613B \$7.50	MA-613C \$7.50	*

COAXIAL COMPONENTS (2.63-3.95 Kmc/s) • MA-543A/B Transition Waveguide to Type N \$75. • MA-1143 (1) Right Angle Stub \$75. • MA-1150 Magnetron Coupler for 4J61-4J64 Magnetrons \$110 • MA-1142 (1)(2) Probe Coupler \$90. • MA-1141 (1) Fixed Power Divider \$90. • MA-547 (2) Frequency Meter \$210. • MA-1148 (2) Filter Cavity \$210. • MA-1145A/B/C Variable Power Divider \$1,025.

(1) For use with RG-44/U (7/8" Coaxial).

(2) For use with RG-8/U, RG-9/U RF Cable.

(3) TE₀₁ mode circular waveguide is noted for extremely low loss RF transmission characteristics and high power handling capacity.

(4) Price available upon request. (5) For use with RG-51/U (6) 5.85-8.20 kmc/s.

*Security clearance to be established prior to placing order or requesting additional information. Data and prices subject to change without notice. Terms: Net 30 days, F.O.B. Boston, Massachusetts.

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The following is a representative selection of the complete BUSS line of fuses that includes standard, dual-element (slow blowing), renewable and one-time types — in sizes from 1/500 ampere up . . . plus a companion line of fuse clips, blocks and holders.

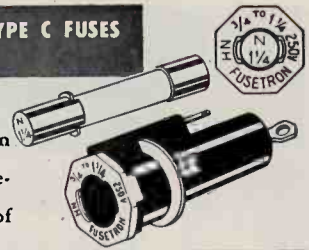
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Especially suitable for protection of TV

Ears on fuses match slots in holder.

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Safeguard against use of wrong size and type of fuse.



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1 3/32 x 1 1/2 inch. Capable of safely interrupting 68,000 amps.



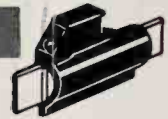
FUSETRON ACK CLAMP TYPE FUSES

20 to 300 amp., Dual-element type.



BUSS ACO AIRCRAFT FUSES

Mechanical Indicating — Limiter type 1 to 75 amp.



BUSS AGX FAST ACTING FUSES

1/4 x 1 in. Glass tube 1/500 to 2 amp.



BUSS Series HJ and HK Non-Indicating FUSEHOLDERS

Panel mounted for 1/4 x 1 inch and 1/4 x 1 1/4 inch fuses.



BUSS IBM SIGNAL ACTIVATING FUSES

1/4 x 1 1/4 inch. Silverplated pin pops out when fuse is blown and activates signal or alarm.



BUSS Series HJ and HK Lamp Indicating FUSEHOLDERS

Panel mounted for 1/4 x 1 inch and 1/4 x 1 1/4 in. fuses.



FUSETRON MDL FUSES

1/4 x 1 1/4 inch. Dual-element — slow blowing type 1/100 to 30 amp.



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Solder type terminal for 1/4 inch fuses.



BUSS ABC CERAMIC TUBE FUSES

1/4 x 1 1/4 inch. High interrupting capacity fuses 1/4 to 30 amp.



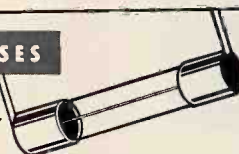
BUSS No. 4409 FUSE BLOCKS

Small Base, solder type Side Terminals.



BUSS GJV PIG TAIL FUSES

1/8 to 6 amp. Solder into circuit wires.



BUSS No. 4512 FUSE BLOCKS

Full Base, Screw type Terminals.



BUSS SFE STANDARD FUSES

Fuses of different amperages are different lengths — to make it impossible to insert too large a size.



FUSETRON FNM FIBRE TUBE FUSES

1 3/32 x 1 1/2 inch. Dual-element — slow blowing type.



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1155



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Carefully designed, skillfully made for all applications where equipment must survive the most severe environmental, shock, vibration, temperature and humidity conditions.

Smallest in size; completely welded from terminal to terminal; coated with special silicone material; impervious to moisture, salt ions, vapor, gases. Temperature coefficient all types 0.00002/Deg. C.

TYPE RH Silicone sealed in die-cast black anodized, radiator finned housing. Ranges from 0.1 ohm to 55,000 ohms. Tolerances 0.05% to 5%. Three wattage ranges—25, 50, 250.

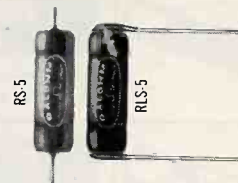
Write for Bulletin R-21B



TYPES RS and RLS

Ranges from 0.5 ohm to 55,000 ohms; tolerances 0.05% to 3%. Type RS supplied with axial leads; Type RLS with radial leads. Four wattage ranges—2, 5, 7 and 10; six sizes.

Write for Bulletins R-23B and R-30



RUGGEDIZED TYPE RSE

Housed in metal tubing for clip mounting. Ranges from 2 ohms to 55,000 ohms; tolerances 0.05% to 3%. Three wattage ranges—2, 5, 10.

Write for Bulletin R-25A



TYPES WWA and WWL

Precision encapsulated, built to surpass Mil-R-93A. Non-inductive, pi-wound. Ranges from 0.1 ohm to 5 megohms; tolerances 0.1% to 1%. Type WWA axial leads; Type WWL radial leads.

Write for Bulletin R-26A



TYPE PH

A rugged new resistor for panel mounting; sealed in black anodized finned aluminum housing. Ranges from 0.1 ohm to 55,000 ohms; tolerances 0.5% to 5%. Three wattage ranges—25, 50, 100.

Write for Bulletin R-31



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Wherever designers and specifiers have immediate need for readily accessible, necessary product information at their breadboards, there, year after year, will you find the **ELECTRONICS BUYERS' GUIDE**. "Who makes what product or provides what service?" "Where can I buy it?" "Where can I find complete and accurate product specs?" These are questions that are asked daily by the men who design-in electronic products; these are questions that have been answered for the past fifteen years by the "Guide," the accepted reference book of the industry.

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deposited carbon resistors

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Manufactured under rigid controls to deliver matchless performance in any high-low resistance range.

TYPE DC

Now supplied with an improved coating material which incorporates extreme toughness, low temperature cycling, humidity resistance, and high temperature characteristics. From 10 ohms to 50 megohms; temperature coefficient 140-500 PPM per Deg. C; 1% accuracy. Five wattage ranges— $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, 1, 2; seven sizes.

Write for Bulletin R-34A



TYPE DCH HERMETIC SEAL-RUGGEDIZED

Completely high temperature alloy solder sealed in envelope of non-hydroscopic ceramic. Ruggedized for incorporation into snap-in clips. Ranges 10 ohms to 50 megohms; temperature coefficient 140-500 PPM per Deg. C. Five wattage ranges— $\frac{1}{8}$, $\frac{1}{4}$, $\frac{1}{2}$, 1, 2; seven sizes.

Write for Bulletin R-27A



DCH 1

TYPE DC-5

for high voltage and/or high resistance applications

High voltage up to 20,000 VDC; resistance values up to 500 megohms; tolerance 1% to 10%; voltage coefficient less than 0.002% per volt; temperature coefficient less than 500 PPM per Deg. C. Special silicone insulation.

Write for Bulletin R-28



COLLET FITTING KNOBS

for hard use at high-low temperatures

Exclusive design permits positive locking on all standard shaft diameters with no damaging effort so frequently found when using set-screw knob types. Precision cast of thermo-setting plastic in easy grip shapes; collets interchangeable; standard pointers and indicators.



ALUMINUM DIALS

Three basic types in four sizes; calibrated 0-100 and 100-0 in 180 degree and 270 degree rotation. Also plain dials for special applications or markings.



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Alto D-21 Subminiature Voltmeter

NEW SUBMINIATURE VOLTMETER

Another Alto development for new measuring convenience! Covers 10 cps to 1 MC with 3% accuracy between 20 cps to 500 KC, 5% accuracy full range. Temperature stable 0 to 120° F, provides 1 millivolt full scale sensitivity and operates for 130 hours continuous duty on standard batteries. Has 12 decade ranges, with meter readings direct in db from -20 to +2 db, or volts 0 to 1 or 0 to 3 volts. Has output terminals for monitoring with 1,000 ohm or higher impedance devices. Input impedance 10 megohms. Is ideal as null detector, for unbalanced voltage measurements; all laboratory and field voltage tests. Weight only 30 oz. \$250.00

120 MC GRID DIP OSCILLATOR

The new, pocket-size Alto G-21 is an amazing battery-powered instrument using transistor circuitry for transmitter, receiver or system frequency measurements. It covers the range 6 to 120 MC with accuracy of $\pm 5\%$. The instrument can be held and operated with one hand. A modulator switch provides 1 KC modulation with audible head-phone signal. A gain control insures good "dip" indication. Design is extremely unique, including traveling wire frequency indicator, printed circuitry, rugged construction, shock-proof alkyd-resin case. No plug-in coils. Weighs just 18 oz. \$150.00



Alto G-21 Grid Dip Oscillator



Alto D-1 Regulation Meter

Regulation Meter

Simple, accurate device for testing any industrial power supply rated 0 to 500 volts. Measures internal resistance 0.02 ohms to 1,000 ohms. Direct reading. Also measures ripple and noise, serves as a linear ohmmeter and ac voltmeter. Compact, only 10" wide. \$295.00

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Regularly, for leading firms across the nation, Alto completes research and development assignments. Alto personnel are uniquely qualified for development of complete rf transmitters, receivers, instruments or measuring systems from LF through SHF, special systems for generating or measuring other than rf signals, design of special components, or theoretical studies in communications and related fields.

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SCIENTIFIC COMPANY

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PRECISION SINGLE-TURN POTENTIOMETERS



TIC offers a complete selection of all types of single-turn potentiometers with a wide range of sizes from 1/4" to 3" diameters . . . accuracies . . . and linearities. All units are designed for unique, one-piece clamp rings to join adjacent cups securely, yet allow each cup to be precisely phased. Up to 15 cups can be ganged on a single shaft.

Patented resistance-element design offers greater flexibility in linear and nonlinear function design. Precision-bored, phosphor-bronze sleeve bearings or low-friction stainless-steel ball-bearing construction . . . centerless ground stainless-steel shaft . . . servo or tapped-hole mounting . . . and complete environmental protection.



	RV1 1/2	RVBC2	RVP3	ST09	ST30
Description	Intermediate	Ball-bearing Unitized	High Prec.	Miniature Ball-bearing	High Prec. Ball-bearing
Case Size	1 1/2" d.	2" d.	3" d.	7/8" d.	3" d.
Resis. Range	100 to 100K	100 to 100K	100 to 200K	100 to 50K	100 to 200K
Stand. Ind. Lin.	±0.5%	±0.5%	±0.2%	±1.0%	±0.2%
Spec. Ind. Lin.	±0.25% above 7.5K	±0.20%	±0.10% above 5K	±0.3% above 2K	±0.1% above 5K
Stand. Wind. Angle	320° ±3°	320° ±3°	320° ±3°	320° ±5°	320° ±3°
Conserv. Pow. Rat. (Watts at 25°C)	3	4	6	2	6
Mountings Avail.	Servo or Tapped Hole	Servo or Tapped Hole	Servo or Tapped Hole	Servo	Servo or Tapped Hole

GUIDE

TO THE WORLD'S FINEST PRECISION

Potentiometers

PRECISION TRIMMER POTENTIOMETERS



TIC provides a complete selection of trimmer potentiometers for precise, stable adjustments under all forms of adverse environmental conditions — variety of sizes and shapes available, in addition to the wide range of power and temperature capabilities.

Among the trimmers available is the original metal-film potentiometer, the TIC RFT Metallfilm. Use of metallic film as the resistance element provides infinite resolution for ultra-

fine trimming. Extremely compact and stable with an over-all size that permits stacking 7 to the square inch. A 25-turn lead screw provides extreme accuracy of adjustment.

Latest addition to the TIC Trimmer Line is the low-cost, wire-wound RWT. This unit incorporates the same compact design as the RFT. Its wire-wound resistance element design provides low-cost.

	RV 1/2	RV 3/8	RFT	RWT		RV 1/2	RV 3/8	RFT	RWT
Description	Sub-min.	Miniature	Sub-min. Metallfilm	Sub-min.	Description	Sub-min.	Miniature	Sub-min. Metallfilm	Sub-min.
Case Size	1/2" d.	7/8" d.	3/8" x 3/8" x 1 1/2" approx.	5/8" x 1/4" x 1 1/4" approx.	Stand. Wind. Angle	300° Nominal	320° Nominal	Shaft Angle 9000° Nominal	Shaft Angle 9000° Nominal
Resis. Range	50 to 15K	100 to 50K	50 to 25K	50 to 15K	Conserv. Pow. Rat. (Watts at 25°C)	1 1/2	2	1/2	1/2
Stand. Ind. Lin.	±5%	±5%	±5%	±5%	Mountings Avail.	Thrd. Bushing	Thrd. Bushing	Eyelet Mount	Eyelet Mount

PRECISION LOW-COST P-SERIES POTENTIOMETERS



Low-cost P-series precision potentiometers are designed to meet the growing demand for economical precision potentiometers in commercial instrumentation. Precision features developed for stringent military applications have been retained in the low-cost P-series. In addition, the moulded bakelite housing minimizes distributed capacitance providing wide frequency response and stability in extremes of humidity.

Low temperature coefficient of resistance wire produces stability in extremes of temperature. Up to 6 caps can be ganged on a single shaft. Specially designed clamp rings permit independent phasing of each cup.



	P1 1/4	P1 3/8	P3		P1 1/4	P1 3/8	P3
Description	Low Cost Moulded Bakelite	Low Cost Moulded Bakelite	Low Cost Moulded Bakelite	Description	Low Cost Moulded Bakelite	Low Cost Moulded Bakelite	Low Cost Moulded Bakelite
Case Size	1 1/4" d.	1 3/8" d.	3" d.	Stand. Wind. Angle	315° ±5°	315° ±3°	320° ±3°
Resis. Range	100 to 100K	100 to 150K	100 to 200K	Conserv. Pow. Rat. (Watts at 25°C)	2 1/2	4	8
Stand. Ind. Lin.	±2%	±0.75%	±0.5%	Mountings Avail.	Thrd. Bushing: P1 1/4 With add'l prec. pilot: SP 1 1/4	Thrd. Bushing: P1 3/8 With add'l prec. pilot: SP 1 5/8	Tapped Hole: P3 Servo: SP3
Spec. Ind. Lin.	±0.5% above 5K	±0.25% above 5K	±0.15% above 5K				

PRECISION MULTITURN POTENTIOMETERS

TIC manufactures a complete line of precision multi-turn potentiometers of the highest quality for precision computer, servomechanisms and electromechanical instrumentation service. The M10T provides wide temperature and resistance ranges . . . extreme electrical accuracy and stability. Extremely precise tolerances in shaft diameter, concentricity, and perpendicularity assures complete transfer of M10T accuracy to external systems. One-piece unit of all functional parts . . .

stainless-steel cover . . . and bonding of cover to one-piece base provides complete environmental protection.

The 10-turn L10S precision potentiometer combines miniaturization with performance. Wide temperature range (-55°C to $+130^{\circ}\text{C}$) and wide resistance range (1K to 100K ohms) of the L10S provide versatility.

	L10S	M10T
Description	Ten Turn Miniature	Ten Turn High Precision
Case Size	$3/8''$ d.	$1\ 1/8''$ d. approx.
Resis. Range	1K to 100K	1K to 10K
Stand. Ind. Lin.	$\pm 0.05\%$	$\pm 0.025\%$
Spec. Ind. Lin.	$\pm 0.025\%$ above 10K	$\pm 0.01\%$ for high R
Stand. Wind. Angle	$3600^{\circ} \pm 1^{\circ}$ -0°	$3600^{\circ} \pm 1^{\circ}$
Conserv. Pow. Rat. (Watts at 25°C)	5	5
Mountings Avail.	Servo	Servo and Tapped Hole



As the leader in design and production of precision potentiometers TIC conducts extensive research and development programs to fulfill — and in many cases anticipate — the needs of the electronics industry. If your application is so unique as to require modification in present potentiometer design — or a completely new design concept — TIC's experience can help solve your design problem.



PRECISION TRANSLATORY POTENTIOMETERS

TIC Precision Translatory Series differs from other potentiometers in that resistance variation is attained by means of linear (translatory) motion rather than the conventional shaft rotational method. Unique design permits up to three completely isolated resistance elements with separate brush arms and take-offs in a single housing. The RVT translatory can be provided with both linear and nonlinear resistance functions.

	RVT
Description	Translatory
Strokes	$2\ 1/2''$ $3''$ $8''$ $12''$
Case Sizes	$1\ 1/4'' \times 1\ 1/4''$ $\times 4''$ $\times 6\ 1/2''$ $\times 9\ 1/2''$ $\times 12''$ (approx.)
Conserv. Pow. Rat. (Watts at 25°C)	$2\ 1/2$ 5 6 12
Mountings Avail.	Ybrd. Bushing

SINE-COSINE AND OTHER PRECISION NONLINEAR POTENTIOMETERS

The RVP3-S59 Precision Sine-Cosine Potentiometer represents another first for Technology Instrument Corporation. Patented double-contoured resistance element card makes possible the extreme accuracy of the RVP3-S59 and other standard nonlinear potentiometers. Double-contoured card (resistance element card is contoured symmetrically on both edges) also permits greater flexibility in the design of nonlinear functions. TIC's precision sine-cosine variable resistor RVP3-S59 is

especially designed for precision resolution of voltages into sine and cosine components. High resolution adds to the high conformity of the output to a sine function to achieve the extreme accuracy of the RVP3-S59. Because of the fact that the RVP3-S59 is a resistive device no compensation is required for reactive elements or frequency characteristics. May also be used on both AC and DC systems . . . over wide frequency ranges.



	PVP3-S59	RVP3-S200	RVP3-S208		RV2-S373	RV2-S417	RV154-S247
Description	Sine-Cosine	Double sided square-law	50 db Logarithmic (Exponential)	Description	Sine function	20 db Logarithmic (Exponential)	Single sided square-law
Case Size	$3''$ d.	$3''$ d.	$3''$ d.	Case Size	$2''$ d.	$2''$ d.	$1\ 1/2''$ d.
Winding Resis.	20K	25K	15K	Winding Resis.	9.5K	3.6K	10K
Ind. Conform.	$\pm 0.5\%$ peak to peak	$\pm 0.25\%$ of total V	$\pm 2\%$ constant frac.	Ind. Conform.	$\pm 2\%$ peak to peak	$\pm 1\%$ of total V	$\pm 0.05\%$ of total V
Function Angle	360°	360°	320°	Function Angle	360°	281°	350°
Conserv. Pow. Rat. (Watts at 25°C)	4	3	1.5	Conserv. Pow. Rat. (Watts at 25°C)	2.5	2.5	2.5
Mounting	Tapped Hole or Servo S156	Servo or Tapped Hole S121	Servo or Tapped Hole S204	Mounting	Servo or Tapped Hole S336	Servo or Tapped Hole S412	Servo or Tapped Hole S245

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4-250A 4X150G
4-400A 4X250B
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4PR60A 4X250M
4W300B 4X500A
4W2000A 4X500F
 4X5000A



TRIODES

2C39A 100TH
2C39B 100TL
3C24 152TH
3W5000A3 152TL
3W5000F3 250TH
3W10000A3 250TL
3X2500A3 304TH
3X2500F3 304TL
3X3000A1 450TH
3X3000F1 450TL
6C21 592/3-200A3
 750TL
25T 1000T
35T 1500T
35TG 2000T
75TL

PENTODE

4E27A/5-125B



RECTIFIERS

2-01C 8020 (100R)
2-25A 2X1000A
2-50A 2X3000F
2-150D KY21A
2-240A RX21A
2-2000A 866A
250R 872A
253



KLYSTRONS

3K2500SG 3K50, 000LA
3K3000LA 3K50, 000LF
3K3000LQ 3K50, 000LK
3KM3000LA* 4K50, 000LO
3K20, 000LA 4K50, 000LQ
3K20, 000LF 1K015XA
3K20, 000LK 1K015XG

TETRODES

TRIODES

PENTODE

KLYSTRONS

EIMAC TUBE TYPE	MAXIMUM RATINGS					ELECTRICAL CHARACTERISTICS				
	Plate Dissipation Watts	Plate Voltage	Plate Current Milliamperes	Grid Dissipation Watts	Screen Voltage	Screen Dissipation Watts	Filament, Volts	Filament, Amperes	Amplification Factor	Transconductance umhos
4-65A	65	3000	150	5	400	10	6	3.5	5	4000
4-125A	125	3000	225	5	400	20	5	6.5	5.9	2450
4-250A	250	4000	350	10	600	35	5	14.5	5.1	4000
4-400A	400	4000	350	10	600	35	5	14.5	5.1	4000
4-1000A*	1000	6000	700	25	1000	75	7	21	7	10,000
4PR60A*	60	20,000	†	†	1500	8	26	2.25	†	†
4W300B**	300	1250	250	2	300	12	6	2.6	5	12,000
4W20,000A**	20,000	8000	15,000	60	1500	200	10	30	5.5	75,000
4X150A*	150	1250	250	2	300	12	6	2.6	5	12,000
4X150D*	150	1250	250	2	300	12	26.5	.57	5	12,000
4X150G*	150	1250	250	2	300	12	2.5	6.25	5	12,000
4X250B*	250	2000	250	2	300	12	6	2.1	5 ²	12,000
4X250F*	250	2000	250	2	300	12	26.5	0.59	5	12,000
4X250M*	250	2000	250	2	300	12	26.5	0.57	5	12,000
4X500A*	500	4000	350	10	500	30	5	13.5	5	5200
4X500F*	500	4000	350	10	500	30	5	13.5	6.2	5200
4X5000A*	5000	7500	2500	75	1500	...	7.5	75	5	35,000
2C39A*	100	1000	125†	2	...	...	6.3	1	100	22,000
2C39B*	100	1000	125†	2	...	...	6.3	1	100	22,000
3C24	25	2000	75	7	...	...	6.3	3	24	2500
6C21	300	30,000	†	†	...	...	8.2	17	30	6100
3W5000A3**	5000	6000	2500	150	...	...	7.5	51	20	20,000
3W5000F3**	5000	6000	2500	150	...	...	7.5	51	20	20,000
3W10,000A3**	10,000	5000	10,000	100	...	...	10	30	20	55,000
3X2500A3*	2500	6000	2500	150	...	...	7.5	51	20	20,000
3X2500F3*	2500	6000	2500	150	...	...	7.5	51	20	20,000
3X3000A1*	3000	6000	2500	50	...	...	7.5	51	5	11,000
3X3000F1*	3000	6000	2500	50	...	...	7.5	51	5	11,000
25T	25	2000	75	7	...	...	6.3	3	24	2500
35T	50	2000	150	15	...	...	5	4	39	2850
35TG	50	2000	150	15	...	...	5	4	39	2850
75TH	75	3000	225	16	...	...	5	6.25	20	4150
75TL	75	3000	225	13	...	...	5	6.25	12	3350
100TH	100	3000	225	20	...	...	5 **	6.3	38	4500
100TL	100	3000	225	15	...	...	5	6.3	14	3000
152TH	150	3000	450	30	...	...	5 or 10	12.5 or 6.25	20	8300
152TL	150	3000	450	25	...	...	5 or 10	12.5 or 6.25	12	7150
250TH	250	4000	350	40	...	...	5	10.5	37	5600
250TL	250	4000	350	35	...	...	5	10.5	14	2650
304TH	300	3000	900	60	...	...	5 or 10	25 or 12.5	20	16,700
304TL	300	3000	900	50	...	...	5 or 10	25 or 12.5	12	16,700
450TH	450	6000	600	80	...	...	7.5	12	38	6650
405TL	450	6000	600	65	...	...	7.5	12	18	5000
592/3-200A3	200	3500	250	25	...	...	10	5	25	3600
750TL	750	10,000	1000	100	...	...	7.5	21	15	3500
1000T	1000	7500	750	80	...	...	7.5	15.5	35	9050
1500T	1500	8000	1250	125	...	...	7.5	24	24	10,000
2000T	2000	8000	1750	150	...	...	10	23.5	23	11,000
4E27A/5-125B	125	4000	200	5	750	20	5	7.5	5	2150
	Frequency Range Mc.	Collector Dissipation Watts	Beam Voltage	Beam Current Amperes	POWER OUTPUT WATTS					
					TV Peak Synchronizing Level	CW Power Amplifier				
3K2500SG*	1700-2400	3000	7000	0.575	1500	1250				
3K3000LA*	375-570	3000	9000	0.59	2700	2000				
3K3000LQ*	700-1000	3000	9000	0.59	2700	2000				
3KM3000LA*	375-570	3000	9000	0.59	2700	2000				
3K20,000LA**	470-580	20,000	14,000	1.7	5500	3000				
3K20,000LF**	580-720	20,000	14,000	1.7	5500	3000				
3K20,000LK**	720-890	20,000	14,000	1.7	5500	3000				
3K50,000LA**	470-580	50,000	19,500	2.56	12,000	10,000				
3K50,000LF**	580-720	50,000	19,500	2.56	12,000	10,000				
3K50,000LK**	720-890	50,000	19,500	2.56	12,000	10,000				
3K50,000LQ**	850-1000	50,000	19,500	2.56	12,000	1,000				
4K50,000LQ**	700-1000	50,000	20,000	2.5	12,000	6000				
	D-C Resonator Voltage	Resonator Dissipation	D-C Cathode Current	D-C Repeller Voltage	Heater Voltage	Heater Current	Frequency Range			
1K015XA	350	15	45	0 to -500	6.3	0.80	8700-9400			
1K015XG**	350	15	45	0 to -500	6.3	0.80	8700-9400			

*Requires forced-air cooling

**Water-cooled

***Waveguide output connections

†Cathode Current

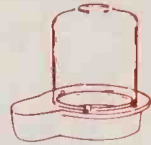
‡Pulse Modulator

1 Pulse Clipper Service

2 Grid-to-screen amplification factor

Electronics Around the World

Continuing research and development adds constantly to the Eimac products list. For latest information, contact our Technical Services Department.

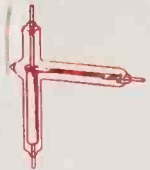


AIR SYSTEM SOCKETS

SK-300 SK-610
SK-400 SK-406
SK-500 SK-506
SK-600 SK-606



HR HEAT DISSIPATING CONNECTORS



VACUUM SWITCH

VS-2, 5, 6



CONTACT FINGER STOCK

17/32 13/16
31/32 1-17/32
1-3/8 2-1/4

VARIABLE VACUUM CAPACITORS

VVC60-20
VVC2-60-20
VVC4-60-20

VACUUM CAPACITORS

VC6-20 VC25-20
VC6-32 VC25-32
VC12-20 VC50-20
VC12-32 VC50-32

TUBE EXTRACTOR

4X150

RECTIFIERS

TYPE	FILAMENT VOLTAGE	HIGH VACUUM TYPES			
		FILAMENT CURRENT AMPS.	PEAK INVERSE VOLTAGE	CURRENT PEAK PLATE AMPS.	AVERAGE PLATE CURRENT MA.
2-01C	6.3	0.4	1,000	0.010	...
2-25A	6.3	3.0	25,000	1.0	50
2-50A	5.0	4.0	30,000	1.0	75
2-150D	5.0	13.0	30,000	3.0	250
2-240A	7.5	12.0	40,000	4.0	500
2-2000A	10.0	25.0	75,000	12.0	750
250R	5.0	10.5	60,000	2.5	250
253	5.0	10.0	15,000	2.5	275
8020(100R)	5.0	6.5	40,000	1.5	100
2X1000A*	26.5	2.25	25,000	25.0	1250
2X3000F	7.5	51.0	25,000	12.0	3000

MERCURY VAPOR TYPES

*KY21A	2.5	10.0	11,000	3	750
RX21A	2.5	10.0	11,000	3	750
866A	2.5	5.0	10,000	1	250
872A	5.0	7.5	10,000	5	1250

VACUUM CAPACITORS

TYPE	VARIABLE		FIXED		
	CAPACITY	RF PEAK	TYPE	CAPACITY	RF PEAK
VVC60-20	10-60 mmfd	20-KV	VC6-20	6 mmfd	20-KV
VVC2-60-20	Split Stator	40-KV	VC6-32	6 mmfd	32-KV
			VC12-20	12 mmfd	20-KV
	Parallel	20-120 mmfd	VC12-32	12 mmfd	32-KV
			VC25-20	25 mmfd	20-KV
VVC4-60-20	Split Stator	40-KV	VC25-32	25 mmfd	32-KV
			VC50-20	50 mmfd	20-KV
	Parallel	40-250 mmfd	VC50-32	50 mmfd	32-KV

AIR SYSTEM SOCKETS & CHIMNEYS

SOCKETS (WITHOUT CHIMNEY)

SK-300 (4X5000A/4001)
SK-400 (4-400A/4001)
SK-500 (4-1000A/4001)
SK-600 (4X150A/4001)
SK-610 (4X150A/4011)

CHIMNEYS

SK-406 (4-400A/4006)
SK-506 (4-1000A/4006)
SK-606 (4X150A/4006)

HEAT DISSIPATING CONNECTORS

TYPE	HOLE DIA.
HR-1	.052
HR-2	.0625
HR-3	.070
HR-4	.1015
HR-5	.125
HR-6	.360
HR-7	.125
HR-8	.570
HR-9	.570
HR-10	.500

4X150 TUBE EXTRACTOR

A spring steel extractor for use with the 4X150 series and 4X250 series.

VACUUM SWITCH

Single pole double throw switch within a high vacuum adaptable for high voltage switching. Contact spacing .015". Switch will handle R-F potentials as high as 20 Kv. In DC switching will handle approximately 1.5 Amps. at 5 Kv.

VS-2
VS-5
VS-6
Coils
12V
24V

PREFORMED CONTACT FINGER STOCK

A prepared strip of spring material slotted and formed into a series of fingers designed to make sliding contact.

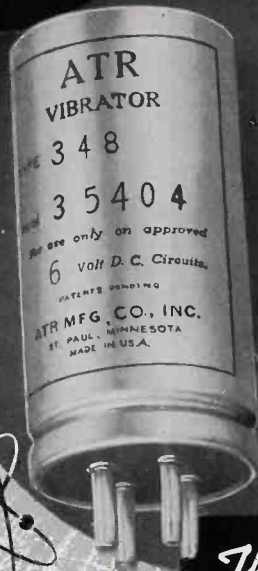
Single Edge	Width	Price	Double Edge	Width	Price
CF-100	17/32	1.65/ft.	CF-200	13/16	2.10/ft.
CF-300	31/32	1.80/ft.	CF-400	1-17/32	2.55/ft.
CF-500	1-3/8	2.00/ft.	CF-600	2-1/4	2.95/ft.

Klystron Types
CF-700 1.90/ft. Used as contact between klystrons and
CF-800 1.85/ft. klystron amplifier circuit assemblies.

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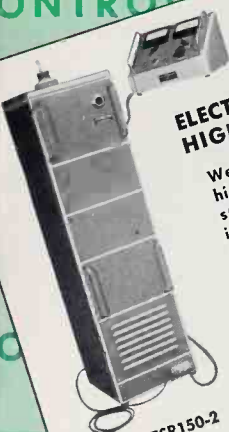
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NEW

**ELECTROSTATIC GENERATOR
HIGH VOLTAGE SUPPLIES**



Well-regulated, easily-controlled high voltage supplies providing substantial and laboratory applications. These highly efficient electrostatic units offer a safe, simple and compact high voltage source for many operations, such as non-destructive insulation testing, electrostatic precipitation and particle acceleration.

Model ESR150-2

ELECTRICAL CHARACTERISTICS:

- Input: ESR150-2: 220 volt, 3 phase 50 or 60 cycles
- Output voltage: 50-150 kilovolts
- Output current: 2.4 ma. maximum
- Regulation: $\pm 2\%$ against load, $\pm 4\%$ against line
- Stability: EPR150-2: 220 volt, 3 phase 50 or 60 cycles
- 5-160 kilovolts
- 2.0 ma. maximum
- $\pm 0.2\%$ against load; better than $\pm 0.1\%$ against line
- $\pm 0.02\%$ per minute with a maximum of 1% during warm-up

NEW

WIDE RANGE FREQUENCY CHANGER



Model FCR250

Latest, most versatile addition to the Sorensen line of regulated electronic frequency changers, the Model FCR250 converts your 50 or 60 cycle line to regulated output at any desired frequency between 320 and 1000 cps. This portable, practical unit can solve a wide variety of your laboratory, test or production requirements.

ELECTRICAL CHARACTERISTICS:

- Input: 105-125 VAC, 1 phase, 50-65 cycles
- Output voltage: 115 VAC, adjustable 105-125V
- Output Frequency: 320-1000 cps in two ranges
- Voltage regulation: $\pm 1\%$
- Frequency Regulation: $\pm 1\%$ ($\pm 0.01\%$ with auxiliary frequency standard fixed at 400 cycles)
- Load range: 0-250 VA



1956

**CONDENSED
STANDARD
SPECIFICATIONS**

other units



Model E-6-15A

NOBATRONS (Reg. U.S. Pat. Off.)
(low-voltage, high-current, regulated DC sources).

Provide stability comparable to batteries and eliminate recharging interruptions, fume and acid hazards, installation difficulties.

Models available (numbers indicate voltage & current)
E-6-15A, E-6-40A, E-6-100A, E-12-5, E-12-15, E-12-50A, E-28-5, E-28-10, E-28-30, E-28-70, E-28-150, E-48-15, E-125-10, E-200-5.

ELECTRICAL CHARACTERISTICS

Input 95-130 VAC, 1 ϕ , 50-60 cycles.
190-260 VAC, 1 ϕ , for E-28-70,
120/208, 3 ϕ , 4-wire wye for
E-28-150.
Reg. accuracy $\pm 0.2\%$ against line (105-125
volts or 200-240 volts).
 $\pm 2.3\%$ against load (1/10 to
full).
Ripple 1% max. at 60 cycles.
Output voltage & volt units.
adjustment range 5.6 to 7.7 volts in two ranges.
E-12-50A,
9.0 to 17.4 volts in two ranges.
E-200-5, $\pm 50\%$,
all others $\pm 10\%$, -20% .
Recovery time 0.2 seconds on all models but
E-28-70 (0.55 sec.) and
E-28-150 (0.3 sec.)



Model SR2

NOBATRON-RANGERS

(wide-range-variable regulated DC sources).

These versatile and popular instruments have electrical characteristics similar to the standard Nobatrons, except that output voltage is continuously adjustable.

ELECTRICAL CHARACTERISTICS

Input 95-130 VAC, 1 ϕ , 50-60 cycles for SR30 and SR100.
190-260 VAC, 1 ϕ , 50-60 cycles for the SR2.
Reg. accuracy $\pm 0.25\%$ at any voltage setting
Ripple 1% RMS max.
Output: Model SR100 SR30 SR2
VDC 5-135 5-30 100-300
Amps 1-10 3-30 1-10



Model 600B

B-NOBATRONS

(high-voltage, low-current, regulated DC supplies).

Designed to meet the broadest technical and economical requirements. The internal impedance figures given are from measurements in accordance with IRE specifications for measurement of power supply internal impedance.

ELECTRICAL CHARACTERISTICS

Model	325B0	550B0	500B0	600B	1000B
Output voltage (VDC)	0-325	0-500	0-500	0-600	700-1100
Output current (Ma)	0-125	0-200	0-300	0-500	0-500
Reg. accuracy	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 0.5\%$	$\pm 0.25\%$	$\pm 0.5\%$
Ripple (mV-RMS)	5 max.	5 max.	5 max.	3 max.	20 max.
Bias supply (VDC at 0.5 Ma)	0-150	0-150	0-150	0-150	none
Internal impedance (max.)	2.0 ohms	2.0 ohms	2.0 ohms	2.0 ohms	2.0 ohms
AC input range (50-60 ϕ , 1 ϕ)	105-125	105-125	105-125	105-125	105-125
AC voltage (C.T., unreg.)	6.3 at 6.3 at	6.3 at 6.3 at	6.3 at 6.3 at	6.3 at 6.3 at	6.3 at 6.3 at
	10 amp.	10 amp.	10 amp.	15 amp.	15 amp.
Max. bias circuit impedance	25000	25000	25000	50000	50000
	ohms	ohms	ohms	ohms	ohms



Model FL5015

FILTER SECTIONS FOR NOBATRONS

The ripple voltage of all Nobatrons is 1% of the nominal output voltage setting, under worst conditions. This is adequate for most applications. If, however, less ripple is required, Filter Sections are available for use with units rated up to 50 amperes, which will reduce the ripple to 0.1%.



Model DE-28-10

400-CYCLE INPUT NOBATRONS

These instruments are not normal production items but are available on an extended delivery schedule.

ELECTRICAL CHARACTERISTICS

Output voltage and load range Model DE-6-40 — 6 VDC at 4 to 40 amperes.
Model DE-12-10 — 12 VDC at 1 to 10 amperes.
Model DE-28-10 — 28 VDC at 1 to 10 amperes.
Input voltage 105-125 VAC, 1 ϕ , 360-440 cycles.
Reg. accuracy $\pm 0.25\%$.
Ripple 1% RMS maximum.
Recovery time 0.2 seconds.



HERMETICALLY SEALED & MILITARIZED REGULATORS

The wound components of many Sorensen instruments can be hermetically sealed by the Fosterite process or by standard potting. Sorensen also builds equipment to meet MIL-T-27 and JAN specifications on resistance to shock, vibration, humidity, etc., as well as to the new class H type high temperature design.



Model MA65A

TUBELESS REGULATED DC SOURCES

Designed for heavy-duty industrial applications, these instruments utilize magnetic amplifier principles and offer the utmost in reliability.

ELECTRICAL CHARACTERISTICS

Model	MA65A	MA640	MA2550
Input (VAC, 60 ϕ)	105-125, 1 ϕ	105-125, 1 ϕ	190-230, or 210-250, 3 ϕ , 4-wire, wye.
Output (VDC)	5-64.4, adj.	4.5-7.3, adj.	23-32, adj.
Load range	0-3 amp.	0-40 amp.	0-50 amp.
Ripple	1% max.	1% max.	3% max.
Reg. accuracy	$\pm 0.2\%$ against line at load	$\pm 1.0\%$ for any combination of line and load	
Recovery time	0.15 sec.	0.20 sec.	0.5 sec.



Model MA650

PRECISION REGULATED TUBELESS DC SOURCE

A transistorized precision regulated DC source utilizing magnetic amplifier principles. This highly-stable, temperature-compensated unit is Sorensen's new design for use with the Beckman Model DU Spectrophotometer.

ELECTRICAL CHARACTERISTICS

Input 105-125 VAC, 1 ϕ , 60 cycle.
Output #1 — 6 VDC adjustable internally $\pm 5\%$, 5 amperes load.
#2 — 6 VDC, 100 milliamperes load.
#3 — 2 VDC, 40-60 milliamperes
Reg. accuracy $\pm 0.1\%$.
Ripple 15 mv RMS max. on #1 and #2
5 mv RMS max. on #3
Stability Typical stability after a 30 minute warm-up is .01% for an eight hour period.



Model MR3215
MAGNETIC RANGE
(tubeless wide-range variable regulated DC source).

A rugged, tubeless DC source requiring negligible maintenance, the MR3215 is a highly versatile unit providing continuously adjustable output voltage.

ELECTRICAL CHARACTERISTICS

Input 105-125 VAC, 1 ϕ , 50-60 cycles
Output 5 to 32 VDC at 1.5 to 15 amperes, continuously adjustable.
Reg. accuracy $\pm 0.5\%$ against line.
Ripple 1% RMS at 32 volts.
Recovery time 0.2 sec.



AC VOLTAGE REFERENCE SOURCES

These instruments provide highly stable AC voltage for many laboratory uses such as the direct calibration of voltmeters and oscilloscopes.

Model VRS-AC750

ELECTRICAL CHARACTERISTICS

	Model VRS-AC 10	Model VRS-AC 750
Input voltage	105-125 VAC, 1 ϕ	
Output frequency	50-60 cycles; also to 400 cycles with minor loss of accuracy	60 cycles \pm .5
Output voltage	10 mv to 10 v in 3 ranges	1-799 v in 1 v steps
Calibration accuracy	\pm 0.1%	
Reg. accuracy	\pm 0.25% with line; \pm 0.25% with load of .5 megohm or higher	overall accuracy * \pm 0.25%
Distortion (generated by instrument)	negligible	1% maximum

*Much greater accuracy possible through correction curves.



Model 1001

PRECISION AC REGULATORS (electronic).

Giving ultra-precise, \pm 0.01% regulation, these instruments are rugged and serviceable, as proved by hundreds of applications in the field. Models available with capacities of 1000VA and 2500VA.

ELECTRICAL CHARACTERISTICS

Input	95-130 VAC, 1 ϕ , 50 and 60 cycles.
Output	115 VAC, 1 ϕ , adj. 110-120.
Reg. accuracy	\pm 0.01% against line, \pm 0.01% against load.
Distortion	3% maximum.
P.F. range	Unity to 0.7 lagging.
Load range	0 to full load.



Model 10005

AC REGULATORS (electronic).

Utilizing the original Sorensen circuit and incorporating the Safety Diode, these regulators are noted for accuracy, economy of operation, easy maintenance. Models available with capacities from 150VA to 15KVA, single phase.

Models available (Numbers denote VA capacities): 150S, 250S, 500S, 1000S (-25 also), 2000S, 3000S (-25 also), 5000S (-25 also), 10000S (-25 also), 15000S (-25 also).

ELECTRICAL CHARACTERISTICS

Input	95-130 VAC, 1 ϕ , 50 or 60 cycles \pm 10%. 190-260 VAC in ".25" models.
Output	115 VAC adj. 110-120; 230 VAC with ".25" models.
Reg. accuracy	\pm 0.1% against line, \pm 0.1% against load.
P.F. range	Unity to 0.7 lagging.
Distortion	Varies to 3% max. under worst conditions.
Load range	0 to full load.



THE WORLD'S AUTHORITY ON REGULATED POWER

Whatever your power control requirements, for industry, military applications or research, Sorensen can furnish a unit which meets your specifications exactly. A wide variety of instruments available in a broad range of capacities. Sorensen offers unusual experience in the engineering and production of special equipment for unique regulation problems.



Model D2500SAN

100-CYCLE AC REGULATORS

These instruments are available in models D1500SAN, D5000SAN, D12000SAN, D25000SAN (numbers 250, etc. denote VA capacities).

ELECTRICAL CHARACTERISTICS

Input	95-130 VAC, 1 ϕ , 400 cycles \pm 10%.
Output	115 VAC, 1 ϕ , adj. 110-120.
Reg. accuracy	\pm 0.25% against line, \pm 0.25% against load
Distortion	5% maximum.
P.F. range	Unity to 0.7 lagging.
Load range	0 to full load.



Model MVR500

MVR's (magnetic voltage regulators).

These magnetic voltage regulators are tubeless, give utmost reliability with good regulation. Very compact, they are ideally suited for incorporation as components. Available in capacities of 15, 30, 60, 120, 250, 500 and 1000 VA. MVR's with 6.3, 12.5 and 230 volt outputs are also planned.

ELECTRICAL CHARACTERISTICS

Input	95-130 VAC, 1 ϕ , 60 cycles.
Output	115 VAC nominal, 1 ϕ .
Reg. accuracy	\pm 0.5% against line.
Load range	0 to full load.



Model MA10005

TUBELESS AC REGULATOR

For unattended installations requiring extremely dependable automatic line regulation, the tubeless MA10005 offers stable long-life performance with an absolute minimum of maintenance.

ELECTRICAL CHARACTERISTICS

Input	95-130 VAC, 1 ϕ , 50 or 60 cycles
Output	115 VAC, adj. 110-120 v.
Reg. accuracy	\pm 0.5% against line, \pm 0.5% against load.
P.F. range	Unity to 0.7 lagging.
Distortion	3% max. at 60 cycles.
Load range	0 to 1000 VA.

CONTROLLED POWER FOR RESEARCH AND INDUSTRY

FREQUENCY CONTROL

Sorensen electronic frequency changers convert 50 or 60 cycle line to 400 cycles regulated or 60 cycles regulated. These instruments have found manifold uses in laboratories, production lines and inspection sections.

1000VA FREQUENCY CHANGERS

Model FC 1000 (45-65 cps out.)
Model FCD 1000 (360-440 cps out.)

ELECTRICAL CHARACTERISTICS

Input	208 or 230 VAC $\pm 10\%$ 1 ϕ , 50 or 60 cycles
Output voltage	115 VAC, adj. 105-125V
Voltage regulation	$\pm 1\%$
Output frequency	(FCD 1000) 360-440 cps (FC 1000) 45-65 cps
Regulation accuracy	$\pm 1\%$ ($\pm 0.01\%$ with auxiliary frequency standard fixed at 50, 60 or 400 cps.)
Load range	0-1000 VA



Model FCD1000

SPECIAL EQUIPMENT

A few examples of Sorensen's wide range of specially-engineered equipment:

AIRBORNE ELECTRONIC FREQUENCY CHANGERS AND INVERTERS

Sorensen has designed and built a wide variety of frequency changers and inverters for incorporation in military aircraft. These instruments meet a great many different specifications and are not considered standard instruments. Each customer requirement is quoted on individually. For the most part, the changers convert variable (320-1000~) input power to precision ($\pm 0.05\%$) output frequency. Most models are also voltage regulated ($\pm 1\%$) with minimum distortion (5-10%).

Sorensen airborne inverters are built to convert 28 VDC input to 400-cycle, 3-phase output, with output frequency accurate to 0.05% over wide ambients.

Sorensen's wide experience with commercial and military frequency changers may well supply the answer to your precision frequency problems. Your inquiries are earnestly solicited.

COMPUTER POWER SUPPLIES

A major extension of Sorensen's know-how in the field of regulated power has been to the design of computer power supplies. Broad experience has been accumulated in the design and production of special power sources for electronic data-processing equipment. Let Sorensen apply this experience to your computer power supply problems.

COAST-TO-COAST

The authorized Sorensen representatives listed below are at your service. Do not hesitate to call on the one nearest you for advice on regulated power requirements.

ARIZONA — Tucson
Gerald B. Miller Co.
P.O. Box 11246
Phone Tucson 4-6293

CALIFORNIA — Hollywood 28
Gerald B. Miller Co.
1550 N. Highland Ave.
Phone Hollywood 2-1195

CALIFORNIA — San Diego 6
Gerald B. Miller Co.
1263 Rosecrans Blvd.
Phone Academy 2-1121

CALIFORNIA — San Francisco
Gerald B. Miller Co.
1334 Old County Rd., Belmont
Phone Lytell 3-3438

COLORADO — Denver 3
Hytronic Measurement Associates
446 Broadway
Phone Sherman 4-2241

CONNECTICUT — Bridgeport
Yewell Associates
1101 East Main Street
Phone Forest 6-3456

D.C. — Washington 9
Harman Associates, Inc.*
2017 S. Street, N.W.
Phone Decatur 2-5705

FLORIDA — Fort Myers
Arthur H. Lynch & Associates
P.O. Box 466
Phone Edison 4-4431

GEORGIA — Atlanta
Floyd Fausett & Son
777 Pinehurst Terrace, S.W.
Phone Raymond 3104

ILLINOIS — Chicago 39
Loren F. Green & Associates
5218 W. Diversey Avenue
Phone Palisade 3-6824

MARYLAND — Baltimore
Harman Associates, Inc.
635 St. Johns Road
Phone Hopkins 7-2290

MASSACHUSETTS — Boston
Yewell Associates*
751 Main Street, Waltham
Phone Twinbrook 3-7420

MICHIGAN — Detroit
S. Sterling Company*
15310 W. McNichols Road
Phone Broadway 3-2900

MISSOURI — Kansas City 30
Harris-Hanson Co.
7916 Paseo Ave.
Phone Hiland 6744

MISSOURI — St. Louis 17
Harris-Hanson Co.
2814 South Brentwood Blvd.
Phone Mission 7-4350

NEW JERSEY (Northern)
RMC Associates
114 East Main Street, Bogota
Phone Diamond 2-5343

NEW JERSEY (Southern)
I. E. Robinson Co.
702 Mattison Ave., Asbury Park
Phone Dunkirk 9-2404

NEW MEXICO — Albuquerque
Gerald B. Miller Co.
627 Wyoming, S.E.
Phone 5-6466

NEW YORK — New York
RMC Associates*
170 East 80th Street
Phone Trafalgar 9-2023

NEW YORK — Syracuse 2
J. D. Ryerson Associates, Inc.*
412 E. Genesee Street
Phone Syracuse 76-8344

NORTH CAROLINA — Charlotte
James L. Highsmith
P.O. Box 1011
Phone 5-6436

OHIO — Cleveland 21
S. Sterling Co.
4311 Mayfield Rd.
Phone Evergreen 2-4114

OHIO — Dayton 2
S. Sterling Co.
379 West 1st Street
Phone Fulton 8794

OREGON — Portland 16
James L. Kearns Company
P.O. Box 5108
Phone Belmont 6-2444

PENNSYLVANIA — Harrisburg
I. E. Robinson Co.
2120 Market St.
Camp Hill, Pa.
Phone Regent 7-5541

PENNSYLVANIA — Philadelphia
I. E. Robinson*
7404 W. Chester Pike,
Upper Darby, Pa.
Phone Sherwood 8-1294

PENNSYLVANIA — Pittsburgh
H. E. Ransford Co.
Grant Building
Phone Grant 1-1880

TENNESSEE — Knoxville
A. R. Hough Co.
P.O. Box 1452
Phone Knoxville 7-6660

TEXAS — Dallas 5
Earl W. Lipscomb Associates*
P. O. Box 7084
Phone Elmhurst 5345

TEXAS — Houston 5
Earl W. Lipscomb Co.
2422 Rice Blvd.
Phone Jackson 4-9303

HAWAII — Honolulu 17
Gene Piety
2030 Home Rule St.

CANADA — Vancouver 5, B.C.
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1170 Hobson St.
Phone Tatlow 5377

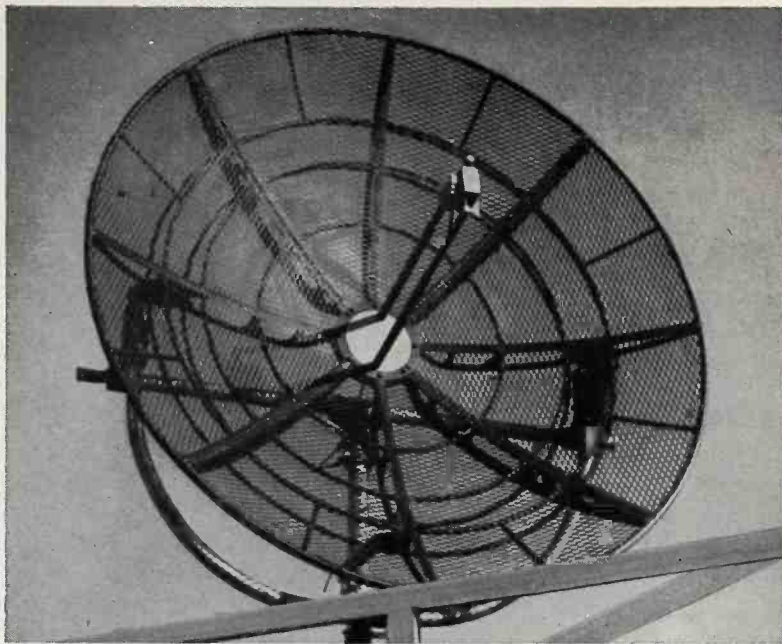
CANADA — Toronto 10, Ontario
Charles W. Pountain, Ltd.
6 Alcina Ave.
Phone Oliver 7984

*Complete service facilities maintained for rapid local servicing of all Sorensen equipment.

WRITE FOR LITERATURE

Send for complete information, including specifications, performance data and quotations. Product data sheets are issued on all new units as they become available. Inquiries regarding special applications and specifications are invited. Address Sales Engineering Department, Sorensen & Company, Inc., 375 Fairfield Avenue, Stamford, Conn., or your local representative. In Europe, please contact directly Sorensen-Ardag, Eichstrasse 29, Zurich 3, Switzerland.





TACO eight foot dish in a typical installation.

SPECIALIZED ANTENNA SYSTEMS

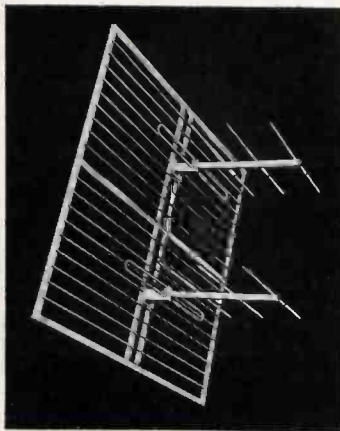
SUPPLEMENTING our line of Special Purpose antennas embracing the frequencies of 50 MC through 4000 MC, our engineering design and production facilities have been expanded by the addition of dishes and multi-driven element antennas for all communication purposes. **IN SPECIALIZING ON ANTENNAS WITHIN THE FREQUENCY RANGE OF 50 THROUGH 4000 MC, TACO MAINTAINS A HOLD ON TOP PLACE WITHIN THIS PORTION OF THE SPECTRUM.**

TACO developed and built the special Mini-Track antenna design for tracking the earth satellite in the Vanguard project.

RUGGEDIZED COMMUNICATION ANTENNAS

Illustrated is one of the fully welded broad-band communications antennas designed and built by TACO. Extensively used in communications, these ruggedized antennas provide day in and day out uninterrupted service so vital in the communications field.

TACO's communication antennas embrace sixty-three (63) models, each having a specific application within the frequency range of 50 to 4000 MC. Complete details are available in a bound brochure. When requesting catalogs, it will help if you specify your application and the frequency range.



TACO

Commercial and Government Division
TECHNICAL APPLIANCE CORPORATION, Sherburne, N. Y.
 In Canada: Hackbusch Electronics Ltd., Toronto 4, Ont.

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1956-1957

OFFICIAL RESISTOR ENGINEERING GUIDE

CONTINUED FROM OTHER SIDE



FIXED AND ADJUSTABLE RESISTORS (Continued)

IRC Type	JAN or MIL Equivalent	Rated Wattage	Standard Tolerance Percent	Temp. rise at rated load/°C.	Temp. Coefficient %/°C.	Max. Operating Temp./°C.	OHMIC VALUES AVAILABLE		DIMENSIONS IN INCHES			Catalog Data Sheet	APPROXIMATE PRICES Lots of 1 (See note ■) Lots of 5000 (See note ■)
							Min. (JAN or MIL)	Max. (Commercial)	Length	O.D. or Width	Ferrule O.D.x		
PRECISION WIRE WOUND RESISTORS													
WW-21J	RB-19	2.0	1	25	.0022	105	0.1	4.0 meg. 20 meg.	2 1/8	29/32	D-1	1.93 up	1.12 up
WW-31J	RB-16	.5	1	25	.0022	105	0.1	.3 meg. 1.6 meg.	7/8	19/32	D-1	1.05 up	.55 up
WW-41J	RB-17	1.0	1	25	.0022	105	0.1	.75 meg. 4.0 meg.	1 1/4	25/32	D-1	1.17 up	.67 up
WW-51J	RB-18	1.0	1	25	.0022	105	0.1	1.5 meg. 7.5 meg.	1 1/4	25/32	D-1	1.33 up	.90 up
WW-81J	RB-15	.5	1	25	.0022	105	0.1	.29 meg. 1.5 meg.	1 3/8	19/32	D-1	1.05 up	.55 up
WW-10J†	RB-15	.25	1	25	.0022	105	10	40K .215 meg.	1 3/8	9/32	D-1	.98 up	.52 up
WW-11J†	RB-16	.5	1	25	.0022	105	0.1	.4 meg. 2 meg.	2 1/8	19/32	D-1	1.00 up	.57 up

VOLTMETER MULTIPLIERS

MFA†	MFB	MFC†	0.5	55	.0022	105	3.5 meg.	6.0 meg.	10.0 meg.	9 25/32	1 25/64	D-2	prices on request
MFA†	MFB	MFC†	0.5	55	.0022	105	1.0 meg.	3.5 meg.	5.0 meg.	5 5/8	1 25/64	D-2	prices on request
MFA†	MFB	MFC†	0.5	55	.0022	105	0.5 meg.	1.0 meg.	1.0 meg.	2 1 1/2	1 1/8	D-2	prices on request

COAXIAL CABLE TERMINATION RESISTORS

IRC manufactures concentric disc type resistors in 9 different sizes—outer diameters ranging from .240 to 1 1/4". Rated wattage .8/sq. in., Standard Tolerance 20%, Temp. Rise at rated load 55°C., Max. Operating Temp. 80°C.—Values available from 5 ohms to 25,000 ohms. See Data Bulletin T-1 for individual specifications. Prices upon request.

HIGH FREQUENCY WAVE GUIDES

IRC Resistance strips are available in 6 different widths—from 7/8" to 2 3/4", lengths 12 1/2". Rated wattage .8/sq. in., Standard Tolerance 20%, Temp. Rise at rated load 55°C., Max. Operating Temp. 80°C. Values available from 19 ohms/sq. in. to 1.0 megohm/sq. in. See Data Bulletin T-1 for individual specifications. Prices upon request.

SPECIAL PRODUCTS

IRC Type No.	Ratings	Standard Tolerance Percent	Temp. rise at rated load in °C.	Max. Operating Temp. /°C.	VALUES AVAILABLE			DIMENSIONS IN INCHES			Catalog Data Sheet	APPROXIMATE PRICES Lots of 1 (See note ■) Lots of 5,000 (See note ■)
					Min.	Max.	Length	Min. Current at 2V, drop for single cell	O.D.	O.D.		
CL1/2	20	—	—	140	0.22 m.h.	1.0 m.h.	3/8	9/8	H-1	min. chg.	0.435	
CL1	10	—	—	140	0.22 m.h.	7.5 m.h.	2 3/8	1 1/4	H-1	min. chg.	.0415	
CL1	10	—	—	140	.47 m.h.	24 m.h.	1 1/4	1/4	H-1	min. chg.	.0415	
CL2	10	—	—	140	1.0 m.h.	39 m.h.	1 3/4	2 1/4	H-1	min. chg.	.0735	

CHOKES

CL1/2	20	—	—	140	0.22 m.h.	1.0 m.h.	3/8	9/8	H-1	min. chg.	0.435
CL1	10	—	—	140	0.22 m.h.	7.5 m.h.	2 3/8	1 1/4	H-1	min. chg.	.0415
CL1	10	—	—	140	.47 m.h.	24 m.h.	1 1/4	1/4	H-1	min. chg.	.0415
CL2	10	—	—	140	1.0 m.h.	39 m.h.	1 3/4	2 1/4	H-1	min. chg.	.0735

SELENIUM RECTIFIERS

6GA	25 to 46 VIP/cell	†	—	125	†	.450	SR-1	prices on request
9GA	25 to 46 VIP/cell	†	—	125	†	.510	SR-1	prices on request
28GA	25 to 46 VIP/cell	†	—	125	†	37/64	SR-1	prices on request
19PA	25 to 46 VIP/cell	†	—	125	†	5/8	SR-1	prices on request
25PA	25 to 46 VIP/cell	†	—	125	†	7/8	SR-1	prices on request
28PA	25 to 46 VIP/cell	†	—	125	†	13 m.a.	SR-1	prices on request
19PB)	25 to 46 VIP/cell	†	—	125	†	20 m.a.	SR-1	prices on request
25PB)	25 to 46 VIP/cell	†	—	125	†	†	SR-1	prices on request
28PB)	25 to 46 VIP/cell	†	—	125	†	†	SR-1	prices on request
Varistors	(supplied in same enclosures as selenium rectifiers listed above)	†	—	125	†	†	SR-3	prices on request

FEED-THRU TERMINALS

LT (new) 1,000-5,000 V.D.C.

Information and Prices on Request

200

IRC SUBSIDIARIES

MINIATURE PRECISION POTENTIOMETERS Information and Prices on Request Circuit Instruments Inc., P. O. Box 355; 1927 First Avenue, South; St. Petersburg, Florida

PRECISION WAVE FILTERS, VARIABLE ATTENUATORS, TOROID COILS, AUDIO COMPONENTS, MAGNETIC CLUTCHES, ENCAPSULATED PRECISION WIRE WOUND RESISTORS

Information and Prices on Request

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- * Also supplied with adjustable feature.
- † Non-inductive—all other types are inductive to varying degrees. See data bulletin for more details.
- ‡ See data bulletin.
- ◊ MP and MV resistors can be encapsulated to improve voltage and moisture characteristics. Several types are now available. IRC offers engineering assistance for your design and application problems.

- All IRC products may be purchased through Electronic Parts Distributors. Those identified with a ● are normally carried in their stocks.
- Prices indicated are based on average ranges & standard tolerances. Set-up & minimum charges apply in many cases. See price schedules for details.
- (new), indicates new items since January 1956.
- x Check catalog for spacing.

FOR ADDITIONAL INFORMATION send for the Technical Bulletin indicated or contact your nearest IRC representative

INTERNATIONAL RESISTANCE COMPANY



Wherever the Circuit Says

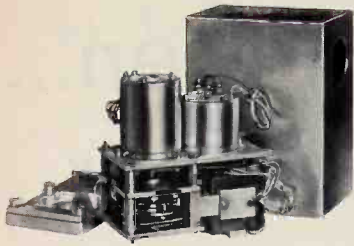
ELECTRONIC BUYERS' GUIDE, June 1956 Mid-Month

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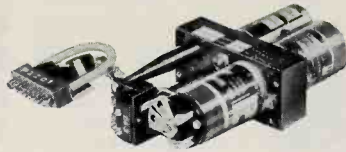
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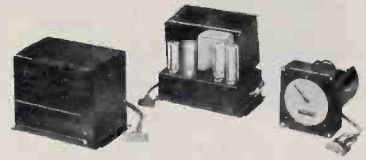
HYCOR DIVISION, IRC, 12970 Bradley Ave., Sylmar, Calif.
SUBSIDIARIES: Circuit Instruments, Inc., St. Petersburg, Florida
Hycor Co., Inc., Vega Baja, Puerto Rico
CANADIAN LICENSEE: International Resistance Co., Ltd., 349 Carlaw Avenue, Toronto 8



An incremental synchro positioner before wiring to header and hermetic sealing. The synchro rotor is stepped in one or fifteen degree increments clockwise or counterclockwise depending upon which of four coils is momentarily energized by a d-c pulse. The synchro can be rotated any number of degrees or revolutions. Cylindrical member next to the synchro resets it to electrical zero if a pulse is applied to "reset" circuit.



Type 9 motor-driven induction generator driving two Type 11CT synchros through gear train having ratio of 1500:1. Slip clutch permits one control transformer to operate when second control transformer has shaft restrained by stops. Cams close two switches during specified degrees of synchro rotation.



Equipment to indicate phase angle difference between two like frequency signals received over radio links. One chassis is a 400-cycle oscillator supply for two indicators, other chassis combines impedance matching and a servo amplifier for one indicator. Complete system includes an oscillator, two indicators, and two amplifiers.

**control
problems
like
yours**

...with but one solution

Typical of all Transicoil solutions are the three illustrated here. They "do the job right" because each is designed for a single application... by a company whose major function is to provide complete servo assemblies precisely engineered and manufactured to solve individual servo control problems.

Of course, if you want servo components, you'll find Transicoil's control motors, motor-gear train combinations, motor-gear train-generator combinations, and servo amplifiers built to the highest order of precision and accuracy. But it is in the "package" engineering of unique assemblies that Transicoil's experience and creative imagination offer the greatest value. And in most cases, these assemblies cost no more than the individual components would purchased separately. *That's why it pays to check your servo control problems out with Transicoil first.* For further information, call your nearest Transicoil representative.

thinking of automation ?

If you have a problem in the field sometimes referred to as automation, and have not worked on it before because you just haven't had the time, and outside organizations would only handle it on a "research and development" boondoggling

basis, Transicoil may solve it for you. You will be under no obligation and you'll pay only for results—on a fixed fee basis for equipment delivered and performing properly. Transicoil is a manufacturer—not a research and development organization!

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1-5330, (Jim Farrisal)—Branch Office: 8147 Delmar Blvd., ST. LOUIS 24, MO., Parkview 5-7701 (Logan Young) • LOS ANGELES 16, CALIF.: E. V. Roberts & Associates, Inc. (Ernie Roberts), 5068 Washington Blvd., Webster 3-5731—Branch Offices: 61 Renato Court, REDWOOD CITY, CALIF. and 909 North First St., PHOENIX, ARIZONA • MINNEAPOLIS 3, MINNESOTA: Bill Bartleson, Suite 502, 330 Oak Grove, Federal 3-6709 • NEWTONVILLE, MASS.: Eltron Engineering Sales, Inc. (Eugene L. Burroughs), 246 Walnut St., Decatur 2-5639 • NEW YORK 13, NEW YORK: Jack Eisenmann, 107 Grand St., Worth 2-2347 • SAN CARLOS, CALIF.: David H. Ross Company, 534 El Camino Real, Lytell 3-8224 • SEATTLE 22, WASHINGTON: Samuel N. Struam Company, 1612 Broadway—Franklin 7515 • SYRACUSE 2, NEW YORK: J. F. Wulfertange, Jr., State Tower Building, Syracuse 3-8013



RUGGEDIZED METERS



1½" Square

Meets MIL-M-10304 (SIG. C.) Accurate within ±3% of full scale deflection. Basic d-c ranges 0-100 d-c va, 0-3

d-c ma, and 0-10 d-c mv. RF and VU meters and other ranges also available.



SUB-MINIATURE ROTARY SWITCH



Wafer size 1" x 7/8". Twelve positions per deck . . . one to three decks. One, two, three or four poles per deck. Shorting or non-shorting contacts. Positive indexing with 30° spacing.

SPECIALISTS

in Sub-Miniature Panel Meters

- FIRST** in U.S. to manufacture 1" diameter meter.
- FIRST** to produce 1" and 1½" illuminated meters.
- FIRST** to produce 1½" self-contained DB and VU meters.
- FIRST** to produce Miniature Side Indicators.

1" ROUND

MODEL 100



1" barrel diameter. Full 90° scale arc, scale length .770". VU, DB and illuminated meters also available with external accessory attached.



MODEL 150



MODEL 153

1½" ROUND and SQUARE

1½" barrel diameter. Full 90° scale arc, scale length 1.322". Model 153 meets MIL-M-3823 requirements. Also available: self-contained VU and DB meters — illuminated meters with lamp housing attached.

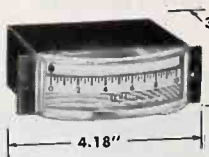
SIDE INDICATORS

• Greater readability • Smaller Panel Space • Horizontal or vertical mounting singly or with scales together.

1.3" TWO SIZES AVAILABLE:

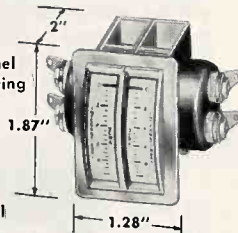
Model 1120 Scale length 1.3" Anodized aluminum case.

Model 1145 Scale length 2.75" Plastic case. Front external zero adjuster.



MODEL 1145

SINGLE HORIZONTAL MOUNTING



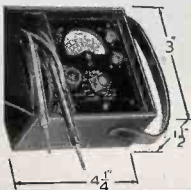
MODEL 1120

DUAL VERTICAL MOUNTING

MINIATURE MULTITESTER

Tests resistances and voltages. Sensitivity: 8000 ohms per volt on a-c ranges; 10,000 ohms per volt on d-c ranges. Accurate to ±2% of full scale deflection on d-c, ±5% on a-c.

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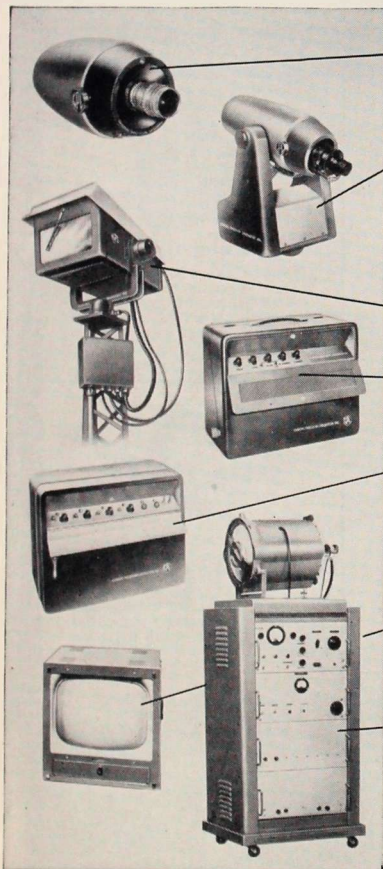
Industrial Uses Widened by New Features of GPL ii-TV®

Many additional industries are benefited, many established industrial applications made easier, by new closed-circuit equipment which has been added to the GPL ii-TV* System.

Have you a task that can be simplified by the instantaneous transmission of visual data? Like monitoring an assembly line or a remote machine? Controlling a complicated or dangerous process? Surveillance? Sales training? Stockholder relations? GPL ii-TV can help you solve these and hundreds of other business and industrial "seeing" problems.

The new GPL ii-TV equipment incorporates the same skilled design, the same top quality material and construction, for which all GPL television equipment is noted. When you use GPL ii-TV you are assured of outstanding picture quality, ease of operation and minimum upkeep. Moderate initial cost is often quickly offset by savings the equipment makes for you.

*The industrial-institutional TV System manufactured by General Precision Laboratory.



- **Basic GPL ii-TV Camera**; weighs only 5 lbs. Will resolve better than 500 lines with aperture correction to maintain high definition pick-up standards. Produces pictures with better than 20 db signal-to-noise ratio at light levels as low as 5 foot-candles. Utilizes standard 16mm C type lenses; contains only two tubes, in addition to 6198 vidicon pick-up tube.
- **Camera with Remote-Control Pan and Tilt Indoor Mounting**; provides 360° camera viewing, 90° tilt. Position accurately indicated within ± 1° on control box. Completely enclosed drive mechanisms deliver a pan speed of 1 rpm and tilt of 0.5 rpm.
- **Remote-Control Outdoor Mounting**; weather-proof under all conditions. Permits 360° camera viewing, 90° tilt. Heavy-duty pan and tilt unit equipped with solenoid brakes to prevent drift, regardless of wind velocity.
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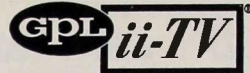
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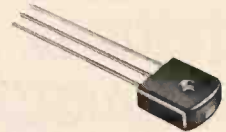
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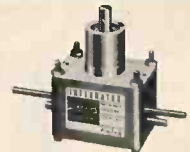
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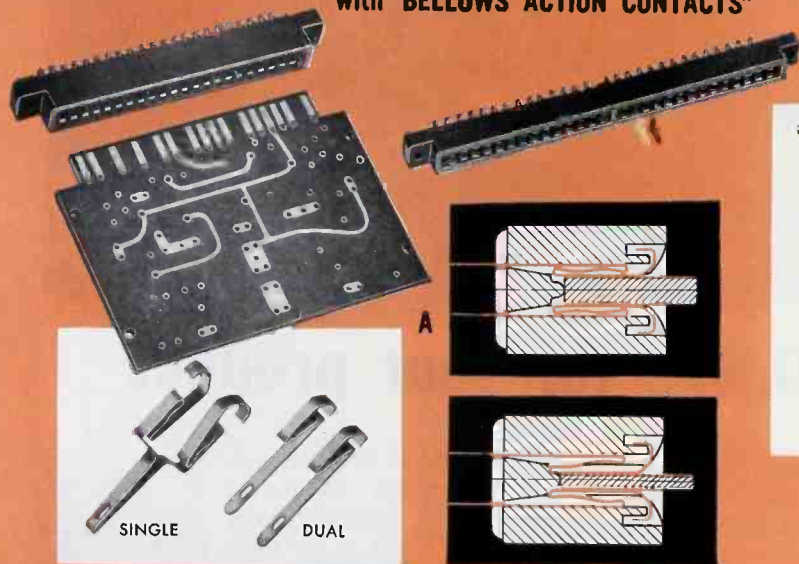
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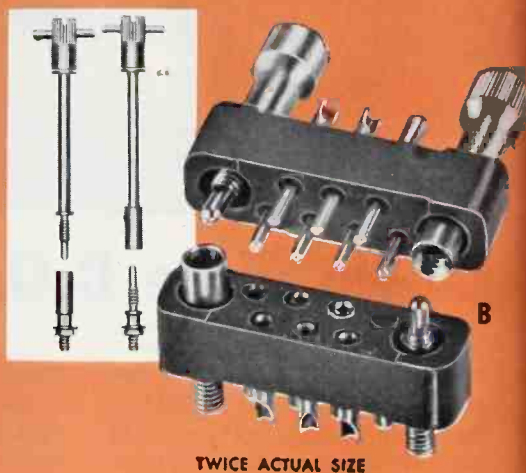
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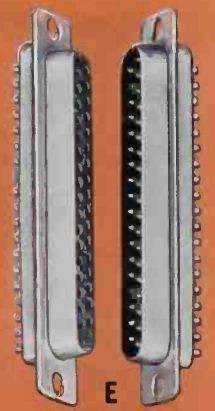
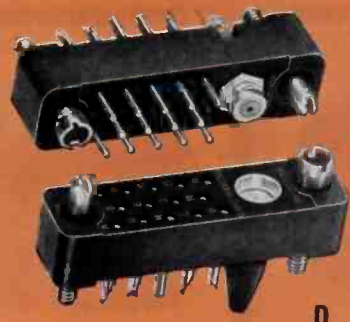
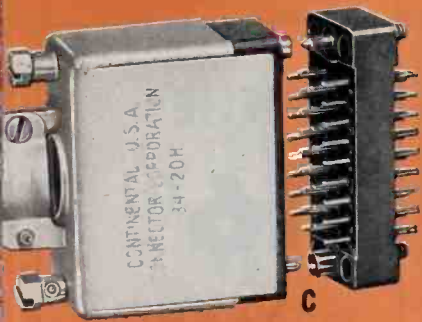
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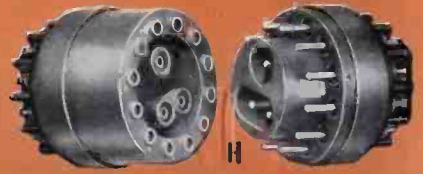
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*Patent Pending



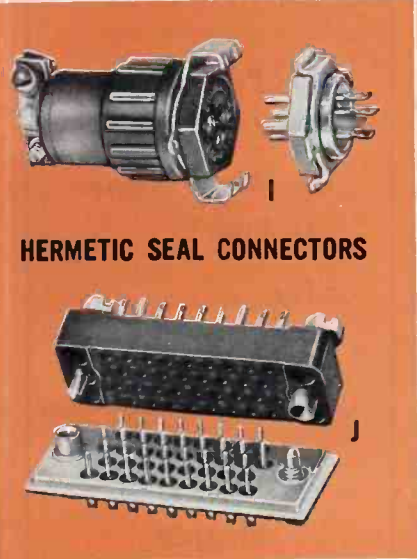
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EASY RELEASE
Pat. #2736870

MINIATURE AN-TYPE

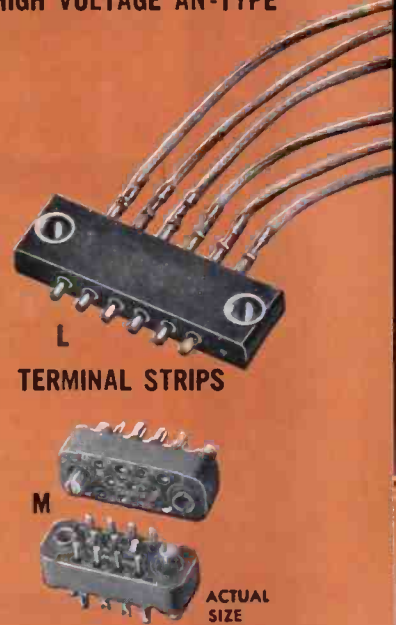
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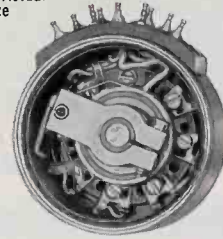
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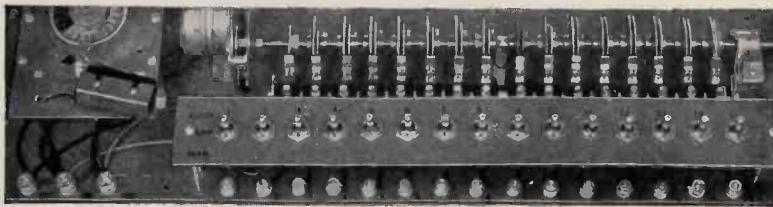
**SERIES
C-078**
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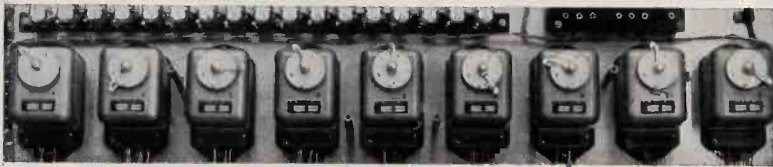
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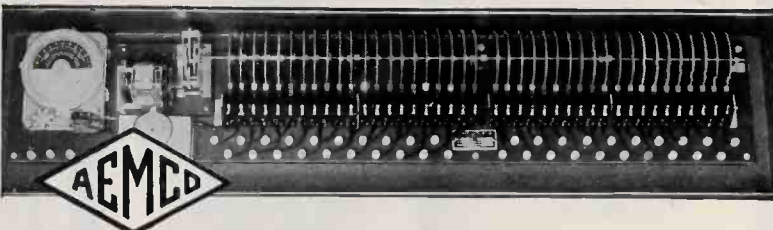
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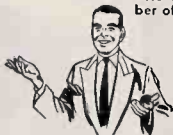
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ALUMINUM FOIL IN ROLLS SPECIFICATION INDEX

Gage in Inches	Yield in Sq. In. Per Pound	Gage in Inches	Yield in Sq. In. Per Pound
.00017	60,000	.00080	12,800
.0002	51,000	.00090	11,350
.00023	44,600	.0010	10,250
.00025	41,000	.0015	6,800
.00030	34,000	.0020	5,100
.00035	29,200	.0025	4,100
.00040	25,600	.0030	3,400
.00045	22,700	.0035	2,930
.00050	20,500	.0040	2,550
.00065	15,700	.0050	2,050
.00070	14,600		

All commercial widths available from 1/4" mounted on standard 1-5/16" I.D. metal cores.

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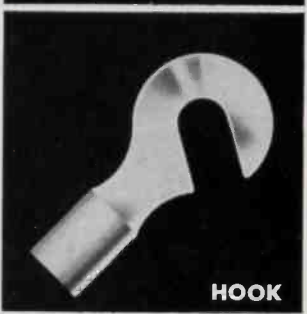
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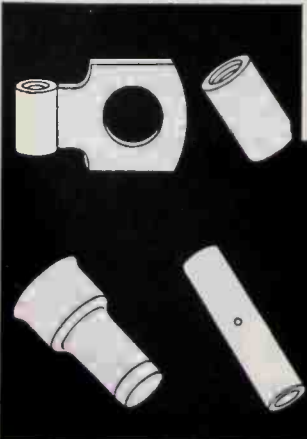
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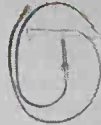


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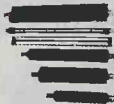
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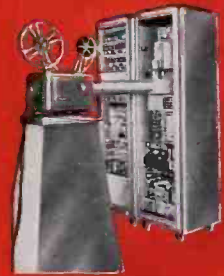
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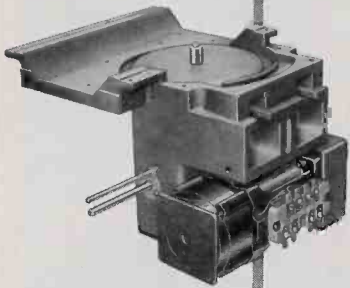
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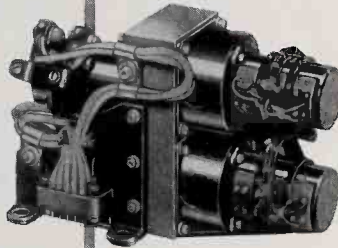
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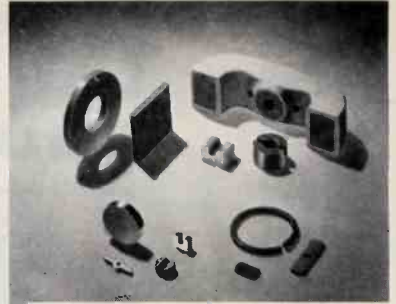
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new 8-channel analog system

In addition, *specialized* and complete Sanborn systems from 2- to 8-channels are available for recording *analog computer* outputs. The newest of these is the eight-channel Model 158-5490 illustrated, featuring extreme compactness, mobility and operating ease. Dual-channel DC amplifiers with a common power supply for every two channels measure single-ended or push-pull input signals. Input impedance 5 megohms each input lead to ground. Controls include individual-channel attenuators, position, balance, sensitivity, stylus temperature and paper speed (0.25 to 100 mm/sec.). Frequency response is flat to 20 cycles, down 2 db at 60 cycles for all amplitudes to 4 cm peak to peak.

SANBORN OSCILLOGRAPHIC RECORDING EQUIPMENT



2. PREAMPLIFIERS

3. UNIT INSTRUMENTS

All Sanborn Preamplifiers and Recorders, as well as various other units, are available separately for specialized applications or use as "original equipment" in other apparatus. Instruments include the Model 150-300/700 Wide Band Driver Amplifier and Power Supply, for use with low power galvanometer elements, a 'scope and/or panel meter. When equipped with suitable "150" preamplifier, this amplifier provides a portable indicator for strain, force, pressure, temperature, AC watts, audio level, etc. Other units include the Model 150-1900 Master Oscillator Power Amplifier; Model 150-3100 Triplexer; Model 601 and 602 galvanometers; Model 150-2900 Dual-Channel DC Amplifier.



A choice of *twelve* "150 Series" plug-in preamplifiers is now available, to equip systems for any of numerous recording problems. Improved control of input signals results from attenuator ratios of 1, 2, 5, etc., and calibrated zero suppression on AC-DC, Carrier, and Low Level models. Types, in addition to foregoing three, include: Servo Monitor, DC Coupling, Log-Audio, Chopper Stabilized DC, AC Wattmeter, Input Coupling, RMS Volt/Ammeter, 400 cycle Frequency Deviation, and Frequency Meter.

Added to these three aspects of Sanborn Oscillographic Recording Equipment are the basic advantages of inkless recording in true rectangular coordinates, to provide accurate, easily interpreted records; high torque galvanometer (10 ma develops 200,000 dyne cm.); over-all linearity 0.25 mm over entire 4 cm chart width; controls for timing, manual and remote coding.

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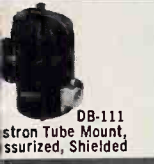
DB-2300 Standing Wave Amplifier



DB-825 Standing Wave Detector



DB-410 Precision Attenuator 0-40 DB



DB-111 Klystron Tube Mount, Serrated, Shielded



DB-350 Crystal Multiplier



DB-430-1 Librated Attenuator 0-40 DB



DB-460 High Power Termination



DB-520 Standard Gain Horn



DB-715 Variable Wavemeter, Temperature Compensated

Effective Date Jan. 1, 1956
Prices F. O. B. Pasadena, Calif.

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Size Designation	DBA 60-90 RG-98/U	DBB 50-75 RG-98/U	DBC 33-50 RG-97/U	DBD 26.5-40 RG-96/U	DBE 18.26.5 RG-53/U	DBF 12.4-18 RG-91/U	DBG 8.2-12.4 RG-52/U	DBJ 5.85-8.2 RG-50/U	DBK 3.95-5.85 RG-49/U	DBL 2.6-3.95 RG-48/U
Frequency Band in KMC										
Waveguide Nomenclature										
	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price	Cat. No.	Price
Tube Mounts										
Klystron Tube Mount					DBE-140-T	\$253				
Noise Tube Mount with Tube							DBG-111-1	\$215	DBJ-111-1	\$260
							DBG-140-T	\$119	DBK-111-1	\$263
									DBL-111-1	\$285
									DBL-140-T	\$176
Transmission Line Components										
Adaptors, Choke to Cover	DBAL-018*	\$101	DBBL-018	\$101	DBCL-018	\$97	DBDL-018	\$97	DBEL-018	\$17
Tapered Transitions										
N to Waveguide Transitions										
90° E-Plane Elbows	DBA-224	\$39	DBB-224	\$39	DBC-224	\$39	DBD-224	\$39	DBE-224	\$39
90° H-Plane Elbows	DBA-234	\$39	DBB-234	\$39	DBC-234	\$39	DBD-234	\$39	DBE-234	\$39
90° Twisted Sections	DBA-274	\$28	DBB-274	\$28	DBC-274	\$28	DBD-274	\$28	DBE-274	\$28
Bulkhead Flanges	DBA-275	\$44	DBB-275	\$44	DBC-275	\$44	DBD-275	\$44	DBE-275	\$44
Pressurizing Gauge Unit	DBA-276	\$44	DBB-276	\$44	DBC-276	\$44	DBD-276	\$44	DBE-276	\$44
Detector Mounts & Multipliers										
Movable Short Detector Mounts	DBA-313	\$105	DBB-313	\$105	DBC-313	\$105	DBD-313	\$105	DBE-313	\$105
Tunable Detector Mounts	DBA-319	\$192	DBB-319	\$192	DBC-319	\$192	DBD-319	\$192	DBE-319	\$192
Crystal Multipliers	DBB-350	\$387	DBC-350	\$277	DBD-350	\$277	DBE-350	\$277	DBF-350	\$248
Power Absorbing Units										
Flap Attenuators	DBA-410	\$358	DBB-410	\$358	DBC-410	\$358	DBD-410	\$358	DBE-410	\$358
Precision Attenuators	DBA-430-1	\$138	DBB-430-1	\$138	DBC-430-1	\$138	DBD-430-1	\$138	DBE-430-1	\$138
Calibrated Variable Attenuators	DBA-430	\$110	DBB-430	\$110	DBC-430	\$110	DBD-430	\$110	DBE-430	\$110
Variable Attenuators	DBA-440A	\$83	DBB-440A	\$83	DBC-440A	\$83	DBD-440A	\$83	DBE-440A	\$83
Fixed Padding Attenuators	DBA-450	\$44	DBB-450	\$44	DBC-450	\$44	DBD-450	\$44	DBE-450	\$44
Low Power Terminations	DBA-456-1	\$116	DBB-456-1	\$116	DBC-456-1	\$116	DBD-456-1	\$116	DBE-456-1	\$116
Movable Terminations, Vernier	DBA-459	\$215	DBB-459	\$215	DBC-459	\$215	DBD-459	\$215	DBE-459	\$215
Tunable Low Power Terminations	DBA-460	\$105	DBB-460	\$105	DBC-460	\$105	DBD-460	\$105	DBE-460	\$105
High Power Terminations										
Horns										
Pickup Horns	DBA-510	\$83	DBB-510	\$83	DBC-510	\$83	DBD-510	\$83	DBE-510	\$83
Standard Gain Horns, 15 DB	DBA-520	\$94	DBB-520	\$94	DBC-520	\$94	DBD-520	\$94	DBE-520	\$94
Tees, Junctions and Mixers										
E-Plane Tees	DBA-610	\$50	DBB-610	\$50	DBC-610	\$50	DBD-610	\$50	DBE-610	\$50
H-Plane Tees	DBA-620	\$50	DBB-620	\$50	DBC-620	\$50	DBD-620	\$50	DBE-620	\$50
Directional Couplers	DBA-630	\$110	DBB-630	\$110	DBC-630	\$110	DBD-630	\$110	DBE-630	\$110
Magic Tees	DBA-650	\$83	DBB-650	\$83	DBC-650	\$83	DBD-650	\$83	DBE-650	\$83
Frequency Meters										
Precision Broad Band Cavity	DBA-715-1	\$506	DBB-715-1	\$506	DBC-715-1	\$506	DBD-715-1	\$506	DBE-715-1	\$506
Reaction Type	DBA-715-1A	\$490	DBB-715-1A	\$490	DBC-715-1A	\$490	DBD-715-1A	\$490	DBE-715-1A	\$490
Reference Cavity, Reaction Type										
Impedance Meters										
Precision Standing Wave	DBA-825	\$495	DBB-825	\$495	DBC-825	\$495	DBD-825	\$440	DBE-825	\$440
Detector, Complete										
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Phase Shifters	DBA-915	\$110	DBB-915	\$110	DBC-915	\$110	DBD-915	\$110	DBE-915	\$110
Calibrated Phase Shifters	DBA-915-1	\$138	DBB-915-1	\$138	DBC-915-1	\$138	DBD-915-1	\$138	DBE-915-1	\$138
Variable Stub Tuners	DBA-919	\$138	DBB-919	\$138	DBC-919	\$138	DBD-919	\$138	DBE-919	\$138
Movable Shorts	DBA-969	\$39	DBB-969	\$39	DBC-969	\$39	DBD-969	\$39	DBE-969	\$39
E-H Plane Tuners	DBA-979-1	\$242	DBB-979-1	\$242	DBC-979-1	\$242	DBD-979-1	\$242	DBE-979-1	\$242



DB-915 Phase Shifter 180° Minimum



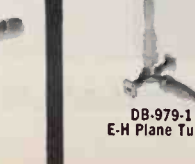
DB-919 Variable Stub Tuner



DB-2110 Universal Klystron Power Supply



DB-969 Movable Short



DB-979-1 E-H Plane Tuner



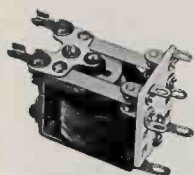
DB-420 Flap Attenuator 0-20 DB



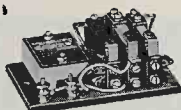
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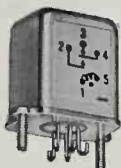
DM2C



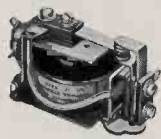
LE2C



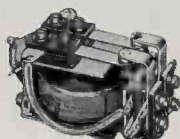
MG2C



MK2C



PC1C



PC2C



PV1A



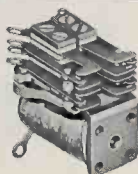
SO1C



CB1C



SV1C



TQ4C

TYPE	USE	CONTACTS		COILS	DIMENSIONS		
AM	Antenna	2 Amps	DPDT	1 to 220 VAC 1 to 150 VDC	1 $\frac{1}{8}$ "	1 $\frac{1}{2}$ "	1 $\frac{1}{4}$ "
DM	Time Delay	15 Amps	DPDT	6-12-24-110-220 A.C. 6-12-24-48-110-220 D.C.	1 $\frac{1}{8}$ "	2 $\frac{3}{8}$ "	3 $\frac{1}{4}$ "
LE	Latching	15 Amps	DPDT	Adjustable 250 MA to 500 MA	2 $\frac{1}{8}$ "	2 $\frac{1}{2}$ "	3 $\frac{3}{8}$ "
MG	Midget	2 Amps	DPDT	1 to 220 VAC 1 to 150 VDC	1 $\frac{1}{8}$ "	1 $\frac{1}{4}$ "	1 $\frac{1}{8}$ "
MK	Miniature	.5 Amps	DPDT	.8 to 140 VDC	1 $\frac{1}{32}$ "	$\frac{3}{4}$ "	$\frac{7}{8}$ "
PC	Power Control	15 Amps	SPDT	1 to 440 VAC 1 to 220 VDC	1 $\frac{1}{8}$ "	1 $\frac{1}{8}$ "	2 $\frac{1}{8}$ "
PC	Power Control	15 Amps	DPDT	1 to 440 VAC 1 to 220 VDC	1 $\frac{1}{8}$ "	1 $\frac{1}{8}$ "	2 $\frac{1}{8}$ "
PV	Power Transfer	30 Amps	SPST	1 to 440 VAC 1 to 220 VDC	1 $\frac{1}{8}$ "	2 $\frac{1}{4}$ "	3 $\frac{1}{4}$ "
SO	Sensitive	1.5 Amps	SPDT	4000 OHMS 6500 OHMS 10,000 OHMS	1 $\frac{1}{32}$ "	1 $\frac{1}{8}$ "	1 $\frac{1}{4}$ "
CB	Coaxial	.75 KW	SPDT DPDT	440 AC 230 DC	1 $\frac{1}{8}$ "	3 $\frac{1}{16}$ "	3 $\frac{3}{8}$ "
SV	Sensitive	2 Amps	SPDT	1 to 40,000 OHMS	1 $\frac{1}{2}$ "	2"	2 $\frac{1}{16}$ "
TQ	Telephone	5 Amps	6PDT	1 to 220 VDC	1 $\frac{1}{32}$ "	1 $\frac{1}{8}$ "	1 $\frac{1}{4}$ "

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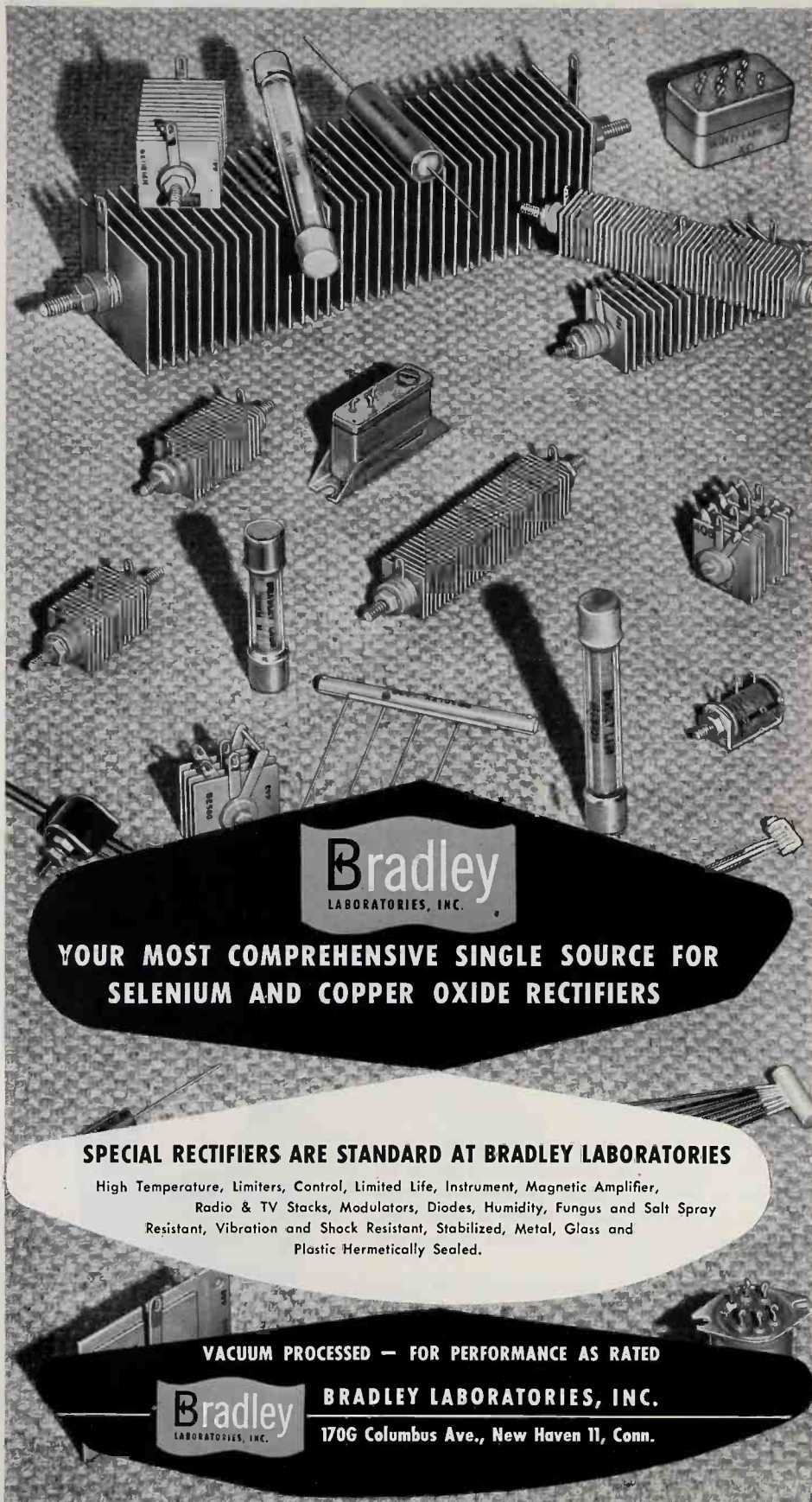
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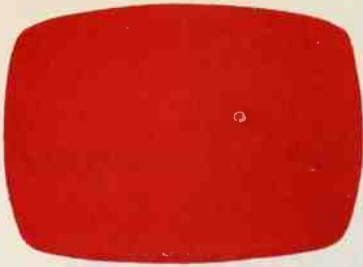
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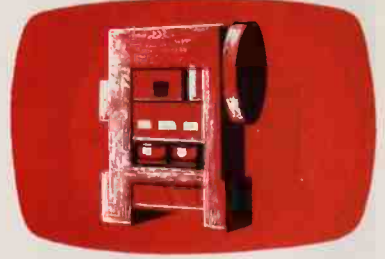
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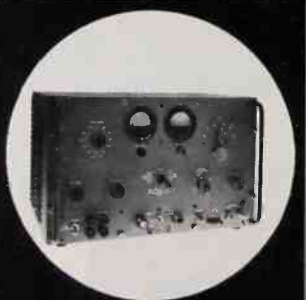
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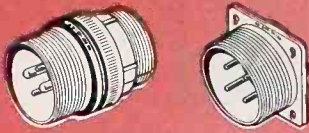
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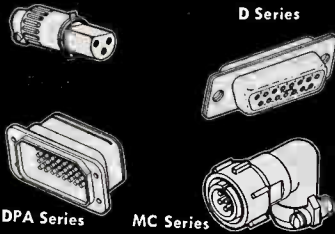
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PRESSURIZED APPLICATIONS. AN-C pressurized for 30 psi. Cannon K's, pressurized. Wide variety for different conditions.

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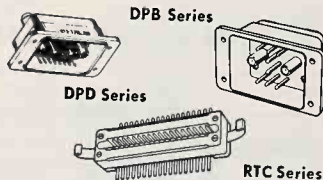
D Series

DPA Series

MC Series

Cannon miniatures and sub-miniatures are designed for amplifiers, miniature indicators, computer circuits, tele-metering equipment, small pre-amps, and general instrumentation where space is limited and current requirements are generally not over 5 amperes. Variety of shell styles, junction shell, and insert arrangements. 3 to 50 contacts, plus coaxials.

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Permit quick disconnect, interchange, replacement, testing and inspection of assemblies and sub-assemblies. For transmitters, TV cameras, control equipment, radar, etc. Rack-and-panel, integral clamp, shell-less types, bail-and-gear disconnects, center-screw extraction, 10 to 156 contacts including high voltage.

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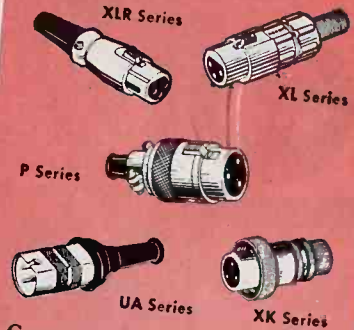
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Cannon audio connectors give you the highest quality... in the greatest variety to meet your every need. Standard on leading microphones. Straight, angle 90°, oval; wall-mounting, panel, locknut mounting, adapter receptacles, single and two-gang receptacles; latch-lock. 5-to-30-amp. contacts, coaxials.

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Cannon also makes plugs for switching and patching, test point jacks, external power connectors, missile launching connectors, buffer connectors, cable terminals, dc solenoids.

Cannon Connectors are available from more than 1000 audio-industrial-electrical distributors from coast to coast

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New 5½" modern style. Supplied special orders only. Also 2½", 3½", 4½" sizes.



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MODEL 29
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Measures temperatures from -50° to 1000°F., for air, gases, liquids or solids. Three thermocouple type leads.

Complete \$64.50



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Check line voltage, current drain and power consumption for most appliances. Four wattage ranges.

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Measures temperatures from -50° to 70°F. for refrigerators, freezers, coolers. 15' thermistor lead.

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Pretests current capacity of electrical lines and ability to handle 13-50 amps for starting motors.

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7" cathode ray tube. Displays color burst frequency with great sensitivity. Checks video, sync and sweep circuits.

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SIMPSON MODEL 260 AC-DC VOLT-OHM-MILLIAMMETER

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Type ML-6A. This unit is identical to Type ML-6 except that it is provided with pins of large diameter. See drawing.
Pin diameter: $.093 \pm .002$
Pin Length: $.400 \pm .030$



Type ML-10. Range: 15.0–50.0 mc. Supplied per mil type CR-24 when specified.
Pin diameter: $.062 \pm .002$
Pin length: $.188 \pm .005$



Type ML-14. Range: 3.0 mc–75.0 mc. Identical in performance to Type ML-6 except for height of the metal can.
Pin diameter: $.050 \pm .002$
Pin length: $.238 + .010 - .015$



Type ML-6. Range: 1.0 mc–125.0 mc. Supplied per mil Type CR-18, CR-19, CR-23, CR-27, CR-28, CR-32, CR-52, CR-54, CR-33, CR-35, CR-36, CR-48 when specified. Hermetically sealed metal holder with glass and metal base.
Pin diameter: $.050 \pm .002$
Pin length: $.238 + .010 - .015$

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Accuracy... uniformity... stability under toughest working conditions. Everything you want in a crystal is guaranteed you by Midland's Critical Quality Control. It's the system of checks and tests that guards the quality of every Midland crystal from selection of the raw quartz to final sealing of the unit.

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Our engineering staff is ready to help you with any crystal problem, including development and production of specials for individual requirements.



Type ML-6W. Range: 2.0 mc–75.0 mc. Same as Type ML-6 except wire leads are provided, eliminating the need for a crystal socket.
Pin diameter: $.030 \pm .002$
Pin length: $2.000 \pm .250$



Type ML-4. Range: 2.0 mc–10.0 mc. Supplied per mil Type CR-5, CR-6, CR-8, CR-10 when specified. Holder is phenolic, gasket sealed.
Pin diameter: $.093 \pm .002$
Pin length: $.400 \pm .030$



Type ML-5. Range: 80–200 Kc. Black phenolic holder—gasket sealed. Wire-mounted, silver-plated. The three pin base fits standard 3-pin mounting socket.
Pin diameter: $.156 \pm .003$
Pin length: $.594 \pm .032$



Type ML-1A. Range: 2.0 mc–15.0 mc. Supplied per mil Type CR-1A when specified. Holder is phenolic, gasket-sealed.
Pin diameter: $.125 \pm .005$
Pin length: $.625 \pm .030$



Type ML-13. Range: 90 Kc to 300 Kc. Hermetically sealed. Can is taller to accommodate the low frequency crystal blank.
Pin diameter: $.050 \pm .002$
Pin length: $.238 + .010 - .015$

Type ML-171. Range: 1.5 mc–10.0 mc. Black phenolic holder. Pressure mounted, stainless steel electrodes. Banana plug pins.
Pin diameter: Not Applicable
Pin length: $.850$



Type CM-1. Range: 1.0–15.0 mc. Black phenolic holder. Fixed airgap or pressure mounting with stainless steel electrodes.
Pin diameter: $.125 \pm .005$
Pin length: $.656 \pm .030$



Type ML-1G. Range: 10.0–150.0 mc. Especially adapted to limited-space assemblies. Provided with two wire leads, eliminating need for a crystal socket. All glass, hermetic seal. No grounding problems.
Pin diameter: $.018 \pm .002$
Pin length: $1.625 \pm .125$



Type ML-2G. Range: 200 Kc–150.0 mc. An all glass 7-pin miniature of the same dimensional proportions as the eAK5 miniature receiving tube.
Pin diameter: $.040 \pm .002$
Pin length: $.250 \pm .030$

ML-300 Series
For color television. All-glass. 7-pin base ideal for printed circuits.



Type ML-18. Range: 5.0 mc–150.0 mc. This unit is a metal counterpart of the ML-1G. Hermetically sealed holder with glass and metal base. Available with fixed pins if desired instead of the wire leads illustrated here.
Pin diameter: $.040 \pm .002$ Pin length $.234 \pm .030$
Wire: $.017 \pm .001$ Dia. by $1.500 \pm .062$ long



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Developed to serve the growing trend to miniaturization, Midland miniatures are now available for every crystal need, including color television. They'll do an outstanding job for you.

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"ThruLine" DIRECTIONAL RF WATTMETERS

MODEL 43



Direct Reading

25-1000 megacycles . . . 10W — 100KW . . . "thru" type . . . for power measurement in complete systems under operating conditions . . . insert between transmitter and antenna or load to provide an accurate and simple means of measuring direct or reflected power . . . plug-in elements determine full scale power range and frequency range. Get Bulletins W-400 for detailed specifications.

Model	Line	Impedance	Frequency Range	Full Scale Power	Connector
43	RG-8/U etc.	50 ohms	25-60; 50-125 100-250; 250-500; 400-1000 mc	10; 25; 50; 100; 250; 500 W	N; C; HN; UHF
4712	1 1/8"	50 ohms	200-500 400-1000 mc	.5; 1.0; 1.5; 2.5; 5.0 KW	Rima Std.
460	3 1/8"	50 ohms	200-500 mc	1; 2.5; 5; 10	Flange
480	3 1/8"	51.5 ohms	400-1000 mc	25; 50 KW	Sleeve Bullet
490	6 1/8"	51.5 ohms	200-500 mc	25; 50 and 100 KW	

"Termaline" RF ABSORPTION WATTMETERS

MODEL 611



Accurate

30-500 megacycles . . . 1/2 watt-5 KW . . . "load" type . . . portable . . . direct reading wattmeter . . . accuracy $\pm 5\%$ of full scale . . . non-radiating load for power measurement. For complete specification on all available models, write for Bulletins TW-600.

Model	Freq. Range	Max. Power	Power Range Scales	Input Connector
611	30-500 mc	60W	0-15; 0-60	Female N
612	30-500 mc	80W	0-20; 0-80	
67	30-500 mc	500W	0-25; 0-100; 0-500	Coplanar with adapter to UG-21/U;
67C*	30-500 mc	2500W	0-100; 0-500; 0-2500	(optional) RG-17 & RG-19 cable assemblies; adapters to rigid lines
824*	30-220 mc	5000W	0-5000	

*Water cooled (other available models described in specification sheets)

"Termaline" RF LOAD RESISTORS

MODEL 888



Reflection-Free

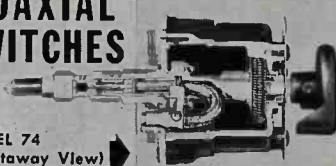
Designed to terminate 50 ohm coaxial line with minimum reflection . . . low VSWR . . . non-radiating . . . water cooled ratings 2500 W to 50 KW . . . air cooled ratings to 1500 W . . . ratings can be increased by forced air externally applied. For detailed specifications get Bulletins R-800.

Model	Max. Power	Freq. Range	Max.* VSWR	Connector
80	5W	0-1KMC	1.1	"N", "C", "BNC"
80A	20W	0-500MC	1.1	
81	50W	0-1KMC	1.1	N Female
81B	80W	0-1KMC	1.1	
82A	500W	0-1KMC	1.1	Coplanar with adapter to UG-21/U
883	1.2KW	0-1KMC	1.1	LC
888	1.5KW	0-1KMC	1.1	3/8" Flanged

*Other VSWR requirements can usually be met by special selection.

COAXIAL SWITCHES

MODEL 74
(Cutaway View)



Dependable

Small compact design permits the "Coaxswitch" Selector to be incorporated into many electronic units where repeated channel switching is required. Finger-tip operation — pull knob, rotate and push in to make contact. Bulletin CS-6 contains full specifications.

Model	74	718	72R	72-2
Positions	Six	Eight	Reversing Switch	Two
Coaxial Circuits	One	One	Two	Two
Connector	Type N female connectors are standard on all models to receive UG-21/U series plug. Use adapters with other cables and connectors.			

COAXIAL RF FILTERS



Rugged

High pass . . . low pass . . . band pass . . . band elimination . . . designs utilize both distributed and lumped constant . . . feature low insertion loss and high stop band attenuation . . . many designs available . . . "know-how" and physical facilities for quantity production . . . Get Bulletin CF-6.

	Low Pass	Low Pass	Low Pass	Low Pass	High Pass	Band Pass
Model*	5310	5311	522	819-1200	530	5131
Cut Off	90 mc	160 mc	400 mc	1200 mc	420 mc	45 mc & 105 mc
Stop Band	100- 180 mc	180- 320 mc	500- 2000 mc	1900- 4000 mc	100- 390 mc	33.7- 39.7 mc 120- 1000 mc
Max. Power	100W	100W	150W	100W	50W	25W
VSWR in p.b.	1.5	1.5	1.35	2 to 1	2.5	1.6
Connectors	Female N		Male-Female N		Female BNC	

*Other model specs on request.

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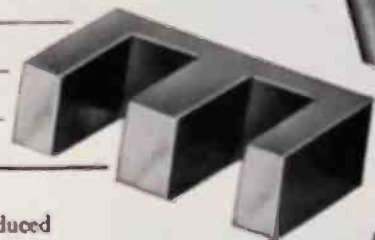
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Outputs: Linear and nonlinear functions of applied pressure.

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Ranges: 0-5 to 0-5000 psi.

Types: Absolute and differential.

Vibration Ambient: 0 to 55 cps, 0 to 500 cps, and severe vibration 25g to 2000 cps.

Construction: Hermetically sealed.

Write for Pressure Operated Potentiometer Bulletin



◀ ULTRA-SENSITIVE PRESSURE SYSTEM

Output: 50 volts at full scale.

Range: $\pm 3/4$ psi, differential.

Resolution: 1×10^{-6} psid.

Zero stability: Better than 1×10^{-3} psid.

Write for Bulletin EPMS



◀ RESISTANCE BRIDGE PRESSURE PICKUPS

Sensitivity: 5 mv/v at full scale.

Ranges: 0-10 to 0-1500 psi.

Types: Absolute and differential.

Construction: Hermetically sealed.

Write for Bulletin No. 7



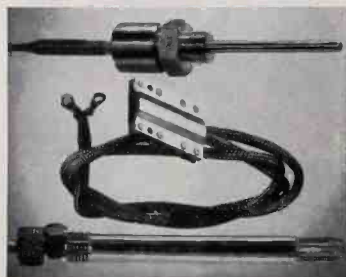
◀ RATE OF CLIMB

Outputs: 5 volt signal and/or dial indicator.

Range: $\pm 25,000$ ft./min.

Time constant: 0.2 sec. at sea level to 2 sec. at 50,000 ft.

Write for Vertical Speed Transducer Bulletin



◀ RESISTANCE THERMOMETERS

Resistance: 5 to 500 ohms at 32°F.

Materials: Platinum or nickel.

Range: -350 to +2000°F.

Types: Liquid, surface, gas.

Characteristics: Corrosion proof, severe vibration ambient, fast speed of response.

Write for Resistance Thermometers Bulletin

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Trans-Sonics, Inc.

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UNCASED TOROIDS

Basic inductor component. Plain, wax or plastic dipped with flex-leads. Hi Q values 10cps to 10mc. Complete range of sizes: subminiature, wedding ring and up to 12" OD. Standard inductances stocked for immediate delivery. Mass production utilizing CAC-designed winding equipment enables swift completion of large orders.



PLASTIC CASED TOROIDS

CAC compression molded toroids per Mil specs have become the standard of the industry. Most compact design — may be stacked — mounted by center bushing which absorbs mounting pressures — sturdy, tinned terminals — arrangements available up to 6 terminal connections. Standard inductance values shipped from stock — special inductances and configurations supplied promptly on request.



**TOROIDAL
INDUCTORS**

Precision... Delivery... Quality...

Growth and development of CAC has been rapid since its organization following World War II. It is made up of young, but highly experienced management and personnel. Unique manufacturing equipment (much of it CAC-designed) and leadership in production "know-how" offer **PRECISION... DELIVERY... and QUALITY.**

Whether your need is for one toroidal component... or a million, CAC is prepared to serve you.

COMMUNICATION ACCESSORIES CO.

World's Largest Exclusive Producer of Toroidal Windings

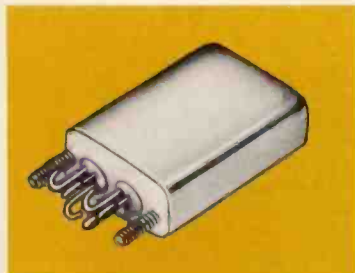
HICKMAN MILLS, MISSOURI • PHONE KANSAS CITY, SOUTH 1-6111

A Subsidiary of Collins Radio Company



HERMETICALLY SEALED CASED TOROIDS

CAC "HS" series provides metal encased, hermetically sealed units complying with MIL specifications. Mounting area minimized — extremely low hum pickup — terminals of proven design using Teflon assure permanent seal at temperature extremes. Rugged construction — convenient mounting facilities. To insure stability, cores are thermo-cycled prior to encasement. Standard inductances in stock.



SUBMINIATURE TOROIDS

Uncased, plastic molded and hermetically sealed in three standard core types (others available). Designs for all requirements — for chassis mount or printed circuits.

For the engineer whose design considerations dictate the utmost in electrical performance versus size, CAC's subminiature toroids present the answer.

Catalogs on Individual Components are Available on Request.



MAGNETIC AMPLIFIERS

Custom computer amplifiers with high stability and linearity can be designed having single or multiple inputs to your specific needs. Servo drives and relay actuators are also available. Frequency selective networks can be integrally designed to provide additional useful control functions. Proven packaging techniques insure minimum size—proven toroidal construction assures highest performance.

Typical Temperatures..... -60°C. to +150°C.
 Typical Line Frequencies..... 60cps to 6000cps



MISSILE POWER TRANSFORMERS

Recommended for supply frequencies above 400 cps and where size performance and reliability are factors. Thin nickel alloy toroidal cores reduce core losses. Toroid structure cures stray field problems.

SEALED MISSILE POWER SUPPLIES combining toroidal power transformers, toroidal filter chokes, hi temp capacitors and silicon rectifiers. These units offer multiple outputs and low ripple. Low stray field of toroidal elements obviate usual internal shielding. Mag regulation where required.



**MAGNETIC
 AMPLIFIERS &
 TRANSFORMERS**



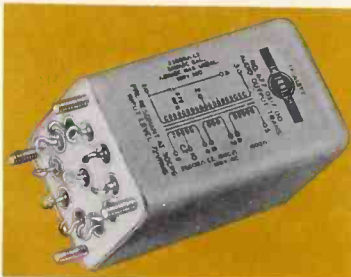
Our modern production and research facilities assure you of the most advanced solutions to your problems.

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World's Largest Exclusive Producer of Toroidal Windings

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LAMINATED TRANSFORMERS AND INDUCTORS

A complete line of laminated constructed units are now available through CAC. Our highly qualified engineering staff, a well complemented laboratory, humidity controlled production facility with modern manufacturing equipment guarantees conformance with any specifications. Both power and audio transformers employing advanced techniques can be supplied either hermetically sealed or encapsulated to 150° C. ambients. Catalogues, supplied upon request, cover a wide range of standardized designs including omnirange and ILS Filters.



PRECISION RATIO COMPUTER TRANSFORMERS

Toroidal form of construction is ideal for designing precision ratio transformers since the turns of wire are applied to and adjusted on the core. Normal production procedure of zero turn accuracy, high permeability cores, low phase shift, and near unity coupling will yield laboratory quality on any production run. Advanced design and newest packaging methods provide optimum performance with minimum size and rugged construction.

Catalogs on Individual Components are Available on Request.

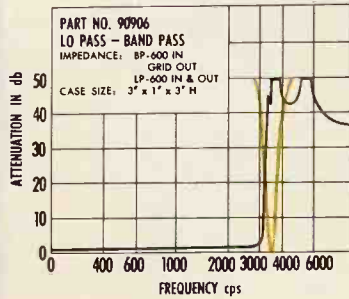


L-C FILTERS

L-C filters utilizing high Q toroidal inductors and high quality capacitors are the heart of these frequency selective components. Recent developments of magnetic materials and highly stable capacitors have extended the useful frequency and temperature range of electrical wave filters. Use of impedance transformations, near unity coupling, and other applications of advanced network theory result in high performance units in small volume packages.

Low pass, high pass, band pass and band stop filters can be designed covering sub audio to over 500kc range. Line, interstage or other impedances can be specified. Filters can be designed for direct paralleling where required. High permeability cases and the closed toroidal form assure low hum pickup. Temperature stabilization on the order of 0.1% frequency can be attained through use of negative TC compensation to offset slightly positive coil and capacitor characteristics.

Depicted response curve is for an integrally packaged low pass—band pass filter employing the latest design and production procedures. This unit uses less chassis area and is an excellent example of subminiature coil usage, impedance transformations, and printed circuitry. Hermetically sealed to meet the military specifications.





LC AND MECHANICAL FILTERS

Engineering...

As a result of CAC's engineering developments, more end equipment manufacturers now specify CAC toroids and filters than any other supplier. You are invited to present your network problems to our engineering staff.

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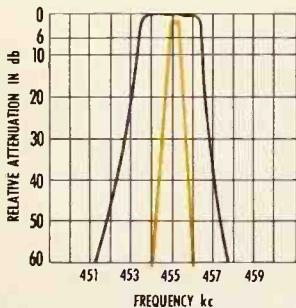


MECHANICAL FILTERS *(Developed and mfd. by Collins Radio Co.)*

The Mechanical Filter provides far better bandpass selectivity in one small sealed unit than a series of bulky conventional IF transformers. Excellent characteristics allow closer spacing of information channels, lower adjacent-channel interference and improved signal to noise ratios. These Filters have been proven in thousands of military and commercial receivers, transmitters and microwave multiplex systems.

Units are designed for center frequencies of 60 to 600kc and various 6db bandwidths from 300cps to 16kc. In general, bandwidth is limited to 10% of the center frequency. In many types, the 60db bandwidth is only twice the 6db bandwidth. Filters have a frequency shift with temperature of $\pm 10\text{ppm}/^\circ\text{C}$. Normal insertion loss for the filters is 6 to 8db. Most types comply with Mil-E-5400 on shock and vibration.

In receiver IF amplifier design the Mechanical Filter replaces one of the usual IF transformers and is fixed tuned. Preceding or following stages may be coupled with subminiature toroidal transformers using fixed tuning. Variable selectivity is obtained by using two or more Filters and switching connections.



Catalogs on Individual Components are Available on Request.



PERMEABILITY-TUNED VFO's (Mfd. by Collins Radio Co.)

Mechanically stable—sealed against atmospheric changes—temperature and voltage compensated. Available as complete packages for incorporation into your equipment. Superior accuracy, stability and linear dial calibration for your transmitters, receivers, test equipment or frequency standards.



AUTOTUNES (Mfd. by Collins Radio Co.)

Electro-mechanical position systems. Ideally suited for components requiring rotary or linear motion. Positioning accuracies of 0.05 angular degrees with reset accuracy to 0.0001 inch relative to 1/4 inch shaft size. Designed for the lifetime of any equipment. Fast—versatile—high torque—accurate—dependable.



**SEE
YOUR
C-A-C MAN**



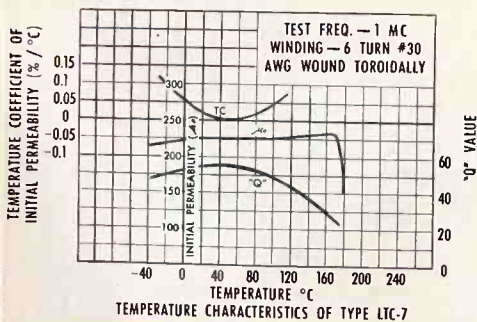
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FERRITE CORES (Mfd. by Collins Radio Co.)

Requirements for extreme temperature stability and consistently reproducible cores encouraged the Collins Radio Company to enter the magnetic materials field. Now, after several years of intensive research and development, these cores are available through CAC in many standard or custom forms for all applications. Temperature characteristics developed exhibit 10 times improvement over previous materials. Special saturation and other properties are presently available. Technical bulletins upon request.



TUBE SHIELDS (Mfd. by Collins Radio Co.)

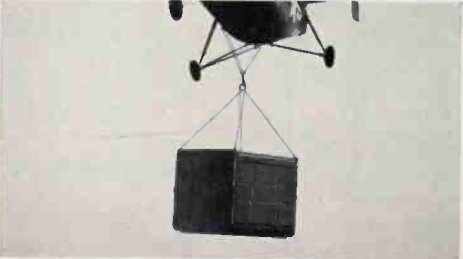
Heat treated beryllium copper corrugated liner and socket insert are highly resilient and accommodate wide variations of tube diameter. Base liner reduces bulb temperature in most critical tube area. Interchangeable with standard JAN equipment. Tube cannot work out of socket through long term vibration. Maximum electrostatic shielding.

Catalogs on Individual Components are Available on Request.

**MOBILE ELECTRONIC SYSTEMS —
Shelters, Vans, Trailers**



Air Traffic Control Central — Mobile, self-contained, fully equipped for control tower operations. Powered by mobile generators or commercial power. Transportable by air, land or sea.



Helicop-Hut — Lightweight (950 lbs.) Payloads up to 6300 pounds. Aluminum skin with plastic foam core. Inside dimensions: 76" x 76" x 96". Highly adaptable.



Radio Set AN/TRN-6 The TACAN Ground Station — Transportable by plane or truck. Shelter dimensions: 11' 8" long, 7' high, 6' 5" wide.

Craig

Whether it's a problem of building a rugged container for electronic equipment . . . or the delicate matter of laying out and installing the components in a complicated mobile air-traffic control system so that it's ready to operate the moment it reaches its destination . . . let CRAIG do the job! For CRAIG has the means and the unique skills to see the job through. Because CRAIG is the manufacturer, as well as designer, you get assurance of fully-controlled quality every step of the way. And CRAIG service includes layout and installation of electronic equipment in shelters of all types. For full information, write or phone —

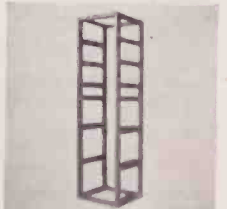
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Custom designed for specific requirements. CRAIG's complete metalworking facilities are available for metal fabrication work.

Designed for world-wide use — rugged, dependable CRAIG-built products like these . . .



ANTENNAS AND TOWERS

**Tropospheric Scatter
28' Parabola and Tower**



HF Antenna CM 1153

Lightweight, rugged — base needs only 4 square feet of ground space. Frequency range: 1-30 megacycles. 20 feet high — 91 pounds complete.



REUSABLE CONTAINERS

For transporting and storing airplane parts, optical systems and electronic equipment. Aluminum construction. Built to pass all applicable government specifications.



MISSILE CARRIERS

Lightweight, aluminum construction. Fully tested for shock, vibration, impact and submersion. (Shown here: Falcon carrier.) Craig also makes carriers for Petrel, Sidewinder, Terrier, Sparrow.

Full information on other towers and masts on request.

When ordering or seeking information please mention Electronics Buyers' Guide.

TRANSCO COAXIAL SWITCHES

-the complete line
for **broad-band,**
high efficiency
RF switching

You'll find TRANSCO switches reliable under all conditions described in existing military specifications. Reliability—plus minimum insertion loss, low V S W R, and high isolation between channels—make TRANSCO the most specified coaxial switches in the industry.

Send your coaxial switching problems to TRANSCO. Technical data on any unit or the complete line sent on request.



1460
series

MOTOR OPERATED

—SP2T to SP6T; also DP transfer and DPDT Frequencies to 11,000 MC.



M1460
series

MANUALLY OPERATED

—same contact arrangement and RF head as the 1460 Series.



11000
series

MINIATURE—SPDT

—remote-control unit, excellent RF characteristics over wide frequency range.



14000
series

MINIATURE—SP4T

—for wide application flexibility. Weight only 0.75 lbs. Frequencies to 10,000 MC.

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Coaxial cable and multiconductor cable assemblies for airborne and other applications where impedance, capacity and operating conditions are critical.

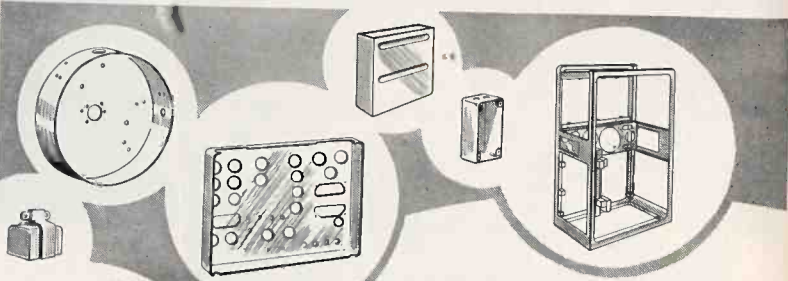
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COMPLETE FABRICATING FACILITIES FOR

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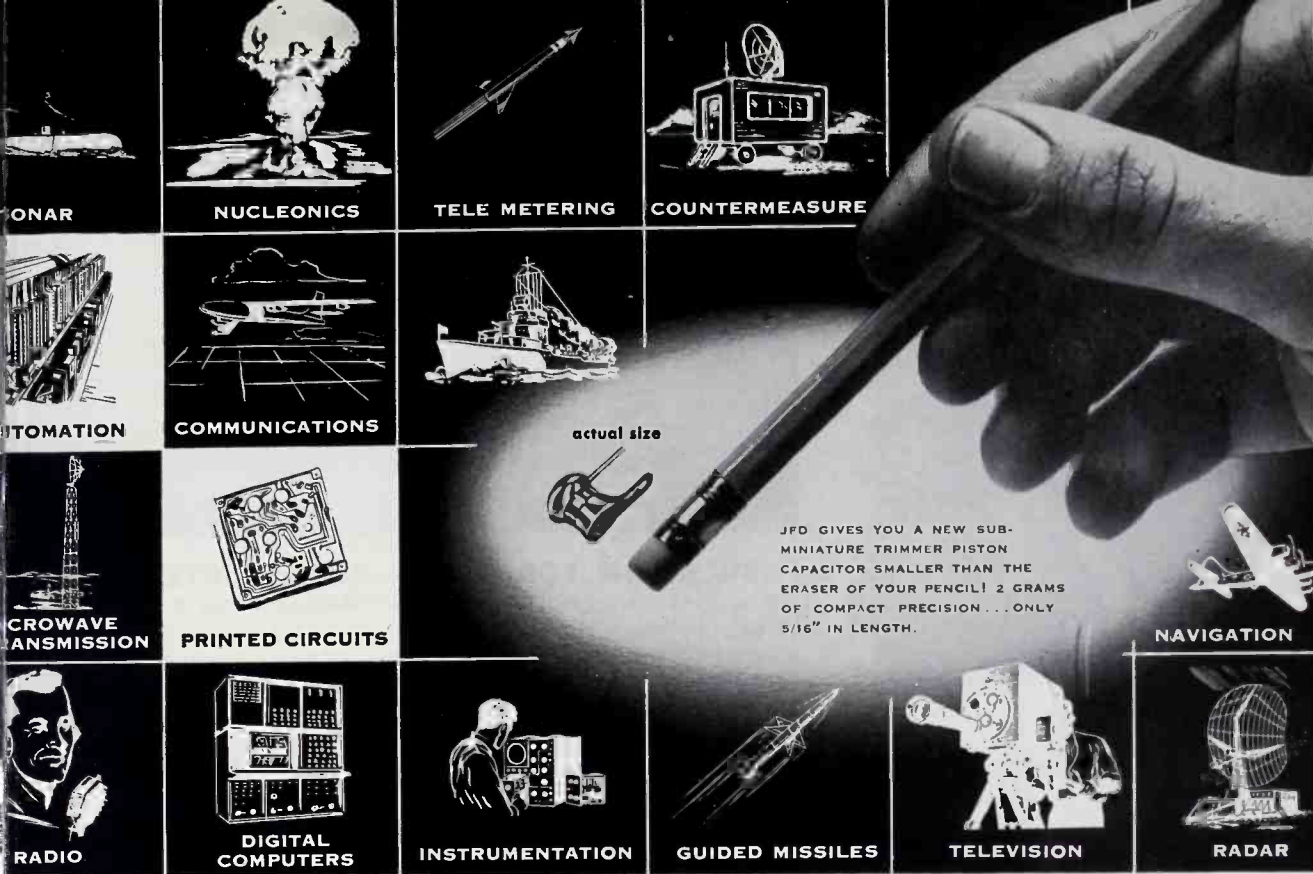
Stock dies on hand for many shapes.

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Manufacturers of Aluminum Products for Industry Since 1910

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actual size

JFD GIVES YOU A NEW SUB-MINIATURE TRIMMER PISTON CAPACITOR SMALLER THAN THE ERASER OF YOUR PENCIL! 2 GRAMS OF COMPACT PRECISION... ONLY 5/16" IN LENGTH.

A Giant in Performance... Sub-Miniature in Size



PISTON CAPACITORS

FOR AUTOMATION AND PRINTED CIRCUIT APPLICATIONS

Over 1 year in development, it's here at last! The new precision sub-miniature JFD Variable Trimmer Piston Capacitor, designed expressly for use in *automation* and *printed circuitry*.

Features: Stability, approximately Zero temperature coefficient... End stops at either end of adjustment... working temperature - 55° to +125°C... Anti-back lash and thread wear compensation.

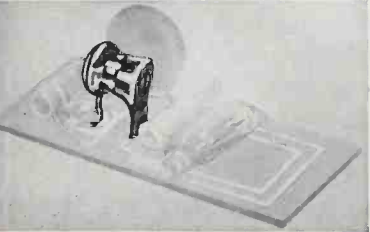
These new JFD Capacitors are available in 2 models to meet your most exacting network applications:

MODEL	OVERALL LENGTH	CAPACITANCE
VC9G	9/16"	0.5 MMF. TO 8.5 MMF.
VC10G	5/16"	1 MMF. TO 4.5 MMF.



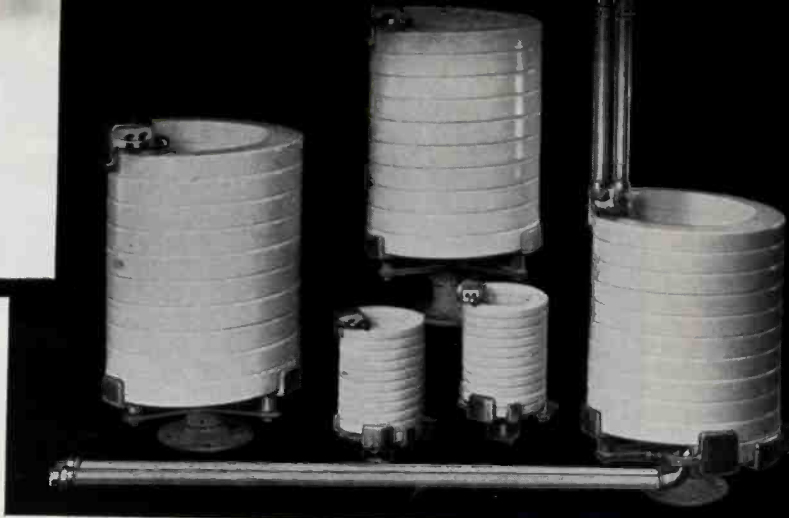
Both units feature glass dielectric and invar silver-plated rotors. Write today for Bulletin No. 106 which gives you complete electrical characteristics.

Whether you specify these new Piston Capacitors or any of the many other JFD units for your critical tuning requirements, you upgrade *efficiency* and *stability* of performance. A letter will bring you complete details. Write today.



GO FORWARD WITH JFD ENGINEERING!
JFD MANUFACTURING CO., INC. 6101 16TH AVENUE, BROOKLYN 4, N. Y.

Lapp



INSULATION FOR WATER-COOLED SYSTEMS

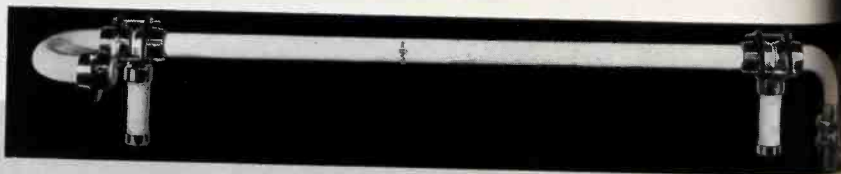
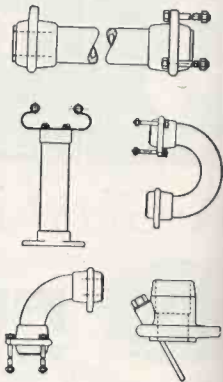
For carrying cooling water which must undergo a change in potential, use of Lapp porcelain eliminates troubles arising from water contamination and conductivity, sludging and electrolytic attack of fittings. Permanent cleanness and high resistance of cooling water is assured—for positive cooling and long tube life.

LAPP PORCELAIN WATER COILS

Twin-hole and single-hole models in sizes to provide flow of cooling water from 2 to 90 gallons per minute. Cast aluminum mounting bases, lead pipe or flexible metal hose for attachment.

LAPP PORCELAIN PIPE

Inside diameter $\frac{3}{4}$ " to 3", in straight, 90° and 180° elbows, fittings. Swivel-type connections. Standoff insulators attach directly to fitting bolts. Write for Bulletin 301 with specifications for Lapp Porcelain Water Coils and Porcelain Pipe.



LAPP GAS-FILLED CONDENSERS

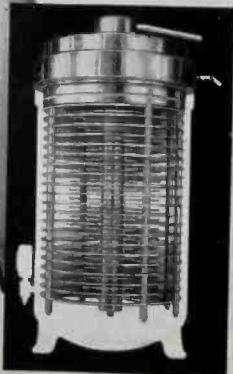
Capacitance for high-voltage, high-current duty

The record of more than 18 years' service, in thousands of installations, proves the reliability of the Lapp Gas-Filled Condenser. For duty at high voltages and high currents, this unit offers the advantages of extreme compactness . . . low loss . . . high safety factor . . . constant capacitance under temperature variation . . . grounded tuning shaft . . . and rugged sturdiness. Units available in four tank diameters, 7" to 18" . . . in fixed or variable capacitance . . . capacitances to 30,000 mmf; current ratings to 390 amps at 1 mc; voltages to 85 Kv peak. Write for Bulletin 302.



TUBE SUPPORTS for air-cooled tubes

No longer is it necessary for equipment manufacturers to design supports for forced-air-cooled tubes. After producing many such special designs, Lapp has engineered and built a complete series of insulating supports for air-cooled tubes. Use of these supports facilitates design of transmitter and other high-power circuits. Simple, compact, efficient and attractive in appearance, in porcelain or steatite, they make for economical production, easy interchangeability, and availability of replacement units. Write for Bulletin 301, with complete description and specification data.



ENTRANCE INSULATORS

To eliminate losses which occur in ordinary types of bushings at radio frequency, Lapp units use air as major insulation, porcelain path being lengthened by its "bowl" shape. In wide variety of types for most electrical and mechanical requirements.

STAND-OFF INSULATORS

Dependable mechanical and electrical performance—and trim good looks. Hundreds of standard and special types available.

Write for Bulletin 301, listing entrance and stand-off insulators.



ANTENNA STRAIN INSULATORS

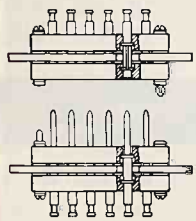
The largest of the porcelain rod insulators shown develops 12,000 lb. strength. Available, as specified, with rain shield and/or corona rings. Smaller units, in porcelain or steatite, for all strain or spreader use. Engineering and production facilities also available for special performance units. See catalog 301.



PLUG-AND-RECEPTACLE UNITS for sectionalizing circuits

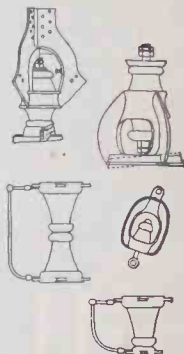
For panel-rack or other sectionalized circuits, Lapp offers a variety of plug-and-receptacle units. Any number of contacts can be provided (in multiples of twelve). Male and female contacts are full floating, for easy alignment and positive contact. Contacts

silver plated, terminals tinned for soldering. Insulation is steatite, the low-loss ceramic... non-carbonizing even under leakage flashover resulting from contamination, moisture or humidity. Write for complete electrical and mechanical specifications and recommendations.



ANTENNA TOWER INSULATORS

Most of the world's radio towers are supported by Lapp insulators, including the tallest guyed mast ever built. Through the Lapp "compression cone," immense loads can be carried by electrical porcelain. Write for data on Lapp footing insulators for self-supporting radiators, mast-base insulators, or guy insulators.



SPECIAL ASSEMBLIES

Lapp business is electrical porcelain, its application, design, manufacture, and assembly. Our skill is in our knowledge of the capabilities, and limitations, of ceramic insulation... in engineering ingenuity to meet specified requirements... and in efficient production. If you have need for insulating parts and associated sub-assemblies, we may be able to show you how they can be made most economically, to perform most efficiently.

Lapp

LAPP INSULATOR CO., INC.
RADIO SPECIALTIES DIVISION
100 SUMNER ST., LEROY, N.Y.

cppe

for ALL Types

SIZE 8

Weight 32 gms.
Dia. .750 in.

Actual Size



STANDARD UNITS

ROTOR

STATOR

SYNCHRO FUNCTION	CPPE TYPE	Input V. 400cy	Input Amps.	Input Watts	Ohms (DC)	Output Rotor	Sensitivity (MV/deg.)	Output Volts	Sensitivity (MV/deg.)	Input Volts	Input Amps.	Input Watts	Ohms (DC)
Torque Transmitter	CGC-8-A-7	26	.100	.5	37	—	—	11.8	200	—	—	—	12
Control Transformer	CTC-8-A-1	26	.050	.25	143	24	410	11.8	200	11.8	.090	.23	25
Control Transformer	CTC-8-A-4	—	—	—	381	24	410	—	—	11.8	.037	.09	60
Control Differential	CDC-8-A-1	—	—	—	36	14.8	200	—	—	11.8	.085	.21	25
Electrical Resolver	CSC-8-A-1	26	.039	.43	230	23.2	400	10.6	180	14.8	.084	.27	27
Torque Receiver	CRC-8-A-1	26	.100	.50	37	—	—	11.8	200	—	—	—	12

SIZE 10

Weight 50 gms.
Dia. .937 in.

Actual Size



STANDARD UNITS

ROTOR

STATOR

SYNCHRO FUNCTION	CPPE TYPE	Input V. 400cy	Input Amps.	Input Watts	Ohms (DC)	Output Rotor	Sensitivity (MV/deg.)	Output Volts	Sensitivity (MV/deg.)	Input Volts	Input Amps.	Input Watts	Ohms (DC)
Torque Transmitter	CGC-10-AS-4	26	.160	.71	17.5	—	—	11.8	200	—	—	—	7.5
Control Transformer	CTC-10-AS-1	26	—	—	135	26.0	450	11.8	200	11.8	.081	.18	25
Control Transformer	CTC-10-AS-4	—	—	—	99	23.0	400	—	—	11.8	.022	.062	550
Control Differential	CDC-10-AS-1	—	—	—	35	10.8	195	—	—	11.8	.080	.23	25
Torque Receiver	CRC-10-AS-1	26	.088	.44	34	—	—	11.8	200	(11.8 V. Transmitting Stator)	—	—	12
Electrical Resolver	CSC-10-AS-1	1-26	.037	.38	220	21.0	365	11.2	195	11.8	.074	.22	28.5
Vector Resolver	CVC-10-AS-1	1-26	.055	.32	70	—	—	11.8	200	11.8	—	—	28
Vector Resolver	CWC-10-AS-1	1-26	.040	.28	111	21.0	365	11.8	200	11.8	.080	.26	28

SIZE 11

Weight 82 gms.
Dia. 1.062 in.

Actual Size



STANDARD UNITS

ROTOR

STATOR

SYNCHRO FUNCTION	CPPE TYPE	Input V. 400cy	Input Amps.	Input Watts	Ohms (DC)	Output Rotor	Sensitivity (MV/deg.)	Output Volts	Sensitivity (MV/deg.)	Input Volts	Input Amps.	Input Watts	Ohms (DC)
Torque Transmitter	CG-11-B-2	26	.170	.71	14	—	—	11.8	200	—	—	—	3.8
Control Transmitter	CG-11-B-7	26	.085	.33	20	—	—	11.8	200	—	—	—	8.5
Torque Transmitter	CG-11-B-6	115	.042	.71	180	—	—	11.8	200	—	—	—	3.8
Control Transformer	CT-11-B-2	26	—	—	46.5	23	400	—	—	11.8	.140	.30	8.6
Control Transformer	CT-11-B-8	—	—	—	47	23	400	—	—	11.8	.098	.18	13
Control Transformer	CT-11-E-7	—	—	—	185	23	400	—	—	11.8	.036	.08	34
Control Differential	CD-11-B-2	—	—	—	12	11.8	200	—	—	11.8	.150	.38	8.5
Torque Receiver	CR-11-B-2	26	.100	.43	20	—	—	11.8	200	(11.8 V. Transmitting Stator)	—	—	7.5
Electrical Resolver	CS-11-B-2	1-26	.050	.33	75	23.5	405	12.6	220	12.6	.094	.26	14
Vector Resolver	CV-11-B-2	3	.730	.55	.7	3.2	55	23.4	410	26	.100	.36	18

SIZE 15

Weight 126 gms.
Dia. 1.437 in.

Actual Size



STANDARD UNITS

ROTOR

STATOR

SYNCHRO FUNCTION	CPPE TYPE	Input V. 400cy	Input Amps.	Input Watts	Ohms (DC)	Output Rotor	Sensitivity (MV/deg.)	Output Volts	Sensitivity (MV/deg.)	Input Volts	Input Amps.	Input Watts	Ohms (DC)
Torque Transmitter	CG-15-D-1	26	.225	.8	6.4	—	—	11.8	200	—	—	—	3.2
Torque Transmitter	15CX4a	115	.067	.7	65	—	—	90	1560	(This Unit Weighs 174 gms.)	—	—	161
Torque Transmitter	CG-15-MS-1	115	.067	.7	65	—	—	90	1560	(This Unit Weighs 174 gms.)	—	—	161
Control Transmitter	CG-15-D-4	26	.400	.4	16	—	—	11.8	200	—	—	—	6.0
Control Transformer	CT-15-D-1	26	.055	.23	37	23.9	410	11.4	195	11.8	.125	.24	10
Control Transformer	CT-15-D-4	—	—	—	180	23.0	400	—	—	11.8	.032	.06	37
Control Differential	CD-15-D-1	—	—	—	19	10.8	195	—	—	11.8	.125	.22	10
Torque Receiver	CR-15-D-1	26	.100	.36	16	—	—	11.8	200	(11.8 V. Transmitting Stator)	—	—	6
Electrical Resolver	CS-15-D-1	1-26	.055	.31	74	23	400	11.8	200	11.8	.110	.25	13
Vector Resolver	CW-15-D-1	1-32	.005	.03	540	28.4	495	15	260	15	.010	.03	156

CLIFTON PRECISION PRODUCTS

CLIFTON HEIGHTS

of SYNCHROS

IMPEDANCE

Zro	Zso	Zrss	Phase Shift R-S	S-R	Nulls (MV)	Possible Error	Spd. inches	Length inches
54+j260.	12+j45	76.4+j19.6	8°	—	30	7'	14'	1.240
220+j740	28+j110	246+j60	—	8.5°	30	7'	14'	1.240
508+j1680	67+j270	640+j190	—	9.2°	30	7'	14'	1.240
38+j122	27+j120	48.6+j13.8	—	9°	30	7'	14'	1.240
280+j600	38+j136	70+j136	20°	11°	30	7'	14'	1.240
54+j260	12+j45	85.1+j20.4	8°	—	30	30'	30'	1.240

IMPEDANCE

Zro	Zso	Zrss	Phase Shift R-S	S-R	Nulls (MV)	Possible Error	Spd. inches	Length inches
29+j165	7.6+j28	47+j16	5.8°	—	30	42'	12'	1.241
206+j756	28+j122	234+j81	—	8.5°	30	15'	15'	1.241
910+j2770	126+j448	945+j325	—	9.0°	30	15'	45'	1.241
52+j152	38+j116	57+j17	—	9.2°	30	10'	15'	1.287
57+j289	13+j49	80+j27	5.2°	—	30	30'	30'	1.241
262+j650	39+j156	308+j71	18.4°	10.5°	1MV/V	15'	15'	1.281
109+j460	39+j108	170+j59	8.1°	14.2°	1MV/V	15'	45'	1.241
177+j625	91+j143	215+j70	—	10.4°	1MV/V	15'	15'	1.241

IMPEDANCE

Zro	Zso	Zrss	Phase Shift R-S	S-R	Nulls (MV)	Possible Error	Spd. inches	Length inches
24+j147	5+j24	27.8+j13.6	3.9°	—	30	12'	12'	1.600
48+j313	12+j55	484+j225	2.5°	—	30	12'	12'	1.600
405+j2700	5+j24	49.6+j21	3.4°	—	100	12'	12'	1.600
97+j422	15+j71	81+j40	—	4.9°	30	12'	12'	1.600
100+j620	19+j100	—	—	5°	30	12'	12'	1.600
390+j1650	60+j275	320+j163	—	5.5°	30	12'	12'	1.600
14+j67	17+j66	62+j27.6	—	5°	30	10'	12'	1.640
40+j260	10+j40	49.8+j21	4°	—	30	30'	30'	1.600
130+j500	28+j130	126+j43	8°	8°	1MV/V	12'	12'	1.640
1+j4	36+j260	—	9.5°	4°	—	12'	12'	1.600

IMPEDANCE

Zro	Zso	Zrss	Phase Shift R-S	S-R	Nulls (MV)	Possible Error	Spd. inches	Length inches
14+j110	4+j18	28+j11	3°	—	30	10'	10'	1.600
163+j1690	175+j894	—	2.25°	13.5°	125	12'	24'	2.0
163+j1690	175+j894	—	2.25°	13.5°	75	10'	10'	2.0
36+j270	8+j44	40+j23.1	3.5°	—	30	10'	10'	1.600
80+j490	15+j80	74+j50	4°	4.5°	30	10'	10'	1.600
360+j1870	63+j320	338+j203	—	4.5°	30	10'	10'	1.600
22+j80	15+j80	27+j13	—	5°	30	10'	10'	1.640
36+j270	8+j44	40+j23.1	3.5°	—	—	30'	30'	1.600
110+j520	23+j120	—	7.5°	5°	1MV/V	10'	10'	1.640
1100+j6300	300+j1600	1181+j602	—	5.5°	1MV/V	10'	10'	1.600

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1/2 Actual Size

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Contains shock-mounted fork, double triode and all circuitry. Output, 400 or 500 cycles. Accuracy ± 1 part in 50,000. Octal base container, $1\frac{1}{2}$ " x $4\frac{1}{2}$ ". Weight, 10 oz. Power required, 75 to 200 V.-D.C. at 1 to 5 m.a. and 6.3 V. at 300 m.a. Designed for MIL equipment.

TYPE 2001-2, BASIC UNIT
Frequencies, 200 to 3000 cycles. Dividers and multipliers available for lower and higher frequencies. Output, 6 V.—JAN construction.

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Provides 10 Watts at 110 V. Precision frequencies from 50 to 500 cycles. Input power, 50 to 500 cycles, 45 Watts.

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Outputs, 60 cycles, 0-110 Volts, 10 watts; 120-240 cy. impulses. Input, 50-400 cycles, 45 Watts.

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50 Watt output. 0-110-220 V. at 60 cycles or any frequency 50 to 1000 cycles.

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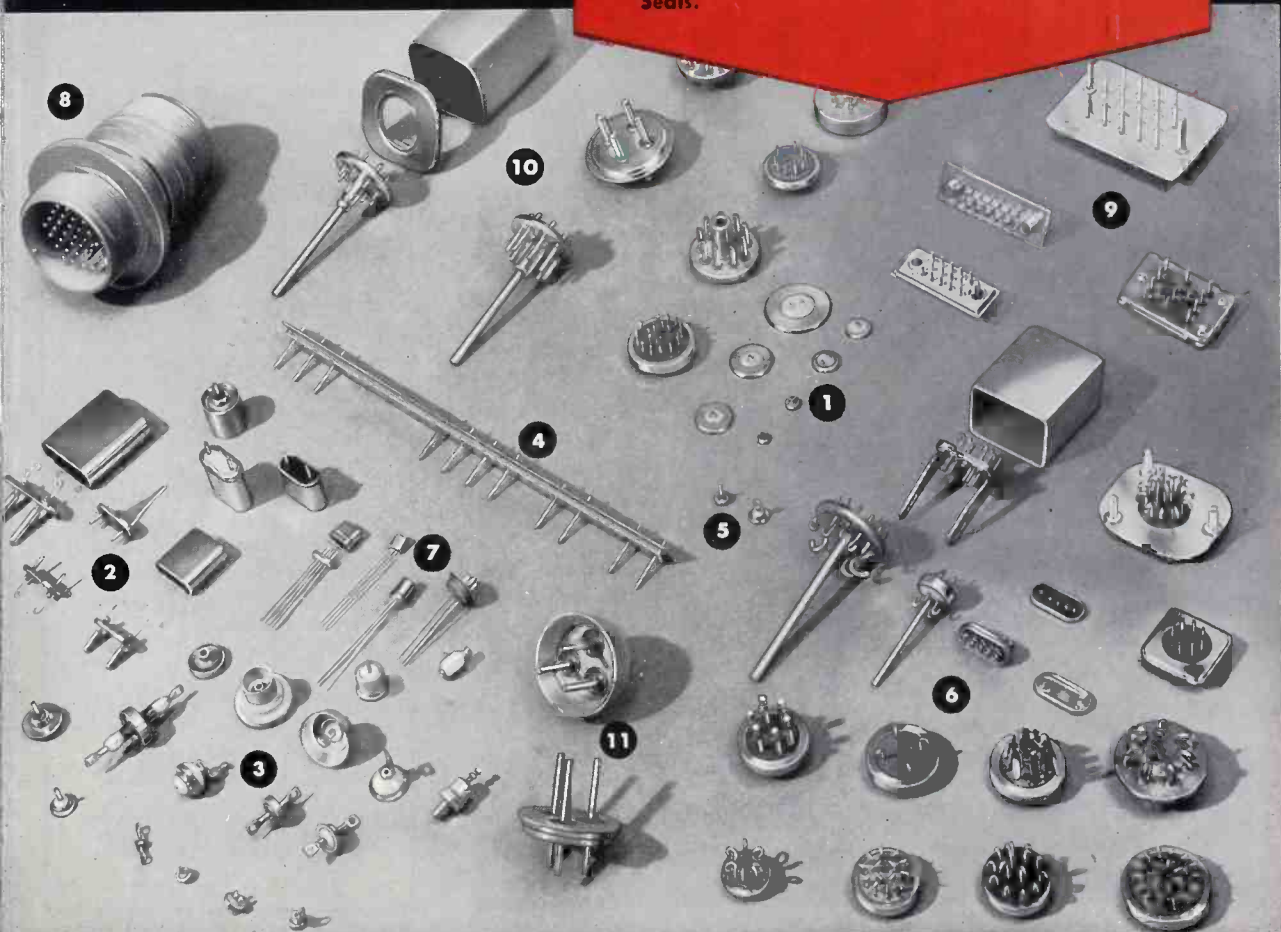
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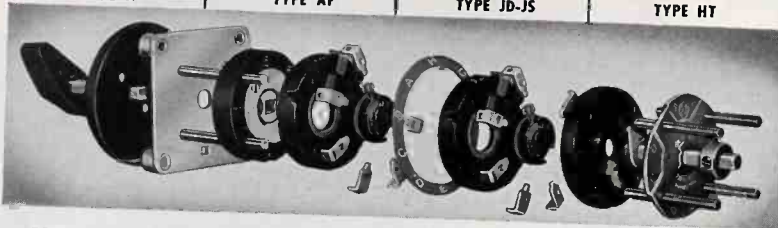
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TYPE JD-JS



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- **TYPE HT** — up to 16 positions, 6 sections maximum, detent-action, rating 5 amperes at 125 volts a-c.
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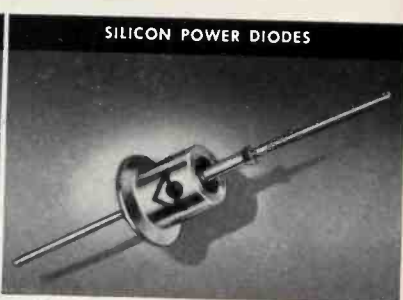
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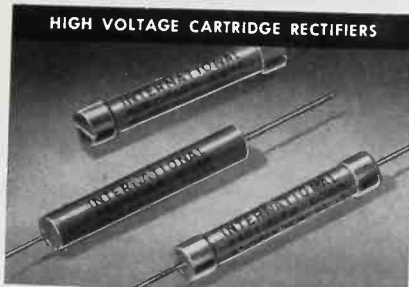
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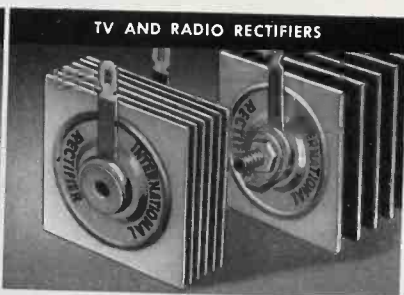
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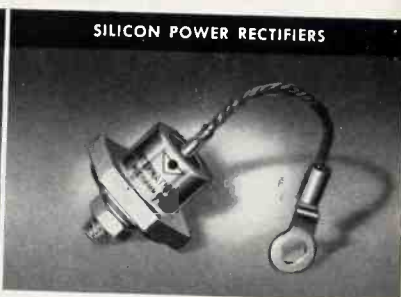
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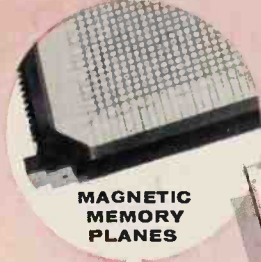
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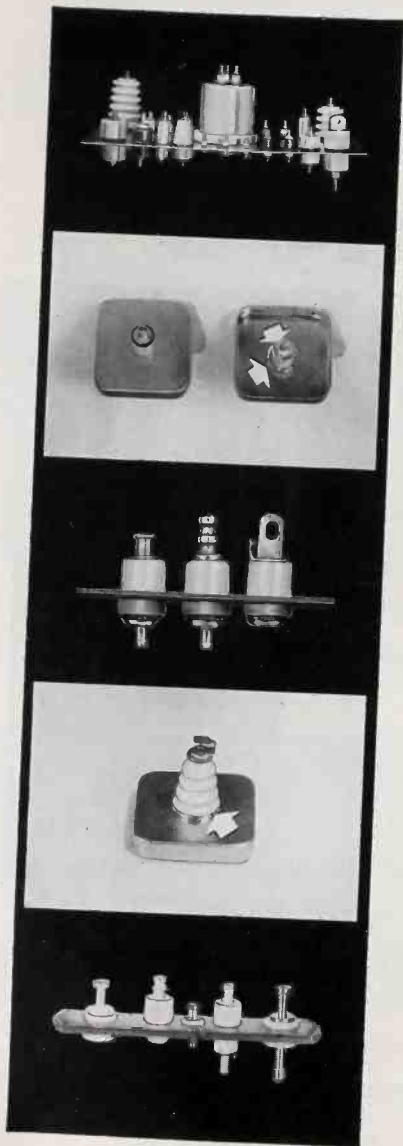
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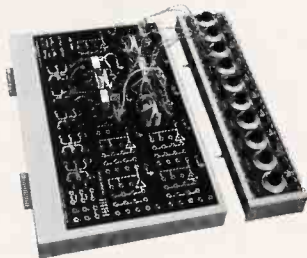


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Push-connects to Model 3000 Computer, carrying entire problem; several may be used interchangeably. Provides all connections to amplifiers, diodes, operational relays, and two accessories. Utilizes Donner plug-in precision components.

Model 3034, \$95.00

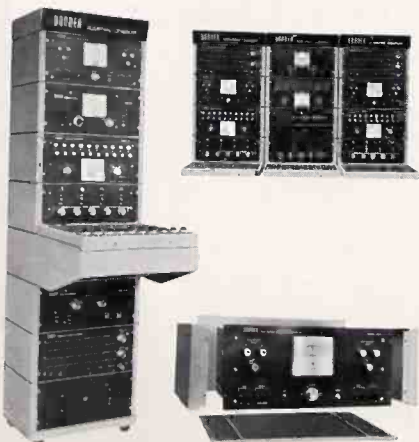
Same problem board, but with soldering posts for conventional components.

Model 3033, \$75.00

MODULAR DESIGN

Versatility of the basic computer is easily increased by adding accessories in building-block manner. Each simply plugs in, without modification, and is supplied with one standard Donner cabinet module (2 sides, back, spacer), which bolts in place.

Castered floor-mounting bases and cooling-fan tops are available for larger computing facilities. Two or more computers are operated together to expand problem-handling capacity and flexibility.



PLUG-IN COMPUTING COMPONENTS



PRECISION RESISTORS are 1% tolerance, deposited carbon, molded in rubber with convenient handles. Through-connections allow "stacking" for easy problem set-up. Values 0.1, 0.2, 0.25, 0.5, 1, 2, 5, and 10 megohms, each marked and colored distinctively. (1% and 0.1% wire-wound resistors also available).

Series 30-101, \$2.80 each

PATCH CORDS in four color-identified lengths (4, 8, 12, and 24 inches) speed problem construction. Through-connections permit "stacking."

Series 30-120, \$1.60 each

INTEGRATING CAPACITORS with Mylar dielectric, 1% tolerance recommended for general use. Polystyrene dielectric, 1% tolerance (0.1% also available) provided for critical applications. Values 0.05 to 4 mfd.

Detailed Prices on request

INDIVIDUAL COEFFICIENT POTENTIOMETER is a 0.1 megohm composition plug-in unit, molded with through-connections.

Model 3061, \$7.20 each

COEFFICIENT POTENTIOMETER STRIP has ten single-turn, 0.1 megohm composition pots in a narrow cabinet which attaches to problem boards; second and third strips may be added. Jacks and switching circuits provided for measuring actual (loaded) values with Model 5000 Null Voltmeter.

Model 3071, \$85.00

Similar strip, but with ten 10-turn precision wire-wound pots, 0.1 megohm and 0.5% linearity, plus ten dual-indicating dials.

Model 3073, \$320.00

EQUIPMENT



MODEL 3730
ELECTRONIC FUNCTION
MULTIPLIER

Two separate channels (with common power supply) accept independently varying inputs U, V, X, and Y in range -100 to +100 volts, deliver products -0.01 UV and -0.01 XY. Four-quadrant multiplication or two-quadrant division, accurate within 0.5%.

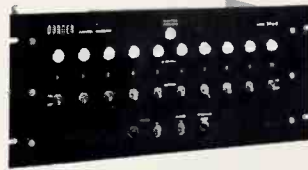
With Standard Module, Model 3730, \$875.00
Rack Mounting, Model 3730R, \$860.00



MODEL 3750
VARIABLE BASE FUNCTION
GENERATOR

24 line-segments are combined to approximate (usually within 0.5%) almost any single-valued function. Generates powers, roots, empirical curves with inputs -100 to +100 volts. Two or more units may be "cascaded" to improve accuracy or capacity. Integral power supply.

With Standard Module, Model 3750,
\$385.00
Rack Mounting, Model 3750R, \$370.00



MODEL 3760
CHOPPER STABILIZER

Individually stabilizes all ten operational amplifiers of Model 3000 Computer, essentially eliminating drift. Used for multiple integrations and long solution times. Any chopper may be switched off, when not in use. True overload indicators and integral power supply.

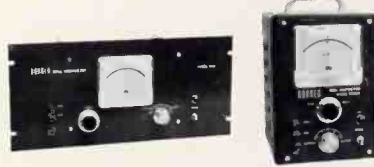
With Standard Module, Model 3760,
\$1415.00
Rack Mounting, Model 3760R, \$1400.00



MODEL 3720
CYCLIC RESET GENERATOR

Resets and restarts computer at end of computing period (adjustable smoothly from 0.05 to 16 seconds). Furnishes synchronized oscilloscope sweep trigger, advanced in proportion to solution time to insure display from start. Power supply built-in.

With Standard Module, Model 3720,
\$200.00
Rack Mounting, Model 3720R, \$185.00
In Portable Case, Model 3720C, \$185.00



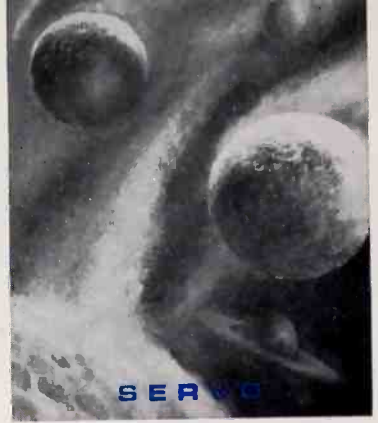
MODEL 5000
NULL VOLTMETER

Compares applied voltage (or coefficient in computer problem) with internal standard, nulling with precision divider. Reads directly in range -100 to +100 volts with 0.1% accuracy. Also is precision supply, -100 to +100 volts at 10 ma maximum, 0.05% regulation.

With Standard Module, Model 5000,
\$190.00
Rack Mounting, Model 5000R, \$175.00
In Portable Case, Model 5000C,
\$175.00



Any accessory above available with complete individual cabinet (and fan, where required). Add \$15 to price of instrument with module.



ACCELEROMETERS



MODEL 4005
LINEAR SERVO ACCELEROMETER

Outstanding for ultra-precise acceleration measurements at low frequencies. With integration, indicates velocity and position. Rugged, small, lightweight transducer with self-contained servo system.

- Response 0 (DC) to 15 cps, range ± 0.1 to ± 20 g full-scale.
- Resolution 0.0001, linearity 0.001 full-scale.
- Output ± 3.5 ma or ± 35 volts. Hermetically sealed and magnetically shielded.

Model 4005, \$540.00



MODEL 4051
ACCELEROMETER POWER SUPPLY

Supplies voltages required by Model 4005 Accelerometer (used where proper voltages not already available). Provides power input and signal output connections.

- Input 115 VAC, 50-1000 cps, 15 watts. Outputs +250 VDC, -250 VDC, 6.3 VAC.
- Hermetically sealed and magnetically shielded, servo-type mount.
- Supplied with 6-foot cable (to accelerometer) and all connectors.

Model 4051, \$175.00





**MODEL 1200
SINE WAVE
GENERATOR**

1 cps to 1 mc, plus overlap, in 6 decades.
Less than 0.1% distortion at any setting.
600 ohms constant output impedance, no DC.
8 volts RMS maximum. 2% calibration accuracy.
0.5% stability. Regulated power supply.

Model 1200, \$265.00



**MODEL 1500
LOW FREQUENCY
GENERATOR**

0.01 cps to 1 kc, plus overlap, in 5 decades.
True sinusoids (no discontinuities), 1% distortion.
Steep-sided square waves, 5 μ sec rise time.
0-1 and 0-10 volts peak, fully metered output.
1% frequency stability, 1 db amplitude constancy.

Model 1500, \$365.00



**MODEL 2100
WAVE
ANALYZER**

30 cps to 50 kc coverage, 3% calibration accuracy.
160 μ v to 500 volts RMS full-scale sensitivity.
Broad and narrow crystal filter selectivities.
VTVM reads harmonics directly in percent and db.
Simple operation, portability, reliability.

Model 2100, \$445.00



**MODEL 2800
WOW AND FLUTTER
METER**

Input 0.1-50 volts RMS, 3 kc (5-50 volts, 1 kc).
Tunable \pm 5%, with indicator. 3 kc test output.
0.3, 1, and 3% wow/flutter full-scale readings.
Pass bands 0.5-10, 10-300, and 0.5-300 cps.
Surpasses all IRE-SMPTE-ASA standards.

Model 2800, \$295.00

**MODEL 6100
VIDEO PROBE
AMPLIFIER**



Probe 2 μ pf, 4.5 M, minimizes loading.
Response down 3 db, 5 cps and 12 mc.
Input 600 volts peak, maximum.
Output 50 ohms, matching coax.
Gain X1, X0.1, X0.01 (with probe);
X40 (amplifier only).
Noise at output, 1 mv maximum.

Model 6100, \$195.00

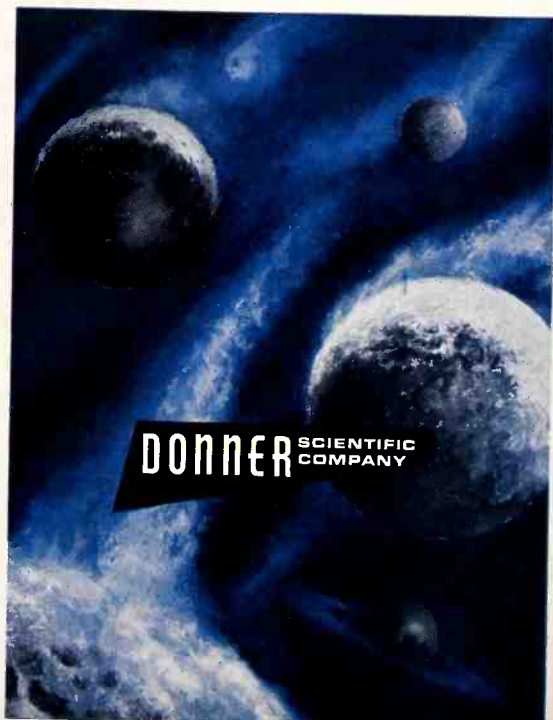
Test instruments available rack-mounting at \$20.00 additional,
also rack-mounting with standard module, \$35.00 additional.

All prices domestic, FOB Factory. Specifications and prices
subject to change without notice.

Write for complete data.

Engineering representatives throughout the world.

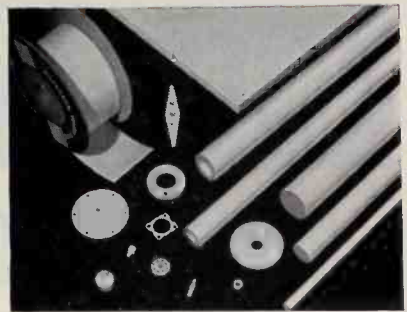
Donner Scientific Company
2810 Seventh Street, Berkeley, California





TEFLON* SHAPES

Polypenco Teflon has proved its outstanding versatility in electronics. Teflon shapes (rod, tubing, slab) are machined to close tolerances on standard metalworking tools . . . have uniform controlled density and maximum dimensional stability. Also available in spaghetti tubing and tape for direct component application. *DuPont Trademark



Polypenco Teflon Shapes

Outstanding Properties

Dielectric Constant 2.0	Temperature Range . . . —110° F. to +500° F.
Power Factor 0.0005	Water Absorption nil
Dielectric Strength, volts/mil. 400-500	Chemical Resistance excellent
Surface Resistivity (100% R.H.) megohms 3.6×10^6	

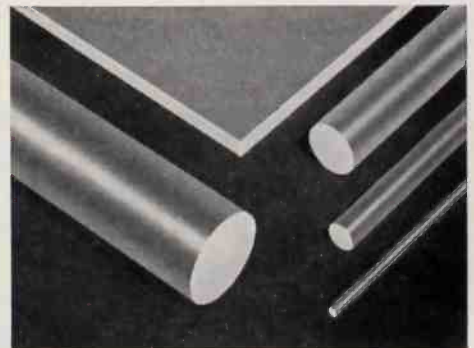
Teflon Stock Sizes

Extruded Rod Diameter (in.)	Molded Rod Diameter (in.)	Beading Diameter (in.)	Extruded Tubing Outside Diameter (in.)	Tape Gauge (in.)	Slab Thickness (in.)	Spaghetti Tubing AWG size	Molded Tubing Outside Diameter (in.)
.125	2.250	.030	.500	.002	.1250	# 26	1.500
.187	2.500	.046	.625	.003	.1875	24	1.750
.250	2.750	.064	.750	.004	.2500	22	1.875
.277	3.000	.075	.875	.005	.5000	20	2.000
.282	3.250	.093	1.000	.010	.7500	19	2.250
.286	3.500	.100	1.125	.015	1.0000	18	2.500
.300	3.750	.125	1.250	.020		17	2.750
.312	4.000	.140	1.375	.025		16	3.000
.375	4.250	.150	1.500	.031		15	3.250
.386	5.000	.187	1.625	.035		14	3.500
.400			1.750	.040		13	3.750
.437			1.875	.050		12	4.000
.450			2.000	.062		11	4.250
.500				.093		10	4.500
.545				.125		9	4.750
.562						8	5.000
.625							5.250
.750							5.500
.875							6.000
1.000							6.250
1.125							6.500
1.250							7.000
1.375							7.250
1.500							7.500
1.625							7.750
1.750							8.000
1.875							
2.000							

Extruded Tubing—Various wall thicknesses available from 1/8" on smaller sizes to 1/2" on larger sizes
 Tape—.002" to .005" thick, 1/4" to 12" wide; .010" to .125" thick, 1" to 12" wide
 Slab—12" x 12", 24" x 24" and 48" x 48"
 Spaghetti Tubing—lengths of 100, 200, 500, 1000 feet on reels
 Molded Tubing—Various wall thicknesses available from 1/4" on smaller sizes to 3/4" on larger sizes

POLYPENCO Q-200.5

Polypenco Q-200.5 (cross-linked polystyrene) is an excellent machinable dielectric for use in RF and UHF installations. Q-200.5 is rigid and form-stable, has low deformation under load combined with low power factor, and a low dissipation factor of 0.0002 over nearly entire frequency range. Use assures maximum performance at minimum cost.



Polypenco Q-200.5

Q-200.5 Stock Sizes

Rod Diameter (in.)				Plate Thickness (in.)	
.093	.304	.750	2.500	.031	.250
.125	.312	.875	3.000	.047	.375
.156	.375	1.000	3.500	.063	.500
.187	.400	1.250	4.000	.098	
.250	.437	1.500		.125	
.279	.500	1.750		.188	
.284	.562	2.000			
.300	.625	2.250			

Plate—Sizes, 12" x 6", 12" x 12", 12" x 24", and 24" x 24"

Stock sizes available for immediate shipment from warehouses in: Atlanta, Boston, Buffalo, Chicago, Cleveland, Dayton, Denver, Detroit, Fort Worth, Indianapolis, Los Angeles, Minneapolis, Montreal, New Haven, New York, Philadelphia, Reading, San Francisco, St. Louis and Toronto.

For additional information . . . price lists . . . write:

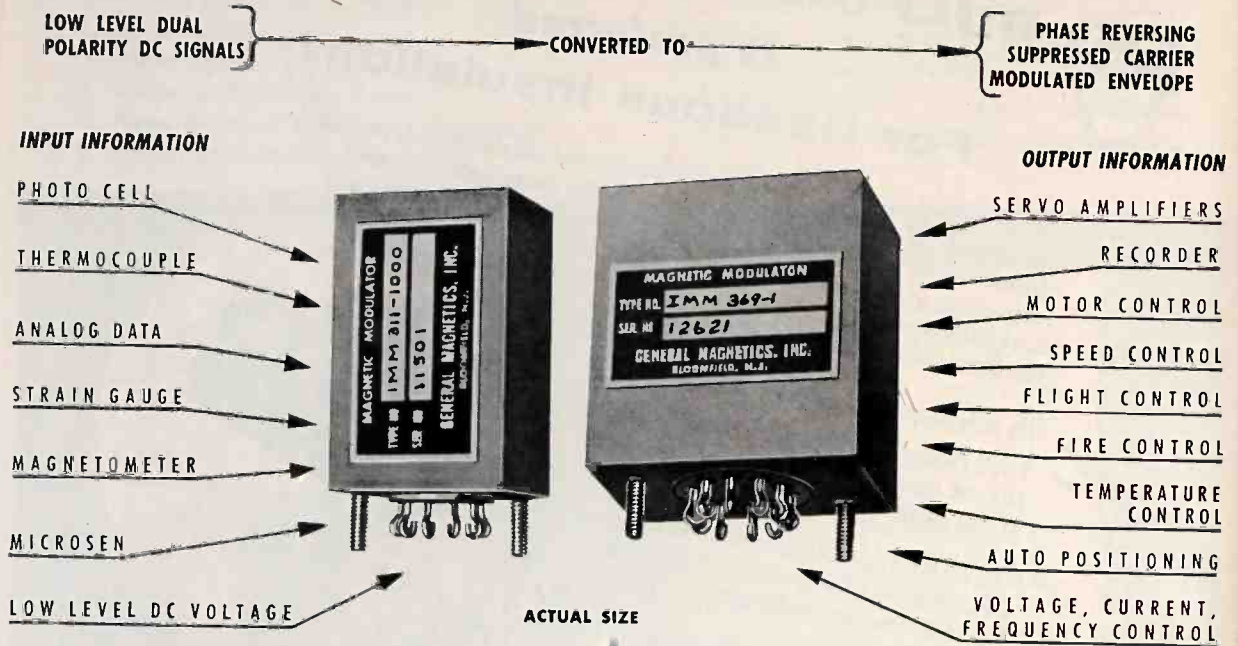
THE POLYMER CORPORATION OF PENNA., Reading, Penna.
 In Canada: Polypenco, Inc., 2052 St. Catherine St. W., Montreal, P.Q.



POLYPENCO®

Since the choppers must fail, install a MAGNETIC MODULATOR for life

A Converter With High Shock and Vibration Resistance and Practically Unlimited Life
Operation in Ambient Temperatures From -70°C to $+150^{\circ}\text{C}$.



The Magnetic Modulator is designed to convert low level dual polarity DC signals into AC signals of corresponding amplitude and phase sense.

We specialize in control systems and MAGNETIC AMPLIFIER components for automatic flight, fire control, analog computers, guided missiles, nuclear applications, antennas and gun turrets, commercial power amplifiers, and control systems.

PARAMETER	INPUT MODULATORS			THERMOCOUPLE CONVERTERS
Type No.	IMM-336-1	IMM-311-1000	IMM-369-1	MTC-336-10
Excitation Frequency	360-440 CPS	360-440 CPS	60 CPS	360-440 CPS
Signal Winding DC Res.	9K \pm 10%	1000 ohms	800 ohms \pm 10%	10 ohms \pm 10%
AC Excitation Volts	115V	5.0 Volts RMS	3V RMS	6 Volts RMS @ 400 CPS
Input Signal Range	0 \pm 70 μA	0 \pm 200 μA	0 \pm 500 μA	0 \pm 20 Millivolts
AC Output	0-8V RMS Phase Rev. 400 CPS	0-7V RMS 400 CPS Phase Rev.	0-2.4V RMS Phase Rev.	0-7.5V RMS Phase Rev.
Overall Dimensions	1" x 1 1/16" x 1 3/4"	1" x 1 1/16" x 1 3/4"	1 1/2" x 1 3/4" x 1 3/4"	1" x 1 1/16" x 1 3/4"
Null Amplitude	25MV RMS Maximum	30MV RMS Maximum	20MV RMS Maximum	20 Millivolts
Output Impedance	20,000 ohms	20,000 ohms	5K ohms	20,000 ohms
Response Curve				

WRITE FOR CATALOG "B"



135 Bloomfield Ave., Bloomfield, N. J.

appropriateness.

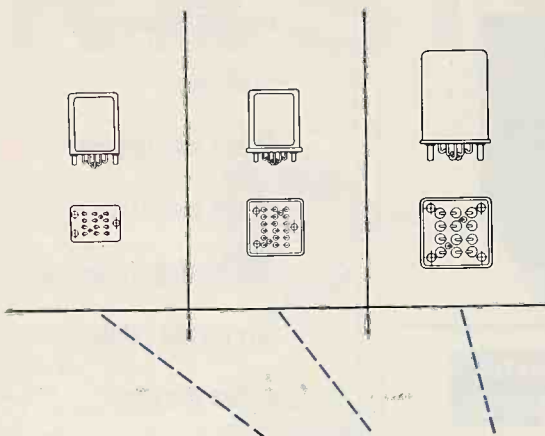
re·li·a·ble (rē·lī'ā·b'l), *adj.* Suitable or fit to be relied on; worthy of dependence or reliance.

re·li·

Every relay leaving the Leach plant *must* live up to that definition...reliability is the starting point in each new design and for every manufacturing and quality-control procedure. Whatever your relay need... whether starting an air-conditioning system or helping

to guide a missile through the ionosphere...look to Leach *first*. Then *test* Leach against any relay on the market. You'll learn right away why it has been a habit throughout industry for years to specify Leach when system reliability is a must.

Leach's premier line...SYSTEM DESIGNED RELAYS



	9220	9226	9230
Contact arrangement	4PDT	6PDT	4PDT
Operating voltage	18-30 VDC	18-30 VDC	18-30 VDC
Contact rating at 28 VDC			
Resistive	5 amp	5 amp	10 amp
Inductive	1.5 amp	1.5 amp	7 amp
Coil resistance	250 ohms	200 ohms	150 ohms
Duty	Continuous	Continuous	Continuous
Weight	.25 lb.	.25 lb.	.5 lb.
Case dimensions, inches	1.3x1x1.7	1.5x1.5x1.7	1.7x1.7x2.6



HERMETICALLY SEALED AIRCRAFT TYPES



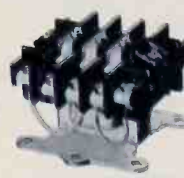
RADIO AND HIGH-FREQUENCY RELAYS



400-CYCLE RELAYS



"HI-SEAL" PACKAGED CIRCUITRY



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MOTOR-STARTING TYPES

At left are three basic relays from a line designed around the hard facts of today's electronic, aircraft and missile systems... the toughest challenge yet for electronic components. To meet this challenge, and yet provide unusual flexibility, Leach *System Designed* Relays offer these features...

HERMETIC SEALING — every relay checked by mass spectrometer

OPTIONAL LEADS — solder terminals, potted leads or plug-in bases

SQUARE CANS — 20% more relays in the space required by round cans

SHOCK RESISTANCE — vibration and shock properties exceed MIL specs

HIGH-TEMPERATURE — dependability assured at 120°C ambient

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LABORATORY AND TESTING INSTRUMENTS



THREE TERMINAL CAPACITANCE BRIDGE

- Cap. Range: .001 mmf to 11,000 mmf
- Approx. accuracy: \pm (25% + .001 mmf)
- Measures direct and grounded capacitance
- Measures conductance directly
- Self contained oscillator and detector
- Ideal for temperature coef. measurements
- Particularly suited for vacuum tube, transformer, and cable capacitance measurements

Model 74C

PRICE \$850.00

SENSITIVE RF VOLTMETER

- Range: .001 volt to 3 volts
- Freq. Range: .2-400 megacycles
- Accuracy: \pm 5% full scale
- RMS response below .1 volt
- High impedance probe
- 52 ohm probe; max. vswr 1.06
- Power sensitivity: .02 microwatt

MODEL 91A

PRICE \$375.00



RF DISTORTION METER AND VOLTMETER

- Frequency Range: 1 to 100 mc
- Sensitivity: 70DB below 3 volts
- Accuracy: \pm 2DB
- Input Impedance: approx. 50 ohms
- Fast, easy operation
- Same Voltmeter features as Model 91A above

MODEL 85B

PRICE \$675.00



UHF GRID DIP METER

- Widest freq. range: 300 to 1000 mc
- Small, lightweight probe
- High sensitivity for both capacitive and inductance coupling
- Frequency accuracy, \pm 2%
- Very stable oscillator
- High Q absorption frequency meter





MODEL 101B

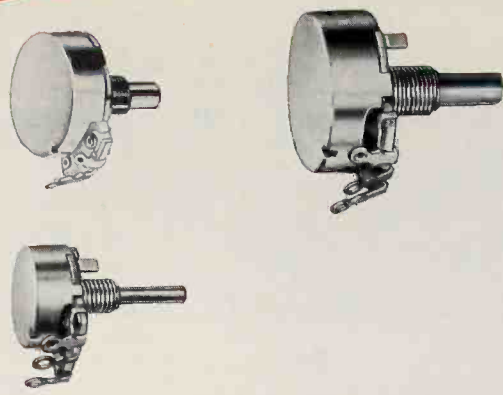
PRICE \$275.00



BOONTON ELECTRONICS CORP.

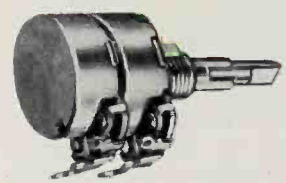
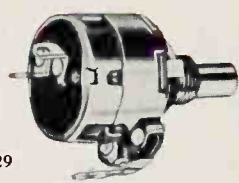
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275,000 sq. ft. plant area . . . 1500 employees . . .
making ALL TYPES of variable resistors by the million . . . for
ALL TYPES of military and commercial applications.

Dependable delivery. Exceptionally good delivery
cycle due to enormous mass production facilities.

A CTS control can be tailored to your specific requirement.
Refer your control problems to CTS specialists today.



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ELKHART * INDIANA
FOUNDED 1896

The Exclusive Specialists in Precision Mass Production of Variable Resistors



DYNASERT
for
Automatic Assembly

Leading producers of radio, TV and industrial electronics depend on this system for regular production. Printed wiring boards are loaded at one end — and completed assemblies come off the far end at the rate of 9600 a day. Multiple station conveyorized equipment handles variety of components. Automatic assembly is faster, more uniform and costs less.

Production equipment for Electronics

Mechanized production equipment for all assemblers

Putting components into printed circuits — or considering this? Then you should know what Dynasert assembly equipment can do for you. Whether your weekly production is in the hundreds or the ten thousands there is Dynasert production equipment designed for the needs of electronics producers. Equipment can range from a single bench mounted machine to entire conveyor line set-ups with numerous stations.

In addition to component inserting machines, United's Dynasert equipment in-

cludes machines for component preparation, and automatic board loading and unloading. Equipment is versatile and readily adjusted to new set-ups. Dynasert machines provide:

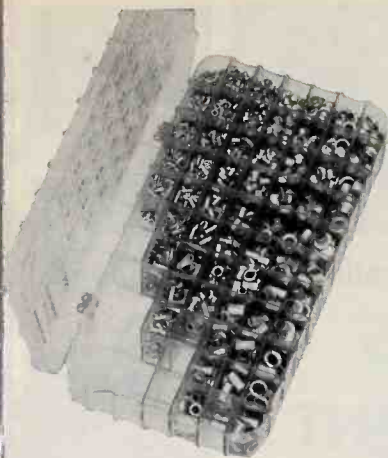
- Significant reductions in assembly costs.
- Maximum freedom of printed wiring board design.
- Reliable, uniform assembly — proven performance.
- Positive feed — mechanisms engineered to fit components.

Components Handled: RESISTORS • AXIAL LEAD CAPACITORS • DIODES • AXIAL LEAD COILS
TUBE SOCKETS • DISC CAPACITORS • R-C NETWORKS • JUMPER WIRES • EYELET CONNECTORS

DYNASERT for **Semi-Automatic Production**

Single machines or groups of individual machines can provide most of the benefits of mechanized production. Can be widely used where limited lot production does not justify completely automatic conveyor system. Easily converted to conveyor use.



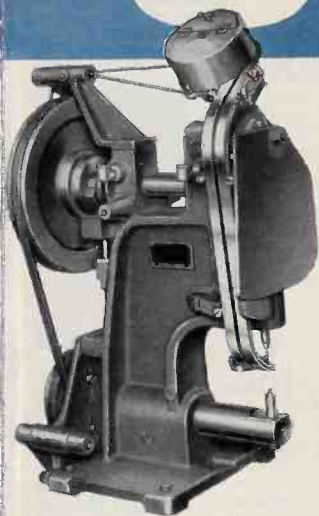


NEW... Designers Eyelet Kit

- Contains 63 standardized sizes and lengths
- Get exactly the size eyelet you need
- Compact package has sizes marked in cover

This kit is the best way to get acquainted with United's STANDARDIZED eyelets — the uniform eyelets that meet specifications drawn by engineers and designers. Eyelets are graduated in 32nds of an inch through seven diameters and twelve barrel lengths. This helps you explore the possibilities of eyelets as a quicker, better or more economical fastener or special component. Get one today. Only \$4.00. See address below.

by United



Eyeleting Machine MODEL G

- Simple, reliable, adaptable to many uses.
- Non-repeating clutch for less spoiled work and greater safety.
- Self feeding for eyelets up to 5/8" flange diameter.

Simple, trouble-free, the standard Model G Eyeleting Machine has been adapted to many uses. In electronics it can be equipped with a device which neutralizes excess setting pressure and cut breakage when ceramic, plastic, or other fragile materials are being eyeleted. Can also be fitted with retractable spindle to save many dollars in replacing broken tools when small eyelets are being set. It has a non-repeating clutch which makes for less spoiled work and less skill required.

Eyeleting Machine MODEL F

- Heavy duty for eyelets up to No. 5 grommet.
- Sets from 2 to 6 eyelets at the same time.
- Different sizes can be handled simultaneously.

This is the most versatile eyeleting machine of its type on the market. It is built for long, trouble-free service.

Its simplicity opens up new opportunities for utilizing low-cost eyelets on many types of work.

Raceways are easily changed to accommodate eyelets of different sizes. It is capable of exerting up to 4800 pounds pressure. With materials which can be used in conjunction with piercing or punching types of sets, no holes are required.

Other materials require holes to be made previously.

The Model F is available with a great many variations in the auxiliary devices. Investigate its many advantages now.



USMC

United SHOE MACHINERY CORPORATION

INDUSTRIAL SALES DIVISION

140 FEDERAL STREET, BOSTON, MASSACHUSETTS



2 Poles—64 Contacts For External Drive



1 Pole—75 Contacts For External Drive



4 Poles—30 Contacts 30 Contacts Per Second



2 Poles—60 Contacts 300 Contacts Per Second



2 Poles—90 Contacts 1800 Contacts Per Second



1 Pole—60 Contacts For External Drive



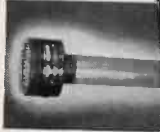
5 Poles—45 For External



4 Poles—30 Contacts 30 Contacts Per Second



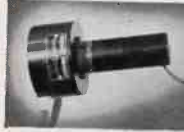
3 Poles—30 Contacts 30 Contacts Per Second



1 Pole—60 Contacts 1200 Contacts Per Second



4 Poles—8 Segments For External Drive



2 Poles—90 Contacts 450 Contacts Per Second



6 Poles—90 Contacts For External Drive



2 Poles—30 Contacts 30 Contacts Per Second



6 Poles—24 Contacts 360 Contacts Per Second



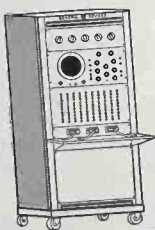
NEW! IN PRODUCTION! MISSILE TELEMETERING!
Minimum volume unit—up to 6 poles—60 contacts per pole—standard sampling rates.



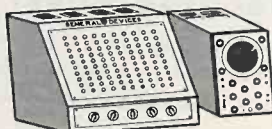
NEW! IN PRODUCTION! AIRCRAFT INSTRUMENTATION!
Convenient rectangular package with plugs—up to 3 poles—60 contacts per pole—standard sampling rates.



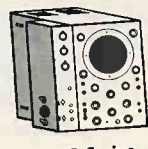
NEW! COMPUTING EQUIPMENT!
High capacity unit constructed for maximum serviceability—2 poles—180 contacts per pole.



8200 Series Complete Portable Rack Model



8100 Series Bench Model Used With Standard Oscilloscope



8000 Series Oscilloscope Attachment Model



3 Poles—60 Contacts For External Drive



3 Poles—30 Contacts For External Drive



2 Poles—64 Contacts For External Drive



1 Pole—60 Contacts For External Drive



4 Poles—30 Contacts 150 Contacts Per Second



1 Pole—60 Contacts For External Drive



2 Poles—40 Contacts 800 Contacts Per Second



1 Pole—60 Contacts For External Drive



3 Poles—60 Contacts 300 Contacts Per Second



1 Pole—60 Contacts For External Drive

First Source For Reliability SWITCHES FOR EVERY REQUIREMENT

By the Leading Manufacturer of Precision Multi-Contact Rotary High Speed Sampling Devices

for INDUSTRIAL • MILITARY AND SCIENTIFIC APPLICATIONS

Designed by specialists in Electro-mechanical Devices and Multi-channel Data Systems for the ultimate in flexibility, reliability and performance.



General Devices, Inc.

Princeton, New Jersey
Trenton, New Jersey • LYric 9-4507

Standard test equipment for thorough testing of our multichannel products.

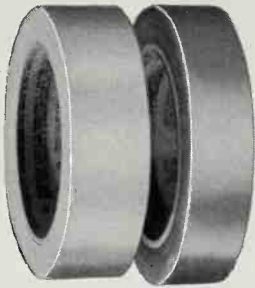
CHECK your insulating needs with the makers of **SCOTCH** Electrical Products

Reg. U.S. Pat. Off.
BRAND

(World's leading supplier of tapes, films and resins for electronic application)

✓ MYLAR* TAPE (Polyester Film)

One of the most stable of tapes. Pressure-sensitive adhesive. Has extremely high dielectric strength. Film backing is only one mil thick, yet tape withstands 5,000 volts in a short time test. Insensitive to heat, cold and moisture. Resists chemical action; is almost impossible to tear.



With true thermosetting adhesive

✓ PAPER-BACKED TAPE

Purified crepe or flatback paper backings are unified by impregnation with an electrical grade saturating solution. Available with standard pressure-sensitive or thermosetting adhesive that holds strongly. The true thermosetting adhesive has extremely high tack, great solvent resistance, long shelf life.



With true thermosetting adhesive

✓ "PTF" TAPE AND FILM (Made of Teflon* Resin)

Highest degree of chemical inertness of any plastic. Great mechanical strength, a minimum of pinholes, excellent electrical properties over a wide range of temperatures and frequencies. Low moisture absorption and vapor transmission. Available in tape form with pressure-sensitive adhesive, as a fused or unfused film.



✓ VINYL PLASTIC TAPE

The tape needed for mechanical and electrical protection. Conforms smoothly to odd shapes and contours. Pressure-sensitive adhesive sticks tight at light finger pressure. Resists acids, oil, alkalis, alcohols, water, sunlight and weathering. In 7, 10 and 20 mil thicknesses. High dielectric strength.



✓ ACETATE TAPES

The ultimate in non-corrosive tape for fine-wire coils. Acetate fibre, acetate cloth or acetate film cloth backings available—all with pressure-sensitive adhesive. Good moisture resistance. Attractive appearance. Ideal for splicing lead wire connections, making lead saddles or pads, strapping pads to coil, coil wraps, insulating relay coils and solenoids.



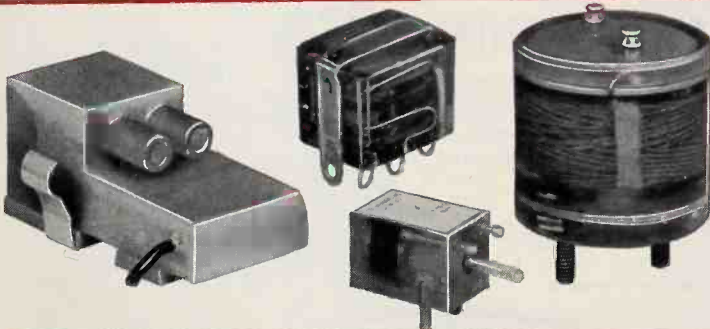
With true thermosetting adhesive

✓ GLASS CLOTH TAPE

Heat-resistant glass cloth backing won't burn, shrink or rot. Thermosetting adhesive cures at 120°C for two hours to form a permanent bond of great strength. High resistance to varnish solvents. It is Class "B" insulation, recommended for insulating and holding where high heat is normal. Tensile strength: 150 lbs. per inch of width.



With true thermosetting adhesive



ENCAPSULATING AND IMPREGNATING RESINS





















"SCOTCHCAST" Epoxy Resins are available with a wide range of characteristics which equip them for innumerable applications. Available in rigid, and semi-rigid flexible forms.

*Reg. Trademark of Dupont

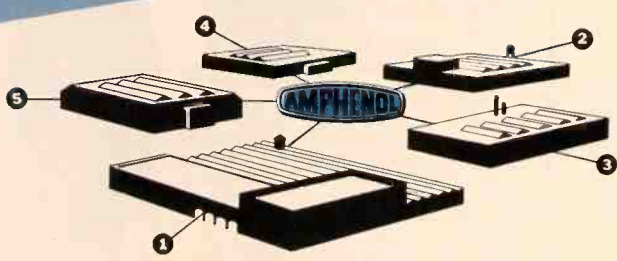
For complete information on any or all of these products, write Minnesota Mining and Manufacturing Company, Dept. CA-66, St. Paul, Minnesota.

The term "SCOTCH" and the plaid design are registered trademarks for the more than 300 pressure-sensitive tapes made in U.S.A. by Minnesota Mining and Mfg. Co., St. Paul 6, Minn. Export Sales Office: 99 Park Avenue, New York 16, N.Y. In Canada: P.O. Box 757, London, Ontario.



AN CONNECTORS  RF CONNECTORS  CABLES & HARNESS ASSEMBLIES 
 POLYETHYLENE DIELECTRIC COAXIAL CABLE  TEFLON DIELECTRIC COAXIAL
 CABLE  RACK & PANEL CONNECTORS  HERMETIC SEAL
 HEADERS & CONNECTORS  BLUE RIBBON CONNECTORS 
 MICRO-RIBBON CONNECTORS  PRINTED CIRCUIT CONNECTORS 
 SIGNAL CORPS POWER & AUDIO CONNECTORS  SUBMINAX CABLE
 AND CONNECTORS  MINIATURE AN-TYPE CONNECTORS 
 CONNECTORS FOR POTTING  MICROPHONE CONNECTORS &
 CABLE  CAPTIVATED CONTACT RF CONNECTORS  GUIDED
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 AND AIRFORCE COMMUNICATIONS ANTENNAS  FM ANTENNAS 
 UHF/VHF ANTENNAS

TWIN-LEAD & ROTATOR
 CABLE  ACCESSORIES
 FOR HOME TV
 RECEPTION  OVER
 TEN THOUSAND
 CATALOGED ITEMS
 FOR USE IN EVERY
 BRANCH OF THE
 ELECTRONICS INDUSTRY



YOUR ELECTRONIC COMPONENT HEADQUARTERS

AMPHENOL is the only electronic component manufacturer offering both connectors and cable—the only single source for thousands of needed items. AMPHENOL also offers complete cooperative engineering service in the design and manufacture of 'specials'—either adaptations of standard AMPHENOL catalog items or totally new designs.

AMPHENOL ELECTRONICS CORPORATION
 chicago 50, illinois
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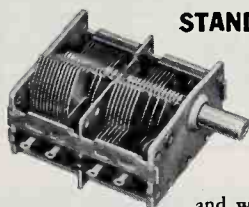


TUNE IN ON RADIO CONDENSER

For Variable Capacitors Tuners Electromechanical Assemblies

The experience of Radio Condenser in producing tuners and variable capacitors to individual requirements has consistently proved its value to manufacturers through the right combination of quality and cost. However unusual a problem may be, chances are that R/C specialists have faced a similar problem and solved it.

The products shown on this page are only a brief sampling of units designed, engineered, and manufactured by Radio Condenser. A more complete description of products in each category is given in our catalog, available on request. Or, we will be happy to arrange a direct interview with a Radio Condenser Engineer at your convenience.



STANDARD HOME RADIO TYPE CAPACITORS

R/C units cover every standard application, including AM-FM receivers. Each is a product of high quality, performance-proved, and well adapted to rapid, low cost quantity production.



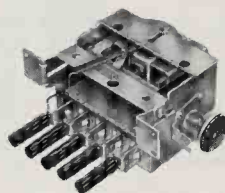
CAPACITORS FOR LIMITED SPACE

Among the most recently announced R/C developments is a miniature variable capacitor for transistorized radio receivers, also adaptable to color TV phasing control. R/C accomplished important reductions in size with no sacrifice of stability or calibration accuracy.



MINIATURE AIR TRIMMER CAPACITORS

For every type of electronic equipment—printed wiring board or conventional chassis—Radio Condenser miniature trimmers permit more circuit in less space. All are equipped with plug-in tabs as well as two holes for screw mounting. Ruggedly constructed, the tiny trimmers also have excellent insulation resistance, "Q", and thermal stability.



AUTOMOTIVE RADIO TUNERS

Approximately one-third of all American automobiles are equipped with R/C tuners. Because every automobile radio tuner is an individual case, R/C custom manufacturing experience is an important asset to the radio manufacturer in this specialized field.



STANDARD CAPACITORS FOR SPECIAL APPLICATIONS

Always an important part of R/C activities, design and manufacture of variable capacitors of a special nature are handled by a special division. Products include units for every type of military service, test equipment, etc.

ELECTRO- MECHANICAL ASSEMBLIES

As a contract manufacturer of electromechanical assemblies for industrial and military electronic equipment, automatic data processing systems, etc., R/C also offers engineering assistance in development and modification, leaving you completely free of production worries and details. Complete information on this well-qualified division is available on request.



RADIO CONDENSER CO.

Davis & Copewood Streets • Camden 3, New Jersey

EXPORT: Radio Condenser Co., International Div., 15 Moore St., N.Y. 4, N.Y. CABLE: MINTHORNE

CANADA: Radio Condenser Co. Ltd., 6 Bermondsey Rd., Toronto, Ontario

JENNINGS VACUUM

VACUUM FIXED CAPACITORS

The all copper construction of Vacuum Fixed Capacitors give high current ratings, long life and stability of operation.



Type MMC
2000 mmfd
15 kv



Type JCSL
1500 mmfd
5 kv



Type JCSF
150 mmfd
15 kv

	TYPE		CAPACITY MMFD	PEAK VOLTAGE KILOVOLTS	RMS AMPERES ^①		NOMINAL DIMENSIONS ^②	
	NICKEL	COPPER			NICKEL	COPPER	LENGTH	DIAMETER
2 to 5 KV		JCSL	100, 250	3, 5		35	2 3/4	1 1/8
		JCSL	500, 750, 1000, 1500	3, 5		42	3 3/8	2 1/8
		JCSL	2000	2, 3		42	4	2 1/8
7.5 to 15 KV		JCSF	25, 40, 80, 120, 150	7.5, 10, 15		30	1 1/4	1 1/8
		JCS 2	10, 20, 25, 50, 75, 100, 150	7.5, 10, 15		20	3/4	2 1/8
		JCS 1	25, 50, 75, 100, 150	7.5, 10, 15		50	3 1/2	2 1/8
		JCS	250, 400, 500	7.5, 10, 15		42	4	3 1/8
		JCS	900, 1000	7.5, 10, 12		42	4 1/2	3 1/8
		MC	500, 750, 1000	10, 15		75	4 1/2	3 1/8
		MC	500, 750, 1000	10, 15, 20	21	120	8 1/2	5
		MMC	1500, 2000	10, 15	35	125	9 1/4	6 1/8
		MMC-1	2000	10, 15		125	5	6 1/8
		MMC	5000	10, 15		125	13	9 1/4
17 to 30 KV		Y	1, 2, 3, 4, 5	17		7	3/4	3/4
		X	5, 10, 15, 20, 25	17		7	3/4	1 1/8
		W	6, 12, 25, 50, 100	20, 25	10.5		4 1/2	2 1/4
		VCCA	6, 12, 25, 50, 75, 100, 150	20, 30		60	6 1/2	2 3/8
		VCC	6, 12, 25, 50, 75, 100, 150	20, 30, 3.5	14	60	6 1/2	2 3/8
		VCC	200, 250	20, 30	14	60	6 1/2	2 3/8
		JC 2	25, 50, 75, 100	20, 30		42	4	3 1/4
		MLC	500, 750, 1000	25, 30	21	125	9 1/4	5
		JHC	75	50, 60		42	4	3 1/2
		JC 3	20, 40, 50, 60	35, 45, 55, 60		140	8 1/4	3 1/2
35 to 60 KV		JC 4	75, 100, 125	35, 45, 55, 60		175	9 1/4	5
		JC 5	200	35, 45, 55, 60		225	11 1/4	7
		MMH	450	35, 45, 55	21	125	9 1/4	6 1/8
		MMHC	1000	35, 40, 45		125	13	9 1/4

① Current ratings can usually be doubled with forced air cooling. Water cooled units are also available.
② Nominal Dimensions are for the largest unit of each type.
NOTE: Intermediate capacities, feed-thru capacitors, and glass insulators are available.

TYPES R AND RH HIGH VOLTAGE SWITCHES

VACUUM SWITCH RATINGS

For RF and DC Transfer Switching

Jennings Type	R5C	R1	R2	R8	RH6	RH7
Test Voltage (300 kc dry)—peak kv	20, 30	40, 50	50, 60	40, 70, 85	85, 100	85, 100
Operating Voltage—peak kv	15	30	40	30 to 85	85	85, 100
Continuous Current (rms amp)—dc ^①	50	50, 100	50, 100	100, 200	50, 200	50, 400
—300 kc	30	35	35	100	50	100
—10 mc	25	25	25	50	50	100
—30 mc		15	15	25	25	25
RF Interrupting Power—kilowatts	50	250	250	1000		

① DC continuous currents may be increased as shown by using special connectors.

For DC Switching Under Load or Capacitor Discharging

Jennings Type	R5C	R1G	R1J	R2G	R8G	R9G	RH1G	RH7G
Test Voltage (60 cycles dry)—peak kv	20, 30	40, 50	30, 40	50, 60	40, 70, 85	85	85, 100	85, 100
Operating Voltage—peak kv	15	20	20	30	50	60	85	85
Continuous Current—dc amp ^①	50	50, 100	50, 100	50, 100	100, 200	100, 200	50, 200	50, 400
DC Interruption ^② —power in kw	5	25	50	25	50	100	200	200
—current in amp	5	25	50	25	50	100	200	250
Capacitor Discharge—initial amp		500	1800	500	1000	1500	2000	2500

① DC continuous currents may be increased as shown by using special connectors.

② For DC interruption in continuous operation, neither power nor current rating should be exceeded.

For 60 Cycle Power Switching

Jennings Type	R1J	R2G	R8G	R9G	RH1G
Operating Voltage Class—rms kv line to line grounded Y capacitor load to 85% lag pf	2.5	8.25	12	15.5	2.5
Withstand Voltage—rms kv (60 cycle, 1 min. dry test)	19	26	36	50	19
Impulse Voltage—peak kv (1 1/2 x 40 μs NEMA test)	60	75	95	110	60
Operating Current—rms amp at 0% lag (capacitor load) to 85% lag pf / Break only / Make & Break	100	50	100	200	100
Interrupting Current (rms amp)—NEMA one time	50	30	50	100	50
—NEMA ten times	1500	800	2000	2500	1500
Short Time Surge Currents (rms amp)—NEMA 4 second	1000	500	1500	1500	1000
—NEMA 10 cycle mom.	2000	500	2000	2500	2500
Thermal Current (for 30° C. rise)—rms amperes	4000	1500	4000	5000	5000
	100	100	200	200	400

RELAYS USING VACUUM SWITCHES

Type R and RH Vacuum Switches are available from Jennings mounted as relays for indoor use. They may be mounted with contacts normally open or normally closed or two switches may be mounted in a single pole double throw arrangement. Either ac or dc solenoids may be used. Insulation between the switch and its actuating solenoid is provided by a 2 to 8 inch puller rod providing 40 to 100 kv insulation. CE grade phenolic laminate is recommended for dc or 60 cycle use; Grade G7 silicone glass laminate or alumina ceramic is recommended for radio frequency applications.

TYPE R VACUUM SWITCHES



R5C

R1



R2

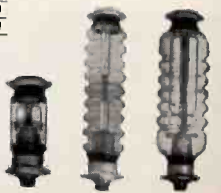
R2G



R8

R9G

TYPE RH VACUUM SWITCHES



RH1G

RH6

RH7G

CAPACITORS & RELAYS

Jennings
RADIO
VACUUM ELECTRONIC COMPONENTS

VACUUM VARIABLE CAPACITORS

	TYPE		CAPACITY	PEAK VOLTAGE	RMS AMPERES ⁽¹⁾		NOMINAL DIMENSIONS ⁽²⁾	
	NICKEL	COPPER	MMFD	KILOVOLTS	NICKEL	COPPER	LENGTH	DIAMETER
2 to 15 KV	UCSL		4-250	3, 5	30		4 1/8	2 1/4
	UCSL		5-500	3, 5	30		5	2 1/4
	UCSL		5-750, 7-1000	3, 5	42		7 3/8	3 1/8
	UCSL		20-2000	2, 3	42		8 1/4	3 1/8
7.5 to 15 KV	GCS		5-100	7.5, 10, 15	40		4 1/4	2 1/8
	UCSV		8-110, 125-250	7.5, 10, 15	50		5 1/4	2 1/8
	ATCS		10-150, 15-200	7.5, 10, 15	20		7	3 1/4
	UCS		5-200, 10-300	7.5, 10, 15	42		8 3/4	2 3/4
	UCSF		10-400, 25-500	7.5, 10, 15	42		9	3 1/4
	UCS		5-250, 12-500	7.5, 10, 15	45		7 3/4	3 3/4
	UCSX		25-700, 25-1000	7.5, 10, 15	45		9 7/8	3 3/4
	UCSXF		12-1000, 15-1200	7.5, 10, 15	45		10	4 3/4
	UCSXF		20-1500, 50-2000	7.5, 10, 12	45		10	5 1/4
	ECS		2-8, 3-30	10, 15	20		4	1 3/8
10 to 20 KV	T	TC	5-25	20	10.5	20	6 5/8	2 1/4
	AT	ATC	10-50, 15-75	20, 30	10.5	20	6 7/8	3 1/8
	U	UC	50-250	10, 15, 20	21	60	11 1/2	5
	UX	UXC	25-500	10, 15, 20	21	60	14	5
	UX	UXCF	10-250, 20-500	10, 15, 20	60	9 7/8	4 3/4	
	VMM	VMMC	50-1000, 100-2000	10, 15	35	125	15 3/8	6 1/8
	VMM	VMMC	100-5000	7.5, 10, 15	125	19	9 1/4	
	UCSVH		8-35	25, 35	60	4 3/4	3	
	UH	UHC	10-75, 75-150	35, 45, 55, 60	21	60	12	5
	UXH	UXHC	25-150	35, 45, 55	21	60	14 3/8	5
35 to 60 KV	UCSXH		10-200	35, 45	60	10	4 1/2	
	UCSXHF		25-450	35, 40	60	10 1/2	5 1/4	
	VMMHC		10-250, 25-450	35, 45, 55	125	16	8 1/4	
	VMMHC		60-1000	35, 40, 45	125	19 3/4	9 1/4	
	UCSVH		8-35	25, 35	60	4 3/4	3	
	UH	UHC	10-75, 75-150	35, 45, 55, 60	21	60	12	5

⁽¹⁾Current ratings can usually be doubled with forced air cooling. Water cooled units are also available.

⁽²⁾Nominal Dimensions are for the largest unit of each type.

NOTE: A series of adjustable capacitors are available to cover the range of 8 to 1000 mmfd at 10 KV.

The Vacuum Variable Capacitors combine extreme high ratio of capacitance change with small physical size.



Type GCS
5-100 mmfd
15 kv



Type UCSXF
50-2000 mmfd
12 kv



Type UCXL
7-1000 mmfd
5 kv

VACUUM TRANSFER RELAYS

- RF AND DC TRANSFER SWITCHING
- DC SWITCHING UNDER LOAD
- 60 CYCLE POWER SWITCHING



RD1



RE2



RM2

Jennings Type and contact arrangement ⁽¹⁾	Type RD1—Normally Open Type RD2—Normally Closed
Rated operating voltage	10 kv peak
Test voltage between terminals	15 kv peak
Test voltage terminals to ground	12 kv peak
Continuous rf current	10 amperes rms
Contact resistance	0.01 ohms
Contact capacitance	0.09 mmfd
Operate times	10 to 30 milliseconds
DC actuating coil — power	RD1—6 watts; RD2—13 watts
— voltage	26.5 volts dc

RE2	RE3*	RE4
SPDT	SPDT	SPDT
10 kv	2.5 kv	25 kv
15 kv	3 kv	30 kv
15 kv	3 kv	40 kv
15 amp	15 amp	12 amp
.02 ohms	.02 ohms	.005 ohms
.25 mmfd	.25 mmfd	.25 mmfd
10 to 30 milliseconds		
10 watts		
26.5 volts dc		

Type RM2—2 pole double throw
Type RM4—4 pole double throw
12 kv peak
18 kv peak
18 kv peak
15 amperes rms
.005 ohms
.33 mmfd
30 to 60 milliseconds
10 watts
26.5 volts dc

HIGH VOLTAGE MEASURING EQUIPMENT



MODEL JP 325 HIGH VOLTAGE PROBE
VOLTAGE RATINGS: 40, 50, or 60 KV peak.
VOLTAGE DIVISION RATIO: 325 to 1 to termination of 3 ft. of RG-58 A/U cable.
INPUT IMPEDANCE:
Resistance: above 10¹² ohms.
Capacitance: 4 mmfd.
FREQUENCY RESPONSE: High frequency limited by that of measuring instrument. (Internal resonances are above 200 mc.) Low frequency response is 100 cps if operating into 10 megohm shunt resistance; 10 cps if operating directly to vertical deflection plates of an oscilloscope.



TYPE JCD 5 MMFD SERIES CAPACITOR attaches to HV end of the V₀ 2.5 divider in the meter below and the probe at the left doubling the division ratio in each case. Decreases total loading capacity of meter or probe from 4 mmfd to 2 mmfd.
Sold without corona sphere unless ordered.
VOLTAGE RATING: 60 KV peak.

MODEL 1-1002 HIGH VOLTAGE VACUUM TUBE VOLTMETER for use in pulse, rf, and 60 cycle circuits at voltages up to 100 KV.
VOLTAGE RANGES (peak volts full scale):
Single Ended: 5, 10, 25, 50, 100 KV.
Double Ended: 5, 10, 25, 50, 100 KV.
(By using Type JCD Series capacitor, these ranges can be more than doubled.)
OSCILLOSCOPE CONNECTION: 300 to 1 division ratio.
FREQUENCY RESPONSE: 20 cycles to 20 megacycles at full rated voltage and up to 50 megacycles for lower voltages with low harmonic content.
INPUT IMPEDANCE: 10¹² ohms and 4 mmfd.
CALIBRATION ACCURACY: ±3% of full scale.
POWER SUPPLY: 117 volt, 50/60 cy.
DIMENSIONS: 16" x 10" x 10 3/4".



JENNINGS RADIO MANUFACTURING CORPORATION • 970 McLAUGHLIN AVE. P.O. BOX 1278 • SAN JOSE 8, CALIF.

IMC MOTORS FOR POSITIVE PERFORMANCE

FBC 2922 B-2

250 cfm @ .5" sp
115 volts
60 cycle
Single phase
Weight: 8 lbs.



2900 FRAME—IMC's 2900 frame series is available either as non-synchronous or synchronous (reluctance or hysteresis types) in horsepower from 1/200 to 1/8, voltages from 26-208. Units suited for use in recording instrumentation, where low noise levels and speed uniformity are critical.

BT 1708 G-1

Two phase
(Impedance 9000 ohms)
60 cycle
Two pole
3300 free rpm
Voltage-Reference winding: 115 volts
Voltage-Controlled winding: 230 volts
Weight: 1 lb.



1700 FRAME—Servo motors can be obtained in either one or two phases, 60-400 cycles, 2, 4, 6 or 8-pole construction. All are built to meet military specifications on humidity, high ambient temperatures, vibration or altitude. Units are available with high impedance controlled winding. Shaft diameter, length optional.

BD 1206 G

Torque-60 oz. in.
200 rpm
28 volts DC
Weight: 7 oz.



1200 FRAME—Miniature, permanent-magnet DC motors in horsepower from 1/300 to 1/75, are well-suited for blower, fan and gear motor applications in both military and commercial flight installations. These high-power units are available in voltages from 6-28. All are 2-pole, ball-bearing devices.

BC 1615 F-23

90 NAFM rating
115 volts
60 cycle
Single phase
Weight: 1 lb. 8 oz.



1600 FRAME—This series is comprised of induction type, non-synchronous or synchronous units with low temperature rise, in horsepower range from 1/300 to 1/10, voltages from 26-208. All have anodized aluminum housings; either ball or sleeve bearing construction and can withstand ambient temperatures up to 150°C.

3011 DYNAMOTOR

Input: 27.5 v at 3 amps
Output: 160 v at 250 ma
Speed: 9000 rpm



3000 FRAME—Newest additions to the Induction line are the 3000 frame series dynamotors. These units, which feature power output up to 110 w depending on duty cycle and ventilation, operate in the temperature range from minus 55—plus 105°C. Precise input and output voltages are available to meet your specifications in this and other dynamotor frame sizes.

Other motor, gear, fan and blower applications listed in the IMC catalog



Induction Motors Corp.

570 Main St., Westbury, L. I., N. Y.

Phone EDgewood 4-7070

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OR

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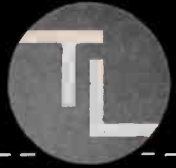
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MICROWAVE TRANSMISSION LINES AND COMPONENTS



TECHNICRAFT can serve your needs from the face of the magnetron through to the antenna.

DOUBLE RIDGED WAVEGUIDES

Flexible and rigid waveguides, bends, twists, power dividers and antennas. Transitions from ridged to rectangular waveguide within the frequency range 4.75 to 11.00 KMC/S are available.

In addition to the DR-19 size referred to above, Technicraft is expanding its components not only in this size but in other ridged waveguide sizes as well.



One double ridged waveguide replaces four conventional waveguides.

FLEXIBLE WAVEGUIDES

Only manufacturers of solderless flexible waveguides, which eliminate problems inherent in soldered structures. (Technicraft uses solder only to attach flanges.) Three types of flexible waveguides are available — Type L — Interlocked, Type S — Corrugated, and Type V — Vertebra. Technicraft's Type S — Seamless Corrugated flexible waveguide is the only seamless flexible waveguide made.



Type L — Interlocked



Type S — Seamless-Corrugated

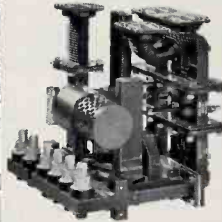


Type V — Vertebra

OSCILLATING JOINTS

New Technicraft development designed to replace rotating joints where oscillation required is between $\pm 30^\circ$ to $\pm 210^\circ$. Overall length of unit is determined by the degrees of oscillation required. Device is broad band, has low VSWR, is capable of handling high power, is pressurizable and has exceedingly long life. Provides performance equal to a rotating joint for particular applications, but is much lower in cost.

RIGID WAVEGUIDE SYSTEMS AND COMPONENTS



Technicraft is equipped to design or manufacture to your specifications and drawings any waveguide component or system from face of magnetron through to the antenna. Most advanced test equipment and techniques, plus finest facilities for manufacture and assembly. Mixer duplexer (shown) demonstrates Technicraft know-how in designing and building components into a compact assembly.

PRECISION TEST COMPONENTS



VSWR Calibrator

Broad Band MATCHED Magic Tee

Movable Tunable Load

Precision Slide Tuner

Others include: High Power Phase Shifters
 • High Power Stub Tuners • Precision Traveling Detectors • Directional Couplers
 • Quick Disconnects

NEW DEVELOPMENTS

If you are working on a new development in microwave transmission, we suggest that you check with us. We may be already in development on the component or device you need, or we can add our specialized experience to yours in effecting a faster solution. Among the new things in process at Technicraft are: new methods of RF energy transmission, such as strip line devices, ridged waveguide components and devices, infra-red transmission; ferrite devices, rotary joints, waveguide switches, high power loads. In addition, we are constantly working on existing components to improve their performance and adaptation to miniaturization.

TECHNICRAFT LABORATORIES

INCORPORATED

TECHNICRAFT LABORATORIES, INC.
 Waterbury-Thomaston Road
 THOMASTON, CONNECTICUT

District Offices in: Dallas • St. Louis • Chicago • Dayton • Los Angeles • Seattle • Canada

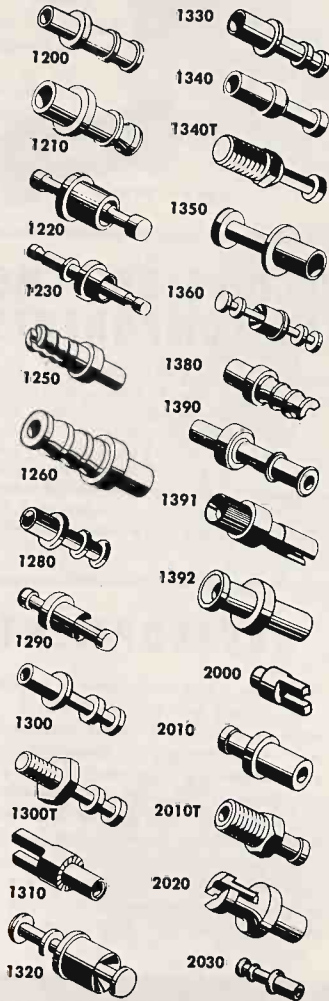
IMMEDIATE DELIVERIES

This is only a partial listing of our many electronic products. Immediate deliveries from the World's most complete warehouse stock. Available in bulk or in new tarnish-free packages. Write for name of nearest stocking USECO Distributor. Please address Dept. 15.

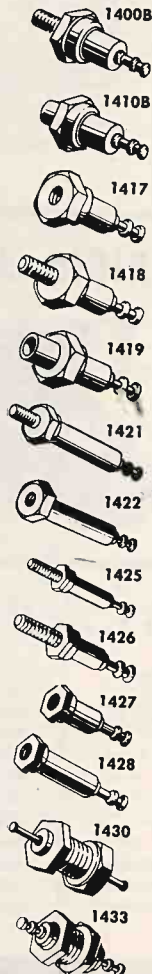
STANDARDIZED ELECTRONIC HARDWARE

U. S. ENGINEERING CO.

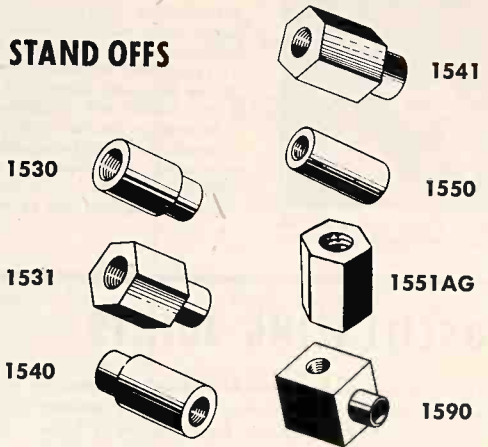
STANDARD TERMINAL LUGS



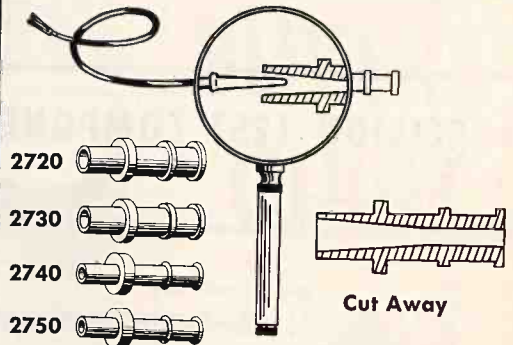
INSULATED TERMINALS



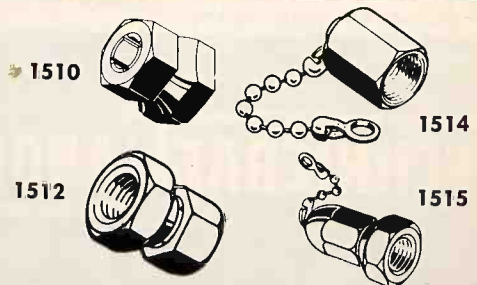
STAND OFFS



TAPER PIN TERMINALS



SHAFT LOCKS



USECO Terminal lugs are made in these size ranges:

SHANK DIAMETERS FROM .062 to .203

SHOULDER DIAMETERS FROM .093 to .250

SHANK LENGTHS FROM .037 to .230

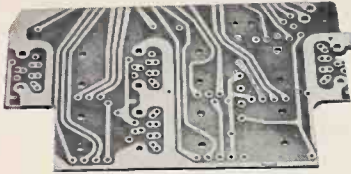
LENGTHS ABOVE SHOULDERS .095 to .468

Special designs by request. Write for catalog with complete specifications. Please address Dept. 15.

REPRESENTATIVES

Representatives in all principal cities. For name and address of representative in your locality, write Dept. 15.

ETCHED CIRCUITS



Quality etched and printed circuits require specially trained personnel. USECO's Staff offers you unsurpassed experience, creative imagination and technical skill. Circuit samples of your design are often supplied at cost. Your prototype inquiries are invited. Furnished in any plated finish as specified.



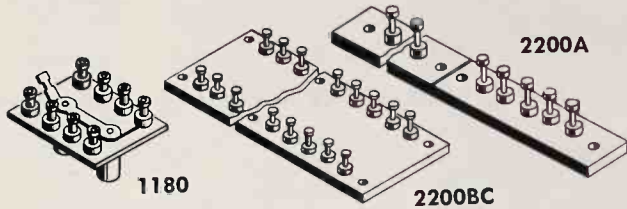
"PLATED-THRU" CIRCUITS

Made by an exclusive USECO process, our "PLATED-THRU" circuits assure you of optimum performance. Experienced in producing circuits with all types of base materials and all precious metal platings. Engineering and design facilities are available.

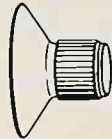
Write for catalog which tells how to prepare master drawings and gives complete information on how to order. Please address Dept. 15.

TERMINAL BOARDS

USECO manufactures Terminal Boards to customer specifications. In addition we maintain a large stock of Standard Terminal Boards. See catalog for complete line. Made to meet all approved MIL and JAN specs.

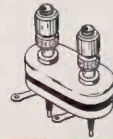


KNOB



625
1000
1038

BINDING POSTS



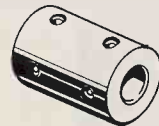
3500

CAPTIVE SCREW



3200

SHAFT COUPLING



3316

PLUGS



1700



1715

CHASSIS BEARINGS



1560

HANDLES



1010



1020



U. S. ENGINEERING CO.

A Division of Litton Industries, Inc.

Glendale 3, California

KAY Electronic Test & Measuring Instruments

• Sweeping Oscillators • Noise Figure Measurement • Marker Generators • Pulsers • TV Transmitters • Color Generators • Signal Generators • Attenuators • Sound Spectrographs • Gain and Loss Test Sets • Spectrum Analyzers • Vibration Analyzers • Vacuum Tube Voltmeters

SWEEPING OSCILLATORS



INST.	RANGE	TUNING	WIDTH	OUTPUT	PRICE
MEGA-SWEEP	50kc - 1000mc	continuous	0 - 40'	100mv	\$465.
CALIBR. MEGA-SWEEP	50kc - 1000mc	single dial	0 - 50	100mv	495.
MEGA-SWEEP 111A	10mc - 950mc 450mc - 900mc	zero level base line	0 - 40	.15v 70ohms .3v 300ohms	575.
MEGA-SWEEP 112A	800mc - 1200mc	single dial	0 - 40	.3v 70ohms	575.
VARI-SWEEP	2 - 220mc	continuous	Up to 30mc plus	1.0v 70ohms RMS	695.
LIGNA-SWEEP C	TV, FM, Video	continuous	Up to 15mc plus	1.0v RMS 70 ohms	350.

VIDEO SWEEPING OSCILLATORS



INST.	RANGE	TUNING	WIDTH	MARKERS	OUTPUT	PRICE
KEYDSWEEP	Sync, blank pulse used with following sweepers				0 - 1v RMS 70ohms	\$395.
MARKA-SWEEP MODEL VIDEO	50kc - 20mc	3 ranges 50kc - 20mc	complete range	6 crystals	1.0v PK-PK 70ohms	495.
MARKA-SWEEP MODEL VIDEO TTV	50kc - 8mc	cont. variable CW signal	8mc	5 crystals	1.5v RMS 70ohms	695.
MARKA-SWEEP MODEL VIDEO GE	50kc - 8mc	contin.	8mc	6 crystals	1.5v RMS 70ohms	595.
MARKA-SWEEP MODEL VIDEO 50	50kc - 50mc	contin.	4 - 50mc cont. variable complete range	5 crystals	1.0v PK-PK 70ohms	695.
VIDALIGNER	50kc - 8mc	3 ranges 50kc - 8mc	complete range	8 crystals	1.5v RMS 70ohms	775.

SWEEPING OSCILLATORS WITH MARKS



INST.	RANGE	TUNING	WIDTH	MARKERS	OUTPUT	PRICE
KILO-SWEEP	50kc - 2mc	contin.	contin.	6 crystals	.5v RMS 70ohms	\$700.
SONA-SWEEP	5kc - 200kc	contin.	100kc 20kc	6 crystals	.5v RMS 70ohms	525.
RADA-SWEEP	30 & 60mc	centre	20mc or 3mc	9 crystals	.25v RMS 70ohms	395.
RADALIGNER	15 - 169mc	choice of centres	5mc to 20mc	8 crystals	.25v RMS 70ohms	795.
IF MARKA-SWEEP	20 - 50mc	3 ranges	500kc - sound 15mc - picture	9 crystals	.25v RMS 70ohms	325.
RF-P MARKA-SWEEP	IF + 12 channels	12 ch	15mc	9 crystals each sound picture and sound	.50v RMS 70ohms	795.
ULTRA-SWEEP	450 - 900mc	contin.	0 - 60mc		.5v RMS 70ohms	895.

NOISE FIGURE MEASUREMENT . . . NOISE GENERATORS



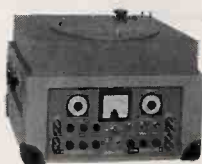
INST.	RANGE	NOISE FIG. RANGE	PRICE
MEGA-NODE	5 - 220mc	0 - 16db @ 50ohms 0 - 23.8db @ 300ohms	\$295.
MEGA-NODE SR	10 - 300mc	0 - 28db	790.
MICROWAVE	1200 - 40,000mc	Fluorescent Tube 15.8 * .25db Inert Gas Tubes 15.2-16db * .1db	\$295. - 500. (with Power supply)
MEGA-NODES		IF strips @ 30 and 60mc	\$1,395. covering range 5mc to 400mc
RADA-NODE	5 to 26,500mc		

TV PICTURE AND SOUND SIGNAL SOURCES



INST.	OUTPUT SIGNAL	VIDEO-AUDIO CARRIER OUTPUT	PICTURE CARRIER MODULATION	SOUND CARRIER DEVIATION	PRICE
MEGA-PIX	RF Picture and Sound Channels 2 - 13	0.03v into 70ohms	0 - 85% adjustable	0 - 25kc adjustable	\$ 990.
MEGA-PIX SINGLE CHANNEL	Specified VHF Channel	0.25v into 70ohms	0 - 85% adjustable	0 - 25kc adjustable	495.
ULTRA-PIX	UHF Picture and Sound. Provides 1 VHF and 3 UHF CHANNELS	VHF 0.25v into 70ohms UHF 0.03v into 70ohms	0 - 85% adjustable	0 - 25kc adjustable	795.
TRANS-PIX 25	VHF Picture & Sound	25 Watts into 50ohms	0 - 85% adjustable	0 - 25kc adjustable	6950.00
TRANS-PIX 2	VHF Picture & Sound	2 Watts into 50ohms	0 - 85% adjustable	0 - 25kc adjustable	2500.00

SOUND ANALYSIS



INST.	DESCRIPTION	RANGE	PRICE
VIBRALYZER	Vibration Frequency Analyzer	5 - 4400 cps.	\$2500.
SONAGRAPH	Sound spectrograph for frequency analysis of audio energy	85 - 8000 cps.	1995.
SONALATOR	Dynamic translator for visible speech display	100 - 4000 cps.	1495.
ECHO-VOX, SR.	Provides 3 separate variable periods of time delay at audio frequencies	20 - 1600 millisecond delay range	1295.
SONA-STRETCHER	Speech stretcher for slowing speech to 1/2 of normal tempo	40 - 12,000 cps. 100 - 4000 cps.	950.
AUTO-VOX	Variable time delay Dual Channel	Negative to Positive Passing through zero	1795.

OTHER INSTRUMENTS



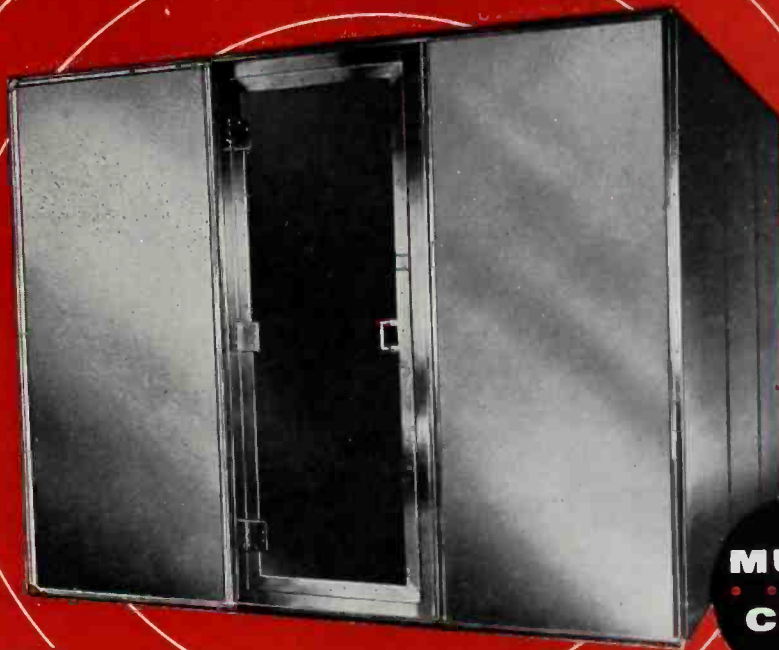
INST.	RANGE	RANGE OF MEASUREMENT	FEATURES	PRICE
KILD-Q	20cps - 10mp	0, 0 - 12.5, 0 - 25, 0 - 50	60mm - 1ml Cap. Range	\$695.
MICROLTHER 50 VTVM	100cps - 50mc	0 - 125, 0 - 250, 0 - 500	May Be Used As 50mc Video Amp.	495.
SIGNALATOR	1 - 230mc in 10 bands	Full Scale: 1 millivolt - 1v. 7 ranges	High Output - A.C.'d 20 RMS into 70ohms	595.
MEGA-MATCH	10mc - 1000mc	Contin. tuning	Displays Mismatch	895.

KAY ELECTRIC CO.

DESIGNERS & MANUFACTURERS OF PRECISION ELECTRONIC TEST AND MEASURING EQUIPMENT
14 MAPLE AVE., PINE BROOK, NEW JERSEY

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MULTI-CELL®

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SHIELDING'S MULTI-CELL® ENCLOSURE

Designed and developed by Shielding engineers, here's installation versatility never before offered in any type of shielding room!

Featuring completely interchangeable standard panels of either solid and/or mesh construction, this Multi-Cell® Enclosure makes installation a snap...and no special tools are required either! Erection poses no problem as this versatile enclosure can be fastened from the inside or outside, by use of a single screw driver!

Other engineered-design features include: (1) Modular panel construction of single or double shielding thickness; (2) Standard door installation in any wall position to swing left or right, in or out; (3) Composite enclosures constructed in combinations of 40 or 48 inch wide panels; (4) Choice of cell or isolated type enclosure.

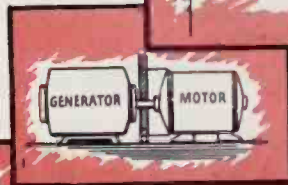
Supplying attenuation characteristics to meet any demand, all Shielding Enclosures have passed all applicable military tests—concrete proof that Shielding has the answer to your RF Suppression problems.

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FAST
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ERECTION



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FOR FILTER PANEL



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263

POTENTIOMETERS...



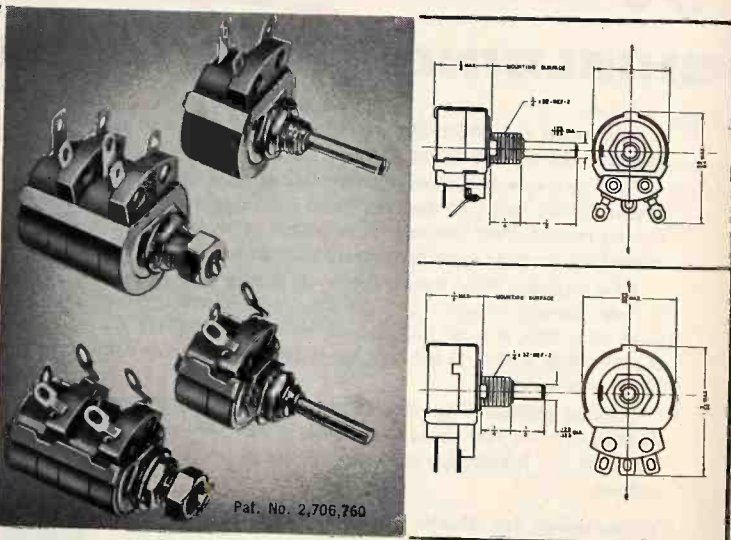
For those unusual requirements where usual controls (as used in radio/TV sets, simple instrumentation, etc.) do not quite measure up, Clarostat provides a wide choice of critical-need potentiometers. Typical are the following types:

Use our IMAGINEERING! Regardless what your control or resistance problems or requirements may be, draw on Clarostat's **IMAGINEERING** for the logical and economical answer. Engineering literature on request.

for MINIATURIZATION...

Series 48M Composition-Element Potentiometer. 0.2 watt. Only $\frac{5}{8}$ " d. $\frac{1}{8}$ " round shaft. Available with split-locking bushing as Series 48M-9. Also with screwdriver slotted shaft. 300° rotation. Single or dual combinations. SPST switch for low-voltage applications. 1000 ohms to 2.5 megohms. 10 and 20% plus/minus tolerances.

Series 49M Wire-Wound Potentiometer. 1.5 watt. Only $\frac{3}{4}$ " d. $\frac{1}{8}$ " round shaft. Available with split-locking bushing as Series 49M-9. Also with screwdriver slotted shaft. 300° rotation. Single or dual combinations. SPST switch for low-voltage applications. 10 ohms to 20,000. 10% plus/minus tolerances.





Electronics & X-Ray Division

F-R MACHINE WORKS, Inc.

26-12 BOROUGH PLACE, WOODSIDE 77, N. Y.

for MICROWAVE

NEW

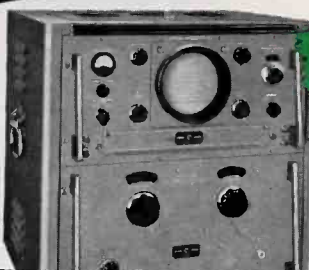
Electronic Test Equipment

NEW



**L, S771A
DIRECT READING SIGNAL SOURCES**

Type No.	Freq. (mc)	Other Specifications
L771A	950-2000	50 mw RF Power, avg. Tracked Reflector Output Attenuator
S771A	2000-4000	Modulation: Square wave Pulse, C.W. Direct Reading Frequency Dial



**L, S701A
SPECTRUM ANALYZERS**

Type No.	Freq. (mc)	Other Specifications
L701A	950-2000 (2000-16,000 with harmonics)	Swept I-F Direct Reading Freq. 1% Accuracy Tracking Reflector
S701A	1900-4000 (4000-16,000 with harmonics)	Direct Reading Cut-off Atten: ± 1 db Two I-F Bandwidths: 7 & 50 kc/sec. Zero base line Pulse Widths: 0.1 to 20 µ sec Marker Gen: ± 500 kc/sec. Accuracy Sweep 1 to 100 C.P.S. Triangular

Other S and X-band spectrum analyzers are also available. S, X700A



**Z815B
UNIVERSAL KLYSTRON POWER SUPPLY**

Divergent Reading Beam	Reflector	Central Grid	Modulation
200-2000V (0-125 ma)	0-1000V	0-150V (+) (0-3 ma)	0-200 volts square wave sawtooth wave pulsed wave sine wave
1800-3600 (0-70 ma)		0-300V (-)	

Other Specifications: ± 1% V Accuracy, 0.5 V Resolution, 0.03% Regulation, 3 MV, rms Ripple, 0.03% Regulation, Filament 6.3 volts, 3 amperes

Supplies power for all low power klystrons and many medium power tubes.

CRYSTAL-CASE BOLOMETERS



NEW X845A MICROWAVE TRAINING KIT

N761A—KLYSTRON TUBE MOUNTS

B810A STANDING WAVE AMPLIFIER

B830A UNIVERSAL POWER BRIDGE

Z816A KLYSTRON POWER SUPPLY

Beam: 300-500V at 65 ma
Reflector: 0-600V
Modulation: sawtooth and square wave



WAVEGUIDE TEST EQUIPMENT

N761A

INSTRUMENT	1 1/2" x 4-1/2" x 3-1/4"	1 1/2" x 3-1/2" x 2-1/2"	1 1/2" x 2" x 1 1/2"	1 1/2" x 3-1/4" x 1 1/2"	1 1/4" x 5/8" x 1 1/2"	1" x 1 1/2" x 1 1/2"	0.622" x 0.311" ID	0.420" x 0.170" ID	0.280" x 0.140" ID	0.224" x 0.112" ID	0.148" x 0.074" ID	0.122" x 0.061" ID	
	1.12-1.70 kmc/sec	2.60-3.95 kmc/sec	3.95-5.85 kmc/sec	5.85-8.20 kmc/sec	7.05-10.00 kmc/sec	8.20-12.40 kmc/sec	12.40-18.00 kmc/sec	18.00-26.50 kmc/sec	24.50-40.00 kmc/sec	33.00-50.00 kmc/sec	50.00-75.00 kmc/sec	60.00 to 90.00 kmc/sec	
SLOTTED SECTIONS	L101A	S101A	H101A	C101A	W101A	X101A	Y102A	K102A	U102A	Q103A	M103A	E103A	
FLAP ATTENUATORS	L150B	S151A	H151A	C151A	W151A	X151A	Y315A	K151A	U151A	Q151A	M151A	E151A	
FIXED ATTENUATORS	L168A, B, C, D, E	S168A, B, C, D, E	H168A, B, C, D, E	C168A, B, C, D, E	W168A, B, C, D, E	X168A, B, C, D, E	Y168A, B, C, D, E	A-3db B-6db	C-10db D-20db	E-30db			
DETECTOR MOUNTS (crystal, bolometer)	Tunable						Y205B	K205B	U205B				
	Fixed-Tuned					X211A	Y212A	K212A	U206B	Q206B	M206B	E206B	
THERMISTOR MOUNTS	L216A	S216A	H216A	C216A	W216	X216A	Y216A	K216A	U216A				
TUNERS	Slide Screw	L0A	S311A	H311A	C311A	J	X311A	Y311A					
		S312A	H312A	C312A	I	X312A	Y312B	K312B	U312B	Q312B	M312B	E312B	
FREQUENCY METERS (direct reading)	Reaction	N410A coaxial (11.00 to 4.00 kmc/sec)		H410A	C410A	W410A	X410A	Y410A	K410A	U410A	Q410X (micrometer)	M410X (micrometer)	E410X (micrometer)
	Transmission												
TERMINATIONS	Fixed	L501A	S501B	H501A	C501B	W501A	X501B	Y501B	K501A	U501A	Q501A	M501A	E501A
	Sliding	L502A	S502A	H502A	C502A	W502A	X502A	Y502A	K502A	U502			
STANDARD MISMATCHES		S510A, B, C, D, E	H510A, B, C, D, E	C510A, B, C, D, E	W510A, B, C, D, E	X510A, B, C, D, E	Y510A, B, C, D, E	K510A, B, C, D, E	U510A, B, C, D, E	A-1.00 B-1.05	C-1.10 D-1.20	E-1.50	
ADAPTERS (waveguide to coax)	L600B	S601A	H601A	C601B	W601A	X601A							
DIRECTIONAL COUPLERS		S610A, B, C, D	H610A, B, C, D	C610A, B, C, D	W610A, B, C, D	X610A, B, C, D	Y610A, B, C, D	K610A, B, C, D	U610A, B, C, D	A-3db B-6db			
WAVEGUIDE TEES	Shunt	S620A	H620A	C620A	W620A	X620A	Y620A	K620A	U620A				
	Hybrid	S621A	H621A	C621A	W621A	X621A	Y621A	K621A	U621A				
		S622A	H622A	C622A	W622A	X622A	Y622A	K622A	U622A				
WAVEGUIDE BENDS	90° E-Plane	L623A	S623A	H623A	C623A	W623A	X623A	Y623A	K623A	U623A			
	90° H-Plane	L624A	S624A	H624A	C624A	W624A	X624A	Y624A	K624A	U624A			
PRECISION SLIDING SHORTS	L630A	S630A	H630A	C630A	W630A	X630A	Y630B	K630B	U630B	Q630B	M630B	E630B	
STANDARD GAIN HORNS		S638A	H638A	C638A	W638A	X638A	Y638A	K638A	U638A	Q638A	M638A	E638A	
SHIELDED TUBE MOUNTS			H760A		W760A	X760A							
TRANSMISSION LINE STANDS	Z911A	Z910A	Z910A	Z910A	Z910A	Z910A	Z910B	Z910B	Z910B	Z910B	Z910C	Z910C	
	Z912L	Z9125	Z912HC	Z912HC	Z912W	Z912X	Z912Y	Z912Y	Z912Y	Z912Y	Z912Y	Z912Y	
	Z913L	Z9135	Z913HC	Z913HC	Z913W	Z913X	Z913Y	Z913Y	Z913Y	Z913Y	Z913Y	Z913Y	
FLANGE SCREWS													

Waveguide flanges also available

BEST EQUIPMENT ... HIGH POWER MODULATORS



High Power Modulators

for Magnetrons, Klystrons and other high power components. Modulator Loads and Exhaust Ovens are also available.

14 MEGAWATT UNIT
TYPE Z821A

ONE MEGAWATT UNIT
TYPE Z820A

625 KILOWATT UNIT
TYPE Z824A

BASIC DESIGNS NOW AVAILABLE

High Power Modulator Type No.	Power (peak megawatts)	Voltage (peak kilovolts)	Current (peak plate-amperes)	Impedance (output-ohms)	Duty Cycle (maximum)	Pulse Shape (μ sec/pps)	Input 60 CPS (ϕ /volts)	Size (HxWxD, in.)	Weight (lbs.)	Tubes Operated
Z820A	1.0	33	33	1,000	.001	0.5/2000 2.5/400	1/190-250	6x2x3	1400	4J50, QK-349 RK-6249
Z821A	14.0	90	160	560	.001	2.0/200-500	3/440-550	7x4x7	6800	QK-338
Z822A	0.2	20	10	3,330	.018	10/1200-1800	3/440	6x3x4	3330	SAL 39 (GL-6625)
Z823A	0.042	12.7	3.3	3,330	.064	coded/300	3/440	6x4x4	3200	SAL 39
Z824A	0.625	25	25	1,000	.001 at 0.5/2000	1.0/1000 2.0/250 5.0/100	1/190-250	6x2x3	2500	QK-349 at reduced power
Z825A	1.6	40	40	1,000	.001 at 0.5/2000	1.0/1000 2.5/400	1/190-250	6x2x3	2500	WE-5780

WEST COAST REPRESENTATIVE

Van Groos Company
14515 Dickens Street
Sherman Oaks, California
STanley 7-9615

EXPORT REPRESENTATIVE

Andrew S. Szucs, Inc.
50 Broad Street
New York 4, N.Y.

Cable address:
SUCANDEX, New York



COAXIAL TEST EQUIPMENT*

FREQUENCY IN KILOMEGACYCLES PER SECOND

INSTRUMENT	1.00	2.00	3.00	4.00	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
Slotted Sections			N101A**									
Slotted Sections (7/8")			V101A, V101B									
Cut-off Attenuators			N170A									
Tunable Probe							B200A** (crystal and bolometer supplied)					
							N200A** (crystal and bolometer supplied)					
Detector Mounts (crystals, bolometer)							N210A, B (IN23B crystal supplied)					
Thermistor Mount							N215A (Z215L thermistor supplied)					
Double Stub Tuner							N300A					
Frequency Meter			N410A (direct reading)									
Adapter (3/8" to 7/8")			N605A, B, C, D									
Tee							N626A (variable)					
Oscillator Cavity			N750A									
Klystron Tube Mount												N761A** (cables available)

*All items are 3/8" coaxial components unless otherwise noted
**Accessories: N101A, B—"TYPE N" and "TYPE C" ADAPTER-CONNECTORS
B200A } Z200M BARRETT-ADAPTER RING
N200A } N200N R-F OUTPUT ADAPTER
N761A—Z761L, M, N, P, CABLES

WRITE FOR CATALOG
OF THE COMPLETE LINE OF
FXR PRECISION MICROWAVE
TEST EQUIPMENT

A Message from our President...

It has been our pleasure to serve the microwave field for more than a decade. Originally, our products were chiefly components for radar and microwave relay systems. As our plant grew and the engineering department expanded, we undertook prototype development of various microwave systems for relay and guided missile applications. High power modulators were then added to our product line and received enthusiastic response.

About two years ago, we began marketing the FXR line of precision microwave test equipment. Today, we have one of the most complete lines of ready-for-delivery units in the field. Further expansion is being made in our product line, such as the new instruments described.

FXR's success has been achieved because of the ready acceptance of our products in industry and laboratories throughout the world. Prospective customers are invited to try our quality equipment and thorough service. We are especially proud of our modern plant and engineering facilities which are always open to your inspection. When further requirements and problems occur, we will, as always, be happy to provide the individual attention needed.

Henry Feldmann
President and General Manager

Thomas A. Edison

INCORPORATED



Hermetically Sealed Time Delay Relay Model 501

Glass-sealed thermal action Time Delay Relay for cathode protection in high voltage electronic tubes, gyro erection in fire control stabilizers and aircraft autopilots and hundreds of other uses involving a time delay in an electrical circuit.

Time delays: 2 seconds to 300 seconds
 Heater voltages: 6.3, 26.5, and 117 (intermediate voltages available in special circumstances)
 Heater input: 5 watts nominal (continuous excitation)
 Contacts: SPST normally open or closed. Rated for 6 amperes max. at 450 volts a.c. or d.c.
 Ambient: Compensated for -60°C to $+85^{\circ}\text{C}$

Vibration: Resists $1/4$ " overall amplitude at 55 cps
 Tolerances: Heater voltage: Positive contact operation with variation of $\pm 10\%$. Operating time at 25°C : $\pm 15\%$

Weight: $1 1/4$ to $2 1/4$ oz.
 Sealed height: $3 1/4$ "
 Diameter: 1.275" max.

Shock: Resists impact of 50g

Current Ratio Indicator Model 222-1J

This meter indicates the ratio of two direct currents using a d.c. galvanometer type movement having fixed coils and a moving magnet.

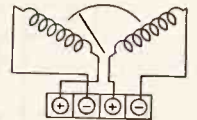
With equal current in both field coils the pointer will indicate unity ratio (1). Increasing one current over the other pulls the pointer right or left of center to indicate a ratio. A proportional increase or decrease in current through both coils does not affect the indication because the pointer assumes the resultant rather than the absolute measure of either magnetic field.



Accuracy: Scale tolerances are based on an angular tolerance of 1°.

Coil Current Strength: For accurate calibration the current in either coil should be between 2 ma. minimum and 50 ma. maximum.

Depth: 3-1/16"
 Dial Diameter: 2 3/4"



WIRING DIAGRAM

Hermetically Sealed Thermostats



STANDARD TYPE S1-1A

Manufacturing tolerance: $\pm 0.5^{\circ}\text{C}$
 Control sensitivity: Will hold temperature within $\pm 0.1^{\circ}\text{C}$ at low contact load when properly applied.
 Maximum load: 1.0 ampere
 Maximum voltage: 250 a.c. or d.c.
 Maximum temperature: 150°C
 Diameter: .388 inches
 Length: $2 1/2$ inches

STANDARD TYPE S1-2A

Manufacturing tolerance: $\pm 2.5^{\circ}\text{C}$
 Maximum load: 0.5 ampere; 1.0 ampere in alarm service
 Maximum voltage: 250 a.c. or d.c.
 Maximum temperature: 190°C
 Diameter: .388 inches
 Length: $2 1/2$ inches

Approved by Underwriter's Labs for fire alarm service with spacing 15 feet between centers.

MECHANICALLY SEALED Miniature, Model 210

Manufacturing tolerance: $\pm 5^{\circ}\text{F}$
 Maximum load: 1 ampere at 115 volts a.c.; 0.5 ampere at 115 volts d.c.
 Maximum voltage: 125 a.c. or d.c.
 Maximum temperature: 350°F
 Adjustability: $\pm 60^{\circ}\text{F}$ from original setting
 Diameter: .318 inch
 Length: $1 1/4$ inches

These precision-made bimetallic thermostats are permanently sealed in glass and enclosed with an inert arc-quenching gas fill. Because of their lifetime protection from corrosion and contaminating substances, these thermostats are widely used as fire detectors in marine and industrial applications. Their close temperature control and exceptional stability make them ideal for crystal oven ambient compensation and other exacting temperature control requirements.



STANDARD TYPE D8-2A

Manufacturing tolerance: $\pm 2.5^{\circ}\text{C}$
 Maximum load: 8.0 amperes
 Maximum watts: 1000
 Maximum voltage: 250 a.c. or d.c.
 Maximum temperature: 320°C
 Diameter: .550 inch
 Length: $2 3/4$ inches



When ordering any thermostat, give following information:
 Operating voltage and current
 Temperature setting
 Contact arrangement—are contacts to open or close on rising temperature?
 Medium to be used in
 Load—resistive or inductive

Sensitive Control Relay

Operates directly from thermocouple, photocell or vacuum tube plate current. Polarized operating characteristic makes it ideal for use as a null detector in universally-used bridge circuit. Power consumption is so low that this Relay can be used in servo control circuits without danger of draining power from other system components. These relays have proved their reliability in military and commercial airborne applications.



Closing current: Contacts close on input currents from 30 microamperes d.c. to 12.5 milliamperes d.c. Lower closing currents available in special circumstances.

Coils: Formvar-coated copper. Resistances from 0.5 ohm to 23,600 ohms. Normal closing power may be increased 10,000 times without adverse effects.

Contacts SPST or SPDT normally open or closed. Rated for 1/2 ampere at 28 volts d.c.

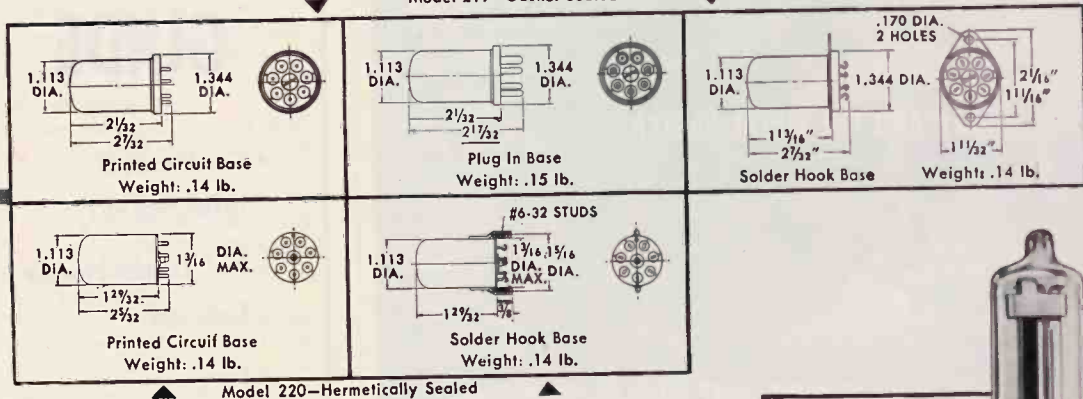
Hermetically sealed: Model 220
Gasket sealed: Model 219

Vibration and shock resistant: Relay unenergized will withstand shock of 50g in all planes without damage or change in calibration.

When ordering, specify:

MODEL NO. TYPE OF BASE CONTACT STYLE COIL RESISTANCE CLOSING CURRENT IN MILLIAMPERES D.C.

Model 219—Gasket Sealed



Current Limiting Switch

Hermetically sealed in glass

A SPST normally closed hot-wire type of switch designed to open when the current through the wire reaches 125 milliamperes. This switch serves to protect the input circuits of radio receivers from over-currents induced by nearby transmitting equipment.

Operating current: 125 milliamperes \pm 25

Ambient: Compensated for 0 to 90° C

Shock: No damage under 60g in all directions

Diameter: 7/16 inch nominal

Length: 2 5/8 inches



A GREAT NAME CONTINUES GREAT



NEW ACHIEVEMENTS

Thomas A. Edison

OTHER EDISON INSTRUMENT DIVISION PRODUCTS

Aircraft Fire Detection • Temperature Monitors • Electrical Resistance Temperature Detectors
Aircraft Temperature Indicators & Engine Gages

Thomas A. Edison

INCORPORATED

INSTRUMENT DIVISION • 81 LAKESIDE AVENUE • WEST ORANGE, NEW JERSEY

Field Offices: Chicago, Illinois • Cleveland, Ohio • Dayton, Ohio • Glendale, California

World's Finest Cored Solder!

THIS PROVES IT!

If You're
SOLDERING A "TOUGH JOINT"...

And You
CHANGE TO NEW MULTICORE 5-CORE SOLDER

Being Nearer The Source Of Heat,
THE 5 CORES OF ERSIN FLUX

Melt Faster...
WET THE SOLDER AND THE METAL FASTER...

And Presto...
YOU GET A THIN, WIDE JOINING—NOT A BALL!

Remember that "dry" or corroded joints, on the production line, lead to slow-ups, rejects... cost you money!

It's the only solder with non-corrosive, extra-active Ersin Flux... 5 cores to guarantee uninterrupted flux in every smallest piece of the wire!

There's only a skin-thin wall of solder between the flux and the iron... yet with less total percentage of flux than in many single-cored solders!

The Ersin Flux spreads from 5 areas instead of 1, and the entire solder is instantly fluid... runs faster and more evenly, though its actual melting temperature, alloy for alloy, is of course, the same as that of any other solder!

Pre-wetting, by 5 molten cores of flux, insures instant... spreading and gripping, even on difficult metals. Yes... it saves money... permits lower tin content alloys than you may be using in other solders!

Made of virgin metals only:
TIN: 99.95% pure
LEAD: 99.97% pure

5 CORE

ERSIN

Multicore

World's Finest Cored Solder

Conforms with QQ-S-571b and other Federal specifications

ERSIN Multicore SOLDER FORTIFIES 5 CORES OF NON-CORROSIVE FLUX

ON REQUEST New Edition! "Modern Solders"... and testing samples.

Address U.S.A. and Canadian inquiries to: DEPT. MF-166

MULTICORE SALES CORPORATION 80 Shore Road, Port Washington, N. Y.

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THE 16TH YEAR

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BUYERS' GUIDE

B.I.W. CAN PROVIDE

Wires and Cables

FOR ALL YOUR APPLICATIONS



AIRCRAFT & MISSILE WIRES & CABLES

Antenna Wire & Transmission Cables:

Laminated teflon insulation having unusual high corona level and breakdown voltage complying with Air Force Specifications.

Coaxial Cables:

A complete range of sizes, impedances and attenuation of teflon insulated — 55°C to 250°C complying with Government specifications and in addition BIW designs for special applications.

Coaxial Cables Miniature for Electronics:

Extremely small teflon insulated of unique design having low noise characteristics, and very suitable for miniaturization.

Electronic Hook-up Wire:

Extruded high-temperature vinyl, Kel-F and teflon for miniature high-temperature applications.

Engine Ignition Cable:

A variety of sizes of teflon ignition cable for jet engine installations approved by leading manufacturers.

Flame Detector Cable:

Heat and fire resistant special designs approved by major manufacturers of flame detector devices.

Flexible Telemetry Cable:

Miniature shielded cables, single, 2, and 3 conductor approved by many years of satisfactory service.

Fuel Gauge Wires:

Specially designed teflon insulated cables approved and adopted by the major manufacturers of fuel gauges.

Jet Engine Control Wire:

BIW standard teflon and fiberglass insulated approved and service tested as a dependable jet engine control wire.

Missile Wiring:

Complete range of teflon and fiberglass insulated small-size, high-performance missile wiring approved by leading missile manufacturers.

Multi-Conductor Cable:

BIW designs and manufactures multi-conductor cables to withstand the aircraft service conditions of low-temperature, vibration, light-weight and serviceability.

Power and Lighting Cable:

Complete range of sizes and ratings: 100°C, 125°C, 150°C and 200°C.

SOX Low Temperature

Multi-Conductor Cable:

A special series of low-temperature, multi-conductor cables approved from operating service life and applications such as propeller de-icers, rudder control, bombay doors, missile launching.

Thermocouple Wire:

Made to order special types for unusual applications utilizing teflon and fibre-glass insulation.

ELECTRICAL EQUIPMENT

Elevator Cables for Control,

Annunciator and Lighting:

2 to 40 conductors, with and without steel supporting strands. Accepted standard by principal elevator manufacturers.

Extra Flexible Power, Lighting &

Instrument Cable:

#24 to #0 flexible and extra-flexible strandings with pliable heat-resisting rubber and neoprene insulation for numerous applications such as relay contactors, mercury switches, reciprocating equipment and hinged panel apparatus.

Flexible Motor Lead Wire and

Appliance Wire:

Underwriter's approved #24 to #8 in temperature ratings of 75°C rubber, 80°C, 105°C vinyl insulation. Numerous colors and stripes available.

High temperature Wires and Cables:

BIW specializes in high-temperature wires using 105°C vinyl, silicone rubber, and teflon to produce cables with higher temperature ratings required in many applications:

- Motor and transformer lead cable

- High voltage units: precipitator, static neutralizer, Etc.
- Chemical apparatus requiring resistance to corrosion
- Multi-conductor cables

Multi-conductor cables:

BIW designs and manufactures multi-conductor cables of all types for electrical apparatus and equipment such as automatic machinery, x-ray apparatus, remote control devices and signaling equipment.

ELECTRONICS

Flexible coaxial transmission cable and pulse cable for airborne electronics.

- Hook-up wire: • 80°C, 105°C with or without fabric coverings.
- Shielded with protective covering
 - Available in a wide range of colors and tracers.

Low capacity Probe cables:

Low capacitance of 8 to 10 mmf/ft., extra flexible.

Low Noise Shielded Cables:

As a result of BIW developments a wide range of types and sizes are available designed to fit standard connectors.

Multi-conductor Cables:

BIW designed and manufactured over 900 made-to-order multi-conductor cables complying exactly with requirements for particular equipment.

Radiation Monitoring Cable for Nuclear

Energy Locations:

Approved designs for use with the principle detection instruments.

TV Camera Cables:

BIW design has been approved and adopted by the major manufacturers of TV cameras and recognized by leading studios as the most serviceable cables available.

Telemetry Cables:

Miniature shielded cables single, 2 and 3 conductor as well as a variety of multi-conductor types.



New cables, designed and manufactured to your requirements
Facilities for large or small quantities

Your inquiries are solicited • You ask for it . . . we have it!

ADDRESS ALL INQUIRIES TO OUR 61 BAY ST. OFFICE

BOSTON INSULATED WIRE AND CABLE CO., BOSTON 25, MASS.

High Speed - High Accuracy Data Conversion. Epsco data conversion equipment offers an unusual combination of high speed with a high degree of accuracy. This is made possible by a completely new approach to conversion instrumentation utilizing novel electronic and magnetic circuitry.

Epsco Datrac Instruments are fully reversible. They will convert voltage information to digital form and digital information

DATRAC MODEL B611 CONVERTER

This *completely reversible* voltage-to-digital converter makes a complete, independent voltage-to-digital conversion every 22 microseconds - or a complete digital-to-voltage conversion every 2 microseconds!

Model B611 is a precision, high speed, high accuracy data reduction unit capable of ultra high speed combined with accuracy without need for manual calibration or adjustment of any type!

This Datrac instrument is capable of converting unknown input voltages to digital coded form at high speeds and at precisely known times. Digital codes may be applied as inputs and proportional voltages obtained as outputs.

Conservative design and absence of mechanical switching assures reliable field operation.

Model B613 Datrac Converter is a binary coded decimal unit having a voltage-to-digital conversion time of 26 microseconds. All other specifications are the same as Model B611.

Model
B611
DATRAC



DATRAC B611 FEATURES

Voltage-to-digital conversion time:	22 microseconds
Digital-to-voltage conversion time:	2 microseconds
Maximum full scale input voltage:	±1,000 volts
Minimum full scale input voltage:	±10mv
Data Code:	Binary
Accuracy:	±.05% full scale ±1/2 least significant digit
Calibration:	Automatic to an internal standard cell reference.
Data Code Output Forms:	a. Serial pulse train. b. Parallel semi-static binary valued voltage lines. c. Positive parallel-line trigger pulses.
Size:	19 inches wide by 26 1/4" high (relay rack mounting (also available with cabinet as shown).

Send for detailed specifications and prices.

COMPUTER DATA CONVERSION SYSTEM

log equipment - translating the digital language of one into the analog language of the other.

The equipment accepts voltages from analog inputs and delivers converted numbers to a digital computer. Conversely, it can take numbers from the digital computer

and deliver converted voltages to analog outputs.

There are 15 channels in each direction, i.e., 15 digital-to-analog converters (DAC) and 15 analog-to-digital converters, (ADC), or optionally 10 channels of ADC.

Write for detailed specifications.

DATRAC J

Multi-channel, high-speed, data conversion equipment permits linking a digital computer with an analog computer or direct analog devices.

Epsco multiple channel high speed computer data conversion equipment makes possible bi-directional communication between digital computers and external ana-

SUB-CARRIER FM DISCRIMINATOR

FEATURES

- ★ Long term stability without manual corrections for "0" drift or gain variations.
- ★ Remote and/or manual selection of any standard IRTWG sub-carrier channel 1 through 18 and A through E or 100kc reference signal.
- ★ Automatic wow and flutter tape recording corrections when used with Epsco Type FM 108 velocity deviation unit.
- ★ Can be used for either frequency modulation data conversion or pulse width (PDM) modulation signals by manual selection.
- ★ No spurious transient outputs result from change of input signal level over an input operating range of 10 millivolts to 10 volts.
- ★ Automatic servo actuated corrections for arbitrary 0% and 100% information levels (or 0% and 80% information levels).

WRITE FOR PRICES AND DELIVERY.

VELOCITY DEVIATION DETECTOR

The Epsco Type FM 106 Velocity Deviation Detector has been designed to detect the wow and flutter components in the playback of recorded FM telemetry data.

This unit obtains wow and flutter information from a pre-recorded carrier channel and provides suitable outputs for use in the Epsco FM 108 FM Sub-Carrier Discriminators.

This unit operates from 100kc carrier frequency. (Can be supplied on special order to obtain correction information from a carrier frequency other than 100kc.) No adjustments or calibration corrections are required.

Input: 10 millivolts to 10 volts from sub-carrier filter.

Output: suitable to provide correction data to Epsco Type FM 108 Discriminator.

AIRBORNE DATA PROCESSING SYSTEM 1619A

An ultra high-speed, miniature system specifically designed for airborne use. It will measure and time-multiplex transducer voltages, and provide digital outputs suitable for direct tape recording, transmission over teletype links or direct analysis in computers with no intermediate step required.

This system fully meets all the general environmental conditions peculiar to aircraft and will operate over an ambient temperature range from -55°C to +70°C and at altitudes from sea level to 60,000

feet. It will operate in any position. Power input requirements: 115 volts (±5 volts) AC, 400 cycles (±20 cycles). Electronic timing is crystal controlled - all from a single crystal oscillator.

The following units comprise the system:
Ultra-high-speed airborne digitizer
20-Channel Electronic Multiplexer
20-Channel Transducer Filter
High capacity mechanical multiplexer
Digital tachometer
Power Unit and Standard Reference
2200 Cycle Generator and Programmer
Tape Control Programmer
Power Supplies for 60 and 120, 350 ohm strain gages DC

Power Supply for 20-350 ohm strain gages AC Block counter 0-999999

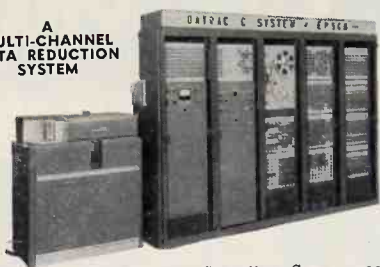
ACCURACY . . . Overall system accuracy of 0.25% to 0.10% or better is obtainable, depending on the specific system components selected for the application.

FURTHER INFORMATION . . . Write for detailed specifications on this system and on Epsco subminiature airborne data processing systems. A brief description of your intended application will help us advise on the use of this equipment in relation to your requirements.

When ordering or seeking information please mention Electronics Buyers' Guide.

data reduction systems and components

A MULTI-CHANNEL DATA REDUCTION SYSTEM



18-Channel Simultaneous Sampling System reduces voltage data into magnetic tape and IBM punched-cards.

The EPSCO DATRAC 'C' SYSTEM simultaneously samples and converts 18 bipolar input voltages into their numerical representation and stores the resultant digital codes on a magnetic tape. Up to 750,000 individual data points may be stored on a single 10 1/2" reel of magnetic tape. The in-

coming data may be visually monitored during the data run. Following the data run, the DATRAC 'C' SYSTEM transfers the information from the magnetic tape on to IBM punched cards. In operation, the system is entirely automatic; although provision is made for both manual control and synchronization to an external timing source. Further, the DATRAC 'C' SYSTEM automatically checks the accuracy of the

DATRAC 'C' SYSTEM

FEATURES

Input full scale voltages.....	Multiple ranges from ± 10 mv full scale to ± 1000 v full scale.
Overall system:	
Relative accuracy.....	$\pm 0.025\%$
Absolute accuracy.....	$\pm 0.05\%$
Effective sampling time for 18 input channels.....	0.25 microseconds
Number of data points per second.....	Up to 180
Tape Coding.....	Sign and 4 decimal digits in 8-4-2-1 binary decimal code with parity check and sprocket pulse.
Information content for each magnetic tape block or IBM punched card.....	One complete set of 18 readings plus frame number.
Magnetic tape output.....	Either single block or continuous.

data as it is being transferred from the magnetic tape to the punched cards.

The system features extensive use of magnetic circuit elements; chopper stabilized input amplifiers; standard cell automatic internal reference; conservative computer-type circuit design.

Send for specifications and prices.

MINIATURE

PULSE TRANSFORMERS



EpSCO pulse transformers are high quality, low cost units capable of transferring pulses in the millimicrosecond to microsecond range.

They have wide application in digital computer, radar, and telemetering systems. High quality and low cost are made possible by special manufacturing techniques which provide low capacity, high inductance windings, on a small ferrite core with high coefficient of coupling.

The transformers are completely encapsulated in a thermosetting resin, which enables the units to withstand severe mechanical shock and environmental conditions.

New Subminiature Magnetic Storage Elements Feature Small Size, Low Power, Reliability and Rugged Construction.

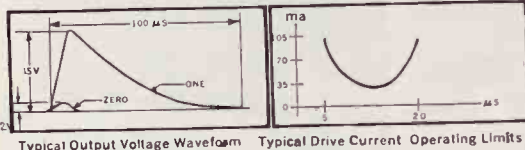
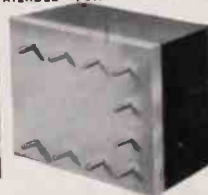
New EpSCO Magnetic Storage Elements Type SR-11 are designed for airborne and missile applications. Due to their extremely low power requirement, they may be driven by either subminiature tubes or transistors.

Measuring only 3/4" x 3/4" x 7/16", these new subminiature units are entirely suitable for mounting on etched wiring boards. EpSCO SR-11 storage elements also offer

the advantages of high ratio of storage elements to drive tubes. Wide operating limits and encapsulated packaging insure the ultimate in reliable performance.

SR-11 elements have an information rate design center of 10kc, with a practical upper information rate of 15kc. Peak power per shifted "one" at design center is only 0.5 watts.

SIMILAR UNITS AVAILABLE FOR USE UP TO 200 KC. WRITE FOR DATA SHEETS



NEW EPSCO DELAY LINES

20.30 MICROSECOND UNIT

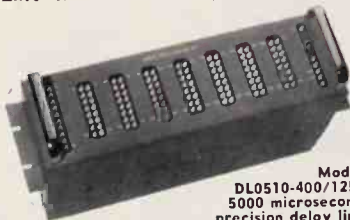
If you use delay lines in telemetering, digital or analog computers, pulse circuits, coders and decoders, etc., you'll find this brand new EpSCO delay line of interest. It has been specifically developed for pulse encoding in data transmission links.



FEATURES:

- 20.30 microseconds — with end delays
- Taps every 1.45 microseconds
- Tap accuracy = 0.1 microseconds
- Rise time Better than 0.7 microseconds
- Low attenuation — less than 4db overall
- Wide operating temperature range — will maintain above characteristics from -55°C to 105°C
- Characteristic impedance 180 ohms for standard unit
- Light weight, small size — 2" x 4" x 8"
- Hermetically sealed
- MEETS MIL-T-945A SPECIFICATIONS

EpSCO offers delay lines covering frequencies from the sub-audio range to ultrasonic. Applications include telephone and communication lines, seismic exploration and sonar equipment. Delays up to 1/10 second are available. *5000 Microsecond Unit Features Long Delay—Low Attenuation—Excellent Phase Linearity.*



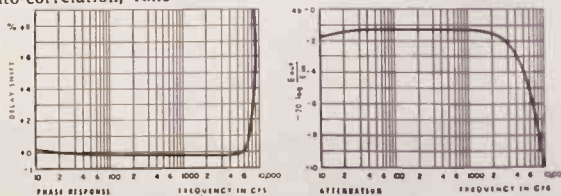
Model DL0510-400/125, 5000 microsecond precision delay line

New EpSCO 5000 microsecond Precision Delay Lines Model DL0510-400/125 are specifically designed for use in precision analog computing, auto-correlation, function generation and sub-sonic applications. These units have found application in the study of speech waveforms, wow and flutter of tape transport mechanisms, sonar returns, sonar rang-

ing and servo analysis. Design is based on M-derived techniques and employs very high-Q toroidal inductance assemblies and ultra-stable capacitors. Taps are brought out on the front panel by heavy double-turret lugs for easy accessibility.

CHARACTERISTICS AND SPECIFICATIONS

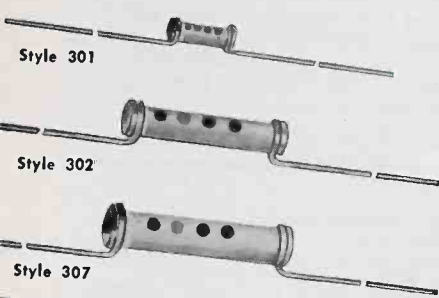
Overall Delay.....	5000 μ s $\pm 1\%$
Characteristic Impedance.....	510 ohms*
Number of Taps.....	125
Delay between Taps.....	40.0 μ s $\pm 1\%$
Attenuation including Insertion loss	
Better than 3db at 4kc	
Better than 6db at 7kc	
Low Frequency Insertion Loss.....	1.7db
Cutoff Frequency.....	9.5kc
Phase Linearity.....	$\pm 0.2\%$ up to 6kc
	$\pm 1\%$ up to 8kc
Size.....	1.9" x 5 1/4" x 9" for relay rack mounting
Weight.....	35 lbs.
*Also available with 470; 600 and 1,000 ohm impedance.	



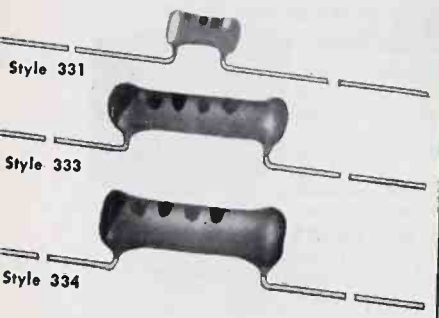
from a single source, all these . . . RELIABLE ELECTRONIC COMPONENTS

ERIE TUBULAR CERAMICONS®

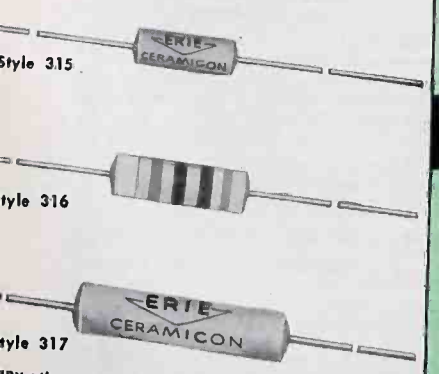
Non-Insulated*



Dipped Phenolic Insulated*

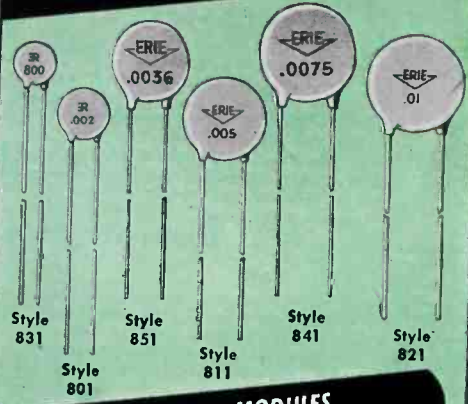


Molded Insulated

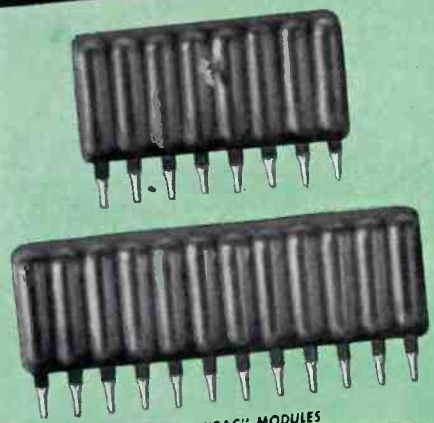


*any other sizes available

ERIE DISC & PLATE CERAMICONS®



ERIE "PAC" MODULES PACKAGED ASSEMBLY CIRCUITS

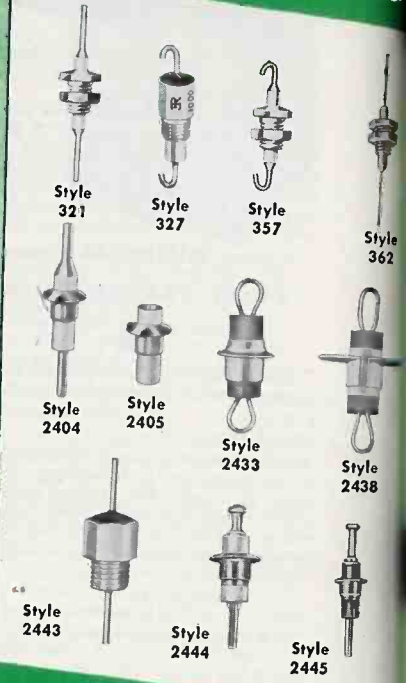


TWO TYPICAL "PAC" MODULES

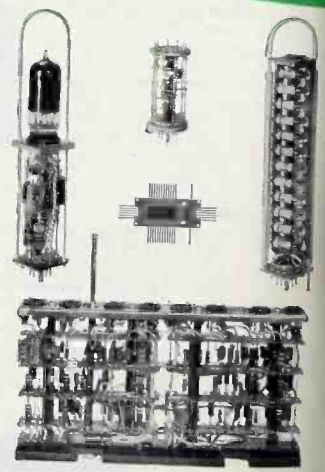
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ERIE FEED-THRU CERAMICONS



ERIE ELECTRO-MECHANICAL ASSEMBLIES



TYPICAL ERIE ELECTRO-MECHANICAL ASSEMBLIES



ERIE ELECTRONICS DIVISION

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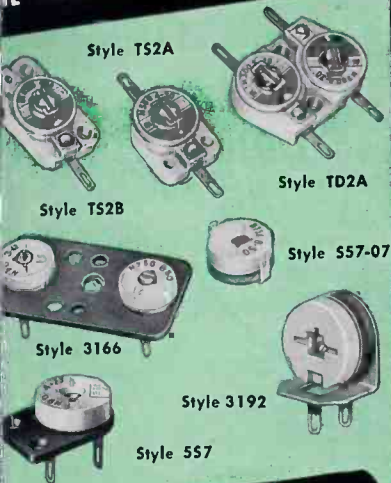
Main Offices and Factories: ERIE, PA.
Manufacturing Subsidiaries

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TRADE **ERIE** MARK

electronics

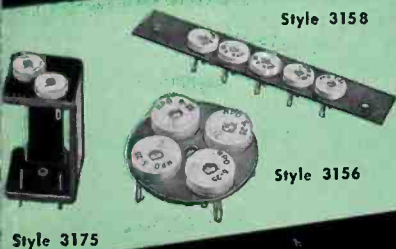
ERIE CERAMICON® TRIMMERS



ERIE TUBULAR TRIMMERS



ERIE CUSTOM TRIMMER ASSEMBLIES



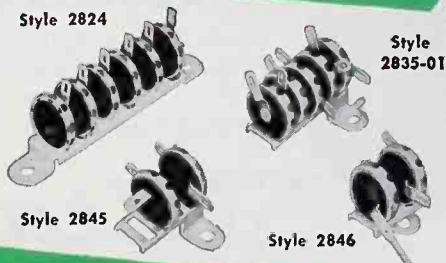
ERIE BUTTON® MICA CAPACITORS



ERIE HERMETICALLY SEALED BUTTON® MICA CAPACITORS



ERIE BUTTON® MICA BRACKET ASSEMBLIES



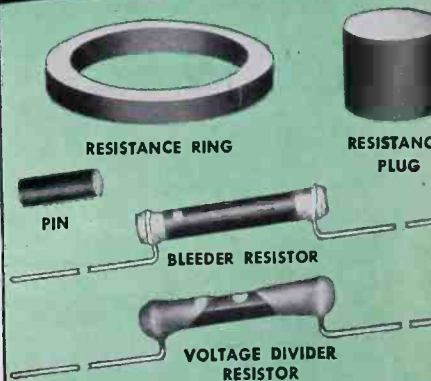
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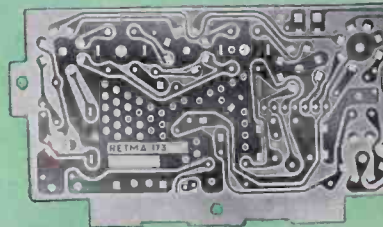
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A TYPICAL ERIE EMBOSSED BOARD



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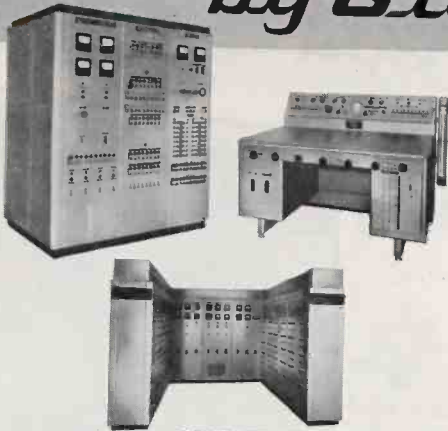
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Precision TIMERS

For extreme accuracy and continuous performance. Rugged, for heavy duty service; flexible in application; to measure and indicate elapsed time intervals. Synchronous motor drive. Electric clutch controlled by manual switch, automatic switch or output of electronic tubes. Manual or electric zero reset. Send for Bulletin 198.



Model	Scale Divisions	Totalizes	Accuracy
S-100	1/5 sec.	6000 sec.	±.1 sec.
S-60	1/5 sec.	60 min.	±.1 sec.
SM-60	1/100 min.	60 min.	±.002 min.
S-10	1/10 sec.	1000 sec.	±.02 sec.
S-6	1/1000 min.	10 min.	±.0002 min.
S-1	1/100 sec.	60 sec.	±.01 sec.
MST	1/1000 sec.	.360 sec.	±.001 sec.
MST-500	1/1000 sec.	30 sec.	±.002 sec.

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These NEW and IMPROVED TACHOMETERS are designed to give you these outstanding benefits: Extreme Precision — Reliability — Readability — Self-Checking — Package-type, plug-in construction to simplify servicing.

Write for Bulletins 218 and 240.

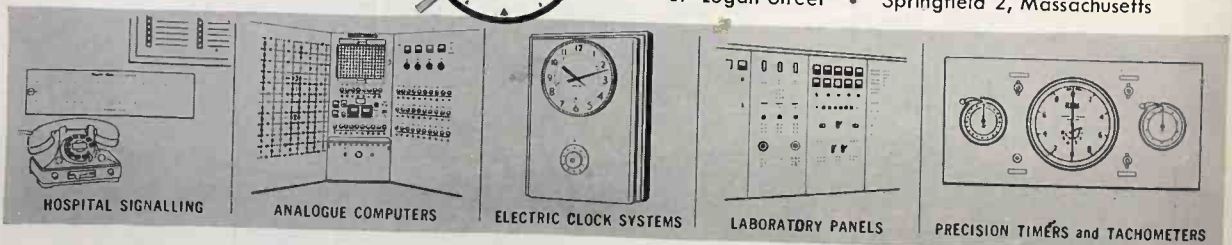


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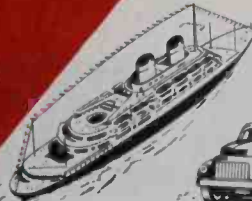
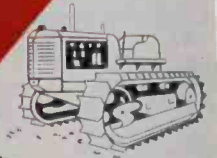


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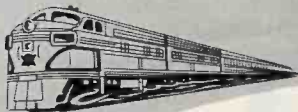
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world's lightest, smallest, mightiest storage battery for every industry!



for every industry!



YARDNEY SILVERCEL®

Wherever weight or space is a problem . . . audio, radio, TV and electronic equipment electric power installation, maritime and aviation . . . applications are now possible with this revolutionary, new silver-zinc storage battery developed by Yardney's world-wide team of scientists and engineers . . .

- **MINIMUM WEIGHT AND SIZE** — six times lighter and five times smaller than conventional batteries of equal capacity
- **LOW INTERNAL RESISTANCE** — designed to meet high current discharge requirements
- **FLAT VOLTAGE CHARACTERISTIC** — no discharge dip at any current drain to end of capacity
- **HIGH SAFETY FACTOR** — Spillage and leakage hazards eliminated; no fumes during charge and discharge cycles
- **MECHANICAL STRENGTH** — High resistance to shock, vibration, rapid acceleration and deceleration
- **WIDE TEMPERATURE RANGE** — Efficient at 160° F. and as low as -60° F.

Table of Yardney High-Rate Models

Yardney Silvercel	Nominal Capacity	Peak Pulse Discharge	Weight (ounces)	H. (inches)	W. (inches)	D. (inches)	Used In
HR 01	0.1 AH	3 amps	0.15	1.38	.61	0.20	Instrumentation
HR 05	0.5 AH	30 amps	0.70	1.52	1.10	0.55	Telemetering
HR 1	1.0 AH	45 amps	0.79	1.98	1.08	0.54	Motor-Driven Recorders
HR 3	3.0 AH	75 amps	2.98	2.86	1.72	0.59	Tow-Target Drones
HR 5	5.0 AH	75 amps	4.24	2.95	2.08	0.80	Photo-Flash, Camera Drives, Portable Lights, Missile Guidance
HR 10	10 AH	220 amps	7.88	4.78	2.32	0.74	
HR 20	20 AH	500 amps	13.82	4.28	2.05	1.73	Missile Power Sources and Servo Controls
HR 21	20 AH	500 amps	15.02	7.56	2.31	0.81	Torpedo Propulsion
HR 40	40 AH	600 amps	23.20	7.0	3.25	0.99	Portable TV
HR 60	60 AH	1000 amps	34.85	4.50	2.75	2.38	
*HR 85	100 AH	1900 amps	52.30	9.44	2.81	1.81	Aircraft Power Sources
HR 90	100 AH	1800 amps	51.40	7.0	3.25	2.16	Tow-Target Drones
HR 100	100 AH	2000 amps	44.10	4.78	3.43	2.79	

Write for technical literature describing physical and electrical characteristics of the complete SILVERCEL line.

A FEW NAMES FROM OUR SALES LEDGER:

U. S. Army, Navy, Air Force, and Bureau of Standards, A.E.C., Bell Aircraft, Bendix Aviation, Boeing Airplane, Clevite-Brush, C.B.S., Fox Aviation, General Electric, Johns Hopkins, Lockheed Aircraft, North American Aviation, Philco, R.C.A., Raytheon, Republic Aviation, Sondia Corp., Sikorsky, Solar, Vitro Corp., Westinghouse Electric and many others.

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Style 307

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Style 331

Style 333

Style 334

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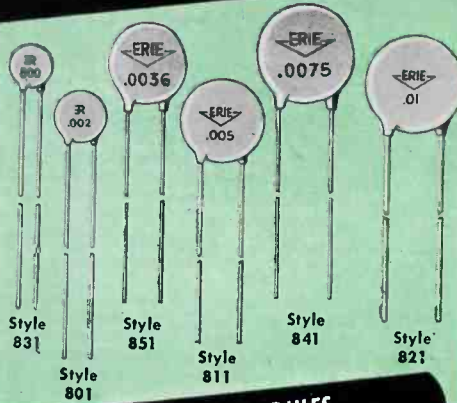
Style 315

Style 316

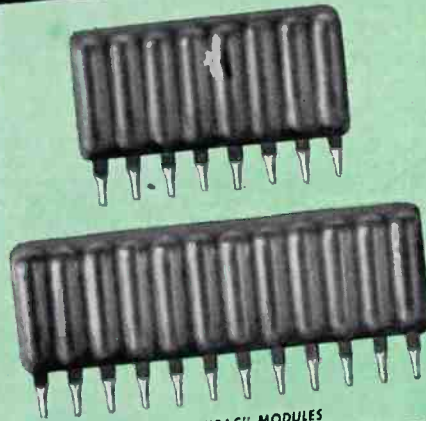
Style 317

*Many other sizes available

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ERIE "PAC" MODULES PACKAGED ASSEMBLY CIRCUITS



TWO TYPICAL "PAC" MODULES

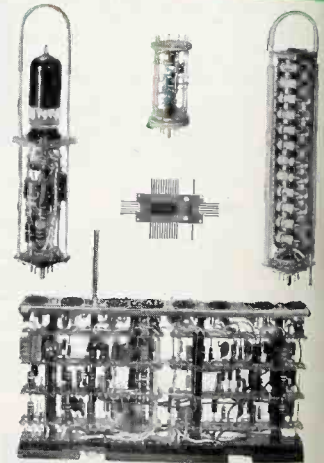
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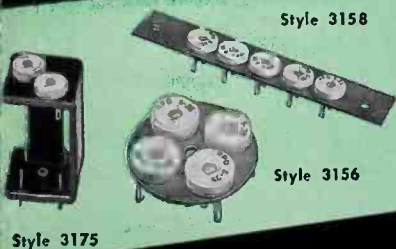
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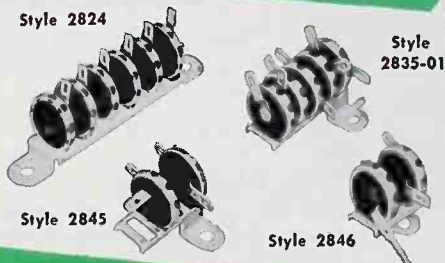
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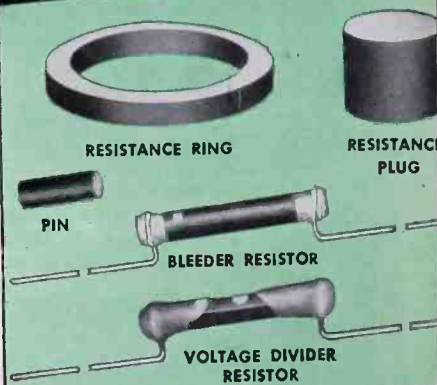
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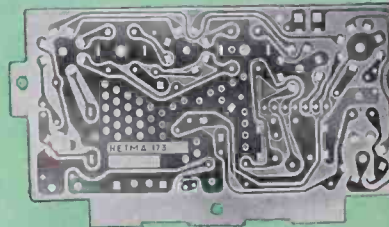
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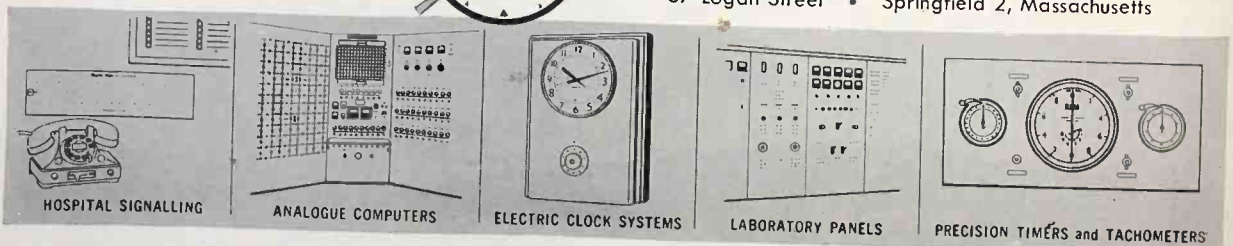


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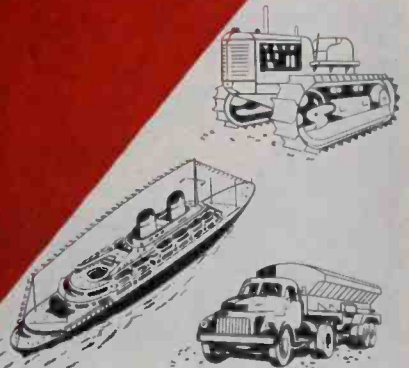
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for every industry!

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Wherever weight or space is a problem . . . audio, radio, TV and electronic equipment electric power installation, maritime and aviation . . . applications are now possible with this revolutionary, new silver-zinc storage battery developed by Yardney's world-wide team of scientists and engineers . . .

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Silvercel

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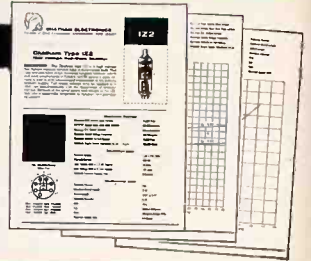


**MEMO: to all
ENGINEERS-
DESIGNERS-
SPECIFIERS-**

Designed with the future CHATHAM

Reliable Tubes—Pioneered by Chatham

Offering the utmost in electronic tube dependability, these Reliable types are a product of Chatham research and development. Today, the Chatham line of Reliable Tubes is an industry standard for both military and commercial tube applications. For complete information consult the new Chatham Bulletins available on request.



Engineering Service for Special Requirements

Where unusual requirements indicate the use of special purpose tubes, these can be designed and produced to your specifications. Chatham's Tube Division is equipped to handle both large or small production runs efficiently and economically. Chatham engineers are available for special tube problems.

THYRATRONS



Type 2D21W
Ruggedized Xenon filled, shield grid thyratron for relay-pulse and grid controlled rectifier service. Conforms to MIL-E-1B specifications.



Type 3C23
Mercury Vapor Argon filled thyratron for grid controlled rectifier service. Wide ambient temperature tolerance. Medium 4 pin phenolic base.



Type 323B
Same as 3C23 but has medium shell 5 pin base. Heater 2.5 volt 7.0 amperes; peak inverse anode volt. 1250 v. average anode current 1.5 amps.

Type 5594

Xenon filled, operates in ambient temp. from -55° to +90° C. Filament 2.5 v., 5 amps. Peak inverse anode volt. 4500, aver. anode current 0.5 amp.



Type 884

Argon filled, for sweep circuit oscillator in CRT circuits. Heater 6.3 volts, 0.6 amp. Peak forward anode voltage 300, aver. plate current 75 ma.



Type 395-A

Cold cathode, requires no filament supply. For grid controlled rectifier, relay applications. Max. D.C. anode volt. 150. Max. anode current 10 ma.



Type 5696

Xenon-filled, shield grid thyratron with low filament drain. Heater 6.3 volts, 150 ma. Peak inverse anode voltage 500, average anode current 25 ma.



Type 6D4

Miniature thyratron used as a relay tube or gas tube oscillator. Also extensively used as an RF noise source. Average anode current 25 ma.



Type 2050W

Ruggedized Xenon filled shield grid thyratron for grid controlled rectifier service. Provides longer service in presence of shock, vibration.



HYDROGEN THYRATRONS



Type VC-1257
Hydrogen filled, zero bias thyratron with hydrogen generator for generation of pulse power up to 33 megawatts.



Type 5948/1754
Hydrogen filled, zero bias thyratron with hydrogen reservoir for generation of peak pulse power up to 12.5 megawatts.

Type 5949/1907

Hydrogen filled, zero bias thyratron with hydrogen reservoir for generation of peak pulse power up to 6.25 megawatts.



Type VC-1258

Zero bias miniature hydrogen thyratron for the generation of peak pulse power up to 10 KW.



DECADE COUNTERS



COLD CATHODE DECADE COUNTER TUBE

Chatham Type 1047 is a cold cathode decade counting tube intended for use in medium speed applications such as scalars and computers operating from 0 to 2000 pps. Type 1047 features high current handling capacity per count cathode. It has ten individual cathode outputs.

D.C. Supply Voltage—340; Output Voltage—45; Transfer Pulse Amplitude (Volts)—150; Transfer Pulse Width Microseconds—150; Cathode Current 4.5 ma.

SPECIAL PURPOSE TUBES

Type 6542

Subminiature voltage regulator in a T-3 bulb. Maintains approx. 150 volts over a current range of 5 to 25 ma. Will withstand a 450 g shock impact.



HIGH VOLTAGE VACUUM FUSES

These are supplied by Chatham to customers' specifications. If ordered in reasonable quantity. Full particulars and quotations supplied promptly.



HIGH VOLTAGE VACUUM SWITCHES

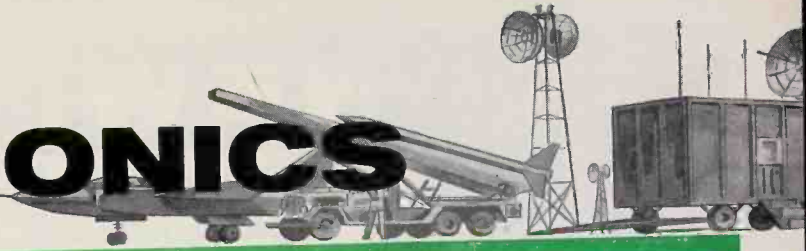
Available in two standard types for high voltage switching at high altitude. Glass enclosed, mechanically actuated, these switches feature extremely long operating life.



**DESIGNERS
ENGINEERS and
MANUFACTURERS**

in mind...

ELECTRONICS



TWIN POWER TRIODES

Type 6336

Low mu, high permeance twin power triode for use as a series regulator tube in D.C. power supplies. Plate Dissipation 30 watts per sect.



Type 6AS7G

Low mu, high permeance twin power triode for use as a regulator tube in D.C. Power Supply Units. Plate dissipation 13 watts per sect.



Type 6520

Same as 6AS7G for use where utmost reliability is required in triode balance, absence of excessive plate current drift, high grid to plate insulation.



Type 5998

Similar to 6080 and 6AS7G but with higher amplification factor. Mu 5.5, transconductance 14,000 micromhos, plate dissipation 13 watts per plate.



Type 6080WA

Ruggedized Twin Power Triode made under reliable tube program. Plugs directly into any socket using 6080 or 6AS7G regulator tubes.



Every Chatham Tube is Rigidly Tested to Insure Dependable Performance

All tubes manufactured by Chatham are thoroughly tested for periods up to 30 hours. Many tube types are held for a minimum of 96 hours and retested to determine the effect of storage. Test equipment employed includes small table type sets and large hydrogen thyratron units with inputs

up to 100 KW. Chatham test equipment is continuously checked for accuracy of calibration by technicians specializing in calibration and maintenance of equipment. Tube types are life tested on a year round basis to insure maximum performance and service life.

RECTIFIERS

Type 1Z2

A high voltage vacuum rectifier for constant supply circuits. Filament 1.25 volts, 275 ma., Peak inverse anode voltage 15,000. Aver. anode current 1.5 ma.



Type 3B25

Half wave, Xenon Rectifier. Wide ambient range -75° to +90°C. Filament 2.5 volts, 5.0 amp. Peak inverse anode voltage 4500. Aver. anode current 0.5 amp.



Type 3B28

Half-wave, Xenon rectifier. Wide ambient range of -75° to +90°C. Filament 2.5 volts, 5.0 amps. Peak inverse anode voltage 10,000. Aver. anode current 250 ma.



Type 4B32

Half-wave, Xenon rectifier. Wide ambient range -75° to +90°C. Filament 5 volts, 7.5 amps. Peak inverse anode voltage 10,000. Aver. anode current 1.25 amp.



Type 5B3

Small size high vacuum clipper diode and high voltage rectifier. Clipper ratings: Peak inverse voltage 15 KV, peak anode current 8 ma; average anode current 20 ma.



Type 5R4WGY

Full wave rectifier ruggedized to stand 980 g shock. Max. inverse voltage 2800 volts at 165 milliamperes or inverse voltage 2400 volts at 275 milliamperes.



Type 5R4WGA

Same as 5R4WGY but designed to operate at full inverse ratings up to 40,000 ft. altitude and at reduced rating to 60,000 ft. altitude.



Type 5R4WGB

A reliable version of the 5R4WGA designed and manufactured to MIL-E-1B reliable tube specifications.



Type 719-A

High vacuum tube for clipper diode service in hard tube modulator circuits. Filament 7 volts, 7 amps. Peak inverse anode volt. 25 kv. Max. peak anode current 10 amps.



Type 6H6WGT

Ruggedized twin diode with octal base. Heater 6.3 volts 300 ma. Peak inverse anode voltage 465 volts. D.C. output current, 8.8 ma. per plate.



VOLTAGE REGULATOR & REFERENCE TUBES

Type OC3W

A ruggedized glow discharge tube. Maintains D.C. voltage constant at 105 volts. Max. regulation current 5 to 40 ma.



Type OD3W

A ruggedized glow discharge tube. Maintains D.C. voltage constant at 150 volts. Max. regulation current 5 to 40 ma.



Type 5651WA

Reliable miniature Cold Cathode Gas Discharge Tube for voltage reference. Maintains voltage of approx. 87 v. at a current range of 1.5 to 3.5 ma. Available JAN 5651.



Type 6627/0B2WA

Miniature cold cathode glow discharge tube for use as a voltage regulator. Regulating voltage is approx. 108 volts at a current range of 5 to 30 milliamperes.



Type 6626/0A2WA

Same as Type 6627/0B2WA with regulating voltage of approx. 150 volts at a current range of 5 to 30 milliamperes.



Consult CHATHAM on all four!

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- AIRBORNE CONVERSION EQUIPMENT
- kotron SELENIUM RECTIFIERS
- CUSTOM-BUILT EQUIPMENT

CHATHAM ELECTRONICS

Division of Gera Corporation — LIVINGSTON, NEW JERSEY



NEW!



for efficient,
precise recording
of up to eight
channels of data
simultaneously



OSCILLOGRAPH CONSOLETTA

This completely redesigned recording instrument is available in two models; with modular interchangeable preamps and standard amplifiers; and with standard rack and panel amplifiers. Modular unit includes up to 8 preamps mounted in control panel, with amplifier chassis out of the way in the lower section of the consolette. Records up to 8 channels simultaneously.

A Wide Choice of Amplifiers					
SPECIFICATIONS					
Type	Model	Gain*	Response	Noise Level RMS**	
High Gain DC	8238	5,000	DC-5K	10 μ v	
Low Gain DC	8231	125	DC-5K	50 μ v	
Condenser Coupled	8234	10,000	1-3K	10 μ v	
High Gain CC	8235	500,000	1-3K	5 μ v	
Modulator	8236	20,000	DC-60	20 μ v	
Pressure	8241	20,000	DC-60	20 μ v	
Stabilized DC	8239	10,000	DC-3K	20 μ v	
Carrier	8237	500,000	DC-500	5 μ v	

* Preamp and amplifier
** In microvolts referred to input

NEW!

for automatic,
continuous analysis
of complex
waveforms



Basic amplifiers are mounted in the base cabinet, out of the way. Preamplifiers and controls are panel-mounted, above, for easy access, changing, and servicing.

WAVEFORM FREQUENCY ANALYZER

- Bandwidth Requires No Adjustment. Once set at factory, needs no further recalibration.
- Complete Range Available From 0.5 to 20,000 cps. Where frequency analysis is essential, it helps eliminate laborious, impractical arithmetical processes. Readout is an oscillograph recorder providing a permanent, highly legible record. Plug-in filters provide unusual flexibility of choice of frequency bands. Band width may be chosen to customer specifications.
- Ideal for Analyzing Data Processed by the Industrial Type Recorder
- Simplified Operation Only incoming voltage gain, pen excursion, and selector switches require setting.

Write for informative, illustrated literature on oscillograph recording equipment and waveform analysis.



EDIN COMPANY, INC. 207 Main St., Worcester, Mass.

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Wherever designers and specifiers have immediate need for readily accessible, necessary product information at their breadboards, there, year after year, will you find the ELECTRONICS BUYERS' GUIDE. "Who makes what product or provides what service?" "Where can I buy it?" "Where can I find complete and accurate product specs?" These are questions that are asked daily by the men who design-in electronic products; these are questions that have been answered for the past fifteen years by the "Guide," the accepted reference book of the industry.

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What is available from Pyramid

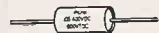
complete line of capacitors—electrolytics, paper and metallized paper for wired and printed circuit chassis . . . all made to standards which exceed even military specifications. Full advertising and merchandising support.

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Type PG "Glassteel," CP04, TOCP11

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 Type PEM, CP67, CP69

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A new time saving, profit making capacitor resistor analyzer with incorporated quick check feature at low cost. Model CRA-2 now available. See your Pyramid representative.



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Type BTS Autocaps 

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METALLIZED PAPER

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A full line of the first new design of selenium rectifiers in twenty years.

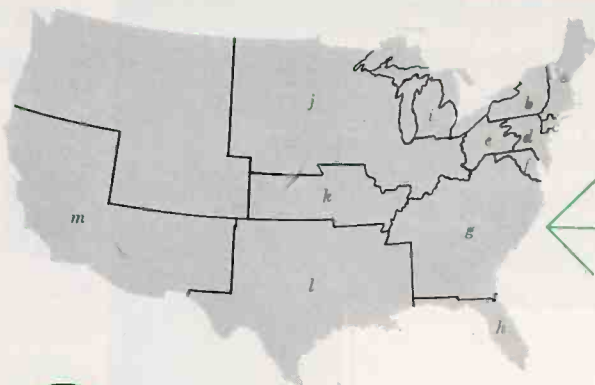


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TUBE	TYPE	TUNER	BASING	FREQUENCY RANGE kMc	TYPICAL POWER OUTPUT MILLIWATTS	MAXIMUM RATINGS	
						RESONATOR VOLTAGE	RESONATOR CURRENT
X-12	Reflex	Micro.	3-Pin	12.4—17.5	50	600 V	65 mA
X-13	Reflex	Micro.	3-Pin	8.2—12.4	210	500	65
X-13B	Reflex	Micro.	3-Pin	7.5—11.0	330	500	65
V-23	2-Res. Osc.	Lock Nut	Molded Leads	9.1—11.0	5 watts; 350 W pk	1350; 5000 pk	125
V-24B	4-Res. Pulse Amp.	55 db gain 0.75% DU		9.35—9.40	40 kW pk	36 kV pk	10 A pk
X-26B	Reflex	Single Screw	Octal	6.3—7.5	1.3 watts	750	80
X-26D	Reflex	Single Screw	Octal	5.8—7.125	1.4 watts	750	80
X-26E	Reflex	Single Screw	Octal	5.3—6.6	1.3 watts	750	80
X-26F	Reflex	Single Screw	Octal	5.3—6.0	1.4 watts	750	80
V-27	2-Res. Amp.	Lock Nut	Molded Leads	9.1—11.0	6 W @ 8 db; 350 W pk	1350; 5000 pk	125
V-27B	2-Res. Amp.	Lock Nut	Molded Leads	8.5—10.0	6 W @ 8 db; 350 W pk	1350; 5000 pk	125
VA-28	2-Res. Osc.	Lock Nut	Molded Leads	13.35—13.65	15 watts	3300	74
V-39B	Reflex	External Cavity	Molded Leads	10—15.5	200	750	42
V-39C	Reflex	External Cavity	3-Pin	10—15.5	250	750	42
V-40B	Reflex	External Cavity	Molded Leads	15—21	70	750	42
V-40C	Reflex	External Cavity	3-Pin	15—21	90	750	42
V-42B	3-Res. CW Amp.	27 db gain		.375—.425	12 kW	18 kV	3.25 A
V-42C	3-Res. CW Amp.	32 db gain		.890—.960	12 kW	18 kV	3.25 A
V-45	Fr. Multiplier 5x	Screw	Octal	1.8—2.0/9.0—10.0	280 @ —6 db	1000	80
V-53	Reflex	Single Screw	3-Pin	10.7—11.7	106	350	42
V-54	Reflex	Lock Nut	Molded Leads	10.5—12.2	215	450	70
V-55	Reflex	Lock Nut	3-Pin	8.2—11.5	700	500	70
V-55B	Reflex	Lock Nut	Molded Leads	8.2—11.5	700	500	70
V-58	Reflex	Single Screw	3-Pin	8.5—10.0	620	500	70
VA-62B	2-Res. Amp. Control Grid	Lock Nut	Molded Leads	9.1—11.0	6 W @ 8 db; 100 W pk	1350; 5000 pk	125
V-63	2-Res. Osc.	Lock Nut	Molded Leads	8.5—10.0	6 W @ 8 db; 350 W pk	1350; 5000 pk	125
VA-67	2-Res. Osc.	Lock Nut	Molded Leads	13.25—13.75	1 Watt	900	70
V-82	4-Res. Pulse Amp.	57 db gain 3% DU		9.225—9.375	7 kW pk	18 kV pk	2.9 A pk
VA-87B to VA-87E	4-Res. Pulse Amp.	0.25% DU		2.7—3.1	1.5 Meg W pk	100 kV pk	64 A pk
VA-90	Reflex	Lock Nut	Molded Leads	22.0—25.0	35	850	40
VA-92	Reflex	Single Screw	Molded Leads	14.0—17.5	30	600	65
VA-92B	Reflex	Single Screw	Molded Leads	12.4—14.5	70	600	65
*VA-93	Reflex	Single Screw	Molded Leads	13.0—14.0	20	300	45

BOLD FACE TYPE NUMBERS INDICATE RECOMMENDED KLYSTRONS FOR NEW EQUIPMENT DESIGN

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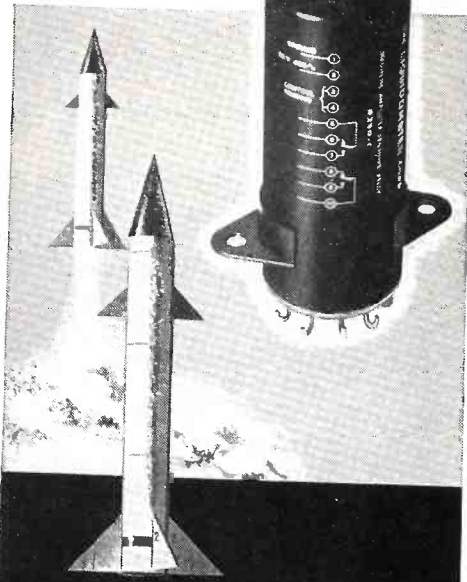
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TUBE	TYPE	TUNER	BASING	FREQUENCY RANGE kMc	TYPICAL POWER OUTPUT MILLIWATTS	MAXIMUM RATINGS	
						RESONATOR VOLTAGE	RESONATOR CURRENT
*VA-94	Reflex	Single Screw	Molded Leads	16.0—17.0	40	350	45
VA-96	Reflex	Lock Nut	Molded Leads	22.0—25.0	35	850	40
*VA-97	Reflex	Single Screw	Molded Leads	34.0—35.6	18	425	50
*VA-98	Reflex	Single Screw	Molded Leads	23.5—24.5	25	400	45
VA-121	TWT Amp.	35 db gain 1% DU		2.7—2.9	40 W pk	2300 V pk	190 mA pk
V-152	Reflex	External Cavity	Molded Leads	8.8—9.6	70	350	60
V-154	Reflex	Lock Nut	3-Pin	10.5—12.2	215	450	70
V-155	Reflex	External Cavity	Molded Leads	8.8—9.6	55	350	60
V-157	Reflex	Single Screw	3-Pin	8.5—10.0	50	385	74
VA-157	Reflex	Single Screw	Molded Leads	8.5—9.6	90	350	55
*VA-201B	Reflex	Single Screw	3-Pin	8.5—9.6	40	350	52
*VA-203B	Reflex	Single Screw	Octal	5.925—7.725	1.2 watts	750	80
*VA-220A to VA-220F	Reflex	Single Screw	Octal	4.9—5.2	1 watt	750	80
*VA-220J	Reflex	Single Screw	Octal	5.985—7.555	40	330	35
*VA-221B to VA-221F	Reflex	Single Screw	Octal	6.705—7.005	40	330	35
*VA-221H	Reflex	Single Screw	Octal	5.250—5.560	40	330	35
*VA-222 Ser. V-262	Reflex	Single Screw	Octal	5.925—7.725	1.2 watts	750	80
VA-800A, C	4-Res. CW Amp.	50 db gain		8.5—10.0	10 kW	20 kV	3 A
VA-804B	4-Res. CW Amp.	40 db gain		4.4—5.0	1 kW	10 kV	1 A
VA-805B	4-Res. CW Amp.	40 db gain		5.925—6.425	1 kW	10 kV	1 A
VA-806A, B	4-Res. CW Amp.	40 db gain		7.125—8.5	1 kW	10 kV	1 A
VA-808	4-Res. Pulse Amp.	65 db gain 1.6% DU		5.3—5.9	24.5 kW pk	23 kV pk	4.5 A pk
VA-809	4-Res. Pulse Amp.	60 db gain 2.5% DU		9.44	10 kW pk	20 kV pk	2.1 A pk
VA-816 Ser.	5-Res. Pulse Amp.	0.25% DU		2.7—3.57	2.5 Meg W pk	125 kV pk	75 A pk
VA-6237 to VA-6242	3-Res. CW Amp.	27 db gain		.470—890	15 kW	18 kV	3.25 A
VA-6310/V-260	Reflex	Single Screw	3-Pin	8.5—10.0	70	350	42
VA-6311/V-261	Reflex	Single Screw	3-Pin	8.5—10.0	70	350	42
VA-6312/V-270	Reflex	Single Screw	Molded Leads	8.5—10.0	70	350	42
VA-6314/V-290	Reflex	Lock Nut	Molded Leads	8.5—10.5	120	385	74
VA-6315/V-153	Reflex	Single Screw	Molded Leads	8.5—10.0	50	385	74
VA-6316/V-151	Reflex	Lock Nut	Molded Leads	8.5—10.0	25	350	52

*Brazen-on external cavity.

BOLD FACE TYPE NUMBERS INDICATE RECOMMENDED KLYSTRONS FOR NEW EQUIPMENT DESIGN

**NEW
LIQUIDOMETER
SENSITIVE
RELAY...**



**SENSITIVITY . . . 80-microwatts
at -55° through +100° C.
VIBRATION . . . 10 G's from 5 to
500 CPS**



The new Liquidometer miniature magnetic amplifier relay, model B250-1, features high sensitivity and vibration resistance.

Designed for use in guided missiles, airborne computers and circuits employing photocells, transistors or thermistors, the new 6 oz. Liquidometer relay has been designed to meet the requirements of MIL-R-5757C and MIL-E-5272A. The B250-1 has virtually no external magnetic fields. It requires no shock mounting.

SPECIFICATIONS

Sensitivity: 80 microwatts from 0-5000 ohm resistive source, decreasing to 100 microwatts for a 15,000 ohm source
Vibration: 10 G's from 5 to 500 CPS
Ambient Temperature: -55° to +100° C.
Contact arrangement: DPDT
Contact life: 100,000 operations at 2 amps resistive
Dimensions: 1¼ in. diameter by 2¾ in. long
Weight: six ounces

For complete details, write Dept. U
for Bulletin 562.



THE LIQUIDOMETER CORP.

SKILLMAN AVENUE AT 36 ST., LONG ISLAND CITY 1, N.Y.

**SPECIFY SOLID ULTRASONIC
DELAY LINES BY BLILEY
FROM 3 TO 3500 MICROSECONDS**

Solid ultrasonic delay lines by Bliley are supplied for any specified delay interval from 3 to 3500 microseconds.

Without resorting to temperature control and temperature adjustment, the following table shows practical tolerances that can be maintained with Bliley delay lines.

2-10	microsecond delay	±.05%	at 25°C
10-50	microsecond delay	±.03%	at 25°C
50-100	microsecond delay	±.05%	at 25°C
100-500	microsecond delay	±.07%	at 25°C
500-3500	microsecond delay	±.1%	at 25°C

Special bonding methods (transducers to fused quartz) and hermetically sealed cases assure permanent performance characteristics from -60°C to +85°C.

WRITE FOR BULLETIN 48

**BLILEY
ELECTRIC COMPANY**
201 UNION STATION BLDG., ERIE, PA.



lacing tapes for every purpose

Gudebrod Lacing Tapes are easy to tie, easy on the hands. Knots tie securely—stay put!

GUDELACE* . . . the original braided nylon wax-coated lacing tape.

GUDELACE-H* . . . rubber-coated, easier to handle, no slipping, fungus and flame resistant.

NEW TEFLACE . . . the latest advance in tapes, coated with DuPont Teflon, to withstand extreme temperature conditions.

*T.M.

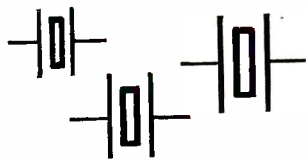
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AND TRIAL SUPPLY TODAY!

GUDEBROD BROS. SILK CO., INC.

Electronics Division
225 W. 34th St.
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Executive Offices
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FREQUENCY CONTROL



CRYSTALS

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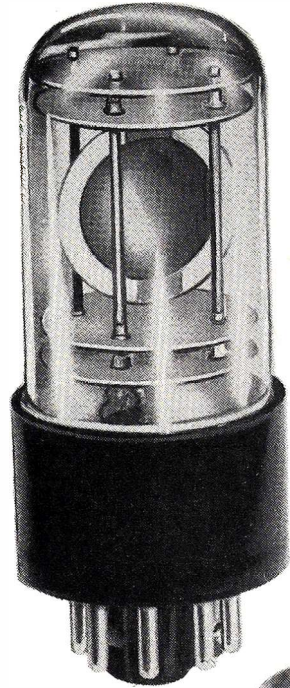
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FREQUENCY COVERAGE*

*Bliley . . . FOR DESIGN
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Bliley . . . FOR QUALITY

*Bliley . . . FOR PRODUCTION
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*Bliley . . . FOR MILITARY AND
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... FOR 26 YEARS
THE FINEST!

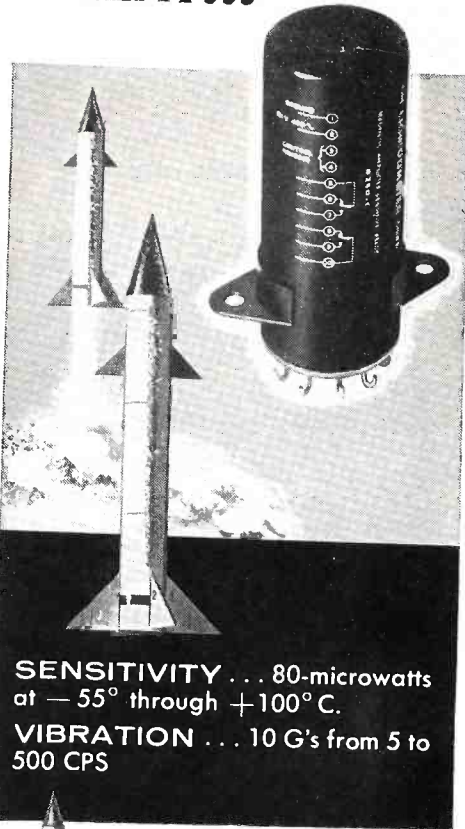
Bliley
CRYSTALS

BLILEY ELECTRIC COMPANY

UNION STATION BUILDING

• ERIE, PENNSYLVANIA

**NEW
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For complete details, write Dept. U for Bulletin 562.



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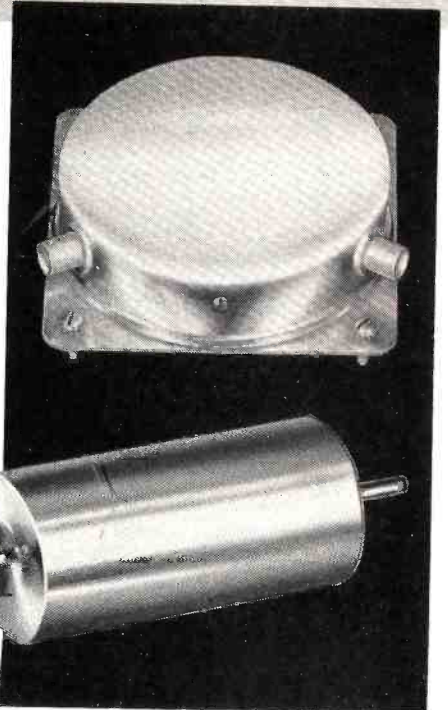
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10-50	microsecond delay	±.03%	at 25°C
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100-500	microsecond delay	±.07%	at 25°C
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Special bonding methods (transducers to fused quartz) and hermetically sealed cases assure permanent performance characteristics from -60°C to +85°C.

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ELECTRIC COMPANY**
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GUDELACE-H* . . . rubber-coated, easier to handle, no slipping, fungus and flame resistant.

NEW TEFLACE . . . the latest advance in tapes, coated with DuPont Teflon, to withstand extreme temperature conditions.

*T.M.

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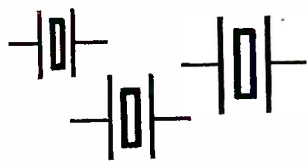
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Executive Offices
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FREQUENCY CONTROL

CRYSTALS



SPECIFY:

*Bliley . . . FOR COMPLETE
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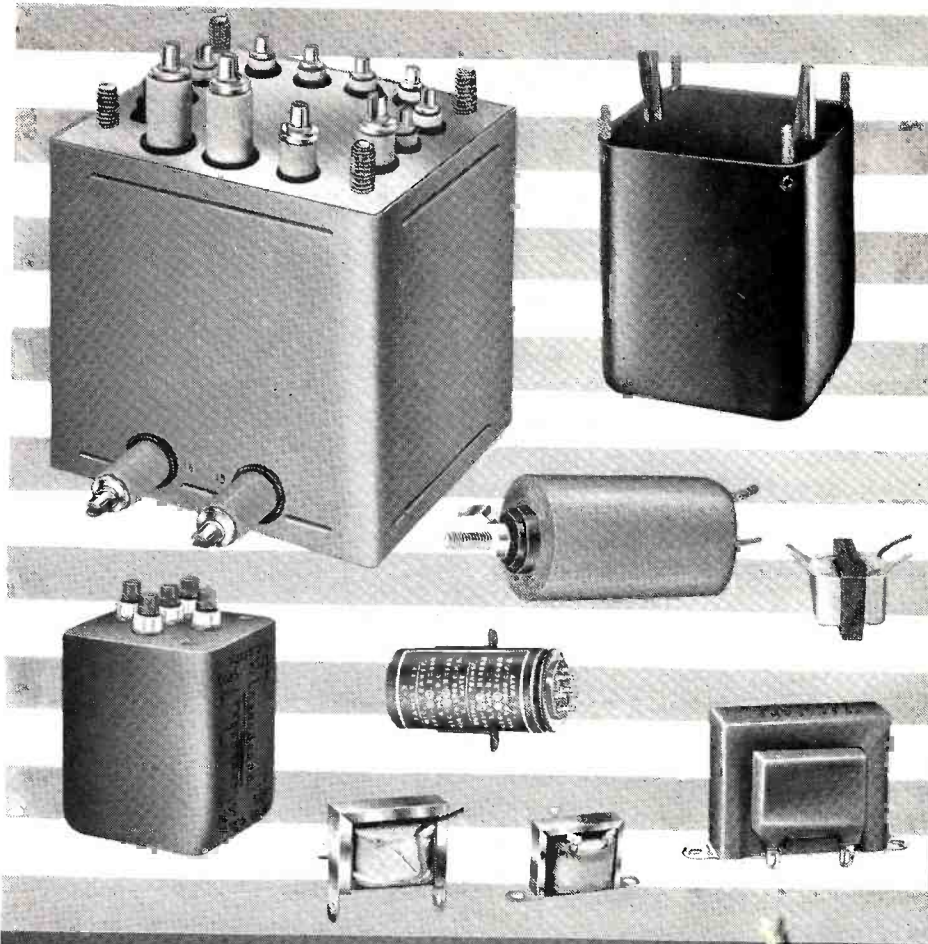


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UNION STATION BUILDING

• ERIE, PENNSYLVANIA

PULSE, TRANSISTOR, AUDIO, HI-FI, MILITARY AND TV TRANSFORMERS



Now available!

Transistor circuit for normal conversation by headset in areas of extremely high noise level. Two-way units also available in combination with oscillator for circuit checking and conversation at distances to 100 feet. Units designed to fit in shirt pocket or attach to belt.

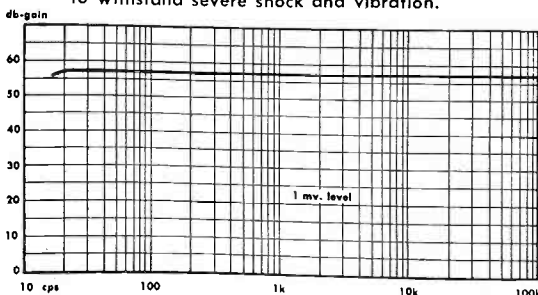
MINIATURIZED ENCAPSULATED TRANSISTOR AUDIO AMPLIFIER



Style I. Plug-in. Designed for standard 7 pin miniature tube socket. Standard tube shield can be used if necessary.



Style II. Case unit. Firmly supported by four leads to withstand severe shock and vibration.

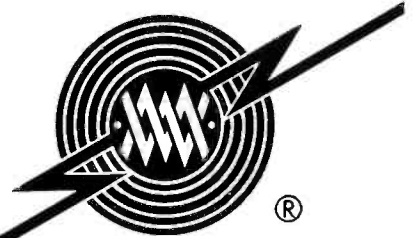


Special frequency characteristics can be built to your requirements.

- Total harmonic distortion**
Less than 1/2 of 1%
from 100cps to 10 kc
- Intermodulation distortion**
Less than 1/2 of 1%
- Noise and hum level**
80 db down from full output
- Input impedance**
2 K ohms @ 1000 cycles
- Output impedance**
100 K ohms @ 1000 cycles
- Input voltage**
2 mv. max.
- Supply voltage**
-5v dc @ 2 ma

Non-microphonic units hermetically sealed and assembled from selected and matched components, double-sealed for indefinite unit life.

Linear frequency characteristics from 20 cps to 100ke. Plug-in or cased types for top performance and efficient assembly. Write for complete data sheet.



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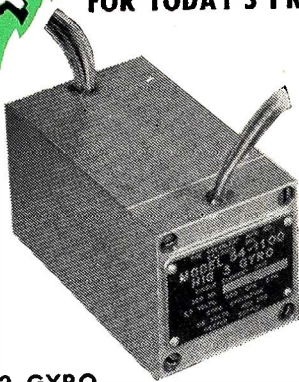
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Precision Products

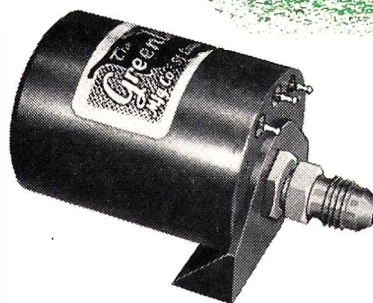
BY **Greenleaf**

FOR TODAY'S PROJECTS — TOMORROW'S PLANS



HIG-3 MODEL 2 GYRO

The smallest integrating Gyro available to meet the exacting requirements of guidance systems. This viscous damped, single degree of freedom Gyroscope has a drift rate of .005 milliradians/second.



PRESSURE SENSING DEVICES

Used for the measurement of absolute, differential and gage pressures. Accuracies within $\pm 2\%$ or better throughout entire operating range.



HIG-4 MODEL 2 GYRO

Greater accuracy, including low drift rate, is a feature of this HIG-4 Gyro, now being used for missile guidance and fire control systems. The design and development phases of this Gyro have long been completed and it is now a production item.



FREE, RATE, DIRECTIONAL AND VERTICAL GYROS

For telemetering, missile guidance, inertial guidance and navigation. Whatever your gyroscope requirements, Greenleaf has the accurate, economical answer.



ACCELEROMETERS

The Greenleaf line includes linear, angular and three-axis accelerometers. Accuracy is within $\pm 2\%$ or better throughout the entire operating range. Military environmental conditions were considered in the design of these units in order to comply with the reliability concept.

All these, and other Greenleaf products, may readily be modified in many respects to meet your individual requirements.

Complete specifications and technical Bulletins will be sent immediately upon request. Write, wire or 'phone today.

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MANUFACTURING COMPANY

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Differential Pressure Mach Meters, Air Speed Indicators,
Computers, Switches and other precision-built components.

INSULATION FOR ELECTRONIC APPLICATIONS

SIL-THIN-GLAS AND SIL-THIN-BESTOS

Ideally suited for such electronic applications as wrapping of armatures, fields, stators, relays, transformers and coils. Insulating barrier where excessive moisture prevails. Layer insulation for motors and dry-type transformers. Features exceptional dielectric and tensile strength. Lightweight, thin and flexible. An EXTRA-THIN high temperature insulation available in rolls, sheet or tape form.

Property	Sil-Thin-Glas	Sil-Thin-Bestos
Gauge (inches)	.002 ± .0003	.0035
Weight (oz./sq. yd.)	2	2.3
Tensile (lb./in.) MD	19 (AMD 28)	6
Tear, in grams Elemendorf (MD)	90 (AMD 110)	55 (AMD 85)
Moisture Absorption	1% after 24 hr.	
Thermal Resistance	180°C (constant)	
Dielectric Strength (VPM)	2300	350

STICK-GLASS*: Used as wrapping for small coils where space is limited and holding down of wrapping is difficult. Ideal for toroidal coils. Class B cloth or tape with adhesive backing. Thicknesses .005"-.015". Dielectric strength of "A" glass (1300 vpm).

SUN-PLI—Asbestos paper combinations provide improved mechanical and electrical strength plus high moisture resistance.

SIL-GLAS—Class H sheets or tape. Uses: coil wrap or tape—slot cell insul.—layer insulation. Uses silicone resin and ground mica coats over Fiberglas cloth. Flexible, 200°C heat resistance, good abrasive resistance, 2.5 Dielectric constant at 25°C. ¼" diel. breakdown 5000V @ .003" to 10,000V @ .010". 1% power factor. Thicknesses .003"-.010".

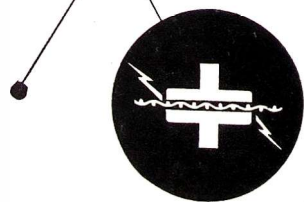
ELASTOMERIC FIBERGLAS—Highly water repellent. Impregnated and coated with silicone rubber. Available cured or uncured. Uncured can be wrapped and baked at 360°F to an hermetic seal. Baking provides after-cure for tough, abrasive-resistant finish. Cured E-F has dielectric strength of 800 VPM @ 25°C for .007", and power factor of 0.7%. Constant operating temp. to 200°C. Flexible from -60°C to 250°C.

BI-GLAS—Class "B"—bias-woven Fiberglas tape for fast wrapping of coils, spirals, etc. Stretches and contour wraps without electrical loss, coning or air pockets. Excellent resistance to oils, acids, moisture, fungus and ozone. High thermal stability withstands high ambients.

Typical Properties—		
(In accordance with A.S.T.M. Specifications where applicable)		
Dielectric Strength	Gauge	.007-in.
Short-Time Test, ¼-in. electrodes	Tensile M.D.	100 lb./in.
V.P.M. as received	Base Glass	ECC-B302
V.P.M. after 5%		

ACTO-GLAS—woven Fiberglas cloth preimpregnated with polyester or silicone resin. Furnished only uncured in 36" rolls or tape. Dielectric strength to 700 VPM. Low moisture absorption, high impact resistance, high flexural strength. Gauges from .004" to .012". Can be formed, molded or laminated at contact pressure. Cures in 5-10 min. @ 250°-300°F under 30 lbs. pressure per sq. in., good resistance to acids, alkalies & moisture.

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ALL ELECTRIC insulation is available from authorized distributors located in principal cities or from our own plant. For complete data and samples send your request to our Department E11-683. Special insulation problems will receive immediate attention in our modern, fully-equipped research laboratories.

*® Owens Corning Fiberglas Corp.

Electro-Technical Products

Nutley 10, New Jersey

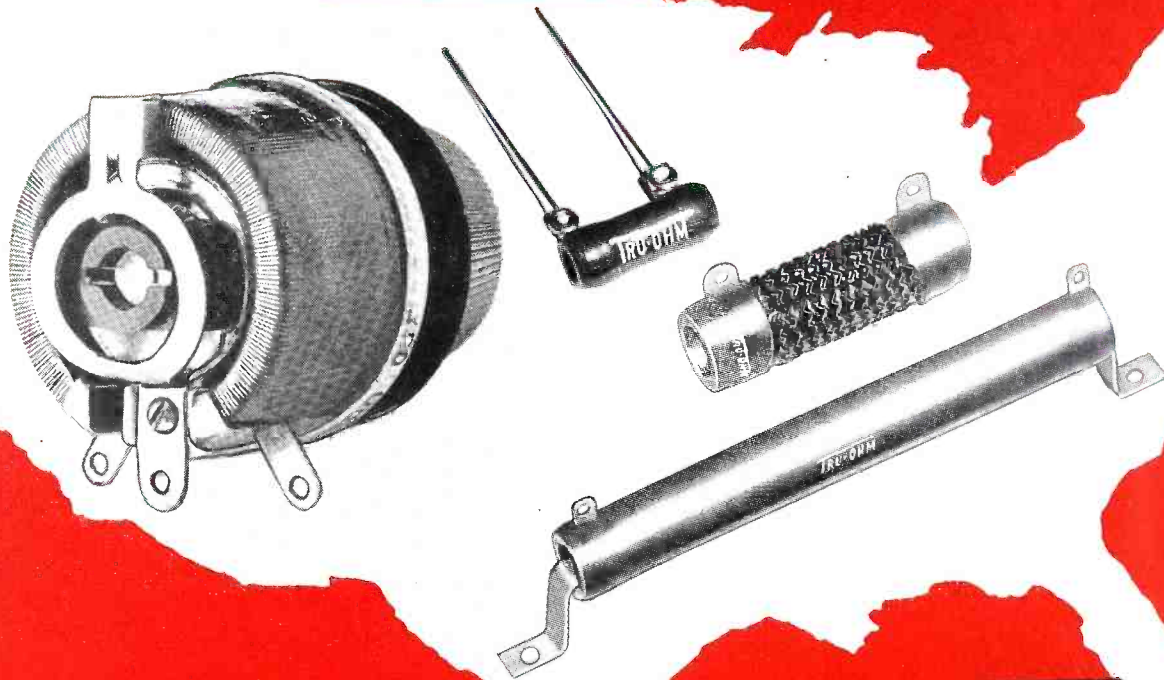
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1

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Because we are the world's
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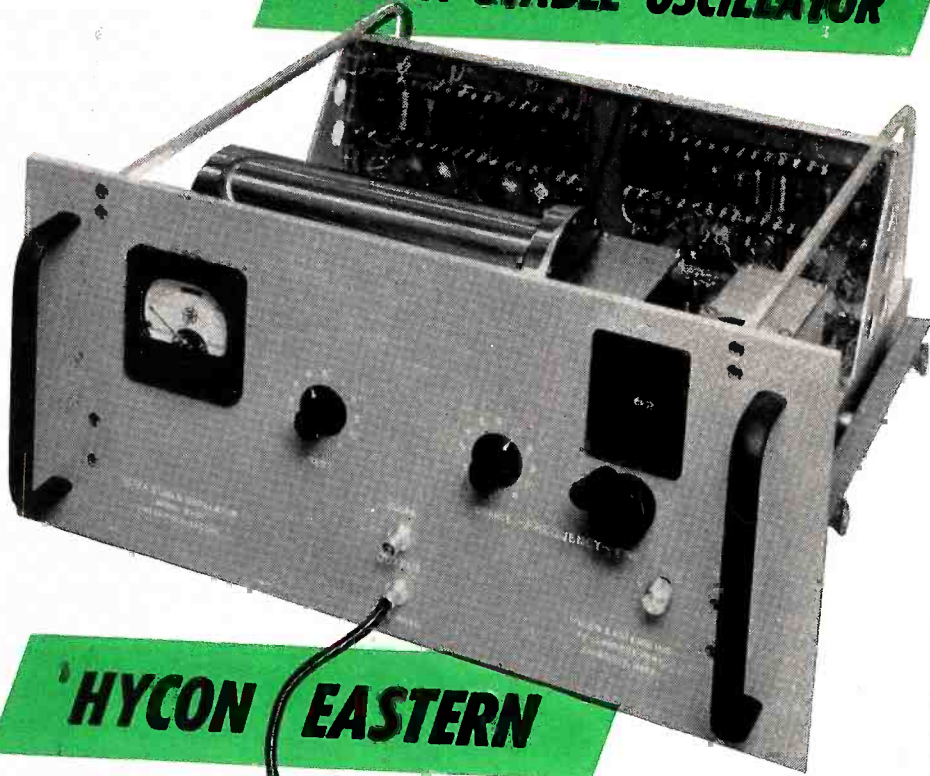
Factory: Huntington, Indiana

Largest producers of wire-wound resistors in the U. S. A.

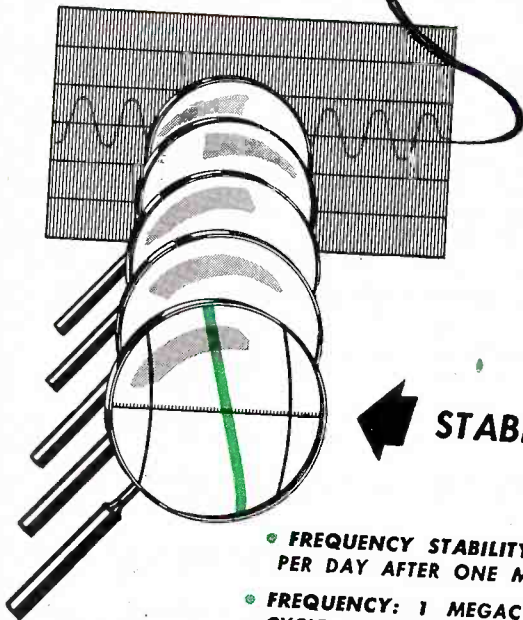
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Precision Frequency Source...

ULTRA STABLE OSCILLATOR



HYCON EASTERN



Hycon Eastern's new Ultra Stable Oscillator is a one megacycle signal source of exceptional stability. It is useful wherever precise time measurements or frequency control are required, as in insertion of carrier in suppressed carrier systems, telemetry, astronomical measurements, navigation systems, geophysics or other critical applications.

STABILITY: 1 PART IN 10⁹

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- FREQUENCY: 1 MEGACYCLE, VARIABLE OVER A RANGE OF 1 CYCLE. AVAILABLE AT OTHER FREQUENCIES ON SPECIAL ORDER.
- CRYSTAL OVEN: STABILIZED TO BETTER THAN 0.01°C BY TEMPERATURE-SENSITIVE RESISTANCE BRIDGE. OVEN CONTAINS NO MOVING PARTS.
- DISSIPATION IN OSCILLATOR CRYSTAL: STABILIZED AT A POWER LEVEL LESS THAN ONE MICROWATT.
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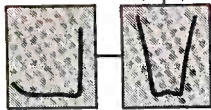
100 Kc

1 Mc

10 Mc

30 Mc

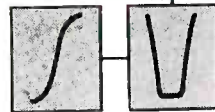
100 Kc



500 Kc



13 Mc



HYCON EASTERN



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STANDARD
CRYSTAL
FILTER

APPLICATION	1 FREQUENCY	2 BANDWIDTH	MODEL NO.	INSERTION LOSS	3 SELEC- TIVITY	OUTSIDE L	DIMENSIONS W	H
SSB (upper)	100 Kc	6 Kc	100 KUA	13 db	1.12	3 ¹ / ₁₆	2 ³ / ₄	3 ⁷ / ₈
SSB (lower)	100 Kc	6 Kc	100 KLA	13 db	1.12	3 ¹ / ₁₆	2 ³ / ₄	3 ⁷ / ₈
Carrier Pass (SSB)	100 Kc	50 cps	100 KPA	3 db	3	3 ¹ / ₁₆	2 ³ / ₄	2
SSB (upper)	500 Kc	6 Kc	500 KUA	13 db	1.2	3 ¹ / ₁₆	2 ¹ / ₄	3
SSB (lower)	500 Kc	6 Kc	500 KLA	13 db	1.2	3 ¹ / ₁₆	2 ¹ / ₄	3
I. F. Shaping (Bandpass)	13 Mc	30 Kc	13 MA	6 db	1.7	3 ¹ / ₂	1 ¹ / ₁₆	2
Crystal Discriminator	13 Mc	50 Kc peak to peak	13 M-DA			1	1 ¹ / ₄	2
Filter & Disc. Set	13 Mc	30 Kc	13 MA 13 M-DA					
I. F. Shaping	13 Mc	15 Kc	13 MB	6 db	1.7	2 ¹ / ₄	1 ³ / ₄	2 ³ / ₄
Crystal Discriminator	13 Mc	25 Kc peak to peak	13 M-DB			2	1 ¹ / ₁₆	2 ¹ / ₄
Filter & Disc. Set	13 Mc	15 Kc	13 MB 13 M-DB					

Companying table lists
Eastern Standard Crystal
Filters which are available for
daily delivery. This line of
Crystal Filters is ex-
tensively available. If the exact type
is not available for your application is
not available, it may now be avail-
able. Otherwise it can be cus-
tomized at any frequency
from 100 Kc to 30 Mc.

For Crystal Filter
information.

SSB FILTERS

- CARRIER FREQUENCY
- AT 2 DB ATTENUATION
- SLOPE FACTOR = $\frac{BW \text{ at } 60 \text{ DB}}{BW \text{ at } 2 \text{ DB}}$
if filter characteristic were symmetrical.

BAND PASS FILTERS

- ARITHMETIC MEAN OF 6 DB
POINTS
- AT 6 DB ATTENUATION
- SHAPE FACTOR = $\frac{BW \text{ at } 60 \text{ DB}}{BW \text{ at } 6 \text{ DB}}$

Operating temperature range: Crystal filters are operative over range of
-55° C. to +85° C.

Impedance: Hycon Eastern Standard Crystal Filters are unbalanced networks
designed to operate tube-to-tube or transistor-to-transistor.

Shock & Vibration: MIL-T-5422



HYCON EASTERN, INC.

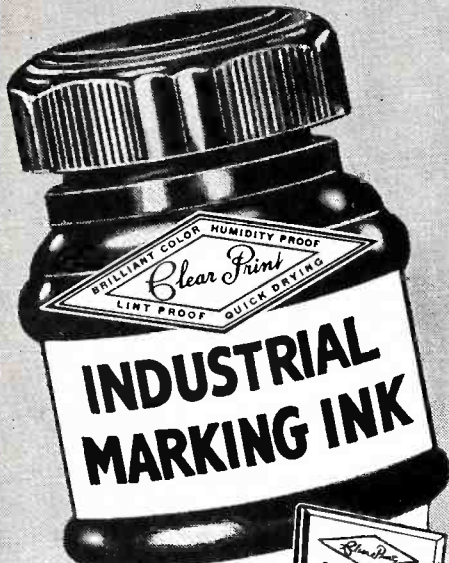
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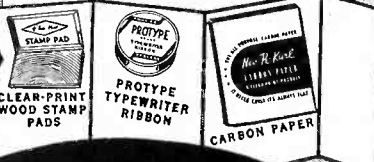
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PART NO 10

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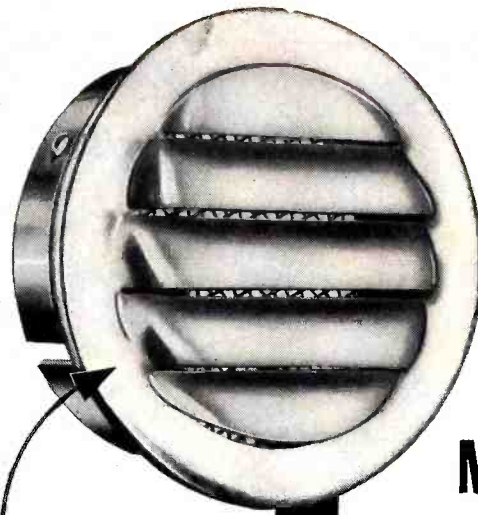
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shielded ventilation . . .

MIDGET LOUVERS

Chrome, anodized, aluminum and copper Midget Louvers provide ventilation for electronic equipment cabinets.

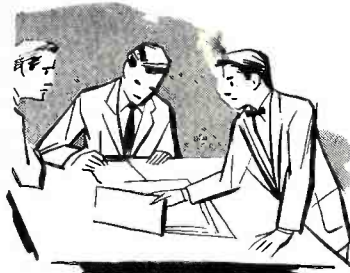
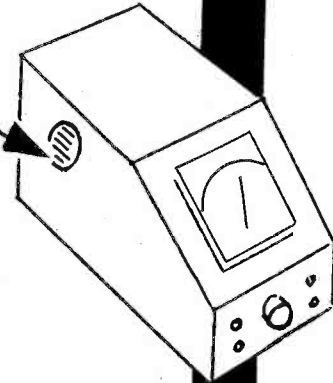
Louvers in air ports of transmitter sets prevent radiation interference on adjacent TV sets.

Easy installation in either wood or metal cabinets, simply drill hole and fit. Louvers are screened to keep out insects.

Sizes — 1" to 6"
Proportionate weights per dozen
2 oz. to 16 oz.

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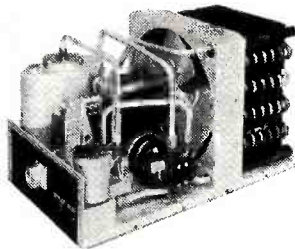


eliminate the "BUGS"

with Eastern aviation products

PRESSURIZATION

Eastern pressurization units for airborne electronic equipment are available in many capacities to handle a broad range of requirements. Units consist of an air pump and motor assembly, pressure switch, check valve, tank valve, and terminal connectors. They meet government specifications and can be modified to your needs.



COOLING UNITS

Hold temperatures to safe operating limits in liquid cooled electronic tubes or similar devices. By virtue of long experience and using standard component parts, Eastern can suit your specific needs at a minimum cost for equipment.

REFRIGERATION-TYPE

Enable specified components to be held to fairly constant temperatures by use of various types of refrigeration units. Because of the variation in methods possible, Eastern units fill every requirement where the use of a refrigeration cycle is called for.

AIRCRAFT PUMPS

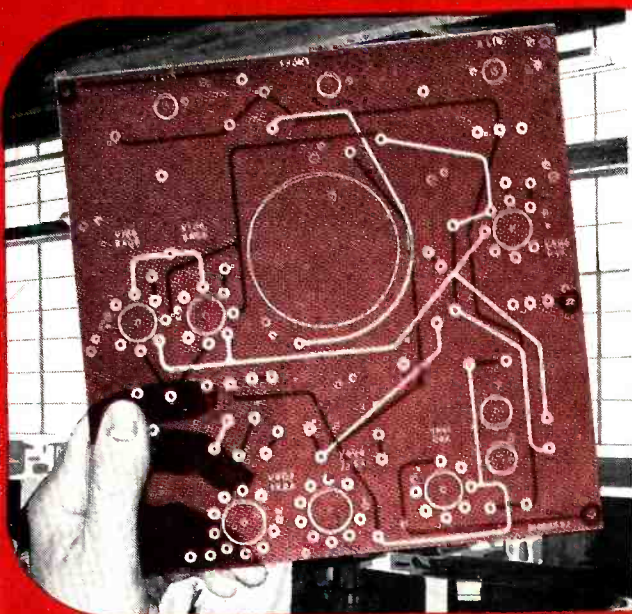
Precision-built to rigid government specifications, a broad selection among Eastern pumps offers flexibility to your choice. Modifications can be made, or custom-made units designed to suit your project. Trim in size, light in weight, Eastern Aircraft Pumps give reliable long-term service.

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CHECK THESE 3 OUTSTANDING FORMICA LAMINATED PLASTICS . . .

for your electronic applications



1 New translucent Formica XXXP-36 offers cold punching and high IR

XXXP-36—new paper base phenolic grade—brings 1,000,000 megohms resistance value, precision and translucency to printed circuitry!

The new XXXP-36 sheet punches cold up to and including 1/16". Therefore, it is not subject to dimensional change as in grades which must be heated before punching. This means that with Formica XXXP-36, you can now produce circuits with new and higher standards of accuracy.

Also recommended for terminal boards, tv insulators and other applications requiring high IR. Send for bulletin 599.

2 new glass silicone

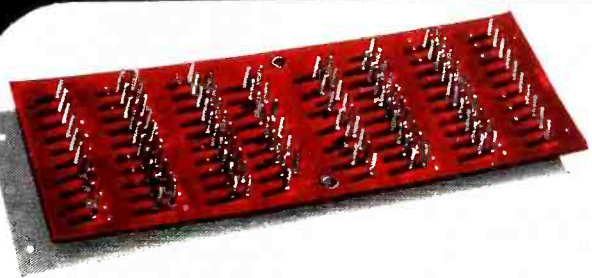


New G-7-2 offers greater hot strength, lower moisture absorption, lower wet power factor. Comes in larger sheets (up to 36" x 72" x 2"), and has a uniform creamy white color. Send today for free data sheets.

3 FF-91 glass epoxy



FF-91 is a super-insulator, has high operating and solder temperature and better bond strength. Especially valuable in hot, humid conditions, since its inorganic base resists fungus attack. Also has very high mechanical strength and cold punching characteristics. Send today for free data sheets.



plus special Terminal Board grades

Terminal boards made of Formica offer electrical insulation, plus heat-, flame- and arc-resistance . . . and dimensional stability under extremes of temperature and atmospheric conditions.

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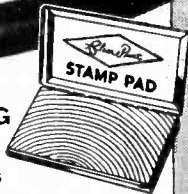
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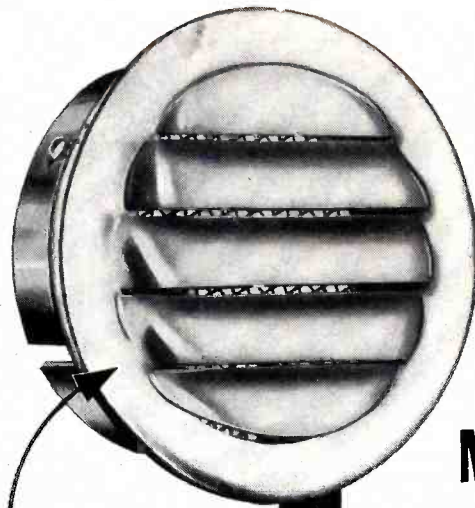
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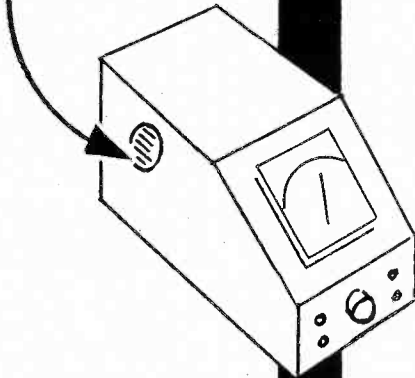
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2 oz. to 16 oz.

Write for complete data

MIDGET LOUVER CO.

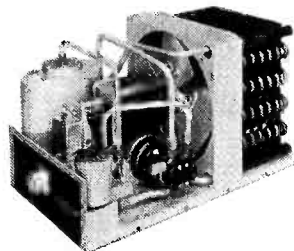
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Hold temperatures to safe operating limits in liquid cooled electronic tubes or similar devices. By virtue of long experience and using standard component parts, Eastern can suit your specific needs at a minimum cost for equipment.

REFRIGERATION-TYPE

Enable specified components to be held to fairly constant temperatures by use of various types of refrigeration units. Because of the variation in methods possible, Eastern units fill every requirement where the use of a refrigeration cycle is called for.

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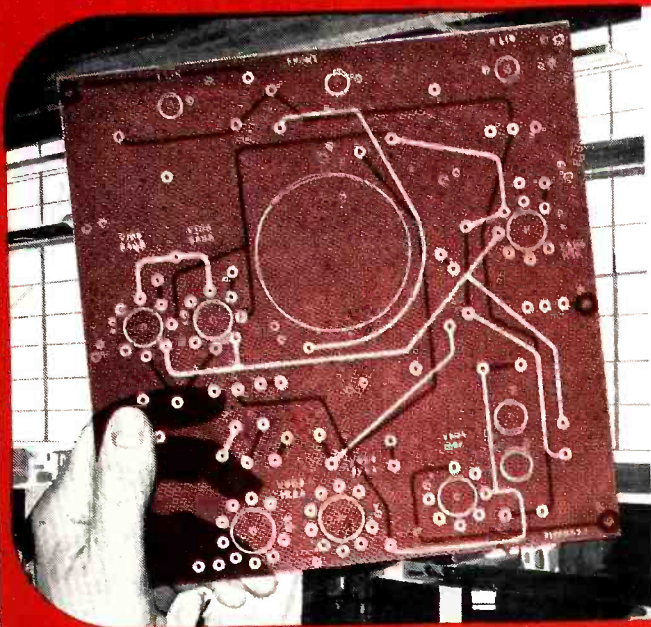
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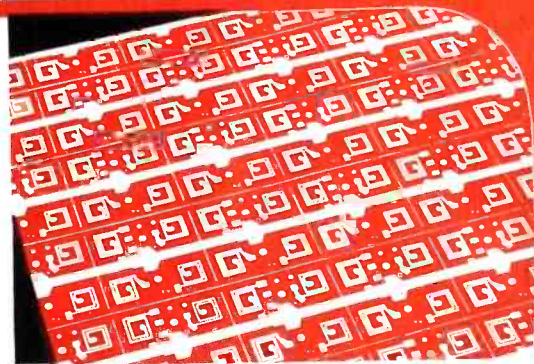
**new
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silicone**



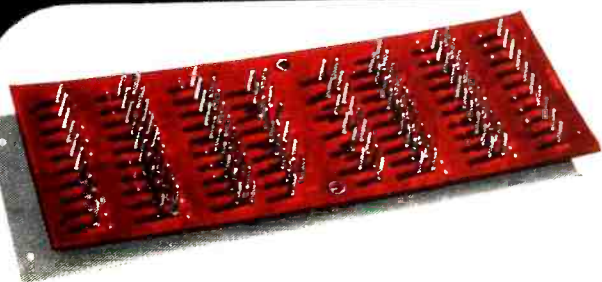
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glass
epoxy**



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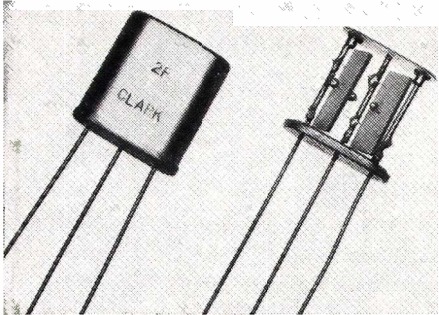
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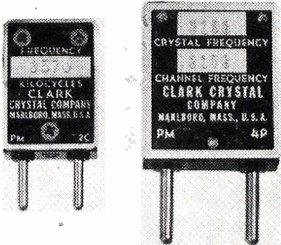
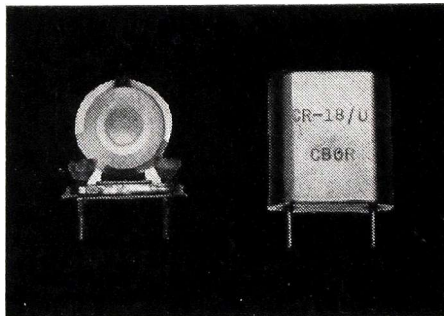


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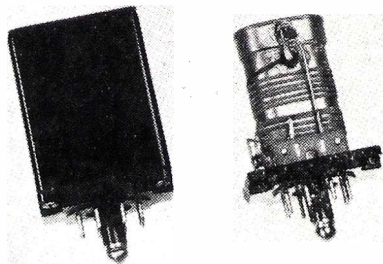
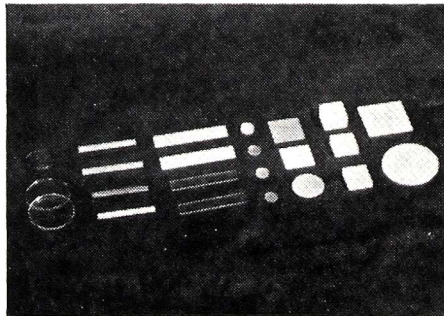


COMMERCIAL CRYSTALS

Quartz crystals in standard or non-standard holders for replacements in all existing equipments.

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Daystrom Potentiometer Division is a leader in the development and production of precision-built, miniaturized, wire-wound potentiometers. Whatever the application, there is a Daystrom "Pot" to do the job accurately, reliably, and with a built-in ruggedness that is rapidly becoming the standard in this field of flight instrumentation. The division's development facilities are also at your service to provide custom designs to meet particular requirements.

MODEL 300-00 the smallest precision-built, wire-wound, subminiature trimming potentiometer available today featuring high power rating, extremely fine resolution, operation over extreme temperature ranges, and compact stacking (21 per cubic inch).



ACTUAL SIZE

MODEL 303-00 "big brother" to the Model 300-00, this miniature trimming potentiometer offers the same high precision standards of accuracy and reliability of operation plus a greater power rating and higher resistance ranges.



ACTUAL SIZE

MODEL 341-00 the smallest precision, subminiature, 10-turn potentiometer on the market offering full scale electrical and mechanical performance usually associated with precision potentiometers twice its size and weight.



ACTUAL SIZE

AMERICAN GYRO DIVISION

American Gyro Division, designer and producer of precision target and missile flight control systems and system components, has earned an enviable reputation in the field for the manufacture of accurate and reliable electronic and electro-mechanical devices. The division's carefully selected combination of engineering, technical, sales, and service personnel makes up one of the nation's strongest teams for the solution of your gyro, control, automation or electronic problem.

Miniaturized gyros produced by American Gyro incorporate the latest features in flotation design, assuring a rugged reliability unavailable in other models . . . these units meet all known aircraft and missile specifications.



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American Gyro's advanced designs, precision engineering, and special production techniques have placed this armament intervalometer foremost in its field . . . these units are now "on duty" with the most advanced USAF fighter aircraft.

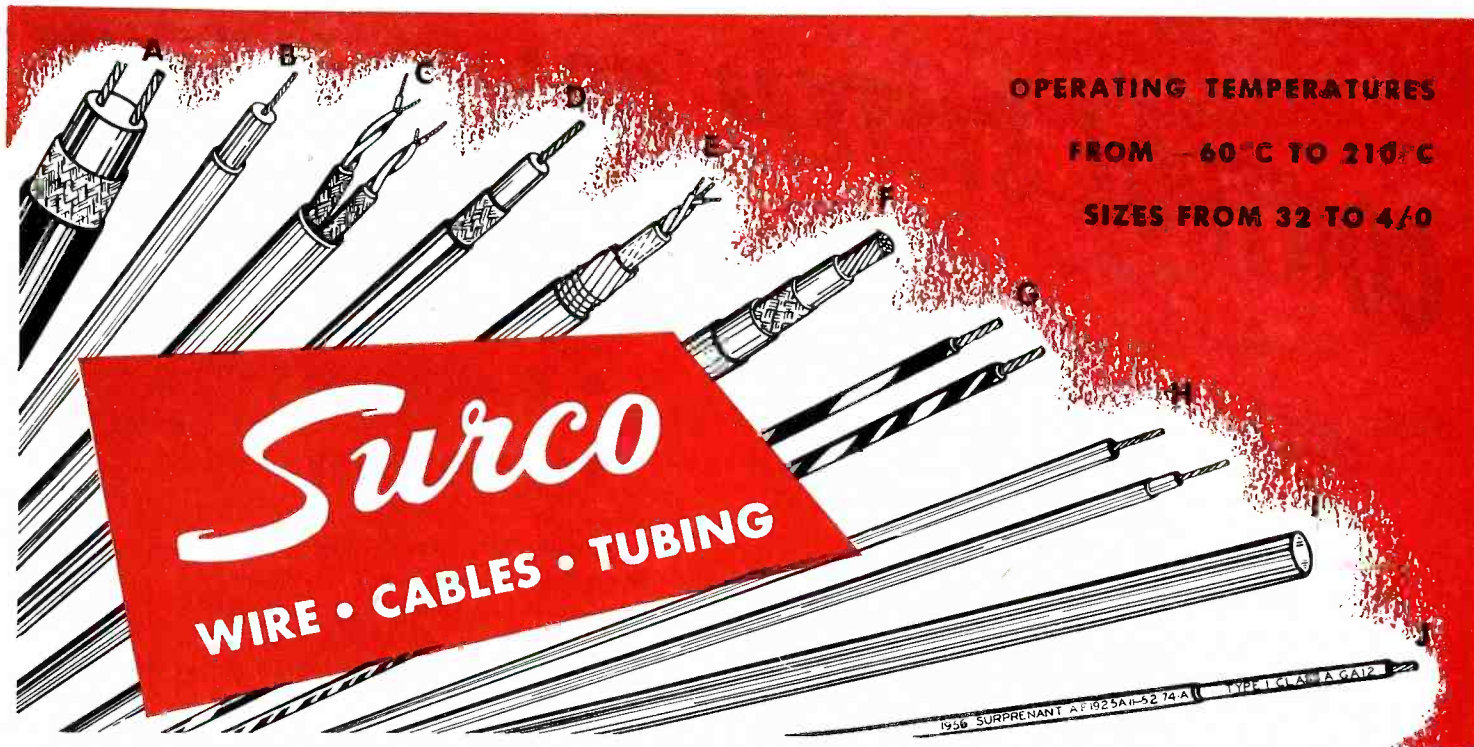


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OPERATING TEMPERATURES

FROM -60°C TO 210°C

SIZES FROM 32 TO 4/0

Surco

WIRE • CABLES • TUBING

A Coaxial Cables — "Surco" coaxial cables include a wide variety of types, such as low capacity, extra flexibility, small diameter, microphone 2 conductor, and high temperature "Teflon". Conform to Military Spec. MIL-C-17B. Many special designs. If you have a coaxial cable problem consult us.

B "Miniature Coaxial Cables — Extruded low-loss Teflon dielectric O. D. under 1/16 inch for 50 ohm cable and under 1/8 inch for 95 ohm cable. Low capacitance, stable electrical characteristics."

C Miniature Wire and Cable — "Surco" miniature wire and cables are made in conductor sizes down to No. 32 AWG in stranded and No. 30 AWG in solid. Close control in manufacturing permits small finished diameters on both single and multi-conductor cable. Available in standard colors with and without nylon jackets or shielding in the various vinyl or polyethylene compounds.

D "Surflene" Insulated Hook-up Wire and Tubing — "Surflene", extruded monochlorotrifluoroethylene, has excellent resistance to heat, abrasion and most chemicals, including nitric acid. Having high dielectric strength and insulation resistance, it is especially useful in totally enclosed applications with continuous temperatures up to 135°C . "Surflene" is available in 15 solid colors and wall thickness down to 0.008". Also available in limited range of sizes in transparent or colored tubing.

E Multi-Conductor Cables — "Surprenant" Multi-conductor cables are available with conductor sizes from No. 32 AWG and larger with vinyl, "Surflene", or Teflon insulation, with or without nylon jacket or shielding and can be made to specification for special design and applications. Close tolerances permit unusually small overall diameters and "Spiralon" color coding permits easy identification even when hundreds of conductors are involved.

F New Improved Aircraft Wire — Surprenant new lightweight, smaller diameter MD wire (vinyl, glass braid, nylon) and the standard Surprenant sandwich construction (Vinyl, glass braid, vinyl, nylon) give excellent overload safety, high and low temperature performance, good electrical properties and have a nylon jacket

giving greater resistance to abrasion, fungus, moisture, hydraulic and other oils (nylon braided jacket on size 10 AWG and larger for greater flexibility) and are made to conform to MIL-W-5086. "Surprenant" also offers nylon jacketed polyvinylchloride construction made to conform to Military Spec. MIL-W-5086, MIL-C-7078, and MIL-W-7072.

G "Spiralon" — "Surco-Spiralon" color coding is available on all vinyl, nylon, Teflon, and Kel-f insulated wires, with or without nylon jackets. One, two or three color stripes are available in the Nema colors providing almost unlimited color identifications. Solid color insulation is also available in the 10 standard Nema colors.

H "Surco" A-10 for (105°C) Hook-up Wire — A-10 is an unusually high grade vinyl insulating compound developed in our own laboratories for a better hook-up wire. It has excellent resistance to deformation, soldering, high temperature, low temperature and aging; high electrical properties; Underwriters Lab. approved for continuous operation to 105°C without fibrous covering. A-10 insulated wire made to conform to MIL-W-16878A, Types B, C, and D, with or without nylon jackets or synthetic braids.

I "Surco" Tubing — "Surco" vinyl, nylon, polyethylene, silicone rubber, Kel-f and Teflon tubing available in a wide variety of sizes, temperature ranges, electrical and physical characteristics.

J MIL-W-5274A Radar & Electronic Hook-up Wire — Made to conform to Air Forces Spec., this wire offers excellent low temperature performance. Nylon jacketed, it has high abrasion resistance and superior surface resistivity even under adverse humidity conditions, making it very adaptable for high impedance circuits.

Silicone Rubber Wire and Cable — Thin wall silicone wire for 600 and 1000 volt service up to 400°F continuously and higher with short life ratings. Remains flexible at -100°F . Braided and jacketed constructions available for increased mechanical and abrasive characteristics.

Extruded THIN WALL Teflon INSULATED (210°C) HOOK-UP WIRE

Continuously operable over the range from -90°C to 210°C without appreciable deterioration, extruded "Teflon" (polytetrafluoroethylene) is now available in walls as thin as 0.010" (type WTE) and 0.015" (type RTE). Teflon combines non-flammability, chemical and solvent resistance, high volume and

surface resistivity with extremely low electrical losses. This wire is available in all flexible strandings from AWG 10 and conforms to performance requirements of MIL-W-16878A. Colors and Spiralon markings conform to MIL-STD-104. Also, available in limited range of sizes in natural or colored tubing.

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MAGNET CHARGER**
*Charges all Kinds and
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Safely & Quickly*
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MODEL 107A Magnet Charger has dual range charging current output: 12,000 amperes for small magnets and 24,000 amperes for larger, Alnico V magnets. Any shape or kind of magnet can be charged, including core type mechanisms, using charging bar or special adapters. Booster Unit available for increasing output to 28,000 amperes. Carrying handle added for easier portability. Unit is self-contained, simple to operate; all exterior parts can be handled during complete charging cycle without danger to operator. Designed for production charging, its average magnetizing cycle is under 5 sec. Weight 75 lbs., size 12 x 7 x 17, operates on 110 volts, 15 watts. Net price \$490.



**Model 942*
MAGNET
CHARGER**
*A High Powered
Charger capable of
charging large Alnico
& Ceramic Magnets*

The Model 942 Magnet Charger with its accessories is designed to charge permanent magnets, including Alnico and ceramic magnets, requiring up to 200,000 ampere-turns peak magnetizing force for saturation. This Charger is essentially a high voltage power supply and control circuit with up to eight 100-uf storage capacitors. The ampere-turn rating depends in a large measure upon the size and type of fixture or transformer purchased to operate with the Model 942 Magnet Charger and the number of 100-uf capacitors employed. By using the Model 942 Magnet Charger as a central building block, magnetizing equipment can be set up for almost any magnet. Two standard transformers, a 30-cubic inch wire-wound fixture, and many adapters and inserts are available to charge rod, bar, ring, and U magnets, multi-pole rotors, and special complex shapes. Price for basic unit is less than \$2000.

MAGNETREATER®

*De-magnetizes Saturated
Magnets to any desired
Level of Flux*



Model 889A*

MODEL 889A Magnetreater can be used with Model 107A Magnet Charger or Model 206A Booster to provide a controlled, precise method for rapidly treating permanent magnets, particularly the new core type instrument mechanisms. Also useful for de-magnetizing tools or machined parts. Net Price \$163.

CHASSIS SLIDES* Part No. H-5798



Inexpensive Chassis Slides designed for standard relay rack mounting on Navy and Signal Corps equipment are available as a stock item. Materials and finishes comply with MIL-E-16400 (Ships). Slides carry chassis to 100 lbs., tilt for easy access to bottom of chassis, and are easily removed. Rugged, cadmium plated, iridized steel rails with bronze rollers, stainless steel pins and nylon bushings. Write for detailed data sheet.

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**Model 541A
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Model 1051 C-R-A-M UNIT*
*A New Instrument of Wide Versatility Used as
a Secondary Frequency Source, WWV Receiver,
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Signal source — radiates harmonics of 10 mc to over 500 mc, harmonics of 1 mc to over 300 mc, harmonics of 100 kc to over 150 mc, and harmonics of 10 kc to over 50 mc to an accuracy of $\pm 0.0005\%$ at ordinary room temperatures.

RECEIVER

Receives WWV time and frequency broadcasts on 5 mc, with a self-contained tuner of 5 μ v sensitivity. The standard frequency broadcasts are used to adjust the oven-controlled 10.0 mc crystal in the unit to exact frequency, or to standardize an external oscillator connected to one of the input jacks.

AMPLIFIER

Increases the strength of the audio output for operation of self-contained speaker or phones. The amplifier, with a gain to several hundred times, and a frequency response to 15 kc, may be picked up on panel jacks for external use.

MIXER

Enables comparing two external signals up to 1000 mc, or comparing one such signal to harmonics of one of the internal oscillators. An audio difference frequency may be amplified and delivered to speaker or phones. A radio difference frequency may be picked up for external use through a panel jack.

Operates from 115 v, 60-cycle line. Plate voltage regulated. Price \$375.



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A Model for Every Purpose and Price Range

*All Circuits and
Power Supplies in
One Single Cabinet*

MODEL 829 checks AC and DC meters of all types and ranges. Compact cabinet contains power supply, special Weston standard meters, Wheatstone Bridge and all circuits for quick, convenient instrument calibration to 0.5% accuracy by non-technical personnel. Automatic protection for both operator and instrument under test is provided by interlocks and high voltage discharge circuits. Net price \$2345.

DUAL POTENTIOMETER DC STANDARD

MODEL 262B Dual Potentiometer Standards for calibrating meters to 0.1% through a range of 1 millivolt to 1500 volts and 1 microampere to 150 amperes. Uses L & N Brooks Mod. 7 pot. and Weston Mod. 4 standard cells. Voltage and current ranges are separate for the calibration of wattmeters. Operates on 105/125 volts, 50/1600 cycles, 350 watts, with internal voltage regulator. Operator is protected by interlocks. Price \$14,300.

Also available are MODELS 261B and 454 Standards for calibrating AC meters to 0.5% through ranges of 10 millivolts to 1500 volts and 1 microampere to 200 amperes; MODEL 260C Standards for DC meters to 0.5% over ranges of 1 millivolt to 1500 volts and 1 microampere to 150 amperes. Accuracy of 0.25% using charts. These standards have been used for 8 years by the government services and leading industrial organizations.

Model 262B



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*Patents Pending

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Small Controlled Reluctance Microphones

*for use where
space is limited
stability is essential
intelligibility is important*

These rugged, magnetic microphones are designed for use in transistor-type hearing aids, small amplifiers and transmitters, dictating equipment, magnetic recorders . . . wherever size and weight must be kept at a minimum.

SHURE microphones based on this same design principle have been used extensively by the Armed Forces in many military applications where severe operating conditions are encountered.

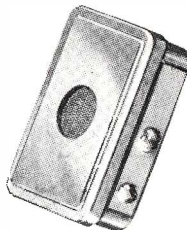
MC 20

This microphone measures only $1\frac{5}{16}$ " x $\frac{3}{8}$ " x $\frac{5}{16}$ ", and weighs $9\frac{1}{2}$ grams. Its rectangular shaped case simplifies placement of other circuit components, and permits an appreciable reduction in the size of the equipment using it.

Output Level: 75 db below one volt per microbar (0.56×10^{-10} watts for one microbar—at 1,000 c.p.s. for 1,100 ohms impedance).

Frequency Response: 400 c.p.s. to 4,500 c.p.s.

Impedance: 1,100 ohms (at 1,000 c.p.s.). Other impedances available on special order.



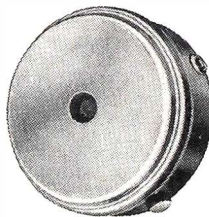
MC 10

One-inch diameter microphone, less than 0.4" thick, weighing only 11 grams. Similar in construction to the MC20, for use where amplifier gain is at a premium, and a more sensitive microphone is needed.

Output Level: 71 db below one volt per microbar (approximately 10^{-10} watts for one microbar—at 1,000 c.p.s. for 1,000 ohms impedance).

Frequency Response: 400 c.p.s. to 3,000 c.p.s.

Impedance: 1,000 ohms (at 1,000 c.p.s.). Other impedances available on special order.



R 5

Where a still higher output is required and space is not so limited, the R5 is an ideal unit. It is $\frac{3}{8}$ " thick and $1\frac{3}{8}$ " in diameter, weighing only 4 ounces. Encased in its rubber mounting ring the R5 measures $1\frac{1}{2}$ " thick and $2\frac{3}{4}$ " in diameter.

Output Level: 51.5 db below one volt per microbar—at 1,000 c.p.s. for 14,000 ohm impedance.

Frequency Response: 100 c.p.s. to 9,000 c.p.s.

Impedance: 14,000 ohms at 1,000 c.p.s. Other impedances available on special order.



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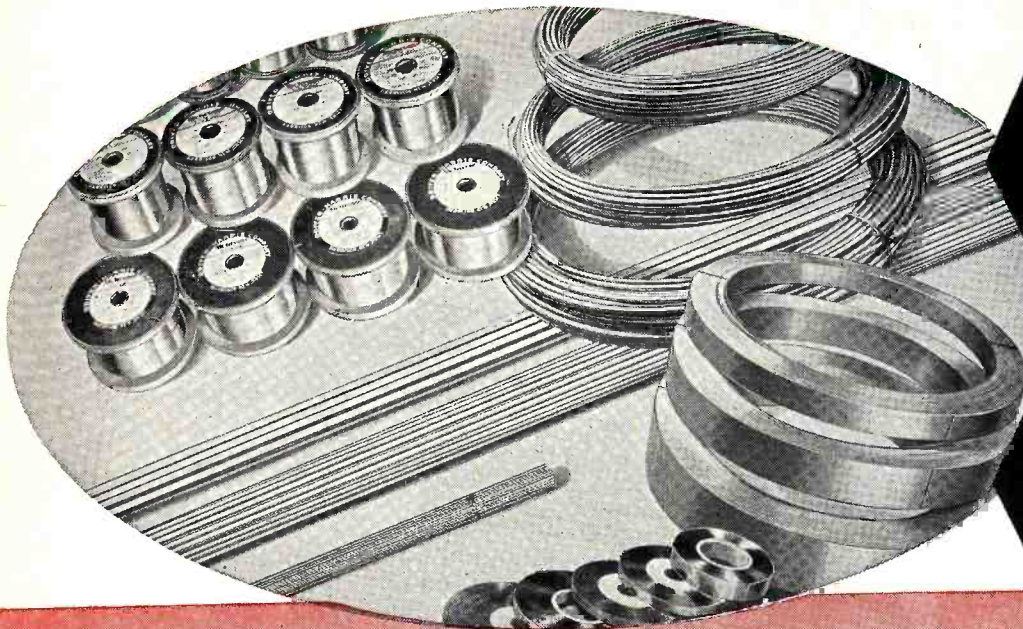
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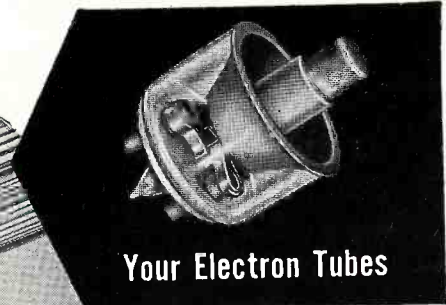
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KARMA* (Nickel-Chrome-Aluminum-Iron) Permits the manufacture of miniaturized wire wound precision resistors of best temperature coefficient of resistance at low cost per ohm; also resistance standards.

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MANGANIN (Manganese Copper) Most stable resistance wire known at ambient temperature. Indispensable

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HYTEMCO* (Nickel-Iron) Combines high temperature coefficient of resistance with high specific resistance; ideal for winding compensating or ballast resistors.

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142 ALLOY (Nickel-Iron). For sealing glasses such as Corning 776, also 8160.

152 ALLOY Contains 50% nickel. It provides a slightly higher coefficient of expansion than 142 Alloy and seals successfully with 0120 glass.

146 ALLOY Contains 46% nickel. It offers special expansion properties, permits seals with ceramic coated resistors.

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RIPPLE . . . 5 ranges—
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D. C. VOLTAGE . . . 2 ranges—
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served on external oscillo-
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CURRENT RANGES . . . from
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Two separate current controls can be preset independently from zero to full-load capacity. Built-in timer automatically cycles load, or load may be modulated by external signal generator.

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slip ring assemblies AND COMMUTATORS

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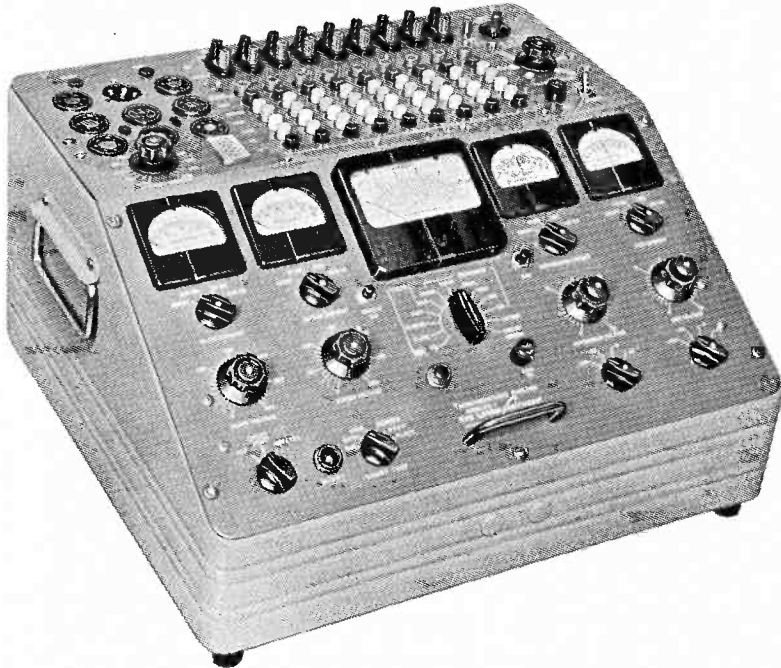


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Company INC.

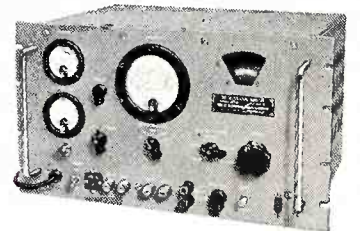
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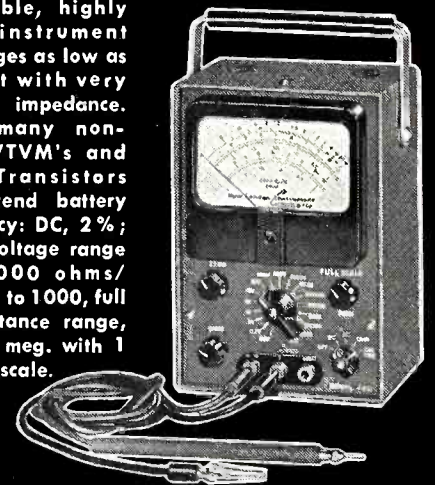


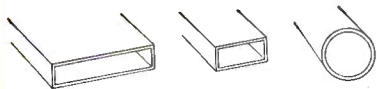
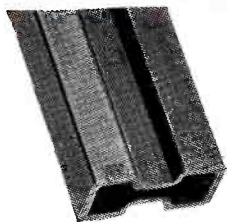
MODEL 257A FM Mod. Monitor

Measures frequency deviation, carrier noise, hum & modulation distortion of transmitters and signal generators. Measures FM of AM transmitters, monitors TV, FM and telemetering transmitters. Audio frequency response is ± 1 db from 50 to 70,000 cps; Carrier frequency range is 20 to 1000 mc in 5 bands. Low internal hum, noise and distortion. Insensitive to 30% spurious AM.

MODEL 400 Transistorized Volt Ohmmeter

This portable, highly sensitive instrument reads voltages as low as 1 millivolt with very high input impedance. Replaces many non-portable VTVM's and VOM's. Transistors greatly extend battery life. Accuracy: DC, 2%; AC, 3%. Voltage range (at 200,000 ohms/volt): 0.03 to 1000, full scale. Resistance range, $R \times 1$ to 1 meg. with 1 ohm at midscale.





Waveguide Tubing

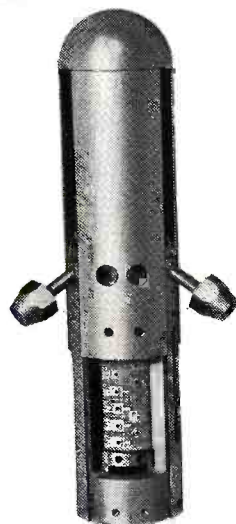


Waveguide Assemblies

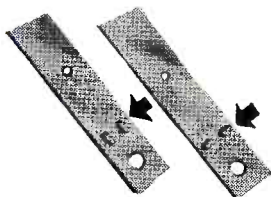
Makepeace

ELECTRONIC and ELECTRICAL COMPONENTS

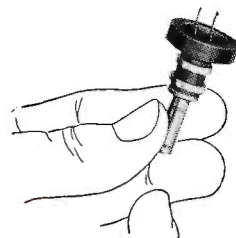
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Electrical Contacts

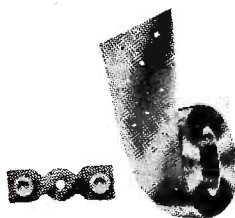


Crossbar for Relays

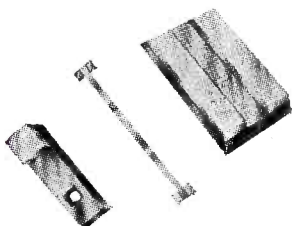


Collector Ring Assemblies

AT MASS-PRODUCED PRICES



Spot Lay[®] for Rotors



Raised Lay for Switches

D. E. Makepeace Co., originators in the art of bonding precious metals to base metals, have continually expanded their engineering and production facilities to keep pace with modern inventions and methods. The result is an ability to design and produce components to strictest specifications and closest tolerances at lowest possible quantity prices.

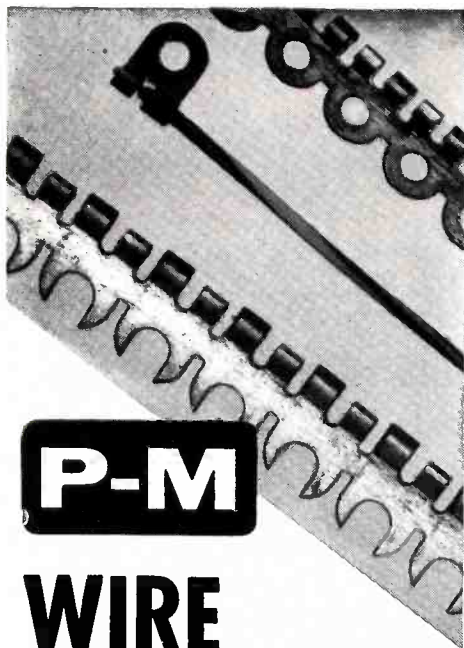
Send us your drawings for quotations or requirements for special design.

D. E. MAKEPEACE COMPANY

Division of Union Plate and Wire Co.

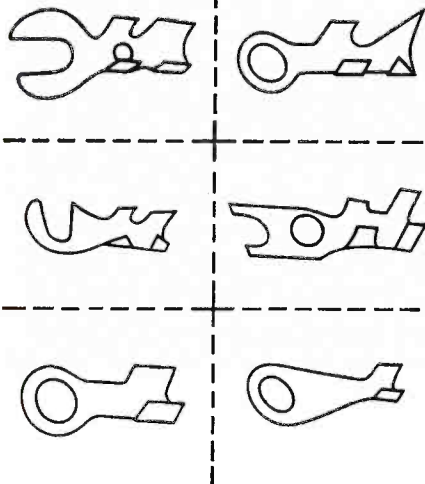
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Whatever your needs in electrical wire terminals, loose or continuous strip, we can fill them from our stock of thousands of types and sizes . . . or make them to your specifications.

Our years of experience and modern factory facilities are teamed to make P-M Terminals your best buy every time. Write for catalog today.

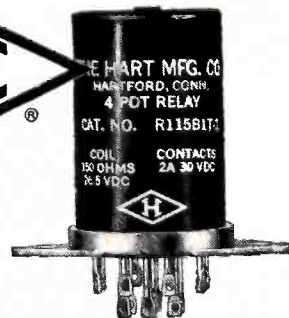
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PATTON-MacGUYER COMPANY

21 Virginia Ave., Providence 5, R. I.



Versatile 'DIAMOND H' Relays



Handle Many Different Jobs

"Diamond H" Series R hermetically sealed aircraft type relays perform outstandingly over such a broad area that they are frequently used to do many different types of jobs in a given application. For example, they give excellent reliability in dry circuits yet will carry up to 10 amperes in power circuits . . . or even 20 amperes for reduced life requirements.

Savings inherent in uniform size and mounting arrangements for one relay family can be multiplied by the lower inventory of spare parts needed when a single model is used for two or more functions. Matching or surpassing requirements of USAF Spec. MIL-R-5757B as well as important provisions of MIL-R-25018, tens of thousands of Series R 4 PDT and DPDT relays are in use, engineered for:

Various brackets of vibration resistance from 10 to 2,000 cps, temperature ranges from -65° to $+200^{\circ}$ C, coil resistances from 1 to 50,000 ohms, operational shock resistance of 30, 40 or over 50 "G" and mechanical shock resistance to 1,000 "G", contact capacities from 350 V., D. C., 400 MA, to 10 A., at 30 V., D. C., as well as signal circuits.

For complete information, send for a copy of Bulletin R-250.

THE HART MANUFACTURING COMPANY
302 Bartholomew Avenue, Hartford, Conn.

why you should use **BALTIC** custom built enclosures . . .



Your product in a BALTIC custom built housing has a luxury look. Individually designed to meet your specifications . . . and you can be assured of perfect fit and skilled craftsmanship.

All our products are interchangeable to assure speedy assembly on your production line. Each unit we turn out is accurately engineered to close tolerances and finished to perfection, reflecting our long years as specialists in solving sheet metal fabrication problems. Our large stock of standard and Whistler die combinations eliminates unnecessary tool charges and sends your unit cost way down.

Whether you need simple chassis or enclosures for the most complicated equipment, BALTIC will custom build it . . . in any metal, any size, any gauge, any finish, in large or small quantities. Complete facilities for finishing and shipping all under one roof.

BALTIC METAL PRODUCTS CO.

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DEVELOPED FOR APPLICATIONS . . .

. . . beyond today's horizons

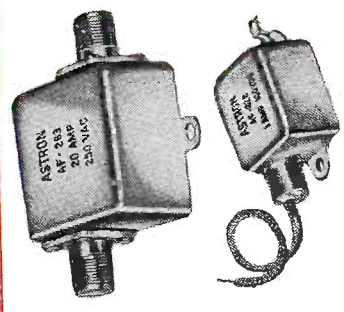
New HEIGHTS OF PERFORMANCE Achieved by advance-design **ASTRON CAPACITORS AND R.F. FILTERS**

Today's design requirements foreshadow tomorrow's revolutionary applications . . . imposing critical new areas of performance on electronic components.

The vexing problem of efficient capacitor and R. F. filter operation under these ultra-severe conditions of extreme heat, cold, moisture and vibration challenges the imagination of the component manufacturer . . . truly he must create "something completely new under the sun"!

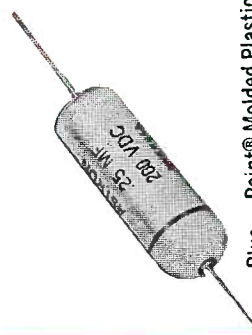
A foremost pioneer in the exacting development of advance-design components, to cope with these requirements, is Astron . . . leader in miniaturization, manufacturer of industry's widest variety of types, whose experience, ability and creative far-reaching point of view produces the significant, highly-engineered designs pictured here . . . proof of a dedication to progress.

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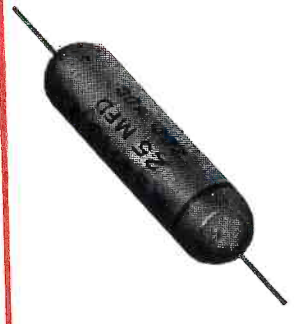


R. F. Noise Suppression Filters.
Complete noise suppression "packaged" service—Definition of requirements • Engineering analysis • Efficient solutions • Advance-type components • Quality production.

Attention: West Coast Buyers
Astron now maintains a complete West Coast Stock of all standard items . . . see your local Astron distributor.



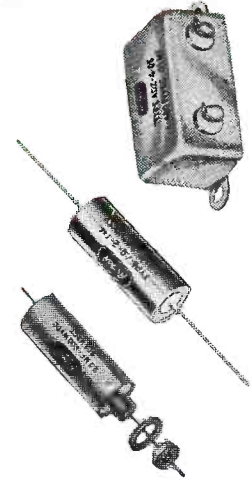
Blue • Point® Molded Plastic Paper Capacitors



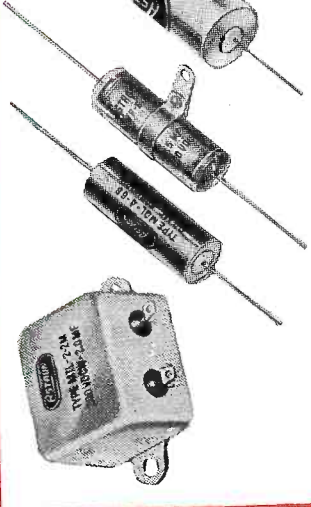
Comet* Molded Plastic Metallized Paper Capacitors



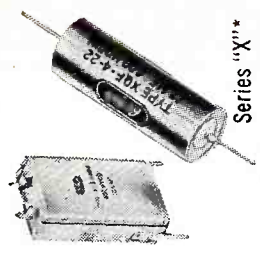
Safety Margin "SM"* Miniature Electrolytic Capacitors.



Meteor® High Temperature Miniaturized Capacitors



Metalite® and Hy-Met* Sub-Miniature Metallized Paper Capacitors



Series "X"* Mylar† - Plus Capacitors



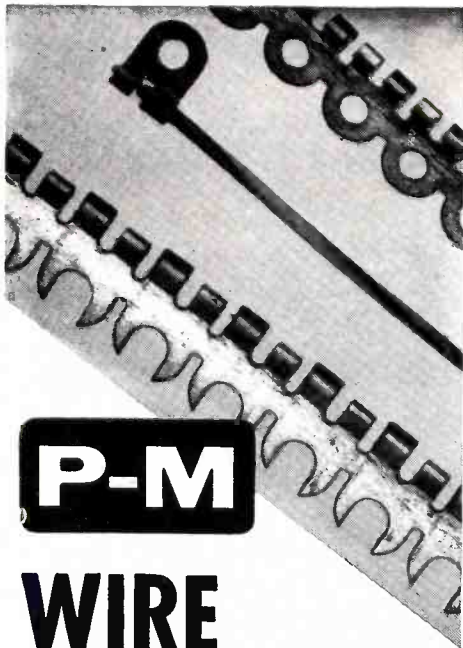
Safety Margin "SM"* Twist-Prong and Cardboard Cased Electrolytic Capacitors



MIL- Type Hermetically Sealed Paper Capacitors

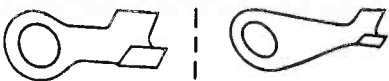
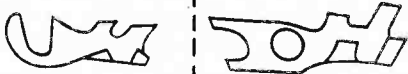


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Whatever your needs in electrical wire terminals, loose or continuous strip, we can fill them from our stock of thousands of types and sizes . . . or make them to your specifications.

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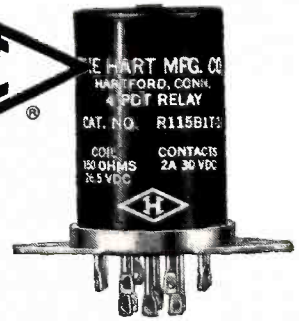
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DEVELOPED FOR APPLICATIONS . . .

... beyond today's horizons

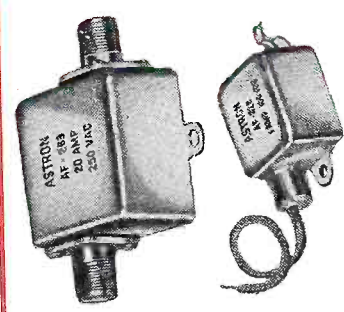
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Achieved by advance-design
ASTRON CAPACITORS AND R.F. FILTERS

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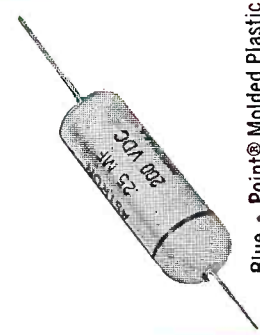
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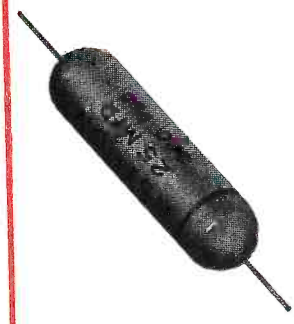


R. F. Noise Suppression Filters.
Complete noise suppression
"Packaged" service—Definition of requirements • Engineering analysis • Efficient solutions • Advance-type components • Quality production.

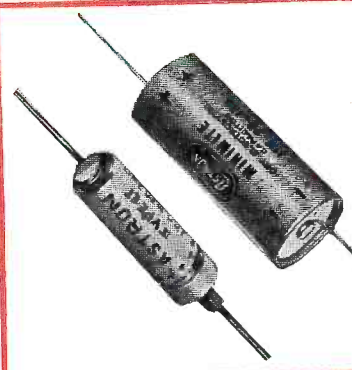
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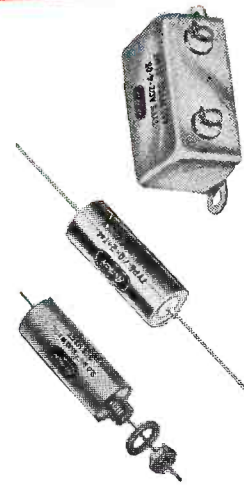
Blue • Point® Molded Plastic Paper Capacitors



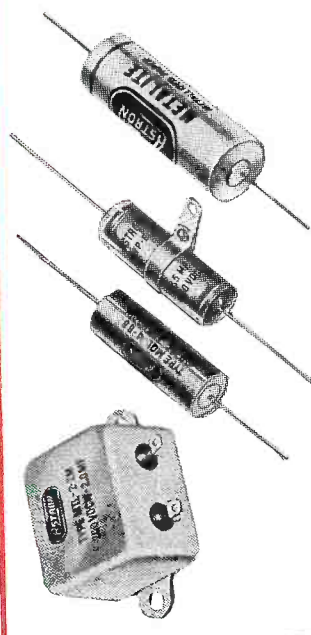
Comet® Molded Plastic Metallized Paper Capacitors



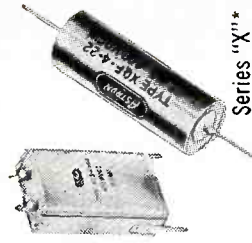
Safety Margin "SM"® Miniature Electrolytic Capacitors



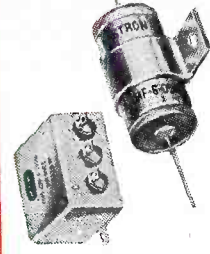
Meteor® High Temperature Miniaturized Capacitors



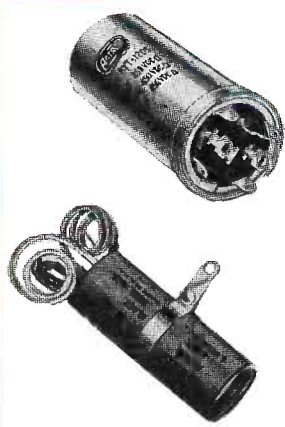
Metalite® and Hy-Met® Sub-Miniature Metallized Paper Capacitors



Series "X" Plus Capacitors



MIL-Type Hermetically Sealed Paper Capacitors



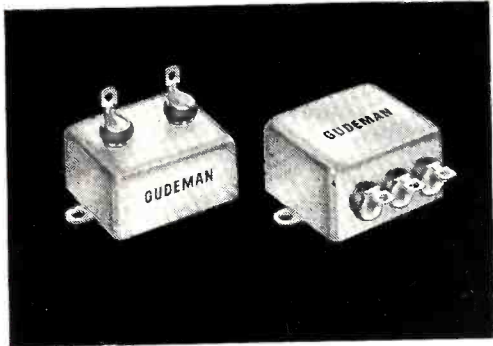
Safety Margin "SM"® Twist-Prong and Cardboard Cased Electrolytic Capacitors



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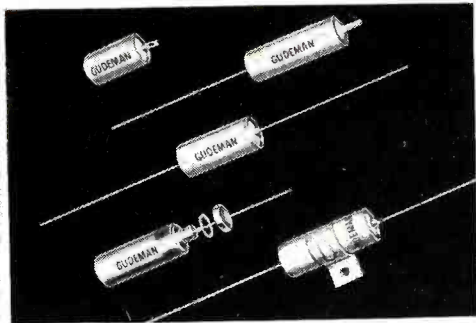
Toronto 10

GUDEMAN Capacitors



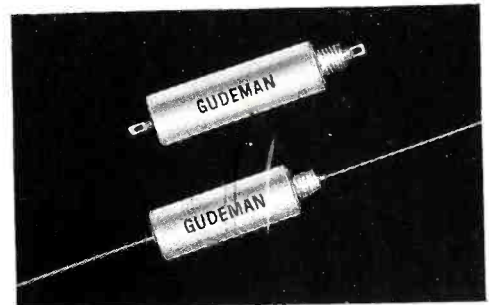
Bathtub Type Military Capacitors

MIL-C-25 Types
CP53, CP54, CP55 Case Styles
Temperature Ranges:
-55°C to +85°C
-55°C to +125°C



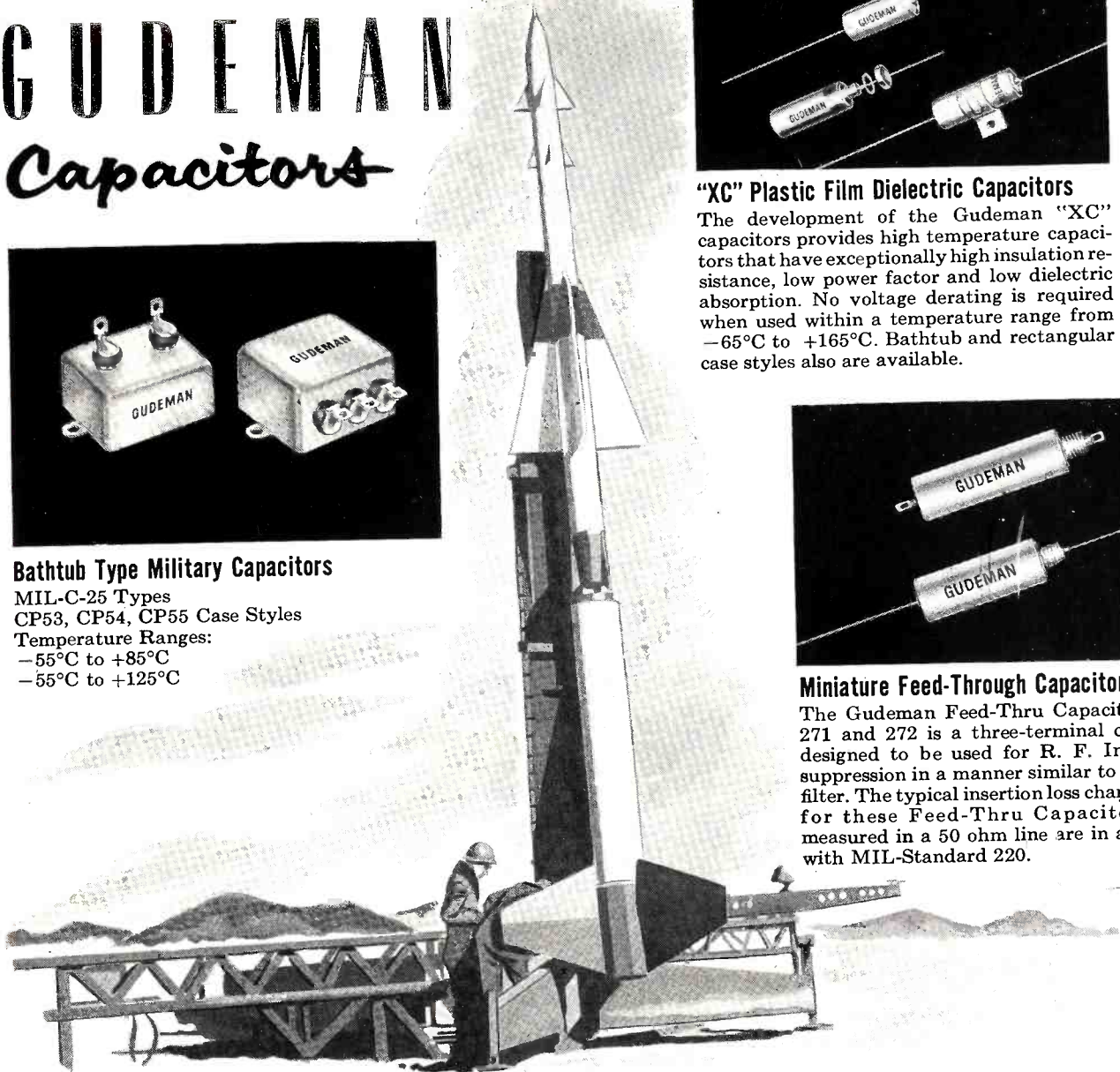
"XC" Plastic Film Dielectric Capacitors

The development of the Gudeman "XC" capacitors provides high temperature capacitors that have exceptionally high insulation resistance, low power factor and low dielectric absorption. No voltage derating is required when used within a temperature range from -65°C to +165°C. Bathtub and rectangular case styles also are available.



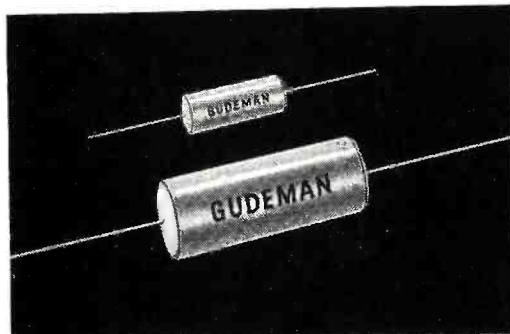
Miniature Feed-Through Capacitors

The Gudeman Feed-Thru Capacitor, Types 271 and 272 is a three-terminal component designed to be used for R. F. Interference suppression in a manner similar to a low pass filter. The typical insertion loss characteristics for these Feed-Thru Capacitors when measured in a 50 ohm line are in accordance with MIL-Standard 220.



Military Capacitors

MIL-C-25 Types
CP70 Case Styles
Temperature Ranges:
-55°C to +85°C
-55°C to +125°C



Tubular Laminated Cardboard Capacitors

The 633 series gives extra protection in extremely high humidity applications.
Paper Dielectric: Wax or Oil Impregnated Resin End Seals
Temperature Range: -40°C to +85°C



Dry Electrolytic Capacitors

ME and Printed Circuit Types
High Purity (99.99%) Aluminum Foil
Low Leakage
Temperature Range:
-30°C to +85°C

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Mfg. Branches: Chelsea, Mich.; Sunnyvale and Monrovia, Calif.; Terryville, Conn.

Manufacturers of Electronic Components for Military and Commercial Applications.

Machlett Electron Tubes for Broadcasting & Industry

MODULATOR — OSCILLATOR — AMPLIFIER TRIODES

TYPE	CATHODE		A. F.	MAXIMUM ANODE RATING				FULL INPUT FREQ. MCS.	COOLING
	VOLTS	AMPS		MU	VOLTS	AMPS	INPUT WATTS			DISS. WATTS
ML-2C39A	6.3	1.0	100	1000	0.125‡	125	100	2500	F-A
ML-212E	14.0	6.0	16	3000	.350	—	275	1.5	C
ML-220C	21.5	41.0	40	15000	1.5	—	10000	4	W
ML-220CA	21.5	41.0	40	15000	1.5	—	5000	4	F-A
ML-228A	21.5	41.0	16	6000	1.5	—	5000	3	W
ML-232B	20.0	60.0	40	20000	3.0	—	25000	3	W
ML-240B	21.5	41.0	40	12000	1.7	—	10000	20	W
ML-241B	14.0	6.0	16	3000	.350	—	275	7.5	C
ML-279A	10.0	21.0	10	3000	.800	—	1200	20	C
ML-298A	27	225	32	20000	11.0	—	100000	4	W
ML-298B	27	225	57.5	20000	11.0	—	100000	4	W
ML-342A	20.0	67	40	20000	2.5	—	25000	4	W
ML-343A	21.5	57.5	40	18000	2.0	—	10000	4	W
ML-343AA	21.5	57.5	40	18000	1.5	—	5000	4	F-A
ML-354	12.0	220	25	15000	12	150000	75000	20	W
ML-356	7.5	170	20	12500	6.0	60000	22500	25	W
ML-357B	10.0	10	30	4000	0.5	1800	400	100	C
ML-379A	10.0	21.0	10	3000	.800	—	1200	20	C
ML-381	6.0	1.0	100	3500	0.01*	35*	35*	3000	F-A
ML-880	12.6	315	20	10500	6.0	60000	20000	25	W
ML-889A	11.0	120	21	8500	2.0	16000	5000	50	W
ML-889RA	11.0	120	21	8500	2.0	16000	5000	40	F-A
ML-891	22.0	60	8.5	12000	2.0	18000	6000	1.6	W
ML-891R	22.0	60	8.5	10000	2.0	15000	4000	1.6	F-A
ML-892	22.0	60	50	15000	2.0	30000	10000	1.6	W
ML-892R	22.0	60	50	12500	2.0	18000	4000	1.6	F-A
ML-893A	20.0	183	34.5	20000	4.0	70000	20000	5	W
ML-893AR	20.0	183	34.5	20000	4.0	70000	20000	5	F-A
ML-5530	5.0	55	26	5000	1.75	8750	4000	110	F-A
ML-5531	6.3	92	24	10500	3.75	30000	10000	30	F-A
ML-5541	7.5	57	26	8500	2.75	23000	10000	110	F-A
ML-5604	11.0	176	19.5	12500	3.0	32500	10000	25	F-A
ML-5606	22.0	60	50	14000	2.0	25000	10000	1.6	W
ML-5619	11.0	176	19.5	12500	3.0	32500	20000	25	W
ML-5658	12.0	310	20	12500	5.0	60000	20000	15	W
ML-5666	11.0	120	21	10000	2.0	20000	12500	22.5	W
ML-5667	11.0	120	21	10000	2.0	20000	7500	22.5	F-A
ML-5668	22.0	60	50	14000	2.0	28000	20000	5	W
ML-5669	22.0	60	50	14000	2.0	28000	10000	5	F-A
ML-5681	12.0	220	25	15000	12.0	150000	75000	30	W
ML-5682	16.5	325	30	16000	20.0	300000	120000	30	W
ML-6256	12.6	27	21	5500	1.5	7000	5000	110	W
ML-6257	12.6	27	21	5500	1.5	7000	5000	110	W
ML-6258	12.6	27	21	5500	1.5	7000	3000	110	F-A
ML-6420	7.0	85	20	10000	2.2	20000	12500	30	W
ML-6421	7.0	85	20	10000	2.2	20000	10000	30	F-A
ML-6422	7.0	85	90	12500	2.5	30000	20000	30	W
ML-6423	7.0	85	90	12500	2.5	30000	12500	30	F-A
ML-6424	7.0	120	20	12500	3.5	40000	20000	30	W
ML-6425	7.0	120	20	12500	3.5	40000	12500	30	F-A
ML-6426	8.0	200	20	12500	8.0	80000	40000	30	W
ML-6427	8.0	200	20	12500	7.0	80000	20000	30	F-A
ML-6576	7.5	170	5.5	12000	5.0	45000	22500	25	W

New TRIODES

ML-2C39WA	5.8	1.0	100	1000	.125‡	100	100	2500	F-A
ML-2C41	6.3	1.03	100	3500†	4.0†	35	35	3000	F-A
ML-5530-H	5.0	55	26	8500	1.75	10000	4000	30	F-A
ML-5736	6.0	60	22	5000	1.4	5000	2500	60	F-A
ML-6696	13.0	205	20	16000	11	120000	60000	30	W
ML-6697	13.0	205	20	16000	11	120000	35000	30	F-A

MACHLETT LABORATORIES, INC., Springdale, Connecticut

HIGH VACUUM RECTIFIERS

TYPE	CATHODE		ANODE RATINGS		INSULATION	COOLING
	VOLTS	AMPS	INV. PKV	PEAK MA		
ML-102A	20	19.0	75	750	Air	C
ML-103	10	11.5	125	78	Oil	R-C
ML-108	13	12.5	140	200	Oil	R-C
ML-110	10	11.5	140	78	Air	C
ML-115	10	11.5	125	100	Air	C
ML-120	13	12.5	140	200	Air	C
ML-121	10	11.5	140	100	Oil	R-C
ML-126	13	12.5	150	200	Air	C
ML-141	5.5	6.5	125	750	Oil	C
ML-170	13	12.5	200	200	Air	C
ML-180	13	12.5	200	200	Oil	R-C
ML-199	12	23	110	10000	Air	C
ML-222A	21.5	41	25	5000	Air	W
ML-322	6.3	.95	.8	600	Air	C
ML-5575/100	20	24	150	1000	Air	C
ML-5576/200	20	32	150	2500	Air	C

New HIGH VACUUM RECTIFIERS

ML-142	3.8	6.6	100	250	Oil	R-C
ML-148	5.7	6.6	150	1000	Oil	R-C

LEGEND:

- C . . . Convection
- R-C . . . Radiation-Convection
- W . . . Water
- F-A . . . Forced Air
- ‡ . . . D-C Cathode Current
- * . . . Duty Cycle: 0.0033
- † . . . Duty Cycle: e_{py} 3,500 volts
ib 4 amps
Pulse Length 3 usec max
Duty 0.0025 max
- A.F. . . . Amplification Factor

Distributors

United States Graybar Electric Company
 Canada Dominion Sound Equipments, Ltd.
 Europe, South America, Africa, Asia Westrex Corp.

Note: For complete technical data or prices write to Machlett Laboratories, Inc., Springdale, Conn., or nearest Graybar, Westrex, or Dominion Sound Equipment office.



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your every
need!

In addition to the 28 volt models featured at the right, the following units are also available:

OTHER 28 VOLT MODELS

Model	Volts	Amps	Reg.	AC Input (60 cps)	Ripple rms
28-5VFM	0-32 V	5	20% (24-32 V range)	115 V 1 phase	2%
28-10WX	24-32 V	10	± 1/2%	100-125 V 1 phase	1%
28-15VFM	0-32 V	15	20% (24-32 V range)	115 V 1 phase	5%
28-50WX	24-32 V	50	± 1/2%	230 V* 3 phase	1%
MR2432-200	24-32 V	200	± 1/2%	230 V* 3 phase	1%
MR2432-300	24-32 V	300	± 1/2%	230 V* 3 phase	1%
MR2432-500	24-32 V	500	± 1/2%	230 V* 3 phase	1%

* ± 10%. Also available in 460 V ± 10% AC input. Will be supplied with 230 V input unless otherwise specified.

6, 12, 115 VOLT (NOMINAL) MODELS

Model	Volts	Amps	Reg.	AC input (60 cps)	Ripple rms
6 Volt	6	5	± 1%	95-130 V 1 phase	1%
	± 10%				
	6-5WX				
12 Volt	6	15	± 1%	95-130 V 1 phase	1%
	± 10%				
	6-15WX				
115 Volt	6	40	± 1%	95-130 V 1 phase	1%
	± 10%				
	6-40WX				
115 Volt	12	5	± 1%	95-130 V 1 phase	1%
	± 10%				
	12-18WX				
	115				
115 Volt	115	5	± 1/2%	95-130 V 1 phase	1%
	± 10%				
	115-8WX				
115 Volt	15-125	5	± 1%	95-130 V 1 phase	1% †
	± 10%				
115 Volt	115-125	25	1 1/2-4%	230/460 V 3 phase	5%
	± 10%				

** Germanium Rectifier Unit † increases to 2% @ 15 V.

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DC POWER SUPPLIES

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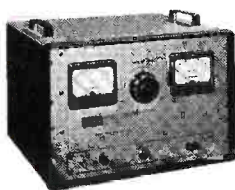
IMMEDIATE DELIVERY FROM STOCK



Model MR532-15A

2-36 VOLTS @ 15 AMPS SPECIFICATIONS

Regulation: 5-32 Volt Range: ± 1/2%
2-5 Volt and 32-36 Volt Range: ± 2%
AC Input: 105-125 Volts, (for 2-32 V.DC), 110-125 V, (for 32-36 V.DC), 1 phase, 60 cps (8 amps)
Ripple: 1% rms max. (@ 36 volts and full load, increases to 2% @ 2 volts and full load).
Remote Sensing • Vernier Control



Model M60V

0-32 VOLTS @ 25 AMPS SPECIFICATIONS

Regulation: ± 1% @ 28 Volts (Regulation increases to 2% over range of 24-32 volts; does not exceed 2 volts over 4-24 volt range. Not stabilized for AC line changes.)
AC Input: 115 Volts, 1 phase, 60 cps (12 amps).
Ripple: 1% rms (@ 32 volts and full load—2% rms max. @ any voltage above 4 volts).



Model MR1040-30A

5-40 VOLTS @ 30 AMPS SPECIFICATIONS

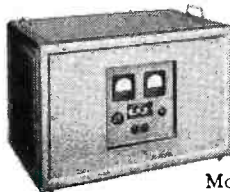
Regulation: ± 1% (over entire 5-40 volt range)
AC Input: 100-130 Volts, 1 phase, 60 cps
Ripple: 1% rms



Model 28-30 WXM

24-32 VOLTS @ 30 AMPS SPECIFICATIONS

Regulation: ± 1/2%
AC Input: 100-125 Volts, 1 phase, 60 cps (20 amps). (Unit rated for DC output of 28 volts ± 10% for 95-130 volt input.)
Ripple: 1% rms



Model MR2432-100XA

24-32 VOLTS @ 100 AMPS SPECIFICATIONS

Regulation: ± 1/2%
AC Input: 208, 230 or 460 Volts, ± 10%, 3 phase, 60 cps (14, 12 and 6 amps respectively). 230 volt input will be supplied unless otherwise specified.
Ripple: 1% rms

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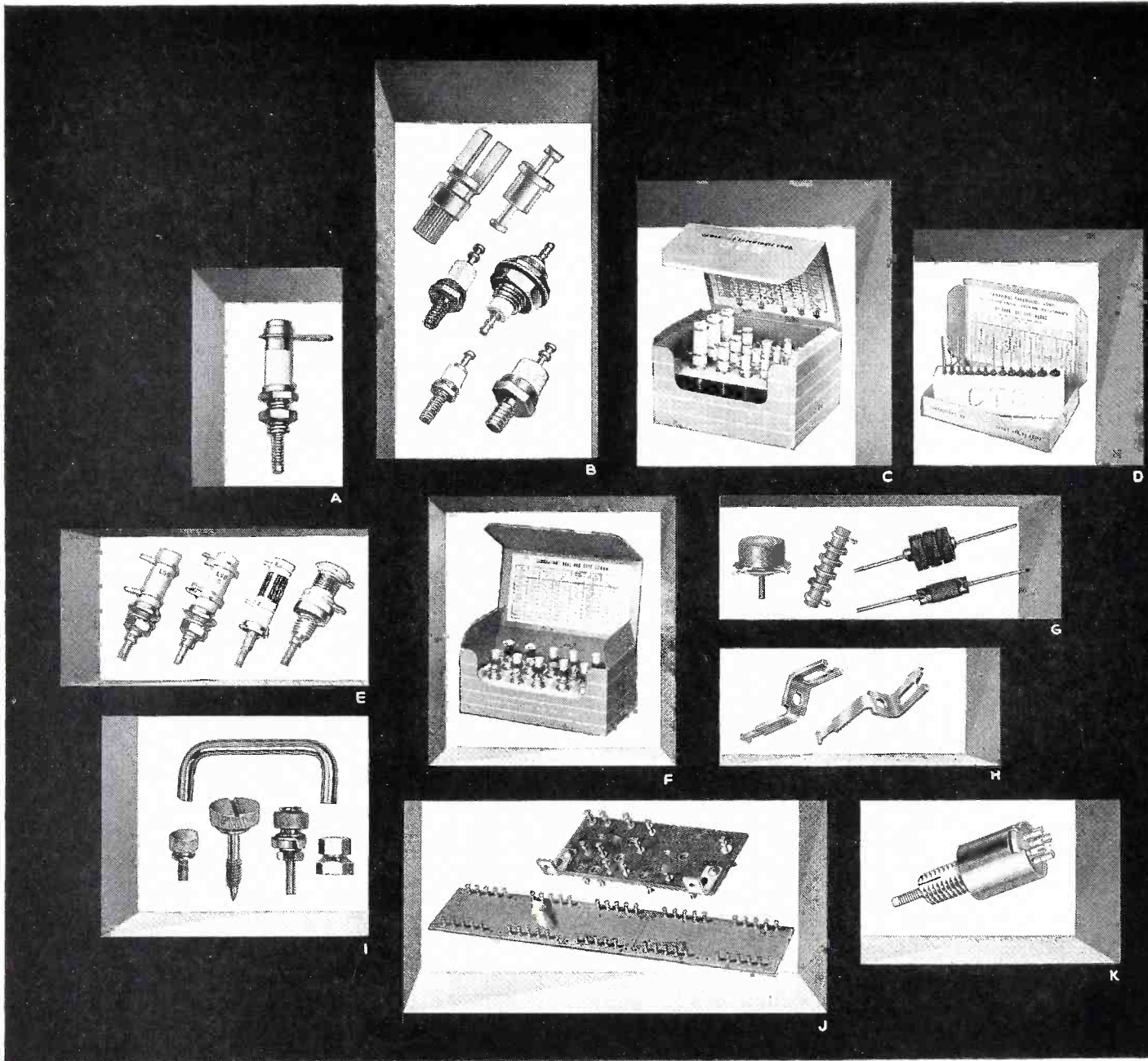
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and coils; F. coil kit; G. RF chokes; H. diode clips; I. panel hardware; J. standard and custom terminal boards; K. shielded coil form.

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Whether you need terminals, clips, coils, chokes, capacitors — or any of a number of electronic components — you can be sure they're right if they're made by CTC.

One continuing basic idea governs the manufacture of every CTC product. And that idea is: *quality control*. We could not guarantee our products as we do without a constant check of numerous details that determine reliable performance. Our quality control engineers see to it that these manufacturing standards are consistently maintained — right through to periodic microscopic inspection.

Pictured here are a number of components available at CTC including our three kits. These items come in standard forms and are also custom engineered to meet your particular require-

ments. We would be glad to give you complete details, including specifications and prices, on any or all CTC units — as well as information on how CTC components can be specially designed to solve your individual electronic components problems.

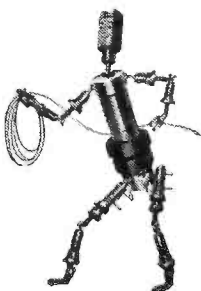
You will find it well worthwhile to

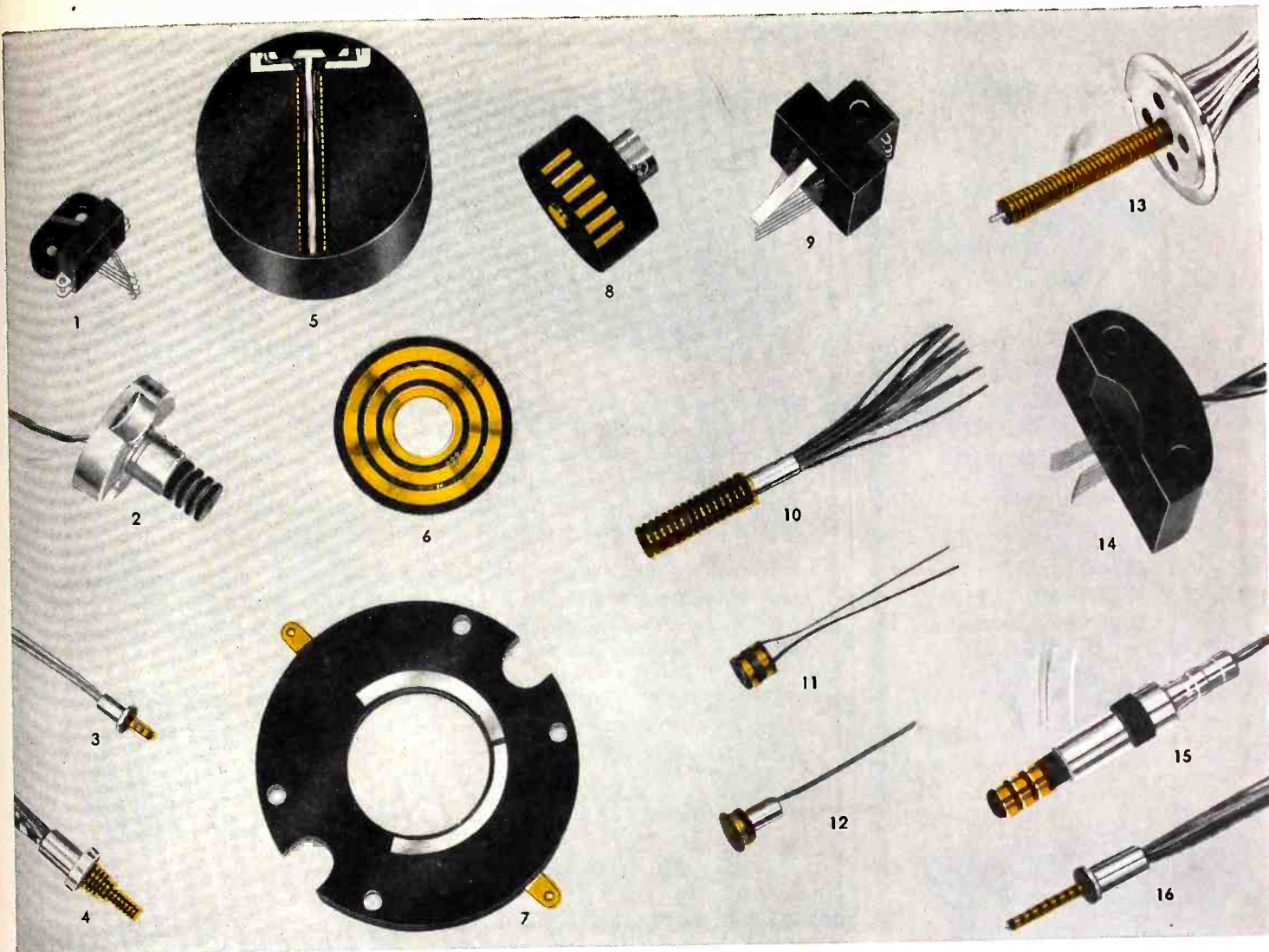
use components that are *guaranteed*. Write to Cambridge Thermionic Corporation, 438 Concord Avenue, Cambridge 38, Mass. West Coast manufacturers contact: E. V. Roberts, 506 West Washington Blvd., Los Angeles 16 and 988 Market Street, San Francisco, California.

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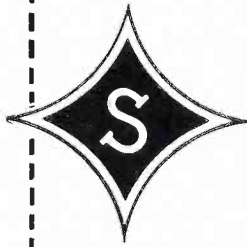
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1. A four element miniature brush assembly cast in epoxy to attain optimum mechanical and electrical properties.
2. A three circuit, raised barrier slip ring assembly cast directly into the customer's trunnion.
3. A subminiature three ring assembly with teflon insulated leads and a typical stainless steel backshaft.
4. A twelve circuit assembly highly miniaturized by the use of narrow rings and barriers. Raised barriers are used between power circuits, and rings are V-grooved to minimize noise generation. The three different ring diameters hold friction torque to an extremely low level.
5. Encapsulated cross-section of a miniature thirty-two ring assembly (illustrated as Item 13) illustrating internal construction features.
6. A two element flat slip ring assembly having tarnish proof coin gold rings with excellent contact characteristics and wear resistance.
7. A two segment switching commutator using platinum-silver alloy rings and arc-resistant epoxy resin.
8. A typical drum type commutator with very accurate segments precisely located to accomplish a critical impinging function.
9. A typical multi-element cast brush assembly with a strip brush for an end contact on mating slip ring assembly. Brush loading is preset to close tolerances.
10. A real achievement in miniaturization: fifteen rings with raised barriers insulating circuits to 1500 volts. Ring diameter is 0.120 inch and front shaft length is 0.630 inch.
11. A two ring assembly for shaft mounting. Rings are coin gold with ideal hardness of 140-145 Brinell for maximum wear resistance.
12. A miniaturized switching assembly with a .180" diameter ring having a precise 180° live segment.
13. An outstanding assembly having thirty-two rings in less than one inch of length, produced with a very accurate stainless steel mounting flange and teflon insulated color coded leads.
14. A larger type of brush assembly with noble alloy brushes welded to teflon insulated color coded leads.
15. A four element "ruggedized" slip ring assembly illustrating the versatility of our casting process. The wide ring is coin silver alloy and the three signal circuit rings are coin gold.
16. Another highly miniaturized slip ring assembly, with a center contact on the end. Nine circuits are built into the .060" frontshaft diameter.

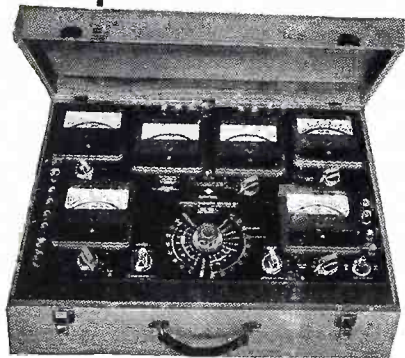
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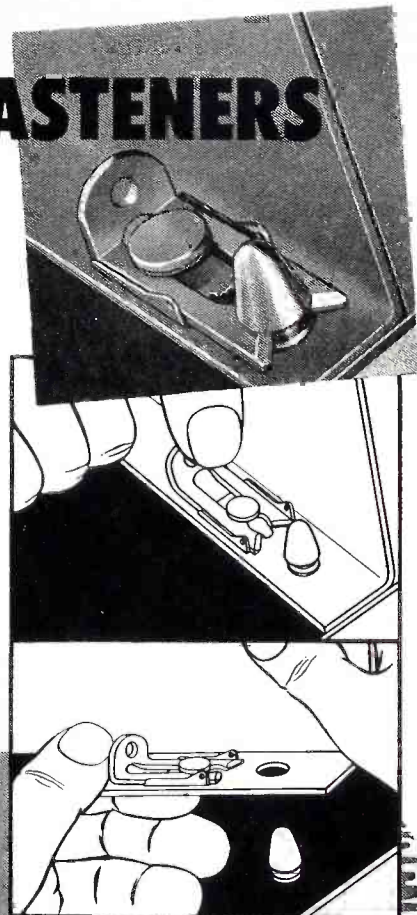
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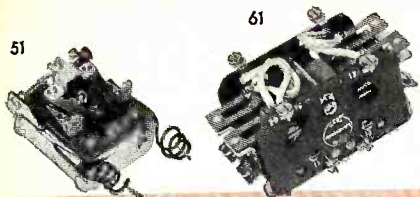
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SIGMA SENSITIVE RELAYS



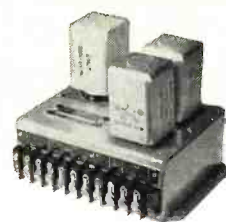
25 AMPERE SENSITIVE CONTACTORS

For switching high power from DC inputs of 0.1 to 0.5 watt. Series 51 operates at 100 milliwatts (0.1 watt, 3.2 milliampere signal in 10,000 ohm coil) and is SPST, normally closed. Series 61 is a polarized latching contactor with DPDT switch. It latches firmly in either position in response to momentary coil signals of 0.25 or 0.5 watt magnitude.



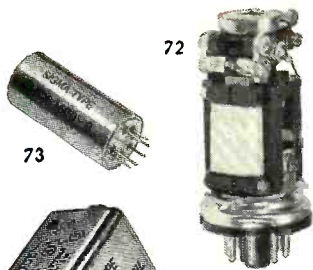
HIGH SPEED RELAYS

Series 72 is a highly developed refinement of the conventional polarized telegraph relay. It is exceptionally good for telegraph service and useful for handling many other forms of data up to 500 pulses per second. High operating speed is combined with switching life of hundreds of millions of operations at a load rating of 60 milliamperes, 115 volts DC. All critical parts are easily adjustable and repairable. Other Sigma relays used sometimes for high speed switching are the Series 7 and Series 41.



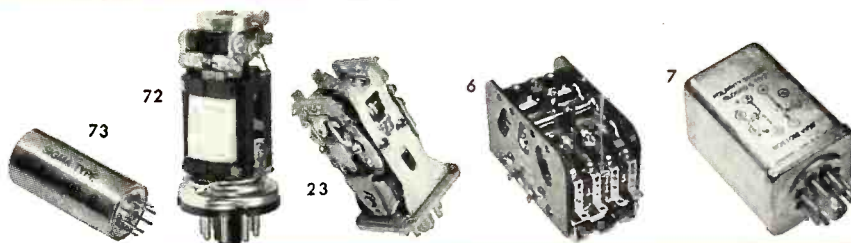
SERIES 8000 MAGNETIC AMPLIFIER RELAYS

Stable, high gain magnetic amplifiers connected to built-in output relays are assembled in various standard combinations in this series. Single or push-pull relay arrangements are available. Standard input sensitivities are 1.0 and 0.1 microwatt at levels from 1 to 20,000 ohms. Relay switch ratings are listed between 1 and 5 amperes. Catalog data sheet gives curves on response time from 20 to 1000 milliseconds based on standard 60 cycle energized units.



MISSILE RELAYS

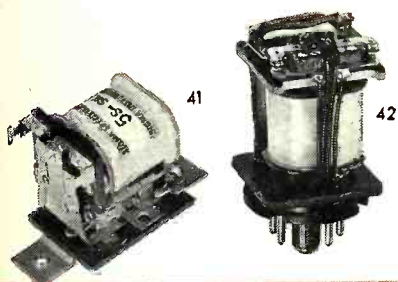
For use where sensitive relays must be small in size and resistant to vibration, impact, and general punishment. Series 72 (see "High Speed Relays") is very sensitive, stable and resistant to vibration when used for switching at sensitivities less than 1 milliwatt. Series 73, also polarized, is nearly as good and much smaller. Series 22 is not polarized, is compact, and available DPDT at 40 milliwatts sensitivity. All are capable of operating under high frequency vibration, some to 500 cps, others to 2,000 cps.



NULL-SEEKING RELAYS

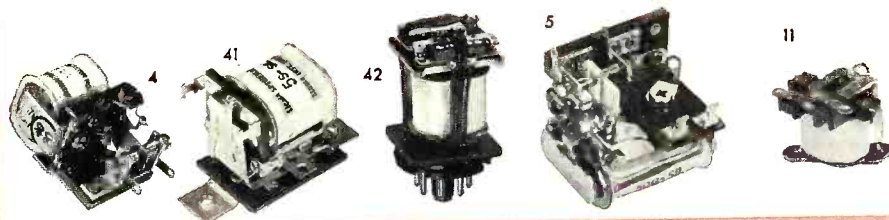
Illustrated are five different polarized relays, each available in the "X" or center neutral arrangement. The switch occupies the third or central position until energized. One polarity of energizing current will cause armature motion in one direction; opposite polarity will cause armature motion in the opposite direction.

Sensitivity Range milliwatts	35-70	.03-.2	6-12	8-44	2.5-13.0
Number of Poles	1	1	2	4	1
Switch Rating amperes	1.5	.5	2.0	2 or 5	2.0
Relay Series	73	72	23	6	7



SENSITIVE, LOW COST AC RELAYS

Series 41 SPDT and Series 42 DPDT are shaded pole AC relays of unusual sensitivity and almost perfect quietness (quiet enough for use in automatic electric blankets). Series 41 can operate on less than 1.5 milliamperes at 115 volts 60 cps and yet can withstand 260 volts without overheating. Voltage-operated (shunt connected) and current-operated (series connected) versions of this relay are available. Can be furnished for other frequencies from 16 to 400 cps. Switch rating, 2 or 5 amperes.



GENERAL PURPOSE SENSITIVE DC RELAYS

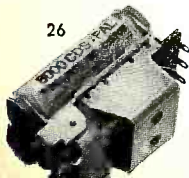
These relays are designed for everything from juke boxes to radio sondes; for requirements from 500 g shocks to 75¢ quantity prices.

Sensitivity Range milliwatts	20-50	1-40	50	35-200	100-200
Number of Poles	1	1	1	1	2
Switch Rating amperes	2.0	.25 to 3.0	1	2 or 5	2 or 5
Price Range	Medium	High	Low	Low	Low
Relay Series	4	5	11	41	42

MINIATURE SENSITIVE, GENERAL PURPOSE DC RELAYS



Not the smallest relays available, but among the smallest that are sensitive. Series 22 (see "Missile Relays") is conservatively rated for 2 ampere switching at sensitivities of 20 milliwatts for SPDT and 40 milliwatts for DPDT. Series 26 is a stripped down SPDT version which can be used without enclosure. It can be used at sensitivities as low as 4 milliwatts. It has acquired a favorable reputation in radio control of models.



HIGH SPEED ELECTRICALLY OPERATED COUNTER



8,000 counts per minute max.

The Sigma Cyclonome Pulse Counter, Type 9A, consists of a special 6-figure Veeder-Root register driven by a completely novel stepping motor (Pat. applied for) with but one moving part which rotates in ball bearings and drives the register through a Nylon worm.

The motor, which may be purchased separately for special applications, is analogous to a synchronous AC motor capable of starting and stopping each half cycle at any frequency from zero to around 130 cps. Yet unlike a synchronous motor, it can be operated from DC pulses.

SIGMA RELAY MANUAL

An extensive compilation of exhaustive data on Sigma relays. Application Notes of broad pertinence and general information. Revised and enlarged from time to time by means of a regular supplement service. Approximately 300 pages in loose leaf binder; price \$5.00. Including supplement service for one year.

SIGMA RELAY CATALOG

A folder containing data sheets on all classes of Sigma relays with tables of condensed information which are adequate in most cases for small lot purchasing. Advance bulletins on new products not yet published in the Manual are included. Available on request without charge.

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- Coordinated *system* design means that one system can meet many requirements. You can cover the full range of direct writing Oscillograph application with Brush equipment.
- Accessories available: event markers, timing markers and remote control units.

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These Brush instruments can simplify your testing and development work.

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Amplifiers for systems to measure and record voltages and currents.
BL-530 Dual Channel D. C. Amplifier
BL-533 Portable D. C. Amplifier
BL-536 Six-Channel Plug-In D. C. Amplifier
BL-550 D. C. Amplifier, High Gain
BL-560 Servo-Analyzer
BL-905 A. C. Amplifier, High Gain
BL-954 A. C. Pre-Amplifier, High Gain

FOR PHYSICAL MEASUREMENTS

Amplifiers for measuring stress, strain, torque, force, pressure, etc.
BL-520 Universal Amplifier (Tension Analyzer)
BL-350 Input Box (Resistive)
BL-345 Input Box (Inductive)

FOR RESISTANCE-WELDING MEASUREMENTS

For measuring and recording welding variables.

BL-213 Welding Analyzer*

FOR SOUND MEASUREMENTS

BL-1014 Beat Frequency Oscillator
BL-1602 Frequency Distortion Measuring Bridge
BL-1606 Vibration Pickup Pre-Amplifier
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BL-2105 Frequency Analyzer
BL-2109 Third Octave Spectrum Analyzer
BL-2304 High Speed Level Recorder
BL-2370 Polar Diagram Recorder
BL-2601 Microphone Amplifier
BL-3302 Frequency Response Recorder
BL-4002 Sound Absorption Measuring Equipment
BL-4109 Artificial Ear

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BL-202 Double Channel Direct Inking
BL-221 Single Channel Direct Inking and Electric
BL-222 Double Channel Direct Inking and Electric
BL-274 Four Channel Direct Inking and Electric
BL-276 Six Channel Direct Inking and Electric

Rack Mounting
BL-261 Single Channel Direct Inking and Electric
BL-262 Double Channel Direct Inking and Electric
BL-254 Four Channel Direct Inking
BL-256 Six Channel Direct Inking
BL-264 Four Channel Direct Inking and Electric
BL-266 Six Channel Direct Inking and Electric

BL-4111 Condenser Microphone
BL-4119 Microphone Calibration Apparatus
BL-4211 Constant Sound Pressure Source
BL-4210 Artificial Voice
BL-4305 Vibration Pickup
BL-4707 Automatic Frequency Response Tracer

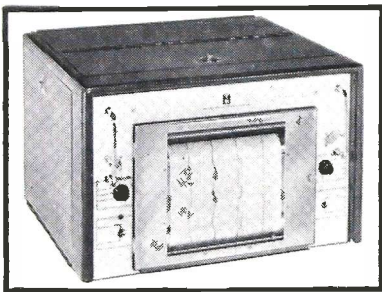
FOR METAL MEASUREMENTS

BL-110 Surfindicator*
BL-140 Metal Monitor

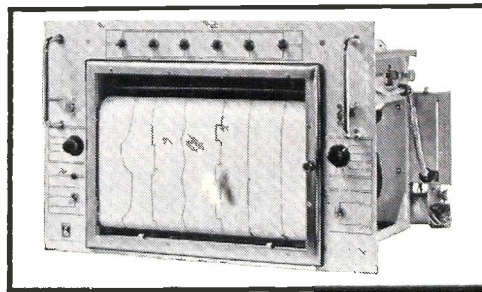
PRODUCTION INSPECTION EQUIPMENT
BL-1504, BL-1506 Impedance Deviation Test Bridge
BL-2423 Megohmmeter and D. C. Tube Voltmeter

DIGITAL DECADE COUNTERS
 High speed counters, accept pulses at rates from zero to 100,000 counts per second.
 (*Trade-Mark)

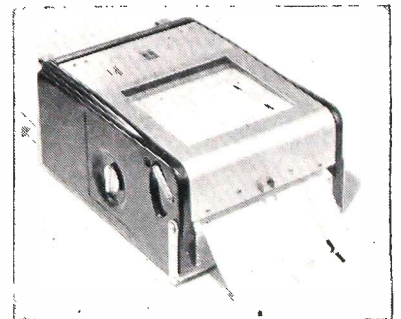
OSCILLOGRAPHS



Model BL-254, Four-Channel.



Model BL-266, Six-Channel.



Model BL-274, Portable Four-Channel

Oscillographs for standard rack or bench top console. The 4-channel unit can be expanded to six channels to meet your changing requirements. Electrically controlled chart drive transmission—standard in all multi-channel oscillographs—permits instantaneous switching and remote control. Choice of 8 or 16 chart speeds. Choice of ink or electric.

Portable Oscillographs feature light weight and small size; they are self-contained. Equipped with electrically controlled chart drive transmission—16 chart speeds available.

AMPLIFIERS



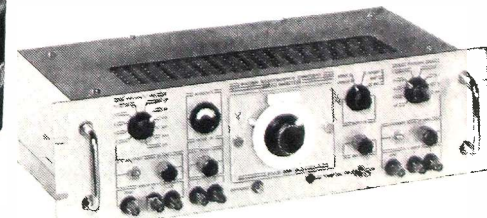
Model BL-530, Rack Mounting



Universal* Amplifier BL-520; with Portable Case BL-380.

Brush Amplifiers feature low drift scale expansion, choice of single ended or balanced inputs. May be operated on a wide range of line voltages and frequencies. New Universal* Amplifier can be used with *both* resistive or inductive transducers. When used with Brush Direct Writing Oscillograph, permits measurement and direct recording of physical phenomena such as strain, stress, torque, force, etc. Amplifier includes direct coupled section that may be used separately for voltage and current measurements.

SERVO-ANALYZER AMPLIFIER



New amplifier, coupled to a Brush direct writing oscillograph, provides a package unit to record performance of servo systems in carrier frequency range of 50 to 10,000 cps. Offers exceptional frequency response, flexibility, high accuracy.

BRUSH ELECTRONICS

3405 Perkins Avenue, Cleveland 14, Ohio



COMPANY

DIVISION OF



BRUSH ELECTRONICS

SOUND & NOISE INSTRUMENTATION

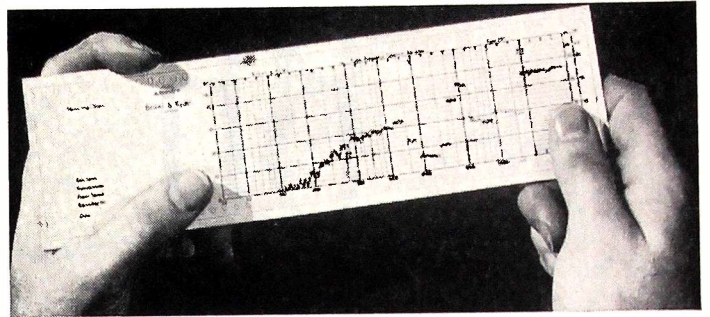
Chart record produced by the Brush Spectrum Recorder presents a complete frequency and noise level analysis. It is an example of the way Brush instrumentation can aid *your* analysis of noise, vibration or strain.

- All sounds from 14 cycles to 36,000 cycles per second automatically scanned and recorded by the Brush Spectrum Recorder

to eliminate laborious plotting of data.

- Measurements made in one-third octave steps, to positively identify frequencies.
- Complete recording through the complete frequency range made in 21 seconds, to save valuable engineering time.

The Spectrum Recorder is one unit in the most com-



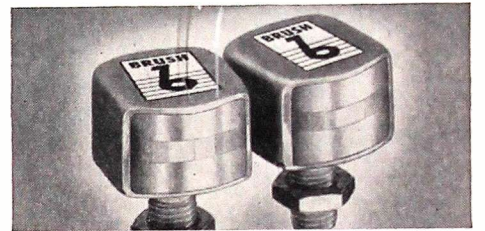
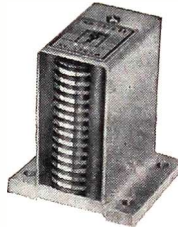
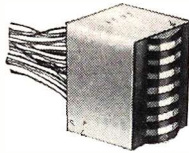
plete line of noise and vibration instrumentation available (manufactured in Denmark by Bruel & Kjaer). (See box opposite page). Thus Brush can offer you matched systems, and offer application assistance on complete projects.



MAGNETIC HEADS

Brush offers single channel record-reproduce and erase heads, multi-channel record-reproduce heads, miniature record-reproduce heads and erase heads.

Multichannel heads available in standard designs in encased assembly or cartridge assembly up to 26 channels. New high precision models offer extremely close tolerances.



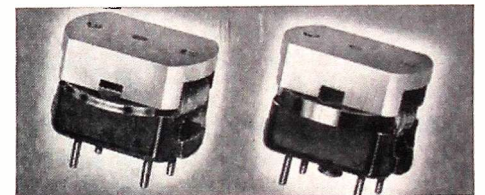
MULTICHANNEL HEAD DESIGN FEATURES

- Balanced magnetic structure with gaps at front and rear.
- All gaps in precise alignment.
- Individual channels are cast into one integral block of specially selected synthetic resin.
- Complete assembly is non-microphonic and impervious to moisture.
- Mu-metal shields between individual channels.
- Ground lead supplied for shields and pole pieces.
- Wide range temperature operation.
- Special design features may be supplied to meet your requirements.

SINGLE-CHANNEL REDHEADS

Halftrack
BK-1090 Record/Reproduce
BK-1091 High Impedance
BK-1110 Erase

Fulltrack
BK-1250 Record
BK-1251 Reproduce
BK-1252 Erase



CARTRIDGE TYPES

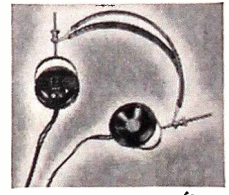
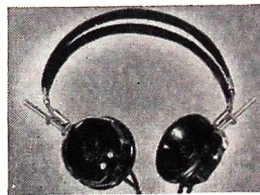
The BK-900 series heads were designed for single-channel recording on any magnetic medium.

HEADPHONES

Brush crystal headphones have Bimorph® crystal drive element of high impedance, offer wide range response with uniform output, are lightweight, rugged, shock-proof. Brush also offers a complete line of cartridges for acoustic applications.

BA-206 Headphone
Model A-1 High fidelity headphones

Model A General purpose headphones
Model A Single phone



Model "A". Designed for GENERAL PURPOSE applications including laboratory, studio and skilled amateur home use. High impedance; ideal for multiple installations.

Model BA-206. Designed for use where high fidelity and smooth frequency response are of paramount importance. Features exceptionally flat frequency response.

PIEZO-ELECTRIC ELEMENTS

for electro-acoustical and electro-mechanical applications: Plates of Rochelle Salt; Ammonium Dihydrogen Phosphate (ADP); Lithium Sulphate; Barium Titanate (Brush Ceramics A & B); Dipotassium Tartrate (DKT); Cylinders, curved plates, bowls and other shapes of Barium Titanate (Brush Ceramics A & B);

For complete information write Dept. KK

Bimorphs* of Rochelle Salt; Ammonium Dihydrogen Phosphate (ADP); Barium Titanate.

ELECTRO-OPTIC ELEMENTS — Unpolished blanks of Ammonium Dihydrogen Phosphate (ADP); Potassium Dihydrogen Phosphate (KDP) for electro-optic shutters, etc.

BRUSH ELECTRONICS

3405 Perkins Avenue, Cleveland 14, Ohio



COMPANY

DIVISION OF

CLEVITE
CORPORATION

DEPENDABLE ELECTRICAL INSULATION

BH TUBINGS AND SLEEVINGS

BRAIDED FIBERGLAS • COATED BRAIDED FIBERGLAS • EXTRUDED VINYL

Check these superior Bentley, Harris products for the electrical insulation you need to protect *your* products. We invite you to send for samples to make your own tests. Feel free to call on the BH Laboratories for help in specific insulation problems — we welcome tough assignments. Write for complete BH Insulation details, or additional catalog information.

BH VINYL-SIL 8000

Combines stabilized organic resins with those of the silicone group to form a product of unequalled heat resistance and non-corrosiveness. Short-time dielectric breakdown is 8000 volts minimum. Withstands continuous exposure to 232°C. for 5 hours; 180°C. for 130 hours; 150°C. for 825 hours and 130°C. for over 2000 hours. Meets requirements for Grades B-A-1, MIL-I-3190A, ASTM and NEMA. Available in Black and colors.

BH VINYL-FLEX 4000

Offers the versatile properties of vinyl-glass sleeveings at low cost. Meets all requirements of MIL-I-3190A, ASTM and NEMA standards for Grades B-B-1, B-C-1 and B-C-2. 4000 volt short-time dielectric breakdown. Excellent flow, chemical and oil resistance. Combines advantages of many grades, offers sleeving economies by standardization of inventories. Available in standard sizes and colors.

BH "1151"

A permanently flexible silicone rubber Fiberglas Class H (inorganic) insulation for continuous operation through a temperature range of -90°F. to 400°F. Meets specification MIL-I-18057. No dielectric loss from handling, bending or operational stresses. Won't craze or crack when used to cover bent wire. Grades H-A-1 through H-C-2. In Natural White and colors.

BH EXTRA FLEXIBLE FIBERGLAS SLEEVING

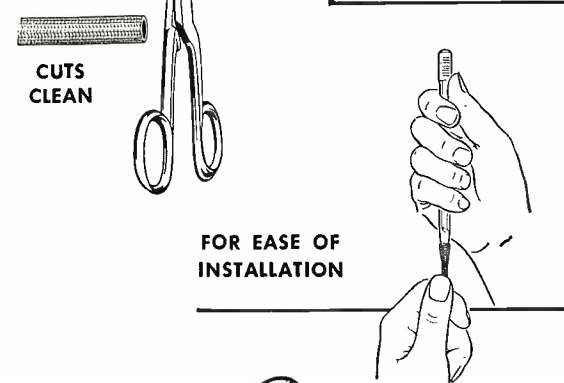
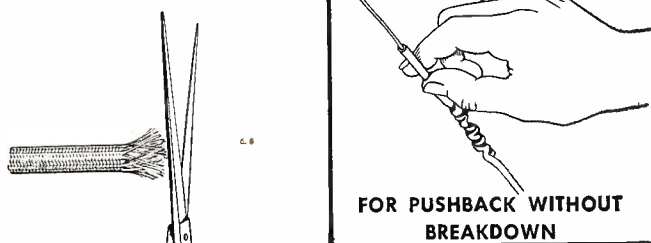
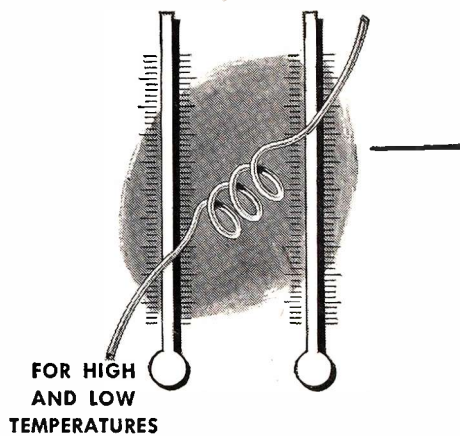
Comparable to single saturated (B-C-3) sleeveings but completely flexible, even after exposure to heat aging, since no hardening varnish is used. Non-fraying because of patented braid treatment.

BH SPECIAL TREATED FIBERGLAS SLEEVING

An unsaturated sleeving. Patented process retards raveling without the use of impregnants or binders. For temperature applications up to 1200°F.

BH FLEXTRUDE-105

A 100% extruded vinyl tubing. Designed especially for insulating electric motors, transformer leads and other instances where high cut-thru, heat and oil resistance is important. Underwriter's Laboratory approved for continuous operation at 105°C. Available in colors and transparent from #24 to 2½".



BENTLEY, HARRIS

Fiberglas* SLEEVINGS

*BH Non-Fraying Fiberglas Sleeveings are made by an exclusive Bentley, Harris process (U.S. Pat. Nos. 2393530; 2647296; and 2647288). "Fiberglas" is Reg. TM of Owens-Corning Fiberglas Corp.

Bentley, Harris Manufacturing Co., 1313 Barclay St., Conshohocken, Penna. Phone: TAYlor 8-0634

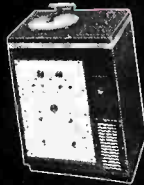
your move to
Accuracy
with...



TYPE 106.1
 Antenna Positioners
 Various models available



TYPE 373
 Rectangular Coordinate Recorder
 \$7950 w/console



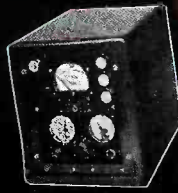
TYPE 116R
 Polar Recorder
 \$7500



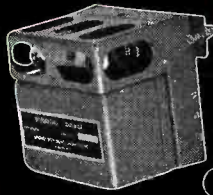
TYPE 124
 Power Oscillator
 200-2500 Mc
 2.5-10 watts
 \$2285



TYPE 80
 Automatic Gear Gage
 and Hobber Control*



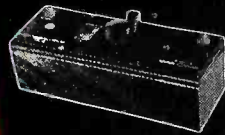
TYPE 150
 MICROtrol
 Automatic Grinder
 Control*



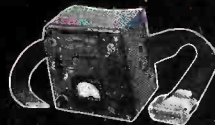
TYPE 40
 Integrating Amplifier &
 Long-Time Memory
 \$375



ASDE
 Airport Surface
 Detection Equipment.
 A High Resolution
 Taxi Radar*



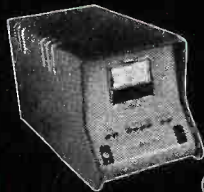
TYPE 30
 I-F Attenuators
 Accuracy: 0.005 db per db
 of indicated increment
 \$395



TYPE 2861
 ADF Calibrator
 \$1575 less recorder



TYPE 70A
 Argon Noise Source
 200-2600 Mc
 (others to 26 Kmc)
 \$330



TYPE 72
 Automatic Noise-Figure
 Indicator
 N-F Range: 0-20 db
 \$1490



TYPE 390A-3
 Microwave Crystal
 Test Set
 \$97



TYPE 130
 Test Receiver for
 Precise Selectivity, Gain
 & N-F Measurements
 \$1350



TYPE 13
 STRIPLINE
 Printed R-F Circuitry*



ANTENNA TESTING

- (1) (2) (3) (4)
 Range Systems

AUTOMATION

- (5) (6)

COMPUTER ELEMENTS

- (7)

MEDICINE, BIOLOGY
 Data Processing

NUCLEONICS
 Special Systems

RADAR & NAVIGATION

- (8) (10)

MTI Evaluator

RECEIVER TESTING

- (9) (11) (12) (14) (15)

STRIPLINE

- (13)

Write...

*for descriptive literature
 on each of the products
 shown.*

Airborne Instruments Laboratory

INCORPORATED

160 OLD COUNTRY ROAD • MINEOLA, N.Y.



*Quoted to meet your requirements

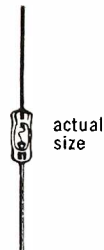
Get on the **GOLD** standard with



**RADIO
RECEPTOR**

Gold Bonded Subminiature

**High Conductance Germanium
GLASS DIODES**



DIMENSIONS
Diameter098" max.
Length256" max.
Lead diameter . .020"-.019"
Lead length . .1.125" min.

DIODE CHARACTERISTICS . . . All values measured at 25°C unless otherwise noted

CODE NO.	MIN. FWD. D.C. CUR. AT 1 VOLT (MA)	MAX. CONT. REV. D.C. OPER. VOLTS	MAX. REV. D.C. CURRENT UA AND CORRESPONDING RESIST. (OHMS) AT INDICATED VOLTAGES
1N67A	4	80	5 (1 meg) @ 5V; 50 (1 meg) @ 50V
1N68A	3	100	625 (160K) @ 100V
1N89	3.5	80	8 (625K) @ 5V; 100 (500K) @ 50 V
1N90	5	60	500 (100K) @ 50V
1N95	10	60	500 (100K) @ 50V
1N96	20	60	500 (100K) @ 50V
1N97A	20	80	8 (625K) @ 5V; 100 (500K) @ 50V
1N98A	40	80	8 (625K) @ 5V; 100 (500K) @ 50V
1N99A	20	80	5 (1 meg) @ 5V; 50 (1 meg) @ 50V
1N100A	40	80	5 (1 meg) @ 5V; 50 (1 meg) @ 50V
1N116A	10	60	100 (500K) @ 50V
1N117A	20	60	100 (500K) @ 50V
1N118A	40	60	100 (500K) @ 50V
1N126	5	60	50 (200K) @ 10V; 850 (59K) @ 50V
1N127	3	100	25 (400K) @ 10V; 300 (167K) @ 50V
1N128	3	40	10 (1 meg) @ 10V
1N198	5	45	75 (133K) @ 10V; 250 (200K) @ 50V-@ 75°C
DR301	400	100	100 (500K) @ 50V
DR302	400	80	100 (500K) @ 50V
DR303	400	60	50 (400K) @ 20V
DR305	200	100	100 (500K) @ 50V
DR306	200	80	100 (500K) @ 50V
DR307	200	60	50 (400K) @ 20V
DR310	100	120	50 (2 meg) @ 100V
DR311	100	120	100 (1 meg) @ 100V
DR312	100	100	20 (5 meg) @ 100V; 5 (2 meg) @ 10V
DR314	100	80	50 (1 meg) @ 50V
DR315	50	120	50 (2 meg) @ 100V
DR316	50	100	100 (1 meg) @ 100V
DR317	50	80	50 (1 meg) @ 50V
DR319	50	60	5 (2 meg) @ 10V
DR321	200	100	125 (400K) @ 50V-@ 75°C
DR322	100	100	200 (250K) @ 50V-@ 75°C
DR323	100	50	200 (250K) @ 50V-@ 75°C
DR324	100	50	500 (100K) @ 50V-@ 75°C
DR325	100	45	75 (133K) @ 10V; 250 (200K) @ 50V-@ 75°C

In addition to the diodes shown above, the electrical characteristics of the following types are available in the subminiature hermetically sealed case.

1N34	1N43	1N47	1N54	1N56	1N63	1N69	1N86	1N113	1N297
1N34A	1N44	1N48	1N54A	1N56A	1N64	1N70	1N88	1N114	1N298
1N38	1N45	1N51	1N55	1N58	1N65	1N75	1N111	1N115	1N355
1N38A	1N46	1N52	1N55A	1N58A	1N66	1N81	1N112	1N294	

Semiconductor Division
RADIO RECEPTOR COMPANY, INC.
Radio and Electronic Products Since 1922



240 WYTHE AVENUE, BROOKLYN 11, N. Y., TELEPHONE EVERGREEN 8-6000

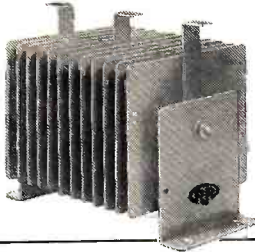
Other Radio Receptor products: Selenium Rectifiers, Thermatron Electronic Heat Sealing Generators & Presses, Radar, Navigation & Communications Equipment

RADIO RECEPTOR



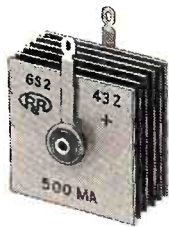
SELENIUM RECTIFIERS

*Choice of thousands in diversified industry
— as original equipment and replacements!*



INDUSTRIAL TYPE RECTIFIERS

Years of service in every kind of application have proved the long life and dependability of these rugged units. Available in various voltage and current combinations up to several hundred kilowatts, they are useful in a multitude of industrial and power circuits such as power supplies, magnetic amplifiers, electro-plating, battery charging, etc.



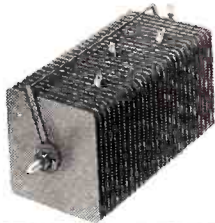
RADIO TYPE RECTIFIERS

Millions of these stacks are in service in radio and TV circuits as well as many small power applications. Thoroughly dependable under all types of grueling conditions, they are specified by an increasing number of engineers in the U. S. and throughout the world. Available for black and white as well as color TV in ratings up to 750 MA.



EMBEDDED RECTIFIERS

For top protection in military and other applications calling for the strictest requirements. Recommended for use where size and weight are important considerations such as in aircraft.



HIGH TEMPERATURE TYPES

High temperature rectifiers are now available in the larger cell sizes up to 5" x 6" to operate without derating at 125°C. Radio Receptor research has brought the cost down so that the field is now wide open for use in many applications once considered prohibitive because of size and price.



HERMETICALLY SEALED UNITS

Built to special requirements to meet unusually severe conditions. Designed to meet individual needs.

If you have a problem involving rectification, submit your requirements and our engineering department will be glad to aid you in the solution . . . without obligation, of course. Write for our latest bulletin no. T-7.

RECTIFIERS FOR MAGNETIC AMPLIFIERS

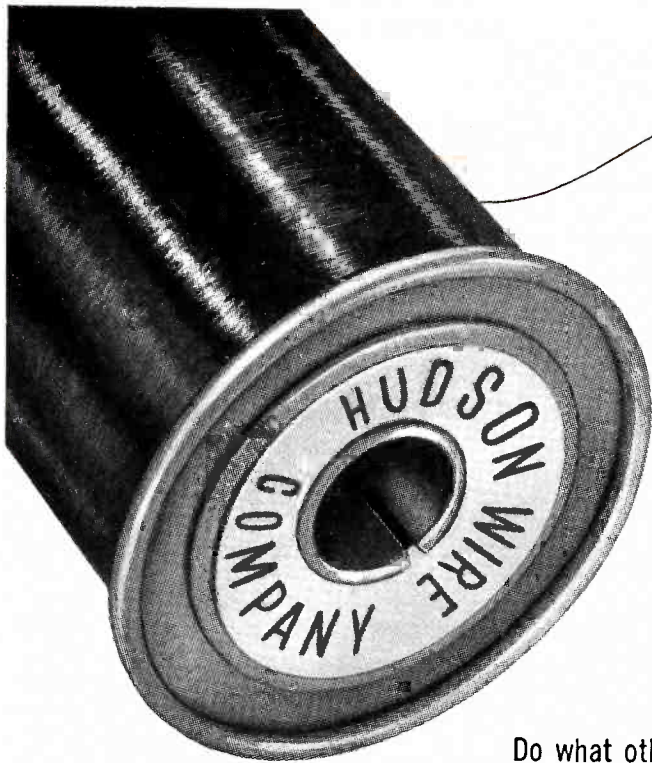
Special designs will be submitted to meet individual requirements. However in many cases standard Radio Receptor stacks will give highly satisfactory performance in mag-amp applications, saving both time and money. Let us study your specs and make recommendations.

Semiconductor Division
RADIO RECEPTOR COMPANY, INC.
Radio and Electronic Products Since 1922



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Other Radio Receptor products: Germanium & Silicon Diodes, Theratron Electronic Heat Sealing Equipment, Radar, Navigation & Communications Equipment



FINE WIRE

made finer

Do what other electronic and electrical manufacturers have done for years: Turn your fine-wire problems and requirements over to Hudson Wire. You will be served promptly, satisfactorily, economically, by craftsmen backed by over 50 years of fine-wire specialization.

BARE WIRES

Coppers	Tin
Brasses	Cadmium
Bronzes	Oxygen-free Copper
Phosphor-bronze	Silver
Nickel-silvers	Fuse
Zinc	Stainless Steel
Lead	Brush Wires

SPECIALTY WIRES

Silver-plated Coppers, Brasses, Bronzes	Aluminum and Silver-Plated
Electro-tinned Copper	Tape for Voice Coils
Stranded and Bunched	Flat-Wire Ribbons
Silver-plated	

FOR BARE & SPECIALTY WIRES

Hudson Wire Company
Ossining, N. Y.

TEXTILE-COVERED WIRES

Nylon	Cotton
Celänese	Rayon
Silk	Fiberglas

Available on bare or enameled wire, single- or double-coated

INSULATED WIRES

MATERIALS	TYPES	COVERINGS
Copper	Instrument	Plain and Heavy
Aluminum	Tubing	Enamel
Iron	Litz	Formvar
Copper-clad	Multiple and	EZsol (Liquid
Steel	Twisted	Nylon)
		Cement-coated
		Enamel
		Dow-Corning
		1360 Silicone

FOR INSULATED WIRES

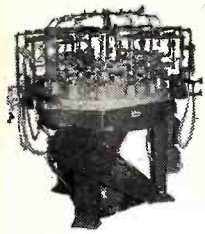
Winsted Division
Hudson Wire Company
Winsted, Conn.

Cassopolis Division
Hudson Wire Company
Cassopolis, Mich.

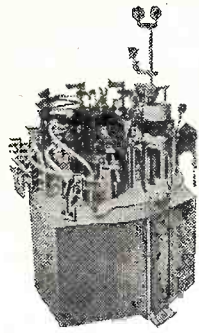
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WIRE DEPARTMENT!

Research and development facilities to solve your problems. Exceptionally flexible production to provide "custom" service. Lowest cost with highest quality.

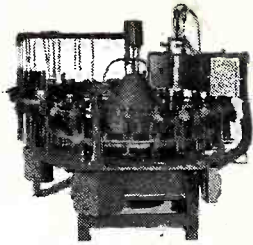
HUDSON WIRE COMPANY



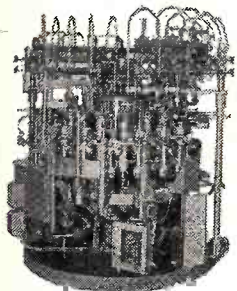
SUB-MINIATURE TUBES



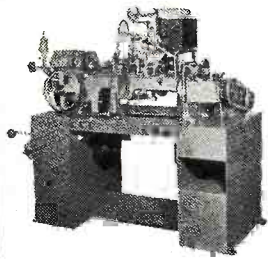
DIODES



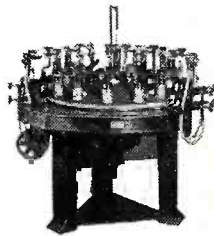
POWER TUBES



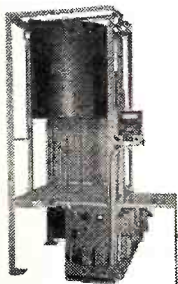
RADIO RECEIVING TUBES



TRANSISTORS



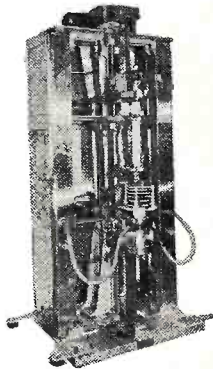
MINIATURE TUBES



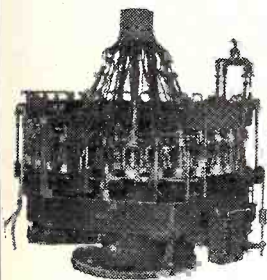
CATHODE RAY TUBES



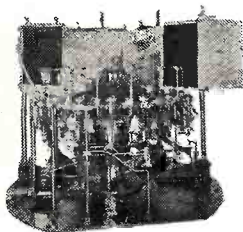
LIGHTHOUSE TUBES



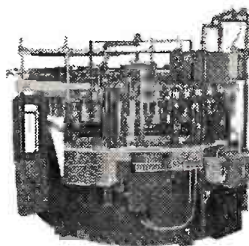
SEMI-CONDUCTORS



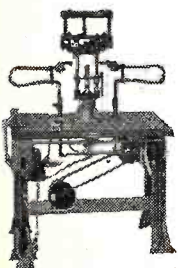
MINIATURE RADIO TUBES



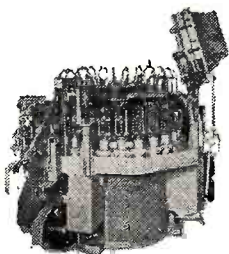
CATHODE RAY TUBES



RADIO RECEIVING TUBES



SINGLE CR TUBE



SUB-MINIATURE



CATHODE RAY TUBES

there is a **KAHLE MACHINE** to speed every operation in the manufacture of

- **DIODES**
- **TRANSISTORS**
- **ELECTRONIC TUBES**

Illustrated are typical examples of Kahle machines that give maximum production efficiency, speed and economy.

Can we help you? Write today — give us your requirements or special problems.

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ENGINEERING COMPANY

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NORTH BERGEN, N. J.

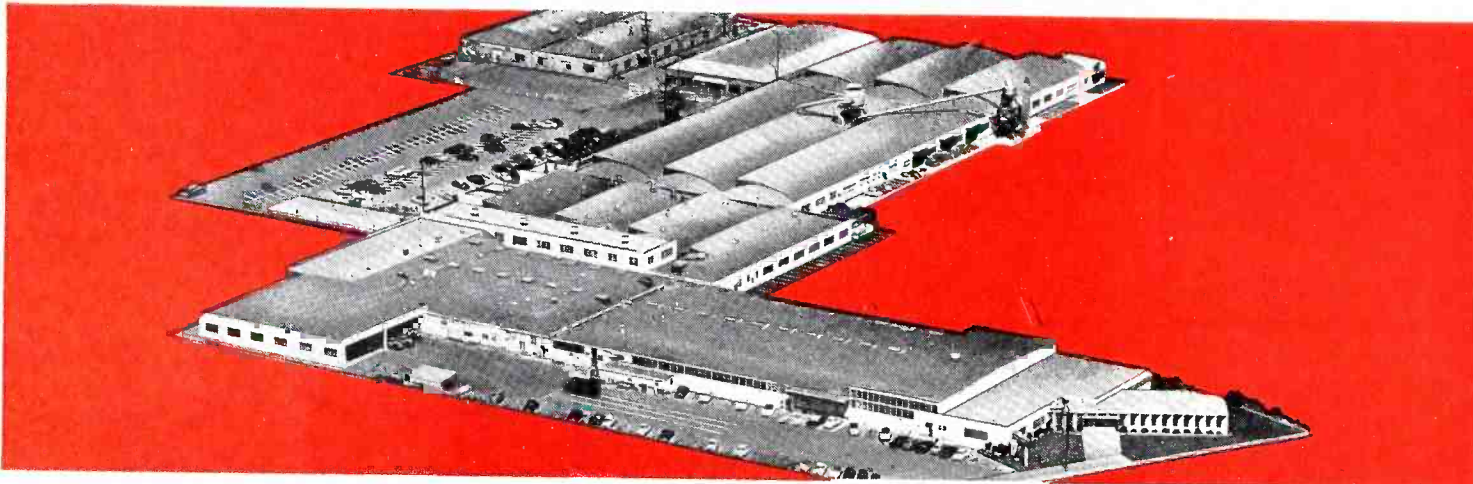
Designers and builders of special automatic and semi-automatic equipment for all industrial operations.

CONT

IT TAKES ALL KINDS...and we have them..



the people, the brain-power, the skills, the facilities,



the nearness to the market...to create, develop and produce quality electronic products and make on-time deliveries.



RESEARCH



DEVELOPMENT



PRODUCTION

Packard-Bell is now producing for Military and Industry ...**Electronic Equipment and Systems:** communication, navigation, radar, identification, sonar, missile guidance and missile handling equipment.

Custom Components for Specific Requirements: Delay lines, pulse transformers, pulse-forming networks, filters and low-voltage coils.

Technical Reproductions: Printed wiring boards, assemblies, slip rings, commutators, and printed wiring switch plates.

Packard-Bell

TECHNICAL PRODUCTS DIVISION
Los Angeles 64, California

WRITE FOR *Facilities Brochure and further information to: Technical Products Division Dept. E Packard-Bell Company, 12333 W. Olympic Blvd. Los Angeles 64, Calif.*

OLDEST AND LARGEST COMPLETELY INTEGRATED ELECTRONICS FACILITY IN THE WEST

MicroMatch

RF POWER AND VSWR MEASURING EQUIPMENT

MICROMATCH is the registered trade name which identifies a complete line of M. C. Jones Electronics Co., Inc. R. F. Power and VSWR measuring instruments.

These instruments contain a patented circuit designed to produce an output essentially independent of frequency. They cover the frequency range of 0.5 to 4000 mcs. and power levels of 10 milliwatts to 120 kilowatts.

The R. F. Power and VSWR instruments are rugged field and laboratory type complete measuring equipment, consisting of both coupler and indicating units.

The DC and RF output coupler units only are sold principally to manufacturers who incorporate these units directly into government or commercial type transmitters.

Because they are made in quantity to the highest government and commercial standards, MICROMATCH instruments combine the highest quality with extremely low cost.



Please write for our 46-page catalog describing the complete M. C. Jones line.



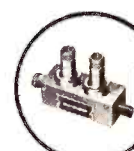
RF POWER and VSWR INSTRUMENTS

Model No.	Frequency Range (mcs.)	Power Range Incident & Reflected (watts)	RF Connectors and Impedance
261**	0.5 - 225	0 - 1000	Type 83-1R 52 ohms
262	-	0 - 1000 (relative)	Indicator only
263	0.5 - 225	0 - 10; 100; 1000	Type N* 52 ohms
701N	20 - 2000	0 - 1.2	Type N* 52 ohms
702N	28 - 2000	0 - 4	Type N* 52 ohms
703N	20 - 2000	0 - 12	Type N* 52 ohms
704N	46 - 2000	0 - 40	Type N* 52 ohms
705N	20 - 2000	0 - 120	Type N* 52 ohms
706N	28 - 2000	0 - 400	Type N* 52 ohms
711N	25 - 1000	0 - 30; 75; 300	N plus 83-1R Adapters
405B8	28 - 2000	0 - 4000	1 5/8" Flange 51.5 ohms
445A9	28 - 2000	0 - 12,000	3 1/8" Flange 50.0 ohms
445A10	20 - 2000	0 - 40,000	3 1/8" Flange 50.0 ohms



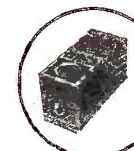
DC OUTPUT DIRECTIONAL COUPLERS

Model No.	Frequency Range (mcs.)	Power Range Incident & Reflected (watts)	RF Connectors and Impedance
576N1	42 - 2000	1.2	Type N* 52 ohms
576N2	28 - 2000	0 - 4	Type N* 52 ohms
576N3	20 - 2000	0 - 12	Type N* 52 ohms
576N4	46 - 2000	0 - 40	Type N* 52 ohms
576N5	42 - 2000	0 - 120	Type N* 52 ohms
576N6	28 - 2000	0 - 400	Type N* 52 ohms
402B8	28 - 2000	0 - 4,000	1 5/8" Flange 51.5 ohms
442A9	28 - 2000	0 - 12,000	3 1/8" Flange 50.0 ohms
442A10	20 - 2000	0 - 40,000	3 1/8" Flange 50.0 ohms



RF OUTPUT DIRECTIONAL COUPLERS

Model No.	Frequency Range (mcs.)	Coupling Attenuation	RF Connectors and Impedance
313N3	300 - 2000	30 db	Type N* 52 ohms
313N4	120 - 2000	40 db	Type N* 52 ohms
313N5	60 - 2000	50 db	Type N* 52 ohms
313N6	30 - 2000	60 db	Type N* 52 ohms
313N7	25 - 2000	70 db	Type N* 52 ohms



ABSORPTION TYPE RF WATTMETERS

Model No.	Frequency Range (mcs.)	Power Range (watts)	RF Connectors and Impedance
621N	1 to over 1000	0 - 120 milliwatts	Type N* 52 ohms
623N	1 to over 1000	0 - 1.2	Type N* 52 ohms
624N	1 to over 1000	0 - 4	Type N* 52 ohms
625C5	50 - 1000	0 - 120	Type C 50 ohms
611A7	50 - 1000	0 - 1200	3 1/8" Flange 50 ohms
612A	44 - 1000	0 - 6000	3 1/8" Flange 50 ohms



RF LOAD RESISTORS

Model No.	Frequency Range (mcs.)	RF Power Dissipation (watts)	RF Connectors and Impedance
633N	3000	50 (air cooled)	Type N* 52 ohms
635N	3000	200 " "	Type N* 52 ohms
636N	3000	600 " "	Type N* 52 ohms
636A	2000	600 " "	3 1/8" Flange 50.0 ohms
638A	2000	6000 (water cooled)	3 1/8" Flange 50.0 ohms



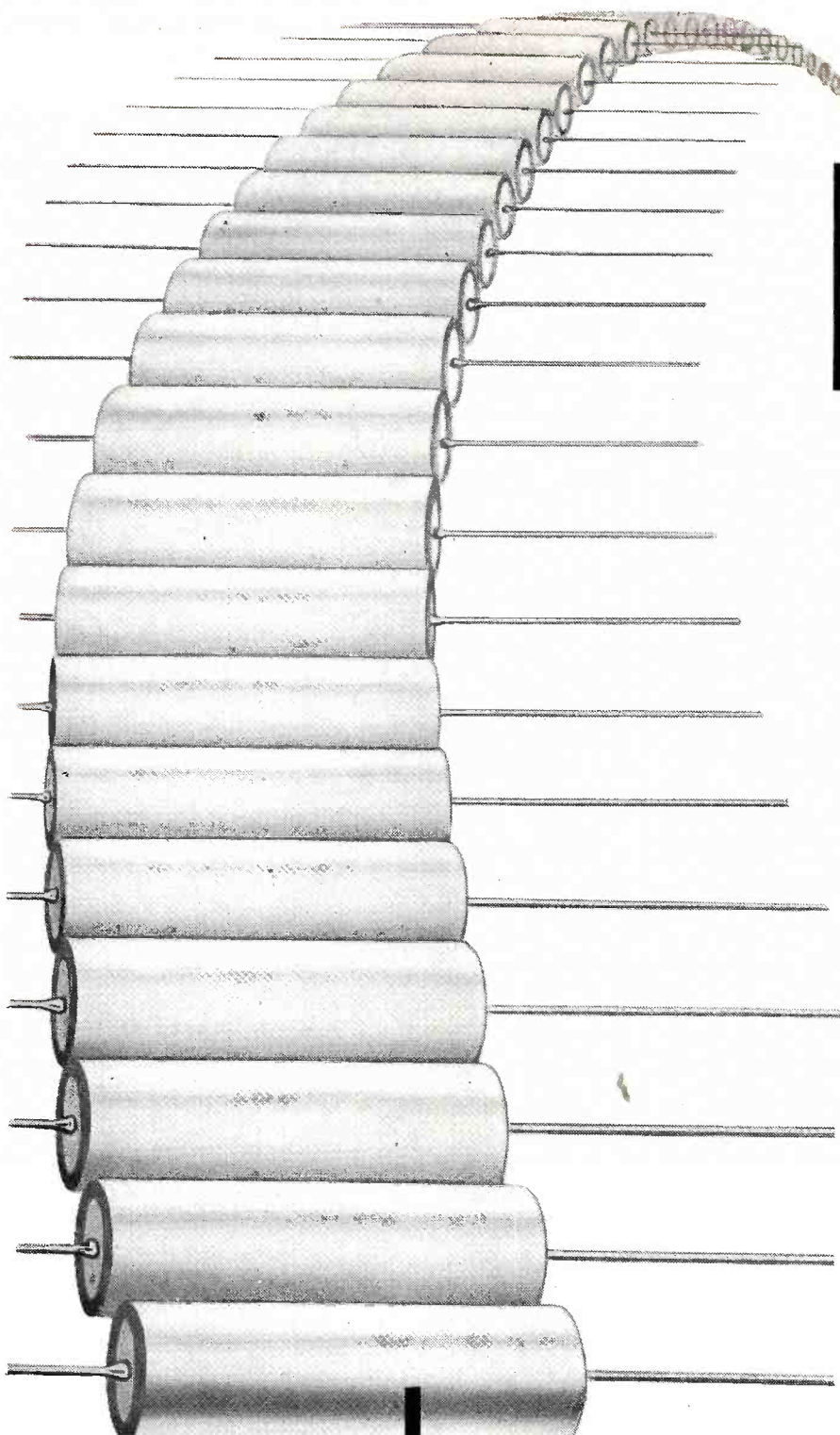
CALORIMETRIC TYPE Primary Standard of RF Power

Model No.	Frequency Range (mcs.)	Power Range (watts)	RF Connectors and Impedance
641N	0 - 3000	0 - 3; 10; 30; 100; 300	Type N 52 ohms

*Also available with UHF, C, and HN Connectors.
**Coupler Unit Only for use with 262 Indicator.



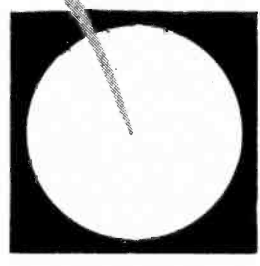
M. C. JONES ELECTRONICS CO., Inc.
BRISTOL, CONNECTICUT



EFCON

...where close tolerance is standard tolerance

**DON'T DERATE
DELIVERY
DATES
FOR
CLOSE
TOLERANCE
CAPACITORS**



Only EFCON mass-produces miniature plastic film capacitors to close tolerances.

No need to delay your equipment delivery dates while awaiting delivery of precision capacitors. At Electronic Fabricators, Inc., the standard production runs are for $\pm 1\%$, $\pm 2\%$, and $\pm 5\%$ tolerance capacitors. It is not necessary to pick and choose from wider tolerance production runs nor is it necessary to pay premium prices for close tolerance.

EFCON Mylar* and Polystyrene Film Capacitors are each available in two styles: Types MC and PC have a rigid cardboard tube construction; Types MH and PH are hermetically sealed in a metal case with glass-to-metal, solder-sealed terminals. Extended foil construction with leads directly soldered to the foil minimizes inductance and contact resistance for all types.

The plastic film ensures high insulation resistance, low dielectric absorption and stability over extended temperatures and life. Types MC, PC, MH and PH capacitors are available in a range of standard capacitance values from 0.001 to 2 mfd. Non-standard values and tolerances closer than $\pm 1\%$ are obtainable to your specifications.

Other EFCON CAPACITORS . . .

Type TH Teflon* Film Capacitors . . . for high-temperature and high humidity application.

Type S Molded Silver Mica Capacitors



**ELECTRONIC
FABRICATORS,
INCORPORATED**

682 Broadway, New York 12, N. Y.

Write Dept. K for technical data

*DuPont Trademark

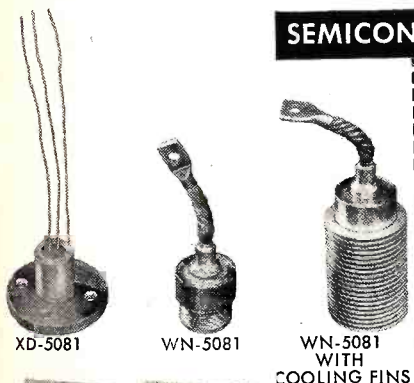
Westinghouse

MODERN EQUIPMENT FOR MAINTENANCE-FREE ELECTRONICS USE



Semiconductors • Indicating Lights • High Voltage Rectifiers • Micarta • Transformer Cores • Transformers • Transistors • Magnetic Amplifiers • Instruments • Selenium Rectifiers • Capacitors • Magnetic Metals and Alloys • Pushbuttons • Relays • Indicating Lights Switches • Electronic Tubes

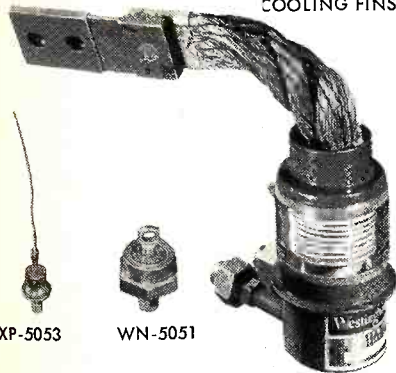
SEMICONDUCTORS



XD-5081

WN-5081

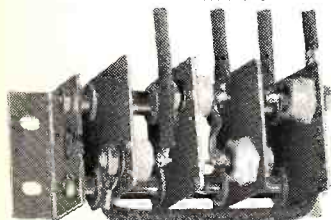
WN-5081
WITH
COOLING FINN



WA-4052 SEMITRON

XP-5053

WN-5051



SINGLE PHASE BRIDGE ASSEMBLY

Westinghouse Semiconductors are characterized by long life, very good reliability, no detectable aging, and excellent mechanical stability. All devices are ruggedly designed to withstand a wide range of operating conditions. They are hermetically sealed to protect the junctions from atmospheric contamination. More power output is obtainable with Westinghouse semiconductors which means considerable reductions in space and weight.

XD-5081 is a 2 ampere germanium power transistor which is designed for various switching and audio applications. It is characterized by very high, large signal current gain throughout the operating range.

The XP-5053 is a 900 ma silicon rectifying cell for communications and control devices. It is available in peak inverse voltage classifications up to 600 volts and is distinguished by low forward voltage drop and very low leakage current. Operation up to 150°C. is quite permissible.

The WN-5051 and WN-5091 silicon rectifying cells are used for medium and high power applications where D-C current is required. The WN-5051 diode is rated at 35 amperes, half-wave, average forward current with forced air cooling and mounted on a suitable heat dissipating plate. It is available in voltage classifications up to 350 volts maximum peak inverse. The WN-5091 is available in the same voltage classifications but is rated at

about 22 amperes forward current, half-wave rating.

The WN-5081 and WN-5082 are high power diodes of rugged construction. The WN-5081-D is rated at a maximum of 40 amperes and 200 volts max. peak inverse. The WN-5082-F is rated at 160 amperes and 300 volts max. peak inverse. Both current ratings are room temperature and with heat dissipating plates. Mounting versatility is achieved through the screw bases which are made to be mounted on aluminum plates.

The WN-5081 and 5082 diodes are also available with cooling fins for various applications. The current and voltage ratings are similar to the 5081 and 5082.

The WA-4052 Semitron is a high current low voltage germanium rectifying cell which is designed for electroplating, electrochemical, and anodizing applications. The cell is available in voltage ratings of 26, 45, 66 and 86 volts rms and is rated at 250 amperes half-wave average fwd. current. No derating for parallel operation is necessary.

Pictured here is an example of a variety of bridge assemblies which are manufactured by the Semiconductor Department. Single-phase full-wave, three-phase full-wave, single and three-phase half-wave, and single-phase center tap circuits are all available with different current and voltage requirements up to 600 amps and 300 volts.

For more detailed information, please request Descriptive Bulletin 54-151 or write Westinghouse Electric Corporation, P. O. Box 868, Pittsburgh 30, Pennsylvania.

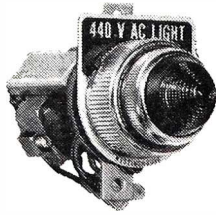
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P.O. BOX 868, PITTSBURGH 30, PA.



INDICATING LIGHTS



FOR A-C VOLTAGES
UP TO 550 VOLTS



A-C OR D-C SERVICE
125 VOLTS

Panel Mounting—Indicating lights have shock resistant lens with wide angle visibility. They are available in six standard

**FOR A-C VOLTAGES
UP TO 550 VOLTS**

Uses a transformer and a 6-8 volt bulb and is designed for voltages up to 550 volts, 60 cycles, a-c. The three major components of this unit are: (1) lamp

A-C OR D-C SERVICE, 125 VOLTS

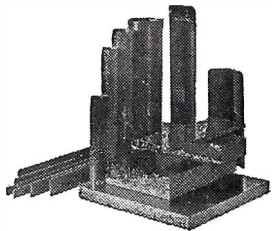
Is designed for either a-c or d-c service, 125 or 250 volts, and uses a 6-S-6 vibration type candelabra base bulb—with a resistor for 250 volts and full voltage for 125 volts. The major components

colors; red, green, amber, blue, opalescent, and crystal. Two types of lights are available:

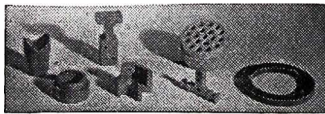
base with transformer and miniature bayonet #44 bulb; (2) shock resistant colored lens; and (3) legend plate.

are: (1) lamp base, with resistor if required, and 125 volt 6-S-6 vibration type bulb; (2) shock resistant colored lens; and (3) legend plate.

MICARTA[®]



LAMINATED SHEETS AND SHAPES



MOLDED PIECES



MICARTA 444

MICARTA SHEETS AND SHAPES

Twenty grades of sheets, most of which are available in black or tan. Fillers include paper, cotton, asbestos and glass. The most commonly used by communication engineers is Micarta tan (254) and black (464), both of which are paper base plastic. Either color supplied in 36" x 36" sheets, 1/32" to 2"

thick. Micarta 259 is made of melamine resin in a base of glass cloth. It is white, fire-resistant and very strong. Standard Micarta shapes include angles, channels, zeeks, rods and tubes. All are produced in six or more grades, in various dimensions.

MOLDED MICARTA

For large production quantities of simple or complicated shapes. Material placed in the mold may be in one of four forms: (a) wood flour and plastic, (b) impregnated cloth or paper in laminated form, (c) impregnated

cloth or paper chopped into small pieces, or (d) a combination thereof. Grades using sheets and chopped pieces make the strongest parts: those containing wood flour are useful for intricate shapes.

MICARTA "444"

This form of Micarta offers a practical and economical means of obtaining molded forms or shapes with low-cost equipment and dies. Examples of the shapes are shown at left. A tan, green or black product, processed in

flat sheets of various thicknesses, from cotton cloth impregnated with a phenolic resin binder. Micarta "444" is a practical material for post forming many parts ordinarily made of drawn sheet steel.

For complete details on Micarta, request Bulletin B-3184

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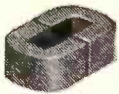
P.O. BOX 868, PITTSBURGH 30, PA.

TRANSFORMER CORES

Hipersil® Type C Cores



1 MIL



2 MIL



4 MIL



5 MIL



12 MIL

The Hipersil Type C core was originally developed by Westinghouse to use oriented silicon steel to full advantage. Since its introduction 14 years ago continual developments have been made in the product to insure better performance. Along with the great improve-

ments in the magnetic materials themselves toward lower core loss and higher permeability, have been improvements in construction such as a lower loss etched butt joint and the more recent grooved core construction for greater stability in transformer operation.

1 MIL—For pulse transformer applications $\frac{1}{4}\mu$ sec. and below and for IF transformers these cores give the advantage of low-cost assembly as well as high performance. 1 Mil cores . . . Available in same size as 2 Mil.

2 MIL—For pulse transformer applications down to $\frac{1}{4}\mu$ sec. these cores have been standard for the past 9 years.

4 MIL—For 100 cycle transformers where the cores are worked at high inductions (these cores are tested at 17.6 Kg. prior to shipment) these cores with extra low exciting current, give the smallest possible 400 cycle transformers.

5 MIL—For 400 cycle applications, these cores have been standard for airborne electronic applications for the past 8 years.

12 MIL—For 60 cycle applications, 12 mil cores (formerly called 29 gauge) furnish the best transformer core for 60 cycle shipboard and land-based military applications as well as industrial. These cores effect economy of assembly as well as the advantages of small size and weight.

Further information is available in Catalog Section 44-550 as follows:

general information page 2

single phase cores

12 mil size pages 3-11

4 and 5 mil sizes pages 13-29

1, 2 and 3 mil sizes pages 30-41

three phase cores

4 and 12 mil sizes pages 42-44

ring type cores

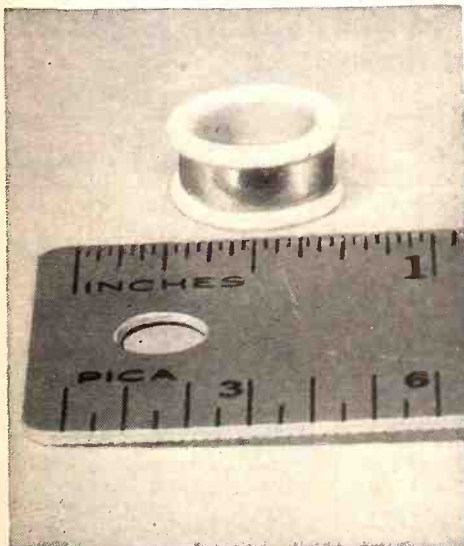
1, 2, 4 and 12 mil sizes pages 45-47

Hiperthin Cores

HIPERTHIN CORES—Toroidal cores of ultra-thin high permeability magnetic material wound over ceramic spools for computer static storage elements and high frequency pulse applications.

These cores are available in various types materials such as HIPERSIL® (3%

silicon iron), HIPERNIK® (50% iron-nickel), ORTHONIK (50% iron-nickel, rectangular hysteresis loop) and 4-79 Permalloy, all in thicknesses of 1 mil, $\frac{1}{2}$ mil, $\frac{1}{4}$ mil and $\frac{1}{8}$ mil. Standard spool sizes are shown and number of turns of magnetic material can be varied to suit application.



I.D. SPOOL	I.D. CORE	O.D. SPOOL	STRIP WIDTH
$\frac{3}{16}$	$\frac{1}{4}$	$\frac{5}{16}$	$\frac{1}{8}$
$\frac{3}{16}$	$\frac{1}{4}$	$\frac{3}{8}$	$\frac{1}{4}$
$\frac{1}{4}$	$\frac{5}{16}$	$\frac{3}{8}$	$\frac{1}{8}$
$\frac{3}{8}$	$\frac{7}{16}$	$\frac{1}{2}$	$\frac{1}{8}$
$\frac{1}{2}$	$\frac{9}{16}$	$\frac{21}{32}$	$\frac{1}{8}$
$\frac{3}{4}$	$\frac{13}{16}$	$\frac{29}{32}$	$\frac{1}{8}$
1	$1\frac{1}{4}$	$1\frac{1}{2}$	$\frac{1}{4}$

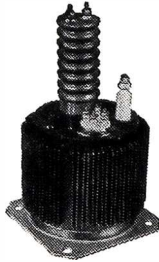
WESTINGHOUSE ELECTRIC CORPORATION, P. O. BOX 868, PITTSBURGH 30, PA.



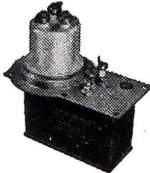
PULSE TRANSFORMERS hermetically sealed



4P43



4P54



4P37

Oil-filled output pulse transformers for peak voltage ratings 7 Kv and higher, and pulse widths from 1/4 to 10 micro-

seconds are available in standard ratings and are also designed to customer specifications.

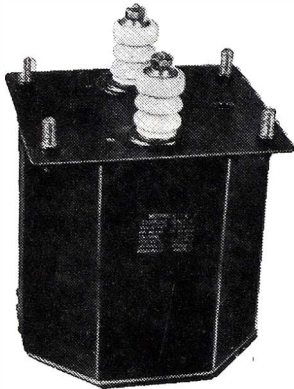
CATALOG NUMBER	PULSE WIDTH MICROSECONDS	REPETITION RATE PULSES PER SECOND	PULSE KV INPUT/OUTPUT	IMPEDANCE INPUT/OUTPUT	BIFILAR AMPS HEATER CURRENT
4P59	0.5	2000	2.5/12	50/1100	1.0
4P37	0.5-5	200	3.3/15	50/1000	.25*
4P100	0.25	4000	3.5/14	50/1000	1.0
4P43	1-2.5	2000-400	5.5/22	50/800	2.5
4P148	.5	2500	3.5/28.5	15/960	1.25
4P147	.5	2500	4.75/28.5	25/960	1.25
4P86	.5	2500	6.56/28.5	50/960	1.25
4P79	1.0	400	5.3/26.5	25/625	3.0
8P3	1.8	400	6.86/35	33/848	1.72*
4P54	1-4	1200-300	6.26/30	25/650	2.0
4P71	1-4	600-150	6.1/31	25/625	2.4

*Design includes a filament transformer mounted in the H. V. bushing to transform 115 volt supply and Bifilar amps to magnetron heater requirements.

Low Power: Designed for use in low power, low voltage pulse circuits. Four general types are: (1) Blocking oscillator or regenerative drive, (2) Pulse trig-

ger of current transformer, (3) Low power pulse output transformer, and (4) Coupling transformers. See Catalog Section 45-210.

CHARGING CHOKES hermetically sealed



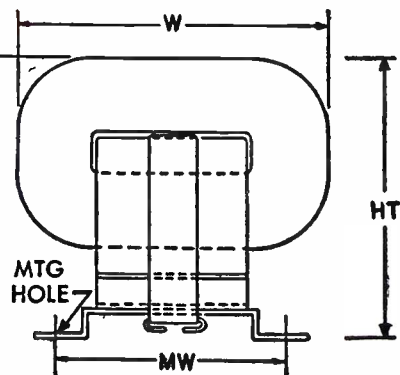
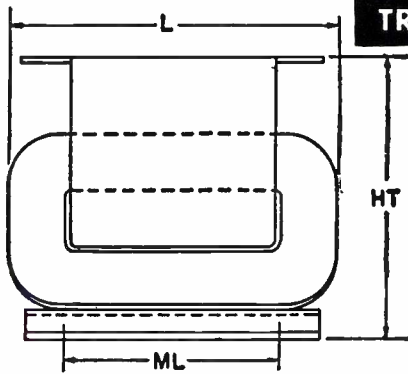
Used between D-C power supply and Pulse-forming network in high power pulse modulators. Types, based on circuit operation, are resonant, hold-off diode, and linear.

Catalog Number	DC Supply KV	Network KV	Inductance Henries	Average Current MA	Repetition Rate Pulses Per Second
4Y22	5.5	11	27	122	400
4Y10	9	18	22	180	600
8Y3	9	18	10	315	340
4Y13	12.5	25	18	650	300/1200

TRANSFORMERS Fosterite® treated

filament • plate • power • filter choke

Standard transformer sizes, single phase, designed for operation at 380-420 cycles, in 85°C ambient, with 50°C rise and up to 3000 volts rms dielectric test. Ask for catalog section 45-215.



Size No.*	OVERALL DIMENSIONS			MOUNTING DIMENSIONS			Total Wt (Lbs)
	L	W	Height	ML	MW	Hole	
3011	1 1/2	1 13/32	1 1/16	—	1 1/8	.141	1/4
3021	1 3/8	1 3/8	1 3/16	—	1 1/8	.141	5/16
3032	2	1 3/4	2	—	1 1/4	5/32	3/8
3043	2	1 15/16	2 1/8	—	1 7/16	5/32	1/2
3054	2 5/16	2	2 5/16	1 11/16	1 7/16	5/32	5/8
3064	2 7/16	2 1/2	2 1/2	1 11/16	1 7/16	5/32	13/16
3075	2 1/2	2 1/2	2 5/8	2 1/8	1 3/4	5/32	1 1/8
3085	2 11/16	2 3/8	2 3/4	2 1/8	1 3/4	5/32	1 3/8
3096	2 13/16	2 3/8	2 3/16	2 13/16	1 55/64	3/16	1 5/8
3107	2 13/16	2 3/4	2 5/16	2 5/8	2 1/8	3/16	1 15/16
3117	3 1/8	2 15/16	3 3/16	2 5/8	2 3/8	3/16	2 1/2
3128	3 5/8	3 3/8	3 1/2	3	2 7/16	1/4	3 1/2
3138	3 3/8	3 7/16	3 5/8	3	2 7/16	1/4	4 1/4
3149	4 1/8	3 11/16	4 1/8	3 5/16	2 11/16	1/4	5

*Individual transformer performance requirements will determine the size.

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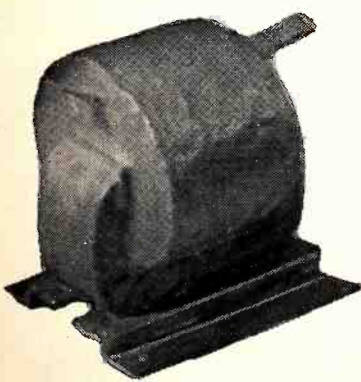
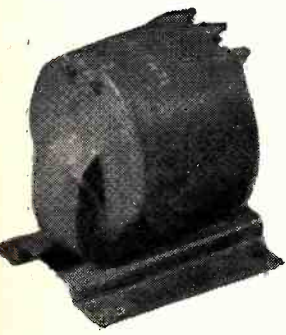
MODERN EQUIPMENT FOR MAINTENANCE-FREE ELECTRONICS USE

Fosterite treated transformers utilize Type C Hipersil® cores in a one loop design to achieve a standard design transformer that will fit most applications with minor adaptations. The Fosterite coating applied to these units gives the best protection available for uncased transformers against humidity, immersion and temperature extremes. In addition to standard communications and radar applications, these transformers are being used extensively in other air-borne equipment.

Low Power Pulse Transformers — These pulse transformers are designed for use in low

power, low voltage pulse circuits. The four general types are: (1) Blocking Oscillator or regenerative drive, (2) Pulse Trigger or current transformer, (3) Low Power Pulse output transformer, and (4) Coupling Transformers.

Charging Reactors—Charging reactors are used between the D-C power supply and Pulse-forming network in low voltage pulse circuits. Depending on circuit constants and repetition rates, they operate as resonant, hold-off diode, or linear types.



POWER TRANSFORMERS							
125/117/108 Volts Primary, 380 to 1600 Cycles, Single Phase, 50° C Rise, 80° C Ambient							
ELECTROSTATIC SHIELD				FOSTERITE TREATED			
PLATE SUPPLY A-C VOLTS	D-C MA	RECTIFIER FILAMENTS		OTHER WINDINGS		CATALOG NUMBER	SIZE NUMBER
		VOLTS	AMPS	VOLTS	AMPS		
205-0-205	25	6.3CT	1	6.3/5*	2	7K53	3054
230-0-230	40	6.3CT	2	6.3/5*	2	7K54	3064
295-0-295	63	6.3CT	2	5	2	7K55	3096
350-0-350	100	6.3CT	3.5	5	3	7K56	3075
400-0-400	160	6.3CT	4.5	5	3	7K57	3107
535-0-535	250	6.3CT	6	5	6	7K58	3128
550-0-550	400	6.3CT	8	5	6	7K59	3149

*CT on 5 V.

PLATE TRANSFORMERS					
125/117/108 Volts Primary, 380 to 1600 Cycles, Single Phase, 50° C Rise, 80° C Ambient					
ELECTROSTATIC SHIELD			FOSTERITE TREATED		
PLATE SUPPLY AC VOLTS	APPROX. OUTPUT D-C VOLTS	D-C MA	TYPE FILTER INPUT	CATALOG NUMBER	SIZE NUMBER
350-0-350	350	100	Capacitor	7J60	3054
400-0-400	400	160	Capacitor	7J61	3075
430-390-0-390-430	440/400	250	Capacitor	7J62	3107
435-0-435	315	100	Choke	7J64	3054
520-435-0-435-520	400/315	160	Choke	7J65	3075
535-0-535	400	250	Choke	7J66	3096
550-0-550	420	400	Choke	7J67	3117
620-0-620	500	250	Choke	7J68	3107
870-0-870	750	250	Choke	7J69	3117
1150-0-1150	1000	250	Choke	7J70	3138

FILTER CHOKES							
760 to 3200 Cycles 50° C Rise 85° C Ambient Fosterite Treated							
HENRIES AT RATED D-C	D-C AMPS	D-C RESIST. 85° C	RIPPLE VOLTAGE 760 CYCLES		RMS TEST VOLTAGE	CATALOG NUMBER	SIZE NUMBER
			MAX.	MIN.			
3.15	.040	312	117	25	2000	7 x 56	3032
2.5	.063	238	140	30	2000	7 x 57	3032
2.0	.100	175	165	35	2000	7 x 58	3043
1.6	.160	115	176	35	2000	7 x 59	3054
1.25	.250	80	188	40	2000	7 x 60	3075
1.00	.400	53	202	45	2000	7 x 61	3096
1.25	.250	150	475	70	3500	7 x 63	3054

FILAMENT TRANSFORMERS							
50° C Rise, 80° C Ambient, 380 to 1600 Cycles, Single Phase, All Secondaries center-tapped, Electrostatic Shield, Maximum Regulation 15% at 100% P.f.							
VA	PRIMARY VOLTS	SECONDARY VOLTS	AMPERES	DIELECTRIC TEST VOLTS RMS		CATALOG NUMBER	SIZE NUMBER
				PRIMARY	SECONDARY		
7½	125/117/108	2½	3	1500	1500	7H89	3011
12½	125/117/108	2½	5	1500	5000	7H90	3021
25	125/117/108	2½	10	1500	7500	7H91	3032
37½	125/117/108	2½	15	1500	7500	7H92	3043
10	125/117/108	5	2	1500	1500	7H93	3011
15	125/117/108	5	3	1500	1500	7H94	3021
30	125/117/108	5	3	1500	2000	7H95	3032
		5	3		2000		
40.2	125/117/108	5	3	1500	1500	7H96	3043
		6.3	4		1500		
67½	125/117/108	5.2	13	1500	1500	7H97	3054
1.89	125/117/108	6.3	0.3	1500	1500	7H98	3011
3.78	125/117/108	6.3	0.3	1500	1500	7H99	3011
		6.3	0.3		1500		
7.56	125/117/108	6.3	0.6	1500	2000	7H100	3011
		6.3	0.6		2000		
25.2	125/117/108	6.3	4	1500	1500	7H101	3032
37.8	125/117/108	6.3	6	1500	1500	7H102	3043
63	125/117/108	6.3	10	1500	1500	7H103	3054
9.4	125/117/108	7.5	1.25	1500	2000	7H104	3011
18.8	125/117/108	7.5	2.5	1500	2000	7H105	3021
60	125/117/108	10	6	1500	1500	7H106	3054

WESTINGHOUSE ELECTRIC CORPORATION, P. O. BOX 868, PITTSBURGH 30, PA.



MAGNETIC AMPLIFIERS MAGAMP



Westinghouse MAGAMP magnetic amplifiers can be used to advantage in most applications requiring reliable static power amplifiers that need little attention or maintenance and that will withstand high shock or vibration.

MAGAMP amplifiers give high ratios of power output per unit volume and weight, high sensitivity and power gain, and good amplifier linearity.

The Westinghouse type K MAGAMP selenium rectifiers used have low reverse leakage currents necessary to assure long life and minimum aging in amplifiers utilizing high gain core materials. The thermo-setting resin protective coating and winding impregnation results in a reactor assembly that will present a maximum of environmental protection and yet be comparatively small and lightweight. These Westinghouse components and materials of known and proven quality combine to make a MAGAMP capable of long, high performance operation.

MAGAMPS have been applied in servo systems as complex as aircraft autopilots, in the control of motors from the smallest fractional horsepower size to the largest steel mill drive, in the regulation of generator voltages from the miniature aircraft unit to the central station generator. They have been used to amplify the minute outputs of thermocouples, photocells, ionization chambers, and strain gauges. Other applications have included arc welding controls, ignitron firing controls, paper mill reel control, automatic battery chargers, and isolation metering of d-c voltages and currents.

MAGAMPS are available in the 3700 series under five general numbers, as shown in the table below. They may also be engineered for specific applications. This service is available through Customer Application Engineering, Westinghouse, East Pittsburgh. For complete descriptive information, request Technical Data 52-600.

characteristics of 3700 series magnetic amplifiers

amplifier type number	3704	3708	3712	3716	3718	3719	3721
type of circuit.....	doubler	doubler	doubler	doubler	doubler	doubler	three-phase doubler
nominal power output, watts*.....	0.03	0.3	8.0	40.0	75.0	150.0	325.0
nominal ampere turns for control [†]	0.3	0.45	1.0	2.2	2.2	2.5	1.5
a-c supply:							
volts.....	6.3	12.6	30.0	115.0	115.0	230	230
freq.—cps.....	60	60	60	60	60	60	60
phase.....	1	1	1	1	1	1	3
max. usable incremental figure of merit [‡]	200	330	840	1300	2000	2300	3300
max. incremental power amplification (3-cycle response) [‡]	225	440	1100	1200	2500	2200	8000 (6-cycle response)
response time $T = k_1 \frac{N^2}{R} + k_2 \text{ cycles} \dagger$							
constant k_1	1.7×10^{-3}	5.0×10^{-3}	13×10^{-3}	13×10^{-3}	13×10^{-3}	23×10^{-3}	32×10^{-3}
k_2	1.5	1.5	1.5	1.0	1.0	1.5	3.8
output current [§]							
rated amperes.....			0.60	0.6	1.0	0.93	1.7
max. power output amps.....	0.015	0.068	0.71	1.25	2.1	2.3	5.0
load resistance, ohms rated (55°C, temp. rise).....			28.0	148.0	85.0	175.0	130.0
max. power output.....	150.0	100.0	20.0	45.0	28.0	50.0	25.0
max. incremental power amp.....	150.0	100.0	20.0	100.0	50.0	100.0	90.0
rectifiers							
self-saturating							
catalog number.....	12G11KE1C	21F12KA1A-1	23F14KA1B-1	23F18KA1B-1	24F18KA1A-1	24F18KA1A-1	24F18KA1A-1
part number.....	29B9406-21	29B9408-1A-1	29B9410-2B-1	29B9410-4B-1	29B9418-4A-1	29B9418-4A-1	29B9418-4A-1
number required.....	2		1	1	1	1	3
recommended complementary							
catalog number.....	12G11KE1C	21F41KA1D-1	23F41KA1D-1	24F44KA1D-1	24F44KA1D-1	24F46KA1D-1	24F116KA1D-1
part number.....	29B9406-21	29B9407-1D-1	29B9409-1D-1	29B9419-4D-1	29B9419-4D-1	29B9418-6D-1	29B9418-8D-1
number required.....	4	1	1	1	1	1	3
weight of reactor assembly pounds.....	0.27	0.30	1.1	2.9	5.0	6.5	19.5
size of assembly, inches							
diameter.....	1 $\frac{1}{2}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$	3 $\frac{1}{2}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$
height.....	1 $\frac{1}{2}$	1 $\frac{1}{2}$	2 $\frac{1}{2}$	3 $\frac{1}{4}$	3 $\frac{3}{4}$	4 $\frac{1}{2}$	4 $\frac{1}{2}$

* Maximum power output obtainable within the linear range of the control characteristic curve for rated load.
 † Control ampere-turns necessary to change the output from cutoff to the nominal power output point.
 ‡ The ratio of the maximum power amplification to the response time.
 † Power amplification corresponding to three cycle response time taken over the linear range of the control characteristic curve for the optimum load resistance.
 ‡ Response time in cycles of supply frequency.
 § RMS value if output is a-c; average if output is d-c.

YOU CAN BE SURE...IF IT'S

Westinghouse

P.O. BOX 868, PITTSBURGH 30, PA.

INSTRUMENTS

THE MOST COMPLETE LINE IN THE INDUSTRY

Westinghouse instruments are designed, manufactured and approved under the most severe National Standards to meet exacting engineering requirements. The completeness of the lines of Westinghouse instruments gives the builder and the ultimate user the widest choice of matched instruments for any application.

The general points to consider when selecting instruments are: 1. Accuracy desired; 2. Scale range; 3. Single or multiple scale; 4. Size; 5. Appearance.

With literally hundreds of types available—for measuring all electrical quantities, temperature, position and time—Westinghouse brings you the results of over 65 years' experience in designing and manufacturing better instruments for better performance. We built our first instruments in 1888.

Westinghouse representatives and specialized instrument sales engineers are available all over the country to help you make the proper selections.

SWITCHBOARD As the name implies, these instruments are standard equipment on switchboards in power and switching stations, aboard ships, and in the factory. They also are generally applied to control boards and test boards in laboratories and on production lines and to large radio transmitters because they provide maximum accuracy and readability for this type of service. For complete explanation of types of A-C or D-C Switchboard Instruments available, request Catalog Section 43-200.

PANEL Westinghouse Panel Instruments are available for measuring direct current, alternating current, audio frequency, radio fre-

quency, decibels and elapsed time. Available in sizes of 2½, 3½ and 4½ inches, in surface or flush mounting styles and in round or rectangular design. Request Catalog Section 43-300.

PORTABLE Because of their broad scope of operation, portable instruments are required in a wide variety of ranges, sizes and accuracies. Each type has many different applications . . . but each application can best be served with a particular instrument. The portable instruments shown below represent only a small portion of the varieties available. To aid your selection of the best instrument for your particular application, request Catalog Section 43-100.

RECORDING Westinghouse Recording Instruments are available in switchboard, portable and wall mounting styles in direct current and alternating current types and with round or strip charts. The Recorders are furnished with a broad line of movements to meet all electrical measuring requirements. For complete data ask for Catalog Sections 43-415 and 43-440.

AUXILIARIES These include self-contained units for extending the application of instruments into the measurement of speed and for the measurement of high values of a-c and d-c current and voltage. The general auxiliaries Westinghouse features are Tachometer Generators, Portable Transformers, External Resistors and Shunts in a wide selection of ratings. Request Catalog Section 43-800 for complete details, ratings and descriptive data.

PORTABLE INSTRUMENTS

Conform to A.S.A. Spec. No. C 39.1 MIL-M-16034A

TYPE P-5 LINE (Accuracy ½ %)

The Type P-5 series of Westinghouse instruments is designed to withstand severe portable service and still maintain the highest degree of accuracy over long periods of time. A combination of high-grade mirrored dials and knife-edge pointers eliminates parallax and

assures accurate reading. Scale length is 5 inches and divisions are arranged to aid quick reading. Maximum versatility is achieved with multi-range scale, some of which incorporate seven ranges. Pre-aged Moldarta* case does not warp or deteriorate.

*Trademark

FULL SCALE RANGE OF STANDARD RATINGS

TYPES PA-5 AND PY-5 FOR ALTERNATING CURRENT

Ammeters	0-5 to 0-200
Milliammeters	0-10 to 0-750
Volt-Ammeters	0-1 to 0-25 amps
Voltmeters	0-3 to 0-750
Wattmeters	0-20 to 0-30,000

TYPE PX-5 FOR DIRECT CURRENT

Ammeters	0-.05 to 0-50
Milliammeters	0-.03 to 3,000
Microammeters	0-10 to 0-750
Volt-Ammeters	0-3 to 0-150 volts
Millivoltmeters	0-.03 to 0-30 amps
Voltmeters	0-2 to 0-2,000
	0-1 to 0-1500

TYPE P-4 LINE (Accuracy ¾ %)

Type P-4 line is designed for operating convenience.

Lightweight: a-c instruments weigh only 2 lbs; d-c instruments 3 to 4 lbs.

Moldarta Case: is non-warping, weather-resisting. 4½" x 4½" x 2".

FULL SCALE RANGE OF STANDARD RATINGS

TYPE PY-4 FOR ALTERNATING CURRENT		AMMETERS MILLIAMMETERS VOLTMETERS		0-1 TO 0-50 0-5 TO 0-750 0-1 TO 0-750	
TYPE PX-4 FOR DIRECT CURRENT (Also Radio-frequency and Rectifier Types)	Ammeters	0-.25 to 0-300	Voltmeters	0-1 to 0-750	
	Radio frequency	0-.5 to 0-20	Rectifier type	0-.5 to 0-150	
	Milliammeters	0-1 to 0-3,000	Millivoltmeters	0-2 to 0-100	
	Radio frequency	0-75 to 0-800	Volt-Ammeters	0-1.5 to 0-150 volts	
	Rectifier type	0-1.5 to 0-20		0-.15 to 0-60 amperes	
	Microammeters	0-25 to 0-1,000			
	Rectifier type	0-500			

(For Complete Ordering Information, See Catalog Section 43-100)



SWITCHBOARD



PANEL



PORTABLE



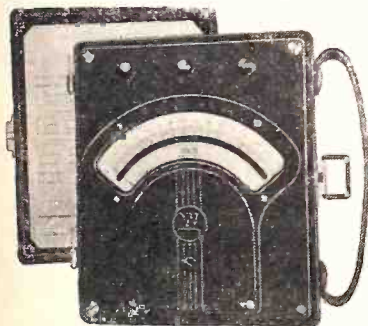
RECORDING



AUXILIARIES



ANALYZERS



P-5 VOLTMETER



P-4 TRIPLE RANGE VOLTMETER



P-4 DOUBLE RANGE VOLTMETER

WESTINGHOUSE ELECTRIC CORPORATION, P. O. BOX 868, PITTSBURGH 30, PA.



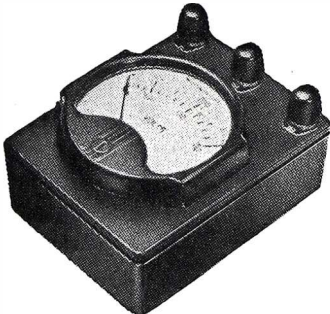
INSTRUMENTS



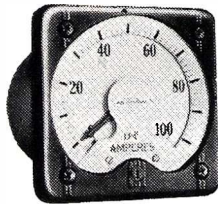
P-14 VOLT-AMMETER



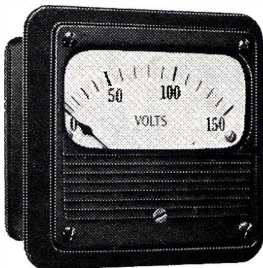
P-14 HINGED COVER



P-12 VOLTMETER



K-24 AMMETER



K-25 VOLTMETER

PORTABLE INSTRUMENTS

Conform to A.S.A. Spec. No. C 39.1 MIL-M-16034A

TYPE P-14 LINE (Accuracy 1%)

The Type P-14 portable instrument includes features of larger portable, including magnetic shielding, plus added advantages extremely light weight and smaller overall dimensions. Its accuracy, versatility and low cost make it ideal for field and radio testing. Up to 4 voltage or current ranges available

with multi-range scales. Combinations such as 3 current and voltage ranges in the same instrument make this an extremely versatile instrument. Measuring only 5 1/4" x 4 1/4" x 2 1/2"; both hinged cover and open-faced models are pocket size.

FULL SCALE RANGE OF STANDARD RATINGS

TYPE PA-14 FOR ALTERNATING CURRENT

Voltmeters	0-1.5 to 0-750
Ammeters	0-.5 to 0-50
Milliammeters	0-5 to 0-500

TYPE PX-14 FOR DIRECT CURRENT

Voltmeters	0-.75 to 0-800
Millivoltmeters	0-10 to 0-5,000
Ammeters	0-.5 to 0-50
Milliammeters	0-1 to 0-2,000
Microammeters	0-20 to 0-5,000

Also available in rectifier and thermocouple types.

(For Complete Ordering Information, See Catalog Section 43-100)

TYPE P-12 LINE (Accuracy 2%)

The Type P-12 line includes single and multiple range ratings for complete D-C and A-C current and voltage measurements. Provides the same high degree of reliability, overload capacity and range coverage contained in

larger types.

LIGHTWEIGHT: A-C instruments weigh from 1 to 1 1/2 lbs. D-C instruments from 1 1/2 to 2 lbs.

POCKET SIZE: A-C—4 1/4" x 3 1/4" x 2 1/8"; D-C—4 1/4" x 3 1/4" x 1 3/4".

FULL SCALE RANGE OF STANDARD RATINGS

TYPE PA-12 FOR ALTERNATING CURRENT

Self Contained Current—From 5 milliamperes to 50 amperes
Self Contained Voltage—From 1.5 volts to 300 volts. Also available in rectifier types.

TYPE PX-12 FOR DIRECT CURRENT

Self Contained Current—From 20 microamperes to 50 amperes
Self Contained Voltage—From 10 millivolts to 800 volts

(For Complete Ordering Information, See Catalog Section 43-100)

SWITCHBOARD INSTRUMENTS

Conform to A.S.A. Spec. No. C 39.1 MIL-M-16034A

24-LINE (Accuracy 1%)

4 1/2" Class—Circular Scale, Rectangular Front—Round-body Case for Flush Mounting. Because of its extra-long scale, the 24-Line instrument combines high readability with minimum panel space requirements, particu-

larly useful where panel area is at a premium. The pointer travel gives a scale length more than twice as long as other types which require the same panel space.

25-LINE (Accuracy 1%)

6" Class—Rectangular Case—Flush or Projection Mounting—Optional Internal Illumination. Westinghouse 25-Line instruments meet the requirements of many special installations. Simplicity of design, uniform appear-

ance, interchangeability and availability of movements for any measurements, make this instrument especially suited for modernization as well as for new installations.

FULL SCALE RANGE OF STANDARD RATINGS—24 and 25 LINES

DIRECT CURRENT

Ammeters—0-1 to 0-50 (self-contained)
Ammeters for use with shunts—0-50 or 0-100 millivolts
Voltmeters—0-2 to 0-800 (self-contained)
Milliammeters—0-1 to 0-500
Wattmeters—120 or 240 volts, 0-50 or 0-100 millivolts for external shunts. (25 line only)

ALTERNATING CURRENT

Ammeters—(24 line)—0-1 to 0-20 (self-contained)
(25 line)—0-1 to 0-50 (self-contained)
Ammeters for use with transformers—0-5
Voltmeters (24 line)—0-150 to 0-600 (self-contained)
(25 line)—0-15 to 0-800 (self-contained)
Voltmeters for use with transformers—150
Wattmeters for use with transformers—5 amperes—120 volts
Frequency meters—(24 line)—120 volts, 60 cycles
(25 line)—120 volts, 25 or 60 cycles

(For Complete Ordering Information, See Catalog Section 43-200)

YOU CAN BE SURE...IF IT'S

Westinghouse

P.O. BOX 868, PITTSBURGH 30, PA.

RECORDING INSTRUMENTS

Conform to A.S.A. Spec. No. C 39.2

TYPE 44 DIRECT ACTING STRIP CHART RECORDER (Accuracy 1%)

The new Type 44 Recorder was the result of an intensive design investigation aimed at providing the most modern combination of features obtainable today. The exclusive iron-core mechanisms provide highly efficient, positive performance with complete reliability. For ease of use and service, all parts are accessible from the front of the recorder. Operation for longer unattended periods is possible because

of longer charts and greater ink capacity. The high ratio of scale width to case width provides maximum efficiency of space utilization while assuring full readability. Choice of either synchronous-motor or hand-wound chart drives. Chart speed of $\frac{3}{4}$ ", $1\frac{1}{2}$ ", 3", 6", or 12" per hour or per minute. Available for switchboard or portable applications.

TYPE A ROUND CHART RECORDER (Accuracy 2%)

A low first-cost, low-maintenance recording instrument for a variety of applications where chart records of 2% accuracy are adequate for their purpose. Extra-sturdy construction makes this a particularly convenient instrument for field service jobs. Portable, switchboard

mounting, wall mounting or detachable socket-mounting cases are available. Scale length is 2 inches, but chart has suppressed zero scale with divisions comparable in size and readability to those of much longer scales.



TYPE 44 SWITCHBOARD RECORDER



TYPE A
PORTABLE
SWITCHBOARD
RECORDER

PANEL INSTRUMENTS

Conform to A.S.A. Spec. No. C 39.1 MIL-M-6A

33-Line (Accuracy 2%)— $2\frac{1}{2}$ " Class

35-Line (Accuracy 2%)— $3\frac{1}{2}$ " Class

37-Line (Accuracy 2%)— $4\frac{1}{2}$ " Class

Available for flush or projection mounting, with either round or rectangular flanges. Co-

ordinated styling permits the harmonious use of different sizes in the same application.

FULL SCALE RANGE OF STANDARD RATINGS — TYPES 33-35-37

DIRECT CURRENT

Ammeters	0-1 to 0-50
Milliammeters	0-1 to 0-800
Microammeters	0-20 to 0-800
Voltmeters	0-1 to 0-800
Millivoltmeters	0-10 to 0-500

ALTERNATING CURRENT

Ammeters (For frequencies of 15 to 500 cps)	0-1 to 0-50
Radio Frequency	0-1 to 0-20

Milliammeters

(For freq. of 15 to 500 cps)	0-5 to 0-500
Rectifier	0-1 to 0-10
Radio Frequency	0-10 to 0-800

Microammeters

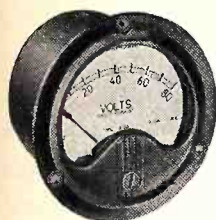
Rectifier	0-100 to 0-500
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Voltmeters

(For freq. of 25 to 125 cps)	0-1.5 to 0-800
Rectifier	0-3 to 0-300

DB Meters

Rectifier	Standard Scales
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N-33
FLUSH
MOUNTING



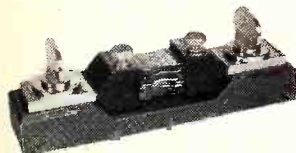
N-35
FLUSH
MOUNTING



N-37
FLUSH
MOUNTING



TUBULAR RESISTOR



PORTABLE SHUNT



CURRENT TRANSFORMER

AUXILIARY EQUIPMENT

SECTIONAL TUBULAR RESISTORS FOR D-C INSTRUMENTS:

The sectional construction of these resistors permits a wide range of accurate measurements of high voltages with one milliamper instrument. Resistance values $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ or 1 meg-

ohm are standard, and combinations of these may be easily and quickly put together to form any complete unit. Designed for panel mounting or portable use.

TYPE G AND GG SHUNTS FOR D-C MEASUREMENT:

Type G and GG shunts provide a complete line for use with indicating or recording instruments for measuring direct currents beyond the range of self-contained instruments.

Portable and switchboard types are available in 50 and 100 millivolt sizes with many different current ratings.

PORTABLE POTENTIAL AND CURRENT TRANSFORMERS:

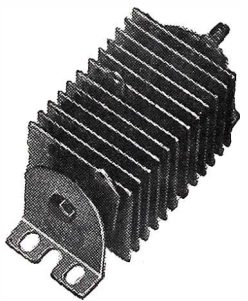
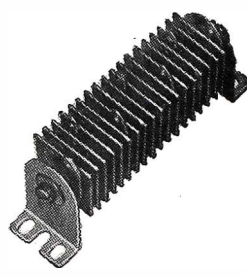
For measuring electrical quantities greater than the self-contained ranges for which the instruments are rated, these portable poten-

tial and current transformers offer a convenient and accurate means of increasing the usefulness of an instrument.

WESTINGHOUSE ELECTRIC CORPORATION, P. O. BOX 868, PITTSBURGH 30, PA.



SELENIUM RECTIFIERS MAGAMP



Westinghouse MAGAMP Selenium Rectifiers have three classifications according to reverse leakage current. The upper limits for Classes A, B and C are 0.3, 0.4 and 0.5 milliamperes per square inch respectively, at 15 volts 400 cycles per second. Table below lists the sizes that are available, giving the active area for each size, the rated half-wave forward current, the maximum limit for forward voltage drop, and the maximum leakage currents at 15 volts, 400 cycles for Classes A, B, and C rectifiers.

Although leakage limits are given here for 400 cycles per second, Westinghouse MAGAMP Selenium Rectifiers

are equally suitable for 60 cycle applications. The 60 cycle leakage current is approximately one-half the 400 cycle leakage current at any given voltage at room temperature.

Westinghouse Type K cells are tested individually and retested after assembly and sealing or treatment with a protective coating. Unless otherwise specified, the insulation of all rectifier assemblies is given a 60 cycle one minute withstand test, at twice the terminal voltage rating plus 1000 volts, between cell terminals and mounting brackets or case. Request Technical Data 52-650 for complete information.

CURRENT RATINGS AND ELECTRICAL LIMITS

CELL NUMBER	CELL SIZE INCHES	ACTIVE AREA SQUARE INCHES	ELECTRICAL CHARACTERISTICS—UPPER LIMITS							
			Rated Forward Current ¹ Milliamperes Half-Wave			Forward Voltage Drop ² Per Cell Half-Wave at Forward Current Shown	Reverse Leakage in Milliamperes Half-Wave at 15 RMS Volts, 400 Cycles ³			
			1-7 CELLS	8-9 CELLS	10-12 CELLS		FORWARD CURRENT MILLIAMPERES	VOLTS	CLASS A	CLASS B	CLASS C
11	1/8 Dia.	0.012	7.5	6	5	7.5	1.5	....	....	.007
12	1/4 Dia.	0.05	30	25	20	30	1.5	....	....	.028
			1-8 CELLS	9-20 CELLS	OVER 20 CELLS					
*21	1 x 1	0.5	125	95	80	80	.75	.15	.20	.25
*22	1.2 x 1.2	0.8	155	145	125	125	.75	.24	.32	.40
*23	1.5 x 1.5	1.5	300	280	240	240	.75	.45	.60	.75
*24	2 x 2	3.0	600	560	480	480	.75	.90	1.2	1.50
*25	3 x 3	7.0	1400	1300	1120	1120	.75	2.25	3.0	3.75

1. The manufacturer reserves the right to substitute rectifiers of a higher class when necessary to expedite orders unless "no substitution" is specified. The milliamperes limits shown determine the class designation.
 2. Leakage values at 60 cycles are approximately one-half the leakage values at 400 cycles at room temperatures.
 3. Applies to both 60 and 400 cycles at ambients up to 75°C.
 *Can be supplied in any desired cell combination for full-wave and bridge circuits.

YOU CAN BE SURE...IF IT'S

Westinghouse

P.O. BOX 868, PITTSBURGH 30, PA.

Hipernik



MAGNETIC METALS AND ALLOYS

Conpernik



Hiperco



Westinghouse Special Magnetic Alloys fill a variety of electrical and magnetic applications. These alloys provide a wide range of magnetic properties needed for many special requirements. For special needs these alloys will result in improved performance and are superior to the more common commercial magnetic materials.

Hipernik®—A magnetic alloy approximately equal proportions of iron and nickel having exceptionally high initial and maximum permeability and extremely low losses. Used in audio and instrument transformers, relays, magnetic bridges, shields for electronic tubes, etc.

Hipernik V®—A highly oriented magnetic alloy of approximately equal proportions of iron and nickel possessing a very high remanence accompanied by a low coercive force. This material is specifically designed for

saturable reactors and magnetic amplifiers.

Conpernik®—A magnetic alloy of approximately equal proportions of iron and nickel having constant permeability over a range of low flux densities. It is used where constant inductance cores are required over a low range of inductions.

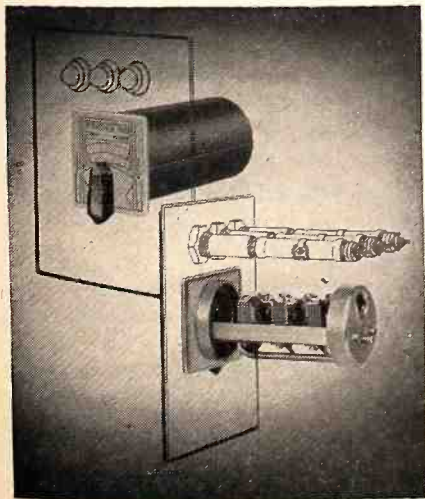
Hiperco®—A magnetic alloy of approximately one-third cobalt and two-thirds iron. Hiperco has the highest magnetic saturation of any known commercial alloy. Permeability above 100 oersteds is far superior to iron and the electrical sheet steels. It is used as a core material for motors, generators, and transformers where minimum weight and size are prime requisites.

Other Alloys Discaloy®, Refractaloy® and K42B® are three of the special high-temperature alloys developed by Westinghouse to meet special applications.

* Trademark

Request Technical Data 52-100 and 52-200 for complete information

INDICATING LIGHTS — SWITCHES



Rectangular Minalite® is a medium sized low-drain indicating light designed for extreme angular visibility and to provide the utmost in sturdiness, compactness, and appearance. Its design matches modern rectangular switchboard devices, such as instruments, relays and control switches. It is intended for general indicating or signal purposes on switchboards, control desks, etc.

Round Minalite® is a compact, medium-drain indicating lamp developed especially for miniature steel switchboards, providing the maximum illumination in the smallest possible space. Since some rigidity was sacrificed to obtain the long slender construction, which permits close center spacing between adjacent lamps, it is intended only for such applications where the wire size is not larger than No. 18.

Complete information on component parts, hardware, receptacles and resistors available are contained in Catalog Section 37-200, which will be sent free on request.

The Westinghouse Minatrol® Switch is a compact control switch of smaller dimensions than the conventional Type W control switch, designed particularly for use on miniature switchboards. It is available in forms to suit the varied requirements of control switch applications, and will handle the full control voltage without interposing relays. Its flexibility of application is practically the equivalent of the Type W switch.

Construction—The Minatrol is a rotary-type switch with the same design features which have made other rotary-type control switches outstanding in performance.

The switch handles 125 or 250-volt control circuits directly, using toggle switches with quick-make and quick-break contacts mounted in unit-construction frame. It occupies only about one-fourth of the switchboard space required by the conventional switch and has a pleasing appearance, unmarred by the mounting screws.

Performance—The current-carrying capacity and interrupting ability of the Minatrol is ample to handle the usual control circuit without the use of auxiliary interposing relays or intermediate control voltages. The switches are rated at six amperes continuous and can interrupt a non-inductive load of three amperes at 250 volts and six amperes at 125 volts d-c. The switch will interrupt highly inductive currents up to five amperes at 125 volts d-c or up to one ampere at 250 volts d-c. On a-c, values can be at least doubled at 250 volts maximum.

Classification—The Minatrol control switches are of two types:

1. Type C, for stay-put and spring return with fixed handles.
2. Type S, for stay-put with removable key handles.

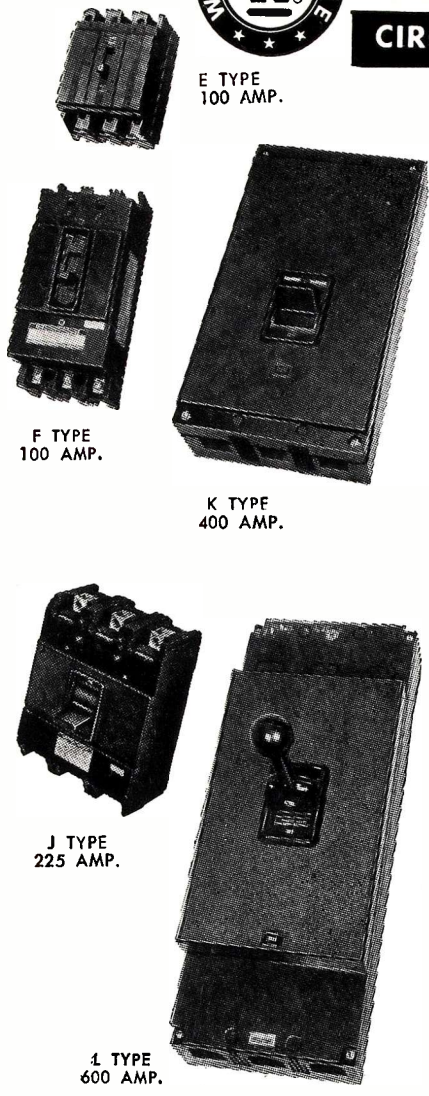
Two standard lengths are available, one to accommodate a maximum of four switch units, and the other a maximum of eight switch units. A special twelve-switch unit length is available on order. Request Catalog Section 37-175 for complete information.

WESTINGHOUSE ELECTRIC CORPORATION, P. O. BOX 868, PITTSBURGH 30, PA.



MODERN EQUIPMENT FOR MAINTENANCE-FREE ELECTRONICS USE

CIRCUIT BREAKERS AB De-ion®



E TYPE
100 AMP.

F TYPE
100 AMP.

K TYPE
400 AMP.

J TYPE
225 AMP.

L TYPE
600 AMP.

AB DE-ION CIRCUIT BREAKERS comprise a complete line of fuseless protective devices for distribution, power, lighting and electronic circuits. They are used in individual mountings, built-in applications, separate enclosures, switchboards and panelboards.

The sturdy moldarta breaker cases form complete self-enclosures, protecting workers and preventing tampering. Standard construction features are the De-ion arc quenchers, quick-make and quick-break mechanisms, and thermal-magnetic trip elements. Request Descriptive Bulletin 29-150.

FEATURES OF AB DE-ION CIRCUIT BREAKERS

	Quicklag-C Quicklag-P 1, 2 Pole	P-1** 1 Pole 2 Pole	E 1 2 Pole 3	F 2 3 Pole 4 #	G 2 3 Pole 4 #	J 2 3 Pole	K 2 3 Pole 4 #	KL 2 3 Pole	L 2 3 Pole	M 2 3 Pole
RATINGS										
Ampere ratings—Min. (U. L. Listed)—Max.	10 50	#10 50	15 100	15 130	50 100	70 225	70 225	125 400	125 600	700 800
A-C Voltage Ratings—Max.	120 120/240	120 120/240	120/277* 240	600	600	600	600	600	600	600
D-C Voltage Rating—Max		32	125 125/250 125/250	250	250	250	250	250	250	250
Underwriters Laboratories Interrupting Ratings—Amps	5,000		5,000 10,000*	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Interrupting Ratings Amps A.C.—Based on NEMA Test Procedures	5,000	5,000	7,500	600 15,000 VAC	15,000	15,000	25,000	25,000	25,000	25,000
			10,000*	480 15,000 VAC	15,000	20,000	25,000	30,000	35,000	35,000
				240 20,000 VAC	20,000	25,000	30,000	40,000	50,000	50,000

SPECIAL FEATURES (Partial List)

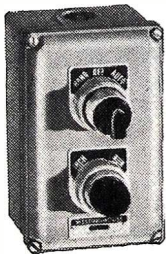
	Quicklag-C Quicklag-P 1, 2 Pole	P-1** 1 Pole 2 Pole	E 1 2 Pole 3	F 2 3 Pole 4 #	G 2 3 Pole 4 #	J 2 3 Pole	K 2 3 Pole 4 #	KL 2 3 Pole	L 2 3 Pole	M 2 3 Pole
Inst. Magnetic Trip Only			X	X	X	X	X	X	X	X
Non-Automatic		X	X	X	X	X	X	X	X	X
Shunt Trip			X	X	X	X	X	X	X	X
Undervoltage Trip			X	X	X	X	X	X	X	X
Auxiliary Switch		X	X	X	X	X	X	X	X	X
Alarm Switch			X	X	X	X	X	X	X	X
Mechanical Interlock			X	X	X	X	X	X	X	X
Reverse Current							X	X	X	X
Moisture-Fungus Treatment	X	X	X	X	X	X	X	X	X	X
Complete Electrical Operation						X	X	X	X	X
Enclosure Handle Mechanism			X	X	X	X	X	X	X	X

** Thermal Only.

Not U.L. Listed.

* Single-pole 15 and 20 amp ratings for 277/480 V A-C circuits. **

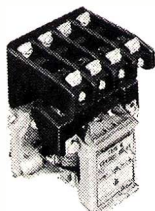
CONTROL DEVICES



TYPE OT
OIL TITE
CONTROL STATION
1 to 16 Unit Sizes
Available



OPEN
CONTACTOR



TYPE N
CONTROL RELAY

PUSHBUTTONS are available in a complete line of Standard, Heavy Duty, and Oil-Tite* units to meet the requirements of manufacturers of electronics equipment. The pushbuttons and selector switch units are rated for continuous current of 10 amperes—see Maximum Interrupting Capacity tabular example at right. For complete information as to types, sizes, interrupting capacities, etc.; request free Descriptive Bulletin 15-000.

type OT Oil-Tite pushbutton ratings
continuous rating—10 amperes

voltage	normal interrupting amperes	
	with pushbutton operator	with selector switch operator
110-125 A-C	6.0	6.0
220-250 A-C	3.0	3.0
440-480 A-C	1.5	1.5
550-600 A-C	1.2	1.2
115-125 D-C	2.2	2.2
230-250 D-C	1.1	0.55
550-600 D-C	0.4	0.2

CONTACTORS of the famous Westinghouse Life-Linecontactor® design are available in three general classes: Reversing Mounted Life-Linecontactors • Mounted Life-Linecontactors* • Unmounted Contactors.

transformers or special combinations of modifications to suit the user. E Standard pole combinations are available for 5 to 2,500 amperes, 600 volts maximum, a-c or d-c. Oil-immersed contactors operate up to 5,000 volts at 200 amperes.

In addition, they may be modified with built-in pushbuttons, selector switches, control

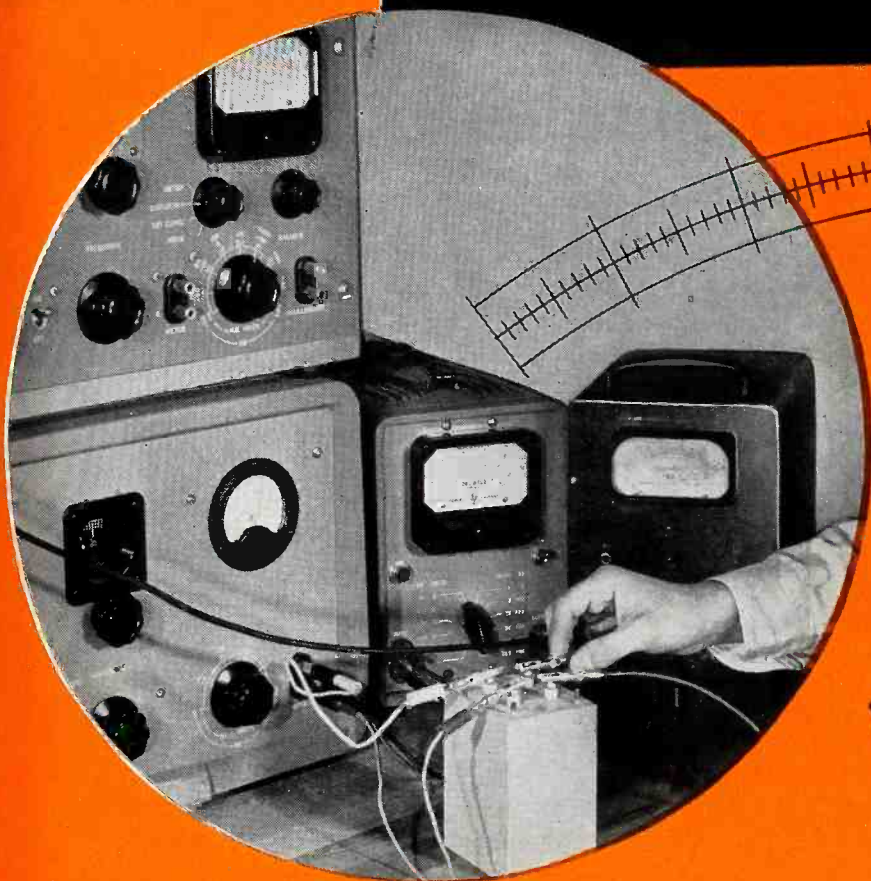
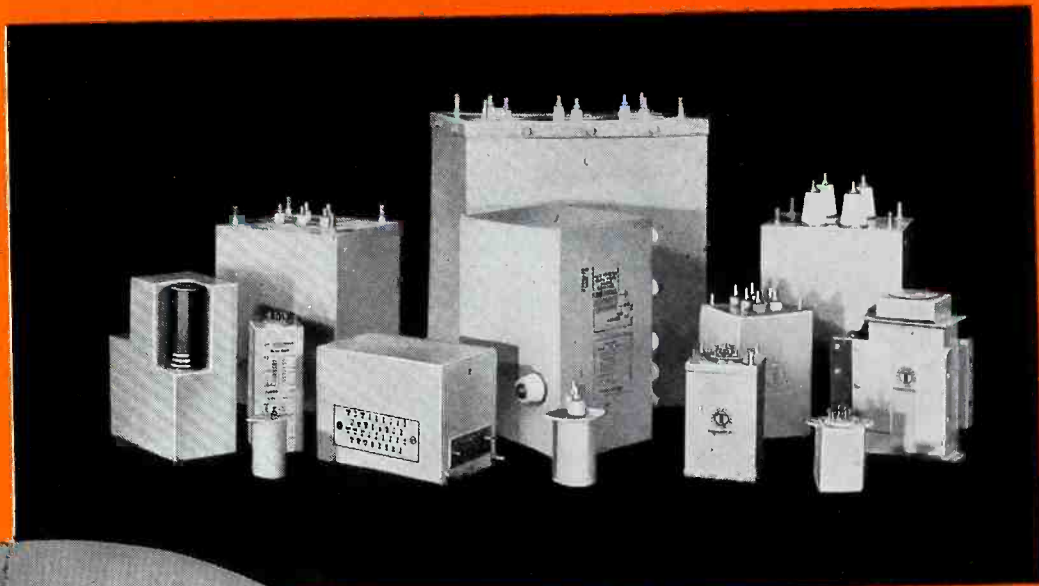
RELAYS built for heavy-duty service on industrial electronic equipment are offered in both a-c and d-c. Among the types available are: Thermal Overload • Magnetic Overload • Time Limit • Thermostatic • Auxiliaries • Mechanical • Multi pole • Shunt Coil • Vibrating.

In addition, complete control panels for special applications can be built to order. Write for Price Lists and Dimension Sheets 15-820 and 15-827 for expanded information on types, sizes and ratings.

YOU CAN BE SURE...IF IT'S

Westinghouse

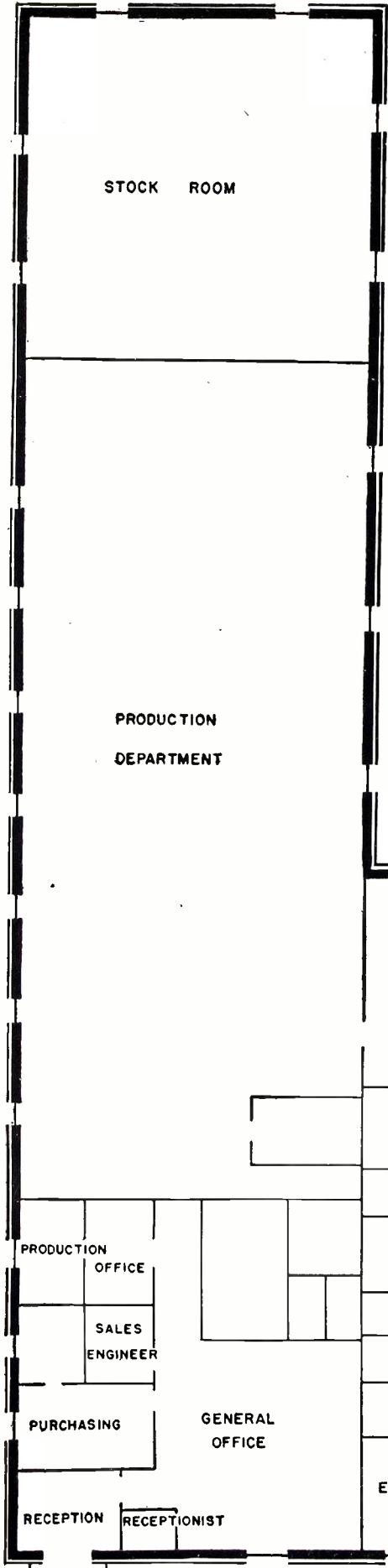
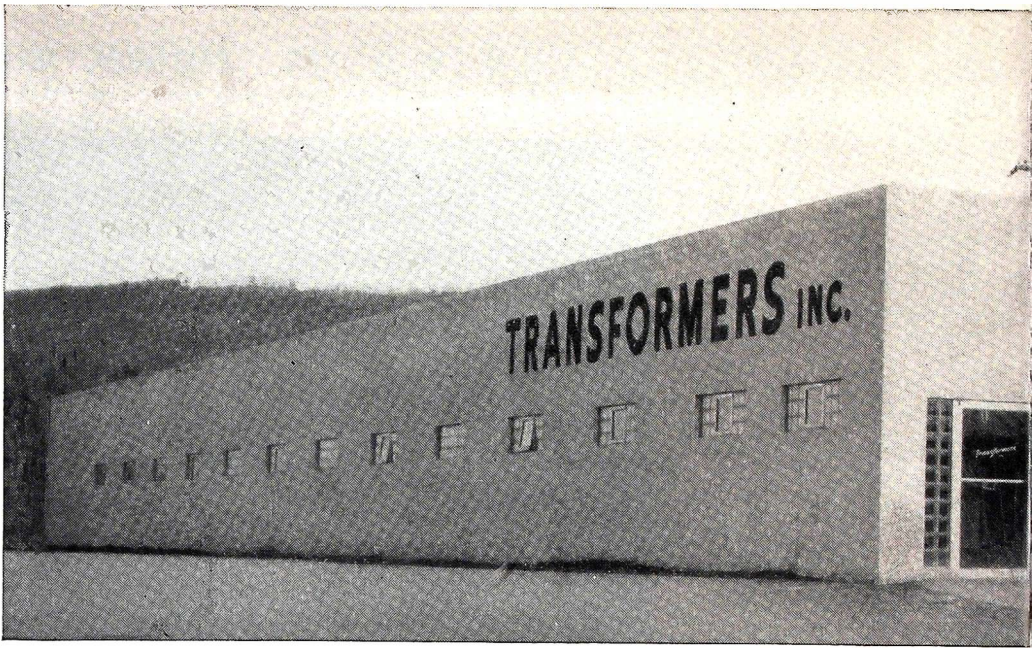
P.O. BOX 868, PITTSBURGH 30, PA.



Lab-Tested
SPECIAL PURPOSE
HIGH PRECISION
TRANSFORMERS

T R A N S F O R M E R S I N C O R P O R A T E D

200 STAGE ROAD • VESTAL, NEW YORK



The New TRANSFORMERS, INC. Plant

Functionally Designed for the Manufacture of Transformers

Manufacturing transformers requires special equipment which is unique in that it cannot be used for other purposes. In the layout of the plant of Transformers, Inc., three objectives have been closely aimed for: a laboratory capable, not only of measuring all the parameters of transformers, but making measurements on all types of electronic equipment in which transformers are to be used. The second objective was a Prototype plant or Sample Department complete and independent of the Production Department. The third objective was manufacturing space laid out in such a manner that complete control can be maintained on the quality of the transformer while it is in the various stages of manufacture.

The floor plan on the left shows Transformers, Inc. successfully achieved its purpose. The plant is so laid out that an easy flow of production is assured and supervision can be maintained with the least effort. All three objectives have been achieved at Transformers, Inc.

SCALE
1" = 25'



SPECIAL PURPOSE TRANSFORMERS

VOLTAGE REFERENCE
COMPUTER EXCITATION
voltage accuracy up to .001 %

•
INSTRUMENT

AUDIO

PULSE

HYBRID

POWER

and all the sub-classifications

MAGNETIC AMPLIFIERS

RATIOMETERS

BRIDGES

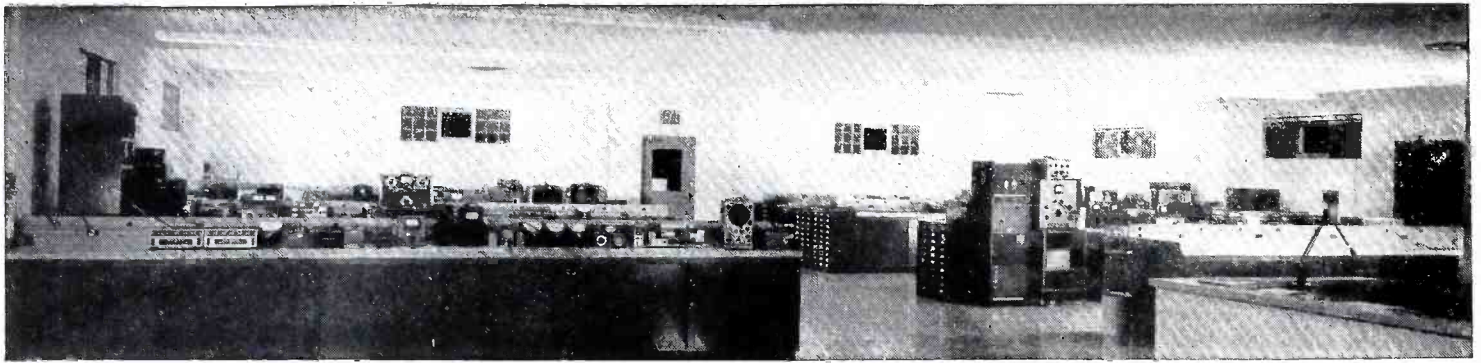
and special test equipment

.....to meet today's critical requirements demands highly specialized skills and equipment

The accuracy required in voltage reference transformers and computer excitation transformers demands exacting specifications, supervision and material control. In order that high precision transformers be acceptable they must have predictable performance for all temperature and load conditions. A specialized method has been developed at Transformers, Inc. to make this possible. The measurement of voltage ratio is not sufficient, data must be also obtained which will indicate in which manner the variables of a particular transformer is effected by temperature and changes in the load.

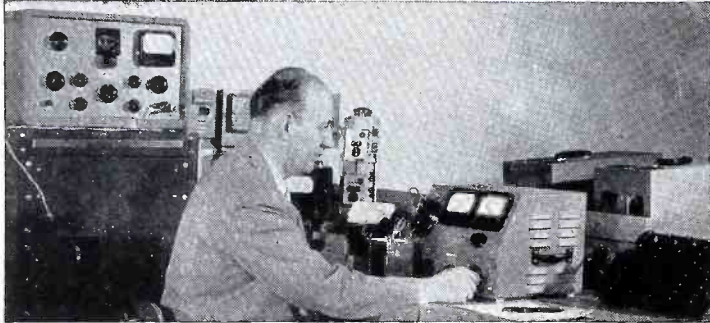
MINIATURIZATION

Airborne equipment may require the same accuracy as ground equipment with the additional requirement of miniaturization. Miniaturization can only be achieved by the use of higher operating temperatures with a resulting loss of efficiency. Thus highly accurate transformers can be designed and manufactured which operate at very high temperatures and are extremely small. Methods of encapsulating transformers in order to reduce weight have been developed at Transformers, Inc.

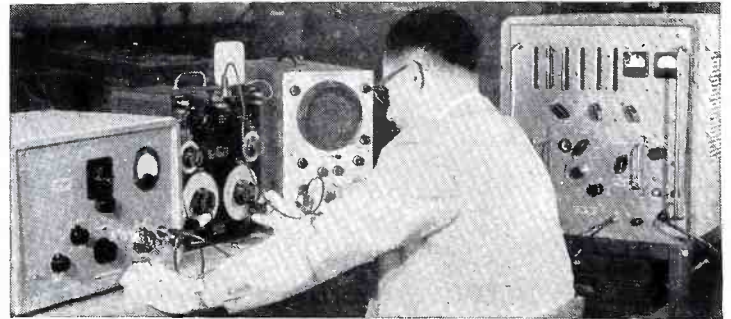


General laboratory covers approximately 5,000 sq. ft., has the necessary equipment to make measurements from .01 cycles to 50 megacycles. Sections of the Lab. on succeeding pages show specific test set-ups. There is sufficient equipment available that all the set-ups can be operated simultaneously without interference.

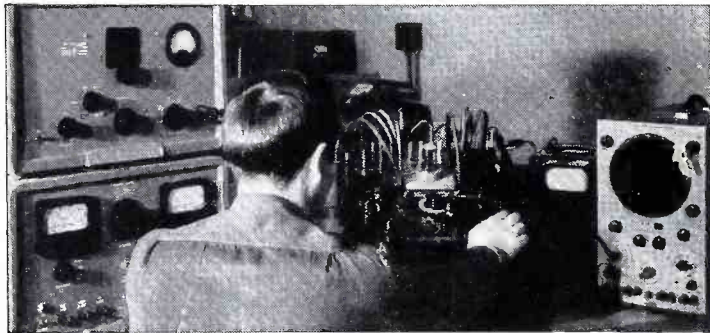
TESTING TECHNIQUES AT TRANSFORMER, INC.



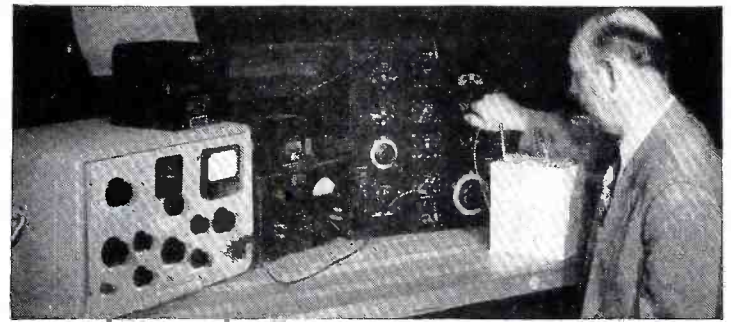
Measurement of core loss. The set-up as shown can measure power from 10 microwatts full scale to 9 kilowatts full scale at any frequency from 30 cycles to 20 kilocycles.



The measurement of impedance or admittance. This set-up as shown is used in the measurement of leakage inductance. It is used for measuring real and imaginary impedances or admittances of "black boxes."



Measurement of vacuum tube and transistor characteristics.



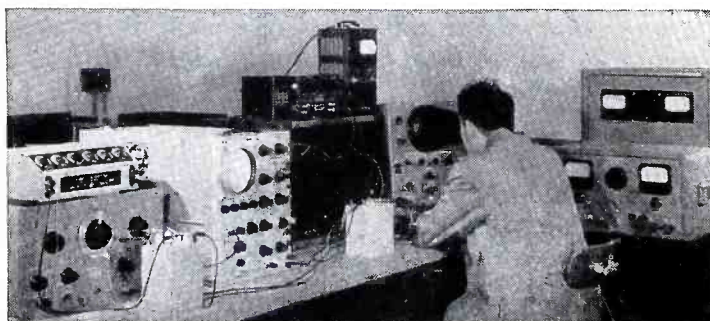
Measurement of inductance.



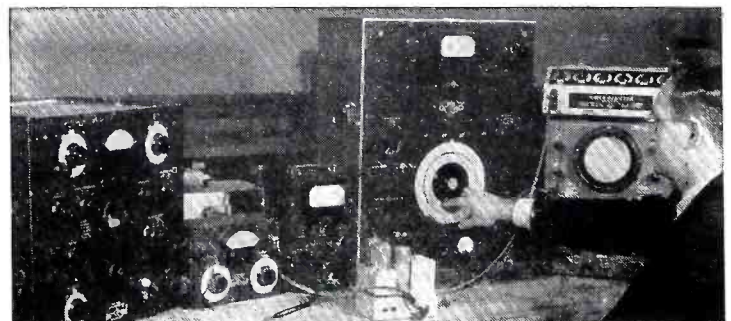
The measurement of filter characteristics as an aid in the design of the most efficient and economical filters.



Testing pulse transformers. This set-up can simulate the operating conditions of pulse transformers up to one million volts.



Equipment used in the design of pulse transformers to eliminate the "cut and try" method generally employed.



Intermodulation distortion measurements and frequency response measurements of experimental amplifiers employing our transformers.

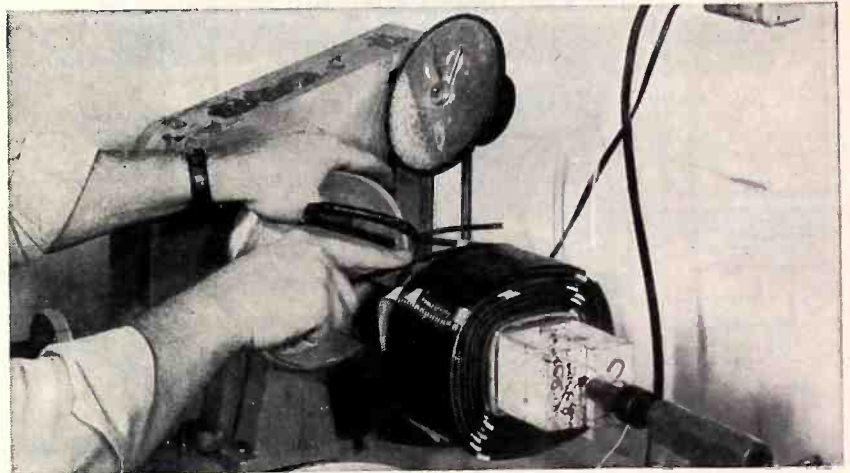


A detailed view of the automatic winding machines.

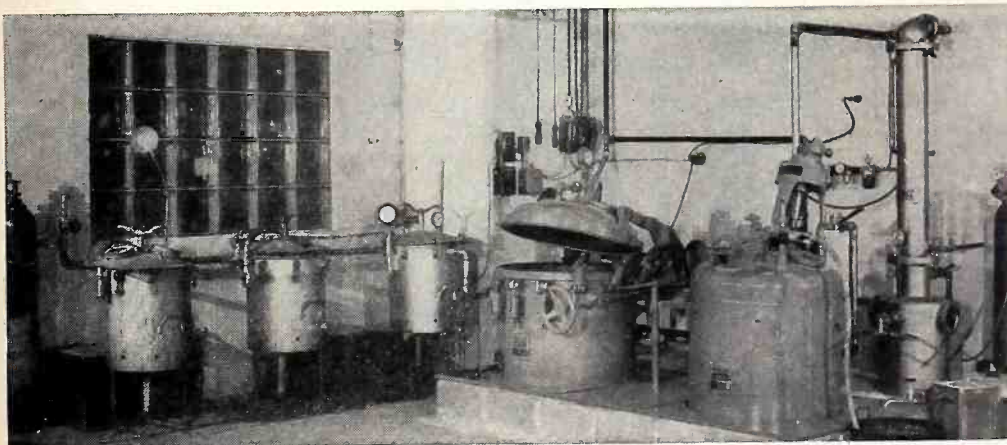
MEASURED ACCURACY IN TRANSFORMER WINDING



SEMI-AUTOMATIC WINDING MACHINE (PROTOTYPE WORK). The Prototype and Sample Department covers approximately 2,500 square feet and is completely equipped to perform all operations from winding to finishing independently of the Production Department.



HAND WINDING OF VERY HEAVY WIRE. The proper tension is obtained by a tension device behind the operator.

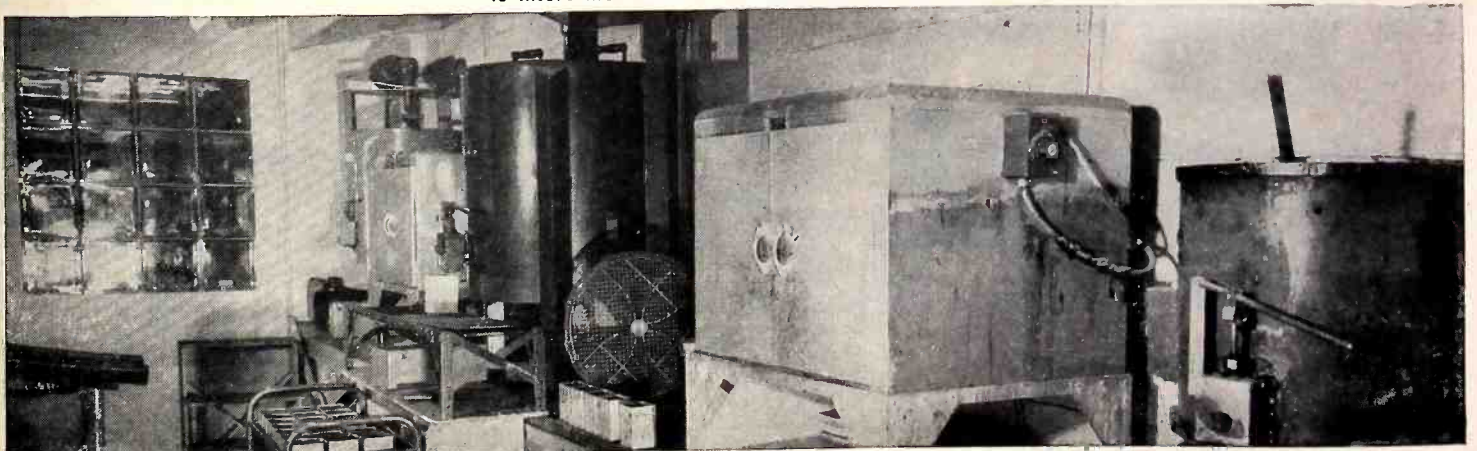


VACUUM IMPREGNATION

Production vacuum impregnated in these tanks and then subjected to a pressure of 100 lbs. per square inch while they are still submerged in the varnish. This insures complete penetration of the varnish. The multiplicity of tanks permits simultaneous vacuum impregnation with different resins.

TRANSFORMER POTTING

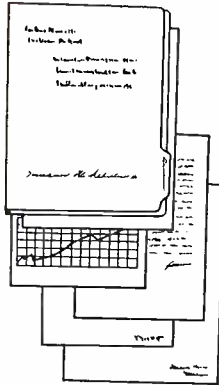
A section of the Production Potting Department. All transformers are pre-heated prior to potting to insure the removal of moisture and the absence of voids.



When ordering or seeking information please mention *Electronics Buyers' Guide*.

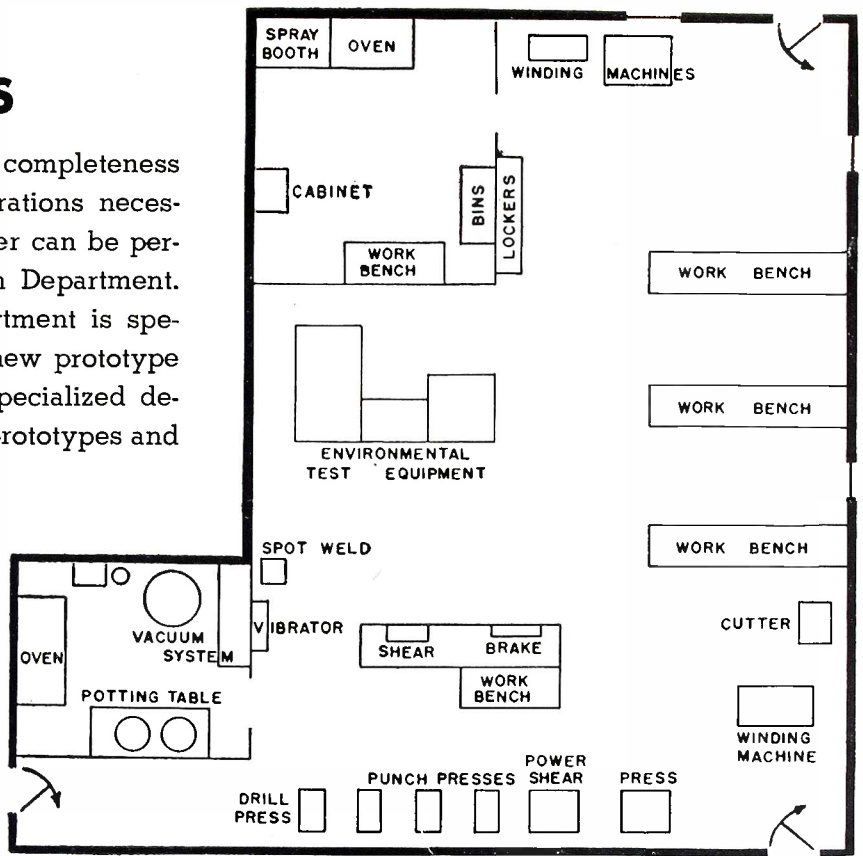
PRETESTED PROTOTYPES

The floor plan on the right shows the completeness of our Prototype Department. All operations necessary to the manufacture of a transformer can be performed independent of the Production Department. The personnel in the Prototype Department is specially trained to follow the design of new prototype transformers accurately. This highly specialized department is at your service to produce prototypes and samples at short notice.



COMPREHENSIVE PROTOTYPE REPORTS

Test data and design data are accurately maintained in files of all transformers manufactured by Transformers, Inc. This data makes possible repeat orders without delay or additional costs.

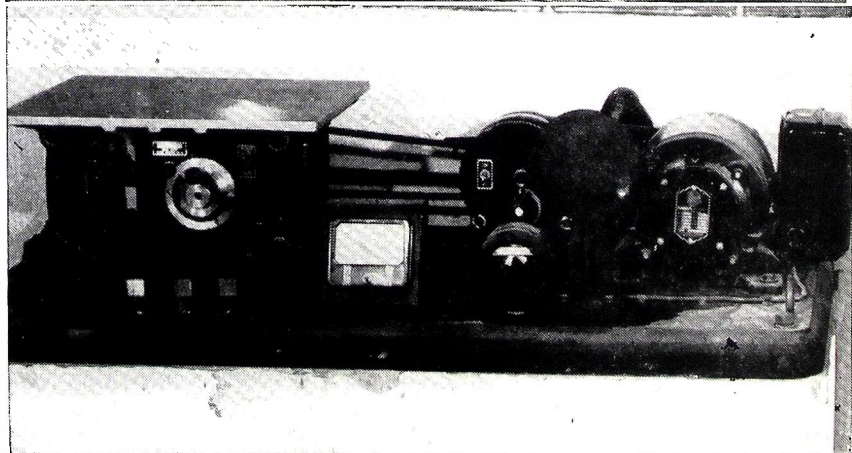
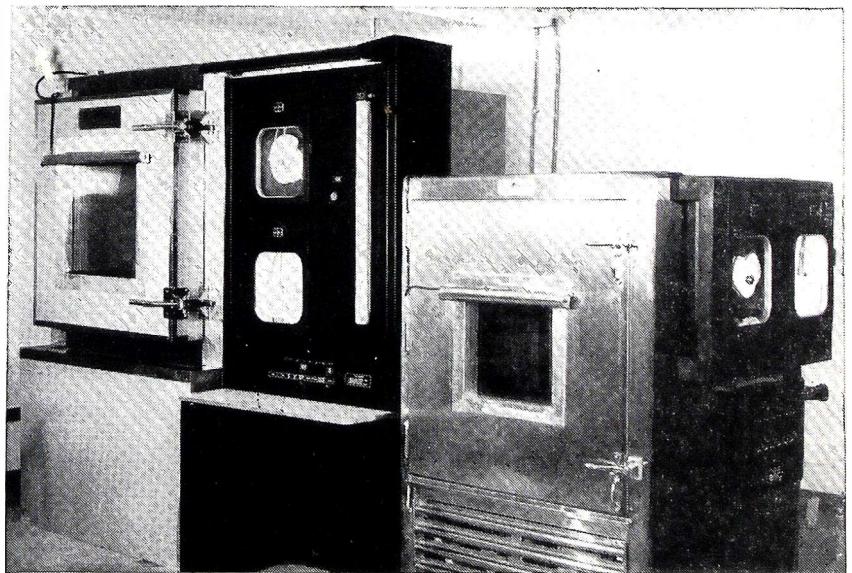


PROTOTYPE AND SAMPLE DEPARTMENT

ENVIRONMENTAL TESTING

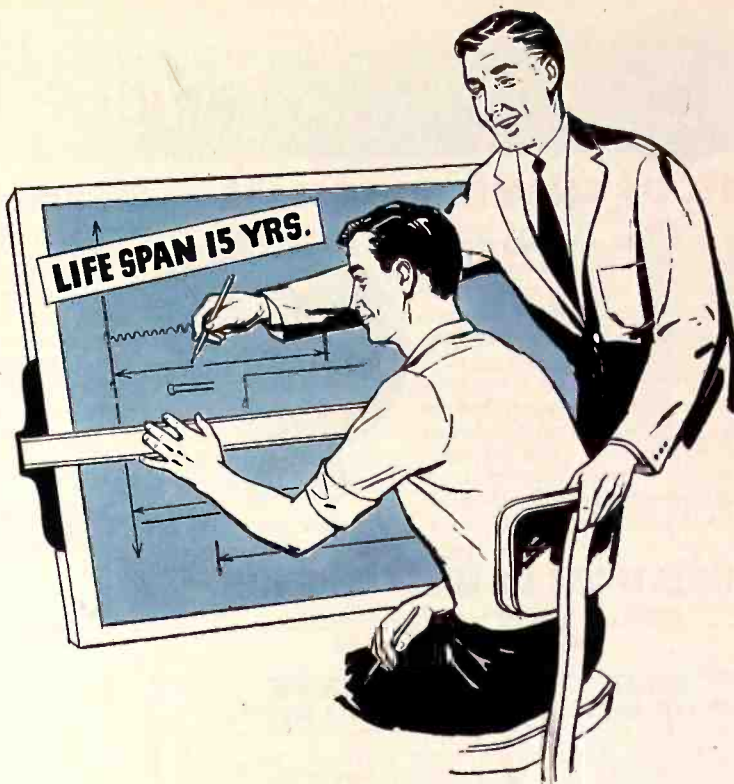
One chamber performs MIL-T-27 humidity cycling and Monmouth cold shock. Another chamber is a combination altitude and extreme cold chamber. Altitude up to 100,000 feet can be simulated. Temperatures as low as 100 degrees below zero fahrenheit can be readily obtained. Another installation not yet completed will perform vibration testing up to 3,000 cycles at any simulated altitude up to 125,000 feet and at any temperature from 125 degrees below zero to 190 degrees above zero.

Transformers, Inc. environmental test chambers are shown in the photographs at the right, above. The photo below shows the low frequency vibration testing.



200 STAGE ROAD
VESTAL • NEW YORK

planning
on
**LONG
LIFE?**



El-Menco DUR-MICA Capacitors will match your equipment's life expectancy to at least 15 years!

A recent series of the toughest trials has proved El-Menco DM15, DM20 and DM30 Dur-Mica Capacitors outlast all others. Accelerated conditions of 1 1/2 times rated voltage at ambient temperature of 125° centigrade found El-Menco capacitors still going strong after 10,000 hours. Similar conditions obtaining under normal usage would equal a lifetime of over 15 years!

Tougher phenolic casing means longer life, greater stability, over wide temperature range.

Meet all humidity, temperature, and electrical requirements of both civilian and MIL-C-5 specs.

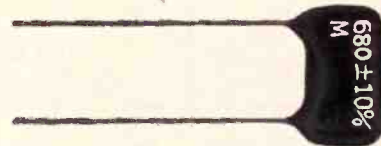
Parallel leads simplify use in television, electronic brains, miniature printed circuits, computers, guided missiles, and other civilian and military applications.

DM15



Actual Size

DM20



El-Menco Dur-Mica DM15, DM20, and DM30 Capacitors Assure:

- | | |
|-----------------|--------------------------------------|
| 1. LONGER LIFE | 4. EXCELLENT STABILITY-SILVERED MICA |
| 2. POTENT POWER | 5. PEAK PERFORMANCE |
| 3. SMALLER SIZE | |

Tell us your specific needs. Write for FREE samples and catalog on your firm's letterhead.



Take Your Own Word For It. Test El-Menco Dur-Mica Capacitors Yourself.



THE ELECTRO-MOTIVE MFG. CO., INC.

WILLIMANTIC, CONNECTICUT

- molded mica • mica trimmer
- tubular paper • ceramic

Jobbers and distributors write to Arco Electronics, Inc., 103 Lafayette St., New York, N. Y.

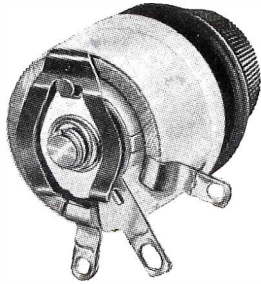
When ordering or seeking information please mention Electronics Buyers' Guide.



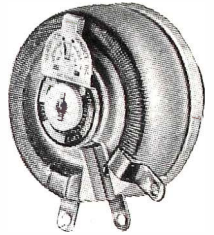
HARDWICK-HINDLE : RESISTORS • RHEOSTATS

VITREOUS ENAMEL RHEOSTATS — Insulated shafts and mounting bushings

Type A-25 — Will withstand rugged treatment under adverse conditions. Has unusually smooth mechanical operation. Terminals of strong corrosion resistant alloy; permanently welded to winding form. Wound ring integral part of refractory base with vitreous enamel. Phosphor bronze actuating arm with graphite brush for smoothest action; excellent electrical control. Shafts insulated. 3 terminals for potentiometer or rheostat use. Added safety factor with new high temp. gray enamel.



Types H-50, H-100, H-150 give longer service, greater protection. Designed for extremes of humidity and abnormal atmospheric conditions. Unique "buss bar" brush automatically adjusts tension for continuous contact. Eliminates backlash; no binding. Perfect contact with winding surface. New High temp. gray enamel bonding increases safety factor and overall service. Improved rheostats comply with current standards of Military Specs MIL-R-22; RETMA, NEMA; listed by Underwriters Laboratories, Inc.



TABLES OF SIZES AND RATINGS OF RHEOSTATS

Tables on request for 5 higher wattage models — 225 to 1000 watts.

TYPE A-25 25 WATT RHEOSTAT				TYPE H-50 50 WATT RHEOSTAT			
Stock No.	Total Ohms	Max. Amps.*	Approx. No. Steps	Stock No.	Total Ohms	Max. Amps.*	Approx. No. Steps
0201	0.50	7.06	17	0301	0.50	10.0	25
0202	0.75	5.77	17	0302	0.75	8.16	25
0203	1.0	5.00	17	0303	1.0	7.06	52
0204	1.5	4.08	34	0304	1.5	5.77	52
0205	2.5	3.16	34	0305	2.5	4.48	52
0206	5.0	2.22	34	0306	5.0	3.16	52
0207	7.5	1.82	34	0307	7.5	2.58	52
0208	10	1.58	90	0308	10	2.22	98
0209	15	1.29	90	0309	15	1.82	98
0210	25	1.00	100	0310	25	1.41	98
0211	50	0.706	100	0311	50	1.00	129
0212	75	0.577	135	0312	75	0.816	153
0213	100	0.500	112	0313	100	0.706	157
0214	150	0.408	146	0314	150	0.577	187
0215	250	0.316	146	0315	250	0.448	258
0216	500	0.222	180	0316	500	0.316	308
0217	750	0.182	214	0317	750	0.258	294
0218	1000	0.158	248	0318	1000	0.222	390
0219	1500	0.129	292	0319	1500	0.182	364
				0320	2500	0.141	485
				0321	5000	0.100	590
				0322	7500	0.082	714
				0323	10000	0.070	750

TYPE H-100 100 WATT RHEOSTAT				TYPE H-150 150 WATT RHEOSTAT			
Stock No.	Total Ohms	Max. Amps.*	Approx. No. Steps	Stock No.	Total Ohms	Max. Amps.*	Approx. No. Steps
0401	0.50	14.2	30	0501	0.50	17.30	26
0402	0.75	11.6	30	0502	0.75	14.10	30
0403	1.0	10.0	30	0503	1.00	12.25	40
0404	1.5	8.16	30	0504	1.5	10.00	37
0405	2.5	6.34	54	0505	2.5	7.75	39
0406	5.0	4.48	54	0506	5.0	5.48	79
0407	7.5	3.66	54	0507	7.5	4.47	75
0408	10	3.16	54	0508	10	3.88	77
0409	15	2.58	112	0509	15	3.16	151
0410	25	2.00	108	0510	25	2.45	151
0411	50	1.42	127	0511	50	1.73	192
0412	75	1.16	151	0512	75	1.41	224
0413	100	1.00	160	0513	100	1.22	204
0414	150	0.816	190	0514	150	1.00	280
0415	250	0.634	250	0515	250	0.775	252
0416	500	0.448	302	0516	500	0.548	362
0417	750	0.366	303	0517	750	0.447	378
0418	1000	0.316	317	0518	1000	0.388	398
0419	1500	0.258	375	0519	1500	0.316	483
0420	2500	0.200	494	0520	2500	0.245	635
0421	5000	0.141	640	0521	5000	0.173	790
0422	7500	0.115	760	0522	7500	0.141	940
0423	10000	0.100	740	0523	10000	0.122	1020

* Thru all or any part of winding. Diameter of base: 1-9/16". Depth behind panel: 1-11/32". Mounting: Single hole for 3/8" bushing. Shaft: 1/4" diameter, projecting 1/2" beyond bushing. Standard Bushing: Will take panels up to 1/4". Mechanical Rotation: 285 Degrees. Non-Turn Feature: Standard position as shown. Changed on request. Terminals: Holes for No. 4 screw.

* Thru all or any part of winding. Diameter of base: 2 3/8". Depth behind panel: 1-7/16". Mounting: Single hole for 3/8"-32 bushing. Shaft: 1/4" diameter, projecting 1/2" beyond bushing. Standard Bushing: Will take panels up to 1/4". Mechanical Rotation: 300 Degrees. Non-Turn Feature: Standard position as shown. Changed on request. Furnished with or without knob. Terminals: Holes for No. 8 screw.

* Thru all or any part of winding. Diameter of base: 3 1/8". Depth behind panel: 1-23/32". Mounting: Single hole for 3/8"-32 bushing. Shaft: 1/4" diameter, projecting 1/2" beyond bushing. Standard Bushing: Will take panels up to 1/4". Mechanical Rotation: 300 Degrees. Non-Turn Feature: Standard position as shown. Changed on request. Furnished with or without knob. Terminals: Holes for No. 8 screw.

* Thru all or any part of winding. Diameter of base: 4". Depth behind panel: 1-31/32". Mounting: Two holes as shown 10-32 x 5/8" screws furnished. Shaft: 1/4" diameter, projecting 1/2" beyond bushing. Standard Bushing: Will take panels up to 1/4". Mechanical Rotation: 300 Degrees. Non-Turn Feature: For single hole mounting supplied on request. Furnished with or without knob. Terminals: Hole for No. 8 screw.

TABLE OF RATINGS for FIXED VITREOUS ENAMELED RESISTORS

25 WATT SIZE Type 2B-35 2" Long x 5/8" O.D. Mounting Centers 2 1/2"			40 WATT SIZE Type 3 1/2 L-35 3 1/2" Long x 3/4" O.D. Mounting Centers 4"		
Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.
1001	5	2225	2001	5	2830
1002	10	1580	2002	10	2000
1003	25	1000	2003	25	1260
1004	50	700	2004	50	895
1005	75	575	2005	75	730
1006	100	500	2006	100	635
1007	150	410	2007	150	518
1008	200	353	2008	200	448
1009	250	316	2009	250	400
1010	500	224	2010	500	283
1011	750	182	2011	750	230
1012	1000	158	2012	1000	200
1013	1500	129	2013	1500	163
1014	2000	112	2014	2000	140
1015	2500	100	2015	2500	125
1016	3000	91	2016	3000	115
1017	3500	85	2017	4000	100
1018	4000	79	2018	5000	90
1019	5000	71	2019	7500	73
1020	6000	64	2020	10000	63
1021	7500	57	2021	12500	56
1022	10000	50	2022	15000	52
1023	12000	44	2023	20000	45
1024	15000	40	2024	25000	40
1025	20000	26	2025	35000	33
1026	25000	23	2026	50000	28

80 WATT SIZE Type 6 1/2 L-35 6 1/2" Long x 3/4" O.D. Mounting Centers 7"			160 WATT SIZE Type 8 1/2 F-35 8 1/2" Long x 1 1/8" O.D. Mounting Centers 9 3/8"		
Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.
3001	5	4000	4001	5	5660
3002	10	2830	4002	10	4000
3003	25	1790	4003	25	2530
3004	50	1260	4004	50	1788
3005	75	1030	4005	75	1460
3006	100	890	4006	100	1260
3007	250	565	4007	150	1030
3008	500	400	4008	250	800
3009	1000	283	4009	500	566
3010	1500	231	4010	750	461
3011	2000	200	4011	1000	400
3012	2500	179	4012	1500	326
3013	3000	163	4013	2000	282
3014	4000	141	4014	2500	253
3015	5000	126	4015	3000	231
3016	7500	103	4016	5000	179
3017	10000	89	4017	7500	146
3018	15000	73	4018	10000	126
3019	20000	63	4019	15000	105
3020	25000	56	4020	20000	89
3021	30000	52	4021	25000	80
3022	35000	48	4022	30000	73
3023	40000	45	4023	40000	63
3024	50000	40	4024	50000	56
3025	60000	36	4025	75000	46
3026	75000	32	4026	100000	40

with mounting brackets

Five stock sizes fill great variety of applications. Ratings in accordance with NEMA standards, based on temperature rise of 300° C. in free air. Data on types, sizes and values not listed here and for resistors with intermediate taps, special mountings, etc. furnished on request.

200 WATT SIZE Type 10 1/2 F-35 10 1/2" Long x 1 1/8" O.D. Mounting Centers 11 3/8"

Stock No.	Ohms	Max. Milli-Amps.
5001	5	6310
5002	10	4470
5003	25	2830
5004	50	2000
5005	75	1635
5006	100	1414
5007	150	1155
5008	250	895
5009	500	632
5010	750	515
5011	1000	447
5012	1500	365
5013	2000	315
5014	2500	283
5015	3000	258
5016	5000	200
5017	7500	163
5018	10000	140
5019	15000	115
5020	20000	100
5021	25000	90
5022	30000	81
5023	40000	70
5024	50000	63
5025	75000	51
5026	100000	44

RATING—current ratings shown for all Rheostats are for use in free air. When units are enclosed values should be reduced about 50%. Data on non-stock Rheostats—special shafts and bushings; values intermediate to those listed; tapered windings; tandem assemblies, etc., furnished upon request.

When ordering or seeking information please mention Electronics Buyers' Guide.

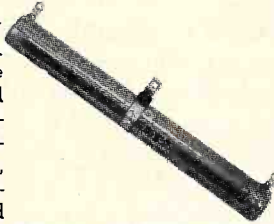
HARDWICK-HINDLE : RESISTORS • RHEOSTATS



ADJUSTABLE VITREOUS ENAMELED RESISTORS

with mounting brackets

Resistor possesses the many advantages of Vitreous Enamel Construction, plus an adjustable feature. Winding closely and evenly spaced, giving ample insulation between turns. Where winding appears exposed in track, underside tightly embedded in enamel, upper surface only exposed for contact with adjustable band. All sizes of Adjustable Resistors listed here, furnished complete with mounting brackets and one adjustable contact band.



BLUE RIBBON RESISTORS

Differ from tubular types. Wound on elliptical core. Aluminum bar through center insures even distribution of heat, avoiding hot spots. Gray enamel eliminates crazing which results in failure of resistive element due to moisture penetration from humidity, salt and other severe atmospheric conditions. Mounting studs—corrosion and rust resistant—peened to ends of thru-bar conduct heat to mounting surface. Stack 2 or more units. Method of fastening tube to thru-bar prevents loosening. Compared with tubular units of equivalent rating, these resistors offer: higher wattage rating per unit space requirement; needs less space; simple sturdy mounting; single or stacked; light weight; lower inductance. Designed for and made in accordance with MIL-R-26 specs.



TABLE OF RATINGS

25 WATT SIZE Type K-25 2" Long x 5/8" O.D. Mount. Centers 2 1/2"			50 WATT SIZE Type K-50 4 1/2" Long x 5/8" O.D. Mount. Centers 5"			75 WATT SIZE Type K-75 6" Long x 5/8" O.D. Mount. Centers 6 1/2"		
Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.
6001	1	5000	7001	5	3160	8001	5	3870
6002	2	3540	7002	10	2240	8002	10	2730
6003	3	2890	7003	25	1420	8003	15	2230
6004	5	2240	7004	50	1000	8004	25	1730
6005	10	1580	7005	75	815	8005	50	1220
6006	20	1140	7006	100	700	8006	100	865
6007	25	1000	7007	200	500	8007	200	612
6008	50	700	7008	250	447	8008	300	500
6009	75	550	7009	300	406	8009	400	424
6010	100	500	7010	400	350	8010	500	387
6011	200	350	7011	500	316	8011	750	316
6012	300	289	7012	750	258	8012	1000	274
6013	400	250	7013	800	250	8013	1500	223
6014	500	224	7014	1000	224	8014	2000	193
6015	750	182	7015	1500	183	8015	2500	173
6016	800	177	7016	2000	158	8016	3000	158
6017	1000	158	7017	2500	141	8017	4000	137
6018	1250	141	7018	3000	129	8018	5000	122
6019	1500	129	7019	4000	112	8019	6000	112
6020	2000	112	7020	5000	100	8020	7000	103
6021	2500	100	7021	6000	91	8021	7500	100
6022	3000	91	7022	7000	84	8022	10000	86
6023	3500	84	7023	7500	81	8023	15000	70
6024	4000	79	7024	8000	79	8024	20000	61
6025	5000	70	7025	9000	74	8025	25000	55
6026	6000	64	7026	10000	70	8026	30000	50
6027	7000	60	7027	12000	64	8027	40000	43
6028	8000	56	7028	15000	57	8028	50000	39
6029	10000	50	7029	20000	48	8029	60000	35
6030	15000	40	7030	25000	43	8030	80000	30
6031	20000	35	7031	30000	41	8031	100000	25
6032	25000	31	7032	40000	35			
			7033	50000	30			

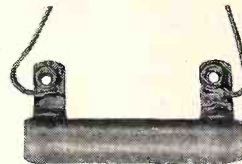
100 WATT SIZE Type K-100 6 1/2" Long x 1 1/8" O.D. Mount. Centers 7 3/4"			160 WATT SIZE Type K-160 8 1/2" Long x 1 1/8" O.D. Mount. Centers 9 3/4"			200 WATT SIZE Type K-200 10 1/2" Long x 1 1/8" O.D. Mount. Centers 11 3/8"		
Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.
9001	5	4470	9030	5	5660	9060	5	6310
9002	10	3160	9031	10	4000	9061	10	4470
9003	25	2000	9032	25	2530	9062	25	2830
9004	50	1414	9033	50	1788	9063	50	2000
9005	100	1000	9034	100	1266	9064	100	1414
9006	250	630	9035	250	800	9065	250	890
9007	500	445	9036	500	566	9066	500	632
9008	1000	316	9037	1000	400	9067	1000	445
9009	1500	257	9038	1500	335	9068	2500	280
9010	2500	200	9039	2500	253	9069	5000	200
9011	5000	140	9040	5000	179	9070	10000	140
9012	10000	100	9041	10000	126	9071	15000	115
9013	15000	81	9042	15000	105	9072	20000	100
9014	20000	70	9043	20000	89	9073	25000	90
9015	25000	63	9044	25000	80	9074	30000	81
9016	30000	57	9045	30000	73	9075	40000	70
9017	40000	50	9046	40000	63	9076	50000	63
9018	50000	44	9047	50000	56	9077	75000	51
9019	75000	36	9048	75000	46	9078	100000	44
9020	100000	31	9049	100000	40			

TABLE OF RATINGS

TYPE 1 1/4" B 30 Watt Rating * Mount. Centers 2"			TYPE 2" B 40 Watt Rating * Mount. Centers 2 3/4"			TYPE 3 1/2" B 55 Watt Rating * Mount. Centers 4 1/4"			TYPE 6" B 75 Watt Rating * Mount. Centers 6 3/4"		
Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.
B101	5	2450	B201	5	2830	B301	5	3320	B601	5	3880
B102	10	1730	B202	10	2000	B302	10	2350	B602	10	2750
B103	15	1410	B203	15	1640	B303	15	1920	B603	15	2240
B104	25	1090	B204	25	1260	B304	25	1480	B604	25	1730
B105	50	770	B205	50	890	B305	50	1050	B605	50	1220
B106	100	550	B206	100	630	B306	100	740	B606	100	860
B107	150	440	B207	150	510	B307	150	600	B607	150	710
B108	250	340	B208	250	400	B308	250	470	B608	250	550
B109	500	245	B209	500	283	B309	500	332	B609	500	388
B110	1000	173	B210	1000	200	B310	1000	235	B610	1000	275
B111	1500	141	B211	1500	164	B311	1500	192	B611	1500	224
B112	2500	109	B212	2500	126	B312	2500	148	B612	2500	173
B113	5000	77	B213	5000	89	B313	5000	105	B613	5000	122
B114	10000	55	B214	10000	63	B314	10000	74	B614	10000	86
			B215	15000	51	B315	15000	60	B615	15000	71
						B316	25000	47	B616	25000	55
									B617	50000	39

* This rating based on a maximum temperature rise of 300 degrees C. with the Resistor mounted horizontally on a 10" x 10" x .040" steel plate supported horizontally 1/2" above a wooden surface. When Resistors are mounted on a non-metallic base the nominal watt rating should be reduced by approximately 15%.

10 AND 20 WATT FIXED VITREOUS ENAMELED RESISTORS



Designed for radio service and replacement use—conservatively rated—wound upon Steatite Tube—combination lug and pigtail terminal connections. Vitreous enamel insulation, insures proof against moisture. 10 watt and 20 watt sizes, in the range of resistance values shown.

10 WATT 1 3/4" Long x 5/16" O.D.			20 WATT 2" Long x 1/2" O.D.		
Stock No.	Ohms	Max. Milli-Amps.	Stock No.	Ohms	Max. Milli-Amps.
A101	1	3160	A119	1500	81
A102	3	1825	A120	2000	70
A103	5	1415	A121	2500	63
A104	7.5	1150	A122	3000	58
A105	10	1000	A123	4000	50
A106	15	815	A124	5000	45
A107	25	630	A125	7500	36
A108	50	450	A126	10000	31
A109	75	365	A127	12500	16
A110	100	315	A128	15000	14
A111	150	260	A129	20000	12
A112	200	225	A130	25000	11
A113	250	200			
A114	400	158			
A115	500	142			
A116	750	115			
A117	1000	100			
A118	1250	89			
A201	5	2000	A219	4000	71
A202	10	1415	A220	5000	63
A203	25	895	A221	6000	57
A204	50	633	A222	7500	51
A205	75	517	A223	10000	44
A206	100	447	A224	12500	40
A207	150	375	A225	15000	37
A208	200	316	A226	25000	15
A209	250	282	A227	35000	13
A210	400	224	A228	40000	12
A211	500	200	A229	50000	11
A212	750	163			
A213	1000	141			
A214	1250	126			
A215	1500	115			
A216	2000	100			
A217	2500	89			
A218	3000	81			

ADJUSTABLE CONTACT BANDS

SCREW TYPE	Diameter of Resistor		Stock No.
	BAKELITE TYPE KNOB	5/8"	
1 1/8"		1793-4	
5/8"		1791-6-X	
	1 1/8"	1793-4-X	



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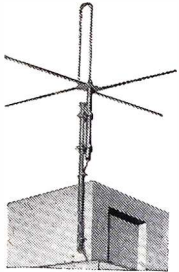


ANTENNAS • TRANSMISSION LINES

The ANDREW product line covers the related fields of antennas for communications and broadcasting, and transmission lines to connect these antennas to transmitters, receivers, or other electronic apparatus.

ANTENNAS

Communication—A complete selection of high performance antennas to your particular coverage requirements and frequency allocation. Representative of this selection are:



FOLDED UNIPOLE

FOLDED UNIPOLES (25 MC to 174 MC range), omnidirectional, ideal for fixed station installation, transmitting and receiving. Inexpensive, light weight, easily installed—excellent impedance matching.

J-POLE—A new antenna of superior performance, especially designed for 152-174 MC range—omnidirectional pattern.

HIGH GAIN for 148-174 MC—450-470 MC range. ANDREW Types 3000 and 4000 High Gain omnidirectional antennas will increase your coverage and multiply its benefits by the number of mobile units in your system. Antenna gain—Type 3000—6.3 db, Type 4000—7.6 db. Factory adjusted for low VSWR at your operating frequency.

HIGH GAIN

Microwave Standard and special models available for all frequencies. Rugged, dependable, corrosion resistant, designed to withstand windloading far above industry standards. Standard sizes: 4, 6, 8, 10, 15, 20 and 30 foot diameter. Stock antennas in 860-990 MC, 1700-2110 MC, 2450-2700 MC, and 6700-7400 MC ranges. Also available: many special purpose parabolic antennas in sizes to 60 feet in diameter, feed systems throughout the range 50 MC to 35,000 MC, and high power models to 50 KW.

Broadcast MULTI-V antenna for FM produces omnidirectional pattern—mounts to side of existing tower—power gain from 1.6 to 7.3, with power rating of 10 KW. Factory tuned for low VSWR. **CORNER REFLECTOR** TV antennas for VHF and UHF low power transmitting and community receiving.

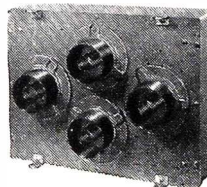
TRANSMISSION LINES



HELIAX

HELIAX—flexible air dielectric cable. Combines efficiency of finest copper cables with handling ease of solid dielectric, yet is lower in price. HELIAX has its own complete series of pressurized connectors, matching the superior electrical performance of the cable. Available in 7/8" and 1 1/8" sizes in continuous lengths to 3,000 feet.

COAXIAL CABLE AND LINE. Complete range of sizes for UHF and VHF systems—semi-flexible soft copper cable in 3/8" and 7/8" sizes. Rigid copper transmission line 7/8" to 9" sizes. Adaptors and fittings available from stock.



COAXIAL SWITCH

COAXIAL SWITCHES for 3 1/8" UHF and VHF coaxial line systems permit switching over to standby equipment in 4 seconds. Handles up to 50 KW power load. Available in manual or remote controlled models.



WAVEGUIDE

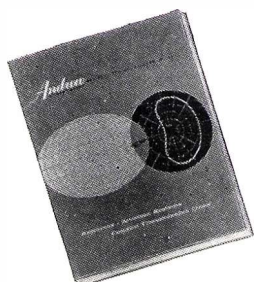
WAVEGUIDE. Copper clad steel construction for high efficiency UHF transmission systems. ANDREW waveguide system includes all accessories for complete installation.

ACCESSORIES. For every type of ANDREW transmission line, there is a complete selection of elbows, end fittings, adaptors and other required items to completely install a transmission line system. Line hangers, pressurizing equipment and tower lighting equipment are also available from stock.

ANTENNA SYSTEMS and PLANNING

ANDREW Corporation, offers engineering assistance in the planning of your antenna-transmission line system at no cost to you. Contact the nearest ANDREW office for this service. Other associated ANDREW products are:

- Antenna Reflectors, Radar Parabolic
- Antenna Tuning Units
- Antennas, Tropospheric
- Antennas, Ground Plane
- Antennas, Radar Receiving & Transmitting
- Antennas, Mobile
- Antennas, UHF & VHF
- Cable, Transmission Line (all types)
- Connectors—Coaxial Cable
- Controls, Photoelectric
- Dehydrators, Automatic
- Detectors, Standing Wave
- Filters, Microwave
- Filters, UHF & VHF
- Flanges, Microwave
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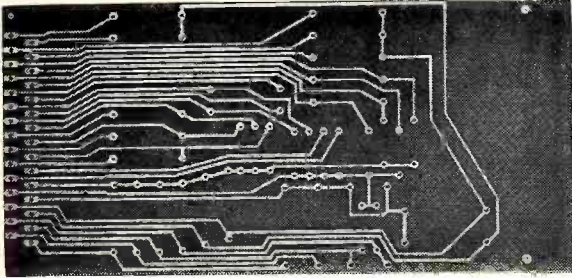


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NEWARK 100, DELAWARE

HELPS YOU IMPROVE DESIGN
HELPS YOU SIMPLIFY PURCHASING
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METAL CLADS

For better printed circuits . . . lower costs . . . fewer rejects



HIGH BOND STRENGTH—C-D-F's special adhesive for metal-clad Dilecto bonds the copper foil to the plastic without affecting the laminate's superior electrical properties. Heat-resistance, dissipation factor, dielectric constant, dielectric strength, and insulation resistance of the Dilecto base remain unaffected. The closely-bonded foil can be etched cleanly and dipped in hot solder to 450°F. for ten

seconds with a guarantee of no blistering or separating. Metal-Clad Dilecto can be punched or machined either before or after etching.

EXCELLENT WORKABILITY—On all four Dilecto metal-clad grades, you can solder, punch, saw, and assemble components either by hand or automatically. Thanks to the inherently superior workability of the plastics laminate over that of ceramic-type materials, Dilecto can be dropped, jammed into tight chassis, and otherwise treated roughly on the assembly line and in service.

HIGH HEAT-RESISTANCE—Metal-Clad Dilecto Laminates are made of phenolic, epoxy, or Teflon* resin for various conditions of service and assembly, and have either cellulosic paper or woven glass-fiber base. All are ideally suited to printed-circuit applications in which heat-dissipation is a major problem. Continuous exposure to high ambient operating temperatures in enclosed electronic equipment has no significant effects on Dilecto's electrical and physical properties.

Write for new Metal-Clad folder MC-1-56.

TYPICAL PROPERTY VALUES

	Copper-Clad PHENOLIC (Grade XXXP-26)	Copper-Clad PHENOLIC (Grade XXXP-28)	Copper-Clad EPOXY (Grade GB-181E)	Copper-Clad TEFLON* (Grade GB-112T)
BOND STRENGTH—0.0014" foil (Lbs. reqd. to separate 1" width of foil from laminate)	7 to 11	5 to 9	8 to 12	4 to 8
MAXIMUM CONTINUOUS OPERATING TEMP. (Deg. C.)	120	120	150	200
DIELECTRIC STRENGTH (Maximum voltage per mil.)	800	800	650	700
INSULATION RESISTANCE (Megohms) 96 hrs. at 35° C. & 90% RH	50,000	25,000	20,000	Over 10 ⁶ megohms
DIELECTRIC CONSTANT 10 ⁶ Cycles	4.20	4.20	4.54	2.85
DISSIPATION FACTOR 10 ⁶ Cycles	0.026	0.052	0.018	0.0006
ARC-RESISTANCE (Seconds)	10	5	120	180
TENSILE STRENGTH (psi.)	16,000 x 13,000	12,000 x 10,000	48,000 x 44,000	23,000 x 21,000
FLEXURAL STRENGTH (psi.)	21,000 x 18,000	18,000 x 16,000	65,000 x 55,000	13,000 x 11,000
IZOD. IMPACT STRENGTH edgewise (ft. lbs. per inch of notch)	0.40 x 0.35	0.40 x 0.35	13.5 x 11.5	6.0 x 5.0
COMPRESSIVE STRENGTH flatwise (psi.)	28,000	22,000	62,000	20,000
BASE MATERIAL OF LAMINATE	Cotton rag paper	Cotton rag paper	Medium-weave, medium-weight glass-fiber cloth	Fine-weave, medium-weight glass-fiber cloth
COLOR OF UNCLAD LAMINATE	Natural greenish	Natural Brown	Natural	Natural

All these standard grades are available with 0.0014", 0.0028", 0.0042", or thicker electrolytic or rolled copper foil on one or both surfaces. Other metal foils and other resin-and-base combinations can be supplied on special order.

*duPont Trademark

MICABOND

Available in a wide range of sizes with many different backings including glass-fiber cloth, silk, cellophane, cotton fabric "Mylar," and paper. Micabond Tapes are hand laid; flexible sheets are both hand and machine laid; both retain their electrical insulating properties at elevated temperatures.

New . . . Micabond with glass-fiber cloth backing! When you need

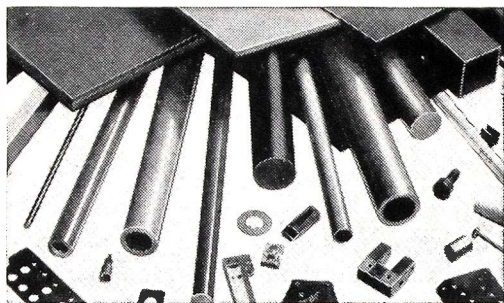
maximum reliability under high-temperature service, resistance to mechanical abuse, coupled with the maximum safety factor, specify Micabond glass-fiber sheets, tapes, wrappers. Composed of India Mica splittings, bonded with flexible resin and faced on one or both sides with impregnated glass-fiber cloth, these new C-D-F products are superior to varnished glass-fiber combinations in deeply imbedded "hot-spot" applications. Write for technical bulletin and samples.

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L A M I N A T E D P L A S T I C S

DILECTO



POST-FORMING: Certain Dilecto grades (CF-1 and XF) may be formed to special shapes by heating and placing in an inexpensive cold mold. The thermoelastic properties of these Dilecto laminates open many production and design opportunities. Already widely used by the aircraft industry, Post-Forming Dilecto merits full investigation by every alert manufacturer. Write for complete C-D-F engineering service.

DILECTO ROLLED OR MOLDED TUBING finds wide usage in radio and electrical equipment because of excellent electrical insulation and mechanical strength. Impregnated paper or fabric is rolled on a mandrel between heated pressure rolls, then oven baked or press cured in a heated mold to set up the resin.

Dilecto, a laminated resin-bonded material, meets the need for a non-metallic light-weight insulating material that is moisture resistant, good electrically, strong and adaptable to all fabricating operations. Some grades have exceptionally high mechanical strength—tensile, flexural, impact; others have high dielectric strength, high insulation resistance, high arc resistance, or low loss factor.

Dilecto is a laminated material made from a base of either cellulosic paper; heavy or fine weave woven cotton fabric or mat; asbestos paper, woven asbestos fabric or mat; woven glass fabric or mat; and is coated with a synthetic resin.

The selection of the proper base material, the proper resin in the correct proportion, is C-D-F's job, but the end user must realize how important it is that he fully understands what dividend results can be gained mechanically, and electrically, and from a cost standpoint, by getting the very best C-D-F material for the project. Here is a brief, yet complete listing of Dilecto sheet grades, each one with a combination of proven characteristics built into the material for the specific job.

SHEET GRADE CLASSIFICATIONS (Rod and Tubing similar to sheet stock)

- X For mechanical applications when electrical properties are secondary.
 - P For punching (paper-based grades).
 - XX For electrical applications requiring mechanical strength.
 - XXX For high humidity applications with minimum cold flow.
 - L For mechanical applications requiring fine machining.
 - C For mechanical applications requiring toughness plus impact strength.
 - CF and LE For electrical uses requiring greater toughness than paper-based grades.
 - GB For applications requiring heat resistance and high mechanical strength. Supplied in combination with phenolic, silicone, melamine, polyester, epoxy, or Teflon resin.
- Note: Various C-D-F grades, identified by numbers affixed to the grade classification, are available. Ask for catalog D-55.

TEFLON

OUTSTANDING PROPERTIES

HEAT RESISTANCE: Due to the non-flammability and high heat resistance of Teflon,* it easily meets both Class B and Class H, AIEE standards for maximum hot spot insulation temperature. Teflon coated glass fabric laminates withstand 250°C. continuously and up to 300°C. intermittently. One factor which influences the heat resistance of Teflon is that there is no apparent degradation from oxygen, which does have a definite degrading effect on silicone materials, for instance.

* Du Pont Trade Mark

MOISTURE RESISTANCE: A Teflon laminate has practically zero water absorption and its electrical properties are little affected after long exposure to high humidity. Teflon is unaffected by fungus and temperature changes. Not only has it lower moisture absorption than any other laminate known, but it tends to repel water . . . retaining high surface insulation resistance properties even under extreme humidity conditions.

DIELECTRIC STRENGTH: The dissipation factor and dielectric constant of Teflon glass-fiber base laminates are both extremely low over a wide frequency range. From 60 to 100 megacycles, the dissipation factor range is between .005 to .0005 and the dielectric constant ranges from 2.8 to 2.5 when measured in a field perpendicular to laminations. As corona will slightly degrade Teflon, care should be taken in designing parts used at voltages over 2500. Sharp corners, and other contributing factors to corona should be avoided.

CHEMICAL INERTNESS: Resistant to hot corrosive salts and most concentrated acids. Pure Teflon is unaffected by all known chemical agents, excepting molten alkali metals and, under special conditions, fluorine and chlorine trifluoride. Glass-supported Teflon, when exposed at cut edges, is affected only by those chemicals which attack glass. Otherwise, its properties remain the same. Write for Catalog T-55.

TEFLON TYPICAL PROPERTY VALUES COMPARED WITH OTHER GLASS-BASE LAMINATES

	TEFLON (Unsupported)	TEFLON GB-28T (Teflon resin)	DILECTO GB-112S (Silicone resin)	DILECTO GB-28M (Melamine resin)	DILECTO GB-112D (Phenolic resin)	DILECTO GB-181E (Epoxy resin)
Dissipation Factor, 1 megacycle	.0005	.0007	.0012	.012	.018	.018
Dielectric Constant, dry, 1 megacycle	1.90	2.60	3.4	7.2	5.0	5.0
Loss Factor, 1 megacycle	.001	.002	.004	.090	.090	.090
Dielectric Strength, { Short time	900	700	450	500	700	700
Perpendicular to Laminations { Step by step	800	500	400	350	600	600
(1/32" thick) VPM						
Arc Resistance, Seconds.	250*	160*	225	195	4	30
Maximum Constant Operating Temp. C°.	250	250	200	175	140	150
Flexural Strength { Lengthwise		13	30	48	24	75
{ Crosswise		11	27	40	20	60
(Thousands of psi)						
Water Absorption, % 24 hours (1/16" thick)	Negligible	.03	.20	1.7	2.	0.12

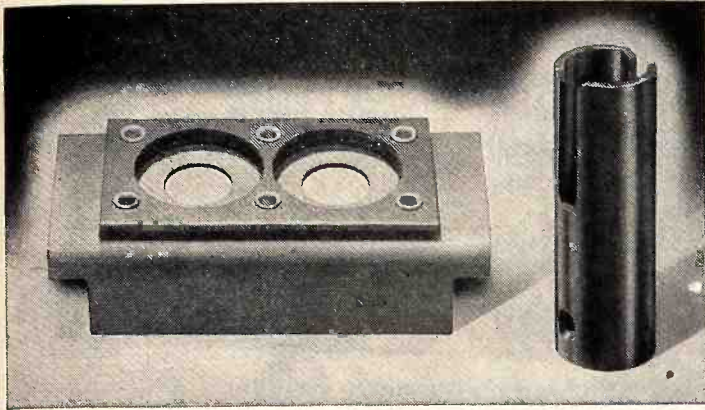
* Will not form complete conducting path. Arc continues indefinitely but material gradually erodes away on full time continuous arc.

CONTINENTAL DIAMOND FIBRE

FOR EVERY APPLICATION IN ELECTRONIC MANUFACTURING

FABRICATED AND FORMED

VULCANIZED FIBRE



GOOD EXAMPLES of Diamond Fibre formed and machined by C-D-F. Left—An insulating barrier made from three pieces of fibre, punched and formed. Fibre tubing is even used for rivets. Right—A fibre tube which has been smooth-sawed to length, punched twice and countersunk. C-D-F can handle the entire job for you, do it faster and at low cost. This includes selecting and testing the proper grade of fibre, machining and inspection, assembling if needed.

If your job is to select a general-purpose insulating material that is low cost, useful for both electrical and mechanical applications, easy to machine and form, consider the advantages of a unique old-timer—C-D-F's Diamond Vulcanized Fibre.

WHAT IS FIBRE? Vulcanized fibre is made by combining layers of chemically jelled paper. The chemical compound used in gelling the paper is subsequently removed by leaching and the resulting product, after being dried and finished by calendaring, is a dense material of partially regenerated cellulose in which the fibrous structure is retained in varying degrees, depending upon the grade of fibre. —NEMA Standard VU 1-1.1

GOOD ELECTRICALLY. Although given a modest insulation rating for resistance to heat (A.I.E.E. Class A with a temperature limit of 221°F.),

Diamond Fibre is often used because of its excellent arc resistance and good dielectric strength. It also has desirable deionizing properties and low heat conductivity. Fibre can be combined or surrounded with moisture-resistant laminated plastic.

MANY GRADES AND FORMS. Diamond Fibre sheet and roll grades include Bone, Commercial, and Electrical Insulation (fish paper) NEMA grades. Fibre tubing is normally made only in Bone grade, with rods available in both Bone and Commercial grades. The chart shown outlines the major characteristics of these grades.

C-D-F BONE FIBRE	Hard, stiffest grade. High density. Resists wear, abrasion, has high compressive strength. Good dielectric strength when dry. Super machining qualities. Not recommended for bending.
C-D-F COMMERCIAL FIBRE	Mechanical and electrical grade. Medium density. Tough, pliable. Good mechanical properties. Fair dielectric strength, normally high when dry. Can be bent, punched, and formed.
C-D-F DIAMOND INSULATION	Electrical insulation "fish paper" grade. Unusually free from foreign matter. Withstands extreme bending and forming without cracking. High dielectric strength, except under high humidity.

TOUGH, RESILIENT, STRONG. How long has it been since you examined the unique properties and wide range of C-D-F fibre grades? Vulcanized Fibre is arc resistant, mechanically strong, non-corroding, half the weight of aluminum. Repeated moistening and drying in forming insignificantly alters the nature, structure or quality of the fibre.

A BIG, RELIABLE SOURCE. C-D-F does business with the largest tonnage users of sheet, rod and tube fibre in the world. This means good deliveries, good prices, reliable products for every new customer. You deal with a materials engineer, a C-D-F man who knows how to give you the most value in Diamond Vulcanized Fibre. If you want to improve design, simplify purchasing, speed production, use Diamond Fibre and the facilities of C-D-F. Write for new Diamond Fibre catalog DVF-55, free test samples, or send us your print for quotation.

MECHANICAL PROPERTIES OF DIAMOND VULCANIZED FIBRE

Property	Sheet thickness, tube wall or rod diameter	SHEETS				TUBES	RODS	
		Bone Grade		Diamond Insulation* & Commercial Grades			Bone Grade	Commercial Grade
Tensile Strength	Up to 1/8"	CW	LW	CW	LW	6500	8500	8000
	Over 1/8 to 1/2	6000	8000	5500	7500	6500	8000	7500
	Over 1/2	.....	.....	5000	7000	6500	.....	7000
Flexural Strength*	Up to 1/2"	13,000	15,000	12,000	14,000		15,000	14,000
	Over 1/2	.....	.....	11,000	13,000		.....	13,000
Compressive & Axial Strengths	Up to 1/8"					10,000		
	Over 1/8 to 5/16					9000		
	All thicknesses or diameters	30,000		20,000			8000	6,000

NOTE—* Tensile strength only.

RESIN-IMPREGNATED FIBRE

VULCOID

Only C-D-F supplies Vulcoid in sheets, tubes, rods, and fabricated parts. Made from Diamond Vulcanized Fibre that has been uniformly impregnated with a special resin, Vulcoid is a material approved and identified by the Underwriters' Laboratories as Class A Insulation. Natural greenish-tan in color, it is economical, easy to machine and punch. Property-wise, Vulcoid is an intermediate grade between Commercial Fibre and XX phenolic Dilecto.

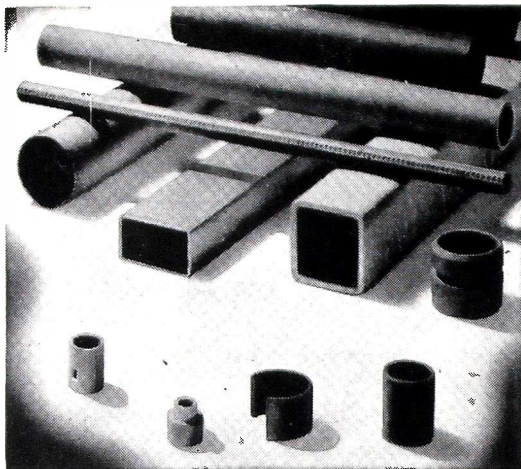
USES: (requiring arc resistance and mechanical strength)—contact and connector panels, knife switch arms and guides, arc deflector spacer bushings; (requiring dielectric strength and moisture resistance)—electrical fixture insulation, wiring devices, plugs, receptacles; (requiring moisture and arc resistance)—motor and transformer lead bushings and terminal blocks. Write for folder V-55 and test samples.

CONTINENTAL DIAMOND FIBRE

MOLDED AND LAMINATED PLASTICS... FOR THE ELECTRONIC INDUSTRY

LOW COST, HIGH STRENGTH PLASTIC

SPIRAL TUBING



AVAILABLE GRADES OF SPIRAL TUBING

IMPREGNATED

- 1 General Electrical and Mechanical Grade. ○
- 1A Electrical and Mechanical Grade—Special Punching. ○
- 2 Mild Stapling, Riveting, and Post Forming Quality. ○
- 2A Intermediate Fabricating and Stapling Quality. ○
- 3 Severe Stapling, Riveting, and Post Forming Quality. ○
- 5 Constant Torque and Formed-to-Shape Coil Form Tubing. ○
- 6 Special for High Humidity Applications. ○
- 6A Extra Hard, High Strength Tubing. ○
- 7 Soft Varnished Kraft Tubing. ○ □
- 7A Hard, Rigid Rectangular Tubing. □
- 8 Varnished Diamond Insulation—Tubing. ○
- 9 "Deflection Coil" Tubing. ○
- 10 Larger Size, Heavy Wall Tubing for Mechanical Uses. ○

UNIMPREGNATED

- 20 Special Wound in Specified Combinations of kraft paper, fish paper, etc. ○ □
 - 21 Plain Kraft Paper Tubing. ○ □
 - 22 Plain Diamond Insulation Tubing. ○
 - 23 Plain Chipboard Tubing. ○
- Round □ Formed and Notched
 ○ Formed (fluted shape) □ Square, Rectangular

GOOD DIELECTRIC STRENGTH

LOW DIELECTRIC LOSS PROPERTIES

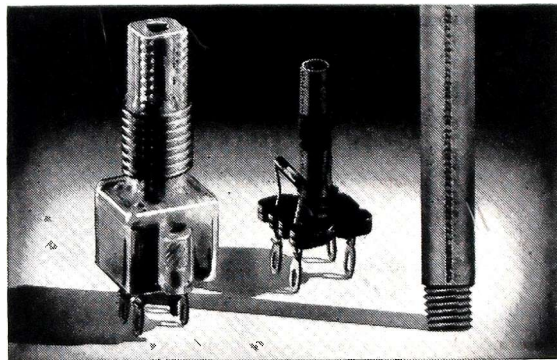
GOOD MECHANICAL STRENGTH & MOISTURE RESISTANCE

C-D-F Spiral Tubing is a high-strength plastic made from paper or vulcanized fibre that is spirally wound. It is available in two forms: 1. as plain untreated tubing, 2. as impregnated tubing containing phenolic resin or insulating varnish.

Used in many coil form and electronic applications, C-D-F Spiral Tubing can be used to replace rolled or molded laminated phenolic tubing in many cases. The degree of mechanical strength and mois-

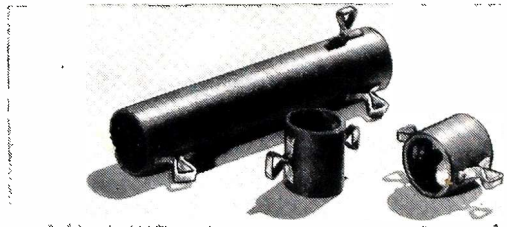
ture resistance is established during the manufacturing process, so that the designer and production man obtains the correct properties required for the application.

Write for new catalog and samples. Call the C-D-F sales engineer listed for complete information about C-D-F's fabricating and inspection facilities. Unit costs can be reduced, products improved with new C-D-F plastic Spiral Tubing!



NEW CONSTANT TORQUE

TUBING, for permeability tuning with iron cores, features stable torque ratings, exact internal threading with three point suspension of core to prevent binding, no external embossing. Write for samples.



ONE OF MANY GRADES is

Grade 3, a softer tube for difficult fabricating. May be notched and formed—suitable for severe stapling and riveting.

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CONTINENTAL DIAMOND FIBRE

ask about **Amp's Creative Approach**
TO BETTER WIRING

More
Confidence . . .
Less
Expense
with

A-M-P®

Taper Technique

A-M-P Taper Pins, Taper Bloks, Taper Tips, Taper Tabs and Taper Tab Receptacles offer great freedom of circuit design and insure maximum electrical stability.

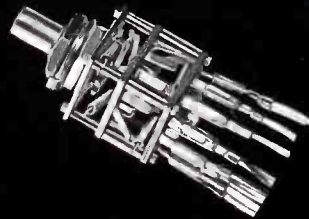
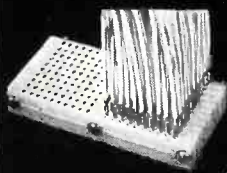
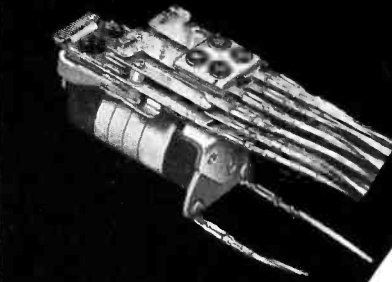
They cut material cost . . . cut labor cost . . . and reduce assembly time. Taper Technique is benefiting manufacturers of business machines, aircraft, guided missiles and electronic equipment.

You, too, can benefit by the A-M-P Taper Technique. Consult your local A-M-P salesman or write to Harrisburg.

A-M-P®

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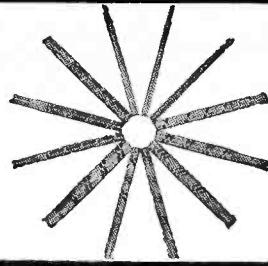
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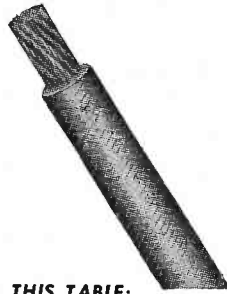
LEWIS

WIRE PRODUCTS



HIGH TEMPERATURE CABLE

As Electronic tube size increases temperatures go up. Wire that was adequate no longer fits the bill. A new high temperature wire has been developed for operation at 650°F that has excellent qualities of dielectric strength and moisture resistance necessary for new design.



SELECT THE SIZE FOR YOUR REQUIREMENTS FROM THIS TABLE:

AWG Size	Finished Diameter	AWG Size	Finished Diameter	AWG Size	Finished Diameter
20	.115"	10	.210"	1	.525"
18	.125"	8	.275"	1/0	.570"
16	.140"	6	.335"	2/0	.630"
14	.160"	4	.395"	3/0	.690"
12	.185"	2	.470"	4/0	.760"

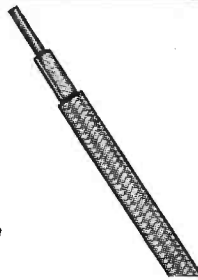
FIXTURE AND APPLIANCE LEAD WIRE

A complete line of Underwriters approved fixture wire and appliance lead wire with dense, firm and uniform insulation of felted asbestos. Also supplied with outer braids of cotton, rayon or glass with or without finishing compounds. Used on toasters, waffle irons and other appliances as well as usual high temperature fixtures.



HEATING CABLE

A #19 AWG Nickel Chrome conductor with special laminated insulation consisting of asbestos, Teflon* and glass with silicone impregnation and finish. Resistance .5208 ohms per foot. Insulation good up to 440 volts. Operating temperature 500°F. Widely used by central stations for maintaining proper temperature of pipelines subject to wide changes in ambient temperature.



* DuPont Trade Mark

RESISTANCE ELEMENT & UNITS



Core wound flexible heating element and units for low wattage appliances such as heating pads, curling irons, sealers, toys, etc. Insulations of asbestos or glass.

THERMOCOUPLE AND LEAD WIRE



Thermocouple wire and thermocouple lead wire with usual Iron-Constantan, Copper-Constantan or Chromel-Alumel conductors with high temperature insulation to meet MIL or AN specifications.

Write for Catalog 953

the LEWIS ENGINEERING COMPANY

WIRE DIVISION
NAUGATUCK, CONNECTICUT

ELECTRONIC DESIGNERS GO FIRST TO THE "GUIDE"

Wherever designers and specifiers have immediate need for readily accessible, necessary product information at their breadboards, there, year after year, will you find the **ELECTRONICS BUYERS' GUIDE**. "Who makes what product or provides what service?" "Where can I buy it?" "Where can I find complete and accurate product specs?" These are questions that are asked daily by the men who design-in electronic products; these are questions that have been answered for the past fifteen years by the "Guide," the accepted reference book of the industry.

Year after year, the designers of the industry have preferred the "Guide" for its *Simplicity of Style* (as easy to use as a telephone directory), for its *Accuracy* (the industry helps the Research Staff revise its listings every year) and its *Complete Product Specs* (advertisers have told their complete product stories in the "Guide" consistently).

The key people of the industry—the buying influences—rely on the "Guide" for the answers to their product problems.

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the electronics
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Dependable Electronic Tubes by *Federal*

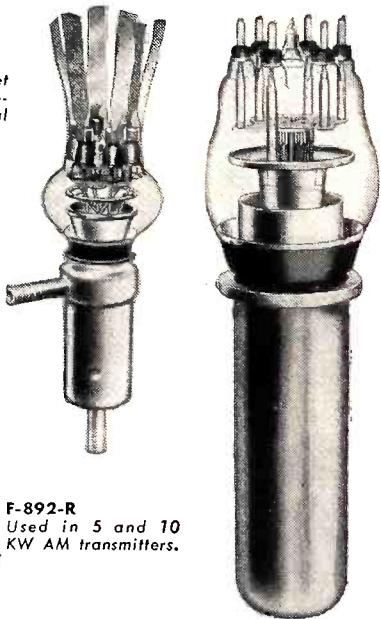
- for
- Transmitting • Rectifying
 - Industrial
 - Special Purpose
 - Television

Basic Technical Data Covering Complete Line of FEDERAL POWER TUBES

Type	Description	Cooling*	Max. Plate Dissipation	Mu	Max. Plate Input	Max. DC Plate Volt.	Max. Freq. for Max. Ratings	Filament Voltage
F-3X2500A3	HF Triode	A	2.5 KW	20	8 KW	4,000	110 MC	7.5
F-3X2500F3	HF Triode	A	2.5	20		6,000	30	7.5
F-7C23	Pulse Triode	A	1.2	25		17,000	5	11.0
F-7C25	HF Triode	A	2.5	25	5.6	4,500	50	11
F-7C26	HF Triode	A	1	17	3	3,000	150	9.0
F-8C25	AF Triode	A	5	6	10	5,000		7
F-9C23	RF Triode	W	25	32	50	15,000	20	22
F-9C28	AF Triode	W	40	4.75	100	15,000		7.5
F-9C29	AF Triode	A	20	4.75	50	15,000		7.5
F-9C30	RF Triode	W	40	42	120	15,000	20	7.5
F-9C31	RF Triode	A	20	42	100	15,000	20	7.5
F-110X	RF Triode	W	25	40	50	20,000	3	28
F-124-A	RF Triode	W	40	42	135	20,000	20	13.6
F-124R	RF Triode	A	20	42	100	20,000	20	13.6
F-125-A	AF Triode	W	40	4.75	100	15,000		13.6
F-127-A	RF Triode	A	0.2	38	0.95	3,000	30	10
F-128-A	RF Triode	A	0.6	36	3	3,500	30	11
F-129-B	RF Triode	W	7.5	26	18	12,000	30	18
F-129-R	RF Triode	A	5	26	18	12,000	30	18
F-132-A	AF Triode	A	0.6	10	1.8	3,500		11
F-134	RF Triode	W	150	21	450	20,000	22	25
F-212E	RF Triode	A	0.275	16	0.7	2,000	4.5	14
F-220CA/320BA	RF Triode	A	5	40	22.5	15,000	4	21.5
F-220C/320B	RF Triode	W	10	40	22.5	15,000	4	21.5
F-342-A	RF Triode	W	25	40	50	20,000	4	20
F-343-A	RF Triode	W	10	40	36	18,000	4	21.5
F-343-AA	RF Triode	A	5	40	20	18,000	4	21.5
F-631	RF Triode	W	25	40	50	20,000	3	28
F-862-A	RF Triode	W	100	45	200	20,000	1.6	33
F-891	RF Triode	W	6	8.5	18	12,000	1.6	11/22
F-891-R	RF Triode	A	4	8.5	15	10,000	1.6	11/22
F-892-A	RF Triode	W	10	50	30	15,000	1.6	11/22
F-892-R	RF Triode	A	4	50	18	10,000	1.6	11/22
F-898-A	RF Triode	W	100	45	200	20,000	1.6	16.5
F-5604	HF Triode	A	10	19.5	32.5	12,500	22.5	11
F-5606	RF Triode	W	10	50	30	15,000	1.6	22
F-5619	HF Triode	W	20	19.5	32.5	12,500	22.5	11
F-5658	RF Triode	W	20	20.5	60	10,500	25	12
F-5666	HF Triode	W	12.5	21	20	10,000	22.5	11
F-5667	RF Triode	A	7.5	21	20	10,000	22.5	11.0
F-5668	RF Triode	W	20	50	28	14,000	5	22
F-5669	RF Triode	A	10	50	28	14,000	5	22
F-5680	HF Triode	A	2.5	25	12	6,000	30	13.0
F-5762	HF Triode	A	3	29	8.7	6,200	30	12.6
F-5771	RF Triode	W	22.5	20	60	12,500	25	7.5
F-5874	AF Triode	W	7.5	6	15	6,000		7
F-5917	HF Triode	W	5	20	8	4,000	110	7.5
F-5918	RF Triode	W	70	37	300	17,500	22	11
F-5919	RF Triode	A	35	37	175	17,500	22	11
F-5996	HF Triode	A	2.5	25	12	6,000	30	13.0
F-6009	HF Triode	W	6	25	12	6,000	30	13
F-6166	VHF Tetrode	A	10	10	16	5,900	220	5
F-6179	AF Triode	W	50	4.75	120	15,000		27.2
F-6366	HF Triode	A	3	25	7	5,500	30	11
F-6367	HF Triode	A	3	25	12	6,200	30	13
F-6379	AF Triode	W	70	4.75	150	17,500		11
F-6399	HF Triode	W	6	25	9	6,200	30	11
F-6400	HF Triode	W	6	25	18	9,200	30	13
F-6401	Pulse Triode	W	1	12		17,000	600	4.25
F-6691	HF Triode	A	15	37	54	12,500	30	5
F-6692	HF Triode	W	30	37	80	15,000	30	5
F-6800	HF Triode	W	20	20	45	15,000	22	7.5
F-6801	HF Triode	A	10	20	40	15,000	22	7.5

* A=Forced Air Cooling W=Water Cooled

F-6399
Integral water jacket triode designed especially for industrial applications.



F-892-R
Used in 5 and 10 KW AM transmitters.

5918
High power triode for broadcast communications and industrial applications.

FEDERAL RECTIFYING TUBES

Type	Description	Max. Peak Inverse Volt.	Max. Peak Current (Amps.)	Filament Voltage
F-869-B	Mercury Vapor	20,000	10	5
F-857-B	Mercury Vapor	22,000	40	5
F-575-A	Mercury Vapor	15,000	6	5
F-673	Mercury Vapor	15,000	6	5
F-315-A	Mercury Vapor	15,000	6	5

FEDERAL TRAVELING WAVE TUBES

Type	Frequency KMC	Power Output (Watts) CW	Pulse
F-6658	2.0-4.0	1	2.5
F-6825	2.4-3.6	—	1000
F-6826	2.4-3.6	—	750
F-6867	8.5-9.6	0.2	0.2
F-6868	2.0-4.0	10	10



Federal Telephone and Radio Company

A Division of INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

100 KINGSLAND ROAD, CLIFTON, N. J.

In Canada: Standard Telephones and Cables Mfg. Co. (Canada) Ltd., Montreal, P. Q.
Export Distributors: International Standard Electric Corp., 67 Broad St., N. Y.

LOW NOISE • PULSE • DELAY CABLES

FEDERAL VARIETY OF CABLE TYPES

Federal's cable department produces a variety of R-F cable types. Some of these cables are produced by Federal exclusively. All are made to the

most exacting standards of quality and control. The materials used are the finest research has developed, assuring top electrical characteristics. Initial dimensional precision helps to maintain stability over a wide temperature range.

SOLID DIELECTRIC COAXIAL CABLES



consist of a solid or stranded inner conductor, dielectric material, one or two copper wire braids, a synthetic resin protective jacket and, in some cases, a protective armor or metal braid. Dual coaxial cables are similar in design to the solid dielectric types, except that two accurately-spaced inner conductors are used.

LOW-CAPACITANCE COAXIAL AIR-SPACED CABLES



have a construction similar to that of the solid dielectric types, except that air is made a portion of the dielectric. One method of accomplishing this effect and still maintaining a high dielectric strength is through a construction involving an inner conductor in a thin-walled polyethylene tube. This is achieved by means of a polyethylene thread wound in a long spiral. This type of cable is also made in Teflon for high temperature applications.

SPIRAL DELAY, HIGH IMPEDANCE LINES



There are three types available with delays of 1 microsecond per foot; .2 microsecond per foot; .1 microsecond per foot and .042 microsecond per foot. 1 microsecond per foot delay line is ideal for color TV use.

TELEVISION ANTENNA LEAD-IN WIRE consists of two accurately-spaced conductors over which is extruded the dielectric material. These lead-in wires have no braid, jacket or armor except in

special cases. The advances in television have meant ever-new approaches to the design of TV lead-in to the point where it has taken many varied forms, the latest being the tubular shaped "pipeline" lead-in.

TEFLON HIGH TEMPERATURE CABLES

In a wide temperature range—from 100°F to +500°F Teflon insulated cable maintains its low loss and high voltage characteristics. Chemical inertness indicates use of Teflon insulated cables under extremely adverse conditions as in chemical plants, boiler rooms, or where highly corrosive acids and alkalis are present. Other application are on ship board (engine rooms, stacks, etc.) in aircraft, guided missiles, "Black Boxes" wherever high temperature is likely to be encountered. Three types are listed below, but all RG types are available.

	VP%	Cap. mmfd/ft	Max. Oper. Volts	Nom. Imp. Ohms
RG-87 A/U	70	29.0	4,000	50
RG-140/U	70	19.5	1,700	75
RG-141/U	70	29.0	1,500	50

MINIATURE COAXIAL CABLES TEFLON INSULATED

For High Temperature Applications

Meet operating requirements of high temperature, abrasion resistance, long term stability and light weight. Approximately 1/4 size of comparable RG types and provide the same impedance characteristics. Ideal for installations where space and weight are at a premium (aircraft, instruments). Meet operating temperatures of 150°C for use in confined areas at higher ambient or high conductor temperatures. Operating temperatures up to 200°C may be had by using an impregnated fiberglass jacket. Federal's Miniature Coaxial Cables are made with teflon dielectric and trichlorofluoroethylene jackets; other jacketing materials are available upon request.

Type	Imped (ohms)	Max. Cap.	Attenuation (max) db/100 ft at 400 mc	Conductor*
K 256	50 ± 2	29 mmf/ft	13	7/30AWG
K 257	70 ± 3	21 mmf/ft	14	7/34AWG
K 258	93 ± 5	16 mmf/ft	15	7/38AWG

Velocity Propagation 72% approx.
Corona (min) 850V RMS
O.D. Dielectric (nom) 0.095 O.D. Jacket (nom) 0.135

*Silver-plated Copperweld

"PRECISION-COAX"

A Semi-Flexible Coaxial Cable

Various types of semi-flexible coaxials that are smaller, stronger equivalents of RG 8/U, 11/U, and semi-solid types. Instead of conventional braid and jacket (vinyl, Kel-F, Nylon or Fiberglass) these semi-rigid coaxials have a seamless extruded metal tube (1, 2) over polyethylene or teflon dielectric. Feature lower attenuation, better heat stability, are non-contaminating, and completely weatherproof. The cable is semi-rigid and lends itself readily to different pre-formed shapes.

(1) Copper tube can be silver plated per sales order.
(2) Brass or aluminum per sales order.

Triaxial PULSE CABLES

RG 156—15 KW Pulse* • RG 157—24 KW Pulse • RG 158—18 KW Pulse

Meet requirements for a high voltage pulse cable. Features include • Higher corona level—than any other corresponding plastic cables • Low self generated noise level • Low radiation characteristics • Higher power capabilities. Applications include radar, telemetering, automation controls, servomechanisms and wherever low level signals are highly amplified and used by control or instrumentation devices.

*1 microsecond pulse

NON-MICROPHONIC LO-NOISE CABLES

Inherently free of self-generated microphonic voltages, when subjected to shock or vibration. A special process insures the best obtainable low noise characteristics, permanence and stability. Can withstand severe mechanical abuse and wide ambient temperature variation without deterioration of their characteristics. Microphonic voltage maximum is 60 microvolt peak for 50 ohm types similar to standard RG cables. Applications include telemetering, automation controls, servomechanisms and wherever low level signals are amplified and used by control or instrumentation devices.

MULTI-CONDUCTOR CABLES

We can produce multi-conductor cables of an infinite variety of constructions. This would include combination of coaxial cables, coaxial cables with control wires, TV camera cable, intercommunication cables. These can be produced in polyethylene, vinyl and teflon.

COMMUNITY TV COAXIAL CABLE

Federal has a cable to meet every Community TV requirement—single shields, double shields, vinyl jackets, non-contaminating vinyl jackets, and polyethylene jackets. Aluminum jackets are available. All cables meet ASTM and REA Standards.

Federal has all cable types and sizes from very low attenuation K-14 for long primary runs and RG-11/U single and double shielded type for distribution and feeder runs to RG-59/U for tap off drop lines.

Federal Telephone and Radio Company stands ready to help with technical aid for old or new systems.

COMPLETE COAXIAL CABLE ASSEMBLIES

also are available from Federal to meet your requirements. This service offers the same "Precision Production" that made Federal the outstanding name in coaxial cables.

MINIATURE COAXIALS • HIGH TEMPERATURE HOOK-UP WIRE

It's *Federal* for... EVERY R-F TRANSMISSION LINE REQUIREMENT

RG TYPE CABLES

Type	To Original Spec.	To Current Spec. Low Temp. Black Jacket Δ	Std. Jacket	ZO Impedance Ohms	Nominal Capacitance Per Foot Micro-Micro Farads	Nominal Attenuation 100 Mc. Db/100 Ft.	Inner Conductor Strands	Braid +	Jacket X
RG-5B/U	RG-5A/U			50	28.5	2.4	S1	(2)S260	NCV335
RG-6A/U	RG-6/U			76	20	2.8	CW1	(2)S264	NCV339
	RG-7/U			100	12.5	2.0	C1	C304	V379
RG-8A/U	RG-8/U			52	29.5	2.1	C7/#21	C340	V415
RG-9B/U	RG-9A/U			51	30	2.3	S7/#21	(2)S355	NCV430
RG-10A/U††	RG-10/U††			52	29.5	2.1	C7/#21	C340	NCV475
RG-11A/U	RG-11/U			75	20.5	2.1	T7/#26	C340	V415
RG-12A/U††	RG-12/U††			75	20.5	2.1	T7/#26	C340	NCV475
RG-13A/U	RG-13/U			74	20.5	2.1	T7/#26	(2)C355	V430
RG-14A/U	RG-14/U			52	29.5	1.4	C1	(2)C463	NCV558
	RG-15/U			76	20	1.5	CW1	(2)C463	V558
RG-17A/U	RG-17/U			52	29.5	.85	C1	C760	NCV885
RG-18A/U††	RG-18/U††			52	29.5	.85	C1	C760	NCV945
RG-19A/U	RG-19/U			52	29.5	.68	C1	C990	NCV1135
RG-20A/U††	RG-20/U††			53	29	14.0	C1	C990	NCV1195
RG-21A/U	RG-21/U			95	16	4.0	Res. wire	(2)S264	NCV339
RG-22B/U	RG-22A/U			125	12	1.7	*C7/0.0152"	(2)T355	NCV430
RG-23A/U	RG-23/U			125	12	1.7	*C7/#21	C845x446	V965x670
	RG-24/U††			52	29.5	.68	*C7/#21	C845x446	V1034x735
	RG-29/U			53.5	28.5	4.2	C1	T150	PE184
RG-34A/U	RG-34/U			71	21.5	1.8	C7/#21	C540	V640
RG-35A/U††	RG-35/U††			71	21.5	.70	C1	C760	NCV945
	RG-54A/U			58	26.5	3.1	C7/0.0152"	T220	PE250
	RG-55/U			53.5	28.5	4.2	C1	(2)T176	PE206
RG-57A/U	RG-57/U			95	17	3.0	*C7/#21	T540	V640
RG-58B/U	RG-58/U			53.5	28.5	4.2	C1	T150	V200
RG-58C/U	RG-58A/U			50	28.5	5.3	T19/0.0071"	T150	V200
RG-59A/U	RG-59/U			73	21	3.8	CW1	C191	V250
RG-62A/U	RG-62/U			93	13.5	3.1	CW1	C191	V250
RG-63B/U	RG-63/U			125	10.	2.0	CW1	C340	V415
RG-65A/U	RG-65/U			950	44		F1	C340	V415
	RG-71/U			93	13.5	3.1	CW1	(2)T208	PE250
RG-74A/U††	RG-74/U††			52	29.5	1.4	C1	(2)C463	NCV615
	RG-79/U††			125	10	2.0	CW1	C340	V475
	RG-79B/U††			125	10	2.0	CW1	C340	NCV475
	RG-86/U			200	7.8	.56	*C7/#21		PE665x300
RG-108A/U	RG-108/U			76	24.5		*T7/#28	T177	NCV245
RG-111A/U††	RG-111/U††			95	16	4.0	*C7/0.0152"	(2)T355	NCV490
	FTR TYPES			71	21.5	.90			
	K-14						C1	C745	NCV885
	K-38			72	21	4.0	C7/#30	C196	V250
	KT-107			72	22	6.1	*C7/#28	C191	NCV250
	K-109A			160	8.3	8.0	B1	T232	V282
	K-111			300	4.2	3.4	*B1	C435x235	V490x290
	K-113			35	39	4.5	T41/#34	C150	V200
	K-200			200	7.8	.56	*C7/#21		PE660x310

The above may have minor changes in physical and electrical characteristics.

- + C—Copper, T—Tinned Copper, S—Silver Plate Copper, B—Bronze, OD in mils (max.), F—Formex.
- X V—Vinyl, PE—Polyethylene, NCV—Non-contaminating Vinyl, OD in mils (max.) Applies to Std.
- Δ NCV. See information in column to right under RG Type Cables.
- †† Armored (Jacket dimension given is over armor)
- * 2 inner conductors.
- Inner Conductor Strands column indicates material by same abbreviations as +
- CW—copperweld.

SPECIAL CABLE PROBLEMS



Federal Telephone and Radio Co. maintains a stock of most of the required types. When requirements are so special that they cannot be met by Federal's cable types, Federal research and engineering facilities are readily available to develop any new cable constructions. Charges are based on quantity. Special Orders are executed under the high standards maintained by Federal "Quality Control." Every length of cable is carefully checked to see that it meets all tests indicated for the type ordered. Toughness, heat resistance, moisture resistance, dielectric strength, cold-bend—a few of the many tests that must be passed before approval for shipment is given.

Federal also manufactures many types of plastic-insulated wires and multi-conductor cables for television, intercom and numerous special purposes.

HIGH TEMPERATURE COAXIAL CABLE

FOR COMPLETE DATA

Write for Federal's Catalog on RF Cables. An informative guide to characteristics and applications of the industry's most comprehensive line of high quality RF Cables. Address Dept. 913.



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—we are ready to work with you



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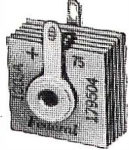
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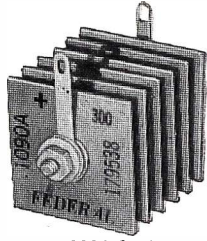
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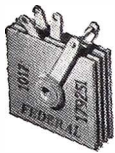
1159 Paper Tube Construction (T)



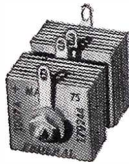
1003A Eyelet Construction (E)



1090A Stud Construction (S)



1017—Bridge Construction



1007—Doubler Construction

Federal Cat. No.*	Input (volts rms max.)	Output (ma DC max.)	External Series Resistance (ohms min.)	Construction*** and Nom. Cell Size	Application
1159	130	20	50	3/8" D.am. (T)	B+ Booster; Bias
1263A	130	65	35	1 1/8" Sq. (E)	B- Phonograph
1002A	130	65	22	1" Sq. (E)	B- Intercom
1003A	130	75	22	1" Sq. (E)	B- 3-way Radio
1101A	130	100	22	1" Sq. (E)	B- FM Radio
1004A	130	100	22	1 1/4" Sq. (E)	B- Radio
1005A	130	150	15	1 1/4" Sq. (E)	B- Hi-Fi Phono-Radio
1006A	130	200	5	1 1/2" Sq. (E)	B- General Purpose
1028A	130	250	5	1 1/2" Sq. (E)	B- Television
1090A	130	300	5	1 1/2" Sq. (S)	B- Television
1356A	130	350	5	1 5/8" Sq. (S)	B- Television
1023A	130	350	5	1 3/4" Sq. (S)	B- Television
1021A	130	450	5	2" Sq. (S)	B- Television
1289A	130	600	5	2" Sq. (S)	B- Television
1223A	130	750	5	2 1/2" Sq. (S)	B- General Purpose
1014A	172	100	22	1 1/4" Sq. (E)	160 Volt B+ Supply
1365A	172	350	5	1 3/4" Sq. (E)	B+ Television
1022A	172	450	5	2" Sq. (S)	B- Television
1349A	195	300	5	1 1/2" Sq. (S)	B- Color TV
1371A	195	400	5	1 3/4" Sq. (S)	B- Color TV
1319A	195	600	5	2" Sq. (S)	B- Color TV
1229A	195	750	5	2 1/2" Sq. (S)	B- Color TV
1001	20	75	—	1" Sq. (E)	Bias Rectifier
1015	25	150	—	1" Sq. Bridge (E)	Filament Supply
1016	25	300	—	1 1/4" Sq. Bridge (E)	Filament Supply
1017	25	600	—	1 1/2" Sq. Bridge (E)	Filament Supply
1007A	160**	75	22	1" Sq. (S)	Vibrator Doubler
1008A	160**	100	22	1 1/4" Sq. (S)	Vibrator Doubler
1009A	160**	200	5	1 1/2" Sq. (S)	Vibrator Doubler

FEATURES

1. Longer life.
2. Higher output voltage.
3. Lower temperature rise.
4. Superior humidity resistance.
5. Proven mechanical construction.
6. 85° C. UL acceptance.
7. Conservative ratings.
8. More uniform quality.
9. Largest plant capacity.
10. More engineering know-how.

OTHER AVAILABLE TYPES

- Printed circuit rectifiers
- Plug-in rectifiers
- Encapsulated Radio-TV rectifiers
- Special purpose rectifiers manufactured to customer specifications



FEDERAL'S RADIO-TV SELENIUM RECTIFIER HANDBOOK

80 pages of valuable designs, characteristics and applications. Available for 50 cents (coin only).

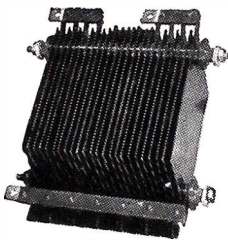
*A' after code number indicates locking lug.

**These rectifiers have two sections—characteristics given apply to one section only. If both sections are used in series, voltage input is 320 volts.

***(E) Eyelet. (S) Stud. (T) Paper Tube.

For INDUSTRIAL and MILITARY APPLICATIONS

FROM MILLIWATTS TO KILOWATTS



Federal Industrial Rectifiers are available in a standard line covering a tremendous variety of voltage and current ratings. Cell sizes range from tiny 1/8" diameter cells to giant 6 x 10 inch plates for heavy electrical currents. Cells with voltage ratings of 18-36 volts may be combined to give stack ratings of many K.V. Finishes conform to MIL specs. High standards of construction assure excellent temperature qualities, long life, stable aging properties, low reverse leakage and minimum forward resistance.



FOR COMPLETE DATA write for Federal's Data Booklet on Industrial Selenium Rectifiers... an informative guide to characteristics and applications of the industry's most comprehensive line of high quality rectifiers.



GLASS ENCLOSED



PLASTIC ENCLOSED



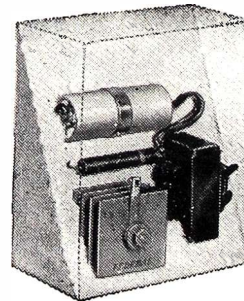
FIBRE ENCLOSED

hermetically sealed. Simple fuse-clip mounting of ferrule-terminal stacks. For details, send for "High Voltage" brochure.

HIGH VOLTAGE SELENIUM RECTIFIERS

250-5000 volts • 5-40 ma

Federal High Voltage Rectifiers are encased in either paper, glass, bakelite, nylon, or metal tubes. Glass and metal types are



ENCAPSULATED RECTIFIERS

Features: Resistance to shock and vibration. Complete protection from harmful external conditions. Rapid dissipation of internal heat by conduction.

Other components such as capacitors, transformers, resistors, can be encapsulated with the rectifier to form a compact, convenient, rapidly replaceable circuit. Send for "Encapsulation" brochure.

HIGH TEMPERATURE RECTIFIERS

For maximum operating life at ambient temperatures up to 150° C. A full range of voltage/current combinations for medium and high temperatures. Let us review your requirements.

MAGNETIC AMPLIFIER RECTIFIERS



Selenium cells and stacks precisely processed, tested and selected to assure a high degree of stability and very low reverse current. For use with saturable reactors, regulated DC power supplies, etc.

SELENIUM CONTACT PROTECTORS

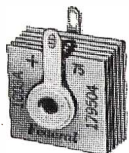


Federal contact protectors can extend contact life by more than 1000 times. Recommended for inductive circuits to prevent erosion of switch contact surfaces and to suppress interference caused by arcing. Minimum effect on release time. Available hermetically sealed to meet JAN specs. Send for "Contact Protector" brochure.

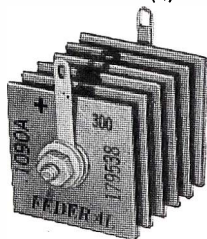
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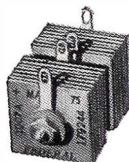
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1017	25	600	—	1 1/2" Sq. Bridge (E)	Filament Supply
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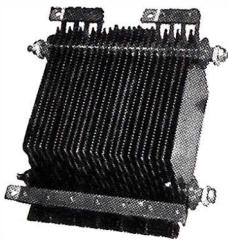
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FROM MILLIWATTS TO KILOWATTS



Federal Industrial Rectifiers are available in a standard line covering a tremendous variety of voltage and current ratings. Cell sizes range from tiny 1/8" diameter cells to giant 6 x 10 inch plates for heavy electrical currents. Cells with voltage ratings of 18-36 volts may be combined to give stack ratings of many K.V. Finishes conform to MIL specs. High standards of construction assure excellent temperature qualities, long life, stable aging properties, low reverse leakage and minimum forward resistance.



FOR COMPLETE DATA write for Federal's Data Booklet on Industrial Selenium Rectifiers... an informative guide to characteristics and applications of the industry's most comprehensive line of high quality rectifiers.



GLASS ENCLOSED



PLASTIC ENCLOSED



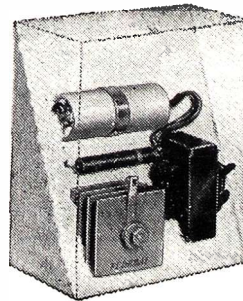
FIBRE ENCLOSED

hermetically sealed. Simple fuse-clip mounting of ferrule-terminal stacks. For details, send for "High Voltage" brochure.

HIGH VOLTAGE SELENIUM RECTIFIERS

250-5000 volts • 5-40 ma

Federal High Voltage Rectifiers are enclosed in either paper, glass, bakelite, nylon, or metal tubes. Glass and metal types are



ENCAPSULATED RECTIFIERS

Features: Resistance to shock and vibration. Complete protection from harmful external conditions. Rapid dissipation of internal heat by conduction.

Other components such as capacitors, transformers, resistors, can be encapsulated with the rectifier to form a compact, convenient, rapidly replaceable circuit. Send for "Encapsulation" brochure.

HIGH TEMPERATURE RECTIFIERS

For maximum operating life at ambient temperatures up to 150° C. A full range of voltage/current combinations for medium and high temperatures. Let us review your requirements.

MAGNETIC AMPLIFIER RECTIFIERS



Selenium cells and stacks precisely processed, tested and selected to assure a high degree of stability and very low reverse current. For use with saturable reactors, regulated DC power supplies, etc.

SELENIUM CONTACT PROTECTORS



Federal contact protectors can extend contact life by more than 1000 times. Recommended for inductive circuits to prevent erosion of switch contact surfaces and to suppress interference caused by arcing. Minimum effect on release time. Available hermetically sealed to meet JAN specs. Send for "Contact Protector" brochure.

CAPACITANCE METER

The KARU and LARU meters, solve virtually all problems of capacitance and inductance measurements in the r-f field. Provide accurate direct reading.

SPECIFICATIONS — TYPE FT-KARU

• Capacitance Range: 0.5 uuf to 10 uf — divided into 6 ranges: 0 to 100/1000 uuf / 0.01/0.1/1/10 uf • Accuracy: $\pm 1\%$ ± 5 uuf • Measuring Freq: 1.6 to 180 kc • Power Supply: 110/125/150/220 volts ac, 40 to 60 cps, 10 va.



FT-KARU

INDUCTANCE METER — TYPE FT-LARU

• Inductance Range: 0.1 uh to 1 h—divided into 7 ranges: 0.1 to 1/10/100 uh/1/10/100/1000 mh • Accuracy: $\pm 1\%$ ± 0.01 uh • Measuring Freq: 2.2 kc to 4.7 mc • Resonance-Freq Measuring Range: 2.2 kc to 4.7 mc—divided into 7 ranges: 2.2-7/22/70/220 kc/0.7/2.2/4.7 mc • Accuracy: $\pm 0.5\%$ • Power Supply: same as above.

Test Terminals: 2 knurled binding posts, one at ground potential. (for both types)

TOLERANCE INDICATOR

Checks resistors, inductors and capacitors • Shows deviation directly on a meter calibrated in percent • Values can be read directly without adjustment • Also determines temperature coefficient of capacitors and coils.

For resistances	10 ohm to 1 megohm
For inductances	100 uh to 2 mh
For capacitances	10 uuf to 1 uf
4 tolerance measuring ranges.....	-2.5% to +2.5%, -6% to +6%
	-12% to +12%, -25% to +25%
Accuracy of indication.....	$\pm 5\%$ of full-scale reading
Measuring voltage	1 v
Measuring freq.	17 kc



Type FT-KZS

TERA-OHMMETERS INSULATION MEASUREMENTS up to 5000 MILLION MEGOHMS

For testing resistors, capacitors, cables, switches, tube sockets, transformers and many other components...incoming inspection and quality control.



Type FT-D

TYPE FT-H4

Range: 20 megohms to 5000 x 10⁶ megohms in 6 ranges • Test Voltage: Adjustable from 100 to 1000 v., dc • Accuracy: $\pm 3\%$ in scale center • Power Supply: 115 v., 50-60 cps. Instrument can also be operated from its own battery supply.

TYPE FT-D

Type	Test Voltage	5 measuring Ranges
D1.....	100v.....	0.2 megohms to 0.5 x 10 ⁶ megohms
D2.....	100v.....	2 megohms to 5 x 10 ⁶ megohms
D3.....	100v.....	20 megohms to 50 x 10 ⁶ megohms

Power Supplies: same as above

Note: Other types available to cover ranges from .2 megohms to 500 x 10⁶ megohms with fixed test voltages between 3 and 1030 volts.

Z-G DIAGRAPH

Plots Impedance Instantaneously

Eliminates complex, time-consuming calculations... all measurements read from interchangeable charts.



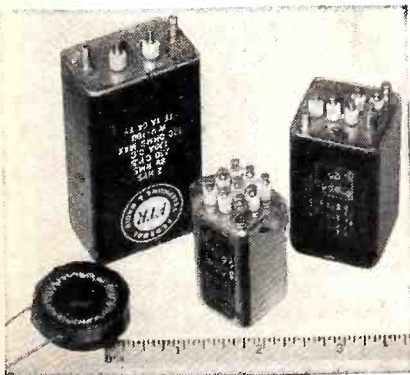
Type FT-ZDU

SPECIFICATIONS:

Freq Range: Type FT-ZDU... 30 to 300 mc; Type FT-ZDD... 300 to 2400 mc • Characteristic Impedance: 50 ohms • Measuring Range: Impedance... 1 to 2500 ohms; Phase... 0 to 360°; Attenuation... 0 to 30 db • Accuracy: Amplitude... $\pm 3\%$; Phase... $\pm 1.5^\circ$ • Terminals: Type N • Power Supply: 115 volts (or 220 volts), 50 to 60 cycles.

Federal

TRANSFORMERS



MINIATURE TRANSFORMERS

Miniature Hermetically Sealed input, output and inter-stage Audio Transformers, featuring Federal's new hermetically sealed terminal. Hermetically sealed power transformers and chokes. Meet government specifications.

Federal, with many years of technical experience in making high quality Transformers for use in their equipment, is now making that experience and know-how available to the industry. All manufacturing processes are done in-plant and all Mil T-27 testing facilities are available. Federal can solve your Transformer problems for various MIL T-27 types as

POWER • CHORES or REACTORS • NETWORKS
TOROIDS • DELAY LINES • AUDIO • PULSE

ENCAPSULATED

To meet the requirements of small space, light weight and humidity and still provide mechanical protection, Federal Transformer of the above mentioned types are available in encapsulated forms.



VOLTAGE REGULATING TRANSFORMERS

6 stock models with these features

Regulation—closer than $\pm 1\%$

Response time 1 1/2 cycles

Sizes 1 KVA and up have multiple primaries

Completely automatic—no moving parts or tubes

Low external stray field

Isolation between primary and secondary



Federal Telephone and Radio Company

A Division of INTERNATIONAL TELEPHONE AND TELEGRAPH CORPORATION

100 KINGSLAND ROAD, CLIFTON, N. J.

In Canada: Standard Telephones and Cables Mfg. Co. (Canada) Ltd., Montreal, P.Q.
Export Distributors: International Standard Electric Corp., 67 Broad St., N. Y.



M2A SUBMINIATURE RELAY Built to withstand severe mechanical vibration and shock. Designed to permit excessive vibration and shock without opening closed contact or closing open contacts. Has a completely balanced armature, palladium contacts for reliability and low contact resistance and is hermetically sealed.

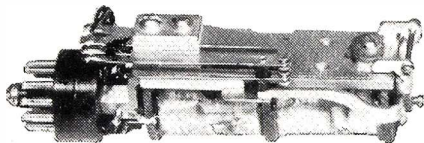
SPECIFICATIONS: Electrical—Insulation Resistance—100 megohms minimum between all contacts and frame. Dielectric Strength—1000 RMS 60 cycles between all contacts and frame. Contact material—palladium. Contact rating—

2 amp non inductive. Contact combinations—SPST, DPDT, 4 PDT. Coil resistance—400 Ω or as required. Operating current—.040 amp.

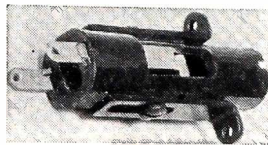
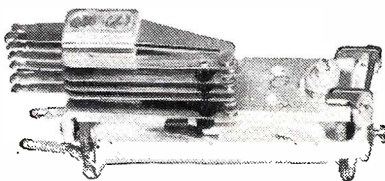
Mechanical—Weight—1.7 ounces. Height from socket— $1\frac{1}{16}$ inches. Diameter of case— $1\frac{1}{16}$ inches. Terminals arranged either for wiring or octal socket.

Environmental—Temp. Range—65° to + 125°. Vibration—10 to 2000 CPS at 20 G. Shock without opening contacts 100 G. Shock without physical damage to relay—1500 G.

TELEPHONE TYPE RELAYS



Telephone type relays available with a wide variety of contact combinations and ratings. Single and double coil combinations are available with coil resistances ranging from a few ohms to several thousand ohms.



LAMP SOCKET: Federal's new Lamp Socket is of exclusive design and features an easily adjustable side bracket that will fit all panel wall thicknesses. The crown of the Lamp Socket will hold all standard lamp caps.

SILICON RECTIFIERS: Exceptionally low forward voltage drop when passing full rated forward current with negligible leakage current for most applications. Simple, strong mechanical construction provides for temperature extremes, vibration and shock. Stud-type construction of higher current series assures mounting rigidity under the most adverse conditions.

Model No.	Terminal Construction	Forward Current	Peak Inverse Voltage	Temperature Ambient
CP-614-91	Axial Pigtail	300 ma	100	100°C
CP-614-92	Axial Pigtail	300 ma	200	100°C
CP-614-93	Axial Pigtail	300 ma	300	100°C
CP-614-1	Stud	400 ma	100	125°C
CP-614-2	Stud	400 ma	200	125°C
CP-614-3	Stud	400 ma	300	125°C

Others available at 10 ampere rating at 100 and 200 volt peak and 50 ampere rating at 71 volt peak.

GERMANIUM RECTIFIERS: High power, small size and good efficiency in new water cooled types rated 200 amperes at 93 volt peak. With proper series or parallel construction they will handle most high power requirements. In the medium power field, Germanium Rectifiers rated at 5 amperes can be stacked to deliver from 5 to 48 amperes with 70 to 315 volts A.C. input. Federal also produce 1N91, 1N92, 1N93 and 1N368 low power junction rectifiers and stacked assemblies.

A LIST OF FEDERAL TELEPHONE and RADIO PRODUCTS NOT DESCRIBED HEREIN • SEND FOR COMPLETE DETAILS

AMPLIFIERS Null Photocell Power Servo Transistor	CONTROLS Automatic Voltage Regulating Radio Remote Servo Temperature Electronic	Frequency Frequency, Microwave Impedance	Resistance SWITCHES Automatic Step Type
ANALYZERS Frequency Harmonic Wave	COUNTERS Photoelectric	MULTIPLEX SYSTEMS Frequency Division	SYSTEMS Remote Control
ANTENNAS Fixed Station Antenna Systems f-m Receiver f-m Transmitter Ground Plane • Railroad	CRYSTALS Germanium—Rectifying & Amplifying Silicon—Rectifying & Amplifying	OSCILLOSCOPES Cathode Ray Portable	TELEMETERING SYSTEMS Electronic
AUTOMATIC TELEPHONE SYSTEMS	DELAY LINES Distributed-Constant Fixed • Lumped-Constant Fixed	PANELS Relay Rack	TELEPHONES Handsets
ATTENUATORS	DIODES Germanium Silicon	RACKS Relay	TRANSFORMERS Audio Input, Output or Interstage Modulator
BATTERY CHARGERS Portable Selenium	DUPLEXERS Microwave	REACTORS Saturable	Power 400 Cycle Isolation Plate, Filament or Bias— Under 500 Watts Plate, Filament or Bias— Over 500 Watts
BRIDGES Capacitance Impedance Inductance Megohm Wheatstone	EMBEDDED ASSEMBLIES EMBEDDED COMPONENTS	RECEIVERS Fixed Frequency f-m Microwave Portable & Mobile Railroad vhf	Saturable Vibrator Miniature Pulse Saturable Toroidal
CAPACITORS, FIXED Decade Precision Air	FILTERS Band Elimination Band Pass Electric Wave Section Equalizer High Pass	RECTIFIERS Germanium Diode Germanium Area Type Metallic, Power Supplies	TRANSmitters f-m Fixed Frequency Fixed Station Communication Microwave Portable and Mobile Radio-telephone Pulse Time Modulation Railroad vhf
CAPACITORS, VARIABLE Trimmer Air	FUSES	REGULATORS Voltage Regulators & Stabilizers	TUBE PARTS Anodes, Metal Water Jackets
CHOKES Audio Filter Power	GALVANOMETERS	RELAYS Stepping Sub-Miniature Time Delay	VOLTMETERS Electronic
COMMUNICATION SYSTEMS Carrier Current Microwave Telephone Dial Switching Vehicular • Railroad	GENERATORS Hand Driven Signal—a-f Signal—f-m	RESISTORS Wire Wound 2 Watts and under Fixed Comp High Megohm	
	INDUCTANCES Power & a-f Coil Windings Toroidal	SELECTIVE CALLING APPARATUS	
	INDUCTANCES, VARIABLE	STANDARDS Capacitance Frequency Frequency, Microwave	
	INTERCOMMUNICATION SYSTEMS		
	METERS Distortion Field Strength f-m Deviation		

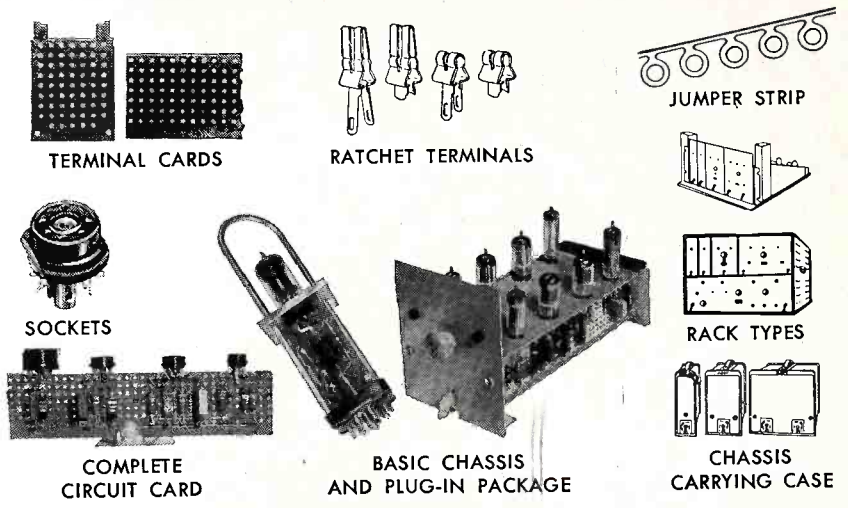
Economical solutions to your design, construction and servicing problems using Alden Products

WHEN YOU ARE CONFRONTED WITH PROBLEMS OF SIMPLIFYING DESIGN; SIMPLIFYING TROUBLE-SHOOTING AND SERVICING; OR PROVIDING MORE EFFICIENT CONNECTIONS FOR AC, HIGH VOLTAGES, AND IN-OUT CONNECTIONS; THE ALDEN PRODUCTS SHOWN BELOW CAN HELP YOU FIND PRACTICAL, ECONOMICAL SOLUTIONS.

IF YOUR PROBLEM INVOLVES DESIGN FOR SIMPLE CONSTRUCTION AND SERVICING . . .

The Alden Terminal Card Mounting System is certainly for you!

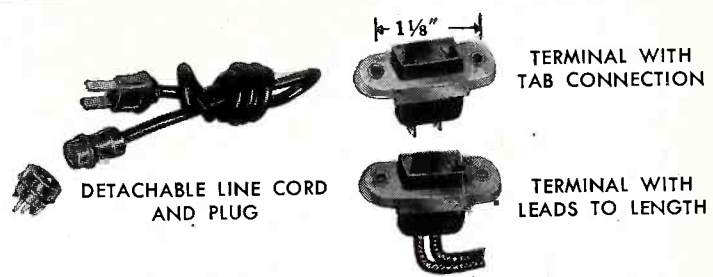
Here's how you use it: First, lay out your circuitry on Alden's full-scale planning sheets. Second, wire the components indicated into pre-punched terminal mounting cards. Alden miniature ratchet terminals permit you to snap pig-tail leads into place, shift them for experimentation, yet always provide a perfect electrical connection. Jumper strips eliminate wiring for common circuits. Card-mounting sockets for tubes, coils, crystals and condensers of the plug-in types provide direct mounting to the card. Third, lift circuitry direct from breadboard to production models. Fourth, adapt the card system to printed wiring. Fifth, Alden Basic Plug-in Chassis organize cards in "planes of circuitry," provide protective housing for the cards, organize all in-out wiring at a single point-of-check color-coded for easy servicing, and provide for quick removal or installation. Sixth, incorporate tiny Alden "tell-tales" to monitor the functioning of each chassis, then plug the chassis into an Alden Uni-Rack, a portable case, or a standard rack. Plug-in Chassis are available in 2", 4", 8", and 17" standard models.



IF YOUR PROBLEM IS AC INPUTS AND TAKE-OFFS . . .

Alden can provide a wide variety of connectors and outlets which will provide better than adequate power handling capability. They are unusually compact, and are fitted with tabs or leads to meet your wiring requirements. Alden Mini-SpAcE AC outlets (Type 402ACE) have been widely adopted in the electronics industry as female convenience outlets. Alden AC outlets and connectors are also commonly used in a variety of electrical appliances.

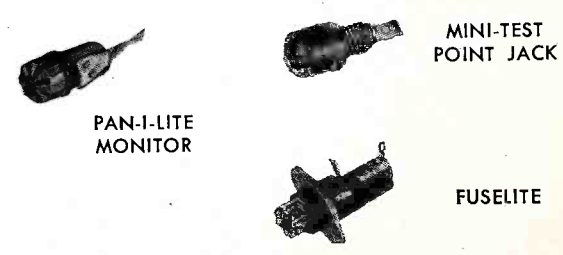
Alden Detachable Line Cords and Plugs provide an efficient, simple way to bring power into electronic chassis or electrical appliances. The plug is simple to mount, and the cord may be furnished in lengths to suit your requirements.



IF YOUR PROBLEM INVOLVES MONITORING CIRCUITRY AND TROUBLE-SHOOTING . . .

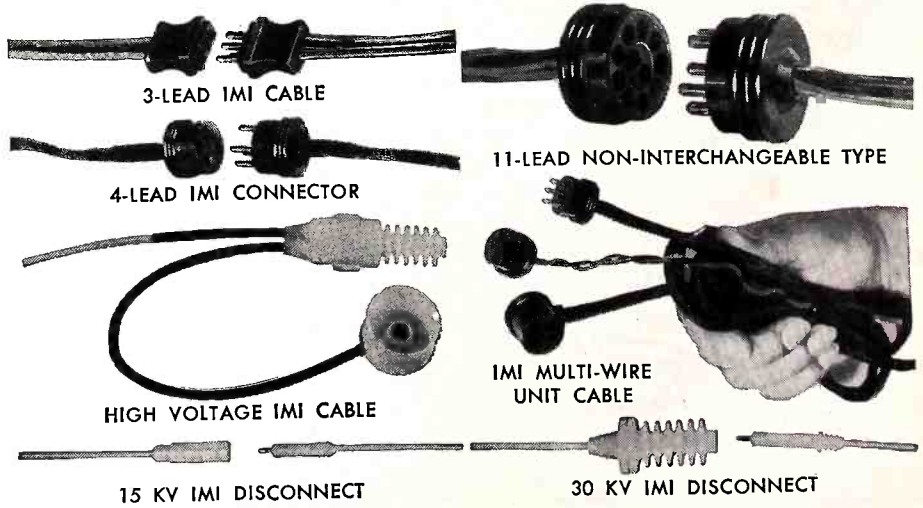
Tiny Alden Sensing Elements are compactly, sensibly designed to provide front panel "tell-tale" indication for instrumentation, controls and computers. Alden Pan-I-Lites provide visual front panel monitoring of critical circuitry by indicating malfunctioning units instantly. Alden Fuselites give instant, visual indication of blown or defective fuses. Mini-Test Jacks provide space-conserving front panel access for taking voltage readings at critical points in the circuitry, and eliminate the need for pulling out chassis and unscrambling wiring to check meter readings.

All these sensing elements simplify trouble-shooting. Used as an integral element in the Alden Terminal Card and Basic Chassis System, they permit non-technical personnel to spot trouble instantly and replace defective circuit "packages" with a serviceable spare.



IF YOUR PROBLEM INVOLVES MORE EFFICIENT, ECONOMICAL CONNECTORS . . .

Alden offers a complete selection of assembled connectors with leads tailored to your specifications. In addition, Alden now offers IMI (Integrally Molded Insulation) Connectors which eliminate potting, provide for moisture sealing and individual lead strain relief, minimize arc-over. IMI Connectors are available for up to 11 conductors in the standard series. IMI Connectors by Alden are in common use as single-lead high voltage disconnects; for two- and three-lead antenna terminations; in multi-wire speaker connectors; and in tube cap connectors. They are also available in non-interchangeable sets which simplify assembly and maintenance by preventing misconnects. Complete high voltage cables of IMI construction are available to handle up to 30 kv.



Whatever your problem involves in devices to mount, house, fasten, monitor or connect electronic circuitry, you're sure to find a wealth of valuable information in Alden's handbook—IDEAS, TECHNIQUES, DESIGNS. Let us know about your problem, and we'll send along appropriate information to assist you in finding the economical solution.



ALDEN PRODUCTS COMPANY, 112 N. Main St., Brockton 64, Mass.

TENSOLON WIRE & CABLE

... for -90°C to
 $+250^{\circ}\text{C}$ operation

A *Tensolite*
PRODUCT

For an extra margin of dependability at maximum operating temperatures, specify Tensolite's rugged Teflon[®] insulated wire and cable products. Resistant to all chemicals and solvents, Teflon combines minimum wall thickness with highest dielectric strength. © Du Pont

TEFLON INSULATED HOOK-UP WIRE	<p>Extruded Teflon insulation to meet the requirements of MIL-W-16878A Types E and EE, sizes 10-30 AWG in 14 solid colors and spirally striped.</p> <p>Parallel wrapped Teflon—exclusive patented construction featuring super-flexibility, sizes 20-34 AWG in 14 solid colors to MIL-W-16878A Types E and EE.</p> <p>Spiral wrapped Teflon—special cross-lapped construction with spiral striping conforming to commercial (GEN-104) and military (MIL-W-76A) specifications having the standard stripe width, lay and spacing. Sizes 8-30 AWG to MIL-W-16878A Types E and EE Specification.</p> <p>NEW 5 mil wall miniature Teflon hook-up wire for applications where space factor is extremely critical. Sizes 26, 28, 30 and 32 AWG in 4 solid colors.</p>
TEFLON LEAD WIRE	<p>Teflon impregnated fibreglas braid over Teflon insulated wire for high temperature motor and transformer leads. Sizes 8-32 AWG, solid and tracer colors.</p> <p>Silicone lacquered fibreglas braid over Teflon insulated wire for class H applications. Sizes 8-32 AWG, solid and tracer colors.</p>
SHIELDED TEFLON WIRE	<p>All of the above described hook-up and lead wires are available with closely woven wire braid shields to all military and customer specifications.</p> <p>100% shielding provided with a close-fitting drawn copper or aluminum tubing available on request.</p>
TEFLON TUBING	<p>Ultra-flexible slip-on insulation for 20-30 AWG sizes available in 14 solid colors.</p>
TEFLON AIRCRAFT WIRE	<p>New improved Teflon-glass-Teflon sandwich construction providing superior resistance to abrasion and vibration, as well as increased margin of safety for overload protection and emergency operation. Conforms fully to MIL-W-7139A, available in sizes 6 to 22 AWG.</p>
JACKETED SHIELDED TEFLON INSULATED CABLE	<p>Teflon outer jacket cross-lapped and fused to provide an impervious and flexible covering completely resistant to all corrosive chemicals. Available in 10 solid colors, or spiral striped, sizes 10-30 AWG.</p> <p>Teflon impregnated or silicone lacquered fibreglas braid outer covering over shielded Teflon insulation. These class H cables are available in solid and tracer colors, sizes 10-30 AWG.</p> <p>Extruded vinyl or nylon jackets over shielded Teflon wire for high frequency, moderate temperature applications. All standard sizes and colors.</p> <p>Nylon lacquered nylon braid outer covering over shielded Teflon wire for extra rugged applications at temperatures not exceeding 120°C. Solid colors and tracers, sizes 10-30 AWG.</p>
MINIATURE TEFLON COAXIAL CABLE	<p>50, 70 and 93 ohm extruded Teflon insulated miniature coaxial cables with extruded vinyl, nylon or Teflon outer jackets. Also available with lacquered over-braids.</p> <p>Finished coaxial cable assemblies are now being supplied with miniature connectors and fittings.</p> <p>Copper or aluminum clad miniature Teflon insulated coaxial cables for rugged applications with extreme size and weight limitation. The semi-rigid nature of this construction minimizes self-generated noises.</p> <p>Flexible low-noise miniature Teflon insulated coaxial cables are also available on request.</p>
MULTI- CONDUCTOR TEFLON CABLE	<p>Teflon insulated conductors cabled together to exact customer specifications.</p> <p>Shielded multi-conductor Teflon insulated cables.</p> <p>Teflon outer jacket, silicone or Teflon impregnated fibreglas braid and nylon lacquered nylon braid over shielded multi-conductor Teflon insulated cables are available for numerous specialized applications in tele-metering and instrumentation.</p>
CUSTOM TEFLON CABLE	<p>Tensolite's development facilities are ready to assist you in the design and selection of special Teflon wire, cable and thermocouple constructions as well as custom wire assemblies and harnesses.</p>

WRITE FOR
CATALOG

MEdford 1-2300

Tensolite

INSULATED WIRE CO • INC

198 MAIN STREET, TARRYTOWN, NEW YORK

Manufacturers with products to sell in the Field of Nuclear Energy find that advertising in NUCLEONICS is a sure-fire method of moving those products because they reach 11,000 potential purchasers through the advertising pages of NUCLEONICS. From Absorbent Paper to Zinc Bromide . . . products in the Field of Nuclear Energy are SOUGHT and BOUGHT by important Physicists, Metallurgists, Geologists, Biologists, Physicians, Radiologists, Bio-Chemists, Engineers, Technicians and Management because these important buying influences go first to the sales pages of NUCLEONICS for product data in Nuclear Energy.

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330 West 42nd St.
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REFLEX KLYSTRON OSCILLATORS
Self-Contained and External Cavity

MAGNETRON OSCILLATORS
for Pulse and CW Operation

Table with columns: Tube Type, Maximum Frequency Range, Power Output, Resonator Potential, Focus or Control Grid Potential, Maximum Temperature Coef., Filament Current, Type No., Heater (Volts, Amps), Band or Range, Maximum Ratings (Anode Kv, Anode Amps, Duty Cycle), Class, Typical Operation in Power Pk Kw.

1 = Mechanical Inductive, 2 = Mechanical Capacitive, 3 = Non-Contacting Plunger, 4 = Thermal Capacitive.
• 2 Tubes Necessary to Cover From 50,000 to 60,000 Mc
A = Coaxial Cable, B = Waveguide, * With UG/425/U Output Flange, § Typical Operating Range
•• Klystron-Tuner-.825

One Source for All Your Requirements

Raytheon, world's largest manufacturer of magnetrons and klystrons, offers the widest selection of microwave oscillators in the industry, including selected traveling wave tubes and reliable combinations of magnetrons and klystrons. This leadership results in mass production economies which mean important savings for you.

The list shown on this page includes only part of the tube selection available to you.

Contact Power Tube Sales for further details on any of the above types and classified and developmental types not yet listed. Complete Magnetron, Klystron and Special Tube Data Booklets available on request.

Also Available—A line of Backward Wave Oscillators, Traveling Wave Tubes, Storage Tubes and Other Special Types.

RAYTHEON MANUFACTURING COMPANY



Microwave and Power Tube Operations

Section PL-41, Waltham 54, Mass.

* Class 1 = Tunable CW, 2 = Fixed Frequency-Pulsed, 3 = Tunable-Pulsed, 4 = CW Electro-Mech. Freq. Mod., 5 = Fixed Frequency-CW

RAYTHEON VOLTAGE STABILIZERS

Standard Catalog Models										
Catalog No.	Output Capacity Watts	Style	Dimensions in Inches					Voltages		Net Wt. Lbs.
			Overall			Mounting		Input	Output	
			L	W	H	L	W			
VR-6110	15	F	6 $\frac{1}{4}$	2 $\frac{5}{16}$	3	5 $\frac{1}{16}$	5 $\frac{1}{16}$	95-130	115	4
VR-61F0	15	F	5 $\frac{3}{4}$	2 $\frac{5}{16}$	4 $\frac{1}{16}$	5 $\frac{3}{16}$	4 $\frac{1}{16}$	95-130	6.3	4
VR-61D0	15	D	3 $\frac{1}{16}$	2 $\frac{5}{16}$	4 $\frac{1}{16}$	2 $\frac{1}{4}$	1 $\frac{5}{16}$	95-130	6.3	6
VR-6710	25	W	7 $\frac{5}{16}$	3 $\frac{1}{8}$	3 $\frac{3}{8}$	7 $\frac{3}{16}$	1 $\frac{1}{2}$	95-130	6.0	4
VR-6101	30	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{1}{8}$	6 $\frac{3}{8}$	2 $\frac{1}{4}$	95-130	6.0/7.5	5
VR-6111	30	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{1}{8}$	6 $\frac{3}{8}$	2 $\frac{1}{4}$	95-130	115	5
VR-6111-CP	30	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{1}{8}$	6 $\frac{3}{8}$	2 $\frac{1}{4}$	95-130	115	5
VR-6221	30	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{1}{8}$	6 $\frac{3}{8}$	2 $\frac{1}{4}$	190-260	230	5
VR-6112	60	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{3}{16}$	6 $\frac{3}{8}$	2 $\frac{1}{4}$	95-130	115	8
VR-6112CP†	60	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{3}{16}$	6 $\frac{3}{8}$	2 $\frac{1}{4}$	95-130	115	8
VR-6222	60	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	4 $\frac{3}{16}$	6 $\frac{3}{8}$	2 $\frac{1}{4}$	190-260	230	8
VR-6113	120	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	5 $\frac{1}{16}$	6 $\frac{3}{8}$	2 $\frac{1}{4}$	95-130	115	14
VR-6113CP†	120	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	5 $\frac{1}{16}$	6 $\frac{3}{8}$	2 $\frac{1}{4}$	95-130	115	14
VR-6223	120	E	7 $\frac{1}{2}$	3 $\frac{3}{8}$	5 $\frac{1}{16}$	6 $\frac{3}{8}$	2 $\frac{1}{4}$	190-260	230	14
VR-6114	250	E	12 $\frac{3}{8}$	5	7 $\frac{7}{8}$	11 $\frac{1}{16}$	3 $\frac{1}{2}$	95-130	115	25
VR-6224	250	E	12 $\frac{3}{8}$	5	7 $\frac{7}{8}$	11 $\frac{1}{16}$	3 $\frac{1}{2}$	190-260	230	25
VR-6115	500	E	12 $\frac{3}{8}$	5	7 $\frac{7}{8}$	11 $\frac{1}{16}$	3 $\frac{1}{2}$	95-130	115	45
VR-6225	500	E	12 $\frac{3}{8}$	5	7 $\frac{7}{8}$	11 $\frac{1}{16}$	3 $\frac{1}{2}$	190-260	230	45
VR-6116	1000	H	13 $\frac{3}{16}$	14 $\frac{1}{16}$	9 $\frac{5}{8}$	11 $\frac{1}{16}$	12 $\frac{3}{8}$	95-130	115	92
VR-6226	1000	H	13 $\frac{3}{16}$	14 $\frac{1}{16}$	9 $\frac{5}{8}$	11 $\frac{1}{16}$	12 $\frac{3}{8}$	190-260	230	92
VR-6117	2000	H	36 $\frac{1}{4}$	14 $\frac{3}{8}$	10 $\frac{1}{8}$	34	12 $\frac{3}{16}$	95-130	115	185
VR-6227	2000	H	36 $\frac{1}{4}$	14 $\frac{3}{8}$	10 $\frac{1}{8}$	34	12 $\frac{3}{16}$	190-260	230	185
VR-7B	2000	C	16 $\frac{1}{4}$	14 $\frac{3}{4}$	11 $\frac{3}{8}$	9 $\frac{3}{8}$	13 $\frac{3}{8}$	115/230	115/230	200
VHF-6114*	250	E	14 $\frac{1}{16}$	13 $\frac{3}{16}$	9 $\frac{5}{8}$	12 $\frac{3}{8}$	11 $\frac{1}{16}$	95-130	115	49
VHF-6115*	500	E	14 $\frac{1}{16}$	13 $\frac{3}{16}$	9 $\frac{5}{8}$	12 $\frac{3}{8}$	11 $\frac{1}{16}$	95-130	115	75
VHF-6116*	1000	E	29 $\frac{1}{4}$	14 $\frac{3}{8}$	10 $\frac{1}{4}$	27 $\frac{3}{8}$	12 $\frac{3}{16}$	95-130	115	150

*Harmonic filtered models. Harmonic content less than 3%.

†Portable models, supplied with cord and plug and output receptacle.

FEATURES

1. Deliver accurate AC voltage within $\pm \frac{1}{2} \%$
2. Stabilize output with more precision
3. Regulate better at full load
4. Hold up better under over-load
5. Better no-load to full-load regulation
6. Accept wider input voltage range
7. Less voltage change as units heat up
8. Less change in output as frequencies fluctuate
9. Smaller, lighter, more compact; no moving parts
10. Cost less to operate



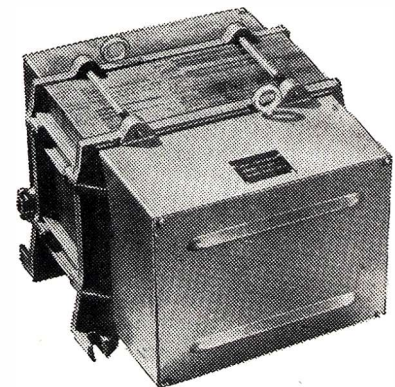
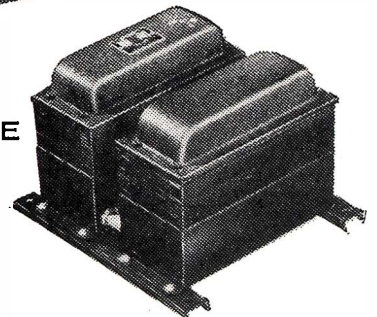
STYLE D

STYLE E



STYLE F

STYLE H



STYLE C

The complete line of Raytheon Voltage Stabilizers is available through 155 authorized distributors. Special custom-built units, ranging from 5 to 10,000 watts are also available to meet special needs. Write for complete information.



A-4009

RAYTHEON MANUFACTURING COMPANY

Equipment Marketing Department • Waltham 54, Mass.

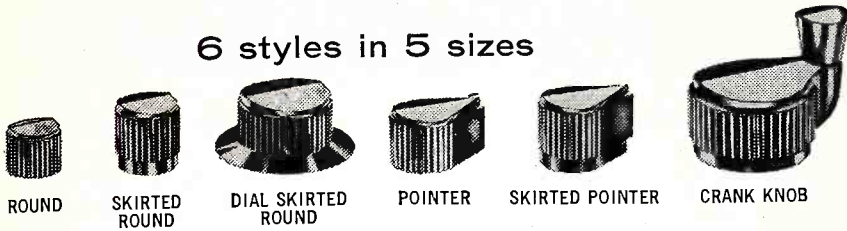
Excellence in
Electronics

District Offices: Atlanta, Baltimore, Boston, Chicago, Cleveland, Kansas City, Los Angeles, New Orleans, New York, Seattle

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please mention Electronics Buyers' Guide.

RAYTHEON STANDARD CONTROL KNOBS

6 styles in 5 sizes



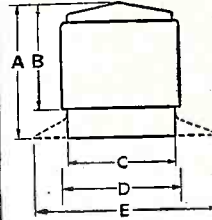
Important Features

- Conform to Government Specifications
- Required type and number of set screws
- Greater design flexibility • Rugged construction • Molded of Tenite II
- Integrated styling • Distinctive finishes

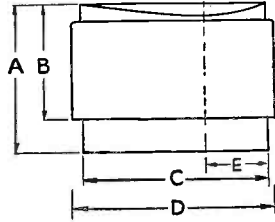
AVAILABLE MODELS										
Description	70 Series		90 Series		125 Series		175 Series		225 Series	
Style	Cat. No.	Std. Pkg.	Cat. No.	Std. Pkg.	Cat. No.	Std. Pkg.	Cat. No.	Std. Pkg.	Cat. No.	Std. Pkg.
Round	70-1-2	12	90-1-2	12	125-1-2	6	175-1-2	6	225-1-2	4
Skirted Round	70-2-2	12	90-2-2	12	125-2-2	6	175-2-2	6	225-2-2	4
Dial Skirted Round	70-3-2	12	90-3-2	6	125-3-2	6	175-3-2	2	225-3-2	2
Pointer	70-4-2	12	90-4-2	12	—	—	—	—	—	—
Skirted Pointer	70-5-2	12	90-5-2	12	—	—	—	—	—	—
Crank	—	—	—	—	125-6-2	4	175-6-2	2	225-6-2	2

NOTE: Catalog numbers above indicate Mirror finish.
For Matte finish add the suffix "G" to end of catalog number.
ALL KNOBS FOR 1/4" SHAFTS

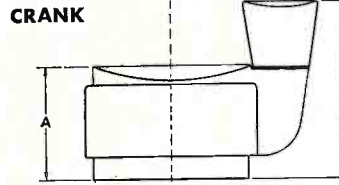
ROUND & DIAL	Series	A	B	C	D	E
	70	.80	.62	.64	.71	1.14
90	1.03	.80	.83	.91	1.51	
125	.87	.70	1.16	1.26	1.82	
175	1.09	.85	1.67	1.76	2.45	
225	1.11	.89	2.15	2.26	3.02	



POINTER	Series	A	B	C	D	E
	70	.80	.62	.94	1.04	.32
90	1.03	.80	1.22	1.34	.41	



CRANK	Series	A	B	C
	125	.87	1.38	1.09
175	1.09	1.77	1.50	
225	1.11	1.80	1.75	



RAYTHEON PANEL COMPONENTS



Printed Circuit Test Jacks

Specially designed for printed circuit use • Accepts standard 0.080" test prod • Simple mounting—just insert and dip-solder • 8 brilliant insulator colors for circuit coding



Subminiature Test Jack

Fixed or snap-in contact types available • Fast, easy expansion mounting • Accept standard 0.080" test prod • Colored insulators for circuit coding



Terminal Board Bracket

Provides rigid support under shock or vibration • Mounts single or double panels • Meets military specifications • Cold-rolled carbon steel, cadmium plated



Knob Lock

Prevents control movement by shock or vibration • Replaces potentiometer mounting hardware • Neat appearance—matches standard Raytheon knobs • Available in Mirror or Matte finish



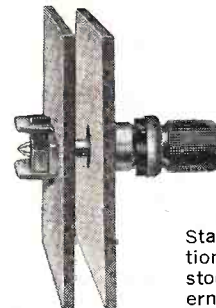
Binding Posts

Provides 5-way connection • High strength nylon and brass construction • Accept standard 0.080" test prod • Available in black or red



Shaft Lock

For use with screwdriver-adjusted controls • Constant friction drag prevents accidental rotation • Provides seal against dirt and moisture • Replaces standard mounting hardware



Captive Hardware

Stainless steel construction • Wide assortment of stock sizes • Meets government specifications • Neoprene gasket provides dirt and moisture seal



Pull Handles

Functional design—integrated with Raytheon Standard Control Knobs • Tenite II—anodized aluminum inserts • Mirror or Matte finish



RAYTHEON MANUFACTURING COMPANY

Equipment Marketing Department • Waltham 54, Mass.

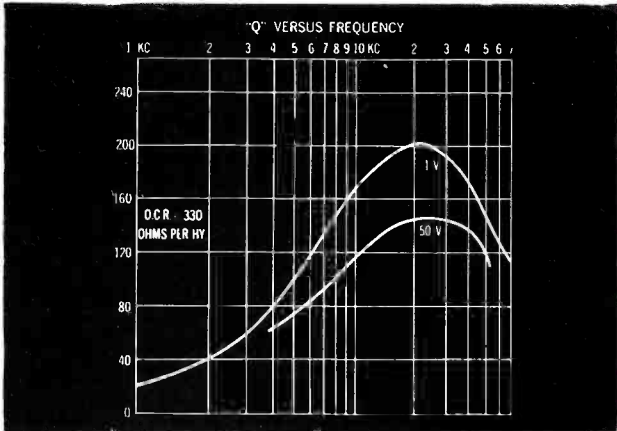
A-4010

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variable "L" by BURNELL



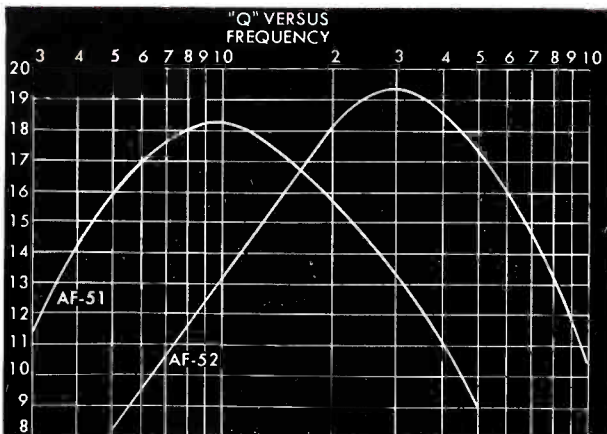
Typical Q vs. frequency characteristics of Adjustoroids.

RANGE OF NORMAL INDUCTANCES FOR STOCK ADJUSTORIODS

IND. MHY	AT-11	AT-12	AT-0	AT-6	AT-10	AT-4	AT-1	AT-15	AT-2
50	TC-11 CORE	TC-12 CORE	TC-0 CORE	TC-6 CORE	TC-10 CORE				
500		500		50					
750					750				
3M			3M						
5M	5M								
10M									
15M						15M	15M		
50M									
80M									
100M								125M	125M
125M									

For nominal D. C. R. values refer to Burnell catalog No. 103.

COMPLETE TECHNICAL INFORMATION UPON REQUEST.
© copyrighted, patent applied for.



Typical Q vs. frequency characteristics of Variable Inductors.

ADJUSTORIODS®

The Adjustoroid, a low cost adjustable toroid, exclusively developed by Burnell & Company, Inc., contains an actual complete toroid with all the excellent characteristics of the non-adjustable types. Adjustment is obtained by a completely stepless function with magnetic biasing.

The nominal inductance value for an Adjustoroid is the **maximum** value, and the inductance range is the nominal value minus approximately 10%.

Hermetically sealed to meet Government MIL specifications. Many types of networks in tuned circuits are being produced which employ the Adjustoroid in completely hermetically sealed packages.

Intermediate inductance values as well as special taps and extra windings available on special order with minimum delay.

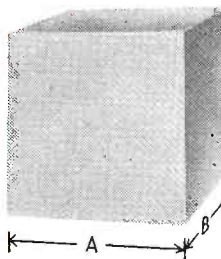
For additional technical data on Adjustoroids, refer to equivalent toroid in catalog.



AT-0, AT-6, AT-10, AT-4



AT-1, AT-2, AT-11, AT-12



ADJUSTORIOD & VARIABLE INDUCTOR DIMENSION CHAR.

	A—LENGTH	B—WIDTH	C—HEIGHT
AT-0, AT-6	1-1/16"		1"
AT-10, AT-4	1-19/64"		1-1/4"
AT-15	1-31/32"		1-7/8"
AT-11, AT-12	45/64"	45/64"	3/4"
AT-1	1-3/4"	1-3/4"	1-1/4"
AT-2	2-3/4"	2-3/4"	2-1/4"
AF-51, AF-52	1-19/64"		2"

and now ...

VARIABLE INDUCTORS

AF-51 AF-52

(20-500 cycles)
Maximum Q at 100 cycles

(50-1000 cycles)
Maximum Q at 250 cycles

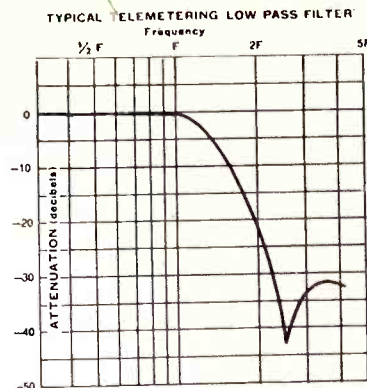
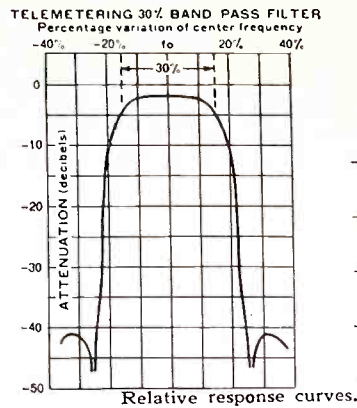
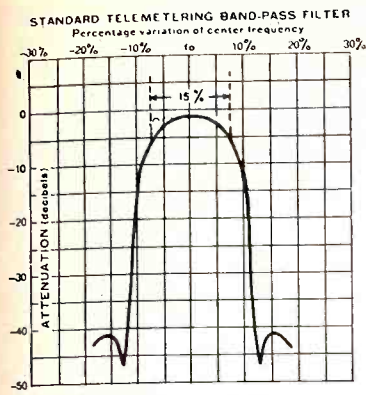
Burnell Variable Inductors have the similar characteristics to the Adjustoroid except they are especially designed for low frequency applications or for conditions where high inductance values are required. Variable Inductors are available in all inductance values up to 1000 Hys.

BURNELL & CO., INC.

YONKERS 2, NEW YORK Teletype: Yonkers, N. Y. 3633
Pacific Division: 720 Mission St., S. Pasadena, Calif



TELEMETERING BAND PASS FILTERS



FREQS.	BAND WIDTH 15%	BAND WIDTH 30%
400 cycles	S-6612	
560 cycles	S-6613	S-10325
730 cycles	S-6614	S-10326
960 cycles	S-7468	
1300 cycles	S-6616	
1700 cycles	S-3357	
2300 cycles	S-3358	
3000 cycles	S-3359	
3900 cycles	S-3360	S-7773
5400 cycles	S-3361	S-7772
7350 cycles	S-3362	S-7774
10500 cycles	S-3363	S-13132
12300 cycles	S-6528	
14500 cycles	S-3364	S-7605
22000 cycles	S-6537	S-3365
30000 cycles	S-6619	S-12331
40000 cycles	S-6620	S-7292
52500 cycles	S-6621	S-15612
70000 cycles	S-6622	S-7293

Case CS-3357

Telemetering Band Pass Filters—This series of filters is produced in accordance with the most widely accepted specifications for telemetering systems.

Telemetering filters are now available for every channel ranging from 400 cycles to 70,000 cycles and for various band widths between 15% and 40%. In addition to the standard case types which conform to the original A.P.L. specifications, special case sizes are also supplied.

Telemetering Low Pass Filters—These filters are supplied for operation in the sub-carrier discriminator of telemetering apparatus and are employed in the demodulating circuit for the purpose of attenuating all unwanted signals and harmonics leaving only the modulation intelligence. These filters are available for operation in an unbalanced line or balanced line and range in cut off frequency from 6 cycles up to 10,500 cycles. Operating impedance is generally 330 ohms.

MINIATURIZED BAND PASS FILTERS

Miniaturized Band Pass Filters—In view of the large number of filters that are employed in telemetering equipment, the size of the filters is a major contributing factor to the size of the equipment. As the approximate volume of a set of twenty standard telemetering band pass filters is 1500 cubic inches, even for ground based equipment this bulk can be objectionable. This is particularly true of mobile stations. Our cognizance of this led to the development of a series of miniaturized filters that necessitates practically no sacrifice of desired attenuation characteristics.

The tremendous advantage of these new filters can be seen from the fact that a set of the same twenty filters would have a volume of less than 300 cubic inches representing a reduction by volume of 80%. Every telemetering filter now being supplied in the standard case is also available in the new miniaturized version.

An additional feature of these new compact filters is hermetic sealing to conform with MIL-T-27 specifications. These are also equipped with an octal plug for ease of interchangeability.

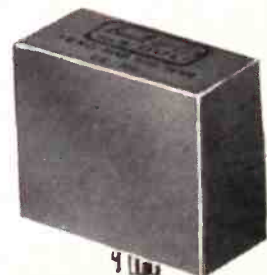
LISTING OF MINIATURE TELEMETERING BAND PASS FILTERS

RDB Channel Freq.	15% Band Width Type No.	30% Band Width Type No.	Case Size W. L. H.	Approx. Weight	Attenuation							
					15% B.W.	30% B.W.						
400 CPS.	S-15456	S-25311	2 x 6 x 2 3/4	3 lbs.	4DB—15%	4DB—30%						
560 "	S-15457	S-15477			20DB—23%	20DB—46%						
730 "	S-15458	S-15478			40DB—27%	40DB—54%						
960 "	S-15459	S-25312										
1300 "	S-15460	S-25313	1 1/8 x 4 1/2 x 2 1/4	1 lb. 7 oz.	3.5DB—15%	3.5DB—30%						
1700 "	S-15461	S-25314			20DB—23%	20DB—46%						
2300 "	S-15462	S-25315			40DB—27%	40DB—54%						
2570 "	S-15463	—	1 1/8 x 3 x 2 1/4	9 1/4 oz.	3DB—15%	3DB—30%						
3000 "	S-15464	S-25316					20DB—23%	20DB—46%				
3900 "	S-15465	S-15479							40DB—26%	40DB—52%		
4500 "	S-15466	S-25317										
5400 "	S-15467	S-15480										
7350 "	S-15468	S-15481										
10500 "	S-15469	S-15482										
12300 "	S-15470	S-24021										
14500 "	S-15471	S-15483										
22000 "	S-15472	S-15484										
27000 "	—	S-15485										
30000 "	S-15473	S-15486										
40000 "	S-15474	S-15487										
52500 "	S-15475	—										
70000 "	S-15476	S-15488										

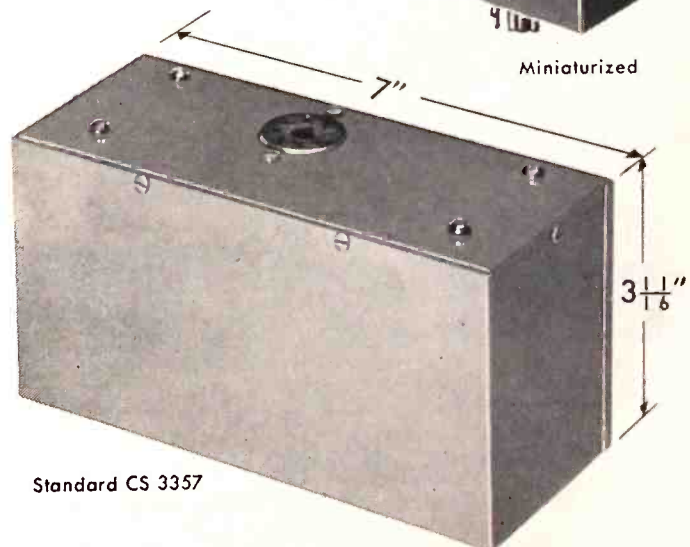
RELATIVE CASE SIZES



Two Thumb Telemetering filter approximate volume: 1 cubic inch.



Miniaturized



Standard CS 3357

Also available hermetically sealed with male plug

When ordering or seeking information please mention Electronics Buyers' Guide.

OPTIMUM OPERATING IMPEDANCES		SOCKET TERMINAL CONNECTIONS	
INPUT		OUTPUT	
Terminals 1 & 2	500 ohms	Terminals 1 & 6	500 ohms
Terminals 1 & 3	10000 ohms	Terminals 1 & 7	50000 ohms
Terminal 8—case			



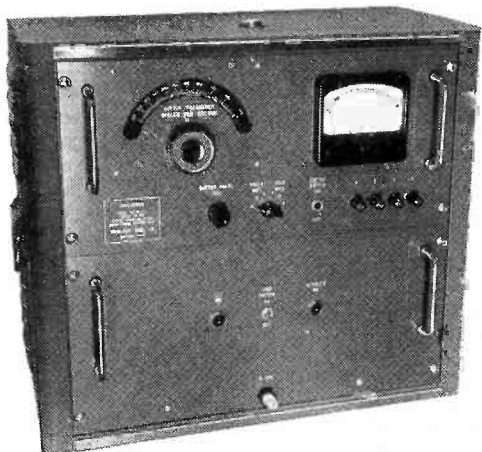
Teletype: Yonkers, N. Y. 3633

BURNELL & CO., INC.

45 Warburton Avenue
Yonkers 2, New York

Pacific Division: 720 Mission St., S. Pasadena, Calif.

DO YOU NEED 400 CYCLE OR OTHER A. C. POWER?



MODEL 253-D-2
250 V. A. (3 Phase)
350-450 CPS
OUTPUT.

THE BEHLMAN

INVERTRON

IS A HIGHLY ACCURATE, EXCEPTIONALLY
STABLE, COMPLETELY ELECTRONIC

A. C. POWER SOURCE

The INVERTRON is available with power output ratings from milliwatts to kilowatts. Frequencies from subsonic to supersonic, fixed or variable, with accuracies to .001% for fixed frequencies and to .1% for variable frequencies. Sine wave distortion is never greater than 2%, with .5% or less available. Standard regulation from no load to full load is 1% with .5% or better obtained by adjustment of regulation control. If you are developing or testing Magnetic Amplifiers, Servo Systems, Airborne Instrumentation, Synchros, Motors, Shaker Tables, Choppers, Etc., consider the BEHLMAN INVERTRON.

WE EMPLOY MODULAR CONSTRUCTION TECHNIQUES TO PROVIDE YOU
WITH CUSTOM INSTRUMENTATION AT PRODUCTION LINE PRICES.

WRITE NOW FOR FURTHER INFORMATION

BEHLMAN
ENGINEERING COMPANY

ELECTRONICS • MECHANICS • OPTICS
DESIGN • DEVELOPMENT • PROTOTYPE

114 SOUTH HOLLYWOOD WAY
BURBANK, CALIFORNIA

ALSO

POWER AMPLIFIERS, OSCILLATORS, FREQUENCY STANDARDS
AND CUSTOM INSTRUMENTATION.

VHS RELAY

(Very High Sensitivity)

NEW: Some VHS Relays can now be built with adjustable sensitivity.

Model 266

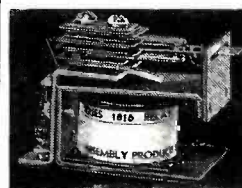


Sample specs. are:
0.2 microamperes,
(12,000 ohms coil)
or, 0.1 millivolts (5
ohms.)



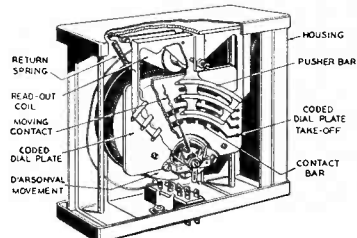
The VHS is a D'Arsonval moving coil relay, internally shock-mounted. The screw-on cover is gasket-sealed. Connections: 9 pin octal style. Dimensions: 1 3/4 diameter x 2 1/4 long. Weight: 4 ounces. Sensitivity: Infinite variations from 0.2 Ua to 10 Amp. or 0.1 Mv to 500 volts, self contained. Higher volts or amps with external multipliers or shunts. AC rectifier types. Trip point accuracies to 1%. Differential 1%. The degree of resistance to shock and vibration depends upon sensitivity and type of action wanted. In general, the relays will not be permanently damaged by shocks of 100G's and vibrations up to 2,000 cps at 3 to 4 G's. The most sensitive relays may close their contacts under these conditions.

Contacts: SPST or SPDT, 5-25 Ma. DC. Other ratings to 1/2 Amp. AC. A locking coil gives high pressure and chatter-free contact even under shock and vibration. Prices \$20 to \$80.



Series 1816 and 1818 Relays

Low operating current, snap action contacts, 5 amps, 125 volts (AC non-inductive) Designed for use with meter-relays. Combine high sensitivity with heavy load capacity. SPDT or DPDT. Also available in plug-in cans. Prices \$6 to \$14.50



LIAD MULTI-CONTACT METER-RELAY

This is a device made up of: a D'Arsonval meter movement—with one or several contacts carried on the moving pointer, a printed circuit scale (95 angular degrees) in place of a normal meter dial, and a device for gripping the pointer and its contacts to the scale contact bars. The unique combination of contact closures resulting from this gripping is indicative of the level of the signal—and can be transmitted or used for: telemetering; automatic production testing or grading; maximum value reading; simple quantitative read-out, etc. Standard LIAD with 10 segment scale band, one milli-ampere sensitivity, 12 volt read-out coil. Price \$100.00



Send For Catalog:
40-PAGE CATALOG 4A
DESCRIBES COMPLETE
PRODUCT LINE—includes
circuitry, response time,
prices, discounts, etc.

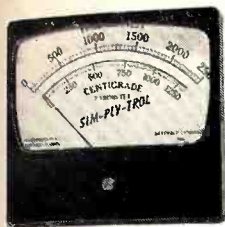
WE DESIGN TO YOUR REQUIREMENTS

If your instrument or control problem is not answered by anything shown, call or write. Quantity discounts for 100 units range from 25% to 45%. Simplified specifications decrease prices further.

Delivery is 3 to 6 weeks on most special orders. Some ranges are kept in stock for immediate delivery.

**ASSEMBLY
PRODUCTS, INC.**

INDICATING PYROMETERS AND API PANEL METERS



Model 461
0-2500°F. \$32.70

Medium resistance pyrometers (4 ohms per millivolt). Automatic, bimetal cold junction correction. Compensated for copper error. Accuracy 2%. Available with 1% accuracy or thermistor compensated for wide ambient variations.

Furnished with adjusting resistor to take thermocouples up to external resistance of 10 ohms. Higher external resistance for some ranges. White or black face dials.

Standard ranges are:

0-3000°F. The minimum range for a pyrometer is 300°F. for full scale deflection from one thermocouple. Two or more thermocouples can be used in series to cut down this minimum—if their resistance does not become excessive.
0-2500
0-2000
0-1500
0-1000
0-750
0-500
0-300
-75 to +225
-200 to +100 (Many other ranges available.)

Model 255, 2 1/2"

Ruggedized-Sealed Pyrometer with shock-mounted movement.

0-2000°F. \$28.40



Model B Portable Pyrometers

Price: \$30.50 to \$55.25

Includes thermocouple with 5' lead and oak carrying case. Permits spot checks without requiring a permanent installation.



API PANEL METERS



Model 261
0-1Ma DC \$11.50



Model 451
0-20 Ua DC \$27.50

D'Arsonval movements, Alnico magnets, tubing or knife-edge pointers. AC meters are rectifier type. Normal DC accuracy, 2%, AC 3%. Higher accuracies available. Zero right, zero center meters or up to two-thirds of range suppressed available. AC and DC meters in multiple ranges. Special dials in colors, black face, your name, etc.

STYLES: PYROMETERS & API PANEL METERS

Ruggedized-Sealed

2 1/2, 3 1/2, 4 1/2 inch round metal case, sealed zero adjust, shock-mounted movement.

Black Bakelite

2 1/2", round or square, 3 1/2" round or square, 4 1/2" rectangular. (Other colors in 4 1/2" size only).

Clear Plastic

2 1/2", 3 3/4" and 4 1/2" rectangular.

Note: Special panel meters and pyrometers (including ruggedized-sealed) can be engineered to your requirements.

CONTROLS

SIMPLYTROL AUTOMATIC TEMPERATURE CONTROL, THERMOCOUPLE-ACTUATED



Cat. 4535 0-1000°F. 1/C
Approx. 10 x 6 x 7" \$135

Compact
Reliable
Simple

Ranges from
-400°F. to
+3000°F.

Indicating
accuracy 2%.

Control accuracy
often better
than 1/2%.

On-off control or automatic shut-down for furnaces, ovens, kilns, etc.

Few moving parts—no vacuum tubes. Regular load relay is SPDT 5 amps. Optional heavy duty relays to 40 amps. Indicating meter-relay is medium high resistance and has bimetal cold junction compensation. For use with all standard thermocouples.

No leveling required—just connect thermocouple, connect load (two or three wire), and plug in to 115 or 230 volt AC line.

OPERATION: Control action starts when the EMF generated by the thermocouple moves the D'Arsonval coil in the meter-relay, and causes a contact carried on the indicating pointer to touch one mounted on the control pointer. This causes a load relay to turn the heat off. Only if the temperature drops below the control point will the load relay drop out to turn the heat on again.



SILHOUETTE
Meter-relay mounts
in front of panel,
chassis behind.



BEARING TEMPERATURE MONITOR

Cat. No. 3590-4 \$355.00

Meter-relays, operating directly from thermocouples, give immediate warning or shut-down upon dangerous temperature rise in bearings (or other danger points). Any number of points can be monitored.

VERSATROL AUTOMATIC CONTROLS

For any variable that can be measured electrically. Adjustable control points. Automatic operation.



Cat. 3581
Versatrol High Limit
Automatic with
451-C Meter-Relay
(0-20 Ua DC)
Approx. 10x6x7"
Price \$154.25

The Versatrol consists of a meter-relay and all additional components for a complete control assembly. Any range or type of meter-relay can be supplied in a Versatrol. Self-contained load relays have 5 ampere contacts. The control point is adjustable from the front—can be set to any place on the meter scale. Meter-relays for Versatrols can be calibrated in "Feet Per Minute" (tachometers), "Foot Candles" (photo cells), "Counts per minute", (Geiger), "Deflection", (Strain gages), "Deviation", (zero center)—and any other function that can be converted to electrical units.

Control can be high limit (on an increase in signal), low limit (on a decrease in signal), or double (control action on rise or fall of signal). Versatrol can be used for continuous on-off control (automatic) or for shut-down or alarm (requiring manual reset). No vacuum tubes are used. Available in wall cabinet, panel mount, "U-Mount-It" etc.

METER-RELAYS

D'Arsonval indicating meters with built-in locking contacts for sensitive control or alarm.

Typical Applications:

Radiation detection and alarm
Automatic component testing
Heat and pressure control
Reactor protection
Signal detection in radar warning systems
pH control in automatic titration
Speed control for machines and conveyors
Control of evacuation pumps in vacuum tube mfg.
Chemical process control
Continuous monitoring of current and voltage
Automatic prospecting
Controlling rates of flow of bulk materials
Automatic switching of standby microwave equipment
Bearing temperature monitoring on pumps, turbines

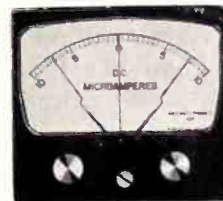


Model 255-C
High limit,
Ruggedized-Sealed
0-100 Ua DC
\$46.00

Narrow bezel permits longer scale length, takes less panel space.

Operation:

Trip point adjustable to any point of scale arc. Sensitive to changes of less than 1%. One contact carried on moving pointer. The other on an adjustable pointer. When two pointers meet, contacts close and lock. Holding coil is wound directly over moving coil, locking action is electro-magnetic. Manual or automatic reset. Spring action in contacts kicks them apart.



Model 461-C Bakelite
Double Contact
10-0-10 Ua DC
\$83.25

Styles:

RUGGEDIZED-SEALED metal cases are 2 1/2, 3 1/2, and 4 1/2" round, shock-mounted movement, gasket-sealed.

BLACK BAKELITE . . . glass front, 4 1/2" rectangular case. Other colors on special order.
CLEAR PLASTIC CASES 2 1/2, 3 3/4, & 4 1/2" rect.

Ranges:

0-5 Microamps to 0-50 Amps. 0-5 Millivolts to 0-500 volts, AC or DC. (Minimum AC voltage range 0-250 Mv.) Thermocouple temperature ranges cover from -400 to +3000°F. Minimum full scale movement from one thermocouple is 300°F. Thermistors and thermopiles are used for more sensitive ranges.



Model 451-C
Double Contact -100
to +400°F. — \$64.00

Environmental:

Typical ruggedized-sealed meter-relays will meet these specs:
Shock: 1 and 3-foot drops, 400 lb. hammer, 3 planes.
Vibration: MIL-M-10304A.

Salt Spray: QQ-M-151A.
Temp.: -30°/+70° C.
Sealing: MIL-M-6A.

Accuracy:

Point of contact: 1/4% to 1%.
Indicating: ±2% of full scale at any point of dial. Can be 1% on request. Thermistor compensation can be supplied for ambient variation of 0 to 140°F.

Contacts:

Rating: Standard is 5-25 milliamperes at 75-125 volts DC. Can be to 100 milliamps at 6-125 Volts DC.
Arrangement: High Limit (makes on increase of signal), Low Limit (makes on decrease of signal), Double (both high and low contacts)
Life: 10 to 20 million operations.

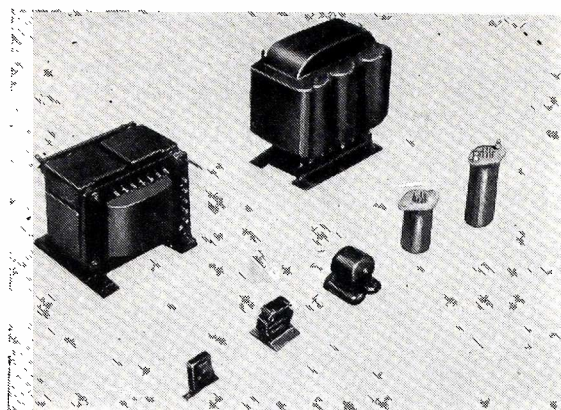
ASSEMBLY PRODUCTS, INC.

CHESTERLAND 6, OHIO. Phone: (Cleveland, O.) HAmilton 3-4436
or PO Box 308, Desert Hot Springs 6, Calif., Phone 4-3133 & 4-2453



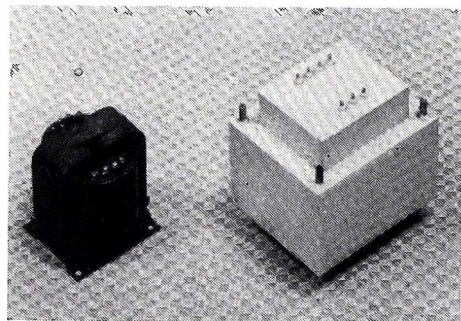
TRANSFORMERS FOR MILITARY & INDUSTRIAL APPLICATIONS

Manufacturers of Transformers since 1930



SPECIALLY TREATED TRANSFORMERS

For those innumerable transformer applications in electronic equipment where size, weight and resistance to various atmospheric and temperature conditions are the determining factors, ITC can encapsulate or mold to meet practically any specified condition. This can be accomplished without any deviation in transformer performance due to special ITC techniques and materials. Special ITC test equipment can simulate temperature, humidity and atmospheric conditions thereby permitting transformer testing under identical operating conditions. ITC specially treated transformers have been "use-proven" in the field under rigid MIL-T-27A specifications.

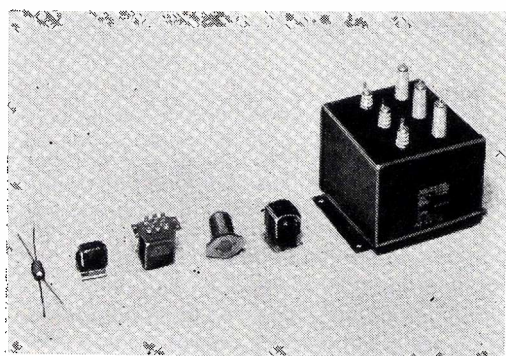


HIGH TEMPERATURE TRANSFORMERS

Constant technological developments in the electronic industry, primarily in the area of military defense, are rapidly increasing the applications for reliable, high temperature transformers. ITC has accumulated much data and experience in the design, fabrication and testing of these transformers to meet rigid Military Specifications.

Transformers have been constructed using practically every high temperature material that has been available in the last decade to insure transformer reliability and performance in the field. ITC's work on high temperature transformers has met with

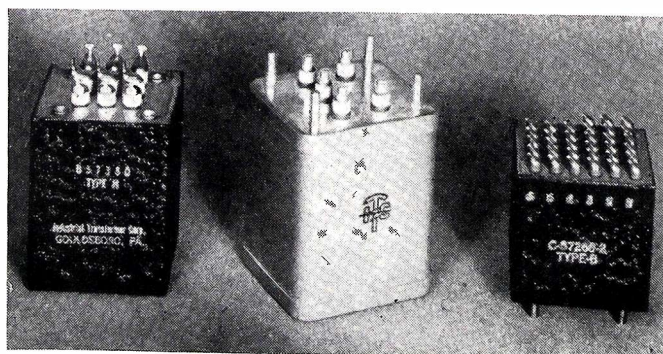
complete acceptance by both government and industry . . . you can put their "know-how" to work with confidence on high temperature transformer applications.



PULSE TRANSFORMERS

ITC's design file includes pulse transformers varying in size from the subminiature molded types used for blocking oscillator and low power matching purposes to high power pulse output transformers feeding magnetron loads.

ITC engineers have produced a great variety of pulse transformer designed for a wide range of specialized electronic equipment and as a result are considered outstanding specialists in this field. This, coupled with their many other design specialties, points out the versatility of design and manufacturing facilities available at ITC.



COMPUTER TRANSFORMERS

ITC engineers have, for several years, devoted considerable time in developing precision transformers for computer applications. These transformers have found complete acceptance among the outstanding computer manufacturers.

Illustrated are some examples of computer precision transformers typical of the engineering skill and resourcefulness gained as a result of constantly working to rigid technical requirements demanded in computer components.

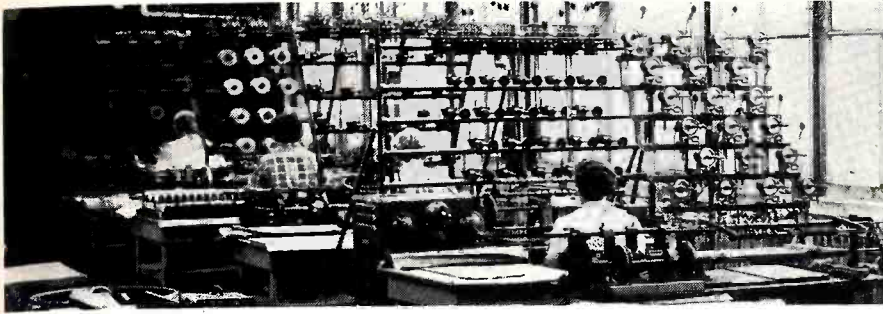
INDUSTRIAL

G O U L D S B O R O



TRANSFORMER

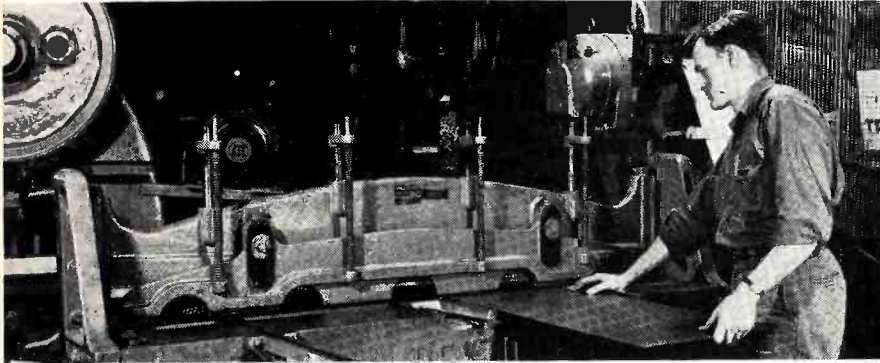
P E N N S Y L V A N I A



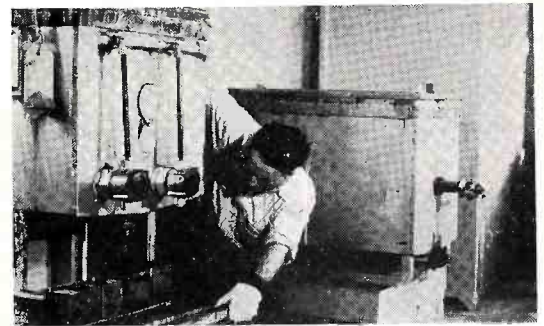
SECTION OF COIL WINDING DEPARTMENT

COMPLETE FACILITIES

We are completely equipped with facilities for in-plant testing to meet MIL-T-27 specifications. Some of the equipment is illustrated. All raw materials are given numerous inspection tests to insure uniform high standing quality and ability to withstand the stresses to which they will be subjected in actual service. We are constantly working to improve design and production, and our engineering staff is always ready to assist you in your Transformer problems.



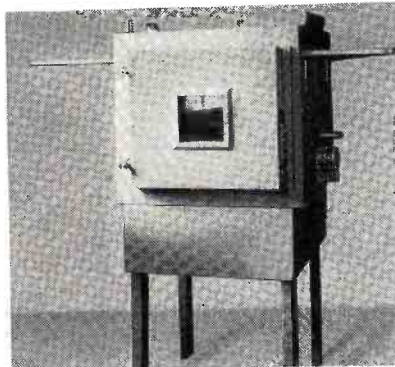
SECTION OF COMPLETE MACHINE SHOP



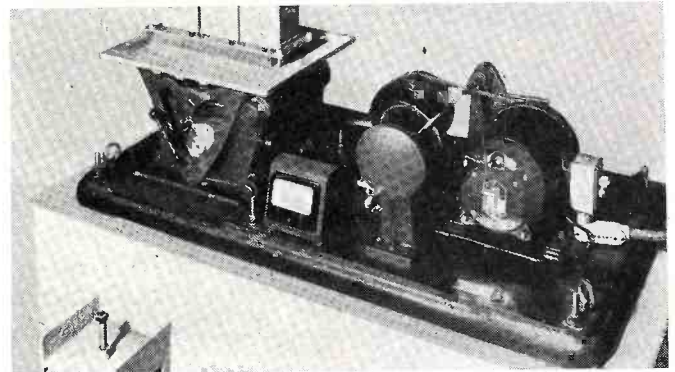
POTTING



HUMIDITY CYCLING CHAMBER



CONSTANT TEMPERATURE CHAMBER



VIBRATION TABLE

SPECIAL TEST EQUIPMENT

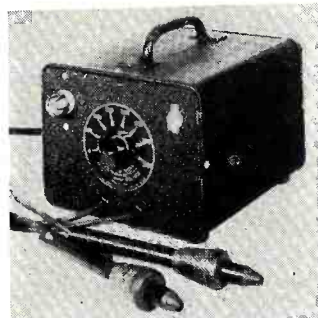
Shock Proof

INSULATION BREAKDOWN TEST SETS



MODEL IT-630

OUTPUT—
0-3000 and 0-6000 Volts
INPUT—
115 Volts, 60 Cycles
RATING—
1 KVA



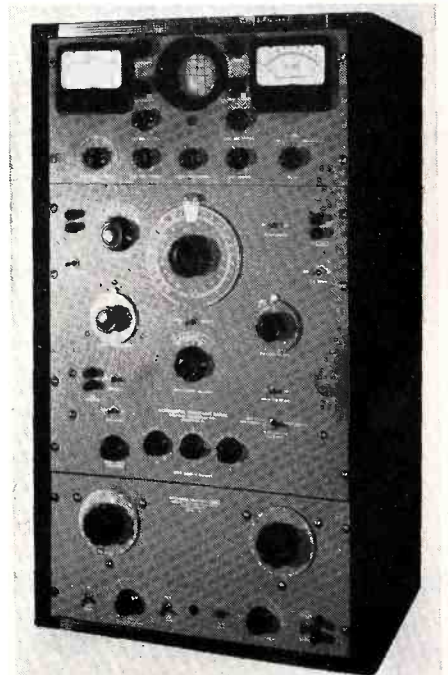
MODEL IT-25-A

HIGH VOLTAGE OUTPUT
AND SHORT CIRCUIT CURRENT
500 V 1 Amp—1500 V 360 Ma
1000 V 500 Ma—1750 V 310 Ma
1250 V 420 Ma—2000 V 270 Ma
INPUT—
115 Volts, 60 Cycles
RATING
500 Va

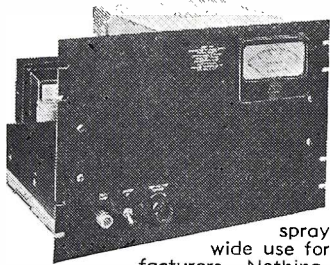
INCREMENTAL INDUCTANCE BRIDGES

MODEL 226

RANGE—
1 MilliHenry—
2000 Henrys
Q—
.02-500
D. C. SATURATION—
0-1000 Ma
A. C. TEST VOLTAGE—
.01-300 VRMS
OWEN HAY MAXWELL
in one instrument



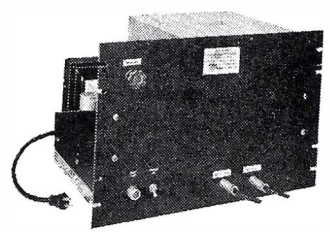
HIGH VOLTAGE RF TYPE POWER SUPPLIES



MODEL 2040 40 KV DC POWER SUPPLY

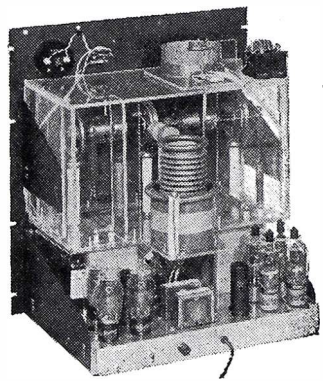
A ruggedly built RF type power supply which is in constant use in laboratories and industrial plants throughout the world for condenser charging, electrostatic spraying and stress testing, etc. In wide use for spot knocking by TV tube manufacturers. Nothing finer available at five times the price. Designed for constant use and will stand severe abuse. Available with either positive or negative 40 KV output. Voltage range of approx. 15 to 40 KV. The 15 to 40 KV variance in voltage is controlled through a knob on the front panel. If required for TV use, a voltage output of approx. 4 to 6 KV is available through a tap. Voltages supplied through a 4 ft. HV Safety Cable. Specify desired polarity when ordering. 19 1/2" wide x 12 1/4" high x 13" deep.

\$136.90 Net
With HV meter installed in front panel.....\$50 additional



MODEL PN-30R REVERSIBLE POLARITY CONTINUOUSLY VARIABLE 1-30 KV UNREGULATED DC POWER SUPPLY

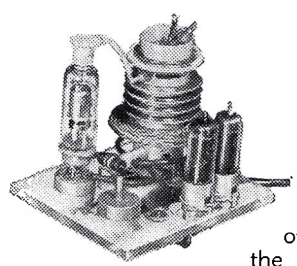
A light, compact unit in wide use for insulation testing, precipitators and laboratory research. Polarity reversible from front panel. Current output—approx. 2 milliamperes at 20 KV; 250 microamperes at 30 KV. Input—110V AC 60 cycles. Dimensions: 19" x 12 1/4" x 13"**\$205 Net**
With meter installed on front panel.....**\$50 additional**



MODEL PN-60 REVERSIBLE POLARITY RF TYPE DC POWER SUPPLY

Polarity changes made on front panel. Continuously variable from 0 KV to 60 KV. Current output 1 milliampere at 60 KV. Overall Dimensions 22 1/2" x 21" x 15". Ideal for electrostatic paint spraying, capacitor charging and testing as well as many other uses.

PN-60 Complete with Meter \$675.00 Net



MODEL 4575 4 1/2 KV POWER SUPPLY

This compact, well designed, ruggedly built DC supply utilizes two 6AQ5 tubes as a parallel oscillator feeding a 1X2 rectifier tube. For an output voltage of 4 1/2 KV DC at 1 milliampere, the low voltage input requirement is 250 V at 50 milliamperes. By varying the DC input the output voltage can be varied from approx. 1 KV to 7 1/2 KV. Dimensions: 5 5/8" high x 5" deep x 4 1/4" wide. In completely enclosed metal housing (not shown). Less low voltage DC supply.....**\$32.50 Net**

MODEL LAB-30PN • REVERSIBLE POLARITY—Continuously Variable 1 to 30 KV

Regulated DC Power Supply with regulations of 0.5% at 1 milliampere. Although rated at 1 ma. this unit is capable of 2 ma. operation within regulation specifications. This 16 tube unit is of the RF type consisting of a separate oscillator and buffer feeding the power oscillator into a doubler rectifier. Regulations accomplished through feed-back into a DC amplifier plus simultaneous output control of the buffer. Polarity reversible from front panel. Standard Rack Model—19" wide x 12" high x 13" deep. Standard Bench Model—21" wide x 14" high x 15" deep.

With Meter \$670 Net—Less Meter \$595 Net



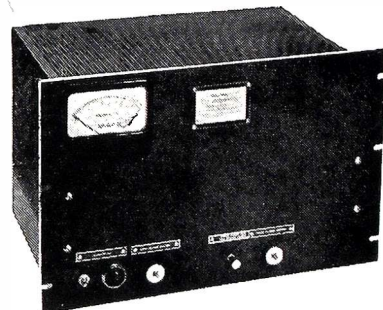
MODEL LAB-30 is a positive polarity output regulated High Voltage DC Power Supply with same electrical characteristics and dimensions as the LAB-30PN. Available in either positive or negative polarity.

With Meter \$570 Net—Less Meter \$495 Net

MODEL LAB-40 CONTINUOUSLY VARIABLE REGULATED 25 TO 40 KV DC POWER SUPPLY

Unit has a 4 to 6 KV focus tap for use with flying spot kinescope recording tubes, etc. Regulations of 0.5% at 1 milliampere. Available either with locking controls or standard knob. 19 1/2" wide x 12 1/4" high x 15" deep.

With meter \$620 Net

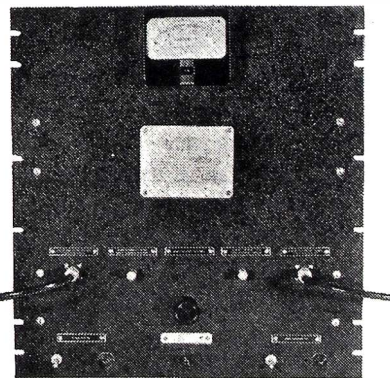


Less Meter \$545 Net

MODEL LAB-60 CONTINUOUSLY VARIABLE REGULATED DC POWER SUPPLY

0-60 KV at 1 ma. regulated. 2 ma. may be drawn from 45 KV to 0. 21 3/4" wide x 22 3/4" high x 15 1/4" deep.

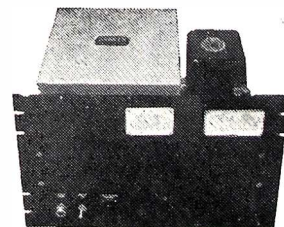
LAB-60 Complete with meter\$695.00 Net



MODEL RG-30 Continuously Variable 15-30 KV Regulated DC Power Supply With Regulated Focus Voltage Tap

A high grade supply which incorporates a voltage tap in the range of 4 to 6 KV for use with 5WP15, 5TP4 and flying spot tubes. Regulations better than .5% at 1 milliampere. In wide use for color tube development work, transcription recording systems. 19" wide x 12" high x 13" deep.

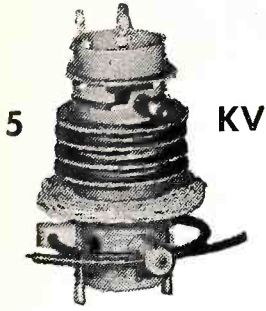
\$295 Net
With meter installed on front panel.....\$50 additional



SPELLMAN TELEVISION CO., INC. | **3029 WEBSTER AVENUE**
N. Y. 67, N. Y. Kingsbridge 7-0306

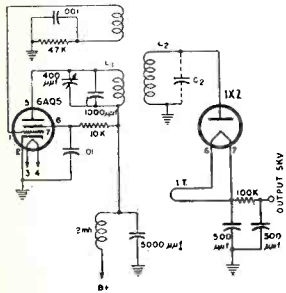
HIGH VOLTAGE

RF STEP-UP COILS



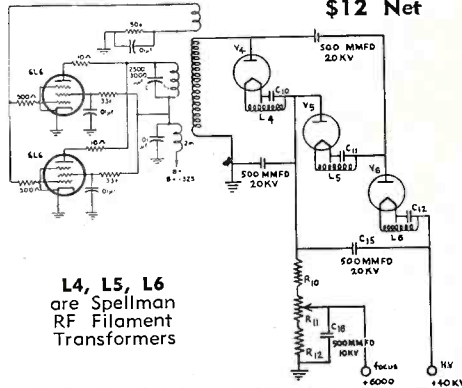
5 KV

Secondary Height 3 1/2"
 Secondary Windings 1 3/4"
 Consisting of 4 Pie Windings
 Primary Diameter 2 1/4"
 Secondary Voltage Output . . . 5 KV
 Secondary Current . 2 Milliampers
 Approx. Frequency 300 KC
\$4.80 Net

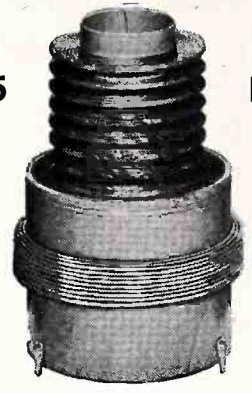


10-15 KV

Secondary Height 5 1/4"
 Secondary Windings 1 3/4"
 Consisting of 7 Pie Windings
 Diameter 2 1/2"
 Secondary Voltage Output
 10-15KV
 Secondary Current . 2 Milliampers
 Approx. Frequency 175 KC
\$12 Net

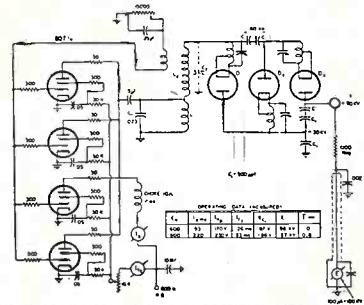


L4, L5, L6 are Spellman RF Filament Transformers



35 KV

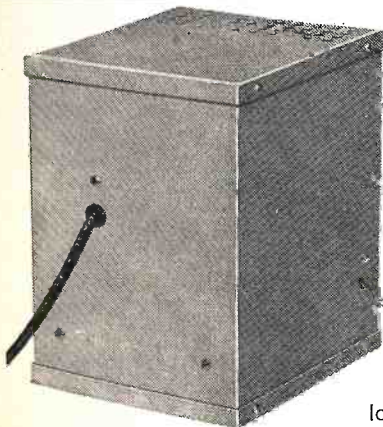
Secondary eight 7"
 Secondary Windings 3" dia.
 Consisting of 10 Pie Windings
 Primary (separate from secondary)
 Height 4"
 Diameter 4 1/4"
 Secondary Voltage Output . . 35 KV
 Secondary Current . 5 Milliampers
 Approx. Frequency 70 KC
42.00 Net
25KV—Same as 35 KV except
 Secondary Height 6"
\$36.00 Net



D1, D2 and D3 are RCA type 5825 tubes.

RF FILAMENT TRANSFORMERS

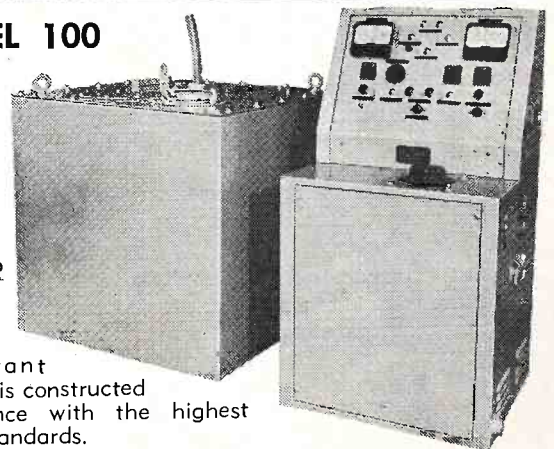
A self-resonant auto transformer for use with type 1B3 Rectifier tube. Will operate with Spellman HV coils **\$1.50**
TUNING PADDER for Filament Transformer **0.58**



MODEL 7512 7 1/2 KV POWER SUPPLY

Model 7512 is an RF type power supply with a voltage output of approx. 7.5 to 12 KV. 1 ma. of current may be drawn throughout the voltage range. To obtain an output voltage of 7.5 KV at 1 ma., low voltage input requirement is 300 V DC at 50 ma. By varying the DC input, the output voltage can be increased. Maximum input voltage of 425 V at 100 ma. will give an output of 12 KV at 1 ma. 5 3/4" wide x 8 1/4" high x 6 3/4" deep. **Net price \$42.50**

MODEL 100



TWO SECTION 100,000 VOLT DC POWER SUPPLY

This constant duty supply is constructed in accordance with the highest electrical standards.

Voltage Range: 0 to 100,000 V DC—Current Output: 10 milliamperes
 —Available in both positive and negative polarities

SAFETY FEATURES:

- Automatic output voltage starting mechanism that reduces the output voltage to zero.
- Zero start interlock ensuring zero output voltage upon initial application of high voltage to load.
- Series resistance in output circuit, limiting initial short circuit surges available from power supply.
- Automatic high voltage cut-off in the event of any external arcing.
- Unit incorporates many other safety and protective features not listed. SEND FOR FULL ENGINEERING SPECIFICATIONS.

SPELLMAN TELEVISION CO., INC. 3029 WEBSTER AVENUE
 N. Y. 67, N. Y. Kingsbridge 7-0306

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ahead on

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Doelcam



Master-precision

Military and Industrial Instruments for Measurement and Control

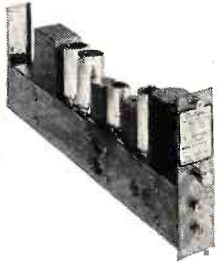
1. RATE GYROS →



MODEL	LINEARITY	THRESHOLD	FULL SCALE RANGE	NATURAL FREQUENCY	VIBRATION	SHOCK	OPERATING TEMPERATURE RANGE	WARM-UP TIME	SIZE	WEIGHT
K	0.25%	.01°/sec.	5°/sec. to 600°/sec.	up to 125 cps	15G to 2000 cps	50G	-67°F to 185°F	30 min.	3" Dia. 5 3/4" long	3 3/8 lb.
JR	0.25%	.01°/sec.	10°/sec. to 600°/sec.	up to 125 cps	15G to 2000 cps	50G	-67°F to 185°F	1 min.	2" Dia. 3 1/2" long	1 1/2 lb.
GNAT	1%	.01°/sec.	10°/sec. to 400°/sec.	up to 90 cps	15G to 2000 cps	60G	-67°F to 185°F	15 sec.	1" Dia. 2.2" long	4 oz.

All Gyros have synchronous, hysteresis-type motors, variable reluctance pickoffs, and controlled viscous damping.

2. LOW LEVEL D-C AMPLIFIERS →



MODEL	INPUT RANGE	INPUT IMPEDANCE	FREQUENCY RESPONSE	GAIN	LINEARITY	ZERO DRIFT* (max.)	NOISE LEVEL (max.)	OVER-RANGE	OUTPUT
2HLA-3	1-100 MV	1 Megohm/Volt	0-20 cps	10,000	≤ 1%	10μV	0.5%	1.5V	10V into 1500 Ω
2HLA-4	0.1-100MV	1000-100,000Ω	0-60 cps	100 - 10,000	0.1 - 5%	10μV	0.5%	1.5V	10V into 1500 Ω
2HMA-2	0-5MV	1500Ω	0-400 cps (.5 milli-sec rise time)	1,000	0.5%	10μV	3%	1.5V	0 - 5V
C23125	0-10MV	1600Ω	50 milli-sec rise time	5,000	0.3%	10μV	0.25%	1.5V	50V into 500,000 Ω
2HDH-1	0-5MV	1800Ω	0.2 sec. rise time	100	0.1%	10μV	0.1%	1.5V	.5V into 100,000 Ω
2HDH-2	0-5MV	1500Ω	0.15 sec. to 0.1% of final value	75 - 150 Variable	0.1%	5μV	0.1%	1.5V	.5V into 100,000 Ω

*Room Ambient

3. 400-CYCLE SERVO MOTORS →



DOELCAM TYPE NUMBER	GOVERNMENT DESIGNATION	FRAME SIZE	STALL TORQUE MINIMUM	NO LOAD SPEED	RATED VOLTAGE		
					FIXED PHASE	CONTROL PHASE (SERIES)	CONTROL PHASE (PARALLEL)
SM-070	MK 7 MOD 0	15	1.45 oz. in.	4800 RPM	115	115	57.5
SM-071	MK 7 MOD 1	15	1.45 oz. in.	4800 RPM	115	115	57.5
SM-072	MK 7 MOD 2	15	1.45 oz. in.	4800 RPM	115	230	115
SM-080	MK 8 MOD 0	18	2.35 oz. in.	4800 RPM	115	115	57.5
SM-081	MK 8 MOD 1	18	2.35 oz. in.	4800 RPM	115	115	57.5
SM-082	MK 8 MOD 2	18	2.35 oz. in.	4800 RPM	115	300	150
SM-142	MK 14 MOD 2	11	0.32 oz. in.	6200 RPM	115	115	57.5
SM-143	MK 14 MOD 3	11	0.32 oz. in.	6200 RPM	115	180	90

1. RATE GYROS. Doelcam K, JR, and Gnat rate measuring gyroscopes combine extreme ruggedness with high precision in applications where accuracy and superior dynamic response are essential. They are proven components in many missile homing, fire control and autopilot systems.

Write for Gyro Bulletin-7

2. LOW LEVEL D-C AMPLIFIERS. Doelcam D-C Amplifiers excel in linearity and stability in proportionally amplifying low level d-c voltages for measurement and control applications. Isolated input and wide-band response, outstanding features of all Doelcam D-C Amplifiers, are achieved by use of the exclusive Doelcam Second Harmonic Magnetic Converter as the input modulator instead of a mechanical chopper.

Write for Amplifier Bulletin-7

3. 400-CYCLE SERVO MOTORS. The extremely high torque-to-inertia ratio of Doelcam servo motors provides the fast dynamic response required in high performance servo systems. These servo motors comply with the rigid specifications of MIL-S-17087. They are available with internally or externally threaded gear pinion shafts. Doelcam servo motors can be equipped with gear heads to meet customer requirements.

Write for Servo Motor Bulletin-7

4. SYNCHROS. (115 volt, 400 or 60 cycle) Doelcam synchros are proven components in numerous military servo systems. Their accuracy, reliability, and over-all performance characteristics are guaranteed to equal or surpass the stringent requirements of MIL-S-16892, FXS-1066, MIL-S-12472, and MIL-S-17245. All types are available with either splined or keyed shafts.

Write for Synchro Bulletin-7

4. SYNCHROS →

(115 volt, 400 or 60 cycle)



GOVERNMENT DESIGNATION	FUNCTION	FREQUENCY	MAX. ELECTRICAL ERROR	MAX. DYNAMIC RECEIVER ERROR
CONTROL UNITS				
15CDX4a	DIFFERENTIAL TRANSMITTER	400	10'	
15CT4a	TRANSFORMER	400	10'	
15CX4a	TRANSMITTER	400	12'	
16CTB4a ^d	TRANSFORMER	400	10'	
16CXB4a*	TRANSMITTER	400	12'	
18CT4a	TRANSFORMER	400	8'	
18CX4a	TRANSMITTER	400	8'	
18CT6a	TRANSFORMER	60	8'	
19CTB4a*	TRANSFORMER	400	8'	
19CXB4a*	TRANSMITTER	400	8'	
23CDX4a	DIFFERENTIAL TRANSMITTER	400	8'	
23CDX6a	DIFFERENTIAL TRANSMITTER	60	8'	
23CT4a	TRANSFORMER	400	6'	
23CX4a	TRANSMITTER	400	8'	
23CT6a	TRANSFORMER	60	6'	
23CX6a	TRANSMITTER	60	8'	
*EQUIPPED WITH BEARING MOUNTED STATOR				
TORQUE UNITS				
15TDX4a	DIFFERENTIAL TRANSMITTER	400	10'	
15TR4a	RECEIVER	400	12'	60'
18TR4a	RECEIVER	400	8'	60'
23TDR4a	DIFFERENTIAL RECEIVER	400	8'	60'
23TDR6a	DIFFERENTIAL RECEIVER	60	8'	60'
23TDX4a	DIFFERENTIAL TRANSMITTER	400	8'	
23TDX6a	DIFFERENTIAL TRANSMITTER	60	8'	
23TR4a	RECEIVER	400	8'	60'
23TR6a	RECEIVER	60	8'	60'
23TX4a	TRANSMITTER	400	8'	
23TX6a	TRANSMITTER	60	8'	
31TX6	TRANSMITTER	60	8'	

Doelcam



1400 SOLDIERS FIELD ROAD
BOSTON 35, MASSACHUSETTS

Instruments for Measurement and Control

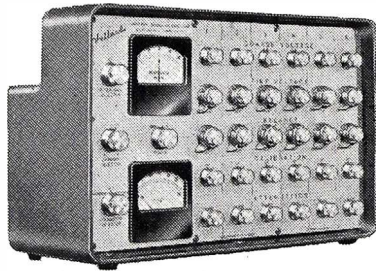
Synchros • Gyros • Accelerometers • Amplifiers • Microsyns • Servo Motors

Heiland

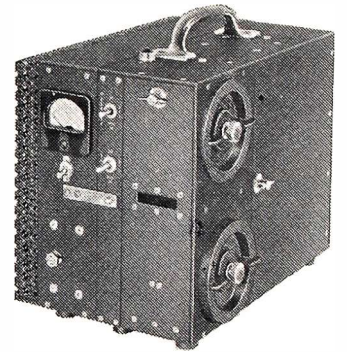
Dynamic Recording Systems



Galvanometers

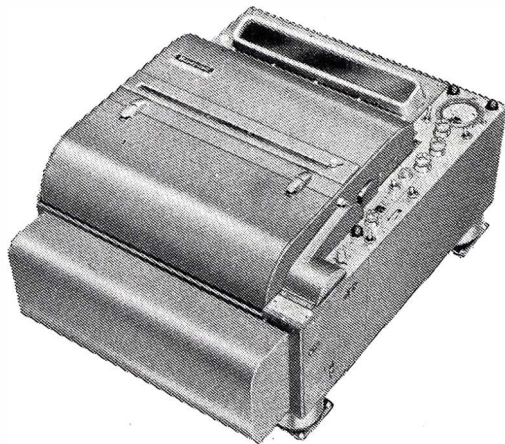
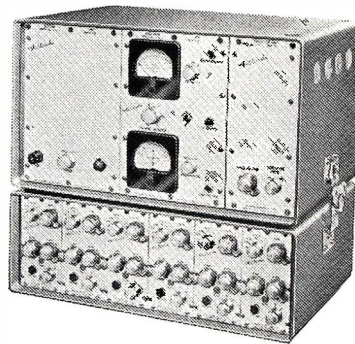


Bridge Balance Unit



401 Portable Oscillograph

Amplifier Systems



700-C Oscillographs

Galvanometers—subminiature and solid frame. Maximum stability and sensitivity; natural frequencies from 40 to 4000 cps; frequency response from 0-3000 cps. For details on solid frame galvos, write for Bulletin 201; for sub-miniature, Bulletin 301.

Model 700-C Recording Oscillographs—up to 60 channels; paper speed 0.03 through 144"/sec. AC or DC operation. Operates from one surface. Relay rack, table or mobile mounting. Write for Bulletin 701.

Model 401 Portable Oscillograph—1 to 6 channels on a 2" record. Standard record speeds 3, 6 or 12"/sec., with others available. Powered by 8, 12 or 24 volt DC or 115 volt, 50 to 400 cycle AC. Write for Bulletin 401.

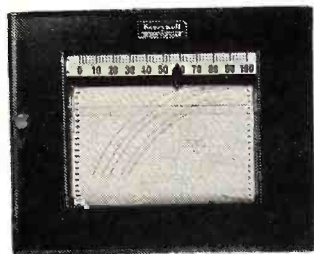
Model 82-6 six-channel Bridge Balance and Strain Indicator—allows simple, accurate balancing, calibrating and measuring of static and dynamic phenomena for oscillograph recording. Write for Bulletin 801.

Model 119 Carrier or Linear/Integrate Amplifier Systems—Accurate, highly stable. For resistive, self-generating and differential transformer type transducers. Write for Bulletin 101.



Honeywell Instrumentation

for the electronics industry



BROWN INSTRUMENTS

For measuring, recording and controlling temperature, pressure, flow, liquid level and many other variables. The line of *ElectroniK* potentiometers includes special models for research work . . . such as the Function Plotter, Duplex Function Plotter, Extended Range Recorder, 1/4-second Pen Speed Recorder, Adjustable Span Recorder, High Impedance Recorder, and Brown-Rubicon Precision Indicator. See Catalog 1561.



THE *ElectroniK* NULL INDICATOR

the modern successor to the galvanometer, is ideal for either lab or production work. Resists vibration, responds quickly, takes heavy overloads without "loss of spot." See Data Sheet 10.0-12.



BROWN SERVO COMPONENTS

Amplifiers, motors, converters

Proved in thousands of *ElectroniK* instruments, these components are available as individual units. For remote positioners, null balance circuits, analog computers, coordinate translators, servo loops. Order in small quantities for prototype development, or by the thousands for production use. Write for Data Sheets.



SPECIAL AMPLIFIERS FOR NUCLEAR REACTOR CONTROL

Designed by Honeywell's staff of nuclear instrumentation engineers. Standard models include A1A wide band pulse pre-amplifier . . . A1D linear pulse amplifier . . . log count rate amplifier . . . low-level period amplifier . . . Log N and period amplifier . . . Safety amplifier with two ion chamber inputs, and power for four magnets.

THESE INSTRUMENTS and components can fill scores of measurement, control and servo applications in your research and production work. Honeywell's worldwide engineering and service organization can give you valuable help in applying these products. Call your local Honeywell office today . . . it's as near as your phone.

MINNEAPOLIS-HONEYWELL REGULATOR Co., *Industrial Division*, Wayne and Windrim Avenues, Philadelphia 44, Pa.—in Canada, Toronto 17, Ontario.



MINNEAPOLIS
Honeywell
BROWN INSTRUMENTS

First in Controls

When ordering or seeking information
please mention *Electronics Buyers' Guide*.



BULOVA



CRYSTALS

The crystals shown are typical of a family of products which include quartz crystal delay lines, special crystal ovens and assemblies and over a hundred basic crystal units. Write for new catalog.

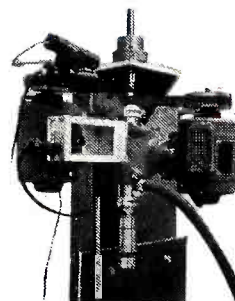


AB-200 CRYSTAL OVEN

Hermetically sealed thermostat • Miniature size • Rapid warmup • Single thermostat control • Built-in spark filter • Rugged construction • Low power requirements • Long life.

INSTRUMENTS

The instruments shown illustrate specific products developed and instrumentation skills and techniques inherent in Bulova. Write for data sheets.



ULTRA-HIGH-SPEED SPIN RIG

World's fastest electrically powered centrifugal force test instrument. Widely used in the evaluation of spin-operated fuze mechanisms, rotational analysis and ultracentrifuging.

AUTOMATION • ALTIMETERS • GYROSCOPES • FUZES • GUIDED MISSILE COMPONENTS • CAM

A CREATIVE NEW FORCE IN RESEARCH, DEVELOPMENT AND PRECISION PRODUCTION

Something has been going on at Bulova that you should know about.

The talents of the world's foremost precision manufacturer are being applied to the research, development and production of electronic, electro-mechanical and mechanical systems and equipment.

What does this mean to you? Simply that you now have a source of *creative* engineering available to you. In many ways, it is unique.

Bulova Watch Company has as its most valuable asset an outstanding group of engineers

and skilled craftsmen, to whom micro-miniaturization is almost a way of life, to whom tolerances as small as 4/1,000,000 of an inch are commonplace. It has taken over half a century to assemble and train these men.

Their skills—coupled with the imaginative concepts of Bulova Research and Development Laboratories—form a most efficient combination. This unique relationship has already borne fruit in many exciting new products.

But the present only foreshadows the future. Watch Bulova—"Frontier for precision engineering and production!"

AT BULOVA, THE ACCENT IS ON CREATIVITY! To learn more about what has been going on, write today for a full report. Department of Government and Industrial Sales, Bulova Watch Company, Inc., 62-10 Woodside Avenue, Woodside 77, N. Y.



**GA-100
100 KC CRYSTAL UNIT**

Glass enclosed evacuated unit • Temperature coefficient of frequency which is less than 2×10^{-7} Per Degree C over a relatively wide temperature range • Used as frequency standards.



TYPE 73

Optional turnover point from 0°C to +75°C for minimum frequency deviation with oven control • Frequency range is 10 KC thru 100 KC • Conforms to Mil C-3098B.



TYPE ST 70X

Shock mounted crystal unit. Frequency range — 200 KC thru 500 KC • Hermetically sealed miniature holder • Frequency excursion as low as .001% over a 30°C temperature range • Meets all latest missile requirements.



AUTOSTROBE

Automatically programs stroboscopic equipment so that rotational motion is "arrested" at speeds up to and in excess of 130,000 rpm.



MAGNETIC MATERIALS ANALYZER

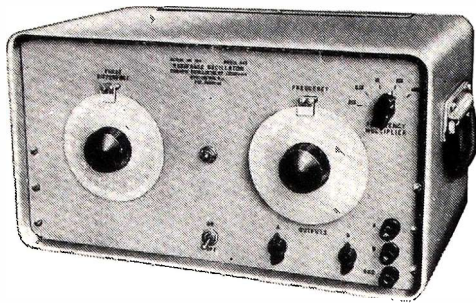
Employing a unique method for measurement of hysteresis and eddy current losses, this instrument provides for the direct determination and visual indication of EDDY CURRENT LOSS AND HYSTERESIS.



TORQUEMETER MODEL 40

A calibrated torque source, ideally suited for testing torque characteristics of fractional horsepower motors, small clutches, torsion springs, servo motors and similar devices.

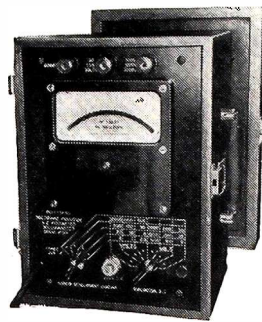
SYSTEMS • CAMERA APERTURE CONTROLS • TIMING DEVICES • INFRA-RED SENSING DEVICES



VARIPHASE OSCILLATOR

Self contained oscillator provides two signal outputs. Phase Difference dial provides any phase angle between them.

Frequency Range 0.2 cps-20 kc
Phase Range 0-360°
Phase Accuracy ± 2°
Output Power 100 mw
Distortion below 1%



MULTIPAC

High precision AC voltmeter and Milliammeter. Accuracy better than 1/2 of 1% on all ranges. Protected Meter cannot be overloaded.

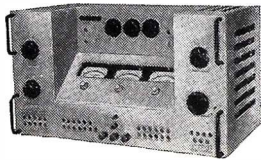
Volts Range 0-0.5 to 2000
Ma. Range 0-5 to 2000
Frequency Range 25-1000 cps
Calibration True RMS
No. of Ranges 21



GERMANIUM DIODE TESTER

Quickly determines backward and forward resistance of various diodes. Reads directly in ohms; eliminates calculations. Small portable case, easy to carry about.

Test Volts + 1 to -100
Accuracy ± 5%
Ohms range 50-500
100 K-1 meg
Total weight 9 pounds



METER TEST SET

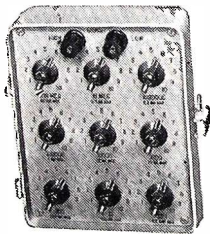
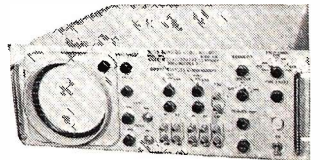
Accurately tests and calibrates all military panel meters, AC & DC, and commercial equivalents. Tests Multimeters and VTVM's. 1/4 of 1% error. Precision meters cannot be overloaded.

Volts Range 0-1 to 2000
Current Range 0-100 ua to 100A
No. of Ranges 41

DC SYNCROSCOPE

A wide range 'scope with identical X and Y amplifiers. Triggered sweep. Separate AC and DC inputs. Voltage regulation for critical circuits. Standard rack mounting.

Freq. Range Flat DC to 5 mc
CR Tube 5ADP7
Accel. Volts. 3000



DECADE RESISTOR

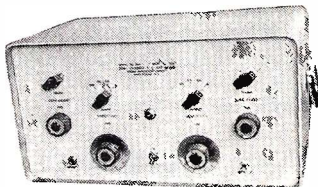
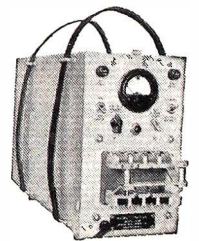
For obtaining known values of resistance with high accuracy. No bigger than a book, yet ranges from 1/10 ohm to over 100 megohms. Maximum error is 0.1% on most ranges. Rugged molded case.

Ohms range—0.1 ohm to 111 megohm
No. of decades Nine
Total Weight 2 pounds

MAGNET CHARGER

For initial charging of new magnets or restoring charge in magnets gone soft. Puts 40,000 amperes through built-in charging bar. No dangerous potentials on exposed surfaces.

Discharge Time002 Sec.
Duty Period Constant Duty
Total Weight 90 pounds



DUAL DC AMPLIFIER

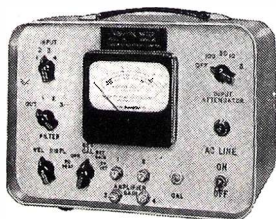
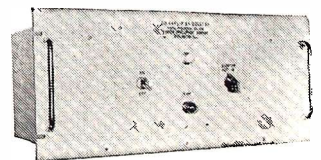
Contains two independent amplifiers for driving pen motor oscillographs. Adjustments produce flat response DC to 100 cps. Matches all makes of recorders.

Drift Less than 1/5 mm/hr
Sensitivity 10mv. Max.
Frequency Range DC to 30 kc

DC AMPLIFIER BOOSTER

Companion equipment to the Dual DC Amplifier. Provides high current output for operating photographic oscillographs. The high stability and gain of the DC Amplifier is retained.

Freq. Range DC to 30 kc
Sensitivity 10 mv max.
Output Cur. up to 100 ma.



VIBRATION METER

Used by the Air Force to test jet engines. Applicable to all types of engines and machines. Measures velocity and displacement within ± 4%. Adaptable to all makes of velocity pickups.

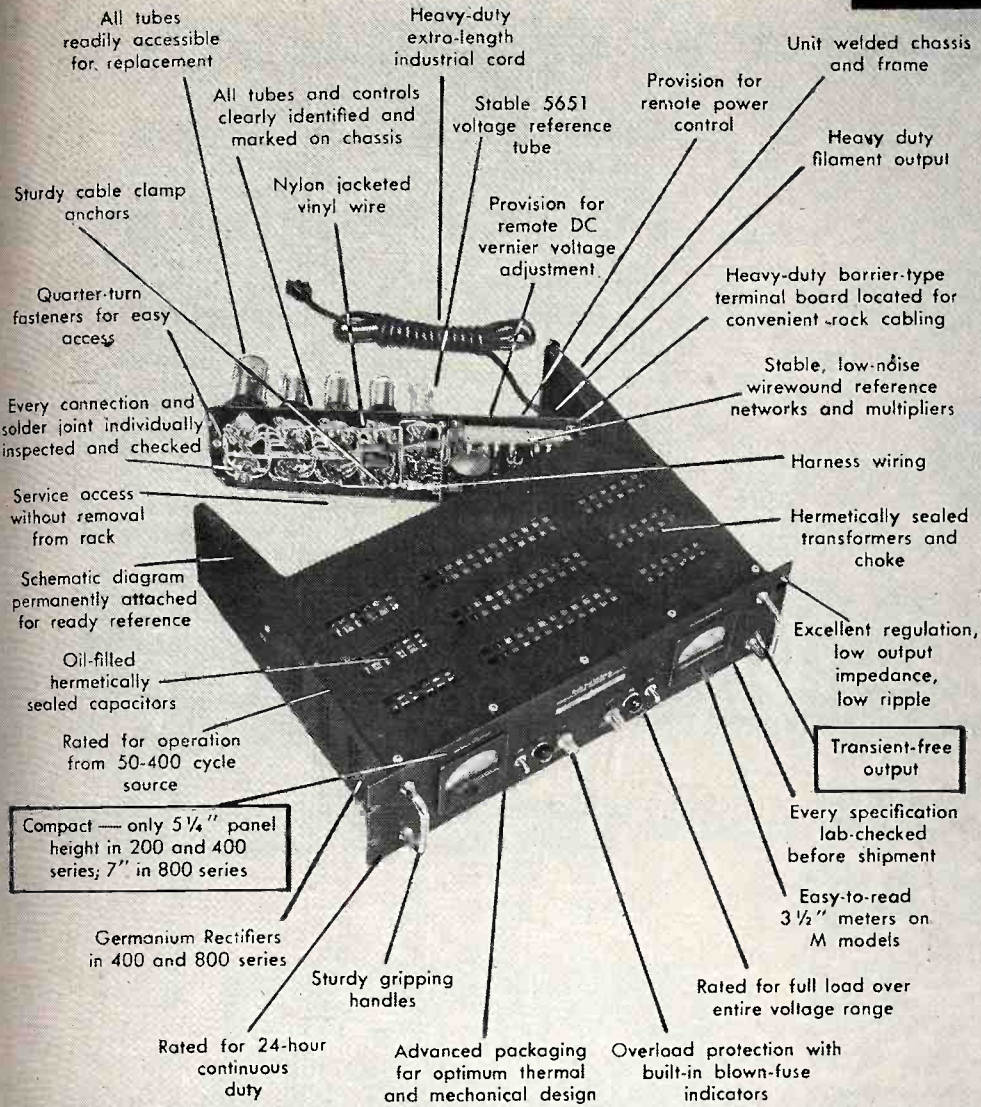
Displ. Range 0-3 to 100 mils
Velocity Range 0-3 to 100 in/sec
Filters 30, 70, 110 cps

ELECTRONIC SWITCH

Changes an ordinary 'scope into a modern dual beam job. Also operates as a square wave generator and a "chopper" for sending DC signals through AC Amplifiers.

Freq. Response 0-5 kc
Switching Rate 10-2 kc
Gain 10





New! 200, 400, 800 MA SERIES
SAVE PANEL SPACE!

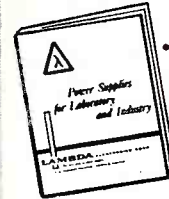
New! HERMETICALLY SEALED
TRANSFORMERS!

New! TRANSIENT-FREE!

These new, compact, regulated Lambda D.C. power supplies are precision engineered, designed to displace minimum panel space. Wiring and tubes are easily accessible for maintenance and replacement. Hermetically-sealed transformers and chokes, protected from moisture, for long trouble-free service. Meters optional.

New! Fuse Failure Indicators

New! Service Accessibility



Send for new 1956 catalog. Complete specifications for all Lambda Power Supplies.

Handy Check List of Lambda Power Supplies on 3rd following page.

**400 and 800 Series feature Germanium Rectifiers for HIGHER EFFICIENCY!
COMPACT DESIGN! LONGER LIFE!**

200 AND 400 SERIES ONLY 5 1/4" HIGH



"800 MA" SERIES

MODEL 881	125-325 VDC	\$315.00*
MODEL 882	325-525 VDC	\$360.00*

INTERNAL IMPEDANCE less than 1.5 ohms

AC OUTPUT 6.5 VAC (unregulated) 20 amp.

"400 MA" SERIES

MODEL 481	125-325 VDC	\$244.50*
MODEL 482	325-525 VDC	\$259.50*

less than 3 ohms

15 amp.

"200 MA" SERIES

MODEL 281	125-325 VDC	\$149.50*
MODEL 282	325-525 VDC	\$159.50*

less than 6 ohms

10 amp.

REGULATION:

(line) ... Better than 0.15% or 0.3 Volt (whichever is greater). For 105-125 VAC.

(load) ... Better than 0.25% or 0.5 Volt (whichever is greater). For 0 to full load.

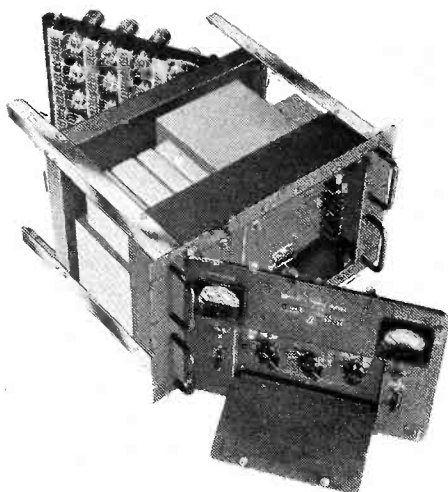
TRANSIENT RESPONSE:

(line) ... Output voltage is constant within regulation specifications for step-function line voltage change of plus (+) 10 volts or minus (—) 10 volts rms within the limits of 105-125 VAC.

(load) ... Output voltage is constant within regulation specifications for step-function load change between 0 to full load or full load to 0 MA.

*Metered models identified by letter "M", add \$30 to base price.

"1500 MA" SERIES MODELS 1500, M*; 1510-1521, M*; 1530-1544, M*



**LAMBDA 1.5 AMP
REGULATED D.C.
POWER SUPPLIES**

Versatile, heavy duty component power supplies for original equipment

Lambda 1.5 ampere models are recommended as component power supplies for original equipment where heavy current is required: in laboratories; for experimental models and prototypes, computers, transmitters; and radio and television stations.

Available in three ranges — Wide, Intermediate, and Narrow. This series gives you the economy of standard production models and the adaptability and precision of engineering of custom units.

MODELS AND PRICES

WIDE RANGE MODELS: Voltage range is completely covered in 16 continuously variable bands. Each band range is 50 volts (± 25 volts).

1500 0-400 VDC 1530 W \$695*

INTERMEDIATE RANGE MODELS: Voltage range is completely covered in 4 continuously variable bands. Each band range is 50 volts (± 25 volts).

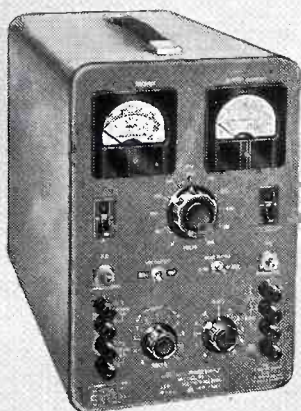
1510	0-125 VDC	980 W	\$595*
1511	25-150 VDC	1030 W	\$595*
1512	50-175 VDC	1080 W	\$615*
1513	75-200 VDC	1130 W	\$615*
1514	100-225 VDC	1180 W	\$635*
1515	125-250 VDC	1230 W	\$635*
1516	150-275 VDC	1280 W	\$655*
1517	175-300 VDC	1330 W	\$655*
1518	200-325 VDC	1380 W	\$655*
1519	225-350 VDC	1430 W	\$665*
1520	250-375 VDC	1480 W	\$665*
1521	275-400 VDC	1530 W	\$665*

NARROW RANGE MODELS: Voltage range is continuously variable.

1530	0-50 VDC	830 W	\$555*
1531	25-75 VDC	880 W	\$555*
1532	50-100 VDC	930 W	\$565*
1533	75-125 VDC	980 W	\$565*
1534	100-150 VDC	1030 W	\$565*
1535	125-175 VDC	1080 W	\$585*
1536	150-200 VDC	1130 W	\$585*
1537	175-225 VDC	1180 W	\$605*
1538	200-250 VDC	1230 W	\$605*
1539	225-275 VDC	1280 W	\$625*
1540	250-300 VDC	1330 W	\$625*
1541	275-325 VDC	1380 W	\$625*
1542	300-350 VDC	1430 W	\$635*
1543	325-375 VDC	1480 W	\$635*
1544	350-400 VDC	1530 W	\$635*

*Metered models identified by letter "M", add \$30 to base price.

MODEL 71 (PORTABLE)

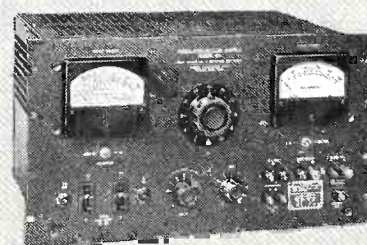


MODEL 71
0-500 VDC, 0-200 MA
\$289.50

Combining every good engineering feature with maximum compactness and portability, Model 71 has broad field and laboratory applications. Cannot be damaged by external overloads. All aluminum construction with time delay tube protection, AC and DC circuit protection.

MAGNETIC CIRCUIT BREAKERS • HEAVY DUTY • WEIGHS ONLY 49 LBS.

"500 MA" SERIES MODELS 50 AND 50R



MODEL 50	0-500 VDC, 0-500 MA	
	0-50, 0-200 VDC bias	\$415.00
MODEL 50R	0-500 VDC, 0-500 MA	
	0-50, 0-200 VDC bias	\$395.00

General purpose, heavy duty power supplies for bench use. Feature oil-filled and hermetically sealed capacitors, magnetic circuit breakers, Vernier high voltage adjustment and continuous output voltage, 0-500 V.

Cabinet Model 50 with rear access door and two carrying handles. Rack Model 50R intended for mounting in standard 19" rack, has ventilated dust cover.

HEAVY DUTY, PRECISION-ENGINEERED REGULATED POWER SUPPLIES

"100 MA" SERIES

MODELS 25 & 26 (PORTABLE)
28, 28M*, 29, 29M*



**COMPACT!
LOW COST!**



MODEL 25200-325 VDC, 0-100 MA..... \$64.50
MODEL 26100-200 VDC, 0-100 MA..... \$74.50

MODEL 28200-325 VDC, 0-100 MA..... \$57.50*
MODEL 29100-200 VDC, 0-100 MA..... \$67.50*

Supply both regulated voltages and unregulated AC for a variety of uses. Frequently employed for electronic equipment and many other applications requiring a source of stabilized DC voltage. Handy models for breadboard, production-line test positions, and other set-ups where speed, convenience, size, light weight and ease of handling are prime considerations. Basic equipment for every bench and test position.

* Metered models identified by letter "M", add \$30 to base price.

"300 MA" SERIES

MODELS 32, 32M*, 33, 33M*, 34, 34R, 35, 35R



Eight excellent supplies for intermediate power requirements. Oil-filled, hermetically sealed capacitors. Separate AC and DC switches. Models 34 and 35 offer panel controls and binding posts for convenient bench use. Models 34R and 35R are identical to models 34 and 35 except that they are not enclosed in cabinets and may be used for rack mounting.

OIL-FILLED, HERMETICALLY SEALED CAPACITORS
VACUUM-VARNISH IMPREGNATED TRANSFORMERS, CHOKES

MODEL 32200-325 VDC, 0-300 MA..... \$129.50*
MODEL 33100-200 VDC, 0-300 MA..... \$144.50*
MODEL 34200-325 VDC, 0-300 MA..... \$199.50
MODEL 34R200-325 VDC, 0-300 MA..... \$179.50
MODEL 35100-200 VDC, 0-300 MA..... \$214.50
MODEL 35R100-200 VDC, 0-300 MA..... \$194.50

* Metered models identified by letter "M", add \$30 to base price.

"600 MA" SERIES

MODELS 60, 60M*, 61, 61M*, 62, 62M*,
63, 63M*, 64, 64M*, 65, 65M*



Units in this series are designed primarily for industrial applications, based on continuous-duty operation at maximum ratings. Engineered by power supply specialists, they free your own staff from design and construction supervision, and are economical in cost.

MODEL 60345-405 VDC, 0-600 MA..... \$259.50*
MODEL 61295-355 VDC, 0-600 MA..... \$249.50*
MODEL 62245-305 VDC, 0-600 MA..... \$239.50*
MODEL 63195-255 VDC, 0-600 MA..... \$239.50*
MODEL 64100-200 VDC, 0-600 MA..... \$244.50*
MODEL 650-100 VDC, 50-600 MA..... \$249.50*

30 SECOND TIME DELAY RELAY CIRCUIT • LOW OUTPUT IMPEDANCE • LOW RIPPLE

* Metered models identified by letter "M", add \$30 to base price.

Condensed Check List of LAMBDA POWER SUPPLIES

GENERAL

SPECIFICATIONS

INPUT:

105-125 V, 50-60 C, single phase

DC OUTPUT:

Voltage Range: Continuously variable over ranges specified, except for Models 60, 61, 62, 63, 64, 65, 281, 282, 481, 482, 881 and 882. The voltage ranges for Models 60, 61, 62, 63, 64, 65, 281, 282, 481, 482, 881 and 882 are completely covered in four continuously variable segments.

Current Range: The current ranges given apply to the entire DC output voltage range, and for input voltages from 105 to 125 VAC. No "derating" is necessary.

Polarity: Either positive or negative terminal may be grounded.

AC OUTPUT:

The AC output is unregulated, isolated and ungrounded. It has a value of slightly higher than 6.3 V (when fully loaded) at an input of 115 VAC. This value allows for voltage drop in connecting leads. Dual outputs may be connected in series or parallel.

DUTY CYCLE:

Continuous duty at full load.

METERS:

Where meters are indicated, a separate voltmeter and milliammeter are provided.

OVERLOAD PROTECTION:

Ample protection is provided against external overload and internal failure conditions by means of fuses.

Circuit breakers of the magnetic, "trip-free" type are employed in Models 50, 50-R, 71 and "1500" series as protection against external overloads.

STYLE:

Rack Models are designed for mounting on standard 19" relay racks.

Bench Models are provided with compact, specially-designed, ventilated cabinets equipped with carrying handles. The power supply units may be removed from their cabinets for mounting in standard relay racks (except Models 25, 26 and 71).

RATINGS AND COMPONENTS:

All components used are of the highest quality and are operated well within manufacturers ratings. Hermetically-sealed, oil-filled capacitors are used exclusively. Ample safety factors are provided in the design to insure the long life, and the dependable, trouble-free operation so desirable in industrial and laboratory applications.

Model	Style	Voltage Range (VDC)	Current Range (MA DC)	Regul'n Impedance Ripple (Table I)	6.3 VAC Output (Amps)	Meters *	Output Voltage Control	Output Terminals	Size Weight (Table II)	Price (U.S. and Canada) F.O.B. Factory College Pt., N. Y.
REGULATED POWER SUPPLIES — RACK AND BENCH										
28	Rack	200-325	0-100	A	3A	None	Rear	Rear	S-2	\$57.50 *
29	Rack	100-200	0-100	B	3A	None	Rear	Rear	S-2	67.50 *
32	Rack	200-325	0-300	C	2 @ 5A	None	Rear	Rear	S-5	129.50 *
33	Rack	100-200	0-300	C	2 @ 5A	None	Rear	Rear	S-5	144.50 **
34	Bench	200-325	0-300	C	2 @ 5A	4 1/4" Rect	Front	Fr & rear	S-8	199.50
34-R	Rack	200-325	0-300	C	2 @ 5A	4 1/4" Rect	Front	Fr & rear	S-5	179.50
35	Bench	100-200	0-300	C	2 @ 5A	4 1/4" Rect	Front	Fr & rear	S-8	214.50
35-R	Rack	100-200	0-300	C	2 @ 5A	4 1/4" Rect	Front	Fr & rear	S-5	194.50
50	Bench	0-500	0-500	D	2 @ 5A	4 1/4" Rect	Front	Fr & rear	S-9	415.00
				E						
				F						
50-R	Rack	0-500	0-500	D	2 @ 5A	4 1/4" Rect	Front	Fr & rear	S-6	395.00
				E						
				F						
60	Rack	345-405	0-600	G	20A	None	Rear	Rear	S-7	259.50 **
61	Rack	295-355	0-600	G	20A	None	Rear	Rear	S-7	249.50 *
62	Rack	245-305	0-600	G	20A	None	Rear	Rear	S-7	239.50 *
63	Rack	195-255	0-600	G	20A	None	Rear	Rear	S-7	239.50 *
64	Rack	100-200	0-600	G	20A	None	Rear	Rear	S-7	244.50 *
65	Rack	0-100	50-600	G	20A	None	Rear	Rear	S-7	249.50 *
281	Rack	125-325	0-200	L	10A	None	Rear	Rear	S-11	149.50 *
282	Rack	325-525	0-200	L	10A	None	Rear	Rear	S-11	159.50 *
481	Rack	125-325	0-400	N	15	None	Rear	Rear	S-11	244.50 *
482	Rack	125-325	0-400	N	15	None	Rear	Rear	S-11	259.50 *
881	Rack	325-525	0-800	P	20	None	Rear	Rear	S-12	315.00 *
882	Rack	325-525	0-800	P	20	None	Rear	Rear	S-12	360.00 **

1500 Series (see preceding page)

REGULATED POWER SUPPLIES — PORTABLE										
25	Bench	200-325	0-100	A	3A	None	Front	Front	S-1	64.50
26	Bench	100-200	0-100	A	3A	None	Front	Front	S-1	74.50
71	Portable	0-500	0-200	I	2 @ 5A	3 1/2" Rect	Front	Front	S-10	289.50
				J						
				K						

UNREGULATED POWER SUPPLIES — RACK AND BENCH										
41	Bench	0-500	0-200	H	6A	2 1/2" Rnd	Front	Fr & rear	S-4	149.50
41-R	Rack	0-500	0-200	H	6A	2 1/2" Rnd	Front	Fr & rear	S-3	134.50

*Metered models identified by letter "M", add \$30 to base price.

PRICES AND SPECIFICATIONS EFFECTIVE JUNE 1, 1956. SUBJECT TO CHANGE WITHOUT NOTICE.

TABLE I — DC OUTPUT VOLTAGE REGULATION, IMPEDANCE, RIPPLE

	REGULATION		Internal Impedance (ohms)	Ripple, rms (millivolts or %)
	Line (105-125 VAC)	Load (min to max)		
A	Less than 1%	Less than 1%	Less than 10	Less than 10 mv
B	1%	1%	10	5 mv
C	1%	1%	4	10 mv
D	0.15% or 0.1V	0.5% or 0.3V	2	8 mv
E	0.1%	unregulated	3,300	2 mv
F	0.1%	unregulated	17,300	5 mv
G	0.15% or 0.3V	0.25% or 0.3V	2	5 mv
H	unregulated	unregulated	500	0.1%
I	0.15% or 0.3V	0.15% or 0.3V	4	5 mv
J	0.1%	unregulated	5,500	2 mv
K	0.1%	unregulated	25,000	5 mv
L	0.15% or 0.3V	0.25% or 0.5V	6	3 mv
N	0.15% or 0.3V	0.25% or 0.5V	3	3 mv
P	0.15% or 0.3V	0.25% or 0.5V	1.5	3 mv

TABLE II — SIZES AND WEIGHTS

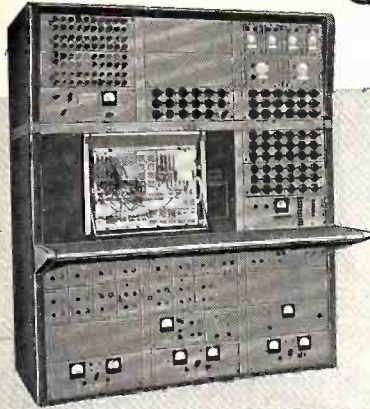
	Size H x W x D (inches)	WEIGHT	
		Net (lbs)	Shipping (lbs)
S-1	8 x 14 x 6	19	23
S-2	5 1/4 x 19 x 8	19	23
S-3	7 x 19 x 9 3/4	43	76
S-4	8 3/4 x 22 x 10 3/4	60	90
S-5	10 1/2 x 19 x 9 1/4	42	52
S-6	10 1/2 x 19 x 14 1/4	89	140
S-7	12 1/4 x 19 x 9	70	110
S-8	12 1/2 x 22 x 10	60	68
S-9	12 1/2 x 22 x 15	110	158
S-10	13 x 8 3/4 x 14 1/2	49	85
S-11	5 1/4 x 19 x 14 3/8	53	80
S-12	7 x 19 x 16 1/2	73	100



LAMBDA Electronics Corp.

THE FIRST NAME IN POWER SUPPLIES

11-11 131 STREET • COLLEGE POINT 56, NEW YORK • INDEPENDENCE 1-8500



New REAC 400 Series

- Building-block construction
- "Problem check" verification of solutions
- High Speed Servos
- Patchbay switching
- Simplified operation and maintenance

REAC analog computers

This "400" is the newest model of the famous REAC (Reeves Electronic Analog Computer). The new modular construction allows assembly of exactly the computer necessary to do a particular job or expand an existing installation. Problem check, a new Reeves development, permits verification of problem solutions before problem is run. New high speed servos and improved components facilitate high speed real time operation.

20 IG Integrating Gyro

Extremely low drift rate, high sensitivity



20 R.G. Rate Gyro

Small size. Fully floated construction.

precision GYROS

Single-degree-of-freedom, viscous damped. Features fully floated construction that reduces friction, yet provides extreme resistance to shock. Small size, high precision. Ideal for airborne or shipborne equipment for space stabilization, rate tracking control, or rate measurement.

R-600 Resolver

functional accuracy better than 0.05%.



R-150 Resolver

miniature version of R-600.

precision RESOLVERS

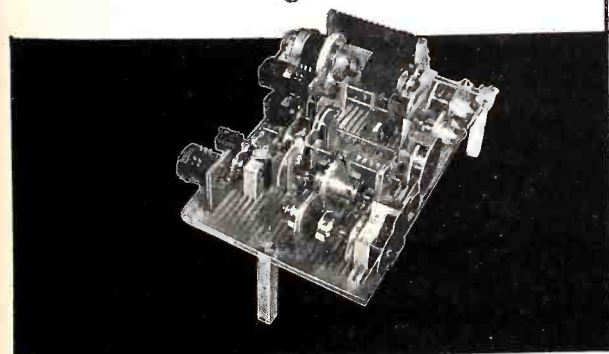
The highest precision resolvers commercially available. Small size makes them ideal for use as computing element in military and precision industrial electronic systems. Special wide band units are available for irregular wave shapes having rise times as low as one micro second. Units are built directly to required accuracy without selection or culling.



Series SR 6066

MAGNETIC CLUTCHES

High quality magnetic clutches for all control applications. Single and double-ended models, as well as combination that provides effective SPDT action. Standard and Miniature models, with or without crown tooth construction. Quick acting, high torque.



SERVO mechanical parts

Shaft hangers, shafts, precision gears, differentials, couplings, terminal blocks, limit stops, dial assemblies, etc. Easy mounting on convenient slotted plate. Changes easily made, parts re-usable. Tremendous time-saver in prototype work on servo and instrumentation systems.

Reeves Sub-contract Service: Our facilities are available to you for help on computing systems, gun fire control, and precision electronic systems of any kind. For complete information, contact Reeves Sub-contract Department.

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ERV55

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385



ELECTRICAL - ELECTRONIC WIRE • CABLE INSULATING TUBING • IDENTIFICATION MARKERS

WIRE

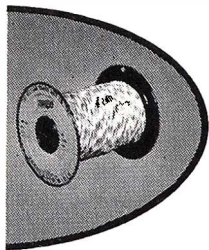
HOOK-UP WIRE: Turbotherm plastic insulated wires manufactured by William Brand and Company are normally supplied uncovered. They can be furnished with textile overbraids, with extruded vinyl or nylon jackets, and with braided or spiral copper shields. Color coding is in accordance with RETMA or MIL-STD-104 requirements. One, two or three spiral stripes can be applied over base colors where necessary for positive circuit identification. Turbotherm wires are resistant to the effects of water, oils, aircraft engine fuels, hydraulic fluids ethylene glycol, dilute acids and alkalis. They remain flexible over a wide range of operating temperatures, have low surface leakage and permanent color retention.

Several types of hook-up wires are available to meet different requirements and specifications:

- A. Underwriters' Laboratories Approved for 80°, 90° and 105° C at 300, 600 and 1000 volt operation.
- B. C. S. A. Approved appliance wires for 80° and 90°C operation; radio and electronic wiring (types TR-64, TR-32, TRB-64 and TRB-32).
- C. MIL-W-76A — Types LW, MW, and HW for 300, 1000 and 2500 volt operation respectively at 80°C.
JAN-C-76 — Types WL, SRIR and SRHV for 600, 1000 and 2500 volts respectively at 80°C.
MIL-W-16878B — Types B, C and D for 600, 1000 and 3000 volts respectively at 100°C. Type F, a silicone rubber insulated wire available with or without glass overbraids for operation at 200°C.
- D. Turbo Instrument Wire: a thin-walled uncovered wire for use in low current, low voltage instruments such as high accuracy indicators, meters and servo-mechanisms. Turbotherm 80

instrument wire is recommended where a high value of insulation resistance is required; Turbotrans 105 instrument wire is recommended where varnish impregnation and high temperatures are encountered.

- E. Turbo Miniaturization Wire: a thin-walled plastic insulated wire with nylon jacket, specifically designed for equipment operating at temperatures from -55°C to +105°C. Ideal for use in miniaturized equipment both as hook-up wire and leads for transformers, chokes and other components where space is at a premium and operating temperatures are high. Insulation resistance values exceed 1000 volts per mil and dielectric strength exceeds 900 volts per mil. This wire is recommended for potting operations and varnish dipping and baking.
- F. High Voltage Leads: Two types are presently manufactured; an unjacketed flame-retardant polyethylene insulated wire, U/L approved for 10,000 and 20,000 volts D.C., and a vinyl jacketed polyethylene type made to individual specification.



CABLES

MULTI-CONDUCTOR CABLES: Precisely made to specification from any of the conductor types above, but including also, where required, coaxial cables. These cables can be furnished with exact positioning within the cable of individual coaxials, twisted pairs, triples or groups. Constructions are available using fillers, tapes, wraps, shields and jackets either over the entire cable or any portion of the cable.

TURBO TUBING AND SLEEVINGS

The many varieties of quality controlled, electrical insulating tubing manufactured by William Brand and Company fall into two general categories: coated tubings and extruded plastic tubings. Within each of these categories many types exist, each engineered to do a specific job.

- A. **COATED TUBING:** All coated tubings are available in standard AWG sizes from #20 to #0 inclusive and fractional sizes up to 1 1/2" I.D. Generally stocked in Black, these tubings are also available in Brown, Red, Orange, Yellow, Green and Blue. Tubings are supplied in five standard grades meeting applicable ASTM, NEMA and MIL specifications as shown below.

Grade Designation	Average Dielectric Strength
A-1	7000 volts
B-1	4000 volts
C-1	2500 volts
C-2	1500 volts
C-3	No dielectric guarantee

1. **Class A Tubing:** An excellent general purpose tubing with smooth inner surfaces to facilitate snaking and assembly. Turbo Varnished Tubing is a cotton or rayon braid impregnated with organic varnishes.

2. **Class B Tubing:** Turbofuf Tubing . . . a vinyl coated glass tubing with exceptional flexibility, abrasion resistance, dielectric properties and good heat endurance characteristics. Turbofuf is used extensively in electronic equipment as insulation over bare leads. Furnished in two grades: Turbofuf-8 and Turbofuf-4 with minimum dielectric strengths of 8,000 volts and 4,000 volts respectively.

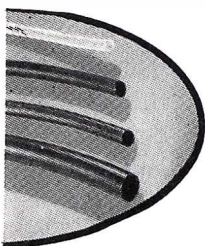
3. **Class H Tubing:** The trend toward miniaturization has intensified heat problems within electronic apparatus and has created serious problems in soldering in close quarters without injury to conventional insulations. Turbosil silicone var-

nished glass tubing and Turbo 117 silicone rubber coated glass tubing have been used successfully to overcome these difficulties. These tubings retain their physical and electrical properties at temperatures of from -80°F to +500°F. Turbosil has great physical toughness and is abrasion and peel resistant. Turbo 117 is extremely flexible and retains its dielectric properties under severe mechanical stress. Both are chemically inert and furigous resistant.

- B. **EXTRUDED PLASTIC TUBING:** The various formulations of vinyl plastic tubings have been established to meet the wide range of Underwriters' Laboratories or military specification requirements. Tubings are available in standard AWG sizes #24 to #0 inclusive and in fractional sizes up to 2" I.D. Special sizes and wall thicknesses can be supplied to meet specific requirements. While generally stocked in Black and Transparent, all RETMA colors are available.

1. **High Temperature:** Turbotherm 105 and Turbotrans 105 are Underwriters' Laboratories approved for continuous operation at 105°C. Both combine high dielectric strength with optimum physical properties at elevated temperatures. Turbotrans 105, especially formulated to withstand potting and baking temperatures, will also meet the requirements of MIL-I-631B, Grade c.

2. **General Purpose:** Two types are available; Turbolex 85 recommended for applications where moderate heat may be encountered with occasional exposure to oil. It is adequate for most low temperature work. Turbolex 76, meeting the MIL-I-631B requirements for Grade a tubing is optically clear when unpigmented, and is fungus resistant.



COAXIAL CABLE

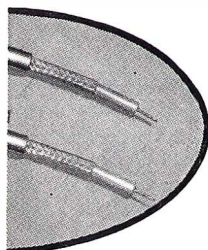
TURBO "RG" TYPE TRANSMISSION LINE CABLES are fabricated in exact accordance with the military specifications for this type of product. Continuous quality control testing during every phase of the manufacturing process insures a final product which will pass all requirements with ample safety margins.

TURBO "RG" TYPE TRANSMISSION LINES have high dielectric and high impulse strength, high resistance to corona cutting and low power loss. The typical cables are of standard design construction. The "A/U", "B/U" and "C/U" types are covered with low temperature type IIA non-contaminating vinyl jackets, as specified in JAN-C-17A Amendment 2 and MIL-C-17B. Others can be manufactured in accordance with this specification or in accordance with individual or special requirements.

TURBO IDENTIFICATION MARKERS

Turbo Identification Markers are manufactured from Turbo Varnished Tubing and Turbo Extruded Plastic Tubing of all types. This product will meet applicable Army-Navy and Air Force specifications. Their tubular form insures positive, permanent identification once applied and eliminates time-consuming, injurious crimping operations and the flammability of paper and similar devices.

Turbo Identification Markers are available in all standard sizes from #14 to 1 1/2" I.D. The extruded plastic type can also be furnished in special non-standard sizes. Markers are normally furnished in lengths of 3/8" to 4" inclusive, but longer lengths can be supplied on request.



WILLIAM BRAND & COMPANY, INC. • Willimantic, Connecticut

When ordering or seeking information
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June, 1956 — MID-MONTH — ELECTRONICS BUYERS' GUIDE

Cramer

ELECTRICAL TIMING DEVICES SYNCHRONOUS MOTORS

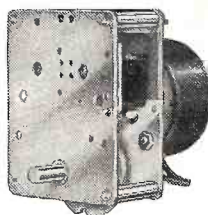
SPECIALISTS IN TIME CONTROL

INTERVAL TIMERS



To control opening of one circuit, closing of another, for manually selected time interval. Acts as a highly accurate switch to control ON-OFF operations where duration of operation is variable.

◀ 230 . . . readily adjustable . . . automatic mixers, etc. Time Ranges: 15 sec. to 24 hrs.



◀ 210 . . . for built-in applications in micro-filing equipment, battery chargers, ovens, etc. Time Ranges: 15 sec. to 24 hrs.



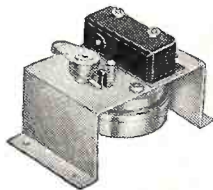
▶ 241 . . . used in laboratory equipment, copying machines, etc., where process work demands repeat accuracy. Time Ranges: 15 to 120 sec.

TIME DELAY RELAYS

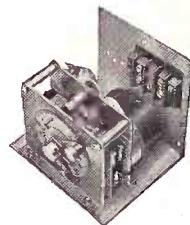


Fixed and adjustable types. Provides an accurate time delay between operation of a control circuit and subsequent closing or opening of load circuit.

◀ 310, 412, 422 . . . adjustable, for process controls and automatic equipment. Time Ranges: 6 sec. to 24 hrs.

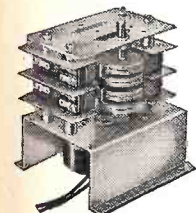


◀ 330 . . . provides time relay for protection of high voltage electronic tubes, control of machines or processes. Time Ranges: 20 to 80 sec.



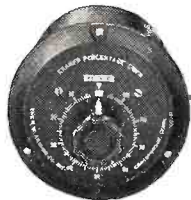
▶ 440A . . . for machine tools, sterilizers, etc., where shock and vibration are important considerations. Time Ranges: 30 sec. to 60 min.

CYCLING TIMERS



Program, percentage, pulse timers — repeat a definite time cycle or sequence continuously. Two main types: (a) where cycle is fixed (switch operation fixed or adjustable); (b) total cycle is variable (switch operation fixed).

◀ 510, 520 . . . fixed type, up to 8 load circuits . . . dishwashers, signals, etc.



◀ 610 . . . establishes or interrupts circuit for percentage of time period. For furnaces, blowers, pumps, etc. Time Ranges: 15 sec. to 24 hrs.



▶ 650 . . . a pulse timer applied where total time cycle must be readily variable; e.g., conveyors, sludge pumps, signal systems. Time Ranges: 15 sec. to 24 hrs.

HERMETICALLY SEALED UNITS



Line includes time delay relays, cycling timers or intervalometers, and circuit reclosing relays or time-limiting devices. Meet stringent military specifications for radio, radar, fire control applications. Every timer tested before shipment.

◀ 430H . . . miniature time delay relay. Time Ranges: 30 sec. to 30 min.



◀ 670H . . . circuit reclosing relay — automatically restores service due to overload faults, provides circuit and equipment protection, etc. AC or DC.



▶ 440H . . . in standard or reverse clutch designs, relay equipped with one or two heavy-duty load switches. Time Ranges: 30 sec. to 60 min.

TIME TOTALIZERS



For use wherever time must be accurately measured and accumulated. Applied to forecast need for servicing and repair, check operating characteristics of any circuit, machine or system.

◀ 690 . . . time totalizer for laboratory testing, etc. Time Ranges: 60 sec. and 60 min.

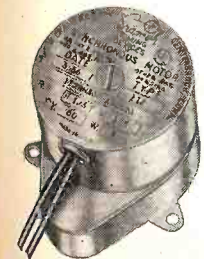


◀ 631E . . . Running time meter registers either tenths of minutes and hours, or minutes and hours. Precision-built 5-digit counter.



▶ 640E . . . with reset feature on dial. Registers hundredths of minutes and hours; tenths of seconds, minutes and hours; seconds, minutes and hours.

SYNCHRONOUS MOTORS



Complete line of standard timing motors, clutch-unit and dual motors. For instrument and control applications. Truly synchronous. High torque, 30 in. oz. at 1 r.p.m. Runs in any position. Highly dependable and accurate.

◀ 112 . . . available in many speeds from 1 r.p.s. to 1 r.p.d. with various output shafts.



Write for descriptive literature on specific timers, or for General Bulletin GB-905. Cramer sales engineers will gladly discuss special application problems on request.

The R. W. CRAMER CO., Inc.

BOX 27, CENTERBROOK, CONNECTICUT

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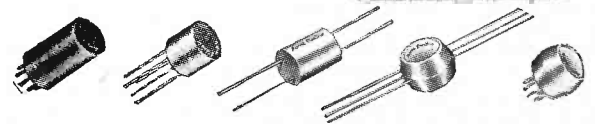
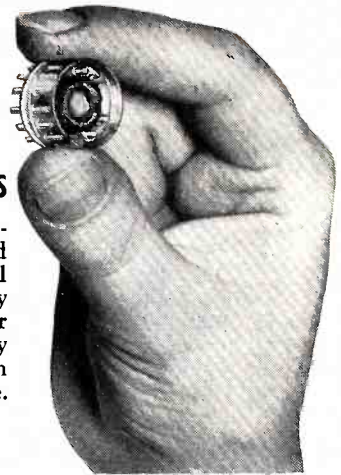
WE MAKE THE KIND OF TRANSFORMERS YOU NEED

If you buy transformers on a "quality foremost" basis, then you should be interested in the advantages of having Acme Electric produce the transformers you need.

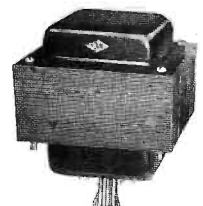
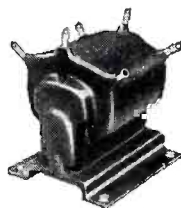
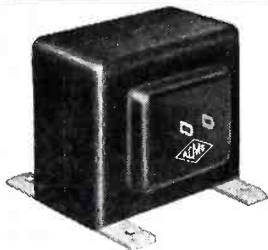
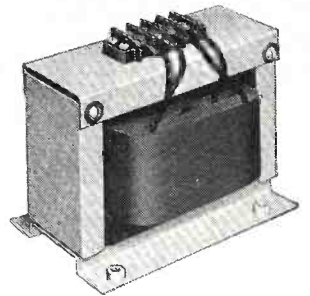
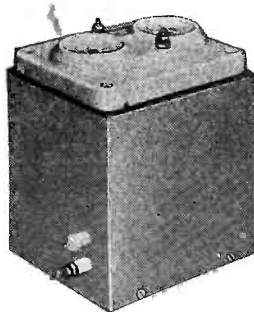
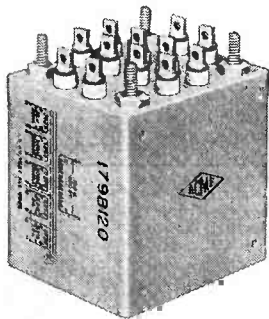
If you need engineering help with a design, we have a staff of qualified engineers to assist you. If you need quantity production quickly, we have every modern facility and carry large stocks of basic supplies to ship your production requirements as your needs demand. And, with our modern production equipment, experienced assemblers, we quote prices that are usually competitive.

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Miniature Pulse transformers can be supplied to your exact electrical characteristics in a variety of mounting designs. Our facilities permit quantity production of uniform high quality performance.



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RELAYS

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Your immediate needs for one or more relays of any kind are shipped from our greatly enlarged stock which includes hundreds of types in all popular contact arrangements and coil ratings.

Complete stocks of current standard types of leading manufacturers are maintained for your convenience.

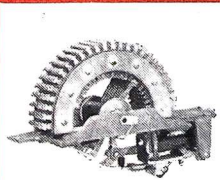
All relays are new, inspected and unconditionally guaranteed to be as represented. 24 hour delivery is routine. Phone us.



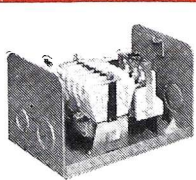
Distributor for
ADVANCE
RELAYS

SCHRACK MOTOR CONTROLLER

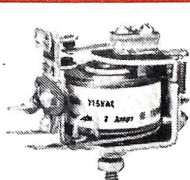
These contactors offer several exclusive features including phase protection, adjustable overload from unity to 140% of rating and complete ceramic insulation. Sizes 0, 1, 2 and 3. NEMA enclosures available.



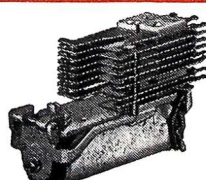
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SCHRACK



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Self-Aiming
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FILTRON CO., INC., FLUSHING, LONG ISLAND, NEW YORK
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Will these Components Solve a Problem?

FORK OSCILLATORS

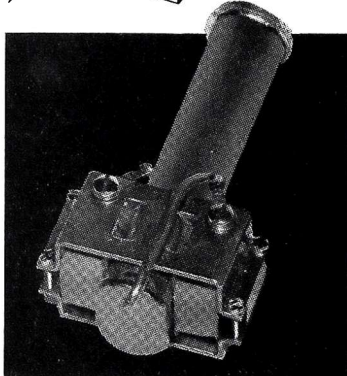
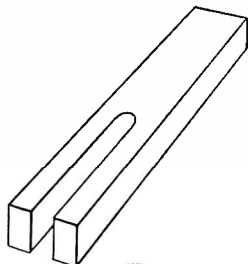
for the most precise timing and frequency control
FEATURES

In Audio Frequency systems, the fork has advantages over other types of oscillators including crystals.

- **INTRINSIC STABILITY**— superior at audio frequencies.
- **TEMPERATURE COMPENSATED**
- **RUGGED MECHANICAL DESIGN**
- **STABILITY NOT DEPENDENT ON AMPLIFIER COMPONENTS** (in recommended circuits)
- **STABLE OPERATION WITHIN 5 MINUTES**
- **LOW AGING RATE**

SPECIFICATIONS frequency stability

- a. ± 3 ppm room ambient (no oven)
- b. ± 1 ppm after temperature equilibrium is attained $\pm 5^\circ\text{C}$
- c. Long term drift less than 5ppm per annum after first 3 months.

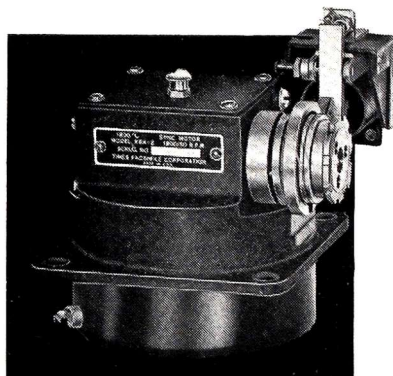


SYNCHRONOUS MOTORS

Wherever highly constant angular velocity at approximately 1/100 H.P. is desired, these motors, in combination with a suitable control frequency source, will give excellent performance. Motors will operate on control frequencies from 200-2500 CPS.

FEATURES

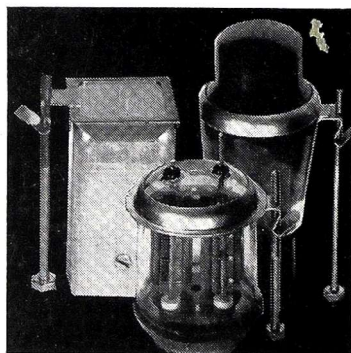
The model KBA is a self-contained synchronous motor with integral start motor and reduction gear box permitting a choice of 30:1 or 20:1 reduction. Provision is made for a fast acting clutch and phasing (indexing) magnet as accessories.



KBA integral start motor

The motor speed range is 400 RPM to 5000 RPM.

TUBE CLAMPS TOP HAT



RETAINERS FOR PLUG-IN COMPONENTS

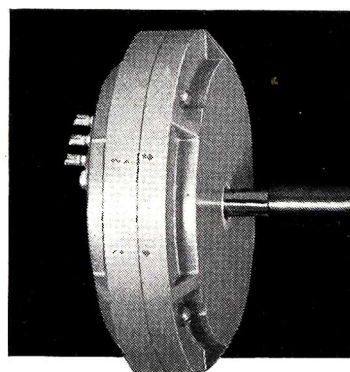
An improved clamp for securing electron tubes, relays, capacitors and other pluggable parts.

POSITIVE Component even when inverted will not loosen under the most severe shock or vibration.

RESILIENT Positive retention is achieved with minimum rigidity or strain on component.

ACCESSIBLE Clamp fits on top of component and can be fastened or released easily without tools.

CORROSION RESISTANT Hats and Posts are stainless steel. All materials and finishes comply with Armed Forces Specifications.



MS-2 SYNCHRONOUS MOTOR

CONSTANT ANGULAR ROTATION FOR PRECISE SPEED CONTROL!

A phonic wheel type motor capable of operating from vacuum tube amplifiers on signal frequencies from 60 to 4000 cps. It was designed to provide the extremely accurate and invariable speed required for driving fork-synchronized facsimile equipment. Its unique characteristics will be found the answer to many problems involving the need for constant angular rotation or precise synchronization.

The Model MS-2 Motor can be operated single phase in the plate circuit of a single-ended amplifier or as a two-phase motor when driven by a push-pull amplifier. The latter is recommended since the two-phase connection runs quieter and provides more power with less heating. The motor current is about 75 milliamperes per phase. The power input may be as high as 20 watts.

Complete information and prices will be mailed promptly on request.

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BORE + .0000 - .0002	OUTSIDE DIAMETER + .0000 - .0002	WIDTH + .000 - .001	BEARING NUMBERS			RADIUS*	FLANGE THICK.		BALLS NO. & SIZE	C RATING	
			FIG. 1 PLAIN BEARING	FIG. 2 FLANGED BEARING	FIG. 3 PLAIN BEARING SHIELDED**		FIG. 4 FLANGED BEARING SHIELDED**	INNER			OUTER
.0469	.1562	.0625	SRO	SFRO		.005	.203	.083	6 1/32	19	
					SROPP	SFROPP		.031	.073	.139	
								.023	.100	.162	6 1 mm	28
.0550	.1875	.0781	SR1	SFR1		.005	.234	.086	6 3/64	39	
					SR1-4	SFR1-4		.031	.134	.207	
.0781	.2500	.0937			SR1-4	.005	.296	.112	7 1/32	21	
					SR1-4	SFR1-4		.031	.118	.162	
.0937	.1875	.0625	SR133	SFR133†		.005	.234	.159	6 1/16	64	
			SR1-5	SFR1-5		.031	.359	.164	.220	8 1 mm	36
.3125	.3125	.1406	SR144	SFR144		.005	.296	.154	6 1/16	66	
			SR144	SFR144		.031	.359	.179	.275	6 1/16	66
.1250	.3750	.1094	SR2-5	SFR2-5		.006	.422	.161	8 1 mm	73	
			SR2-6	SFR2-6		.031	.440	.202	.298	7 1/16	73
.1562	.3125	.1250	SR2	SFR2		.005	.359	.181	8 1 mm	35	
			SR155	SFR155		.023	.275	.215	.286	8 1 mm	35
.1875	.3750	.1094	SR156	SFR156		.005	.359	.215	8 1 mm	82	
			SR166	SFR166		.023	.422	.238	.322	6 3/32	137
.2500	.5000	.1960	SR3	SFR3		.008	.565	.265	10 1 mm	44	
			SR168	SFR168		.023	.422	.281	.337	10 1 mm	44
.3125	.5000	.1250	SR188	SFR188		.010	.547	.310	7 3/32	154	
			SR4	SFR4		.045	.690	.288	.449	8 3/32	170
.3125	.5000	.1562	SR1810	SFR1810		.009	.547	.371	12 3/64	60	
			SR1810	SFR1810		.031	.547	.361	.456	12 3/64	60

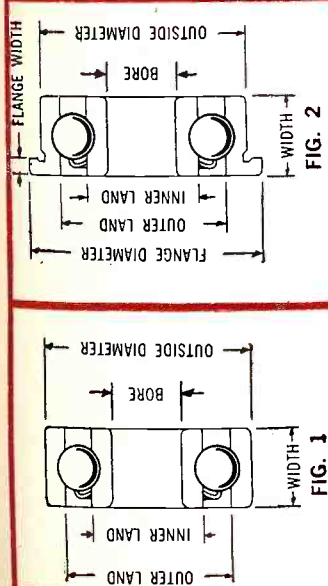


FIG. 1

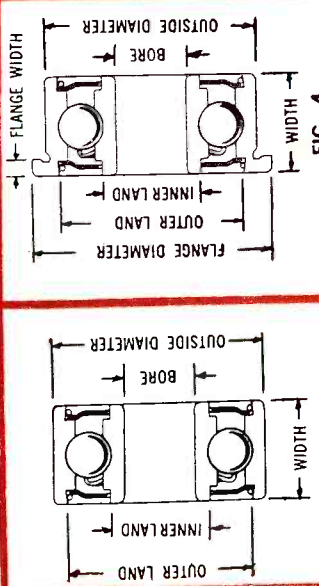


FIG. 3

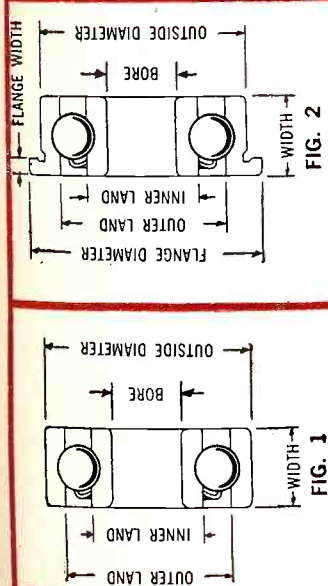


FIG. 2

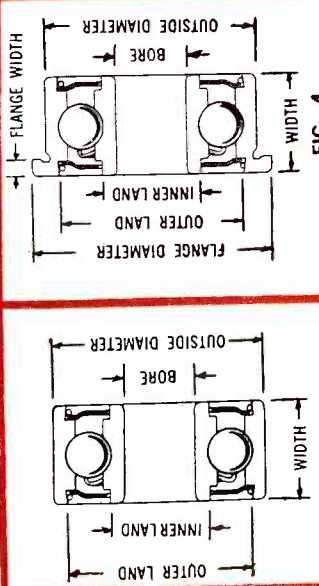


FIG. 4

NOTES

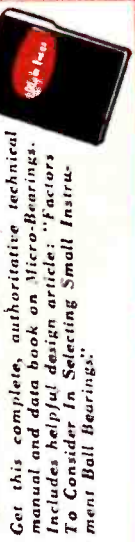
*RADIUS shown is maximum size of shaft or housing fillet that bearing will clear.
 **TOLERANCES shown are ABEC 5 or better. Bearings can also be supplied to ABEC 7. The tolerance on width is for individual rings only.
 †MATERIAL is Type 440 C stainless steel. Unshielded bearings (Figures 1 and 2 only) can be supplied in SAE 52100 chrome steel at same prices.
 ‡LOAD CALCULATIONS — Use C Rating and nomograph in our catalog. For chrome steel (Figures 1 and 2 only) multiply C by 1.2.
 ††WIDTHS shown have been accepted as standard by the AFBMA for SINGLE or DOUBLE shields.
 ††SFR133 has fillet (.005 max. radius) instead of undercut.

HOW TO ORDER

Use bearing numbers shown. For single shield (Figures 3 and 4) use the following suffixes instead of PP:
 Figure 3, suffix P1 — Shield on side opposite flange.
 Figure 4, suffix P2 — Shield on side opposite flange.

- In all cases, the following should be specified:
1. Radial Play (see our catalog).
 2. Lubrication (see our catalog).
 3. The following should be specified only if they are essential to the application:
 a. Coding (see our catalog).
 4. ABEC 7 tolerances (see our catalog).
 5. Other special specifications should be checked with the Plant before ordering.

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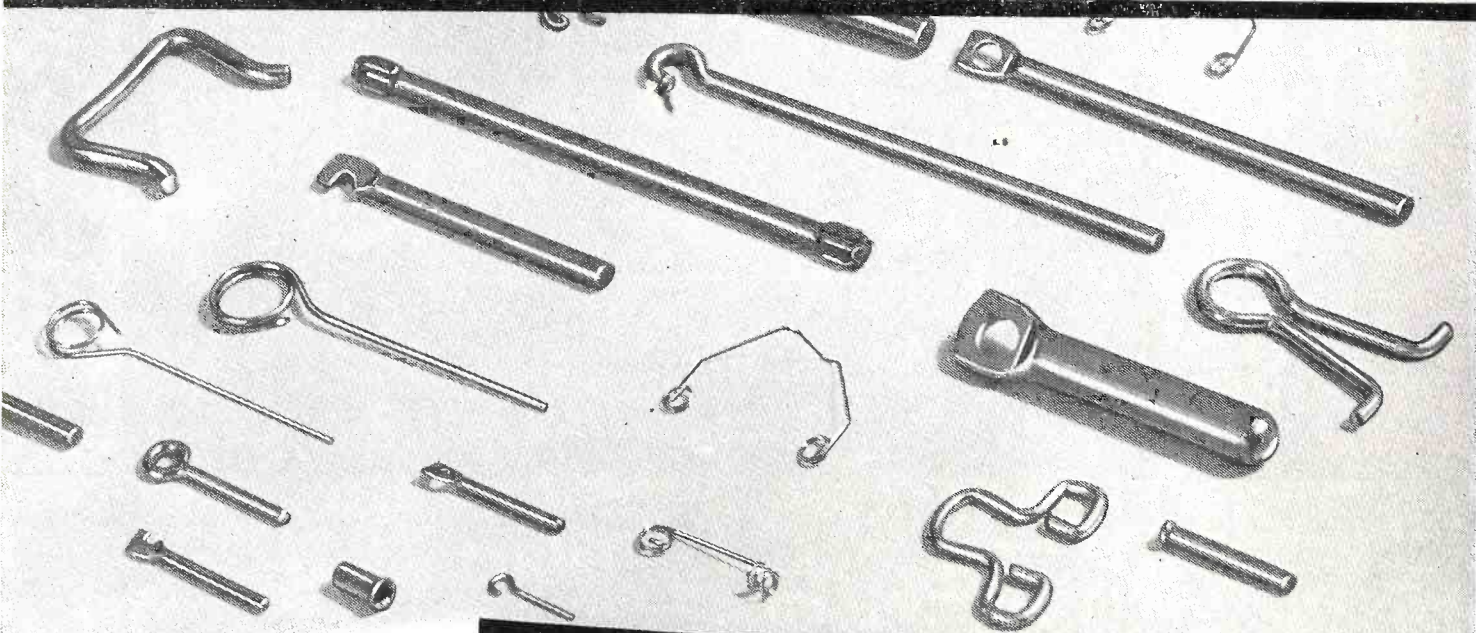
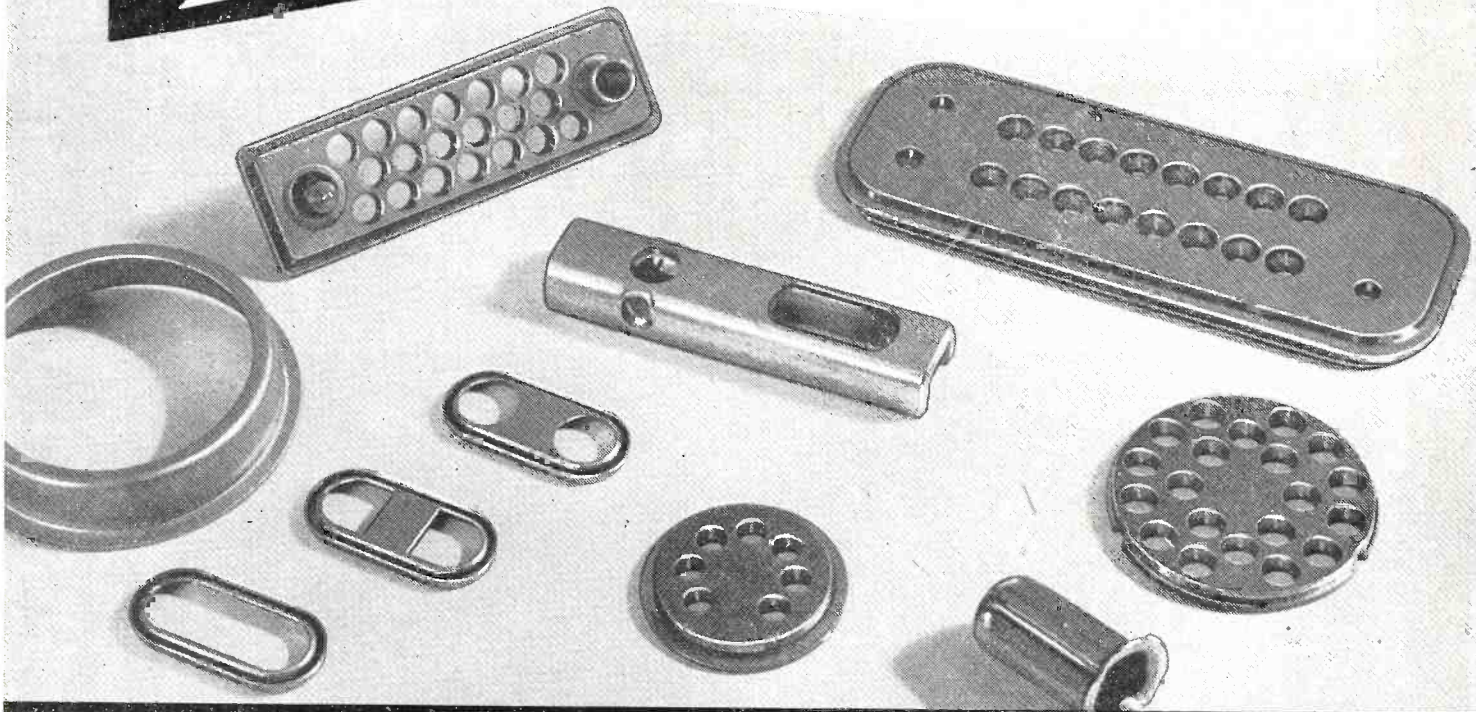
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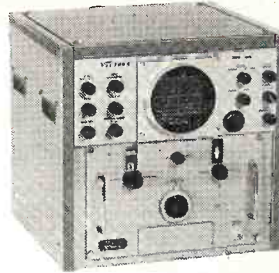
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Plus these features

- Frequency accuracy to 0.05%
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- Amplified transmission wavemeters
- Improved power-response display
- Choice of 2-20 or 6-60 cps sweep
- Fully regulated power supplies
- Simple, reliable, proven circuitry

New single unit K-Band Heads
for use with SA25 or SA30

- 27K1 for 12.7 — 18.0 kmc/s
- 27K2 for 18.0 — 26.5 kmc/s
- 27KQ1 for 34.0 — 40.0 kmc/s



new
Model SA30

... has the features
of Model SA25 plus
many new developments.

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- New Image Check permits direct frequency calibration
- New Simplified Control panel speeds operation
- New Frequency Difference Control for direct incremental measurements 100 kc/s to 5 mc/s
- New Brightness Controls for signal and baseline
- New Dual Unit for rack mounting or portable 80 pound bench top "package"
- New Independent Power Supply for display; klystron power supply includes D.C. filament operation

COMING — NEW WIDE RANGE RF HEAD —
30WR1 — 2000 mc/s to 12,000 mc/s

Interchangeable R.F. Heads for use with SA25 or SA30

25L1 800-2400 mc/s	25C1b 4240-4910 mc/s	25X2b 5700-6600 mc/s	25X1 8500- 9660 mc/s
20S1 2400-3650 mc/s	25C1a 4840-5900 mc/s	25X2 6250-7425 mc/s	25X1b 9500-10250 mc/s
20S1a 2400-4050 mc/s	25C1 5100-5900 mc/s	25X2a 5700-7500 mc/s	25X1a 8500-10250 mc/s

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For controlling synchronous motors

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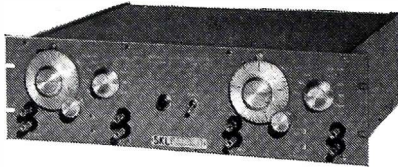
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VARIABLE PRECISION FILTERS: SERIES 300

The 300 single section and 302 dual section models are designed to have responses identical to constant k-pi section filters. The attenuation in the rejection band per section is 18 db per octave, or maximum 36 db attenuation for the Model 302.



MODEL	FUNCTION	CUT-OFF FREQUENCY RANGE	ACCURACY
300	Hi or low pass	20 cps to 200 kc	±3%, 20 cps to 20 kc ±5%, 20 kc to 200 kc
302	Band pass & rejection	20 cps to 200 kc	"

The Series 300 Variable Electronic Filters were developed to meet the problems of inflexibility and expense inherent in conventional multi-frequency filters. Where the fixed filter made for a specific application becomes useless for any other need, the SKL Variable Electronic Filter serves to fulfill broad and diversified laboratory requirements.

Its continuous range of cutoff frequency and its ability to produce band-pass and band-rejection characteristics with independent control of the upper and lower cutoff frequencies are valuable in many applications. Its infinite-rejection connection suggests a further variety of uses.

As a low-pass filter, it provides the only convenient way for reducing the harmonic content of variable-frequency oscillators. It is likewise ideal for modifying the waveform of a complex signal.

When used as a low-pass, high-pass, band-pass or band-

elimination filter, it permits the selection of certain components of the signal for measurement and analysis, while rejecting other components. For the first time, it is possible to eliminate a variable-frequency interfering signal.

When used either low-pass or high-pass, it permits continuous adjustment of phase shift for components within its pass band.

As frequency meters, SKL Variable Electronic Filters meet many applications in determining the frequency or spectrum width of unknown signals.

The ability to set the cutoff frequency as low as 20 cycles per second, either low-pass or high-pass, makes the SKL Filters well suited to physiological, geophysical, electro-medical and seismological work. With the cutoff frequency placed as high as 200,000 cycles per second, the instrument becomes adaptable to sonic and supersonic research applications.

WIDE-BAND CHAIN AMPLIFIERS: SERIES 200



Broad bandwidth, short rise time, stable gain, and linear phase shift make SKL Chain Amplifiers

ideal for amplifying either continuous wave signals or pulses. Each model comes complete with a regulated power supply.

MODEL	BANDWIDTH	GAIN	APPLICATIONS
202D	1 kc - 210 mc	20 db	Pre-amplifier
214B	200 cps - 90 mc	30 db	Pulse Amplifier for C.R.T.
211	15 mc - 110 mc	33 db	TV Distribution Systems
212C	54 mc - 216 mc	20 db	TV Distribution Systems

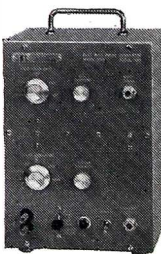
504 SQUARE WAVE GENERATOR



A rise time of .05 microseconds and a wave form without tilt or overshoot characterize the performance of this moderately priced instrument. The Model 504 Square Wave Generator has a frequency range from 0.5 cps to 1 mc in eight steps. The output voltage is continuously variable from 0 to 10 volts peak to peak. The unit comes complete with its own regulated power supply.

503 PULSE GENERATOR

Provides a rectangular pulse shape with a rise time of less than 1 millimicrosecond. Pulse width is varied by changing length of external cable; minimum pulse width less than 1 millimicrosecond while maximum pulse width is unrestricted. Pulse repetition rate is variable from 50 to 150 pps. The pulse output voltage is continuously variable up to 150 volts; either positive or negative. Output impedance is 50 ohms. The Model 503 Fast Rise Pulse Generator is a convenient instrument for testing the response of any wide-band network.



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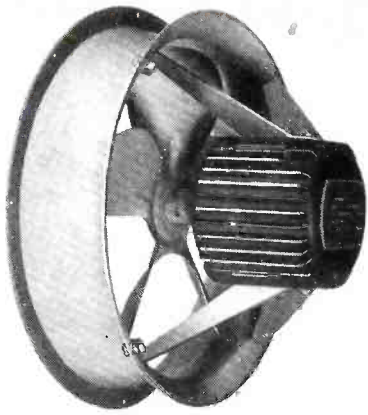
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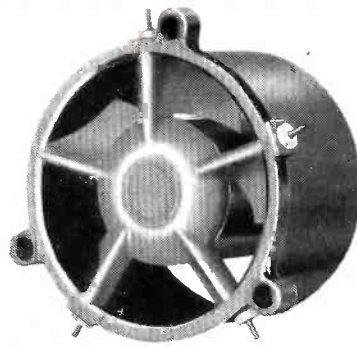
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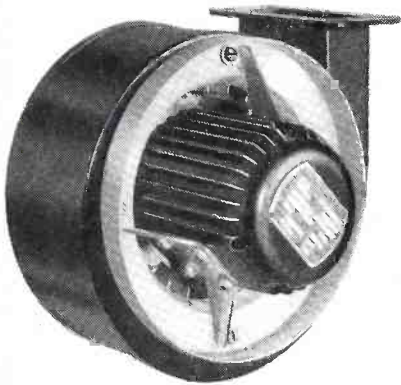
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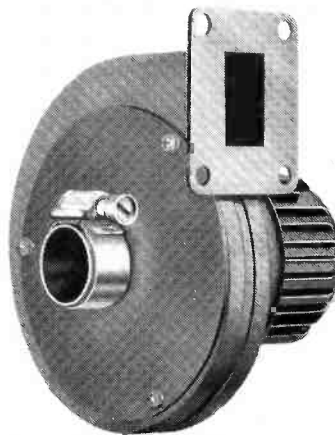
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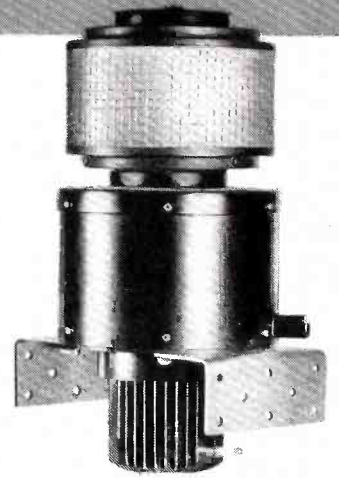
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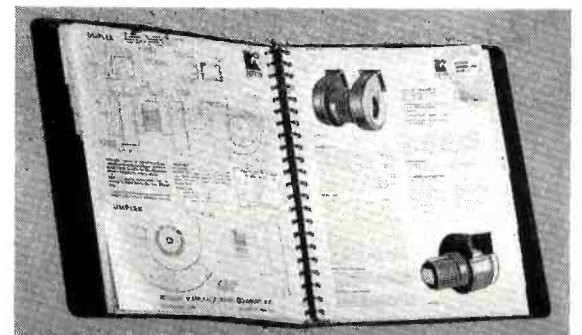
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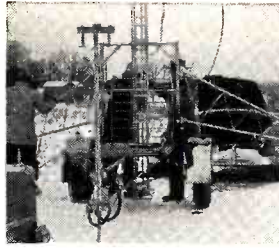
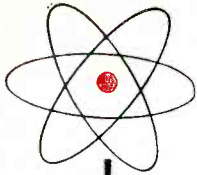
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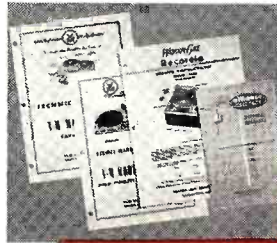
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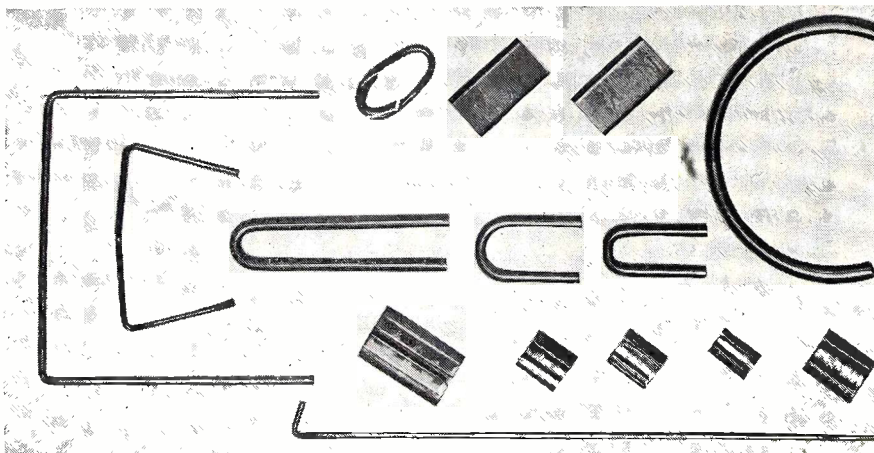
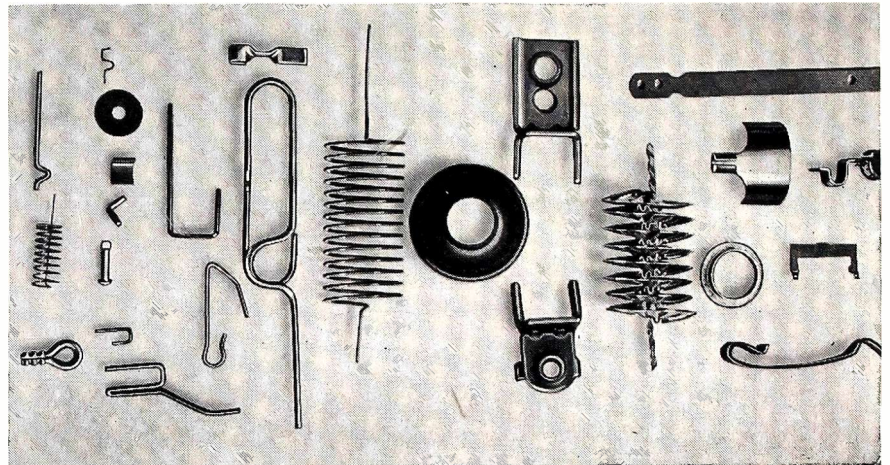
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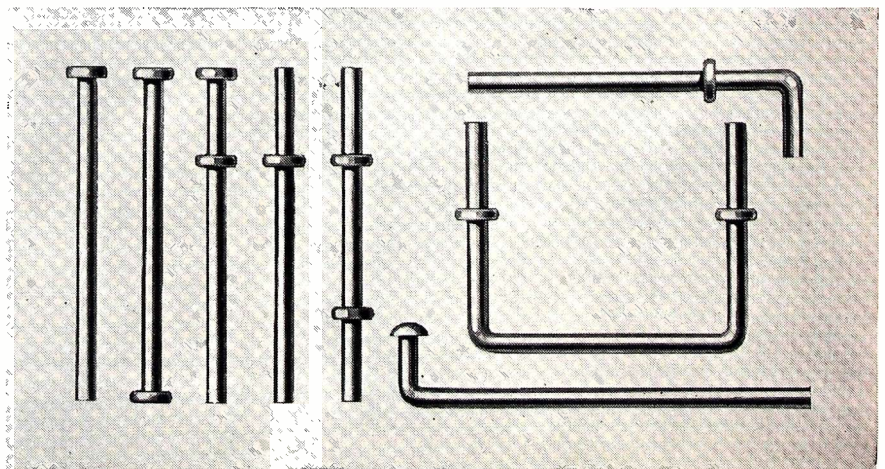


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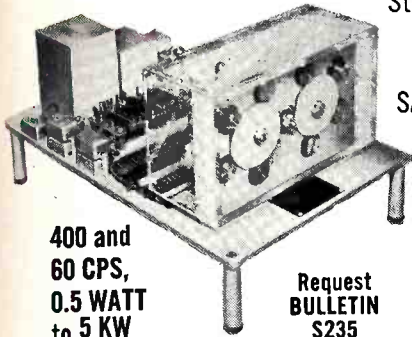
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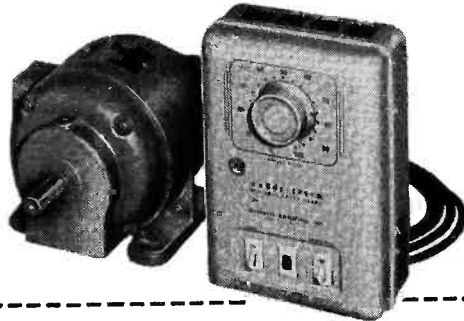
Complete SERVO SYSTEM ENGINEERING for automation and control, including design, development and production.



MAGNE-SPEED® VARIABLE SPEED DRIVES

JR. — 1/8, 1/15, 1/40 HP.
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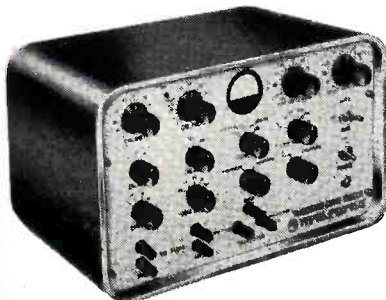
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SIZES I, II, III and JR.

Non-electronic, stepless instant starting; compact, 50:1 speed range, good regulation without tachometer. Long life, virtually maintenance-free, low cost; fast response, reversibility, dynamic brake, local or remote control.

AUTOMATIC UNIVERSAL TRANSISTOR and POWER-TRANSISTOR CURVE TRACER



Displays Collector and Transfer Curves on Cathode Ray Oscilloscope. Handles all types of transistors and power transistors. Curve tracer permits rapid determination of parameters. For selecting, matching and detecting anomalies and rejects.

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 Model 300A — POWER-TRANSISTOR CURVE TRACER — BUL. S667

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Easily operated instrument for making complex measurements. Phase and voltage AC signals measured simultaneously, and read directly from dial and meter scales. Indispensable for alignment of SERVO SYSTEMS, measurement of input requirements of non-linear loads and determination of amplifier input impedances.



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VOLTAGE-CURRENT-FREQUENCY REGULATORS



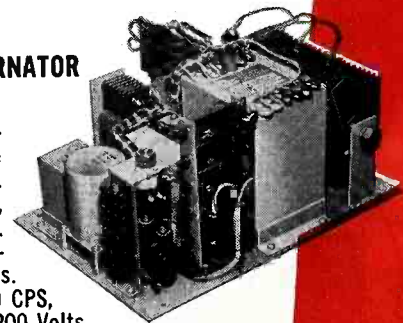
MODERN TUBELESS, REGULATED RECTIFIER LINE — Virtually maintenance-free operation.

SIZES:

1—3-32 V. D.C., 5 Amps.
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 4—1.5-16 V. D.C., 10 A.
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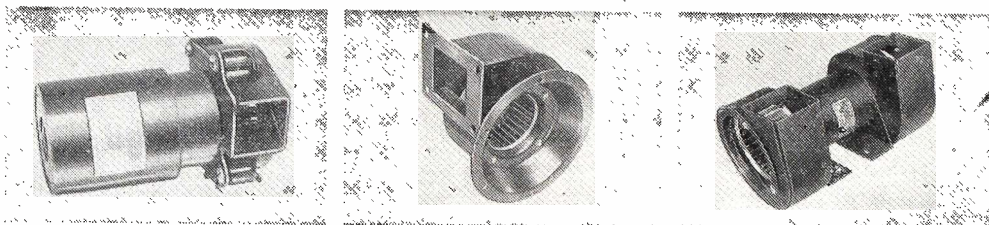
Provides high accuracy, fast response and dependability. Rugged construction, employs no tubes. Meets applicable government specifications. Standard 30 KVA, 400 CPS, 3-Phase 4-Wire 115/200 Volts PACKAGE SUPPLY or CUSTOM DESIGNS for specific machines.



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Performance through Precision fans • motors • blowers

Adaptability through Variety



C 2364-1
Voltage 115 V
Frequency 400 cps
Phase Single
Air Delivery 12 CFM @ 0" S.P.

F 1321-200
Voltage 115 V
Frequency 60 cps
Phase Single
Air Delivery 360 CFM @ 0" S.P.

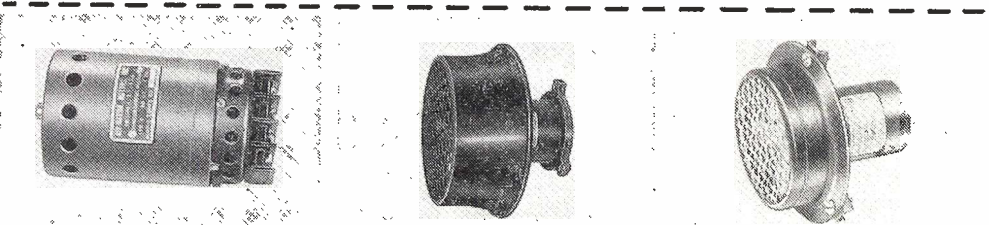
A 15BD-11
Voltage 115 V
Frequency 60 cps
Phase Single
Air Delivery 70 CFM @ 0" S.P.



B 1324-1
Voltage 115 V
Frequency 60 cps
Phase Single
Air Delivery 125 CFM @ 0" S.P.

M 06C-1
Voltage 115 V
Frequency 400 cps
Phase Single
Speed 11,000 RPM

B 10CF-3
Voltage 208 V
Frequency 400 cps
Phase Three
Speed 5600 RPM



A 15HF-5
Voltage 115 V
Frequency 60 cps
Phase Single
Speed 3600 RPM
Hysteresis Synchronous

A 11A-4
Voltage 115 V
Frequency 400 cps
Phase Single
Air Delivery 250 CFM @ 0" S.P. NAFM
Delivery 120 CFM @ .5" S.P. NAFM

C-2241-2
Voltage 115 V
Frequency 400 cps
Phase Single
Air Delivery 140 CFM @ 0" S.P. NAFM
Delivery 48 CFM @ .6" S.P. NAFM

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AIR MARINE MOTORS equipment will meet virtually all your sub-fractional power requirements and AN specifications.

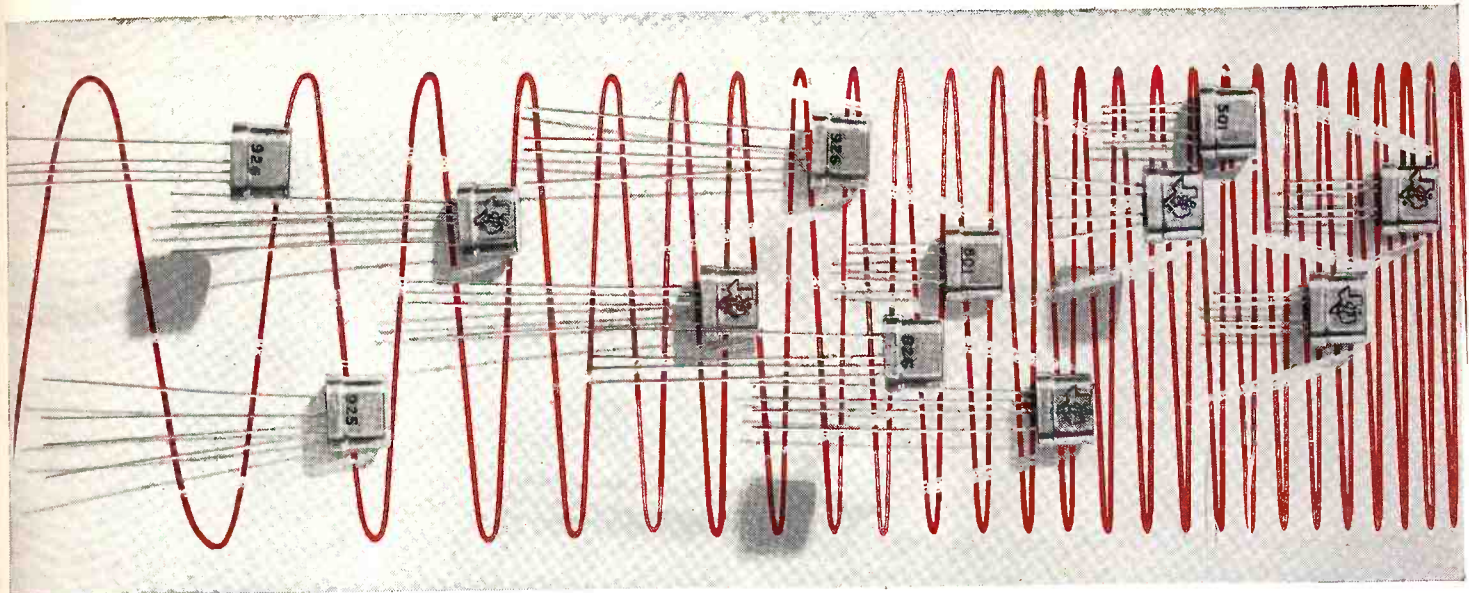
Write for specific information and brochure about any of these units, or for the complete catalog... and use the Air Marine advisory services without obligation.



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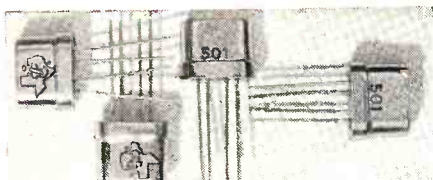
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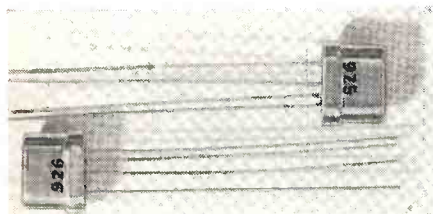
**NEW 'GROWN-DIFFUSED'
TYPES COMMERCIALY
AVAILABLE IN
PRODUCTION QUANTITIES**

HIGH GAIN VHF TRANSISTORS with usable power levels and band widths are now immediately available from Texas Instruments . . . another first for the leading producer of silicon and germanium transistors. Your design horizons are now extended to include all-transistor TV, FM, and VHF receivers . . . and transistorized amplifier, oscillator, or switching applications in communications, telemetering, or radar.



NEW VHF GERMANIUM TRANSISTOR

OSCILLATING FREQUENCY IS ABOVE 250 MEGACYCLES . . . alpha cutoff frequency is 200 mc. Typical gain is 12 db at 100 mc (unregenerative). This performance in a production transistor was unheard of prior to perfection of the "grown-diffused" method — an exclusive Texas Instruments technique.



NEW HF SILICON TRANSISTORS

FREQUENCIES TO 30 MEGACYCLES, rated 30 volts and 125° C, make these "grown-diffused" units ideal for high temperature military and commercial applications. They increase to 10 the types of silicon transistors now available from Texas Instruments, and represent the continual improvement in frequency, gain, and power made by the pioneer producer of silicon transistors.



OTHER NEW SEMICONDUCTOR DEVICES FROM TI

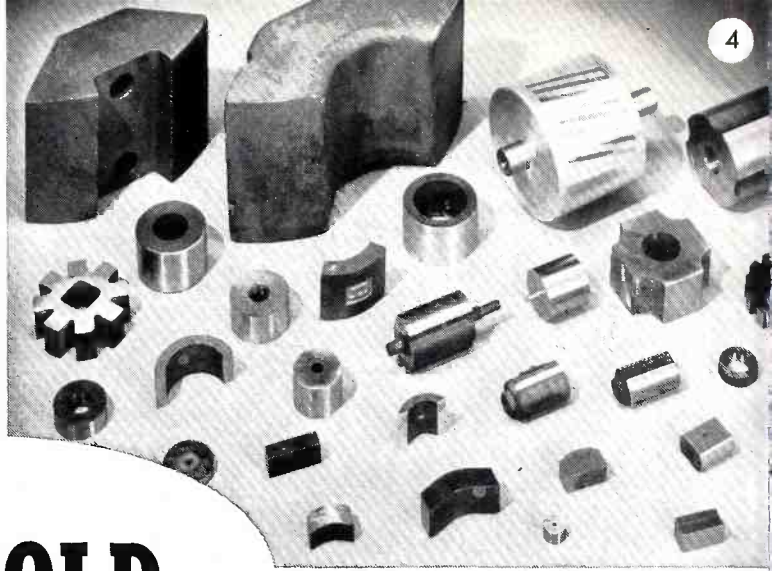
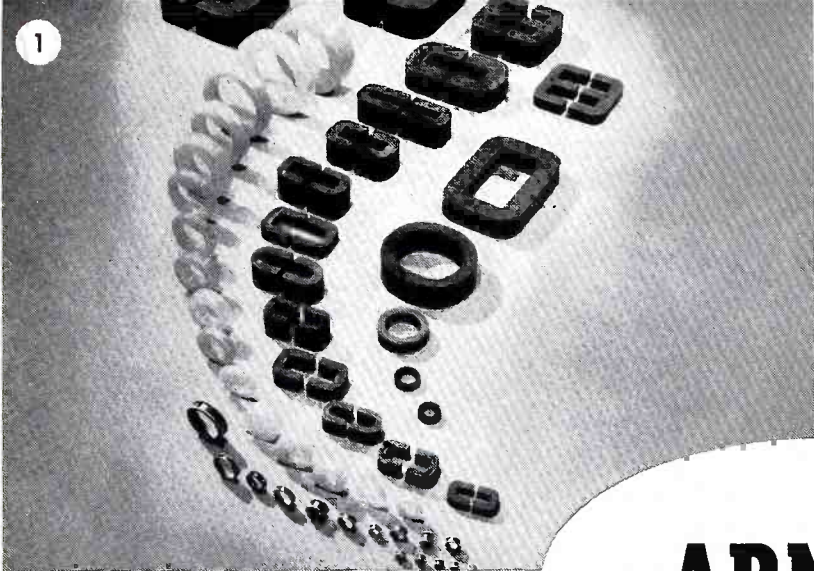
NEW HIGH POWER TRANSISTORS — 12-watt dissipation germanium power transistor and 8.75-watt dissipation silicon power transistor. NEW HIGH VOLTAGE RECTIFIERS — full wave and single junction half wave 1500-volt silicon units stable to 150° C. NEW HIGH CONDUCTANCE DIODES — 4 types of axial-lead silicon junction diodes with 100 ma forward currents and 0.1 μ a back currents.

All these devices in production and available immediately. Write today!

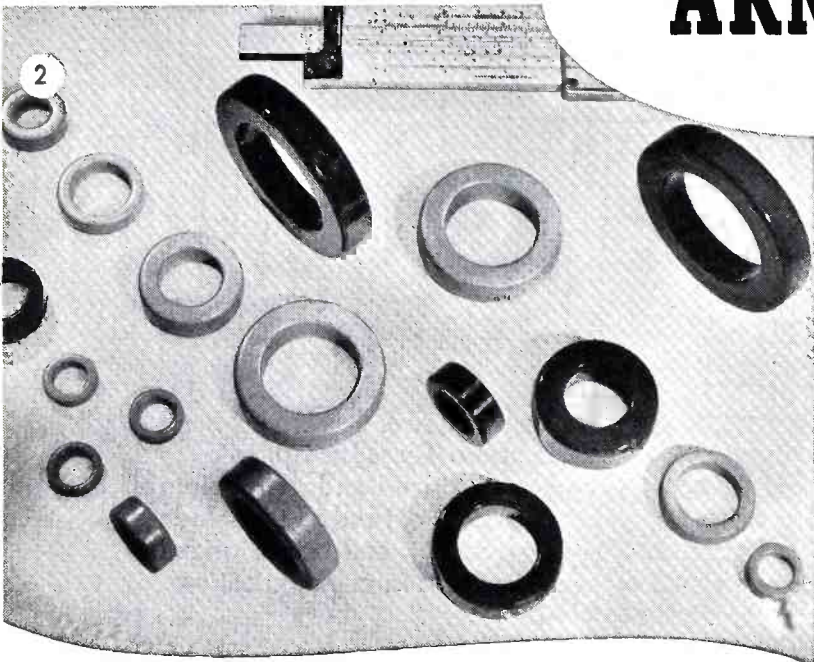
LOOK TO TI FOR: GERMANIUM VHF, POWER, RADIO, & GENERAL PURPOSE TRANSISTORS • SILICON HF, POWER, & SMALL SIGNAL TRANSISTORS • SILICON RECTIFIERS AND DIODES



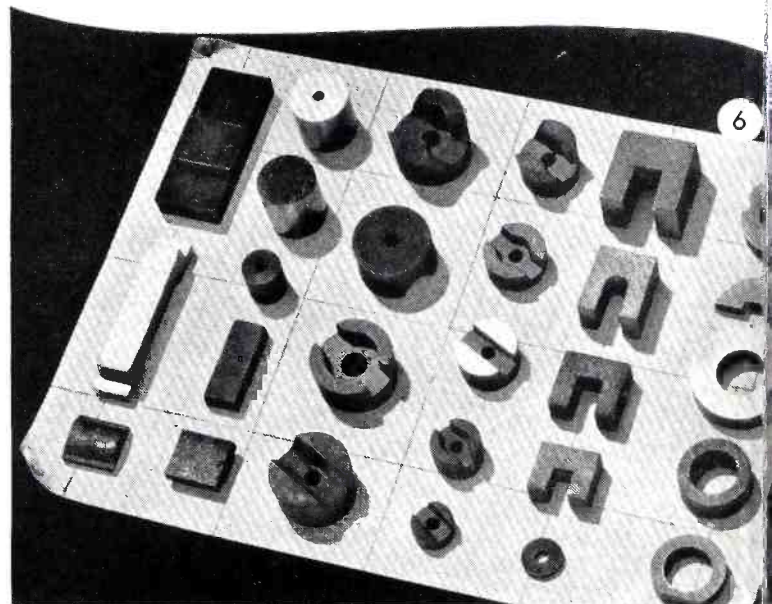
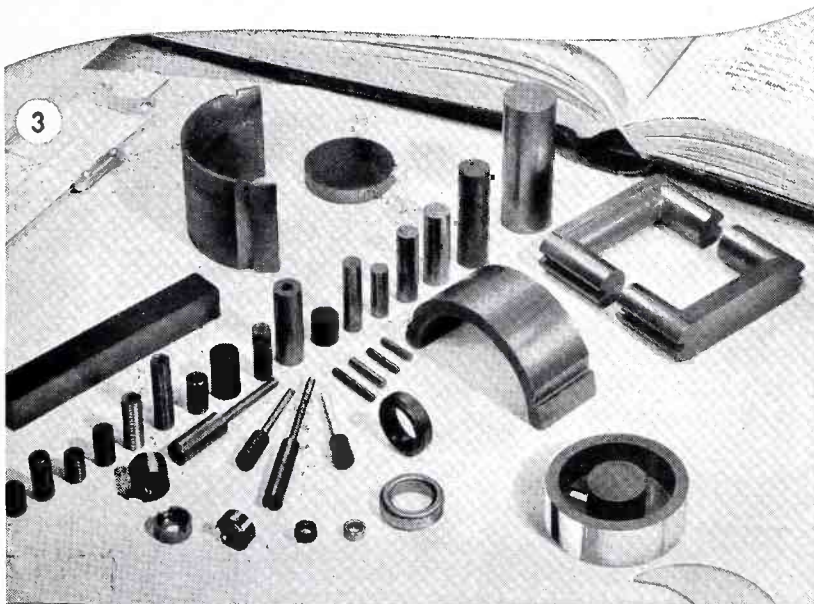
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ARNOLD



YOUR SOURCE OF THE MOST COMPLETE LINE **of MAGNETIC MATERIALS AVAILABLE**



(1) Typical group of C and E cut cores, various types of tape wound cores, and bobbin cores (foreground). (2) Mo-Permalloy powder cores. (3) Iron powder cores. (4) Cast Alnico magnets for rotors and stators. (5) Permanent magnets and assemblies for wave guides, traveling wave tubes and magnetrons. (6) Various types and sizes of sintered Alnico magnets.

Arnold magnetic materials can answer *any* requirement you may have. It is the most complete line in the industry; and in addition, Arnold maintains complete control over every production step from raw materials to finished products. Such a source can bring you advantages in long experience and undivided responsibility, and in unequalled facilities for quality production and control. • *Let us supply your needs.*

TYPES "C" AND "E" CUT CORES

Available in more than 500 standard sizes and almost any special size, Arnold "C" and "E" Cores are made from precision-rolled Silectron strip (highly oriented silicon steel) in 1, 2, 4 or 12-mil thicknesses and a wide variety of window sizes and core areas, for high and low-frequency applications. Sizes range up to 100 lbs. in 12-mil strip, and from fractions of an ounce to hundreds of pounds in thinner gauges.

Insulated strip of the proper width is wound on a mandrel, then heat treated, bonded and cut into halves. Careful control results in accurately dimensioned and matched core halves whose effective air gap at the butt joint is very small.

In 3-phase applications, the use of "E" cores provides weight and size reduction, as well as higher efficiency and possible cost savings. Rigid standard tests are employed for both "C" and "E" types of cores, and special tests where required.

Write for Bulletin SC-107

TAPE WOUND CORES

Depending upon the specific properties required, Arnold Tape Wound Cores are available made of Deltamax, 4-79 Mo-Permalloy, Supermalloy, Mumetal, 4750 Electrical Metal, or Silectron . . . in standard tape thicknesses of 1, 2, 4 or 12-mils, and in ultra-thin gauges of 1/2 and 1/4-mil where required.

This gapless type of core construction results in maximum effective working permeability with minimum flux leakage. Practically any size core can be supplied, from a fraction of a gram to hundreds of pounds. Toroidal cores are made in 27 standard sizes with protective nylon or aluminum cases. Special sizes of toroidal cores, and all square or rectangular tape wound cores, are produced to individual requirements.

Write for Bulletin TC-101A

MO-PERMALLOY POWDER CORES

These toroids provide high Q in a small volume, characterized by low eddy current and hysteresis losses.

Arnold Mo-Permalloy powder cores are supplied in four standard permeabilities: 125, 60, 26 and 14 Mu. They provide constant permeability over a wide range of flux density. The 125 Mu cores are recommended for use up to 15 kc; the 60 Mu at 10 to 50 kc; the 26 Mu at 30 to 75 kc; and the 14 Mu at 50 to 200 kc. Many of these cores may be furnished stabilized to provide constant permeability ($\pm 0.1\%$) over a specific temperature range.

Arnold Mo-Permalloy powder toroids are available in a wide range of sizes, to obtain nominal inductances as high as 281 mh/1000 turns. They are given various types of enamel and varnish finishes, some of which permit winding with heavy Formex insulated wire without supplementary insulation over the core.

Write for Bulletin PC-104 A

ALNICO MAGNETS—Cast and Sintered

Arnold manufactures permanent magnets from all grades of Alnico, although Alnico V is usually the preferred type due to the high value of energy product of that alloy. Alnico magnets are quite hard and somewhat brittle and may be machined only by grinding. Most sizes and shapes are manufactured as sand castings and are made to the customer's drawings and specifications. Some types and shapes of Alnico Magnets are carried as stock items.

Some small sizes of magnets may be furnished in sintered Alnico, and a wide range of shapes are carried in stock for quick delivery. Special shapes made in this way, however, require rather expensive dies.

Write for Bulletin GC-106A

IRON POWDER CORES

Arnold quality control of iron powder cores includes the maintaining of rigid electrical, physical and dimensional specifications unmatched in the industry. A wide selection of cores is available, from simple cylinders to special cores of complicated design. The line includes all standard types and sizes of threaded cores, cup, sleeve, slug and cylindrical insert cores: for use in antenna and RF coils, oscillator coils, IF coils, perm tuning, FM coils, television RF coils, noise filter coils, induction heating and bombardier coils, and other low frequency applications. A standard series of iron powder toroids is being manufactured, conforming to the standard sizes proposed by the Metal Powder Association.

Write for Bulletin PC-109

BOBBIN CORES

These cores, fabricated by winding ultra-thin tape of high-permeability magnetic materials on ceramic bobbin cores, possess ideal qualities for use in electronic computer assemblies. Their desirable properties include quite rectangular hysteresis loops, relatively low coercive values and high saturation densities; plus temperature stability and the ability to shift in a few microseconds from negative remanence to positive saturation, and vice versa, under conditions of pulse excitation.

Arnold Bobbin Cores are available in a wide range of sizes, tape thicknesses, widths and number of wraps to suit the ultimate use of the core. Magnetic materials usually employed are Deltamax, Square Permalloy and Supermalloy, in standard thicknesses of 1, 1/2, 1/4 and 1/8 mil. Special advantages derive from Arnold's position as a fully-integrated producer of wound cores, able to maintain precise control over every production operation . . . melting, rolling, winding, testing, etc.

Write for Bulletin TC-108

SPECIAL MAGNETIC MATERIALS

Vicalloy is a permanent magnet alloy containing about 10% vanadium, 50% cobalt and the balance iron. It may be fabricated in the form of castings, hot rolled bars and forgings or cold rolled strip, wire and tubing. After suitable heat treatment, the material is quite readily machinable. The alloy finds its greatest usefulness in the form of forged rotors, stamped parts and special recording tape. The coercive force, Hc, is about 300 oersteds, the residual induction, Br, is about 9000 gauss and the energy product, (BH) max, is about 1.0×10^6 .

Cunico is a permanent magnet alloy which can be produced in a large variety of forms since it is ductile, malleable and machinable. It has a high coercive force, Hc, of 715 oersteds, a residual induction, Br, of 3200 gauss and an energy product, (BH) max, of $.81 \times 10^6$.

Cunife is an alloy of copper, nickel and iron which is malleable, ductile and machinable, even after it has been age hardened. The magnetic properties of Cunife are developed by cold working and are directional, with the best magnetic properties found only in the smaller sizes of rods or wires.

Vibrallloy is an alloy of nickel, molybdenum and iron whose temperature coefficient of elastic modulus is controllable over a wide range. It has high ferromagnetic permeability, and a rather high coefficient of magnetostriction. It is manufactured in the form of cold rolled strip as well as cold reduced rod and bar stock. It is used in applications where a zero or controlled thermo-elastic coefficient is desired.

Write for Bulletin CG-106A



THE ARNOLD ENGINEERING COMPANY

SUBSIDIARY OF ALLEGHENY LUDLUM STEEL CORPORATION

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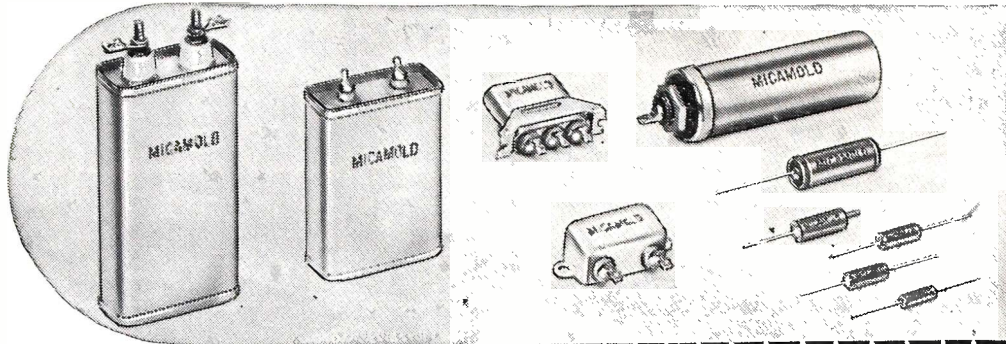
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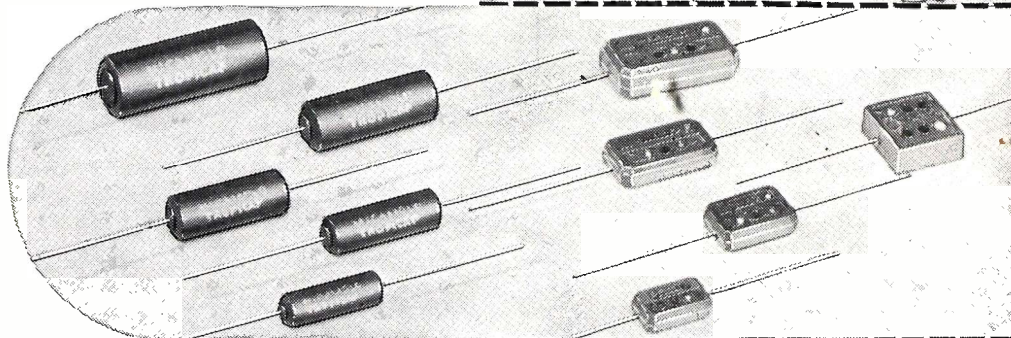
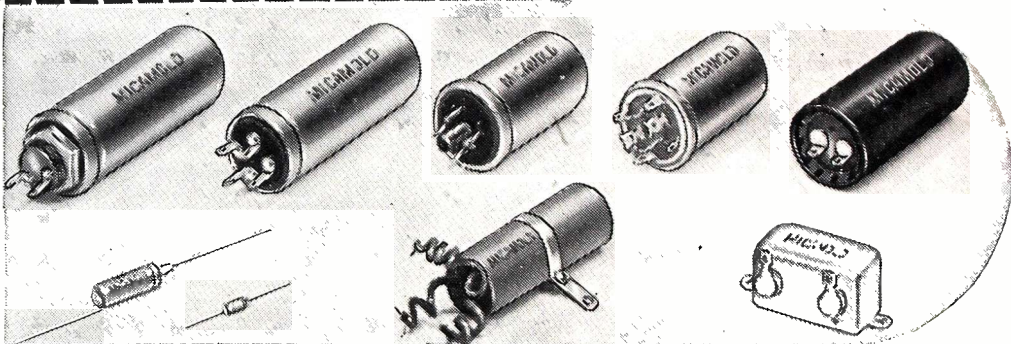
MICAMOLD pioneered the development, design and manufacture of capacitors — and is still producing under the original management.



MICAMOLD METAL ENCASED PAPER CAPACITORS — hermetically sealed, are available in all the Military Standard styles and many special designs. Micamold also manufactures complete lines of oil filled capacitors for industrial applications. Another Micamold first — the exclusive Ambirite line — the only paper capacitors for operation at 150°C.

MICAMOLD ELECTROLYTIC CAPACITORS are manufactured in all Military Standard styles, and types for radio, television and industrial applications. The Motorlytics are for capacitor motor starting.

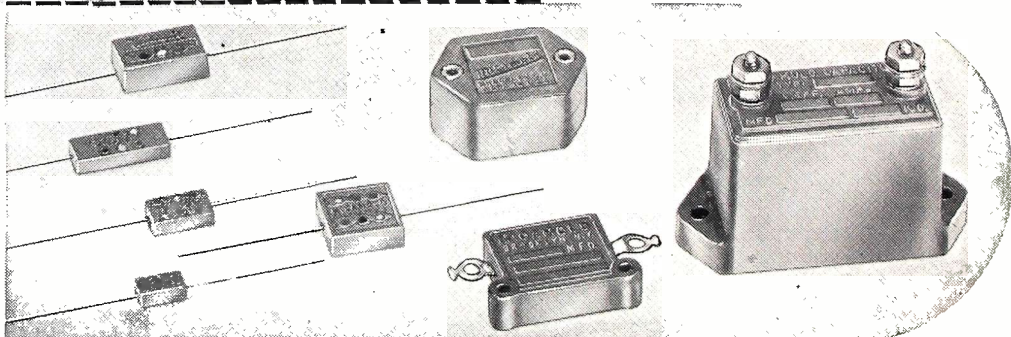
MICAMOLD's exclusive 'lytics include: Thermalytics, the only capacitors capable of operation up to 100°C, and Chromalytics that work at voltage ratings up to 700VDC.



MICAMOLD MOLDED PAPER CAPACITORS, hermetically sealed in rectangular cases are the only complete line of Military Standard styles. A commercial line is manufactured in the same case sizes for industrial applications.

MICAMOLD TROPICAPS are molded tubular capacitors that afford protection from exposure to high humidity or even total immersion. The case is non-flammable and not injured by severe mechanical and thermal shocks.

MICAMOLD originated and introduced the first **MOLDED MICA CAPACITORS** thirty years ago. The company manufactures Military Standard styles from CM15 through CM70, and also makes the same types for industrial uses. Another Micamold first — the development and manufacture of high temperature types AO, AW and AV for operation to 150°C.



MICAMOLD manufactures all types of Paper, Electrolytic and Mica Capacitors, Radio Frequency Interference Filters, Pulse Networks and Delay Lines.

The Micamold Catalog giving complete specifications is available upon request.



MICAMOLD ELECTRONICS MANUFACTURING CORP.
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STABILITY



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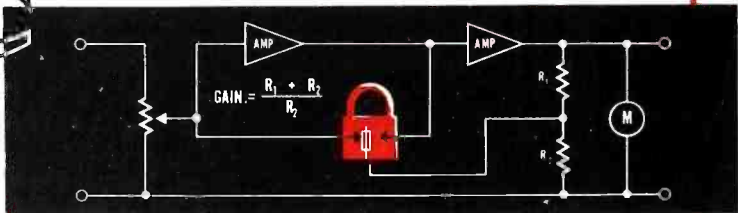
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MODEL 203

MICROVOLT-AMMETER AND AMPLIFIER

10 μ V to 1000 volts... 100 μ Amps to 100 ma... 15 ranges... 100 megohm input impedance... zero center meter
Stable, accurate, simple-to-operate instruments for low-level measurements and general laboratory use.



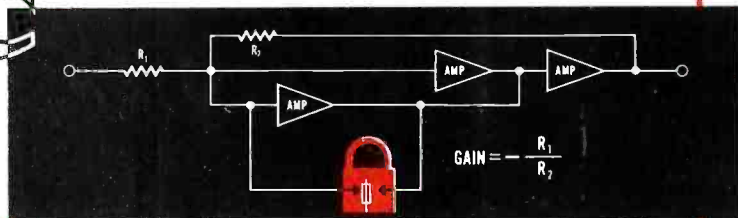
AMPLIFY



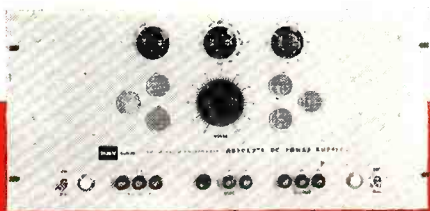
MODEL 110

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2 μ V drift... gain of 1000... 10 gain ranges... gain accuracy 1%... DC to 30 kc... 3 μ V noise... 25 volts - 25 ma output
Ideal for low-level instrumentation as strain gage, thermocouple, transducer and general purpose laboratory amplifier



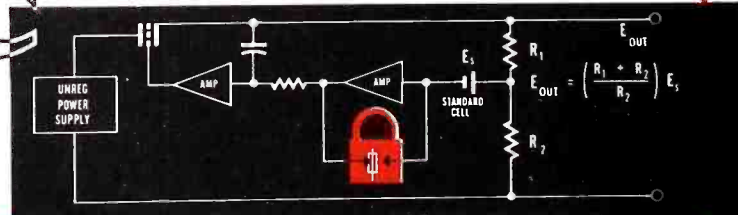
SUPPLY



MODEL 50C-25

VARIABLE DC POWER SUPPLY



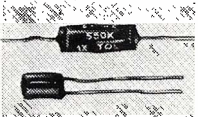

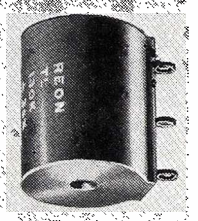

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High-powered standard cells for computer supplies, test facilities and general laboratory and calibration use.

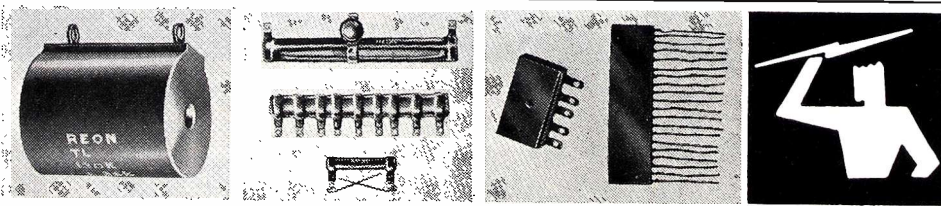


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REON: Announces with pride new TRIUMPHS over Engineering problems. REON always pioneering has excelled in the development of new MILESTONES in Wire Wound Components. Listed below are a few recently developed types:

PROBLEM	QUESTION	ANSWER															
THERMAL BARRIER 	Need full load rating at: Ambients: 1. 600°C 2. 350°C 3. 225°C 4. 175°C 5. 150°C 6. 125°C 7. 105°C 8. 85°C	REON Series: 1. Submit your specific prob. 2. "SS" Series 3. "D" Series 4. "H" Series 5. "H" Series 6. "T" Series 7. "T" Series 8. "R" and "T" Series															
EXCESSIVE HUMIDITY 	Need Relative Humidities of: 1. 90 to 95% 2. 95 to 99%+	REON Series: 1. "R" and "T" 2. "TY" Hermetic Seals															
MINIATURIZATION 	Need OD's of: 1. .150" (Microminiature) 2. .1875" (Microminiature) 3. .250" (Subminiature) 4. .375" (Miniature)	<table border="1"> <thead> <tr> <th>REON Series:</th> <th>Megohms</th> <th>Min. Tol.</th> </tr> </thead> <tbody> <tr> <td>1. "MM"</td> <td>0.15</td> <td>0.1%</td> </tr> <tr> <td>2. "MA"</td> <td>0.3</td> <td>0.1%</td> </tr> <tr> <td>3. "SM"</td> <td>3.0</td> <td>0.02%</td> </tr> <tr> <td>4. "M"</td> <td>7.0</td> <td>0.02%</td> </tr> </tbody> </table>	REON Series:	Megohms	Min. Tol.	1. "MM"	0.15	0.1%	2. "MA"	0.3	0.1%	3. "SM"	3.0	0.02%	4. "M"	7.0	0.02%
REON Series:	Megohms	Min. Tol.															
1. "MM"	0.15	0.1%															
2. "MA"	0.3	0.1%															
3. "SM"	3.0	0.02%															
4. "M"	7.0	0.02%															
PRINTED CIRCUITRY 	Need: 1. Miniature Vertical Mtg. 2. Hi Megohm in small space 3. High Shock & Vibration 4. Dip Solder techniques 5. Automatic Assembly	REON Series: "LP" (vertical type) "MM" (Microminiature) "MA" (Microminiature) "TSMR" (Radial) "TSMA" (Off center axial)															
MATCHED ACCURACIES 	Need Matched Temp. Coef's from -55°C to +125°C or matched Ratio Resistors for: 1. Computers 2. Bridge Networks 3. DC Amplifiers 4. Servomechanisms	REON Ratio Resistors: Reon can provide Ratio resistor to within $\pm 0.01\%$ Matched temperature coefficients to within $\pm 2\text{PPM}/^\circ\text{C}$ Guaranteed stabilities to within $\pm 0.003\%$															
MINIATURE PREC. POWER 	Need Min. Precision Power: 1. Need 2, 5, or 10 Watts 2. Need Precision tol's of $\pm 5\%$, 3%, 1%, 0.25%, 0.1%, 0.05% 3. Need small size 4. Need abrasion resistance 5. Need high Insul. Resis.	REON Series: "BR" Sealed ceramic shell "BS" Siliconsealed															



GOVERNMENT SPECIFICATION MIL-R-93A, MIL-R-93B, MIL-R-9444, MIL-R-26B

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Haydu's basic ten-position Beam Switching Tube has introduced entirely new concepts for simplifying electronic circuits and designs. This new electronic tube is so versatile that any desired type of sequential or random switching of any number of positions may be obtained.

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WIDE BAND AMPLIFIERS

WIDE BAND AMPLIFIER SPECIFICATIONS

	M-530	M-500A*	M-400	M-380
Band Pass	10KC to 300MC	200KC to 220MC	200KC to 300MC	2KC to 50MC
Input Impedance	185 ohms	90 ohms	50 ohms	90 ohms
Output Impedance	185 ohms	185 ohms	90 ohms	90 ohms
Gain	20 DB	12 DB	10 DB	70 DB
Rise Time	.0016 u-sec.	.0025 u-sec.	.0016 u-sec.	0.01 u-sec.
Average Power	-----	3 Watts CW	100 W. CW	-----
Peak Pulse Power	-----	337 Watts (Negative pulse into 185 ohm load)	-----	-----
RMS Voltage out—across rated load impedance	3.2 V	22 Volts	95 Volts	1 Volt
Peak to Peak Voltage—across rated load impedance	9 V	62 Volts	270 Volts	2.8 Volts
Price including Power Supply	\$199	\$359	\$4900	-----

*A modified version of the M-500A which operates only in the linear mode, is the M-500 which is available at a price of \$299.



M-380



M-530



M-400



M-500A

I. F. AMPLIFIERS

M-200 Series

SPECIFICATIONS OF STANDARD UNITS

	M-260	M-230	M-235
Band center.....	60 mc.	30 mc.	30 mc.
Band width.....	10 mc.	2 mc.	10 mc.
Voltage gain.....	90 db.	110 db.	90 db.
Input and Output impedance.....	50 ohms.	50 ohms.	50 ohms.

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 Scientific Instrument Co., 1460 Pennsylvania St., Denver 3, Colo.
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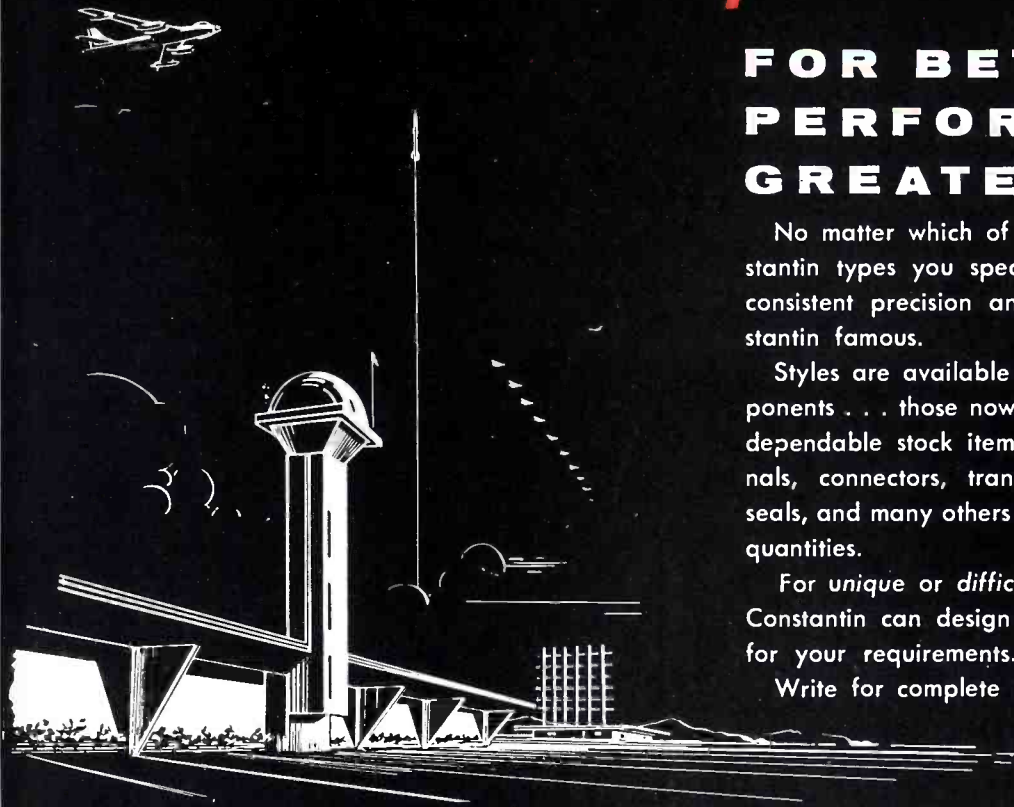
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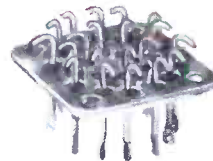
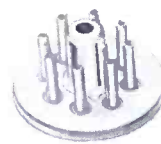
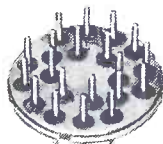
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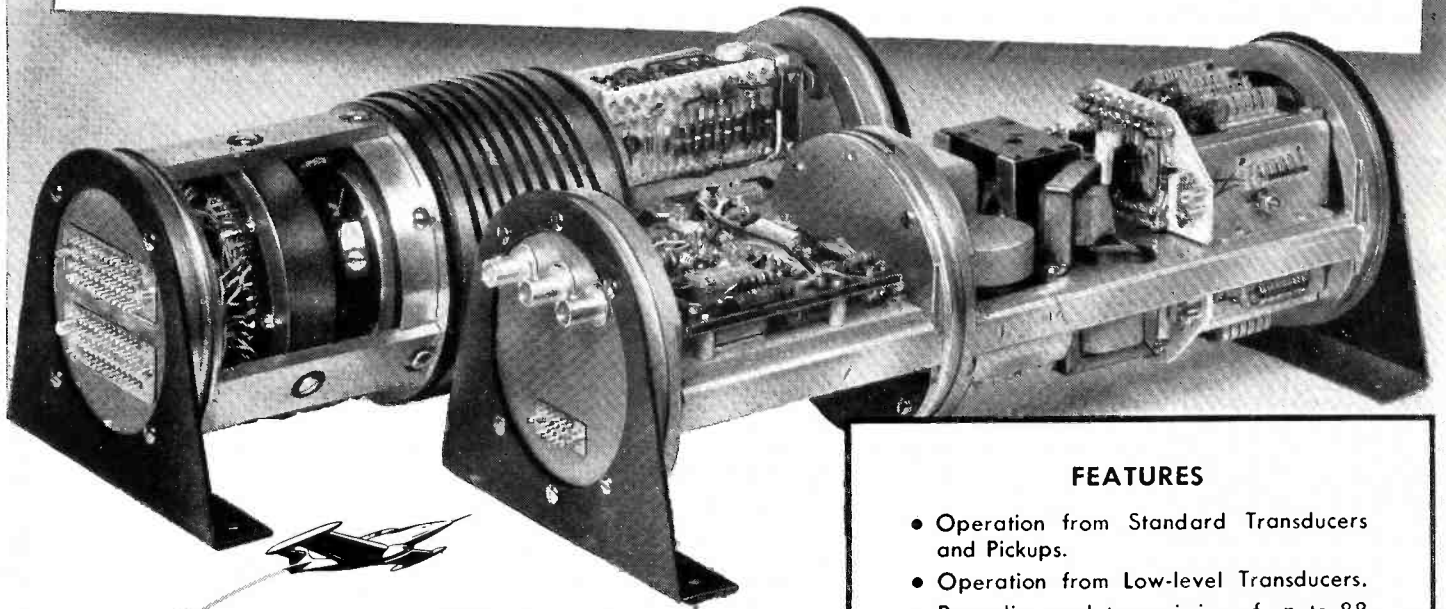
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The new ASCOP D Series PW Multicoders provide, for the first time, supersensitive, low-level remote measurement of data from airborne vehicles. The extremely high input sensitivity, fast sampling rate, and wide selection of data channels (up to 88) of these new Multicoders . . . together with their critical accuracy, ultra-high altitude pressurization, and rugged design . . . suit them ideally to today's most important testing and prototype applications involving recovery and repeat use.

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The new ASCOP Multicoder, combined with ASCOP M Series Ground Station Equipment and suitable transmission or recording equipment, constitutes a complete data handling system that is easy to operate, flexible in application and provides simplified real time reduction. ASCOP also produces a complete line of PW Data Systems and equipment, Telemetry sets and High and Low Speed Rotary Sampling Switches. Contact ASCOP regarding your present program *today*.

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 - Ease of data reduction.
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- SPECIFICATIONS**
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 - **Input Circuit:** Differential balanced to ground
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 - **Output:** Standard pulse width
 - **Power Requirements:** 115V, 400 cycles

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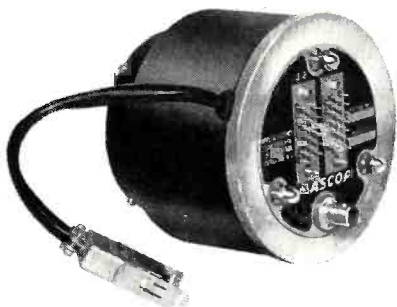
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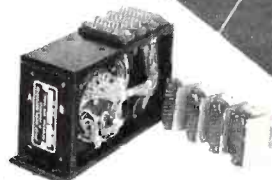
When it comes to sampling switches for industrial, military or scientific uses, you can be sure of getting the best from ASCOP . . . pioneers of rotary sampling switch design and the largest manufacturer in the country today.

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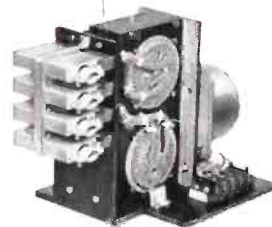
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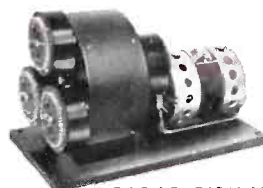
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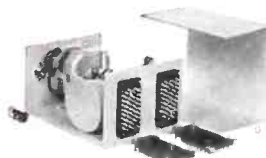
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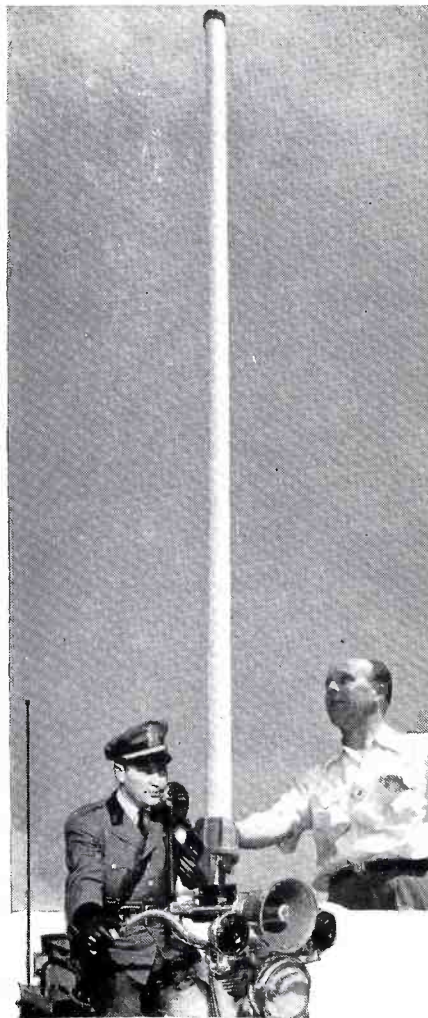
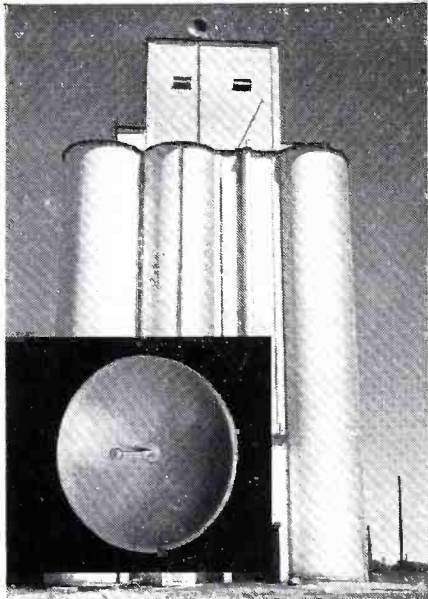
33,000 mc

25 mc

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From Gabriel's integrated facilities for development and production came the unsurpassed antenna performance shown here . . .

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Field proved the world over, Gabriel Parabolics are produced for commercial, industrial, and military frequencies.

Request Catalog EMP for complete specifications in these and other frequencies.

7000 mc. — 7000 mc. Railroad Microwave System Operates in mid-west weather conditions ranging from -27° to 110°F — and often mounted where difficult access makes reliability critical. Photo courtesy of Philco.

Important features are **COMPLETE COVERAGE** — 5925-7425 mc • **HIGH GAIN** — to 42.5 db over isotropic source • **LOW VSWR** — 1.13 max. • **LOW SIDELOBES** — better than 22 db down.

2000 mc. — Narrow-beam Parabolic Antenna gives non-interfering operation in the crowded 2000 mc. microwave relay band, with no discernible "squint" and remarkably improved primary and secondary radiation patterns.

Important specifications are: **HIGH GAIN** — 28.5 db • **LOW VSWR**—below 1.3 over entire band • **BEAM WIDTHS** — E plane 6.5° , H plane 6° • **LOW SIDE and BACK LOBES** — better than 25 db down.

RADAR ANTENNAS for a wide variety of uses • development, design, and construction of feed and reflector systems • construction of reflectors up to 60 feet in diameter, with complete mounting and drive equipment.

GABRIEL PASSIVE REFLECTORS

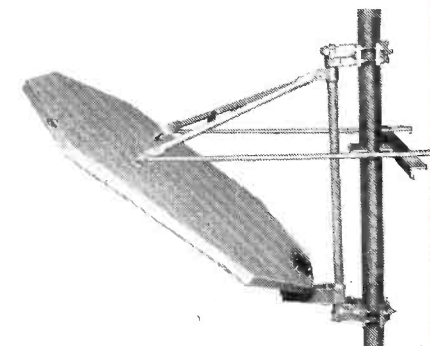
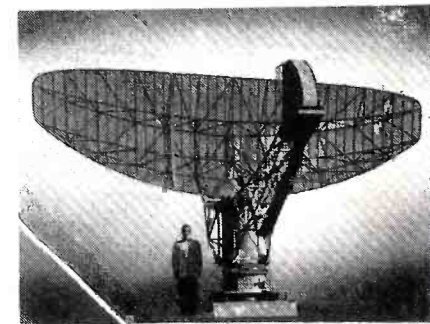
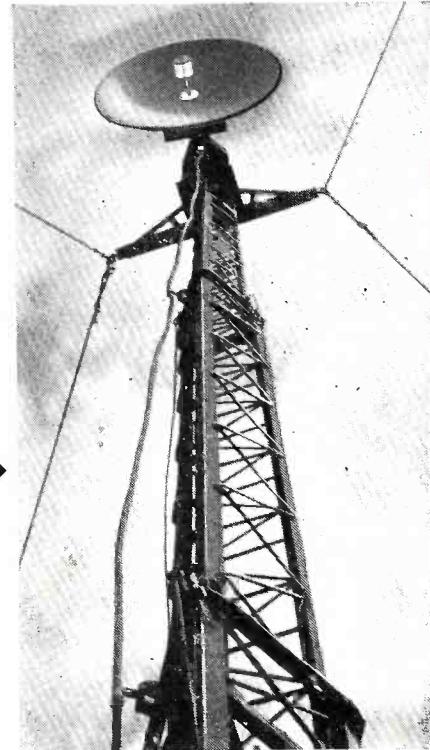
For maximum point-to-point transmission in microwave relay links. Fast, accurate, easy adjustment permits peaking for an efficient system that can out-perform line-of-sight transmission — at lower system cost. Request Bulletin EPR-11 for complete mechanical and electrical systems data.

GABRIEL COMMUNICATIONS ANTENNAS

A complete line for wide-range dependable mobile communications for increased signal power with wider coverage at great savings over cost of high power station and mobile transmitters. Request 24-page Catalog EMC.

HIGH GAIN BEACON ANTENNAS — Gabriel HW series covers 450-470, 144-174, 108-144 mc bands. Gain up to 6.5 db over $\frac{1}{2}$ wave dipole, with equal power radiation in all horizontal directions and low VSWR.

MOBILE ANTENNAS — Gabriel's complete line with bases, springs, and rods, meets every mobile communications need. Typical models are famous "disguise" Model SPPB-71 for all police frequencies; Model SPP-3 series of swivel-base, spring, and whip antennas; Model SPP-18 roof-top model for 140-165 mc.



GABRIEL ELECTRONICS DIVISION

THE GABRIEL COMPANY NEEDHAM HEIGHTS, MASSACHUSETTS
Telephone Needham 3-0005 (through Boston).

AMPEX TAPE RECORDERS FOR EVERY DATA RECORDING NEED

A complete line that works together with compatible characteristics and a consistent standard of excellence

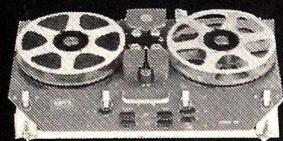
VERSATILE



FR-100—Overall performance specifications are the best of any magnetic tape recorder now in production. Modular design of the FR-100 provides broad scope that gives engineers and scientists a freedom to experiment and develop advanced data gathering techniques.

6 tape speeds 1 7/8 to 60 in/sec; D-C to 100,000 cycle/sec. frequency response; choice of 3 recording methods on any track by plug-in interchangeable amplifiers.

MOBILE



800—For airborne, shipboard or vehicular use, this recorder combines excellent performance specifications with ruggedness, compactness and light weight. It is also resistant to shock, vibration and environmental extremes. The 800's versatility is second only to the FR-100.

4 tape speeds; D-C to 30,000 cycle/sec. frequency response; choice of 3 recording methods on any track by plug-in interchangeable amplifiers.

DIGITAL



FR-200—This magnetic tape transport fulfills the fast start-stop requirements of digital handling. It also provides a unique single loop threading feature which greatly simplifies tape change and minimizes chance for faulty threading by inexperienced personnel.

Tape attains full speed or full stop within less than 5 milliseconds; standard machine has 30 in/sec. tape speed and 7 tracks on 1/2-inch tape; other combinations on order.

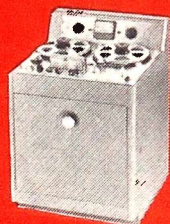
REPEATABLE



S-359—The endless tape loop handled by this transport serves a number of special needs: time delay, repeating signal for analysis, monitoring with "infinite" time limit, and various programming functions. Loop length is continuously variable from 3 1/2 foot minimum to 25, 50 or 75 foot maximum.

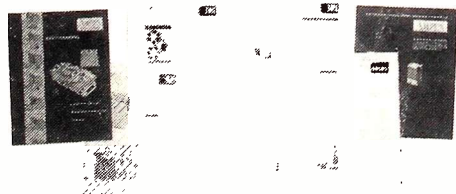
Available for 1/4, 1/2 or 1-inch tape; same tape speeds, heads and other characteristics as Ampex reel-to-reel recorders.

DEPENDABLE



300 SERIES—These are Ampex's long established line. For many applications where the great versatility and extremely high performance specifications of the newer FR-100 are not needed, a 300 series machine provides high quality performance and great reliability at less cost.

Available for various types of recording: 303 for pulse-width modulation; 306 for FM-carrier recording; 307 for direct recording; also combinations.



A mark of the Ampex leadership in magnetic tape recorders is the fact that every machine produced equals or exceeds all published performance specifications. A general tape instrumentation brochure and descriptive literature on various models are available on request. Write Dept. E-2788

District Offices: New York; Chicago; Atlanta; Redwood City; Dayton; Dallas; Silver Springs, Maryland (Washington D.C. Area)
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FIRST IN MAGNETIC TAPE INSTRUMENTATION

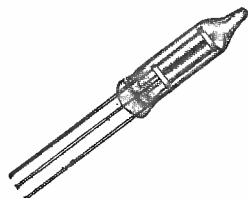
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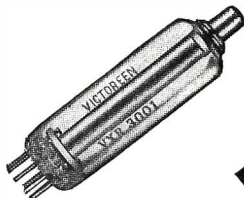
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Victoreen's new improved Corona Type Voltage Regulator offers to designers an efficient and economical means of regulating the output of high voltage — low current power supplies.

Our new designs offer **HIGHER CURRENT RATINGS** and **SUPERIOR REGULATION** with **LONGER LIFE** and **GREATER STABILITY**. Improved **REPEATABILITY** increases their value as reference tubes.



T-3 GLASS SUBMINIATURE
Available voltage range
400 volts to 2000 volts.



T-5 1/2 GLASS MINIATURE
Available voltage range
400 volts to 6000 volts.

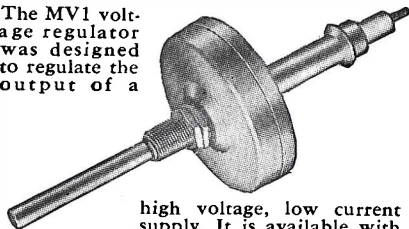


METAL TUBES
Available voltage range
10 KV to 27 KV.

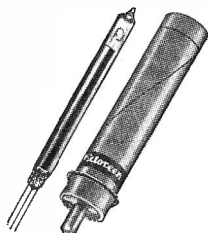
There is a corona type regulator for every high voltage — low current application.

VARIABLE VOLTAGE REGULATORS

The MV1 voltage regulator was designed to regulate the output of a



high voltage, low current supply. It is available with nominal voltage ratings from 1000 to 8000 volts (in 500 volt steps). Adjustment is $\pm 15\%$ from centerline of nominal voltage. This adjustment is accomplished by 5 revolutions of the control shaft.



COUNTER TUBES

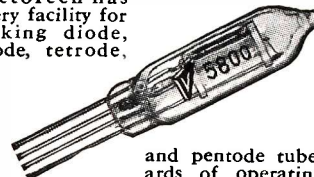
These are self-quenching geiger tubes designed to cover the general field of beta, gamma, X-ray and cosmic ray measurements.

SPECIFICATIONS

TUBE TYPE	1B85 Beta-Gamma Alum. Wall	1B86 Gamma Ray Glass Wall	6306 Beta-Gamma Bismuth Lined Alum. Wall
Description			
Operating Voltage	900	300	900
Threshold Voltage	800	280	800
Plateau Length Volts	200	60	150
Plateau Slope Per 100 V (% — 100V)	3	10	5
Active Length (inches)	2.75	2.5	2.75
Wall (mg-cm ²)	30	300	30
Life (counts)	10 ⁹	5x10 ⁷	10 ⁸
Type Base	Coaxial A1-A2	Tinned Leads	Coaxial A1-A2

SUBMINIATURE ELECTROMETER TUBES

Victoreen has every facility for making diode, triode, tetrode,

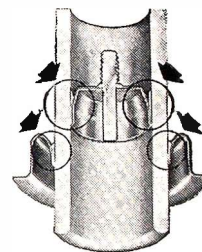


and pentode tubes to standards of operating performance that will inherently improve the performance of their application. In addition to exceptional quality, Victoreen offers engineering skill to assist in solving your problems and production facilities to meet your requirements.

CERAMIC METAL SEALS

The Victoreen bonding process results in a diffusion of the metal into the sub-surface of the ceramic, resulting in a bond that is as strong as the ceramic body itself. Forcible removal tears the ceramic from the body, indicating the unusual adhesive qualities of this process. This seal permits the use of an inside or recessed metal-to-ceramic seal which may increase the leakage path by as much as double the normal without increasing the overall length of the seal, or permit maintaining a specific leakage path and reducing the overall length by as much as one-half.

A wide range of ceramic compositions as well as a variety of metals have been tested in this sealing process, all with improved quality over conventional methods. We invite inquiries.



HERMETICALLY SEALED RESISTORS (GLASS ENCAPSULATED)

Victoreen carbon deposited resistors are used in applications where ultra-stability and life requirements exceed the MIL-10509A specifications.

RESISTOR DATA CHART

Type	Resistance	Tolerance %	Voltage Coeff. %/V.	Temp. Coeff. %/°C.	Max. Work. Volt.	Watt.	Max Temp °C.	Dimensions (Inches)		
								At	B†	C‡
RX-1	10 ⁸ to 10 ¹⁴ Ohm	*2, 5, 10	-0.03**	± 0.15	1000	....	100	1 7/8	.20	1
RX-2	1 - 20 Megs.	1, 2, 5, 10, 20	-0.0002	-0.08	3000	1	125	2	.413	1 1/2
RX-3	1 - 200 Megs.	1, 2, 5, 10, 20	-0.0002	-0.08	10,000	3	125	3 1/8	.413	1 1/2
RX-4	200 Ohm to 1 Meg.	1, 2, 5	-0.0002	-0.05	800	5	200	2	.413	1 1/2
RX-5	200 Ohm to 1 Meg.	1, 2, 5	-0.0002	-0.05	2000	10	200	3 1/8	.413	1 1/2
RX-6	100 Ohm to 500 K	1, 2, 5	-0.0002	-0.05	180	1/2	200	3/4	.156	1 1/2
RX-7	100 Ohm to 1 Meg.	1, 2, 5	-0.0002	-0.05	600	1/2	200	1 1/8	.187	1 1/2
RX-8	100 Ohm to 10 Meg.	1, 2, 5	-0.0002	-0.05	750	2	200	1 1/2	.240	1 1/2 Min

* Below 10¹¹ Ohm

** Below 10¹³ Ohm

† Max

‡ Min

CAUTION: The higher resistance values of each type are subject to power derating as determined by the maximum voltage rating.



The RX-1 listed in the above table is the well known Hi-Meg resistor, noted for its high degree of accuracy and stability.



RX-1 Hi-Meg Resistor



The Victoreen Instrument Co.

Components Division: 3810 Perkins Ave., Cleveland 14, Ohio

maximum efficiency...
minimum space...
mil-specifications...
quality control...
lab reports...

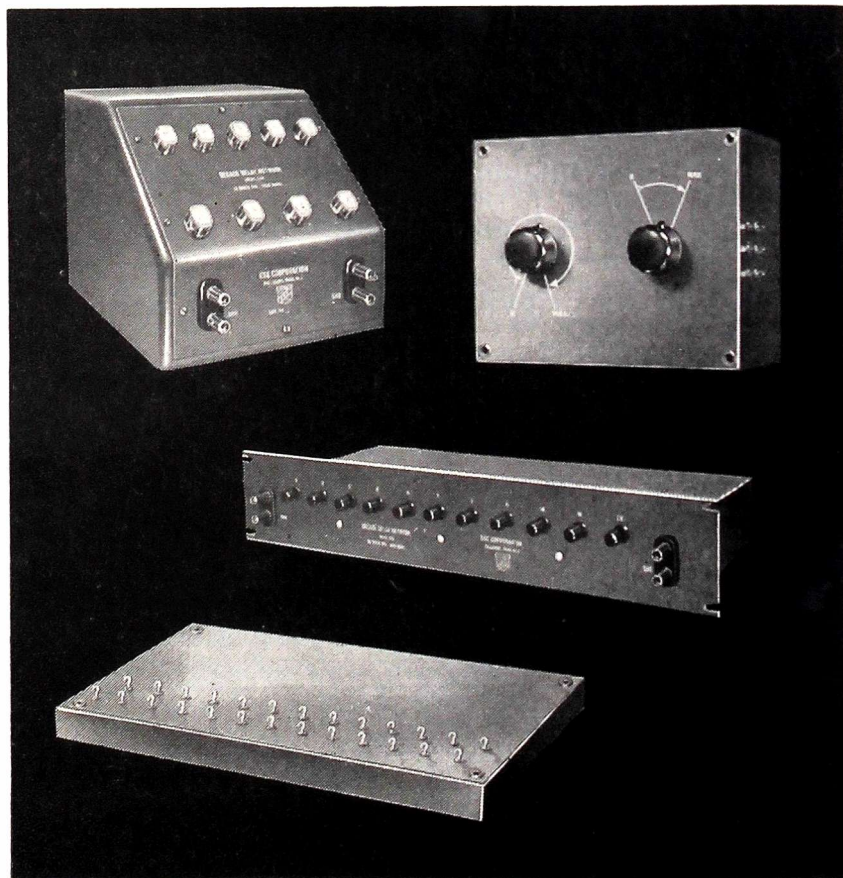
these are what ESC offers you in delay line design

Whether your requirements call for Lumped-Constant Delay Lines, Distributed Constant Delay Lines, Variable Delay Networks, or Pulse Transformers...whether you require a custom-designed delay line to meet your specific requirements or a standard, cataloged unit...you'll discover that ESC means precision and skill, years of valuable experience in delay line manufacturing...you'll discover that ESC means maximum delay line performance, dependability, economy.

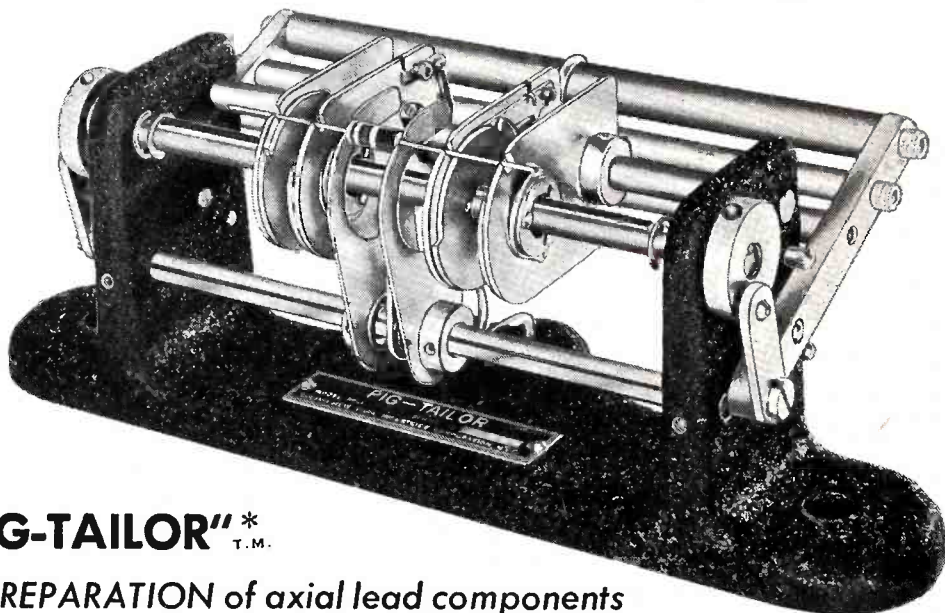
WRITE for the name of our representative in your area, as well as for our complete catalog.

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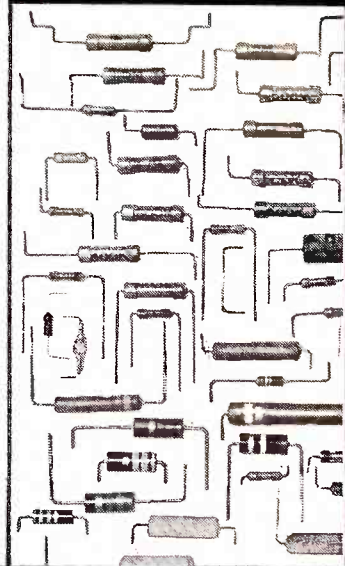
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T.M.

For PREPARATION of axial lead components

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"PIG-TAILORING"

... a revolutionary new mechanical process for higher production at lower costs. Fastest PREPARATION and ASSEMBLY of Resistors, Capacitors, Diodes and all other axial lead components for TERMINAL BOARDS, PRINTED CIRCUITS and MINIATURIZED ASSEMBLIES.

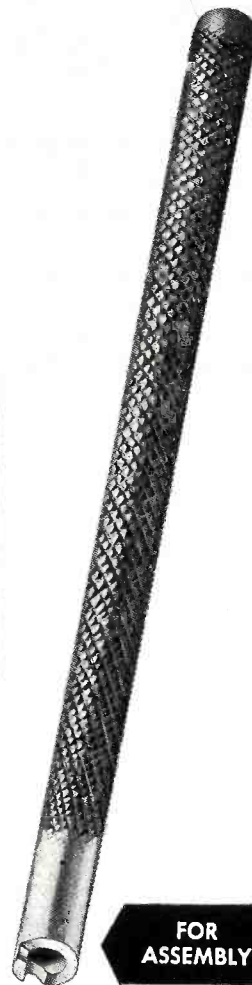
The "PIG-TAILOR" plus "SPIN-PIN"—accurately MEASURES, CUTS, BENDS, EJECTS & ASSEMBLES both leads simultaneously to individual lengths and shapes—3 minute set-up—No accessories—Foot operated—1 hour training time.

PIG-TAILORING provides:

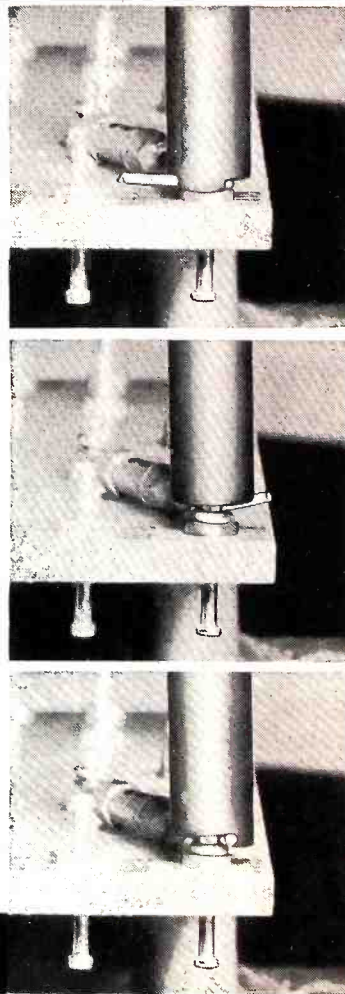
1. Uniform component position.
2. Uniform marking exposure.
3. Miniaturization spacing control.
4. "S" leads for terminals.
5. "U" leads for printed circuits.
6. Individual cut and bend lengths.
7. Better time rate analysis.
8. Closer cost control.
9. Invaluable labor saving.
10. Immediate cost recovery

PIG-TAILORING eliminates:

1. Diagonal cutters!
2. Long-nose pliers!
3. Operator judgment!
4. 90% operator training time!
5. Broken components!
6. Broken leads!
7. Short circuits from clippings!
8. 65% chassis handling!
9. Excessive lead tautness!
10. Haphazard assembly methods!



**FOR
ASSEMBLY**



"SPIN-PIN"*
T.M.

Close-up views of "SPIN-PIN" illustrate fast assembly of tailored-lead wire to terminal.

* PATENT
PENDING

Write for illustrated, descriptive text on "PIG-TAILORING" to Dept. BG-6P

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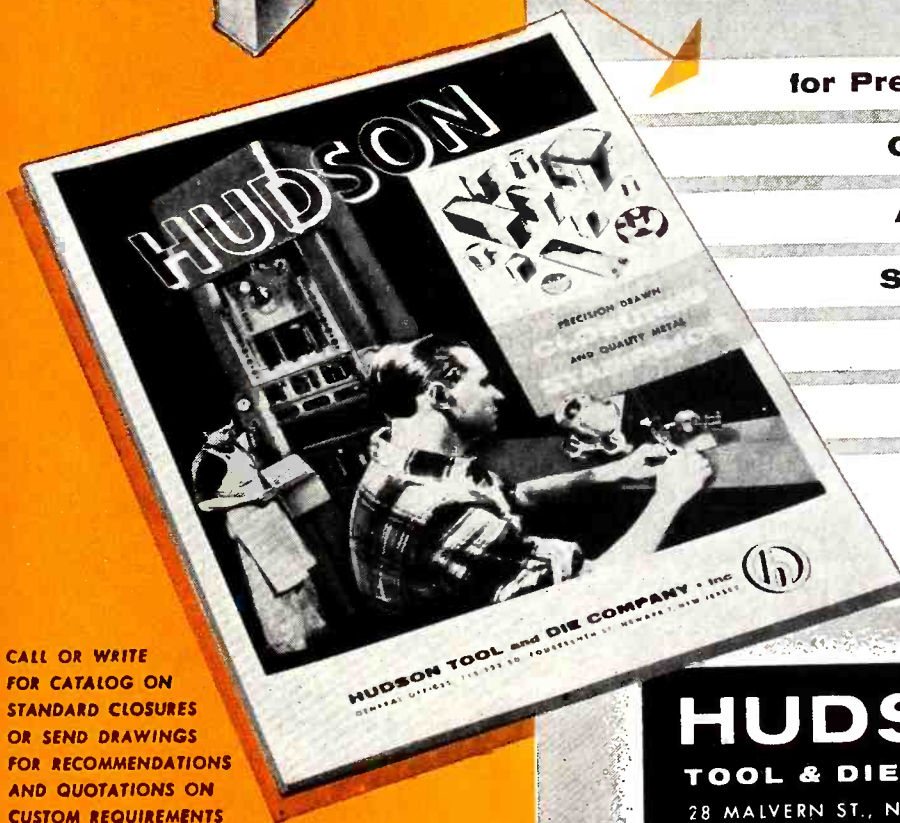
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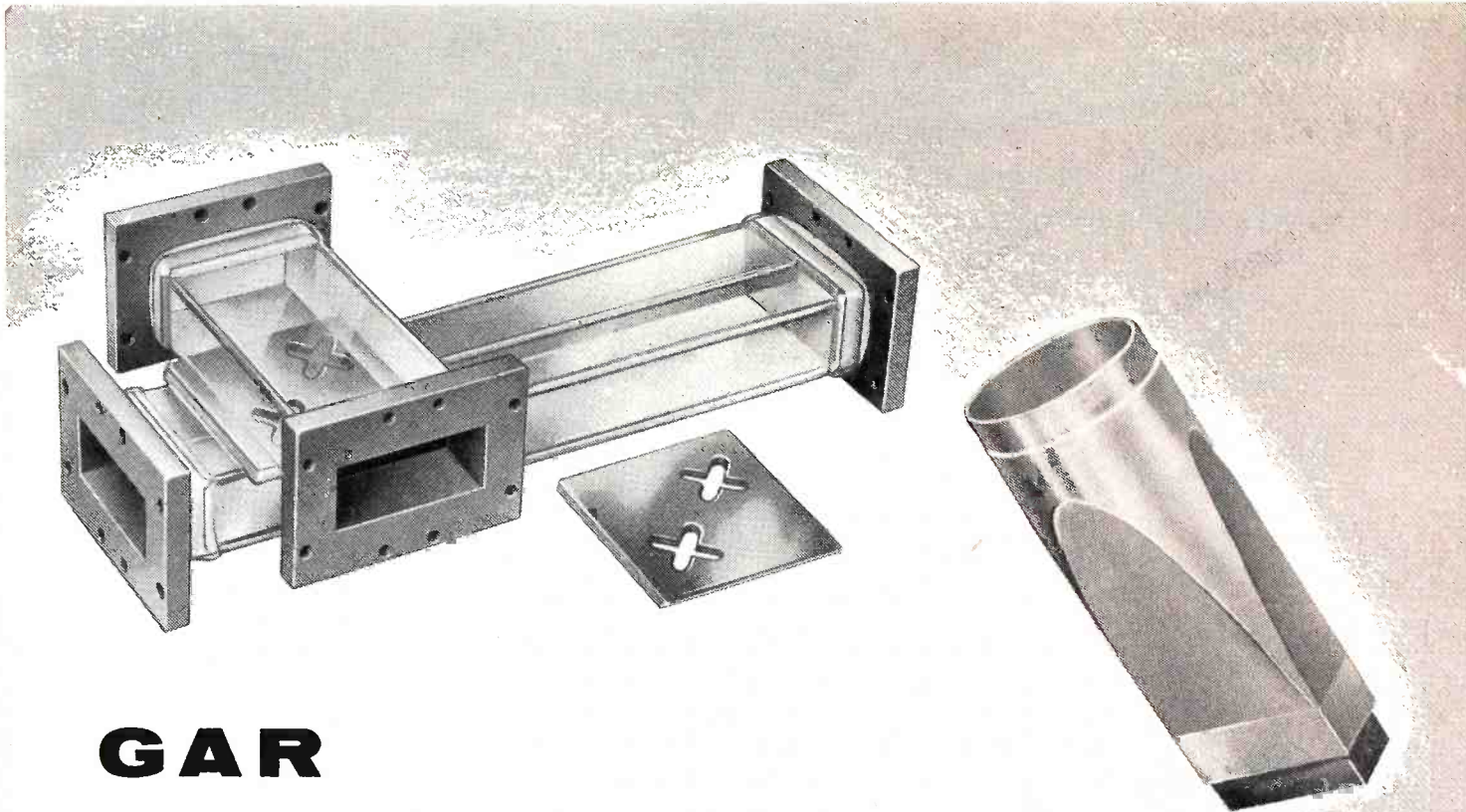
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GAR electroformed waveguides

LOWER RF LOSSES

Losses approach design minimums for microwave transitions, couplers, horns, elbows, transformers, cavities and similar components produced by Gar's advanced electroforming process — Gar-forming — due to extreme accuracy, surface finish and part-for-part identity.

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This unique process produces parts in complicated configurations to accuracies and finishes unobtainable by any other method. Using specialized techniques developed from the entire field of electroforming, Gar-forming offers unusual capabilities that permit much wider freedom and latitude in designing:

COMPLEX SHAPES — solid and thin-wall parts of all sizes — intricate interior forms — heretofore impossible configurations.

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acy to any required degree — absolute part-for-part identity.

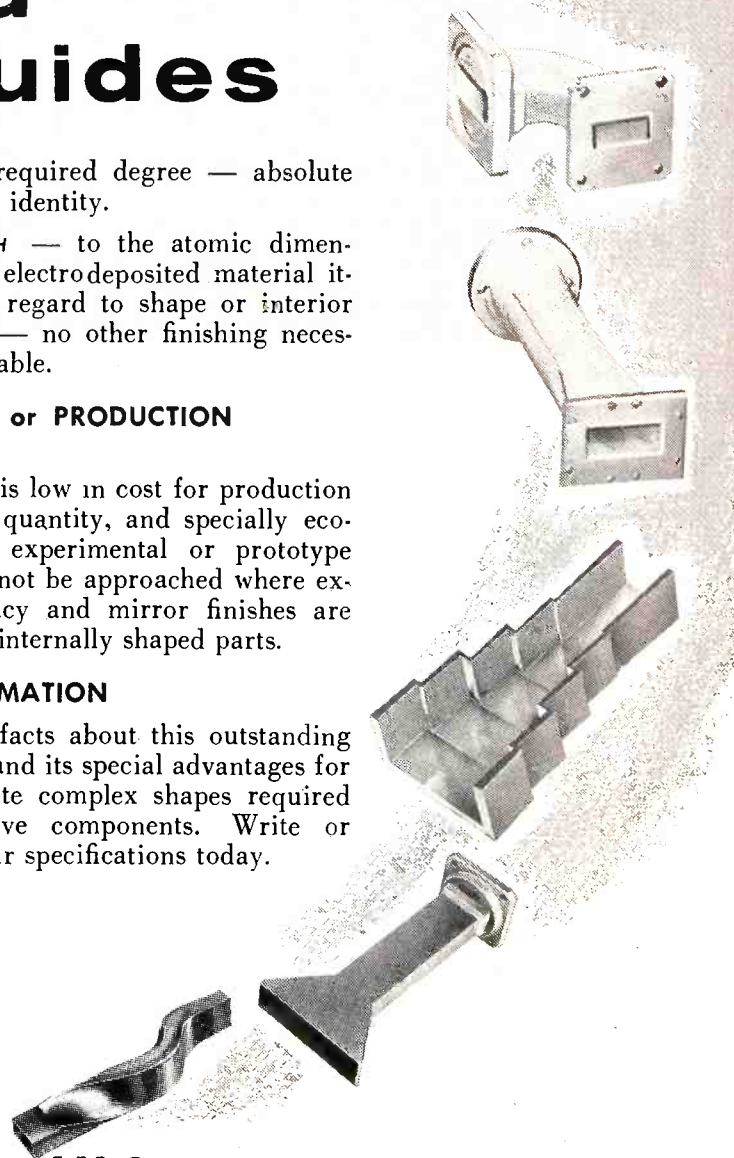
SURFACE FINISH — to the atomic dimensions of the electrodeposited material itself, without regard to shape or interior accessibility — no other finishing necessary or desirable.

PROTOTYPE or PRODUCTION QUANTITIES

Gar-forming is low in cost for production runs of any quantity, and specially economical for experimental or prototype work. It cannot be approached where extreme accuracy and mirror finishes are required for internally shaped parts.

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A New Concept of Vibration and Shock Control

ROBINSON All-Metal Vibration and Shock Mounts for Airborne Electronic Equipment...

Outstanding feature of Robinson Mounts is the employment of resilient, primary load-carrying cushions of metal wire (MET-L-FLEX). These MET-L-FLEX cushions are fabricated in such a way that all wires are continuous from top to bottom. They are inherently and permanently damped, and do not drift, pack down or wear out.



Robinson Mounts completely lack the faults and failings of outmoded mountings that incorporate rubber, organic or synthetic materials.

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For maximum protection, most problems of vibration and shock can best be overcome by a complete Robinson Engineered Mounting System. When such a system is designed for the particular equipment with careful regard to the acceleration forces, frequency characteristics, and other requirements, the greatest possible efficiency is achieved. At the same time, a Robinson Engineered System can effect decided economies. It not only permits simplified construction and "de"ruggedization of equipment, but also contributes to far longer useful life, and eliminates the need of replacements.

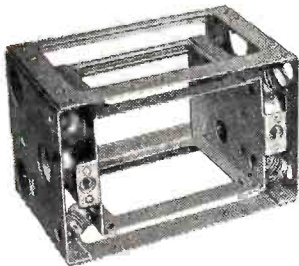
Model 1128-2

Single stage mounting system incorporating these Robinson design features: 1) light weight; 2) outstanding stability; 3) high damping; 4) one piece base plate with only four attachment holes; 5) minimum vertical height; 6) complete unit ready for equipment installation.



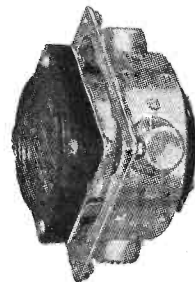
Model 728-4

An all-attitude engineered system designed and used for mounting an Antenna Coupler. Excellent damping and snubbing in all directions. Suitable for any small sensitive equipment requiring maximum protection. Provides for easy removal and accessibility of equipment.

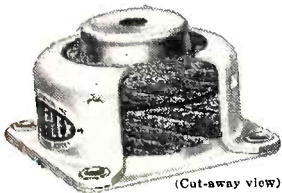


Model K130

Center-of-Gravity type mounting designed for individual instruments such as the Oxygen Flow Indicator. This mount is the first of its kind to be successfully installed in important military aircraft. Ideal for instruments not provided for on the main instrument panel.



EXAMPLES OF ROBINSON ENGINEERED UNIT MOUNTS



Series No. 1202

Cup type mount with unusual stability and close limiting action provided by extra thick top and bottom MET-L-FLEX buffer pads within the housing. These buffers provide a gradual increase in stiffness plus high damping. *Natural frequency:* 15-30 c.p.s. (vertical). Axial to lateral stiffness ratio selected to provide for maximum isolation compatible with stability.

For detailed information, write us, outlining your requirements.



Series No. 930

Plate type, double-acting mount. Isolates vibration and shock for positive, negative and radial loads. Particularly adapted to installations where mounts can be located about in the plane of the C.G. and where mounting or missile attitude may vary. *Natural frequency:* 12-15 c.p.s. Higher stiffnesses available.

Series No. 809

A small plate type mount, low in installation height, designed to isolate vibration and shock for positive, negative and radial loads. It is particularly adaptable for the mounting of equipment in cramped spaces. *Natural frequency:* 25-30 c.p.s. This assures a high degree of stability to the mounted equipment and effective vibration isolation at high frequencies.

Various adaptations available to meet your particular dimensional and load requirements.



AIRBORNE DIVISION, Dept. EBG-56

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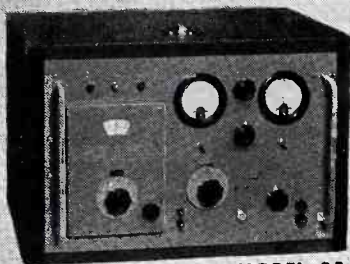
MEASUREMENTS CORPORATION



Laboratory Standards



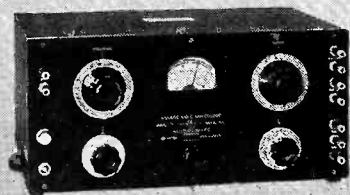
MODEL 80
STANDARD SIGNAL GENERATOR



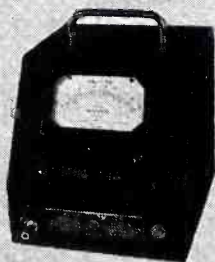
MODEL 95
STANDARD SIGNAL GENERATOR



MODEL 210-A
FM STANDARD SIGNAL GENERATOR



MODEL 71
SQUARE WAVE GENERATOR



MODEL 67
PEAK-TO-PEAK VOLTMETER

STANDARD SIGNAL GENERATORS

MODEL	FREQUENCY RANGE
65-B	75 Kc to 30 Mc
80	2 Mc to 400 Mc
80-R	5 Mc to 475 Mc
82	20 Cycles to 200 Kc 80 Kc to 50 Mc
84-R	300 Mc to 1000 Mc
84-TVR	400 Mc to 1000 Mc
95	50 Mc to 400 Mc
210-A	86 Mc to 108 Mc

SQUARE WAVE GENERATOR

MODEL	FREQUENCY RANGE
71	6 to 100,000 Cycles Continuously variable

PULSE GENERATOR

MODEL	FREQUENCY RANGE
79-B	60 to 100,000 pulses per second

VHF FIELD STRENGTH METER

MODEL	FREQUENCY RANGE
58-AS	15 Mc to 150 Mc

HIGH FREQUENCY BARRETTER

MODEL	FREQUENCY RANGE
202-C	2 Mc to 1000 Mc

VACUUM TUBE VOLTMETERS

MODEL	FREQUENCY RANGE
62	30 cps to over 150 Mc
67	5 to 100,000 sine-wave cps.

MEGACYCLE "GRID-DIP" METERS

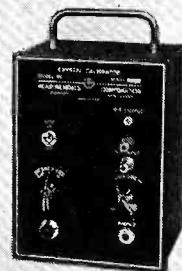
MODEL	FREQUENCY RANGE
59 LF	0.1 Mc to 4.5 Mc
59	2.2 Mc to 420 Mc
59 UHF	420 Mc to 940 Mc

CRYSTAL CALIBRATORS

MODEL	FREQUENCY RANGE
111	250 Kc to 1000 Mc
111-B	100 Kc to 1000 Mc



MODEL 59
MEGACYCLE "GRID-DIP" METER



MODEL 111
CRYSTAL CALIBRATOR

STANDARD TEST SET for TRANSISTORS



MODEL 505

Tests PNP and NPN small-signal, medium-power and switching transistors.

Checks for short-circuited emitter-collector junctions.

Measures collector-to-emitter leakage current.

Measures collector current and d-c gain.

Case Dimensions: 10" high x 14" wide x 7 1/4" deep.

Power Supply: Two F4BP 6-volt dry batteries.

Weight: Approximately 9 pounds without batteries.

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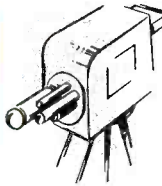
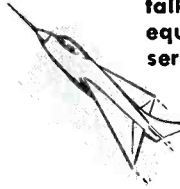
CLOSE

FAST

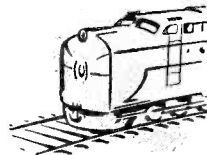
HOLD

FAST

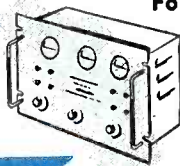
"Fast" means a lot of things when you're talking about production line fabrication, equipment operation or maintenance and service. In every case "fast" means CAMLOC, because Camloc Fastening Devices are designed with all meanings in mind. They speed up maintenance and service of operating equipment by providing quicker accessibility to vital components . . . and they save manufacturing time and money by affecting production line economies during fabrication.



Camloc Fastening Devices not only install easily and quickly, but also permit greater tolerances between sheets; support heavy loads without binding. And they're designed to withstand severe shock and vibration (you'll find them on America's fastest aircraft; on access panels, doors, cowlings, electronic equipment).



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Complete catalog information on any of Camloc's fastener products is yours for the asking . . . just specify your interest.

CAMLOC

FASTENER CORPORATION

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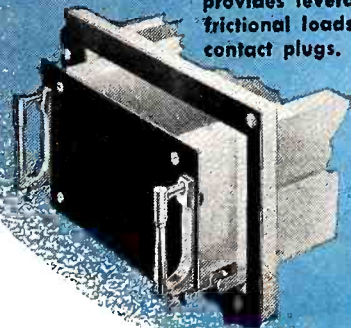
QUARTER-TURN FASTENERS

To get to the heart of the problem fast a quarter turn of this popular fastener is all it takes. Access panels, doors, other closures open fast, close fast, hold fast!



ELECTRONIC CHASSIS LATCH

Inexpensive, vibration-proof Chassis Latch of attractive design eliminates protruding attaching bolts and hole preparation . . . Opens and closes easily . . . provides leverage to overcome frictional loads of multiple contact plugs.



SPF (STRESSED PANEL FASTENERS)

Offers all the advantages of a thread with added feature of continuous thread engagement . . . overcomes cross threading . . . saves structural weight in design and hours of maintenance time. For highly-stressed panels carrying structural loads. Takes less than a turn to operate . . . has low deflection under load . . . long torque life.

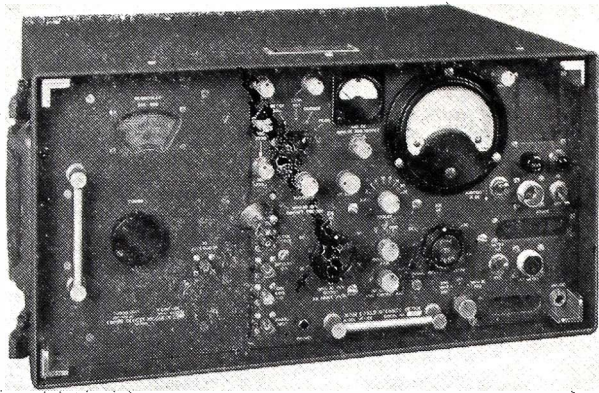


HIGH STRENGTH LATCHES

For maximum safety and ease of operation when high shear-tension and heavy loads are factors. Long fatigue life under loads. Wide range of strengths and sizes fulfills a variety of requirements.

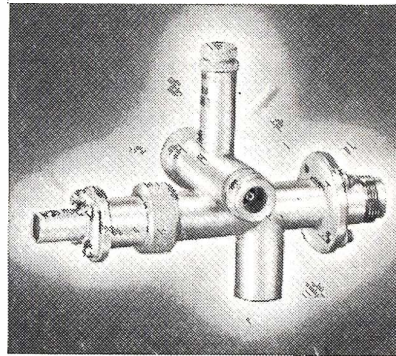


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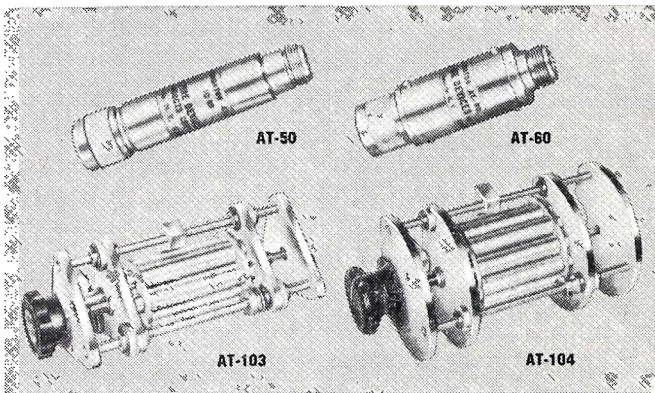
NOISE AND FIELD INTENSITY METER, Model NF-105
(Commercial equivalent of AN/URM-7) 150 KC to 1000 MC

Four quick-change tuning heads • Single knob tuning for easy scanning
Built-in impulse generator serves as calibrator • Carrier and peak reading
V/FVM • Aural slideback • Coaxial step attenuators • Regulated 'A' and
'B' supply.



COAXIAL CRYSTAL MIXER, Model CM-107

Broad Band, Fixed Tuned • 225 MC to 5600 MC in 8 models • Input and L.O. VSWR better than 2 to 1 • L.O. rejection at IF output better than 30 DB.



UHF ATTENUATORS, Models AT-50, AT-60

50 ohm resistive T-networks of concentric line construction.

FREQUENCY RANGE:
AT-50: DC to 4000 MC.
AT-60: DC to 3000 MC.
VSWR: Better than 1.2 at all frequencies.

ACCURACY: $\pm 1/2$ DB.
RATED POWER:
AT-50: 1W continuous
1KW peak
AT-60: 2W continuous
2KW peak

STEP ATTENUATORS, Models AT-103, AT-104

These units use AT-50 pads in 6 step and 12 step coaxial turret arrangements respectively.

COAXIAL TERMINATION, Model TE-80

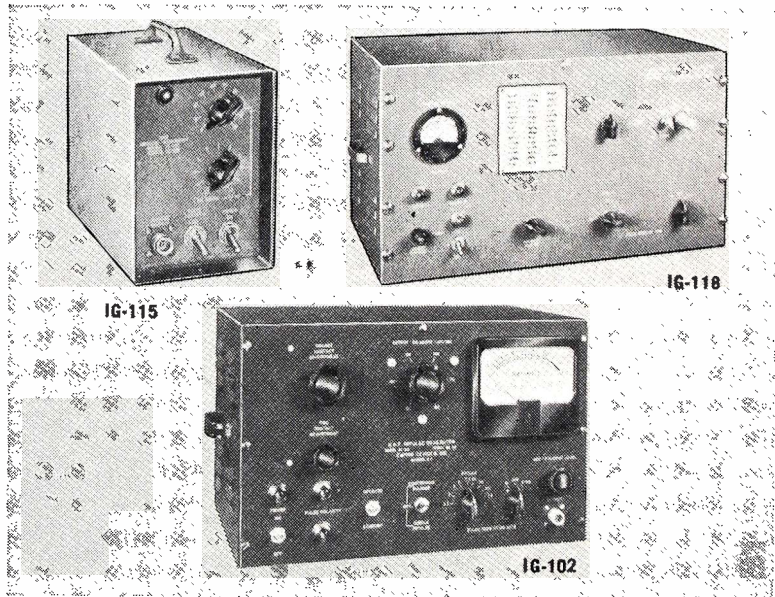
1 watt, DC to 4000 MC, also available

VARIABLE FREQUENCY POWER SUPPLY, Model VP-400

POWER OUTPUT: 500 watts
VOLTAGE REGULATION: 2%, no load to full load
HARMONIC DISTORTION: 5% maximum, total, (to 400W).



CRYSTAL DETECTOR, Model DT-123
also available.

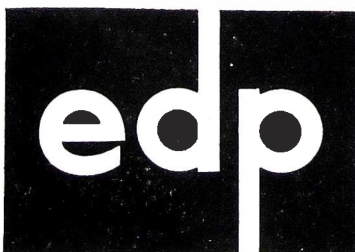


UHF IMPULSE GENERATORS, Models IG-102, IG-115, IG-118

Model	Flat Spectrum ($\pm 1/2$ DB)	Peak Output Level	Repetition Rate
IG-102	10 KC to 1000 MC	70,000 μ V/MC	2.5 to 2500 cycles
IG-115	10 KC to 1000 MC	100,000 μ V/MC	60 cycles
IG-118	100 MC to 10,000 MC	9,000 μ V/MC	2.5 to 2500 cycles

POWER DIVIDERS, Model PD-90

FREQUENCY RANGE: 800 to 10,000 MC in 5 models, also available.



For complete engineering data, please send for our new Catalog No. 356

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Manufacturers of FIELD INTENSITY METERS • DISTORTION ANALYZERS • IMPULSE GENERATORS
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-90°C. to +250°C.

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SPECIAL TEFLON MAGNET WIRE — "TEMPRITE X" Same characteristics and sizes as regular Temprite, but specially processed for severe application.

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TEFLON EXTRUDED TUBING — "TEMPREX TUBING" Sizes 4 to 24. Fourteen solid colors.

TEFLON SATURATED GLASS BRAID LEAD WIRE — "RETEP" Low cost, low voltage, push back type. Sizes 14 to 30 AWG.

TEFLON HOOK-UP WIRE — "TEMPRENE" Sizes 14 to 30 AWG. Two and three color striped combinations, plus 10 solid colors. Conforms to MIL-W-16878B (E and EE).

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TEFLON GLASS FIBRE CORD, TAPE AND THREAD — "NEBROC®" Developed especially for coil and harness tying.

TEFLON FIBER LACING TAPE "NEBROC® TF" All Teflon lacing tape, exhibits excellent thermal and mechanical properties. An ideal tape for Class H assemblies.

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SHIELDED AND JACKETED MINIATURE CABLES Consist of Temprene or Temprex conductors, shielded and jacketed for high temperature operation.

MINIATURE COAXIAL CABLES Consist of 50, 70, and 93 ohm cables, shielded and jacketed for applications up to +250°C.

RIBBON CABLE ASSEMBLIES — "TEMPBRAID" 100% Teflon, flexible, flat ribbon multi-conductor cables.

SHIELDED RIBBON CABLES — "METALBRAID" Flexible, shielded, flat, multi-conductor cables, i.e. tinned or silver plated copper.

*Du Pont's Trade Name for POLYTETRAFLUOROETHYLENE

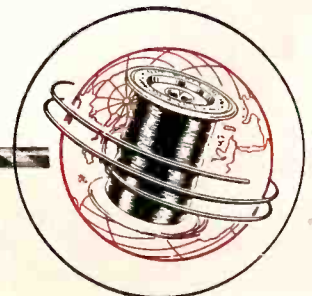
All Teflon products are rated for continuous operation from -90°C. to +250°C., have excellent dielectric strength, and are impervious to all commercial solvents. All colors conform to MIL Std. 104.

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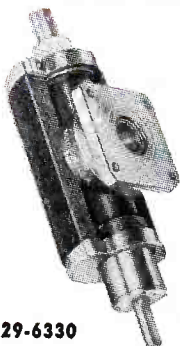




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4X50A



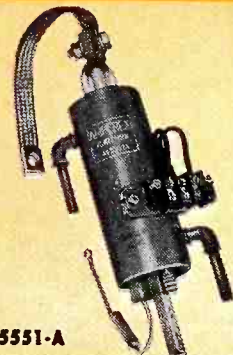
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RADIATION DETECTION • SPECIAL PURPOSE



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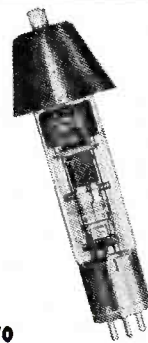
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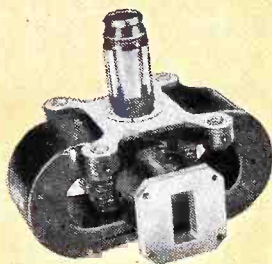


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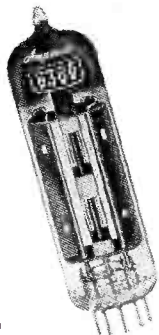


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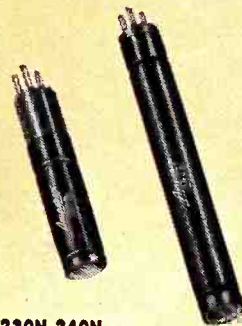
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230N-240N

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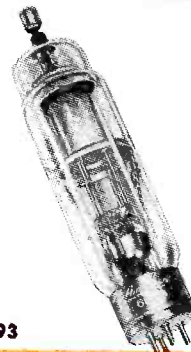
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application engineering
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100N	35.00
100NB	37.50
120C	75.00
120N	75.00
120NB	77.50
150N	50.00
150NB	52.50
153C	65.00
200C	45.00
200CB	47.50
200N	45.00
200NB	47.50
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5552/651	99.00
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5553B/655	216.00
5554/679	163.00
5555/653B	316.00
5822	116.00

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Type No.	Price
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2J55	165.00
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4J52	275.00
4J57	270.00
4J58	270.00
4J59	270.00
5586	417.00
5657	417.00
6229	550.00
6230	550.00
6507	**
6589	**
6823	**
6824	**
6828	**

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6227	3.75
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EL84	2.40
EF86	2.75

Type No.	Price
PENTODES Secondary Emission	
EFP60	8.75

Type No.	Price
PENTODES Subminiature	
6007/5913	1.50
6008/5911	1.50

Type No.	Price
HI-FI VACUUM RECTIFIERS	
GZ34	3.50
EZ80	1.50
EZ81	1.60

Type No.	Price
MERCURY RECTIFIERS	
255B	\$145.00
575A	20.00
673	20.00
857B	218.00
866AX	2.45
869B	132.00
872AX	8.20
6508	80.00
6693	30.00
8008	8.25

Type No.	Price
VACUUM RECTIFIERS	
5R4GY	2.65
8080	24.00

Type No.	Price
XENON RECTIFIERS	
3B28	7.60
4B32	12.00

Type No.	Price
VOLTAGE REFERENCE TUBES	
0E3/85A1	2.50
0G3/85A2	2.50
5651	2.30

Type No.	Price
VOLTAGE REGULATORS	
0A2	1.75
0B2	1.90
90C1	2.50
6354/150B2	3.00

Type No.	Price
TETRODES	
4X150A	38.95
807	2.50
6075/AX9907	225.00
6076/AX9907R	275.00
6079/AX9908	60.00
6155/AX4-125A	27.50
6156/AX4-250A	37.50

Type No.	Price
TWIN TETRODES	
832A	12.90
5894/AX9903	22.00
6085	3.75
6360	4.00

Type No.	Price
THYRATRONS	
3C23	11.98
632B	28.00

Type No.	Price
HYDROGEN THYRATRONS	
4C35	\$32.50
6268/AX9911	32.50
6279/AX9912	37.50

Type No.	Price
INERT GAS THYRATRONS	
2D21	2.00
5727	2.70

Type No.	Price
MERCURY THYRATRONS	
FG17/1701/ 967/5557	8.50
AX105/FG105	49.50
678	47.00
5559	22.00
5560/FG95	28.00
5869/AGR9950	25.00
5870/AGR9951	100.00
6786	200.00

Type No.	Price
XENON THYRATRONS	
2050	2.55
5544	27.00
5545	35.00
5685/C6J	26.40

Type No.	Price
TRIODES	
2C39A	22.50
3X2500A3	198.00
3X2500F3	198.00
6Q4	3.25
6R4	2.50
HF200	35.00
HF201A/468	28.50
203H	30.00
207	240.00
220C	365.00
228A	325.00
250TH	33.00
250TL	33.00
279A	355.00
HF300	35.00
450TH	77.00
450TL	77.00
501R/5759	225.00
502/5760	210.00
502R/5761	235.00
504R	245.00
508/6246	500.00
750TL	137.50
805	13.50
810	16.25

Type No.	Price
811-A	5.00
812A	5.00
833A	49.00
834	14.50
838	15.15
845	13.75
849	145.00
849A	145.00
880	510.00
889A	210.00
889RA	295.00
891	230.00
891R	380.00
892	230.00
892R	380.00
ZB3200	350.00
5604	540.00
5619	390.00
5666	230.00
5667	310.00
5736	145.00
5771	510.00
5866/AX9900	20.00
5867/AX9901	30.00
5868/AX9902	50.00
5923/AX9904	150.00
5924/AX9904R	1900.00
6077/AX9906	1675.00
6333	230.00
6445	375.00
6446	255.00
6447	400.00
6617	360.00
6618	495.00
6756	**
6757	**

Type No.	Price
GLOW DISCHARGE TRIODE—Miniature	
5823	2.50

Type No.	Price
HI-FI TWIN TRIODES	
ECC81/12AT7	2.60
ECC82/12AU7	2.20
ECC83/12AX7	2.30

Type No.	Price
TWIN TRIODES	
E92CC	1.75
5920	2.00
6252/AX9910	22.00

Type No.	Price
TUNGAR BULBS	
1163	5.50
1164	10.00

RENEWAL PRICES* ON RADIATOR TYPE FORCED AIR-COOLED TUBES

TUBE TYPE	USERS NET
889RA	\$275.00
891R, 892R	360.00
5604	465.00
5667	290.00
6445	345.00
6447	370.00
6757	**

* These prices currently apply when a new tube is purchased and the old tube radiator in original shipping container is returned prepaid in good condition with the replacement order.

† The Amperex types 6268/AX-9911 and 6279/AX-9912 are improved versions but completely interchangeable in every respect with the standard types 4C35 and 5C22 respectively. They have a minimum guaranteed life of 1000 hours due to the self-contained, self-regulating source of hydrogen.

** Price on request. † 10,000 hour life tubes. Prices subject to change without notice.

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230 Duffy Ave., Hicksville, Long Island, N. Y.

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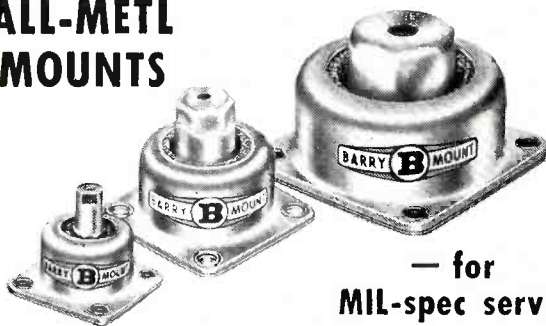
ALL-ANGL MOUNTS — for jets and missiles

The practical solution to mounting problems in jets and missiles; work at any angle, in maneuvers through every position; have high damping in all directions, low transmissibility at resonance. Built to handle the new jobs that are too tough for MIL-standard mounts. Available in all MIL sizes.

Type	MIL size	Max. load rating
B22	0	3 lbs.
B44	1	10 lbs.
B64	2	40 lbs.

ASK FOR BULLETIN 56-01.

ALL-METL MOUNTS

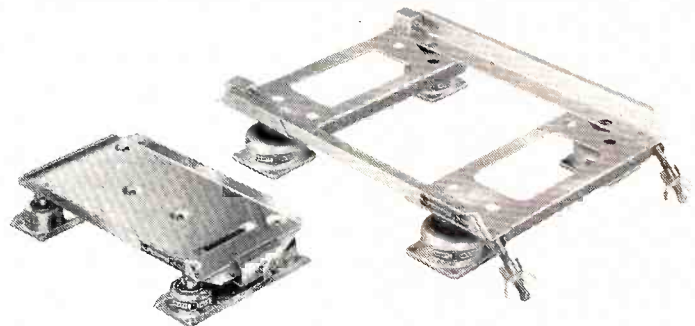


— for MIL-spec service

Types M24, M44, and M64. Have non-packing wire-mesh damper; meet latest Government specifications for air-borne electronic equipment; ruggedized; lightweight; operate over wide temperature range; load ratings 0.1 to 40 pounds.

ASK FOR BULLETINS 534, 536, and 542.

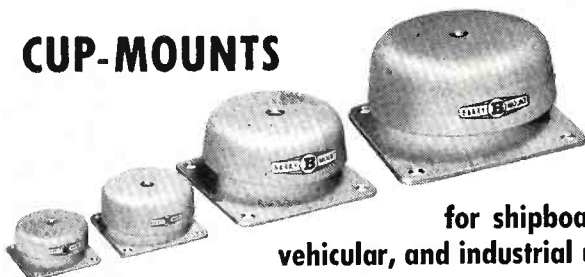
RACKS and MOUNTING BASES



Standard MIL-C-172B Units

Meet dimensional and material requirements of MIL-C-172B; in special sizes to fit customers' needs. With ALL-METL mounts, ask for Bulletins 534 & 536; with AIR-DAMPED mounts, ask for Bulletin 523-B.

CUP-MOUNTS



for shipboard, vehicular, and industrial use

Barry cup-mounts, Series 1000, 2000, 4000, and 3000; protect sensitive equipment against shock and vibration in shipboard, vehicular, railway, and industrial service; load ratings up to 1800 pounds.

ASK FOR BULLETIN 56-02.

Special Designs

Barry prototype service can help you with all necessary design, development, testing, and production of special mounting bases specifically engineered to your equipment and service requirements. Typical Barrymount® specials using standard isolators, or new integral isolation systems, are shown here. To learn all about this service,

ASK FOR "DESIGN NOTES - EBG".

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AIR-DAMPED MOUNTS
for air-borne equipment.
Ask for Bul. 523-B.


BALL MOUNTS
for very light loads.
Ask for Bul. 543.


TYPE 5200
for shock and vibration isolation.
Ask for Bul. 541.


TYPE 262
for motors and rotary equipment.
Ask for Bul. 537.


TYPE 670
for impact, rotary & reciprocating machines
Ask for Bul. 538.



PRODUCT DIGEST
Condensed catalog of Barry mounts; gives sizes, load ranges, basic data, and lists technical articles.

Barry's New Western Division in Burbank, Calif. offers engineering prototypes & short-run production of "specials".

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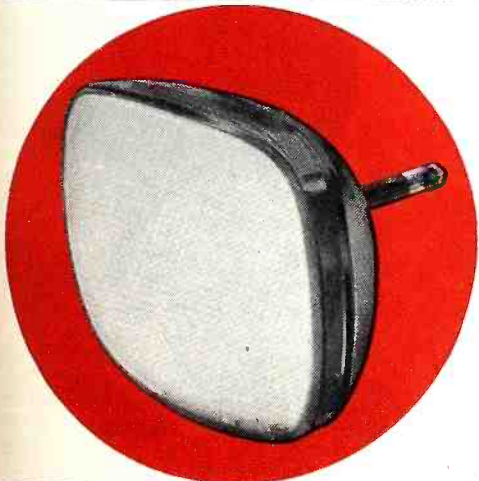
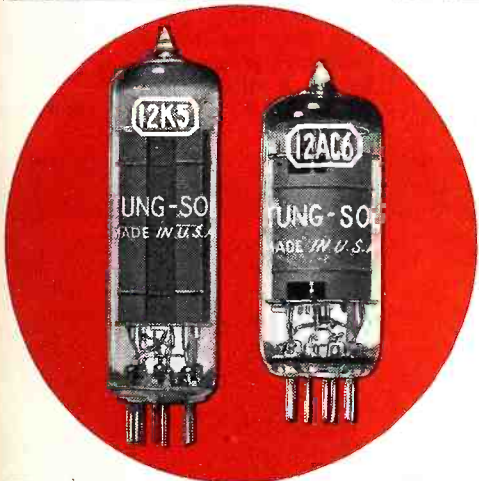
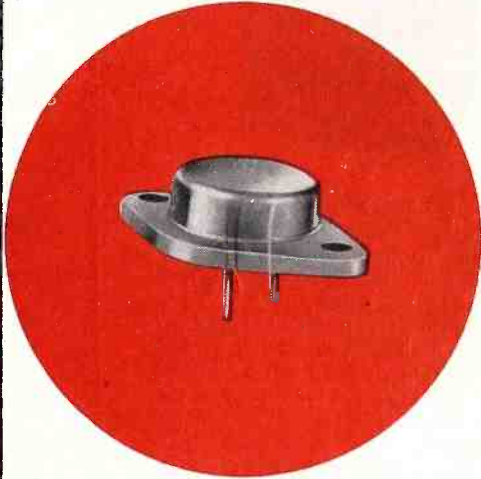
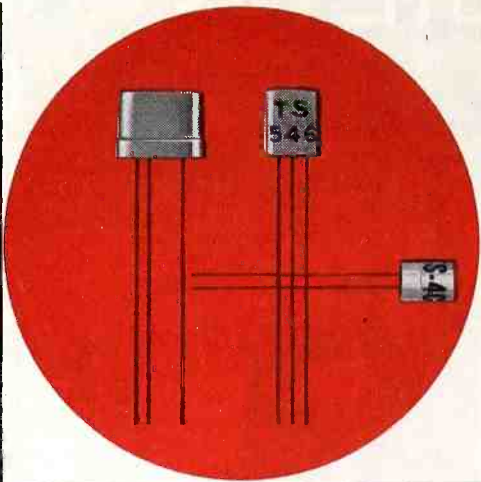
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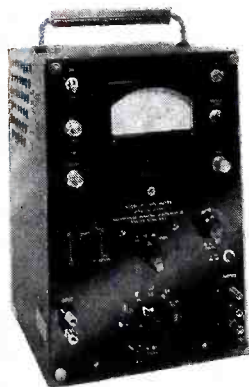
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ELECTRONICS CO.****2831 Post Oak Rd. P. O. Box 13058 Houston 19, Texas Phone: MO 4-4507**

THE MODEL R-1 VOLTMETER is intended for precise voltage measurements in circuit design work. It offers accuracy, reliability, and convenience. In addition to its wide range AC and DC scales, it includes a precision ohmmeter, a D-C pre-amplifier for driving oscilloscopes and recording devices, a built-in standard cell for instant calibration, and provision for expanding the DC voltage scales.

SPECIFICATIONS:

Range: 1 mv. to 1000 volts, full scale AC and DC

Frequency response: 0 to 100 kc

Accuracy: DC, 1½%. AC, 3%

Input impedance: 10 megohms, 20 mmf.

Price: Standard model, \$620.00
Rack-mounted, \$700.00



THE M-2 OSCILLATOR, the standard of the geophysical industry, is an extremely versatile instrument. It combines many desirable features—wide range, accurate calibration, low distortion, high output, low drift, excellent dynamic stability, and constant output throughout the range—in a compact, rugged instrument of reasonable price. For geophysical, audio, servo, vibration, medical, and computer work, the M-2 is unexcelled.

SPECIFICATIONS:

Frequency range: 1-120,000 cps.

Distortion: less than .2% in audio range

Calibration accuracy: 1½% + .1 cps.

Output: 20 volts at 20 ma.

Amplitude stability: ± .5 db.

Price: \$425.00



THE MB-1 OSCILLATOR is powered by self-contained batteries, providing signals completely free of power line transients and 60 cps ripple. It provides low-distortion sine wave signals and covers the geophysical, medical, and audio ranges with good dynamic and amplitude stability characteristics. The addition of the Geophysical Microvolter (shown installed below) provides signals of accurately calibrated amplitudes at low levels.

SPECIFICATIONS:

Frequency range: 2-20,000 cps

Distortion: less than .5% in audio range

Calibration accuracy: 2% + .1 cps

Output: 5 volts at 5 ma.

Price: \$215.00 (Microvolter \$80.00 extra)



THE MODEL C-6 RESISTANCE METER features a quick-charge go, no-go capacitor leakage checker. Operating from a 110-volt 60 cps power source, it measures resistances at 1½, 50 or 500 volts, enabling it to meet MIL specs on insulation tests, measure the leakage of 200 WVDC capacitors, and check continuity. It is accurate, stable, and covers the widest range of any direct-reading ohmmeter.

SPECIFICATIONS:

Range: 0 to 10,000,000 megohms

Test voltages: 1½, 50, and 500 volts

Accuracy: 3% of scale below 1,000,000 megohms

5% of scale above 1,000,000 megohms

Price: \$200.00



THE MODEL E-2 COMPARISON BRIDGE indicates percentage differences between resistors, capacitors, and reactors at 60-cycle frequency. It is useful for rapid acceptance and production-line tests and can be used in conjunction with decade boxes. SIE Comparison Bridges with other test frequencies and voltages are also available.

SPECIFICATIONS:

Full scale ranges: 1, 2.5, 5, 10, & 25%

Accuracy: ± .1% on the 1% range

Test limits for

Resistors: 1 ohm to 5 megohms

Capacitors: 500 mmfd. to 2000 mfd.

Inductors: 3 mh. to 10,000 henries

Price: \$185.00



THE MODEL B DIRECT-COUPLED POWER AMPLIFIER is capable of producing up to 6 watts output. It may be used to amplify the output of the D-1 amplifier, low frequency oscillators, or various transducers and will drive recorders, shaking table loudspeakers, electric motors, Helmholtz coils, and other transducers. It finds application also as an ultra-low-frequency transformer.

SPECIFICATIONS:

Voltage gain: 2.5

Power gain: 30,000

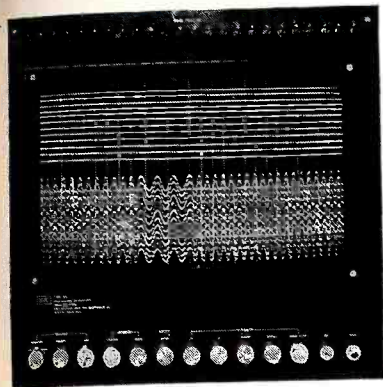
Output: 25 volts RMS, 250 ma.

Frequency response: 0-20,000 cps ± 1

Input impedance: 500,000 ohms

Price: \$575.00 (less cabinet)

"One of the
Dresser Industries"



THE MODEL MO MULTI-CHANNEL OSCILLOSCOPE permits visual observation of twenty-four channels of dynamic data, simultaneously displayed on a 21" single-gun cathode ray tube with a long-persistence P-7 phosphor. A raster scanning technique provides useful frequency response to 500 cps, while a special "window" circuit accelerates the sweep for detailed examination of certain signals.

The auxiliary Model EP Event Pre-selector generates .1 and .01 second timing lines, and provides calibrated sweep delays.

SPECIFICATIONS:

Sweep speeds: 3-30 ips.
Sensitivity: 2 volts/inch
Prices: Model MO, \$6000.00
Model EP, \$1500.00



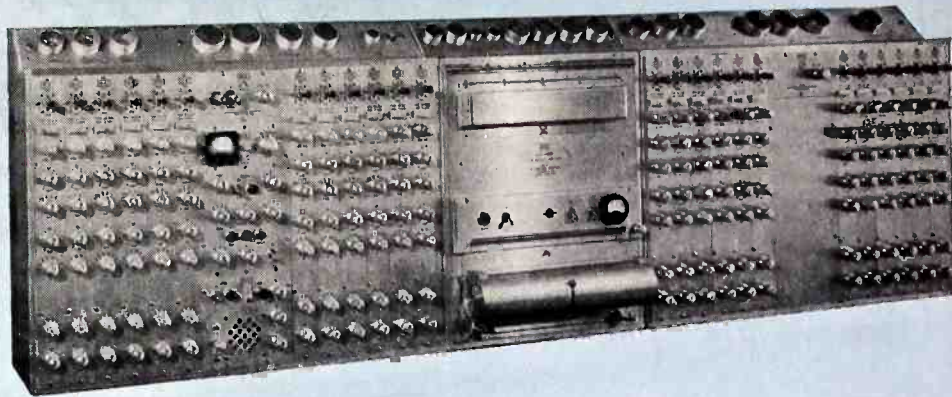
MAGNETIC RECORDERS . . . SIE manufactures a varied line of drum-type magnetic tape recorders, with as many as fifty-six channels, for portable, mobile, and laboratory installations. Among the special features available are servo-controlled individually movable heads, viewing screen and photographic attachments, and tape storage magazines for long-time recording.

TYPICAL SPECIFICATIONS USING WIDE-DEVIATION FM (SIE SLOPE MODULATOR):
Frequency response: 0-500 cps (down 3 db.)

Harmonic distortion: less than 1%
Signal-to-noise ratio: better than 54 db.
Timing accuracy: .25 millisecond
Sensitivity: 1 volt RMS for 100% modulation

Price and delivery will be quoted on receipt of specific inquiry.

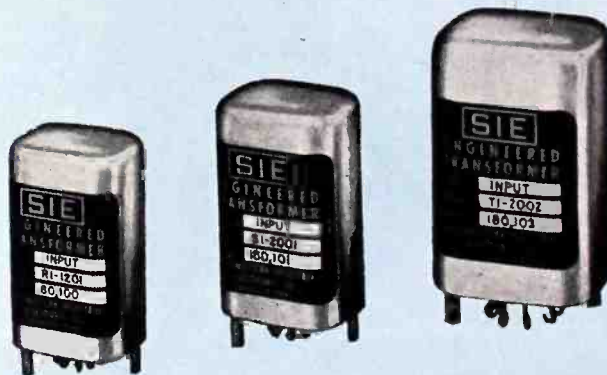
GEOPHYSICAL INSTRUMENTS



SIE is the world's largest manufacturer of electronic seismograph instruments, having supplied more than 325 complete systems to organizations operating throughout the world. The complete SIE line of geophysical equipment includes geophones, galvanometers, recording oscillographs, magnetic tape recorders, matched sets of amplifiers, control and checking units, blasters, power supplies, and special vehicle bodies.

Shown above is an SIE G-22A high production seismograph system. The RO-22A-10 Oscillograph records fifty channels on ten-inch paper, and all of the components in the GA-22A amplifiers are hermetically sealed for low noise and long life.

TRANSFORMERS AND INDUCTORS



SIE Precision Engineered Transformers and Reactors are manufactured in a wide range of standard types, as well as to order. Standard designs are small hermetically sealed units for applications where uniform response characteristics from 5 to 1000 cps are required. Special precautions are taken to insure identical phase characteristics for use in matched sets of amplifiers.

Custom designed transformers and chokes are also available on short notice, at economical prices, and in small quantities. Specialties include low-level, low-frequency, high-inductance coils, hum-bucking construction, single, double, or triple Mu-metal shielding, high temperature insulation, and toroidal windings on a wide range of core materials. SIE products have been built to MIL-T-27A.

Other wound components manufactured by SIE include magnetic recording heads and magnetic amplifiers.



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- SHOCK AND VIBRATION CALIBRATION EQUIPMENT
- MICROPHONES, HYDROPHONES
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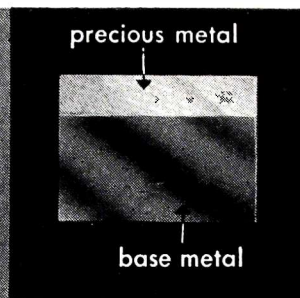
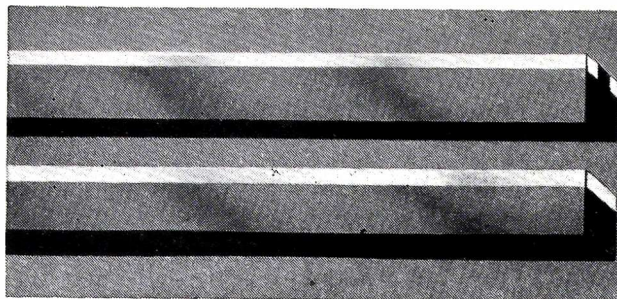
COMPANY

STREET

CITY STATE

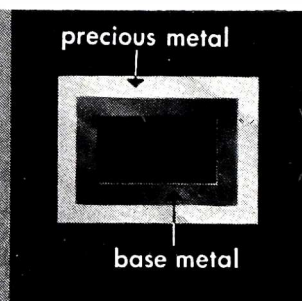
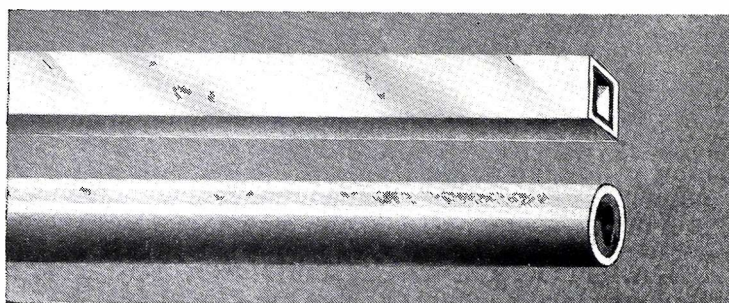
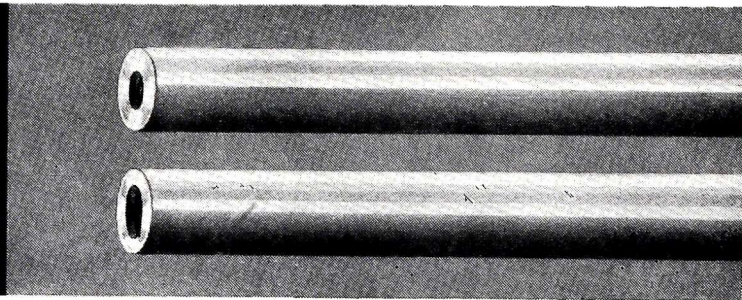
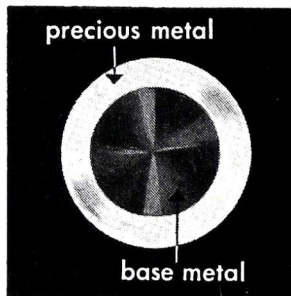
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Laminated Wire



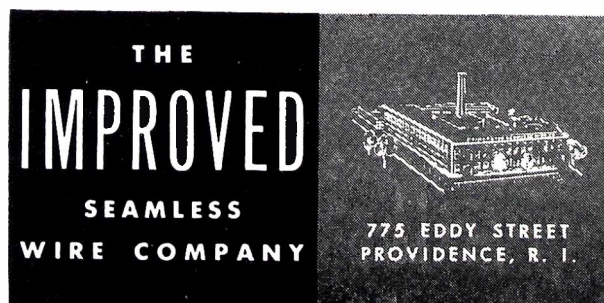
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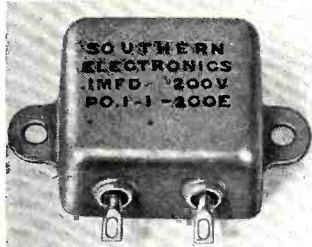
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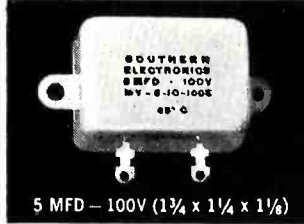
Tubular .1 MFD — 200V



.1 MFD — 200V



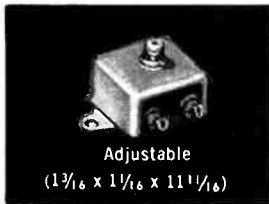
10 MFD ± 1% 200V
(4 7/16 x 3 1/16 x 2 1/8)



5 MFD — 100V (1 3/4 x 1 1/4 x 1 1/8)



1 MFD — 200V



Adjustable
(1 3/16 x 1 1/16 x 11 1/16)



Plug in (1 MFD — 150V)

I. POLYSTYRENE

with these outstanding properties:

- Tolerances as close as 0.1%
- Insulation Resistance as HIGH as 1×10^{12}
- Dielectric Absorption as LOW as .0001
- Dissipation Factor as LOW as .0002
- Temperature Coefficient... 100PPM per °C
- Stability as close as .05% drift in 1 yr.
- Voltage Derating... none to 170°F.
- Hermetically sealed for enduring accuracy!

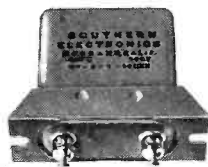
also available:

- Many other case styles or mounting brackets
- Any capacitance from .001 to 50 MFD (incl. special values)
- Voltages from 50 to 5000

2. POLYESTER

with these outstanding properties:

- Tolerances as close as 1%
- Insulation Resistance as HIGH as 1×10^{11}
- Dielectric Absorption as LOW as .001
- Dissipation Factor as LOW as .003
- Temperature Coefficient... 800 PPM per °C
- Temperature range..... to 150°C.
- Hermetically sealed for enduring accuracy!



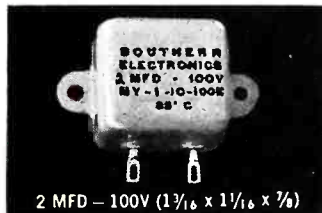
4 MFD — 300V (2 x 2 x 1)



120 MFD ± 10% 50V



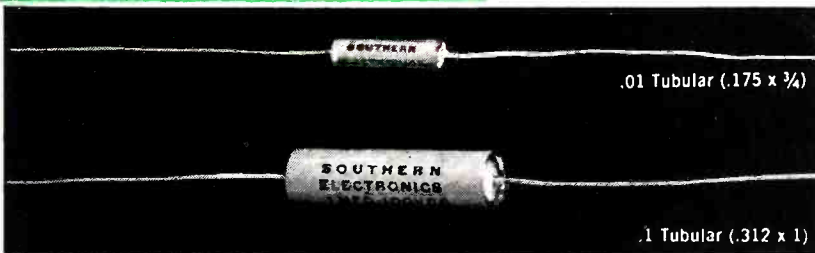
Plug in (4 MFD — 150V)



2 MFD — 100V (1 3/16 x 1 1/16 x 7/8)



1 MFD — 400V (1 3/4 x 1 1/4 x 1)

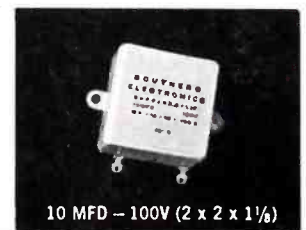


.01 Tubular (.175 x 3/4)

.1 Tubular (.312 x 1)



Printed Circuit Small .11 MFD — 50V



10 MFD — 100V (2 x 2 x 1 1/8)

3. RC NETWORKS

- Close tolerances
- Hi-grade precision resistors

- Potted units
- Meet mil specs

Many other types of precision RC Networks available!

S.E.C. PRODUCTS HAVE BEEN SPECIFIED IN SEVERAL MISSILE APPLICATIONS!

SOUTHERN ELECTRONICS
Corporation

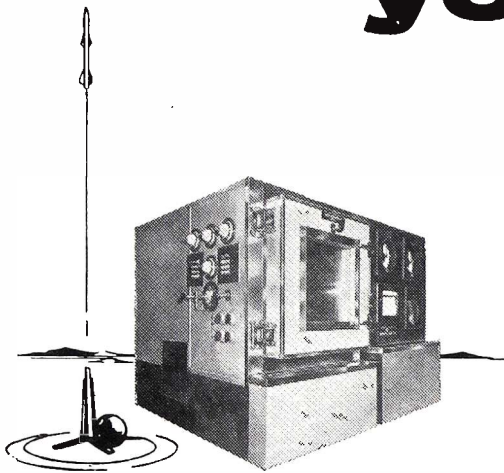


For your most exacting requirements — always specify S.E.C.

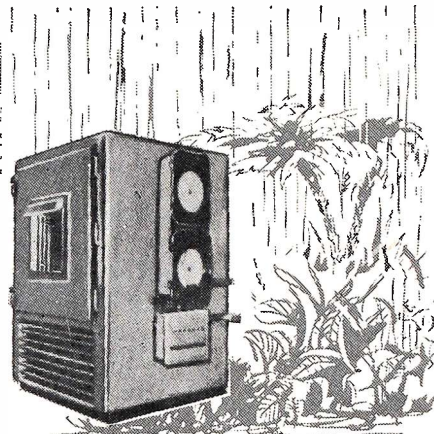
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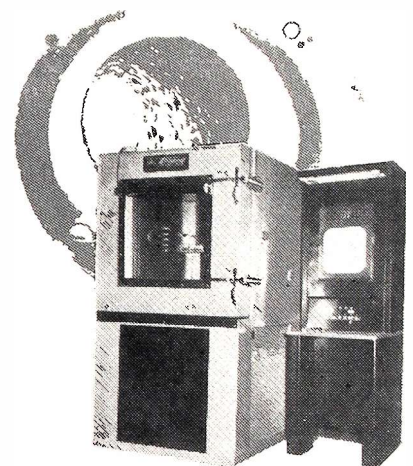
WITH *Tenney* ENVIRONMENTAL TEST EQUIPMENT . . .
you are there



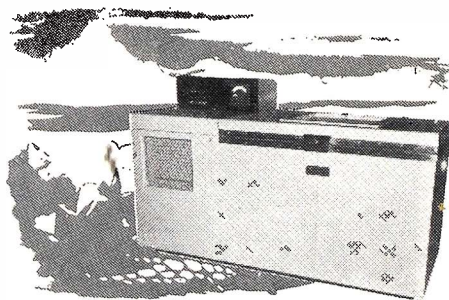
. . . at altitudes of 100,000 ft.
 and temperatures of minus 100° F!



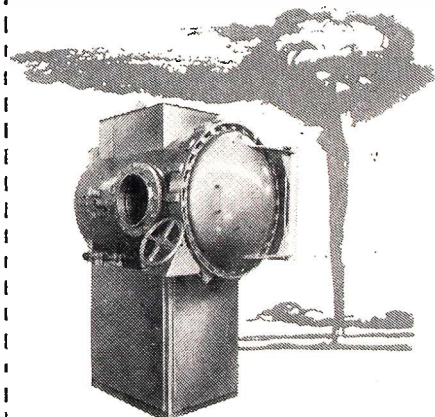
. . . at programmed relative humidity
 from 20 to 100%!



. . . at minus 120° F or plus 500° F!



. . . at minus 150° F!

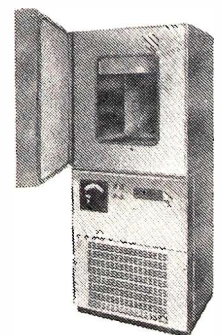


. . . in a violent explosion!

Tenney Environmental Test Equipment simulates these and *many* other climatic conditions. The largest engineering staff in the industry insures advanced-design, performance-proven test chambers to meet the most exacting specifications.

Special counseling service in custom-made installations or for modifying present installations is now available from Tenney Engineering. A separate engineering section has been set up to design and construct "custom" chambers for difficult or unique services and installations.

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Economical
 Low-Cost
TENNEY-MITE Chamber
 -40°F, -100°F, -120°F
 Heat to 240°F (optional)



Tenney
ENGINEERING, INC.

DEPT. EB-6

1090 SPRINGFIELD ROAD, UNION, N. J.

Plants: Union, N. J. and Baltimore, Md.

Member of Environmental Equipment Institute

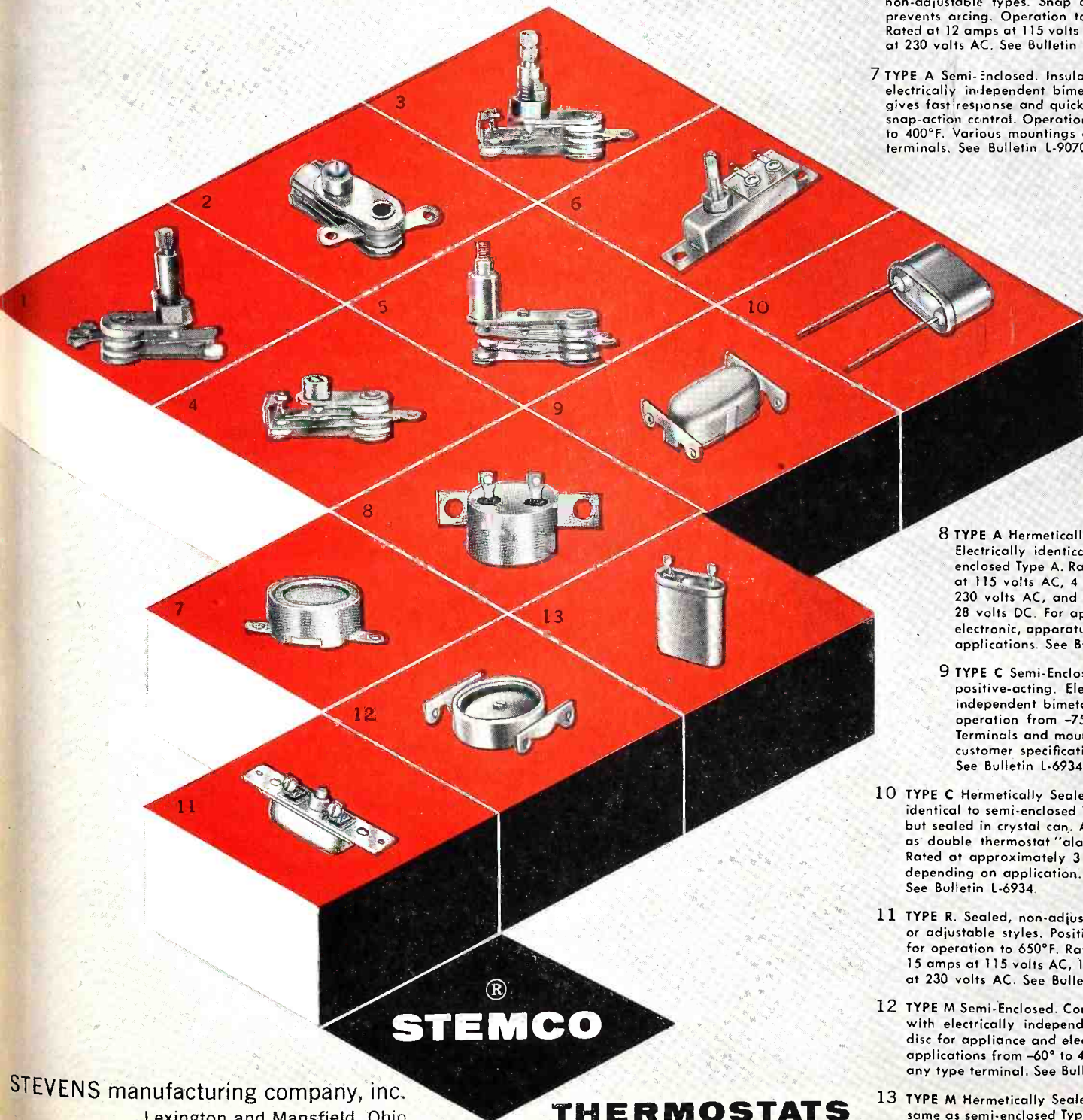
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for precise, sensitive temperature control

If your product requires precise, sensitive temperature control . . . if it's scheduled for volume production—look to Stemco thermostats first. Since Stevens produces the broadest range of bimetal thermostats in the industry, chances are you can use a standard production-line unit to satisfy all your special requirements exactly. This saves design, development and tooling expense . . . cuts down on lead time . . . gives you a better, proven thermostat at lower cost—sooner.

- 1 TYPE S Adjustable. Positive-acting, with electrically independent bimetal. Adjusting stem and terminals to customer specification. See Bulletin F-2006.
- 2 TYPE S Non-Adjustable. Electrically identical to adjustable Type S. Single-stud mounting. Operates to 650°F. Rating: 15 amps at 115 volts AC, 10 amps at 230 volts AC. See Bulletin F-2006.
- 3 TYPE SA Adjustable. Snap-acting with electrically independent bimetal. Also single-pole, double-throw. Adjusting stem and terminals to customer order. See Bulletin L-6397-A.
- 4 TYPE SA Non-Adjustable. Is electrically identical to adjustable Type SA. Non-inductive-load rating 15 amps at 115 volts AC, 10 amps at 230 volts AC. See Bulletin L-6397-A.
- 5 TYPE SM Manual Reset. Mechanically and electrically same as adjustable and non-adjustable Type SA except for manual reset feature. See Bulletin L-6397-A.
- 6 TYPE W. Adjustable (shown) or non-adjustable types. Snap action prevents arcing. Operation to 350°F. Rated at 12 amps at 115 volts AC, 8 amps at 230 volts AC. See Bulletin L-6395.
- 7 TYPE A Semi-enclosed. Insulated, electrically independent bimetal disc gives fast response and quick, snap-action control. Operation from -40° to 400°F. Various mountings and terminals. See Bulletin L-9070.



8 TYPE A Hermetically Sealed. Electrically identical to semi-enclosed Type A. Rated at 8 amps at 115 volts AC, 4 amps at 230 volts AC, and 4 amps at 28 volts DC. For appliance, electronic, apparatus applications. See Bulletin L-9070.

9 TYPE C Semi-Enclosed. Small, positive-acting. Electrically independent bimetal strip for operation from -75° to 300°F. Terminals and mountings to customer specifications. See Bulletin L-6934.

10 TYPE C Hermetically Sealed. Electrically identical to semi-enclosed Type C but sealed in crystal can. Also supplied as double thermostat "alarm" type. Rated at approximately 3 amps, depending on application. See Bulletin L-6934.

11 TYPE R. Sealed, non-adjustable (shown) or adjustable styles. Positive acting for operation to 650°F. Rated at 15 amps at 115 volts AC, 10 amps at 230 volts AC. See Bulletin F-2003.

12 TYPE M Semi-Enclosed. Compact unit with electrically independent bimetal disc for appliance and electronic applications from -60° to 400°F. Virtually any type terminal. See Bulletin F-2009.

13 TYPE M Hermetically Sealed. Electrically same as semi-enclosed Type M. Rating: 8 amps at 115 volts AC, 4 amps at 230 volts AC, 4 amps at 28 volts DC. See Bulletin F-2009.

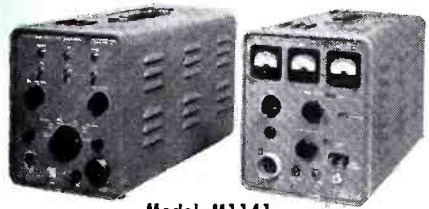
NEW

Instruments and Controls

TEST EQUIPMENT

NEW

Wide-band Power Oscillator 200-2500 mc/sec.



Model M1141

- High power { 40 watts at 200- 400 mc
25 watts at 400-1000 mc
10 watts at 1000-2500 mc
- Sine-wave, square-wave, external modulation, CW
- Exceptional frequency stability
- 1 % calibration accuracy
- 0.1 % resettability accuracy

NEW

Subminiature I-F Amplifiers

- High gain
- Broad band
- Rapid recovery
- 40 db manual gain adjustment



Model No.	Center Freq. mc/sec	Bandwidth mc/sec	Noise Fig. (db)	Gain (db)
M1201	30	12	1.7	100
M1202	60	12	3.7	100
M1203	90	12	5.0	100

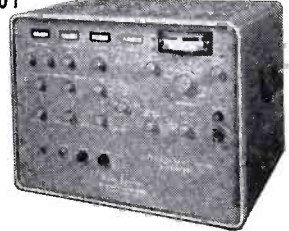
Also available: FM discriminators; 50:300 ohm matching pads

NEW

Precision Phasemeter

Model 901

30 cps
to
20 kc

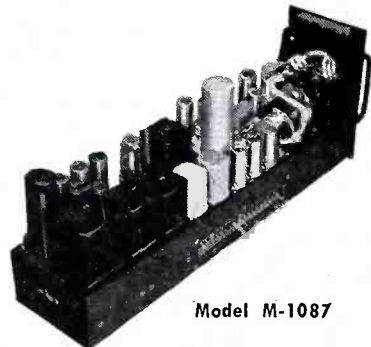


- 0.1° absolute accuracy
 - 0.01° incremental accuracy
 - 0 - 360° phase range
 - 10-megohm input impedance (shunted by 25 μfd.)
- Frequency may be extended with slight decrease in accuracy.
Also Available: Variable phase generators.

ROTARY-EQUIPMENT CONTROLS

NEW

Frequency Regulator for aircraft inverters



Model M-1087

- 2.5 kva controlled output
- +0.25 % steady-state frequency control
- +0.025 % average frequency control
- High-speed transient recovery

These regulators provide precise control of output frequency for 400-cycle aircraft inverters and similar equipment.

Mag-Amp Voltage Regulator for aircraft alternators

NEW



Model M601

- Controlled 4.0 kva output
 - Accurate, trouble-free regulation
 - High-speed transient recovery
 - Rugged, environmentally tested design
- These controllers provide rapid, accurate regulation of output voltage for 400-cycle alternators

METERING DEVICES

NEW

Ultrasonic Flowmeters



Accurate gravimetric flow rates Precise mass totalization

- Smooth bore—negligible pressure drop
- Rapid response
- Linear rate output
- No moving parts
- Reversible flow accommodation

A series of unusually precise instruments with important applications in metering and control of flow processes.

NEW

Statistical Accelerometers



- Accurately pre-settable acceleration levels — 2.5 to 10 g.
- Direct-reading digital record
- Simple installation
- Self-contained — service-free

These instruments provide a digital record of acceleration levels experienced. Direct-reading indicators eliminate need for data reduction. Modular design permits choice in number of acceleration levels recorded.

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Digimax Dial

For accurate digital indexing of precision potentiometers to 1 part in 2000.



Featuring:

- 1 1/16" x 1" panel space. (3/4 actual size)
- Direct reading dial 0 to 999.
- Detenting in 1/2-digit increments.
- Adjustable by a gloved operator.

NEW

Sub-Miniature Servo-Amplifiers

Model 805 Servo Amplifier



Unique vacuum tube amplifier providing output up to 5 watts.

- Weight: 4 oz., Dimensions: 1" x 2 1/2" x 3".

Model 800 TRANSISTOR SERVO AMPLIFIER

Designed to drive 400 cps servo motors with stall power requirements of up to 6 watts.



- Weight (for 6w.): 5 oz., Volume: 8 cu. in.

Models 806 and 806-1 SUMMING AMPLIFIERS



Precisely add or subtract up to 7 input signals. Available with 90° phase shift to drive 2-phase servo motors.

- Weight: 4 oz., Dimensions: 2" x 2" x 1".

NEW

Acceleration Sensitive Switches

Precision, factory-set to close or open at predetermined acceleration levels, 2.5 to 35.0 g, or to specification.



- Model 131 — SELF-RESETTING TYPE
- Model 132 — MANUAL-RESETTING TYPE



Langevin

Transformers

Type L-1620 — COMMERCIAL

- Step-down voltage 115 v. to 16 v.
- 400 cps operation. • Weight 4 oz.
- Dimensions 1 3/8" x 1 1/16" x 1 5/16".



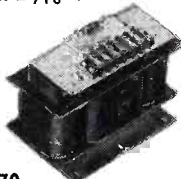
Type L-1505, MIL-T-27A — CLASS A

- Voltage Standard.
- Hermetically sealed.
- 6 windings, 33 terminals.
- Dimensions: 1 5/8" x 1 3/16" x 2 5/16".



Type L-2834 COMMERCIAL

- Saturable reactor.
- Open construction.
- Dimensions: 4" x 4" x 6".



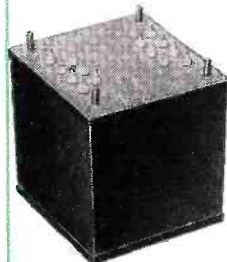
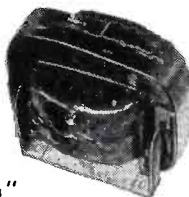
Type L-1570, MIL-T-27A — CLASS B

- Power transformer plate.
- Incapsulated.
- 3 1/8" x 3 1/2" x 3 3/16".



Type L-2769 MCREE-553 — CLASS B

- 6000 v. rms.
- High altitude—low corona.
- Incapsulated.
- 5 7/8" x 6 1/2" x 6 1/8"



- Type L-2562 MIL-T-27A — CLASS A
- Filament transformer.
- Hermetically sealed.
- 2 to 6.3 volts, 10 amps. secondary winding.
- Low temperature rise.
- Dimensions: 5 1/16" x 6 5/16" x 7 1/2".

Langevin

Miniature Amplifiers

The accepted standard for network and commercial sound systems. The smallest, high quality amplifiers available to the industry!

Broadcast Amplifiers



- Model 5116 PLUG-IN BROADCAST PRE-AMPLIFIER
- Length 9", Width 1 3/8", Height 3".

Model 5117 PLUG-IN BROADCAST PROGRAM AMPLIFIER

- Length 10 1/4", Width 2 5/8", Height 3".



Industrial Amplifiers

Model 138-G with INTERCHANGEABLE INPUT PANELS



- Length 13" Width 3 1/8" Height 5"

High Fidelity Amplifiers



The COOK-LANGEVIN "Ultimate" AMPLIFIER

- Exceptional Class A power.
- Negligible distortion, low noise.
- Automatic adjustment to speaker imped.
- Low impedance plate load.
- 4—6550's power output tubes.

NEW

50 watts over the entire frequency spectrum! Product of the combined talents of Cook Laboratories and Langevin engineers.

In-plant MIL-T-27A Test Facilities — Langevin has complete in-plant test facilities for transformers in conformity with MIL-T-27A and other government specifications requiring qualification approval. In addition to all required electrical test equipment, these facilities include a temperature and humidity chamber with automatic cycling controls, cold chamber, altitude chamber and vibration table for the specified environmental tests.

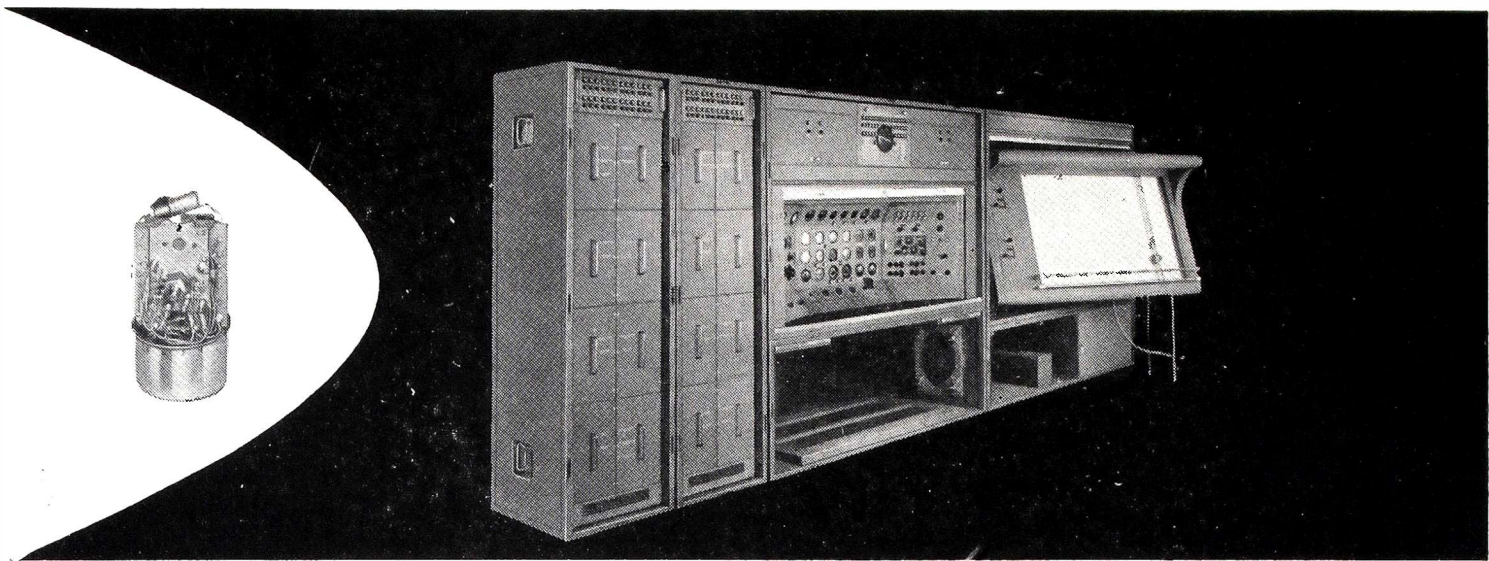
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- Particular AMF electronics capabilities and products include...

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1101 North Royal Street, Alexandria, Va.



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KNOWN THE WORLD OVER FOR

Time Tested Quality

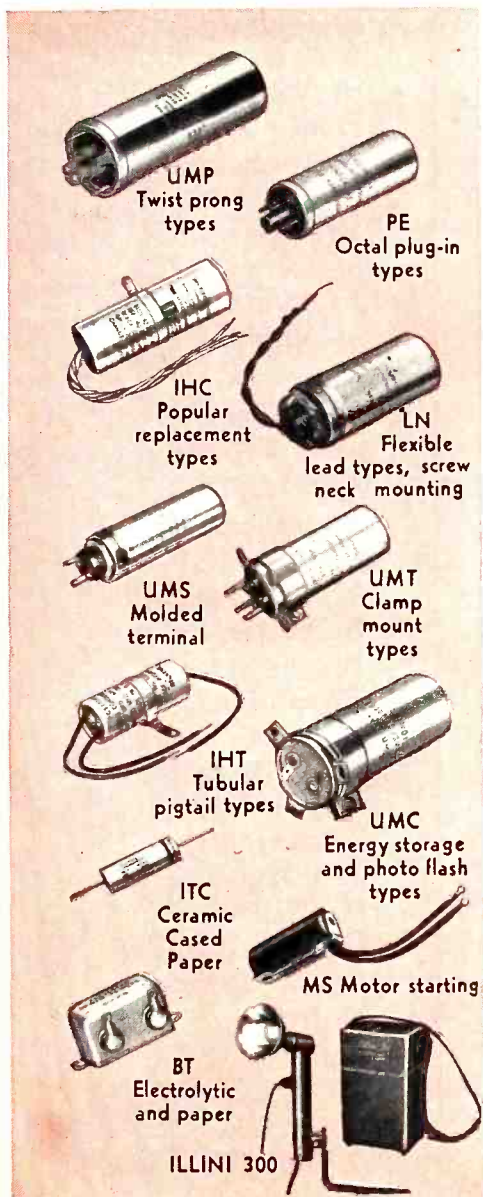
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TYPE SMT SUB-MINIATURE ELECTROLYTICS



Newly developed sub-miniature electrolytics with hermetic seals. Especially designed for printed circuits, portable equipment, transistor equipment and any application where size and weight must be kept at an absolute minimum. Capacity ranges from .5 to 100 MFD and from 3 to 50 WVDC.



- TYPE UMP** Standardized twist-prong type. Patented molded terminal construction for efficient, stable operation under extreme temperature ranges. Capacity ranges from 10 to 3,000 MFD and from 6 to 525 WVDC.
- TYPE PE** Hermetically sealed plug-in octal base type. Especially useful in fixed or mobile communications equipment. Operating temperature range -40°C to $+85^{\circ}\text{C}$. Available in wide ranges of capacities and voltages.
- TYPE IHC** Popular multiple section types with flexible leads, insulating sleeves and mounting straps. Equally adaptable for original equipment or replacement purposes. Available in capacities from 10 to 250 MFD at 25 to 500 WVDC.
- TYPE LN** Extruded aluminum can type with screw neck mounting and flexible leads. Capacity ranges from 8 to 80 MFD and from 450 to 600 WVDC.
- TYPE UMS** Hermetically sealed inverted can type with screw neck mounting and molded-in terminals. Wide ranges of capacities and voltage ratings. Meets all government specs.
- TYPE UMT** Inverted can type with clamp mounting. Hermetically sealed, shock resistant with new molded terminal construction. Ideal for use in highest quality equipment. Meets all government specs. Wide capacity and voltage ranges.
- TYPE IHT** Popular tubular aluminum can, pigtail type electrolytic. Internal riveted construction. In capacity ranges of 1 to 2,000 MFD and from 6 to 600 WVDC. Also available with solder lug terminals. Supplied with insulating sleeves.
- TYPE UMC** Low leakage - high capacity electrolytic for power filter packs, voltage stabilization, energy storage and photo flash. Capacity ranges up to 10,000 MFD to 50 V. and 1000 MFD at 450 V.
- TYPES IMT and SMT** Newly developed "miniature" and sub-miniature electrolytics with hermetic seals. Especially designed for printed circuits, portable equipment, transistor equipment and any application where size and weight must be kept at an absolute minimum. Capacity ranges from .5 to 100 MFD and from 3 to 50 WVDC. Ceramic case and aluminum case types.
- TYPE MS** Motor starting capacitors available in bakelite and aluminum cases. Long wire leads with terminals. Capacities to 5,000 MFD at 115, 220 and 320 VAC.
- TYPE BT** Hermetically sealed bathtub type especially designed to withstand vibration and shock. Available in electrolytic and paper capacitor types for government and commercial use.
- ILLINI 300 ELECTRONIC FLASH KIT** A new high intensity, low voltage electronic photoflash kit featuring latest advances in tube, capacitor and reflector design. 100 watt second output. Uses standard type batteries. Easily assembled, rugged, reliable and economical to operate. AC Power Pack also available.

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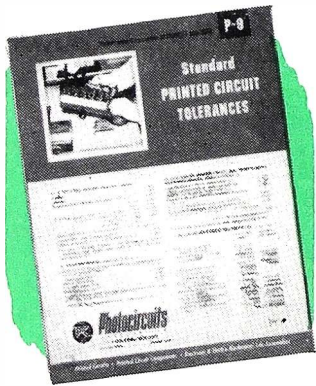
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- RF Shielding
- Wave Guide Gaskets
- Heat Dissipating Tube Shields



Electronic Weatherstrip

Knitted, metallic wire structure combines maximum conductivity for efficient performance with inherent resiliency that assures continuous line contact between imperfect mating surfaces. Interlocked loops, of continuous wire strands, assures maximum cohesion. Available in continuous lengths in more than 500 shapes and sizes to meet all installation requirements.

Type	Size	METEX PART NUMBER		
		Monel	Aluminum	Silver Plated Brass
□ { Rectangular	1/8" x 1/8"	10-199	10-204	10-230
	1/8" x 3/32"	10-194	10-182	10-338
○ { Round	1/8" dia.	10-006	10-035	10-118
	3/16" dia.	10-020	10-029	10-253
	1/4" dia.	10-024	10-032	10-337
Single Fin	1/8" dia.	10-008	10-095	10-343
	3/8" o/a			
Single Fin	1/8" dia.	10-061	10-339	10-340
	5/8" o/a			
Single Fin	3/16" dia.	10-058	10-066	10-288
	5/8" o/a			
Single Fin	1/4" dia.	10-109	10-341	10-342
	5/8" o/a			

Standard strips shown above available from stock without minimum charge. Other types available on order.



Choke Flange Gaskets

The controlled resiliency and compressibility of METEX Knitted Wire Gaskets for standard Waveguide Choke-Flanges insure complete metallic contact, flange to flange. Assures RF-tight joint when distortion makes choke inefficient. Supplements choke to prevent RF leakage at high power levels. Eliminates leakage at other than choke frequencies.

ASESA FLANGE NO.	METEX PART NO.	GASKET MATERIAL	REFERENCE WAVEGUIDE		
			ASESA NO.	NOMINAL O.D.	MATERIAL
UG-40/U	MT 17/4	Monel	RG-52/U	1 x 1/2	Brass
UG-40A/U	MT 266-2	Monel	RG-52/U	1 x 1/2	Brass
UG-42/U	MT 74-2	Monel	RG-51/U	1 1/4 x 5/8	Brass
UG-52A/U	MT 307-1	Monel	RG-51/U	1 1/4 x 5/8	Brass
UG-54A/U	MT 406-1	Monel	RG-48/U	3 x 1 1/2	Brass
UG-136/U	MT 17-15	Aluminum	RG-67/U	1 x 1/2	Aluminum
UG-136A/U	MT 266-4	Aluminum	RG-67/U	1 x 1/2	Aluminum
UG-137A/U	MT 307-3	Aluminum	RG-68/U	1 1/4 x 3/8	Aluminum
UG-148B/U	MT 358-1	Monel	RG-49/U	2 x 1	Brass
UG-343A/U	MT 426-1	Monel	RG-50/U	1 1/2 x 3/4	Brass
UG-406A/U	MT 358-2	Aluminum	RG-95/U	2 x 1	Aluminum
UG-440A/U	MT 426-2	Aluminum	RG-106/U	1 1/2 x 3/4	Aluminum
UG-541A/U	MT 157-2	Monel	RG-91/U	.702 x .391	Brass
UG-585/U	MT 406-2	Aluminum	RG-107/U	.702 x .391	Silver
			RG-75/U	3 x 1 1/2	Aluminum

Standard RF gaskets shown above available from stock without minimum charge. Other RF gaskets available on order.



Heat Dissipating Tube Shields

METEX Resilient Cooling Sleeves for subminiature tubes combine high heat conducting ability with inherent vibration dampening and shock absorbing properties. Provides an efficient, practical and economical method of conducting heat away from the tube envelope, directly to a heat sink. Aluminum alloy wire assures maximum thermal conductivity with minimum weight. Thermal peaks and valleys are leveled out assuring consistency of thermal performance among tubes.

METEX Part No.	Tube Envelope	HEIGHT
MT-204E-1	T3-1; T3-6; T3-7	1"
MT-204E-2	T3-2; T3-5; T3-8	1 5/16"
MT-204E-3	T3-3	1 1/2"
MT-204E-5	T3-4	1 1/16"

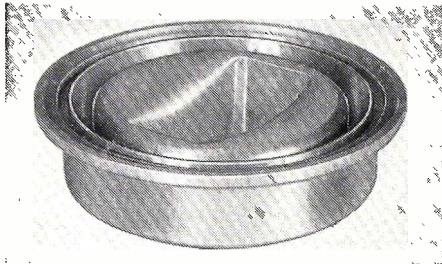
Sizes shown available from stock. Other sizes available on special order.

METEX Engineers will be glad to work with you on any problems involving RF Shielding or Heat Dissipation in electronics or related equipment. No obligation, naturally!

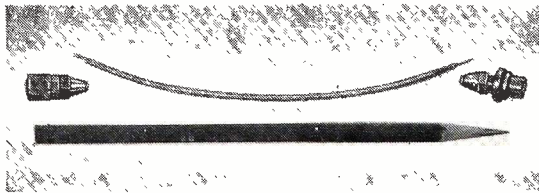
ELECTRONICS DIVISION

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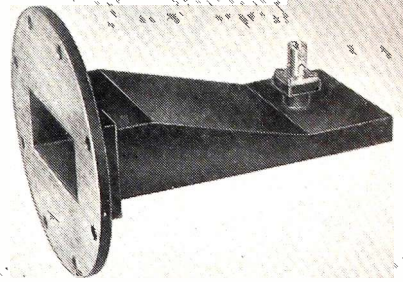
SPECIAL R-F FITTINGS of ALL TYPES



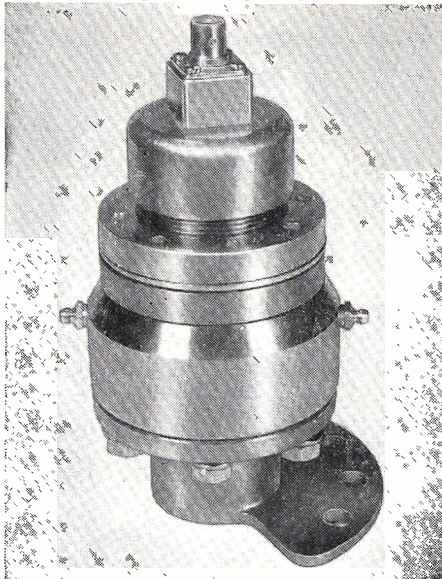
Wave-guide flange—special



Subminiature connector—TM series



Crystal mount

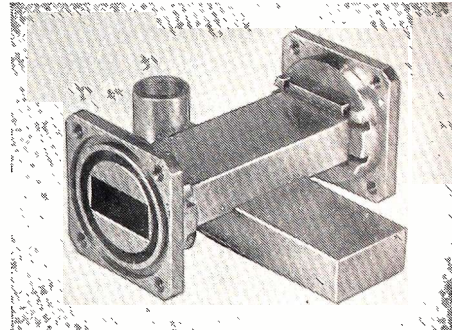


Cable jack—special

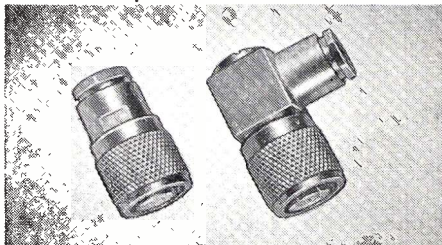
Whenever you need special r-f fittings — for wave-guide or coax connection — you can profit by our years of experience in designing and producing fittings for specialized service. Ask us about

- High-temperature connectors
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- Pressurized connectors
- Captive-pin connectors
- Sub-miniature connectors
- Special anti-noise connectors
- Directional couplers
- Special-flange wave-guide fittings
- Adapters
- Power connectors
- All standard military types

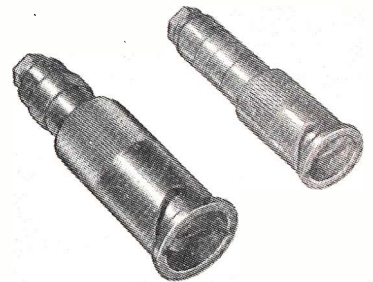
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Directional coupler



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6000-volt and 3000-volt plugs

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SUBMINIATURE

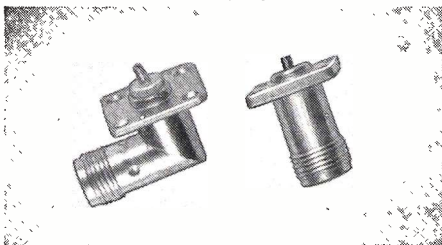
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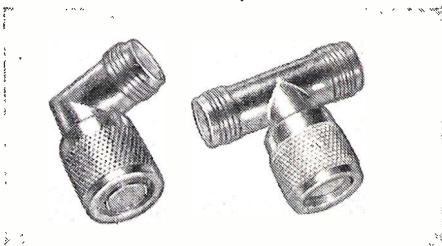
SEND US YOUR REQUIREMENTS FOR OUR RECOMMENDATIONS



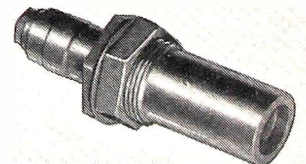
TNC receptacles



3000-volt high-voltage jack



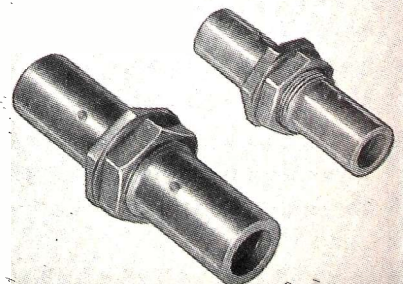
TNC adapters



6000-volt panel jack



TNC between-series adapters

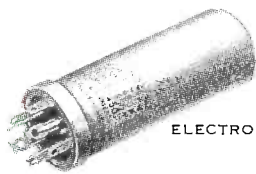


6000- and 3000-volt panel adapters

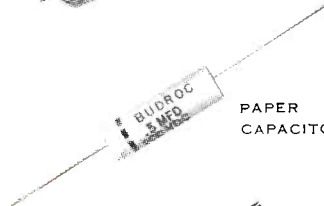
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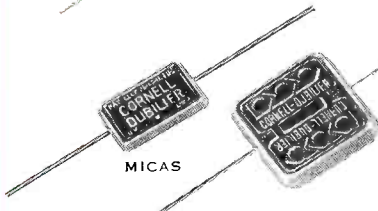
Consistently Dependable



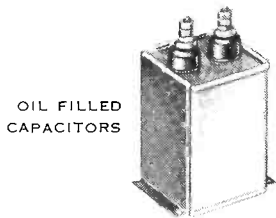
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PAPER CAPACITORS



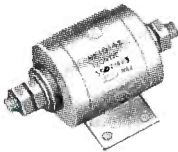
MICAS



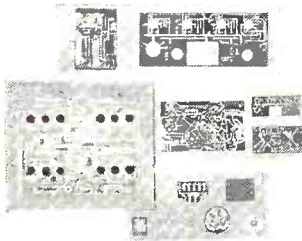
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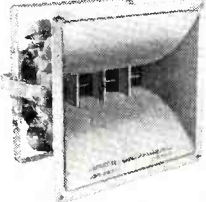
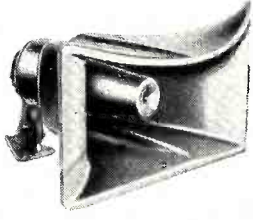

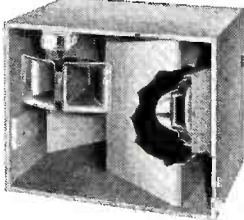

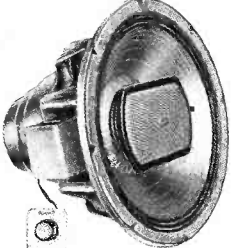



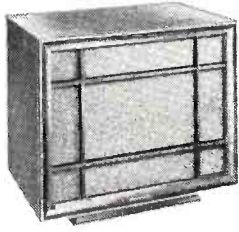



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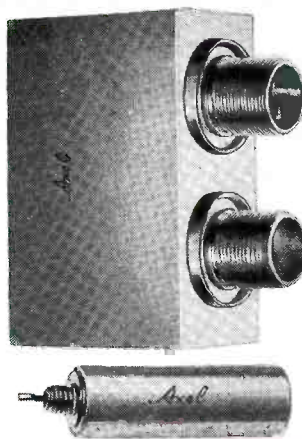
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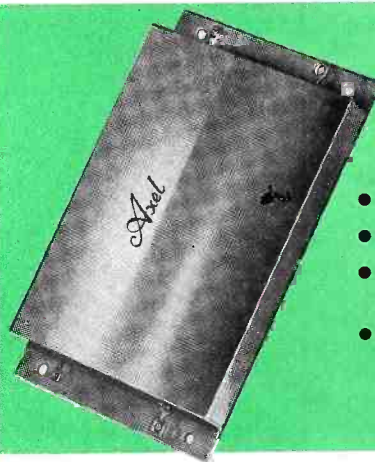
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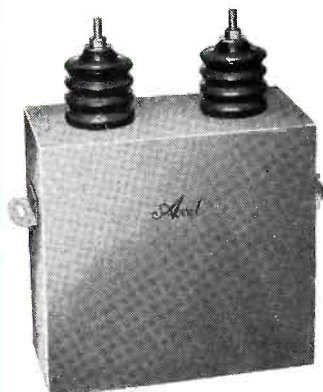
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 - Constant delay over wide temperature range
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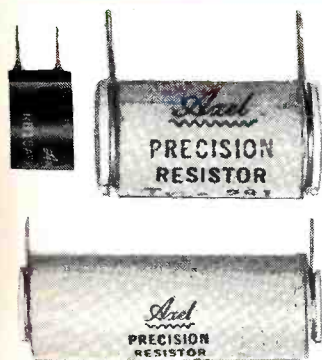
LOW INDUCTANCE CAPACITORS

- Low inductance, high ringing frequency
- High voltage ratings
- High energy content per unit
- Hermetically-sealed, liquid-filled
- Minimum cost per joule



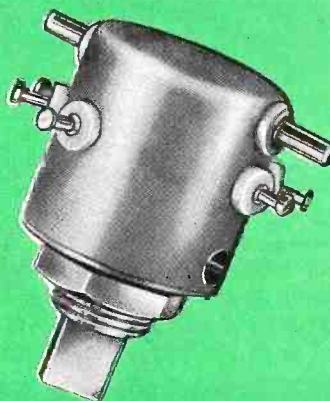
ENERGY STORAGE CAPACITORS

Catalog No.	Capacitance	Rated Voltage
2ES11	120 mfd	2 kv
3ES11	120 mfd	3 kv
4ES11	30 mfd	4 kv
6ES11	30 mfd	6 kv
8ES11	30 mfd	8 kv
10ES11	5 mfd	10 kv
15ES11	5 mfd	15 kv
20ES11	5 mfd	20 kv
20ES12	1.25 mfd	20 kv
30ES11	1.25 mfd	30 kv
40ES11	1.25 mfd	40 kv



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- ★ High voltage switching transistors ★ Symmetrical transistors ★ Phototransistors

General Transistor Corp. Type	Maximum Ratings		Typical Operation						Application
	Collector Volts	Collector Dissipation (@ 25°C.) mw	Collector Cutoff Current μ A (max.)	Collector Volts	Emitter Current mA	Power Gain db	Base Current Ampli. Factor β	Noise Figure db	
GT-222	-12	125	20	-4.5	-1	30	20	30	Audio
GT-14 (2N63)	-25	125	10	-4.5	-1	36	28	16	Audio
GT-20 (2N64)	-25	125	10	-4.5	-1	40	45	16	Audio
GT-34	-25	125	10	-4.5	-1	32	15	16	Audio
GT-81 (2N65)	-25	125	10	-4.5	-1	42	90	16	Audio
GT-109	-25	125	10	-4.5	-1	42	90	16	Audio, matched pair
2N43	-45	150	10	-4.5	-1	40	40	16	Audio
2N44	-45	150	10	-4.5	-1	36	24	16	Audio
2N45	-45	150	10	-4.5	-1	33	20	16	Audio
GT-14H	-12	90	10	-4.5	-1	36	28	12	Sub-min., hearing aid
GT-20H	-12	90	10	-4.5	-1	40	45	12	Sub-min., hearing aid
GT-24H	-12	90	10	-4.5	-1	35	30	12	Sub-min., hearing aid
GT-81H	-12	90	10	-4.5	-1	42	90	12	Sub-min., hearing aid
GT-66	-12	90	10	-4.5	-1	42	100	20	Phototransistor

Maximum junction temperature: 85°C.

General Transistor Corp. Type	Maximum Ratings		Typical Operation							Application	
	Collector Volts	Collector Dissipation (@ 25°C.) mw	Collector Cutoff Current μ A (max.)	Emitter Cutoff Current μ A (max.)	Collector Volts	Emitter Current mA	Power Gain db	Base Current Ampli. Factor β	f_{α} mc		Noise Figure db
GT-83	-25	125	10	10	-4.5	-1	40	45	0.7	16	Switching-computer
GT-87	-25	125	10	10	-4.5	-1	36	38	0.5	16	Switching-computer
GT-88	-25	125	10	10	-4.5	-1	42	80	1	16	Switching-computer
GT-122	-25	125	10	10	-4.5	-1	42	80	1.5	16	Switching-computer
GT-759 (2N111)	-20	90	1	5	-4.5	-1	24*	20	2.5	16	Hi-freq., computer, & IF
GT-760 (2N112)	-15	90	1	5	-4.5	-1	28*	40	5	16	Hi-freq., computer, & IF
GT-761 (2N113)	-12	90	1	5	-4.5	-1	32*	75	10	16	Hi-freq., computer, & RF
GT-762 (2N114)	-6	90	1	5	-4.5	-1	34*	100	20	16	Hi-freq., computer, & RF
GT-763	-6	90	1	5	-4.5	-1	35*	120	30	16	Hi-freq., computer, & RF
GT-34S	-25	100	10	10	-4.5	-1	32	15		16	Symmetrical, switching, computer
GT-34HV	-50	125	10	10	-4.5	-1	32	15		16	High voltage, neon light switching

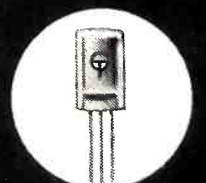
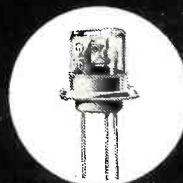
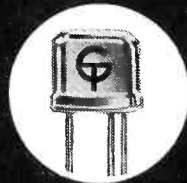
Maximum junction temperature: 85°C.

* @ 455 kc

Transistor Kit No. 1 (Audio kit) Contains 1 ea. GT-14, GT-20, GT-34, GT-81, GT-83, GT-87, GT-88

Transistor Kit No. 2 (Radio kit) Contains 1—GT-761 (converter-oscillator), 2—GT-760 (intermediate frequency), 1—GT-81 (driver), 2—GT-109 (audio)

Transistor Kit No. 3 (Computer kit) Contains 1 ea. GT-122, GT-759, GT-760, GT-761, GT-762, GT-34S, GT-34HV



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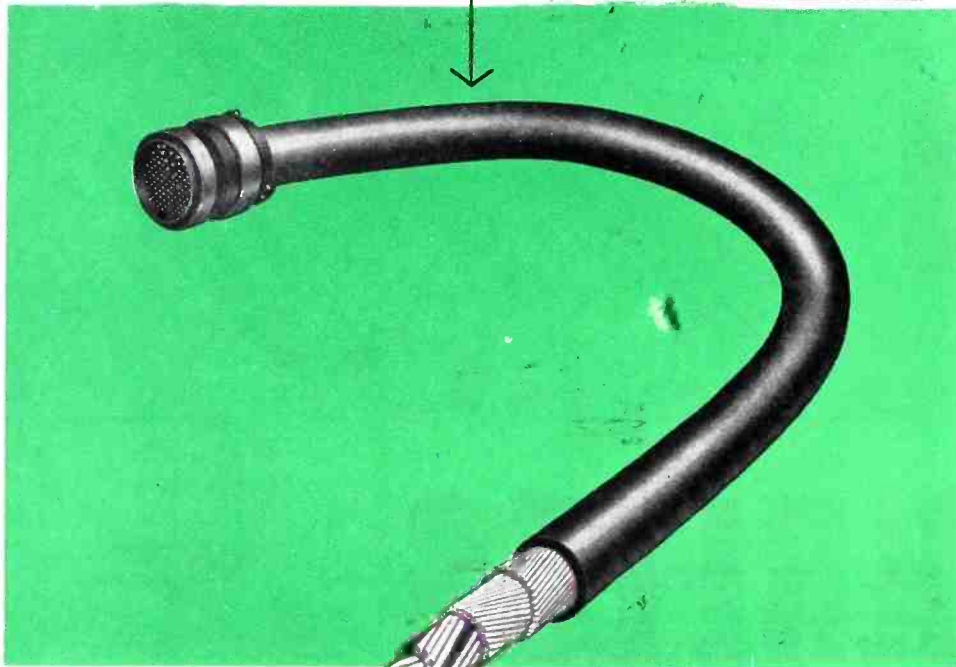
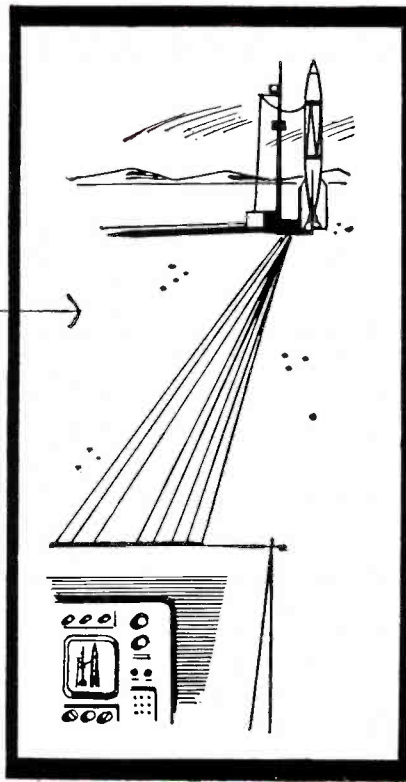
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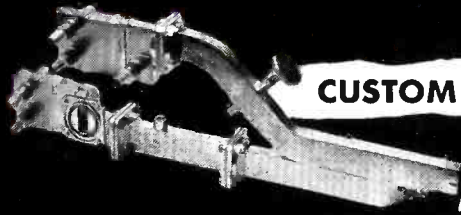
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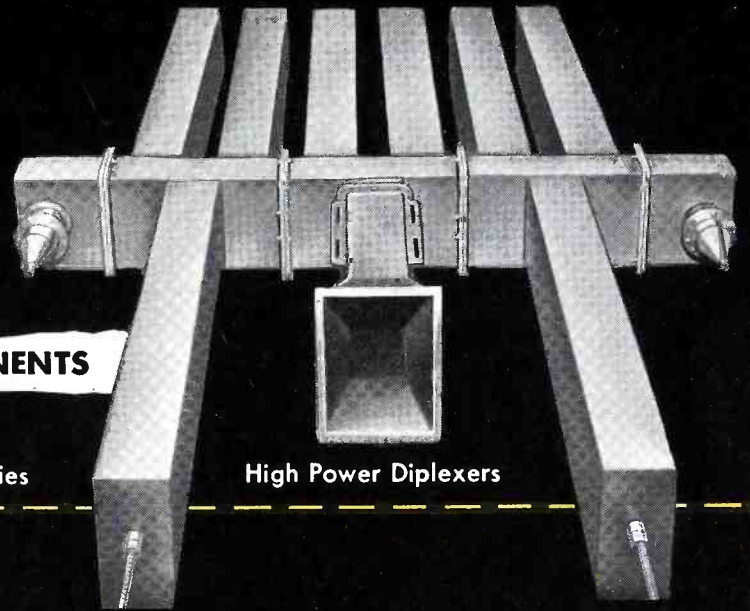
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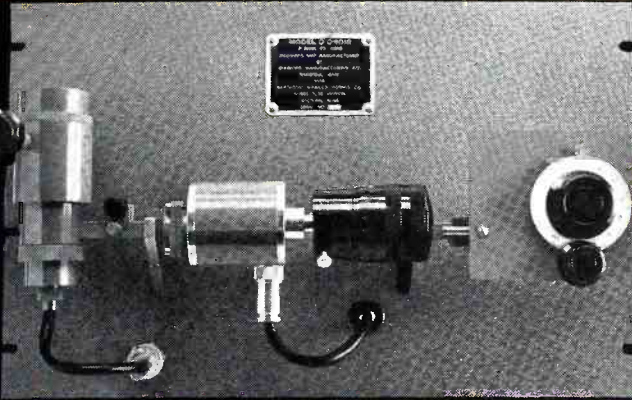


Multiple Waveguide Assemblies

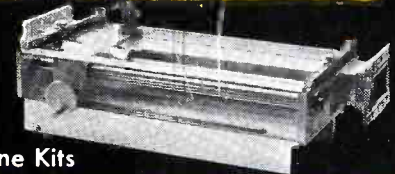


High Power Diplexers

MICROWAVE TEST EQUIPMENT



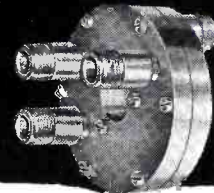
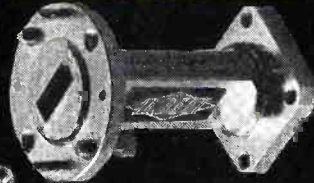
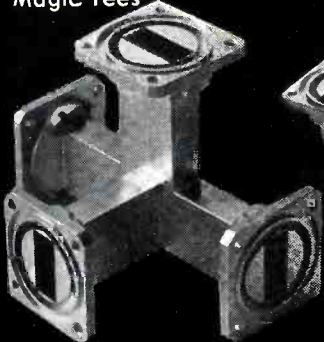
R. F. Heads



Universal Slotted Line Kits

Waveguide Adapters

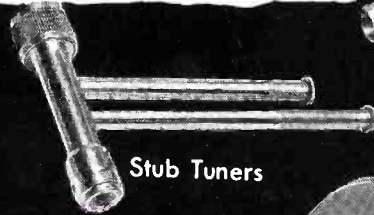
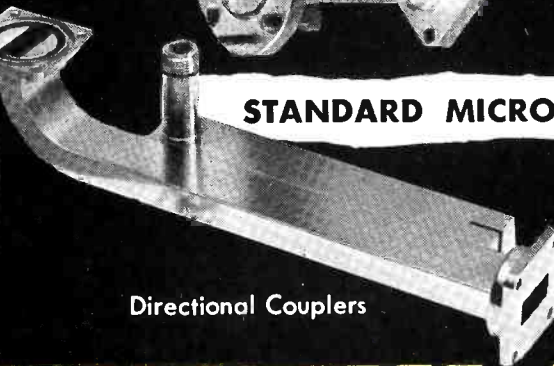
Magic Tees



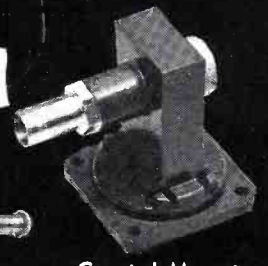
Hybrid Rings

STANDARD MICROWAVE COMPONENTS

Directional Couplers

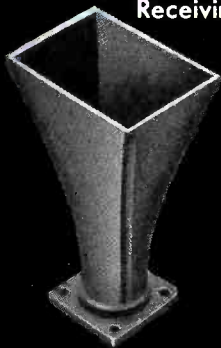


Stub Tuners

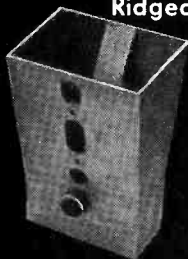


Crystal Mounts

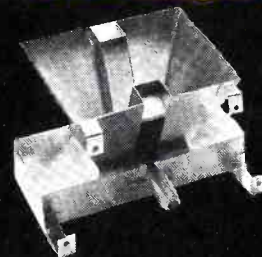
Receiving Horns



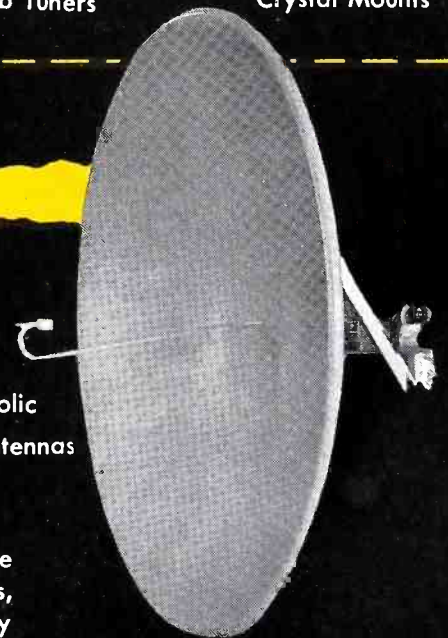
Broadband Ridged Horns



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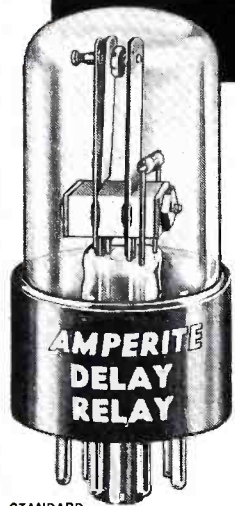
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Thermostatic DELAY RELAYS

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- Actuated by a heater, they operate on A.C., D.C., or Pulsating Current.
- Hermetically sealed. Not affected by altitude, moisture, or other climate changes.
- SPST only — normally open or normally closed.

Amperite Thermostatic Delay Relays are compensated for ambient temperature changes from -55° to $+70^{\circ}$ C. Heaters consume approximately 2 W. and may be operated continuously. The units are most compact, rugged, explosion-proof, long-lived, and — inexpensive!

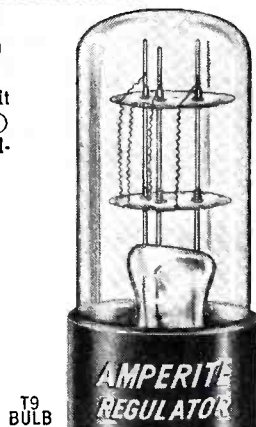
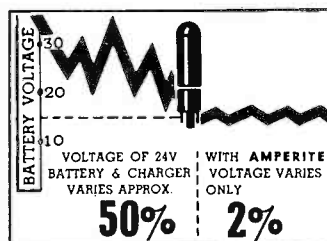
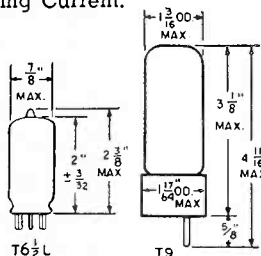
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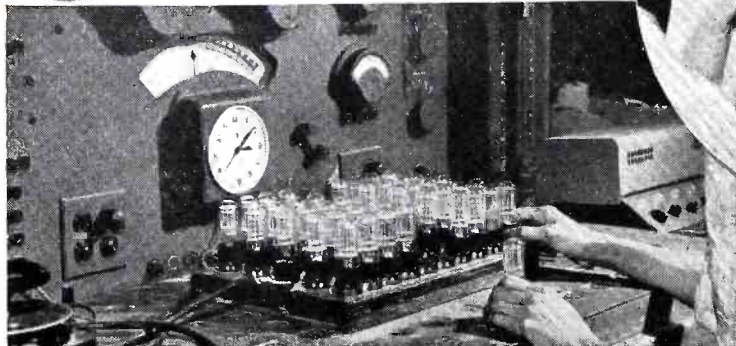
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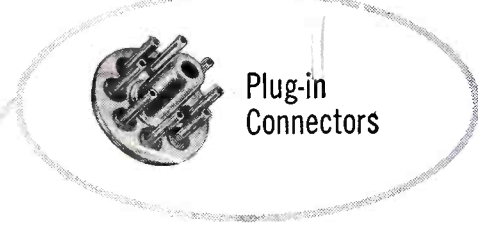
Single-lead
Terminals



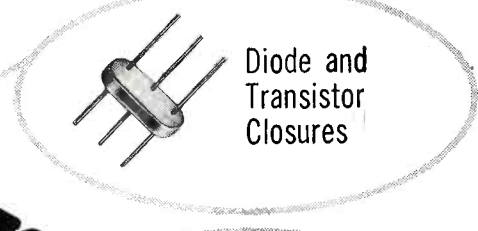
Multi-lead
Headers



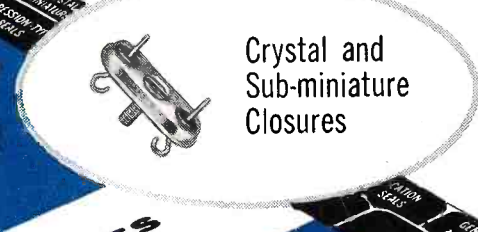
E-I
End Seals



Plug-in
Connectors



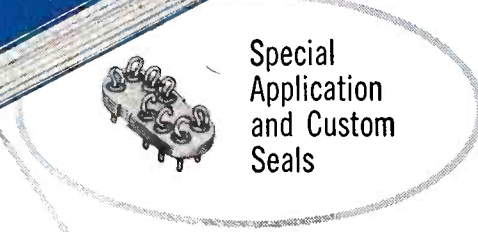
Diode and
Transistor
Closures



Crystal and
Sub-miniature
Closures



Special
Application
and Custom
Seals



Accepted
Methods of
Installation

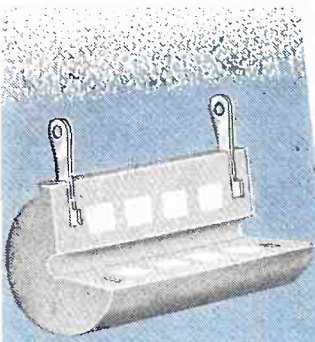


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ELECTRICAL INDUSTRIES

44 SUMMER AVENUE, NEWARK 4, NEW JERSEY



N-CAPS

ENCAPSULATED IN EPR's own thermo-setting resin to surpass the requirements of MIL-R-93 amendment 2 characteristic "A". Available in all the standard military sizes plus hundreds of sub-miniature and special sizes and shapes, N-CAPS have become the standard in the precision wire wound industry.

Realizing the importance of encapsulation, EPR is the only manufacturer of resistors who produces its own plastic, extrudes its own rod, and machines its own bobbins. It is because of these controlled manufacturing techniques that EPR is able to offer N-CAPS at prices comparative with outdated varnish impregnated resistors.

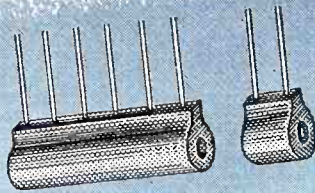


"PC" RESISTORS FOR PRINTED CIRCUIT APPLICATIONS

Designed to meet the requirements of Mil-R-93 characteristic "A" these new PC-type resistors are a boon to the engineer confronted with environmental problems.

The use of EPR high temperature N-CAPS encapsulation material, allows these miniature components to be operated at full rated wattage in ambient temperatures up to 125° C.

Cylindrical in configuration, EPR's PC-type resistors can be mounted with 25% saving in precious "Plate" space. Standard units are supplied with EPR's alloy E wire, having a temperature coefficient of 22 parts per million per degree C. Other temperature coefficients are available upon request.



TEMPERATURE COMPENSATING RESISTORS

Temperature coefficients that range as high as 10,000 parts per million per degree C are now available in sub-miniature encapsulated type.

Special technique and equipment has enabled EPR to produce closely matched temperature compensating resistors to solve problems involved in the design and manufacture of such critical items as magnetic amplifiers, altitude computer servo systems and special bridge networks. These lightweight encapsulated resistors have replaced entire circuits in many instances.

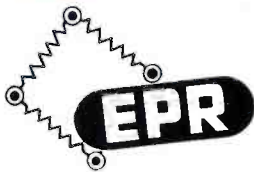


RC AND L NETWORKS

EPR introduces complete RC-L networks in a plug-in unit. These are hermetically sealed to withstand extreme environmental and vibration conditions. Built to consumer specification and matched to as close as .01%, these encapsulated packages save valuable chassis space.

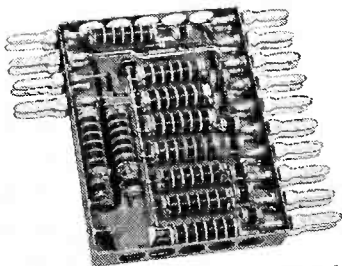
Where needed a built-in heater element and thermostat to control the operating temperature of the network is provided. The illustrated plug-in contains precision wire wound resistors and polystyrene capacitors aged and matched to within seven parts per million of each other. The built-in oven maintains a temperature of $75^{\circ}\text{C} \pm 1^{\circ}\text{C}$.

Units from 1 inch by 1 inch with an octal base to 12 inches by 18 inches with 48 standoff and mounting studs are being manufactured in a choice of colors to help identify different circuits packaged in similar sizes.



means

PRECISION



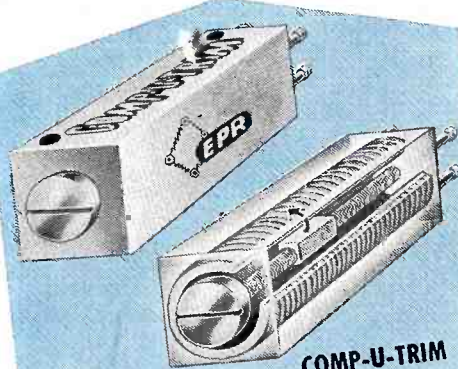
LOW DISTRIBUTED CAPACITANCE MATCHED TEMPERATURE COEFFICIENT RESISTOR

Excellent matched characteristics over wide temperature and frequency ranges, combined with very low distributed capacitance are the outstanding features of the Type SSS Matched Precision Resistors shown above. These attributes make the units useful for such applications as high frequency precision test equipment, for computers where input capacity is important, for many types of bridge networks, in d-c amplifiers, and in servomechanisms where phase shift may be critical.

The distributed capacitance of these wire wound units is held to values as low as 0.5mmfd to 1mmfd on a 1 megohm resistor. This feature is especially valuable in high frequency applications.

The unusual features of these precision resistors will help solve many difficult design problems where accurately matched circuits and low distributed capacitance are required.

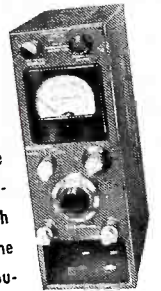
Individual resistors are accurate within $\pm 0.05\%$, and are available in resistance values from 25 ohms to 2 megohms in $\frac{1}{4}\text{W}$ to 1W ratings. A typical 1 megohm unit is $1" \times \frac{3}{8}"$ diam.



COMP-U-TRIM

A revolutionary departure in trimming potentiometer design. Such sought after features as high resolution, encapsulation to protect against humidity and wide range of temperature coefficients are combined for the first time into a single trimming potentiometer. This new trimming potentiometer offers numerous additional advantages including amply aged resistance wire to assure maximum stability... specially selected resistance wire and many more. A combination fixed and variable resistor is made possible thru the unique design of COMP-U-TRIM. Fixed values up to 1 megohm with a variable of as little as 50 ohms are feasible.

VIBRATION INDICATOR METER, MODEL 156



The newest addition to the growing EPR line, Vibration Indicator Meter Model 156, with integrating amplifiers and the scale reading amplitude in thousands of an inch is small

enough to allow four meters to be installed in a panel space of less than one foot square. Each meter has a self-contained regulated power supply. Plug-in, high pass frequency filters are available for any given engine or rig. Filters can be chosen to pass rotor-unbalanced frequency and to eliminate lower frequency shaking of the rig. Two filters of different cutoff frequency can be inserted at one time while a selector switch permits choice of either filter or none.

A 10-turn precision potentiometer is provided for accurately setting the calibration constant of any vibration pickup. Amplifier sensitivity is easily accomplished with the use of built-in calibration circuits. Two different full scale meter ranges are made available by the use of the selector switch. Warning lights, sirens, or complete shut down of engine or rig are actuated by vibration exceeding a pre-calibrated amplitude.

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HIGH-FIDELITY TURNTABLES



Professional performance standards combined with maximum simplicity of operation. Beautifully machined 12" or 16" cast aluminum turntables for super-smooth, rumble-free operation. Choice of heavy-duty four-pole motor or hysteresis synchronous motor to meet all requirements in speed accuracy. Three-idler drive system with interchangeable idler wheels minimizes wear. Single-flick shift, operated in one plane, selects 33 $\frac{1}{3}$, 45 or 78.26 r.p.m. speeds and shuts off motor.

Model T-18, 12" turntable, four-pole motor.....\$ 66.00
 Model T-18H, 12" turntable, hysteresis motor..... 117.00
 Model T-68, 16" turntable, four-pole motor..... 87.00
 Model T-68H, 16" turntable, hysteresis motor..... 147.00

DISC RECORDING EQUIPMENT



Ideal for home or semi-professional use. Three-speed operation without adapters. PRESTO cutter head for both standard groove (110-line pitch) and microgroove (220-line pitch). Records discs up to 13 $\frac{1}{4}$ " diameter. Comprises the popular T-18 Turntable, recording and playback amplifiers, high-fidelity pickup with turnover cartridge, and two speakers (woofer and tweeter) mounted in cover of carrying case. Separate microphone and radio inputs, monitor jack, level indicating meter and recording equalizer also featured.

Model K-11, complete with four-pole motor.....\$396.00
 Model K-11, complete with hysteresis motor..... 445.00
 Recorder mechanism only, with four-pole motor 210.00
 Recorder mechanism only, with hysteresis motor 259.50

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PRESTO Green, Brown, White and Orange Labels for Instantaneous Recording. Single and Double-Sided Masters.

The perfect disc for every recording need. Optimum performance combined with highest permanence. Made to conform with rigid PRESTO standards and quality-controlled at every step.

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TAPE RECORDING and PLAYBACK EQUIPMENT

PRESTO R-11 Series

Professional Tape Recorders

The ultimate in recorder-reproducer units. Three full-track heads. Tape speeds 15 and 7 $\frac{1}{2}$ ips, with others on special order. Reels sizes 10 $\frac{1}{2}$ " or 7". Exclusive capstan drive with hysteresis motor. Torque-type reel motors. Solenoid-operated, self-adjusting brakes. Variable fast-speed control. Wired for remote control.

Model R-11 tape transport mechanism (chassis only).....\$ 775.00
 Model R-11 in carrying case..... 827.00
 Model SR-11 recording console (includes R-11 mechanism, A-901 amplifier and CC-2 studio console)..... 1250.00
 Model SA-5 remote control switch..... 40.00

PRESTO SR-27 Tape Recorder

A moderately priced tape recorder for professional and home use. Consists of R-27 tape transport mechanism and A-920B amplifier. Three separate heads. Three-motor drive, including hysteresis capstan motor. Tape speeds 15 and 7 $\frac{1}{2}$ ips, plus fast forward and rewind. Reel sizes up to 8". 10-watt amplifier has two built-in speakers and controls.

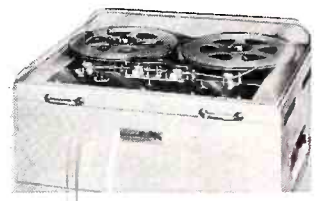
Model SR-27 complete in two portable carrying cases.....\$588.00

PRESTO Long-Playing Tape Reproducer for Background Music

8 hours continuous playback from 14" reels with dual-track operation at 3 $\frac{3}{4}$ ips. Fool-proof, trouble-free, economical. Complete assembly includes PB-17A tape playback mechanism, A-904 preamplifier and CC-4 (horizontal) cabinet*.

Complete.....\$996.00

*Cabinets for vertical mounting available



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Functionally designed without mechanical or electronic "gingerbread"... precision-engineered without compromise... massively constructed without economizing on components and machined parts... custom-built without short-cuts... quality-controlled without fail... THAT'S the Presto Look — result of a quarter century's experience as America's leading manufacturer of tape and disc recording equipment.

TAPE DUPLICATING EQUIPMENT

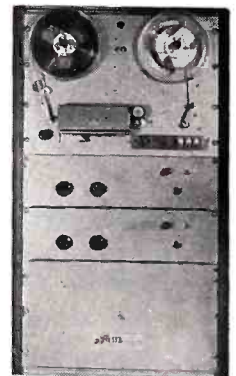
PRESTO DA-11 High-Speed Tape Duplicator

Adaptable for Telemetry and Digital Computers

Copies at 60 ips both single and dual-track tapes previously recorded at 3 $\frac{3}{4}$, 7 $\frac{1}{2}$ or 15 ips. Duplicating time 4 min. for 7" reel and 8 min. for 10 $\frac{1}{2}$ " reel, single or dual track. Duplicates within ± 2 db of original at all frequencies. Assembled on two separate relay rack cabinets, one holding PB-111 Playback Group (Master) with tape reproducer mechanism, two amplifiers and control panel; other holding R-111 Recorder Group (Slave) with tape recorder mechanism, two recording amplifiers and meter panel.

Three magnetic heads on each rack — 1 full-track, 2 half-track. Frequency response up to 120,000 cps.

Model DA-11 Complete.....\$3575.00
 Additional Slave Units (each)..... 1980.00



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At Electra, exacting quality control is coupled with a degree of manufacturing skill made possible only by our pioneer work and production leadership in deposited carbon resistors. The result is higher and still higher limits of reliability for you. Electra Deposited Carbon Resistors give you precision, small physical size, a wide range of resistance values and low cost. All this, plus Electra Reliability. Check the wide selection of available sizes, the write today for full details.

Electra Part No.	Mil. Spec. Number	Wattage	Max. Rated Voltage	Resistance Range	Standard Coat		Leads Dia.
					Length A	Dia. B	
DC1/8	none	.125	250	4 Ohms 250K	9/32"	5/64"	.016"
DC1/4	RN10	.25	300	5 Ohms 1 Meg	17/32"	3/32"	.026"
DC1/4A	none	.25	300	5 Ohms 800K	13/32"	3/32"	.026"
DC1/2	none	.5	500	6 Ohms 5 Megs	13/16"	11/64"	.032"
DC1/2A	RN20	.5	350	3 Ohms 2.2 Megs	19/32"	11/64"	.032"
DC1/2B	none	.5	500	3 Ohms 5 Megs	11/16"	15/64"	.032"
DC1/2C	RN15	.5	350	2 Ohms 2 Megs	15/32"	11/64"	.032"
DC1	RN25	1.0	500	3 Ohms 10 Megs	15/16"	9/32"	.032"
DC2	RN30	2.0	1000	10 Ohms 50 Megs	2 1/16"	9/32"	.032"

STANDARD

Special coatings, sleeves, lead lengths, etc., available. Standard lead length (C) 1 1/2". These resistors meet or exceed specification MIL-R-10509A.

MOLDED

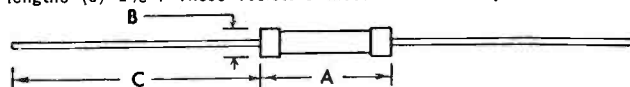
DCM1/8		1/8	250	10 Ohms 1 Meg	13/32"	.136"	.026"
DCM1/4		1/4	300	5 Ohms 1 Meg	19/32"	.219"	.026"
DCM1/2		1/2	350	4 Ohms 2.5 Megs	3/4"	.250"	.032"
DCM1		1	500	10 Ohms 10 Megs	1 7/64"	.395"	.032"
DCM2		2	1000	30 Ohms 20 Megs	2 15/64"	.395"	.032"

All lead lengths (C) 1 3/8". These resistors meet or exceed specification MIL-R-10509B.

HERMETICALLY-SEALED

HC 1		1/4	250	4 Ohms 250K	15/32"	5/32"	.016"
HC 2		1/3	300	5 Ohms 1 Meg	3/4"	3/16"	.026"
HC 3		1/2	350	3 Ohms 2.2 Megs	11/16"	1/4"	.032"
HC 4		1	500	3 Ohms 5 Megs	7/8"	5/16"	.032"
HC 5		1	500	6 Ohms 5 Megs	1"	9/32"	.032"
HC 6		2	500	3 Ohms 10 Megs	1 1/8"	3/8"	.032"
HC 7		3	1000	10 Ohms 50 Megs	2 1/4"	3/8"	.032"
HC 10		1/4	300	5 Ohms 800K	15/32"	5/32"	.026"
HC 40		1/8	250	3 Ohms 400K	9/32"	5/32"	.026"

All lead lengths (C) 1 3/8". These resistors meet or exceed specifications MIL-R-10509B.



All resistors normally supplied in tolerance of 1%. Tolerances of 2%, 5%, and 10% also available.

ELECTRA MANUFACTURING COMPANY
4051 Broadway Westport 1-6864 Kansas City, Missouri

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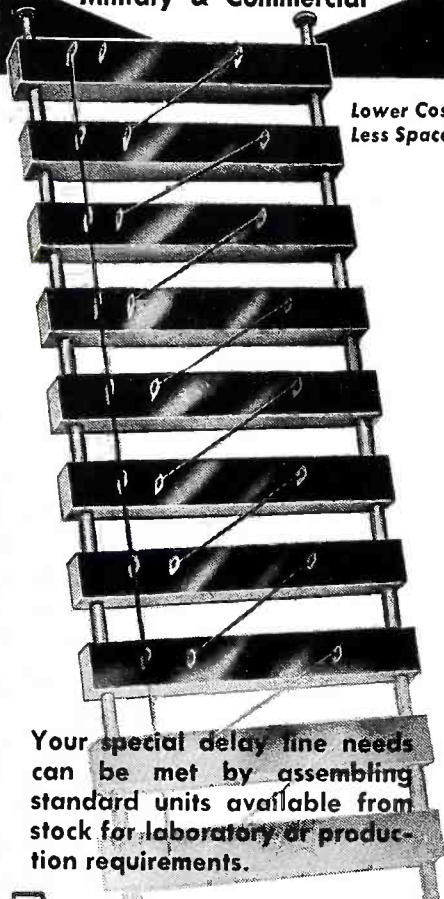
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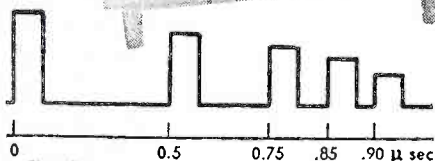
LINES

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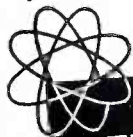


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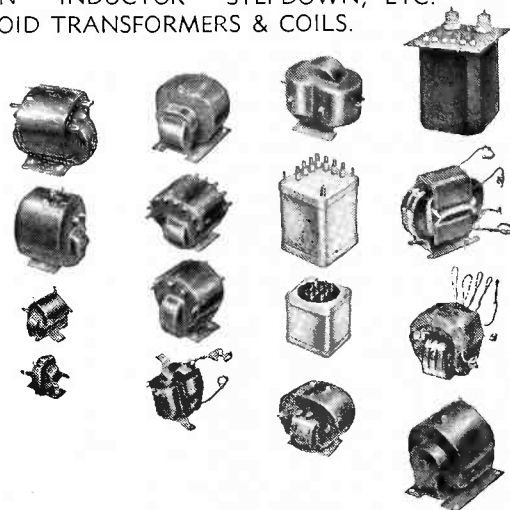
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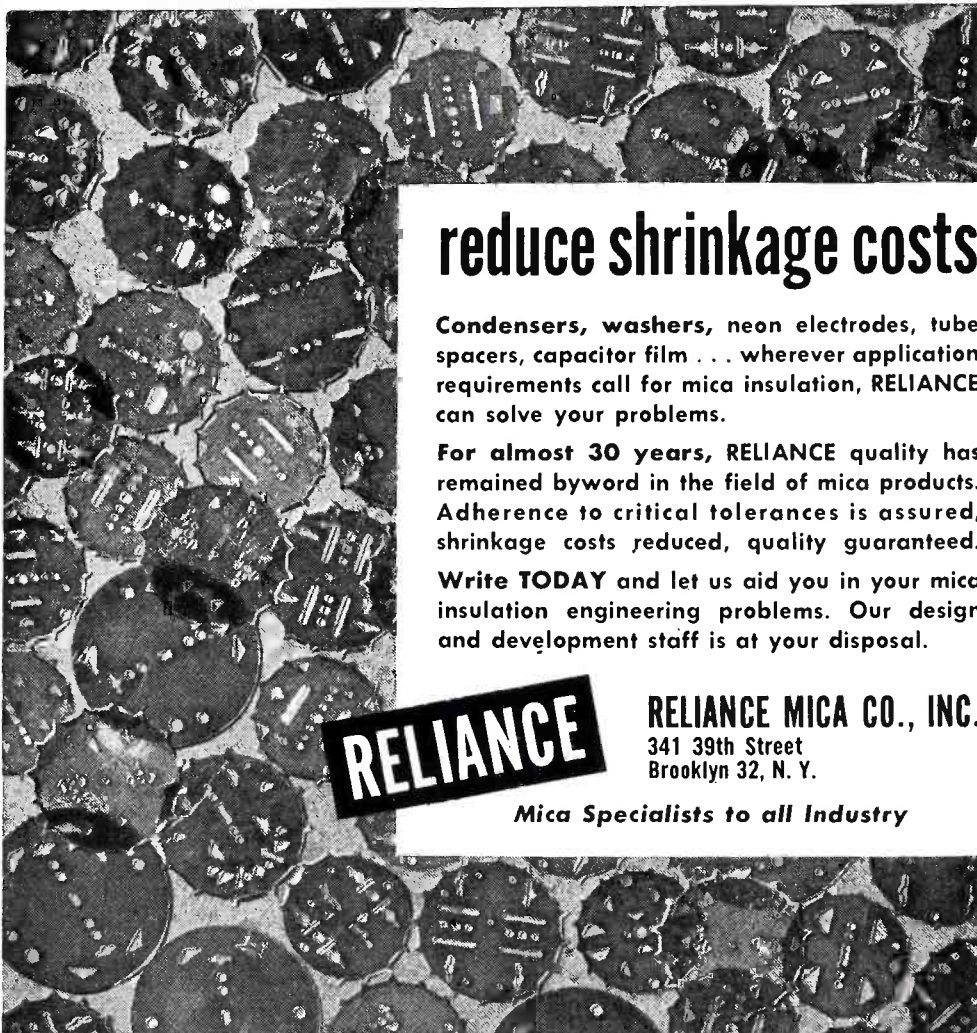
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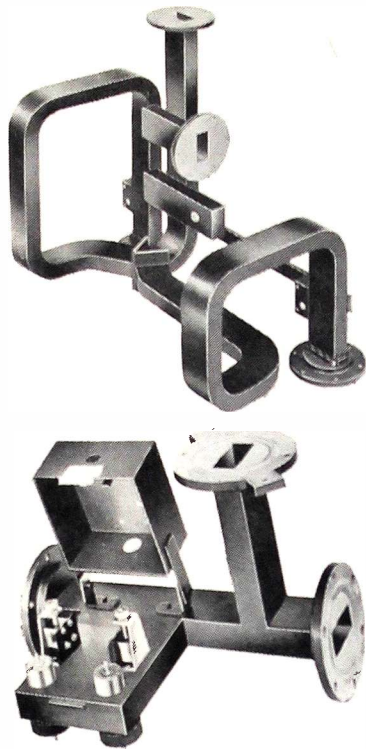
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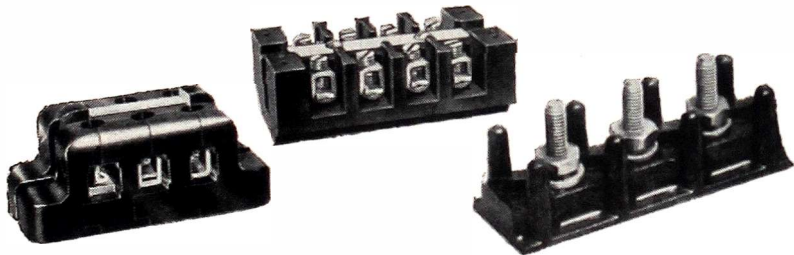
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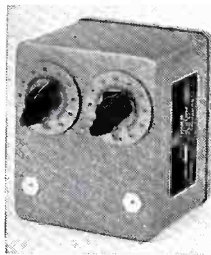
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provide split-second timing
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Compact electronic timers use Type 5823 cold-cathode tube, providing long tube-life with instant timing, no warm-up needed; immediate recycling—no re-charging time for condenser required.

Ideal for Short intervals—0.03 to 24 seconds.

Easy time adjustments—small time intervals can be spread over 320-degree dial.

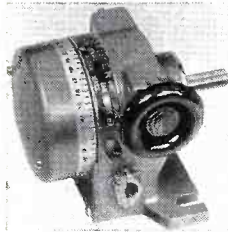
Six-time ranges—can be furnished with full-scale range of 0.2, 0.5, 1.5, 3, 6, 12, or 24 seconds.

Eight-ampere contacts.

Small size— $3\frac{3}{4}'' \times 4\frac{3}{8}'' \times 2''$.

The new Model 3 Repeat-cycle Timer is fully enclosed; has plug-in relays for easy servicing.

Synchronous Contactors

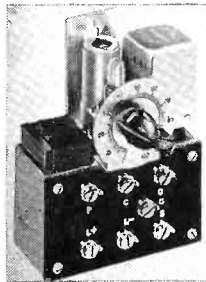


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impulses.



Type CK Electronic Relay picks up impulses too small to operate a mechanical relay directly and holds circuit closed long enough for heavy mechanical equipment to be actuated.

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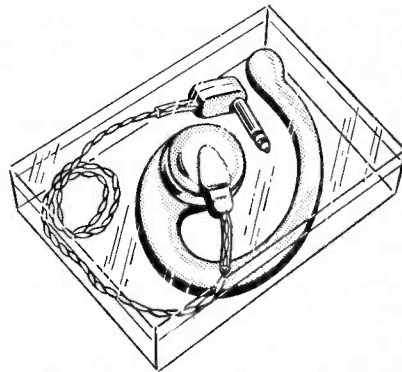
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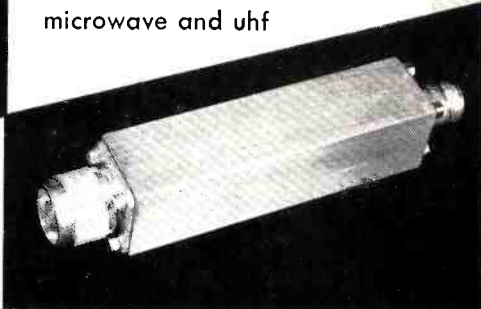
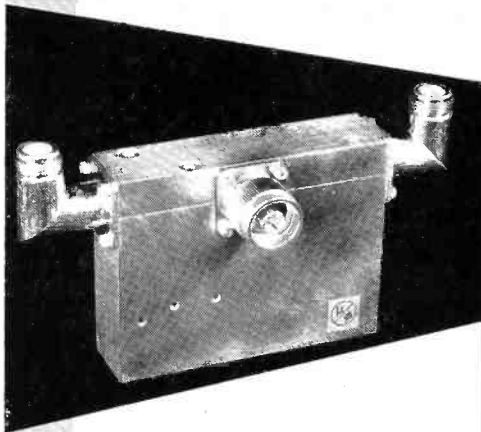
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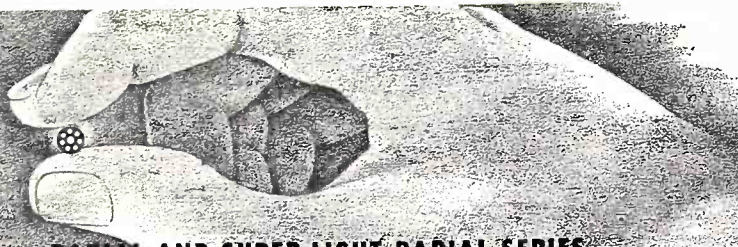
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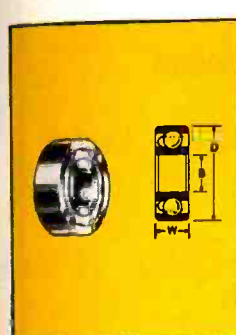
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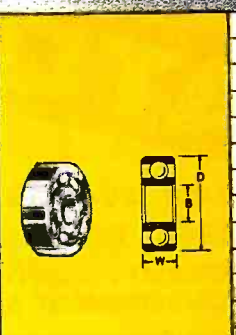


RADIAL RETAINER SERIES



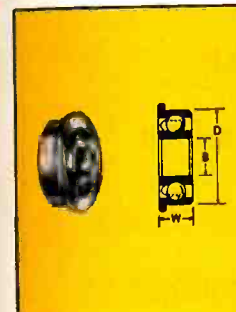
BEARING NO.	BORE	O.D.	WIDTH
2½C	.0469"	.1562"	.0625"
▼3C	.0550"	.1875"	.0781"
§▼4C	.0781"	.2500"	.0937"
§▼5C	.0937"	.3125"	.1094"
3332C	.0937"	.1875"	.0625"
§418C	.1250"	.2500"	.0937"
§▼518C	.1250"	.3125"	.1094"
§▼5532C	.1562"	.3125"	.1094"
§▼5632C	.1875"	.3125"	.1094"
§▼618C	.1250"	.3750"	.1094"
§▼6632C	.1875"	.3750"	.1250"
§614C	.2500"	.3750"	.1250"

RADIAL AND SUPER-LIGHT RADIAL SERIES



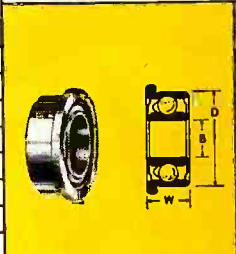
BEARING NO.	BORE	O.D.	WIDTH
100	.0250"	.1000"	.0312"
2	.0400"	.1250"	.0469"
2½	.0469"	.1562"	.0625"
▼3	.0550"	.1875"	.0781"
▼4	.0781"	.2500"	.0937"
▼5	.0937"	.3125"	.1094"
3332	.0937"	.1875"	.0625"
418	.1250"	.2500"	.0937"
▼518	.1250"	.3125"	.1094"
▼5532	.1562"	.3125"	.1094"
▼5632	.1875"	.3125"	.1094"
5732	.2187"	.3125"	.1094"
▼618	.1250"	.3750"	.1094"
▼6632	.1875"	.3750"	.1250"
614	.2500"	.3750"	.1250"

FLANGED RADIAL SERIES (Full Race or Retainer Type)



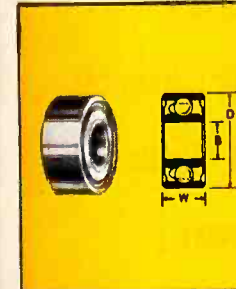
2½F	2½FC	.0469"	.1562"	.0625"
3F	▼3FC	.0550"	.1875"	.0781"
4F	▼4FC	.0781"	.2500"	.0937"
5F	▼5FC	.0937"	.3125"	.1094"
3332F	3332FC	.0937"	.1875"	.0625"
418F	418FC	.1250"	.2500"	.0937"
518F	▼518FC	.1250"	.3125"	.1094"
5532F	▼5532FC	.1562"	.3125"	.1094"
5632F	▼5632FC	.1875"	.3125"	.1094"
618F	▼618FC	.1250"	.3750"	.1094"
6632F	▼6632FC	.1875"	.3750"	.1250"
614F	614FC	.2500"	.3750"	.1250"

DOUBLE SHIELDED FLANGED RADIAL RETAINER SERIES



2½FCHH	.0469"	.1562"	.0937"
3FCHH	.0550"	.1875"	.1094"
4FCHH	.0781"	.2500"	.1406"
5FCHH	.0937"	.3125"	.1406"
418FCHH	.1250"	.2500"	.1094"
518FCHH	.1250"	.3125"	.1406"
5532FCHH	.1562"	.3125"	.1250"
5632FCHH	.1875"	.3125"	.1250"
618FCHH	.1250"	.3750"	.1406"
6632FCHH	.1875"	.3750"	.1250"
614FCHH	.2500"	.3750"	.1250"

DOUBLE SHIELDED RADIAL RETAINER SERIES



2½CHH	.0469"	.1562"	.0937"
3CHH	.0550"	.1875"	.1094"
4CHH	.0781"	.2500"	.1406"
5CHH	.0937"	.3125"	.1406"
418CHH	.1250"	.2500"	.1094"
518CHH	.1250"	.3125"	.1406"
5532CHH	.1562"	.3125"	.1250"
5632CHH	.1875"	.3125"	.1250"
618CHH	.1250"	.3750"	.1406"
6632CHH	.1875"	.3750"	.1250"
614CHH	.2500"	.3750"	.1250"

HIGH SPEED SERIES (Including Flanged Type)



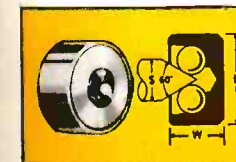
3M	3FM	.0550"	.1875"	.0781"
4M	4FM	.0781"	.2500"	.0937"
5M	5FM	.0937"	.3125"	.1094"
518M	518FM	.1250"	.3125"	.1094"
618M	618FM	.1250"	.3750"	.1094"

THRUST SERIES



2T	.0400"	.1250"	.0625"
4T	.0937"	.2500"	.0937"
5T	.1250"	.3125"	.1250"
6T	.1875"	.3750"	.1500"
7T	.1250"	.4375"	.1875"

PIVOT SERIES



1½PR	.020"†	.0590"	.0472"
3PR	.030"†	.1181"	.0709"
▼4PR	.040"†	.1575"	.0945"
▼5PR	.050"†	.1968"	.1181"
▼7½PR	.075"†	.2953"	.1772"
▼10PR	.100"†	.3937"	.2362"

ANGULAR CONTACT SERIES



2A	.042"†	.1250"	.0469"
▼3A	.062"†	.1875"	.0700"
▼4A	.085"†	.2500"	.0937"
▼6A	.124"†	.3750"	.1406"
▼6A7B	.150"†	.3750"	.1406"

Prefixes indicate material: Standard is chrome bearing steel (SAE 52100); use no prefix. All bearings, except No. 1½PR, also available in 440 stainless: use prefix SS in ordering. ▼ Indicates also available in 25 beryllium: use prefix NM in ordering. § Indicates sizes available with spring separator, specify suffix S in place of C as shown. † Indicates minimum shaft (S) dimension, (SE) dimension on request. Single Shielded Radial Retainer Series also available, specify CH, dimensions identical to Radial Retainer Series with exception of following which are wider: 2½ CH (.0937), 3CH (.0937), and 4CH (.1094). Single Shielded Flanged Radial Retainer Series also available, all dimensions identical to Double Shielded Flanged Radial Retainer Series. Specify FCH and side to be shielded. Grooved Radial Retainer bearings are also available in 9 sizes. Root diameter of groove is the same as O.D. of equivalent Radial bearing. Self-Aligning Series and extended inner bearings available. Details on request.

MPB ball bearings

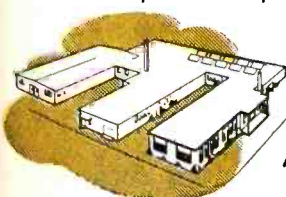
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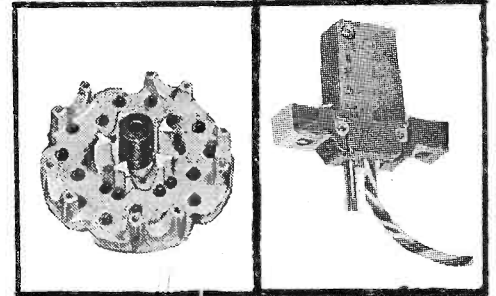
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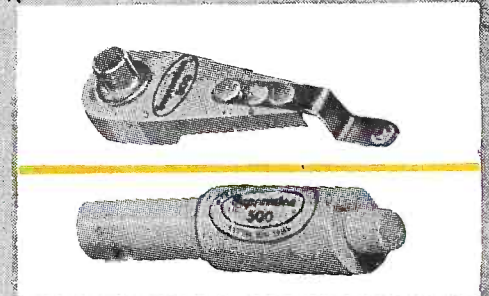


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This superior ceramoplastic insulation features . . . continuous operation at temperatures up to 950°F . . . complete dimensional stability . . . moldable to precision tolerances . . . positive bonding to metal inserts . . . low electrical

loss . . . very high arc resistance . . . no carbonization . . . resistance to moisture, oil and organic solvents . . . permanent radiation resistance . . . high dielectric strength . . . thermal expansion coefficient same as steel.

TYPICAL APPLICATIONS



SUPRAMICA® 500 IS MACHINEABLE!

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The GRAPHALLOY process was patented over 40 years ago and the name GRAPHALLOY has been our registered trademark since that time. While this company has been selling GRAPHALLOY for over 40 years, recent developments have added materially to its properties. Over 200 grades are now used in a wide variety of applications. Silver GRAPHALLOY Brushes on 1/2"-diameter coin silver slip rings have been used successfully in highly critical electrical circuits at speeds up to 100,000 R.P.M. Our Engineering Department will assist in determining the exact grade of GRAPHALLOY for your needs. Ask for our Brush Inquiry Form 109.

BRUSH and SPRING ASSEMBLY

Silver GRAPHALLOY Brushes are available for the standard Brush Holders described in the next column. Springs are supplied, as part of the assembly, to give the correct brush pressure for each brush application. Shunts are provided to insure extremely low electrical noise level and for carrying heavy currents.

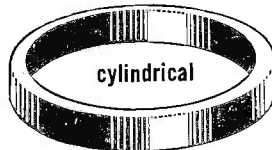


COIN SILVER SLIP RINGS

Standard Coin Silver Slip Rings, both cylindrical and flat types, are illustrated below. We recommend the cylindrical type ring with three brushes per ring... spaced at 120°. The cylindrical type are designed for press fitting over standard steel shafting. The flat type rings are designed for nesting either on an insulated plate or for molding into insulation. Insulated slip rings of either type or slip ring assemblies can be furnished with leads attached.



Standard "Flat" rings have 1/4" radial contact surface and 1/8" radial spacing between adjacent rings.

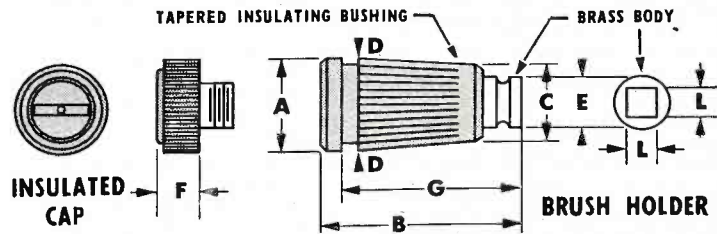


Part No.	OD	ID	Thickness
168-20	1 1/4	3/4	3/16
168-32	2	1 1/2	3/16
168-44	2 3/4	2 1/4	3/16
168-56	3 1/2	3	3/16
168-68	4 1/4	3 3/4	3/16
168-80	5	4 1/2	3/16
168-92	5 3/4	5 1/4	3/16
168-104	6 1/2	6	3/16
168-116	7 1/4	6 3/4	3/16
168-128	8	7 1/2	3/16
168-140	8 3/4	8 1/4	3/16
168-152	9 1/2	9	3/16
168-164	10 1/4	9 3/4	3/16
168-176	11	10 1/2	1/4
168-188	11 3/4	11 1/4	1/4
168-200	12 1/2	12	1/4
168-212	13 1/4	12 3/4	1/4
168-224	14	13 1/2	1/4
168-236	14 3/4	14 1/4	1/4
168-248	15 1/2	15	1/4
168-260	16 1/4	15 3/4	5/16
168-272	17	16 1/2	5/16
168-284	17 3/4	17 1/4	5/16
168-296	18 1/2	18	5/16
168-308	19 1/4	18 3/4	5/16
168-320	20	19 1/2	5/16

Part No.	OD	ID	Width
116-4**	1/4	.127/ .123	3/16
116-6**	3/8	.252/ .248	3/16
116-8**	1/2	.377/ .373	3/16
116-10**	3/4	.502/ .498	3/16
116-12**	3/4	.627/ .623	3/16
116-14**	7/8	.752/ .748	1/4
116-16**	1	.877/ .873	1/4
116-18**	1 1/8	1.000/ .996	1/4
116-19	1 1/8	1.000/ .996	1/4
1165-23	1 1/8	1.250/ 1.246	1/4
1165-27	1 1/4	1.500/ 1.496	1/4
1165-35	2 3/16	2.000/ 1.996	1/4
1165-43	2 1/4	2.500/ 2.496	1/4
1165-52	3 1/4	3.000/ 2.996	5/16
1165-60	3 3/4	3.500/ 3.496	5/16
1165-68	4 1/4	4.000/ 3.996	5/16
1165-76	4 3/4	4.500/ 4.496	5/16
1165-84	5 1/4	5.000/ 4.996	5/16
1165-92	5 3/4	5.500/ 5.496	5/16
1165-102	6 3/8	6.000/ 5.996	5/16
1165-118	7 3/8	7.000/ 6.996	5/16
1165-134	8 3/8	8.000/ 7.996	5/16
1165-150	9 3/8	9.000/ 8.996	5/16
1165-166	10 3/8	10.000/ 9.996	5/16

**Available also in coin silver. .025" thick inlaid over brass. For inlaid omit "S" from part number.

BRUSH HOLDER and CAP



Brush Holder & Cap. No.	Brush Size	Suggested Minimum Ring Width	**Mounting Hole Diameter	Distance of Brush Holder to Slip Ring	A	F	B	C	G	D	L
14326	1/8 sq.	3/16	1 3/32	1/16 min.	.437	3/16	7/8	.406	2 5/32	.416	.130
11509*	5/32 sq.	3/16	1 3/32	1/16 min.	.437	3/16	7/8	.406	2 5/32	.416	.160
11570*	3/16 sq.	1/4	7/16	1/16 min.	.484	3/16	7/8	.438	2 5/32	.450	.193
11527*	1/4 sq.	5/16	9/16	1/8 min.	.615	3/16	1 5/16	.563	1 3/16	.573	.256

Other sizes available.

*Shunts are provided. **Mounting hole diameter for brush holder dimension D.

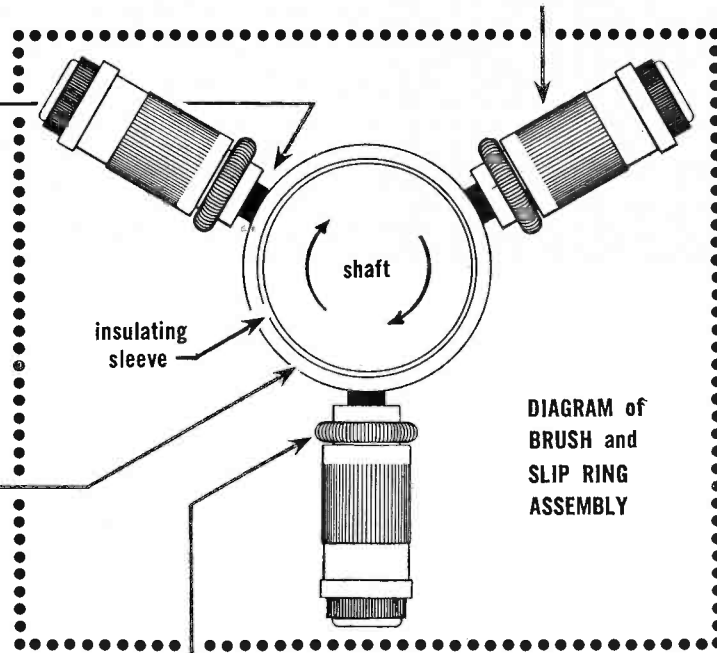


DIAGRAM of BRUSH and SLIP RING ASSEMBLY



CONNECTORS (garter springs)

Garter Spring Connectors	Brush Size	Brush Holder No.
127-9	1/8 sq.	14326
127-9	5/32 sq.	11509
127-10	3/16 sq.	11570
127-14	1/4 sq.	11527

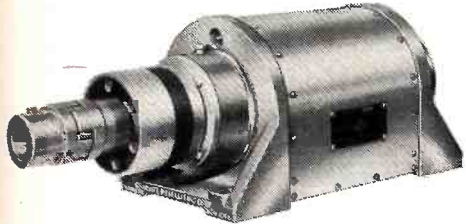
These silver plated coil spring Connectors make for positive electrical connection to the brass body of the brush holder by snapping into the groove on the holder. The connecting lead can be pre-soldered to the Connector.

CALL ON OUR OVER 40 YEARS OF DESIGN EXPERIENCE FOR HELP IN SOLVING YOUR BRUSH PROBLEMS!

... and SILVER GRAPHALLOY brush assemblies

for your "TOUGH"
electrical
requirements

Model 399 GRAPHALLOY BRUSH and SLIP RING ASSEMBLY



Part	Rings	Width	Bolt Slot Centers Length	Overall Length**
399-4	4	3 1/2	6 1/8	13 1/4
399-6	6	3 1/2	7 5/8	14
399-10	10	3 1/2	9 1/8	15 1/2
399-14	14	3 1/2	10 5/8	17

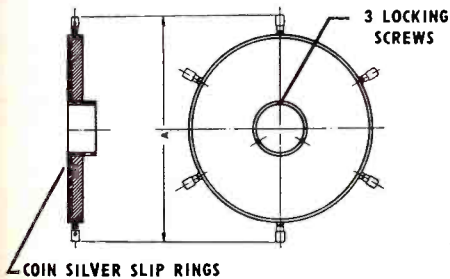
**To outer end of coupling.

Applications: from strain gage or thermo-couple up to 3 amperes, 125 volts, 250°F. Speeds to 5,000 RPM.

Three Silver-GRAPHALLOY Brushes per solid coin silver slip ring.

Extraneous noise level extremely low. Rugged in design and construction. Readily connected mechanically and electrically.

Complete coupling provided for 1 5/16" shaft. More rings and higher speeds available upon application.



GRAPHALLOY CONTACTS

GRAPHALLOY, because of its inherent non-welding and arc-quenching characteristics, is used widely for contacts...especially where positive breaking of a circuit is required.



STANDARD SOLID COIN SILVER CYLINDRICAL SLIP RING ASSEMBLY



Part	Rings	Length
319-4	4	2 9/16
319-6	6	3 5/16
319-10	10	4 1 3/16
319-14	14	6 7/16

Slip ring O.D. 1 5/8". Terminal O.D. 4". Range: Same as for Model 399.

STANDARD SOLID COIN SILVER FLAT SLIP RING ASSEMBLY

Part	Rings	Overall O.D.—"A"
409-2	2	5 1/2
409-4	4	7
409-6	6	8 1/2
409-10	10	11 1/2

To 3 amperes, 125 volts. More rings available upon application.

GRAPHALLOY BUSHINGS

With military requirements demanding operation from -100° to +250°F., GRAPHALLOY Bushings, which are inherently oilless, have been used successfully in potentiometers, synchros, cameras, instruments and missiles. Properly designed GRAPHALLOY Bushings will take considerable shock (50 g.). They have replaced oil-lubricated bushings for the following reasons:

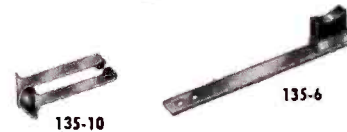
- 1) Lower friction at room temperatures.
- 2) No oil to solidify at low temperatures.
- 3) No oil to carbonize at prolonged elevated temperatures.

Ask for Data Sheets 270 and 277 on Miniature, Bronze-GRAPHALLOY Bushings.

GRAPHALLOY BRUSHES

are used on
such equipment as...

- SERVO SYSTEMS
- SYNCHROS
- SELSYNS
- CHOPPERS
- RADAR
- GYROS
- INVERTERS
- PULSE SYSTEMS
- GUIDED MISSILES
- DIGITAL COMPUTERS
- WAVE GUIDES
- SONAR
- TRANSDUCERS
- TORQUE INDICATORS



"We Specialize in
Special Designs"

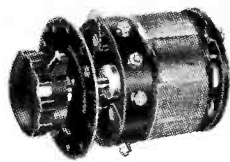
OUR ENGINEERING DEPARTMENT WILL
DEVELOP OR ASSIST YOU IN DEVELOPING
SPECIAL COMPONENTS AND ASSEMBLIES

GRAPHITE METALLIZING CORPORATION

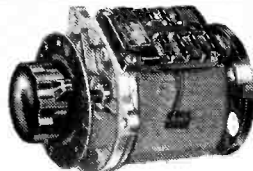
1053 NEPPERHAN AVE.
YONKERS, N. Y.



TYPE 10
INPUT: 120 volts, 60 cycle, 1 phase. OUTPUT: 0-120/132 volts, 1.25 amperes, .165 KVA. For Back-of-Panel.



TYPE 20
INPUT: 120 volts, 60 cycle, 1 phase. OUTPUT: 0-120/140 volts, 3.0 amperes, .42 KVA. For Back-of-Panel.



TYPE 116U
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-120/140 volts, 7.5 amperes, 1 KVA. For Back-of-Panel.

Excellent Regulation



TYPE 116
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-140 volts, 7.5 amperes, 1 KVA. Enclosed with Cord-Plug, Receptacle, Fuse, Switch.



TYPE 3PN116
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-140 volts, 7.5 amperes, 1 KVA. Third Wire Grounded.

POWERSTAT®

Variable Transformers

STANDARD TYPES meet even the most unusual conditions

The most extensive line of variable transformers is POWERSTAT. Only the POWERSTAT line offers the innumerable standard air-cooled types for manually-operated or motor-driven duty; the oil-cooled models; the explosion-proof units. Look to POWERSTAT for the complete line of variable transformers of the highest quality . . . designed, engineered and manufactured to provide long, dependable service.



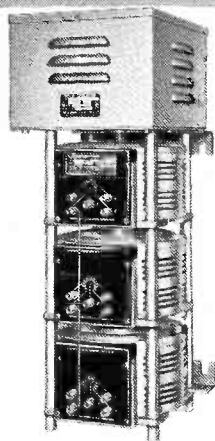
TYPE 136
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-120/140 volts, 20.0 amperes, 2.8 KVA. Exposed Terminal Connections.

High Efficiency



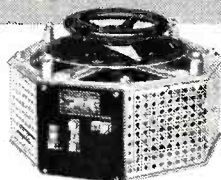
TYPE 2PF136
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-120/140 volts, 20.0 amperes, 2.8 KVA. With Cord-Plug, Fuse, Receptacle.

Manual and Motor-Driven Operation



TYPE 15M136-3Y
INPUT: 240 volts, 60 cycle, 3 phase. OUTPUT: 0-240/280 volts, 20 amperes, 9.7 KVA. Motor-Driven for Remote Control.

Conservative Ratings

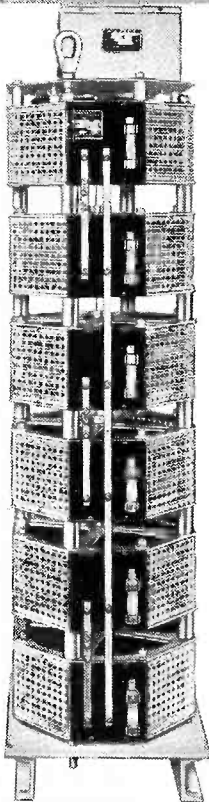


TYPE 1156
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-140 volts, 45 amperes, 6.3 KVA. For Heavy Duty.

Rugged Construction

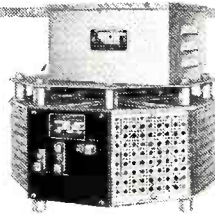


TYPE 1126-1001
INPUT: 115 volts, 400/800 cycle, 1 phase. OUTPUT: 0-130 volts, 15 amperes, 1.95 KVA. With a Dust-Proof Container.

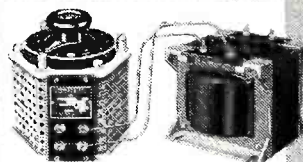


TYPE MW1156-6Y
INPUT: 240 volts, 60 cycle, 3 phase. OUTPUT: 0-280 volts, 90 amperes, 43.6 KVA. Motor-Driven for Easy Operation.

120, 240, 480 Volts — Single & Three Phase



TYPE MZ1156
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-140 volts, 45 amperes, 6.3 KVA. Motor-Driven for Remote Control.



TYPE 2106LC
INPUT: 95-135 volts, 50/60 cycle, 1 phase. OUTPUT: 115 volts, 52 amperes, 6.0 KVA. Limited Output Range or A Line Corrector.

Effortless Control of Power



TYPE O-1126
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-140 volts, 30 amperes, 4.2 KVA. For Oil-Cooled Operation.

Air-Cooled Oil-Cooled Explosion-Proof



TYPE X-1126
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-140 volts, 12 amperes, 1.7 KVA. Explosion-Proof for Hazardous Locations.



TYPE 10-1002
INPUT: 120 volts, 50/60 cycle, 1 phase. OUTPUT: 0-120 volt, 1.25 amperes, .15 KVA. Complete Rotation.

THE SUPERIOR ELECTRIC COMPANY

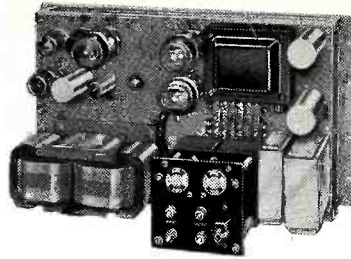
For a constant
output voltage
from a-c power lines

STABILINE[®]

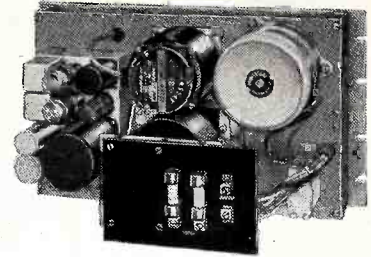
Automatic Voltage Regulators

STANDARD TYPES are available to fulfill the most exacting needs of automatic voltage regulation

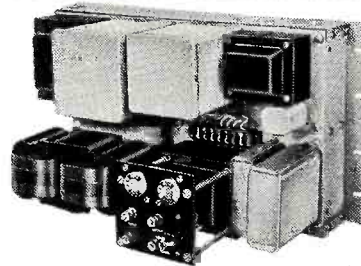
STABILINES maintain a constant output voltage regardless of line or load changes. Type IE is completely electronic without moving parts; Type EM corrects faster than most regulators and maintains constant voltage to large loads without waveform distortion; Type TM, without tubes or moving parts, provides constant voltage regardless of line voltage or load changes. For the solution of automatic voltage regulation problems, check STABILINE.



TYPE IE5101R
INPUT: 95-135 volts, 60 cycle, 1 phase. OUTPUT: 115 volts, 8.5 amperes, 1.0 KVA. Instantaneous Electronic. No Moving Parts.

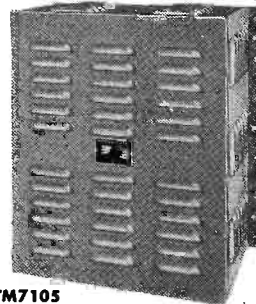


TYPE EM4102R
INPUT: 95-135 volts, 50/60 cycle, 1 phase. OUTPUT: 115 volts, 17.5 amperes, 2.0 KVA. Electro-Mechanical with Zero Waveform Distortion.

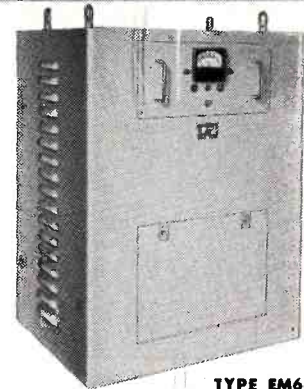


TYPE TM7101R
INPUT: 95-135 volts, 60 cycle, 1 phase. OUTPUT: 115 volts, 1.0 KVA. Tubeless Magnetic with No Moving Parts.

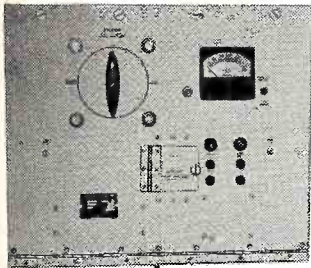
Three Types
to
Suit Individual
Applications



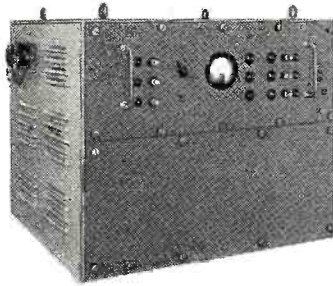
TYPE TM7105
INPUT: 95-135 volts, 60 cycle, 1 phase. OUTPUT: 115 volts, 5.0 KVA. Tubeless Magnetic without Transistors, Tubes or Moving Parts.



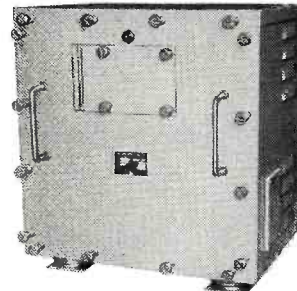
TYPE EM64100Y
INPUT: 420-500 volts, 50/60 cycle, 3 phase. OUTPUT: 460 volts, 131 amperes, 100 KVA. Electro-Mechanical for Large Industrial Loads.



TYPE EM10004
INPUT: 195-255 volts, 50/60 cycle, 1 phase. OUTPUT: 230 volts, 24 KVA. Electro-Mechanical Designed for MIL-E-16400.



TYPE EM10002
INPUT: 105-135 volts per phase, 55/65 cycle, 3 phase. OUTPUT: 120 volts, 55.5 amperes, 20 KVA. Electro-Mechanical Meets MIL-E-4158.



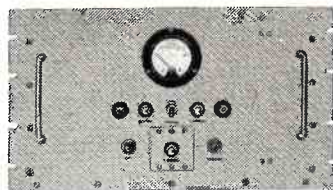
TYPE EM10006
INPUT: 385-490 volts, 45/65 cycle, 1 phase. OUTPUT: 440 volts, 2.2 KVA. Electro-Mechanical Meets U. S. Navy Specifications 16-E-4 and 40-T-9.



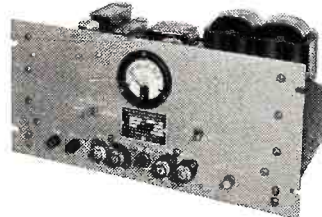
TYPE IE51002
INPUT: 95-135 volts, 60 cycle, 1 phase. OUTPUT: 115 volts, 2.2 amperes, .25 KVA. Completely Electronic Portable with Cord-Plug Receptacle.



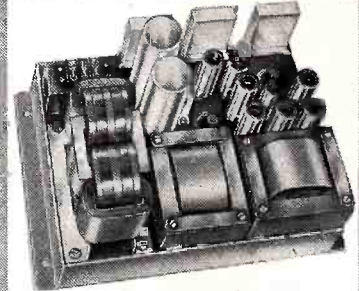
TYPE EM10003
INPUT: 80-115 volts, 50/60 cycle, 1 phase. OUTPUT: 115 volts, 2.0 KVA. Electro-Mechanical for Normally Low Input Voltages.



TYPE EM10009
INPUT: 184-229 volts, 410 cycle $\pm 5\%$, 3 phase. OUTPUT: 203-213 volts, 14 amperes, 5.0 KVA. Electro-Mechanical Meets Specification MIL-E-4158.



TYPE IE20003
INPUT: 95-135 volts, 60 cycle $\pm 10\%$, 1 phase. OUTPUT: 115 volts, 8.5 amperes, 1.0 KVA. Completely Electronic for Military Applications.



TYPE IE20002
INPUT: 190-250 volts, 50/60 cycle, 1 phase. OUTPUT: 230 volts, .15 KVA. Completely Electronic, withstands High Humidity.



4000 MIDDLE STREET, BRISTOL, CONNECTICUT

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Variplotter, Model 1100 (table model). Send for special flyer



Dataplotter system Type 3033 A. Special flyer on request.

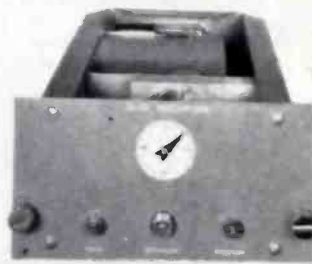


Variplotter Model 205 J&H. Get special flyer

FOR PROGRESS



Six Channel Recorder, Model 1902A. Ask for special specification flyer.

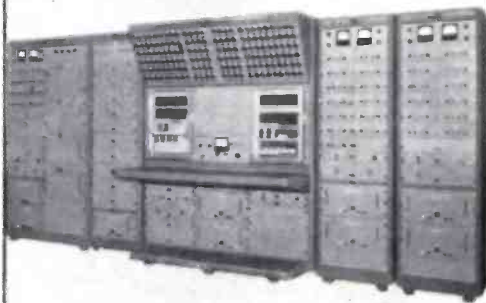


Servo Multiplier Type 16-7S(1). Specification flyer available



Electronic Multiplier Type 16-31T. Send for specification flyer.

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RED DOT RELAYS—NEW low cost timing relay for Industrial Controls, Heating Equipment, Communications, Air Conditioning, Electronics. Available from stock in standard heater voltages and time delays.

HERMETICALLY SEALED TYPE—Adjustable time delay • Miniature and octal sizes—metal shells • Time Delays—1/10 sec. to 5 min. • Heater voltages up to 230 • Fully temperature compensated • For industrial and military applications • Contact ratings up to 6 amp.

TYPICAL USES Delaying plate voltage application • Producing hold-over interval after interruption of power • Delaying automatic shut-down until a fault has continued for a specified period.



Notably Efficient • Widely Used



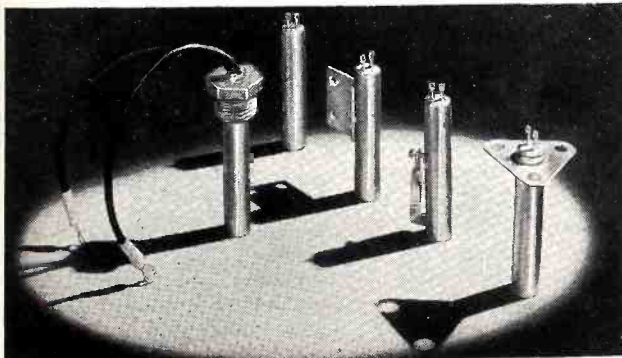
Precision Thermal Devices

A quality line skillfully designed and thoroughly field-tested.

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Greatly expanded production facilities assure prompt deliveries.



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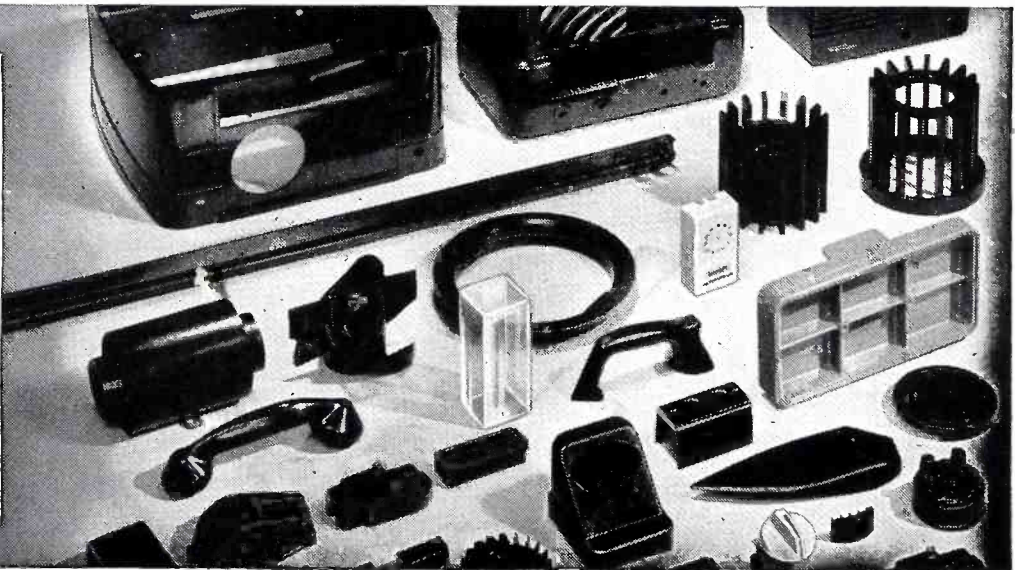


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Complete facilities for punching or machining parts to your design and in any quantity.

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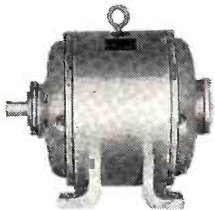
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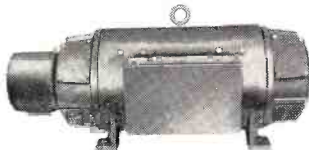
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High Frequencies
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Standard Voltage
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Phase Converters
Frequency Converters



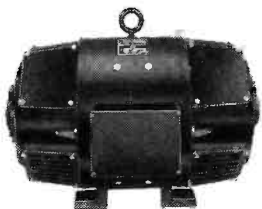
GENERATOR SETS

(to 20 KW)
High Frequency (to 30,000 cy)
400 Cycle
Frequency Changers
Phase Converters
Low Voltage DC
High Voltage DC (5000 V)
DC to DC; AC to AC
AC to DC; DC to AC
High to Low Frequency
Low to High Frequency
Telephone Ringing
Moving Picture



GENERATORS

(to 20 KW)
Alternating Current
Single Phase
Polyphase
Standard Frequency
High Frequency
Inductor Alternators
Permanent Magnet
Direct Current
Low Voltage
Plating
High Voltage



DYNAMOTORS

DC to AC
DC to DC

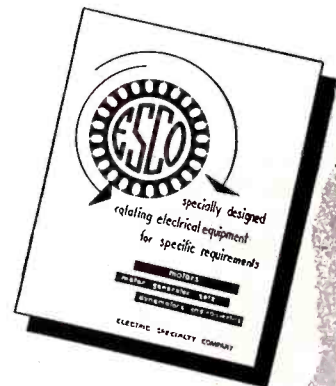
DESIGN FACTORS: Every special need is prompted by requirements which cannot be met by standard units. As a check list for yourself and to assist our engineers in answering your inquiries, please include details of any critical requirements listed below:

ELECTRICAL CHARACTERISTICS:

MOTORS — Horsepower • Torque • Speed • Duty Cycle • Power Supply Voltage • Power Supply Frequency & Phase (AC)
GENERATORS — Voltage limits or adjustable range • Frequency limits or adjustable range (AC) • Watts or KW output • Number of phases (AC) • Load Power Factor (AC) • Speed • Type of Driving Motor • Excitation

MECHANICAL CHARACTERISTICS: Where critical, please indicate size, weight and mounting limitations; shaft lengths, keyways or splines, etc.; material; insulation; finish; environmental conditions or other special requirements.

Write today for free catalog 56 PD . . . we may already have the particular motor or generator you need!

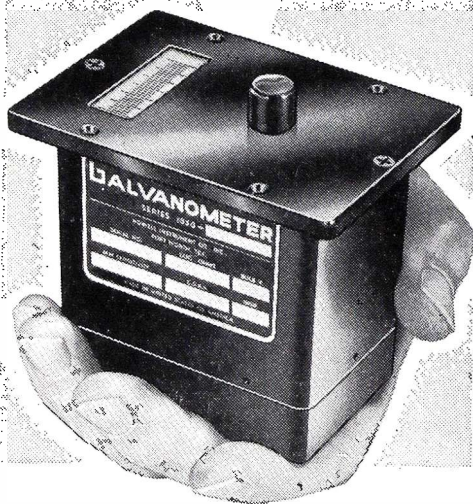


ELECTRIC SPECIALTY

178 SOUTH STREET

STAMFORD, CONN.

DO YOU NEED
a really
RUGGED*
COMPACT
SENSITIVE
LIGHT-BEAM
GALVANOMETER



this is it...

*Will take
25 G's!

Here is a new series of light-beam galvanometers that were developed to withstand the extremely severe conditions of shock and vibration encountered in field servicing and testing of jet aircraft.

Through unique folding of the light beam, great compactness is achieved while retaining sensitivity to the highest degree... *equal to that of laboratory instruments!*

These Howell Galvanometers feature excellent readability. They are readily adaptable to existing instruments. They are competitively priced.

SPECIFICATIONS:

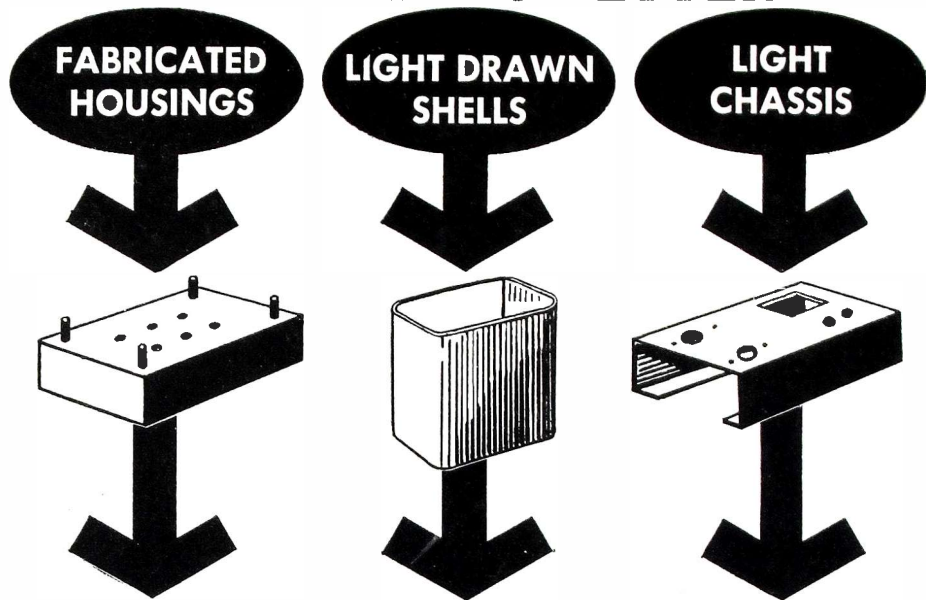
Sensitivity to .105 microamperes per millimeter. Resistances: 20, 100, 500 and 1000 ohms. Short period; high speed response. SIZE: ONLY 2.6" x 3.62" x 3.615" Sealed construction.

For full information
please write or wire



HOWELL INSTRUMENT Company
3101 Trinity St. • Fort Worth 7, Texas

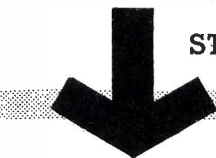
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Standard MIL-T-27 Cases
Standard YY Cases
Square Corners Radius Corners

Custom built to your specifications

STEEL - COPPER - BRASS - ALUMINUM - MU-METAL



Write for information

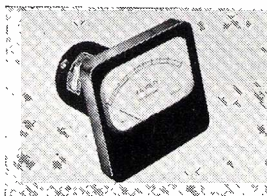
ALGO, INC.

251 West Street, Dept. E, South Hackensack, N. J.
Hubbard 7-8619 and 8638

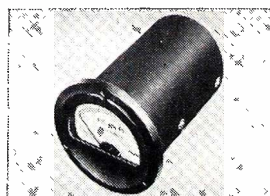
COMPACT . . . RELIABLE . . .

ELECTRONIC PANEL METERS

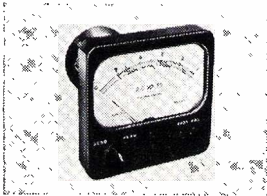
by **trio**



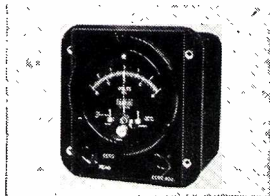
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D.C. VTVM**

- HIGH INPUT IMPEDANCE—up to 10 megohms.
- LOW LEVEL MEASUREMENTS—down to 10MV full scale.
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- TRIO Ruggedized instruments meet military test equipment specifications.

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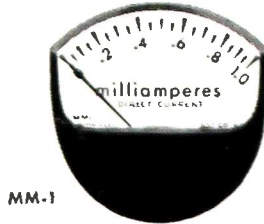
UNITED STATES GASKET COMPANY
CAMDEN 1, NEW JERSEY



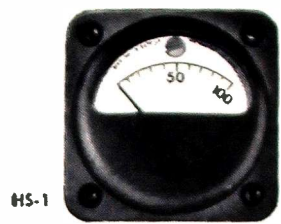
UNITED STATES GASKET COMPANY

marion

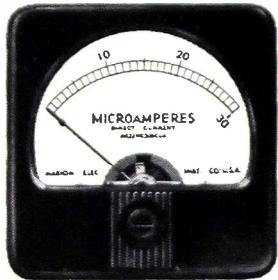
ELECTRICAL INDICATING INSTRUMENTS



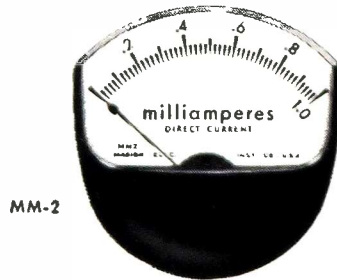
MM-1



HS-1



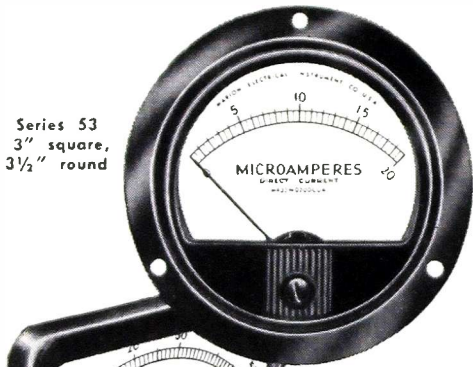
Series 52 2 1/2",
four case styles



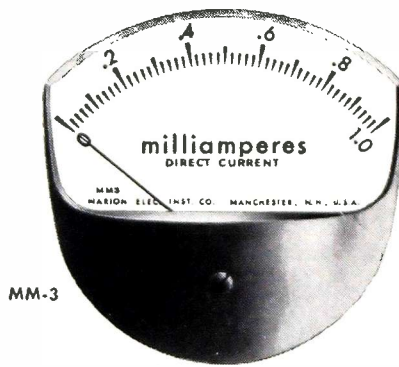
MM-2



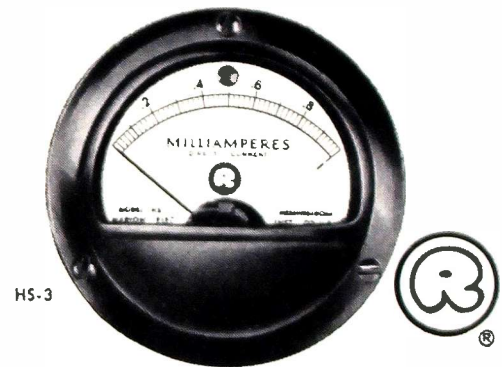
HS-2



Series 53
3" square,
3 1/2" round



MM-3



HS-3



modern MEDALIST* meters

Greater readability combined with modern, colorful styling. Scales up to 50% longer than conventional meters of same size. Many standard, special colors. MM1, MM2 and MM3 interchangeable with ASA/MIL 1 1/2", 2 1/2" and 3 1/2" sizes. All standard ranges; ua, ma, amp, mv, volt, kv, AC rectifier types.

*T.M. Reg. U.S. Pat. Off.
U.S. & Foreign Patents

ruggedized and sealed meters

Marion HS Series ruggedized meters are the original, glass-to-metal hermetically sealed, Mil-M-10304-A panel instruments. Withstand extreme shock, vibration, stress and strain. MIL 1 1/2", 2 1/2", 3 1/2" sizes. Standard ranges from stock; ua, ma, amp, mv, volt, kv, AC rectifier types.

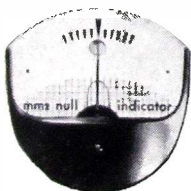
HM Series hermetically sealed meters for use in severe climatic, atmospheric conditions. Shielded, high linearity, sustained accuracy. Dust and moisture-proof; MIL 2 1/2", 3 1/2", 4 1/2" sizes.

standard meters

Series 55 4-21/32"
by 4-5/32" 100° scale

Improved performance at moderate price for commercial use. High torque. Phenolic and metal cases. Widely used in portable equipment, testers, medical and communication equipment, general electronic service.

marion RELATED PRODUCTS

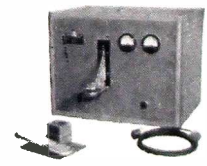


NULL INDICATORS

Unique core and magnet structure. Expanded sensitivity at null point, sharply attenuated as pointer departs from null point. Medalist type features high readability, null point mirror, many case colors. Interchangeable with ASA/MIL 2 1/2" sizes. Also available in HS Series 2 1/2", 3 1/2" round styles.

3/4" INDICATOR

Rugged, miniature indicator with easily read, colored sector disc dial. Hermetically sealed, meets MIL-E-5272A Proc. 1 vibration requirements. In all standard DC instrument sensitivities.



INDUCTION SOLDERING UNIT

Portable, bench type. Safe, simple, rapid operation. Locally heats hard-to-reach spots. Max. input 775 watts, 100 watts standby; 115 volts, 60 cycles. Dimensions 15 3/4" x 21 1/2" x 15".



ELAPSED TIME INDICATORS

Compact, low cost, tamper-proof, easily read. Shielded, hermetically sealed. Starts, operates -55° to +85°C. Registers 1/10 hour steps to 9999.9 or hour steps to 99999. ASA/MIL 2 1/2", 3 1/2" sizes. For 110-125 or 220-250 VAC, 60 cycles.

ULTRA-SENSITIVE RELAY

Rugged, reliable, weighs 1.5 oz. Utilizes Marion Coaxial mechanism. Hermetically sealed, standard 7 pin tube base. Engineering, application data on request.



*T.M. basic Marion moving coil mechanism. Pats. Pend.

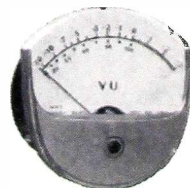


VERSATILE METER TESTER

... power supply and limit bridge. Sensitivity ranges 25 ua to 10 ma full scale; 0-100V DC; 0-5000 ohms as limit bridge. Reg. power supply, stepless v.t. voltage control. Illuminated 8 1/2" hand calibrated mirror scale. Accuracy exceeds 1/4% (current), 1/2 ohm or 1/2% (resistance). For 115V 60 cycles. Complete -- needs no accessories.

VU METERS

New Medalist style offers greater readability, choice of case, dial colors. Meets latest A.S.A. specs. Standardized response time, damping. Interchangeable with ASA/MIL 2 1/2" and 3 1/2" sizes. Also available in Series 55 models.



MM2VU

marion electrical instrument company

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SPECIALISTS IN THE DESIGN AND MANUFACTURE OF PLASTIC INSULATED CABLES

ELECTRONIC CONTROL SOUND SYSTEM

MILITARY SPECIFICATION WIRES

MIL-C-915 — Types SRI-MRI
 JAN-C-76 — Types WL-SRIR-SRHV-SRRF
 MIL-W-16878A — Types B-C-D-N
 MIL-W-76 — Types LW-FX-MW-HF-HW
 Above insulated with PVC — PVC & Nylon-
 Shielded, and PVC or Nylon Jacket. Avail-
 able in solid colors or stripes.

COAXIAL CABLES

Made to commercial Specifications as well
 as JAN-C-17A.

INTERCOM COAXIAL

REX K-F INSULATED WIRES & CABLES

Rex K-F wire insulated with trifluoromono-
 chloroethylene (Per MIL-W-12349) has excel-
 lent resistance to heat, abrasion, and most
 chemicals including nitric acid. Rated for
 continuous operation up to 150°C. It comes
 in 17 standard colors and special striping.

REX MICROWALL WIRES & CABLES

High precision miniature Nylon insulated
 wires for continuous use up to 125°C
 rated at 300 and 1000V service.

COMMUNICATION TELEPHONE

UNDERWRITER APPROVED WIRES

Types TF and TFF-AWM 80°C to 105°C.
 Approved in continuous service to 105°C.

TELEPHONE CABLES

All Plastic Types — Rural Distribution —
 Inside Cables — Aerial and Duct.

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 tomer specifications employing the use of
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 Nylon or Trifluoromonoethylene as
 insulations with temperature ratings from
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REXOLITE #2200 — NEW — A glass reinforced sheet with UHF
 electrical properties in the same general range as Rexolite #1422
 but with the added properties of good punch-ability, high impact
 strength and lower price.

REXTRUDE #105 TUBING is a polyvinyl plastic tubing having excep-
 tional insulating characteristics at high operating temperatures. It is ap-
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 sheets and rods having high heat resistance and the machinability of
 free-turning brass. Dielectric Constant 2.5 from 10² to 10¹⁰ cycles
 per second. Dissipation factor .00015 at 1 megacycle.

ELECTRICAL TUBING

REXTRUDE #1000 TUBING is a vinyl plastic tubing formulated to
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RIGID, SEMI-RIGID AND FLEXIBLE plastic extrusions.

SEND FOR COMPLETE TECHNICAL DATA.



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 please mention Electronics Buyers' Guide.



the **BIG** name in **SMALL**

SPECIALIZED ROTATING ELECTRICAL EQUIPMENT

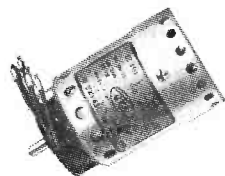
MOTORS

Induction
Synchronous
Hysteresis
Salient Pole
Permanent Magnet
Servo



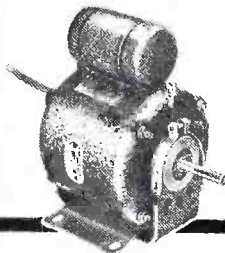
Precision Sub-Fractional & Fractional

50, 60, 400 cycles and variable frequency; single and dual frequency; single, two and three-phase operation; 1/3500 to 1/2 hp; 1" to 6 5/8" diameter.



Precision Gear Motors

50, 60, 400 cycles and variable frequency; single and dual frequency; single, two and three-phase operation; high torque; wide variety of gear ratios up to four speeds.



BLOWERS & FANS

Axial Flow & Vane Axial

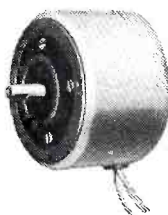


A complete line of light-weight, centrifugal blowers, ring mounted fans and vane axial fans for cooling electronic equipment or for general purpose use.

Capacities range up to 1000 cfm with special designs available for high static pressures. Single and double ended—50, 60, 400 cycle and variable frequency (360-1600 cycles).



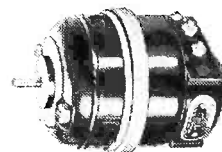
ALTERNATORS



Alternators available from 1" diameter, .01 va; to 6 5/8" diameter 800 va; power up to 400 volt-amps; wide frequency range. Low harmonic content—units are capable of delivering a sine wave with less than 2% distortion. Dual frequency units produce a combination of frequencies and voltages for special applications.

DC TACHOMETER GENERATORS

DC voltage generators provide a voltage signal proportional to speed, with high linearity for tachometer and control applications.



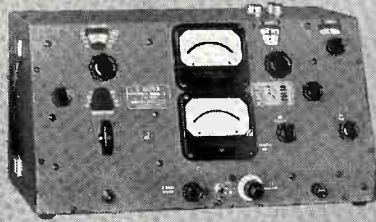
Eastern Air Devices, Inc. 397 Central Avenue
Dover, New Hampshire

"QUALITY STANDARD OF THE INDUSTRY"

PRECISION ELECTRONIC TEST and MEASURING INSTRUMENTS



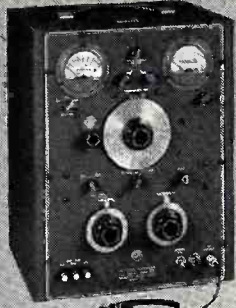
Q METER TYPE 190-A



Q METER TYPE 260-A



RX METER TYPE 250-A



FM-AM SIGNAL GENERATOR
TYPE 202-B



SWEEP SIGNAL GENERATOR
TYPE 240-A



RF VOLTAGE STANDARD
TYPE 245-B



METAL FILM GAUGE TYPE 255-A

Q METERS						
Type	Freq. Range	Q Range	Tuning Capacity Range	Q Accuracy	Price	
260-A	50 kc to 50 mc	10 to 625	30-450 mmf	5% to 30 mc	\$725.	
190-A	20 mc to 260 mc	5 to 1200	7.5 to 100 mmf	7% to 100 mc	\$625.	
FM-AM SIGNAL GENERATORS						
Type	Freq. Range	Output Range	Modulation FM AM		Application	Price
202-B	54-216 mc	0.1 to 200,000 μ v	0-240 kc	0-50%	General	\$975.
202-C	54-216 mc	0.1 to 200,000 μ v	0-240 kc	0-50%	Mobile	\$1090.
202-D	175-250 mc	0.1 to 200,000 μ v	0-240 kc	0-100%	Telemetry	\$980.
SWEEP SIGNAL GENERATOR						
Type	Freq. Range	Output Range	Modulation FM AM		Markers	Price
240-A	4.5 to 120 mc	1.0 to 300,000 μ v	\pm 1% to \pm 30% Center Freq.	30%	Crystal & Pip.	\$1375.
OMNI-RANGE SIGNAL GENERATOR (Crystal Monitored)						
Type	Freq. Range	Output Range	Modulation	Application		Price
211-A	88-140 mc	0.1 to 200,000 μ v	0-100% am	Omni-Range Rcvrs.		\$1800.
GLIDE SLOPE SIGNAL GENERATOR						
Type	Freq. Range	Output Range	Modulation	Application	Price	
232-A	329-335 mc	1.0 to 200,000 μ v	0-100% am	Glide Slope Rcvrs.	\$1500.	
WIDE BAND IMPEDANCE MEASURING EQUIPMENT—RX Meter						
Type	Freq. Range	R Range	C Range	L Range	Price	
250-A	0.5 to 250 mc	15 to 100,000 ohms	0-20 μ uf	0.001 μ h-100 mh	\$1250.	
RF VOLTAGE STANDARD						
Type	Freq. Range	Calibrated Out.	Output Impedance	Application Calibrates	Price	
245-B	0.1 to 1,000 mc	0.5, 1.0, 2.0 μ v	50 ohms	Signal Generators	\$325.	
UNIVERTERS						
Type	Freq. Range	Output Range	Modulation FM AM		Accessory to	Price
207-A	0.1 to 55 mc	0.1 to 100,000 μ v	0-240 kc	0-50%	202-Band 202-C	\$345.
207-B	0.1 to 55 mc	0.1 to 100,000 μ v	0-240 kc	0-50%	202-D	\$345.
203-B	0.1 to 25 mc	1.0 to 100,000 μ v	1.5 to 30 mc	30%	240 A	\$345.
METAL FILM GAUGE						
Type	Measures		Thicknesses		Price	
255-A	Non-magnetic Metals		0.000004" to 0.002"		\$450.	

RX METER:

Wide Frequency Band RF Bridge

Q METERS:

Low, Medium, High and Very High Frequencies

UNIVERTERS:

Low, Medium and High Frequency Converters

SIGNAL GENERATORS:

Frequency and Amplitude Modulated for Aircraft Navigation, Mobile and TV Receivers, Precision broad band sweeps with markers

SIGNAL GENERATOR

CALIBRATORS:

RF Voltage Standard in the low microvolt range over a wide frequency range

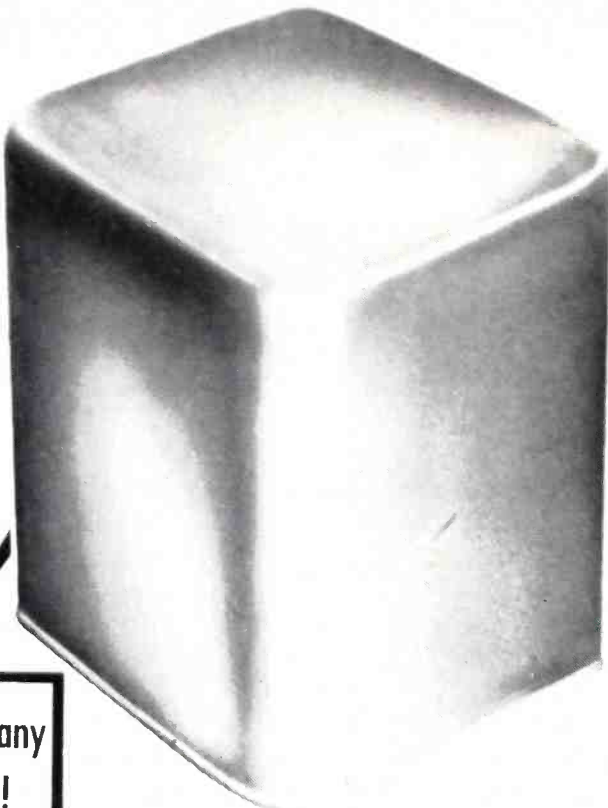
METAL FILM GAUGE:

Measures metal film and plating thicknesses


BOONTON
BRC RADIO CORPORATION
 Boonton, New Jersey

NEW

Heldor
**DRAWN
CANS**



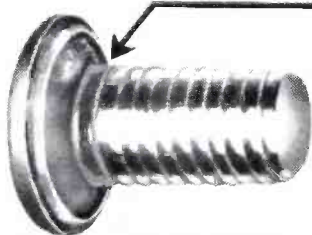
ALL STANDARD MIL-T-27A and many
Civilian Sizes NOW AVAILABLE !

HELDOR'S new and enlarged production facilities now include complete dies for the drawing of cans and covers to all standard MIL-T-27A sizes. Tooling may be available for your requirements. If not, HELDOR provides tooling facilities for other draws.

Whether you require drawn or fabricated cans, you'll find HELDOR the first source for quality, service and economy.

See for yourself! Send us your "specs" or prints for money-saving quotations on existing or custom-made sizes.

NEW



SINGLE-ENDED
MOUNTING STUD

Pilot insures positive centering, making possible the holding of fixed mounting centers.



DOUBLE-ENDED
MOUNTING STUD

Heldor
carbon or stainless steel
**MOUNTING
STUDS**

HELDOR now makes available single and double-ended mounting studs of carbon or stainless steel which definitely cut production costs. The unique Heldor design (see illustration above), with shoulder acting as a pilot in locating mounting centers, eliminates the need for locating fixtures at stud welding. This lowers production costs and eliminates rejects. And, HELDOR Mounting Studs cost initially less than ordinary ones. Why be satisfied with less than the best?

Write for prices for the *sizes you require.

with *Heldor*
MOUNTING PILOT

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- Hermetic seal LOCK-IN, non-twist Terminals as well as standard compression types.
- Custom metal cabinets, chassis, brackets and panels.
- Centrifugal hot finning and other finishes.
- A complete hermetic seal assembly service!

*Popular sizes in stock. Minimum quantity orders of 25,000 pieces on custom sizes.

HELDOR MANUFACTURING CORPORATION



238 Lewis Street



Paterson, N. J.





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 — a high gain, wide band scope with identical amplifiers, ideal for phase measurements, frequency comparisons, and *all-purpose* visual wave form analysis. Choice of a-c or d-c coupling — excellent square wave reproduction, overshoot 2 to 5% — rise time 0.1 microsecond. Sensitivity (both amplifiers) 15 millivolts per inch RMS — band pass characteristics within 3 db at 4.5 megacycles.



Weston TUBECHICKER (Model 981)
 — standard throughout industry since 1926. Filtered d-c potentials provide better Gm accuracy. Voltage divider network for better grid bias settings. The four signal levels provided protect against excessive grid current surges. Provision for tube interelectrode leakage measurements as high as 10 megohms.



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 — ideal for recording current variations — monitoring radio detectors — recording speeds — making life tests on batteries, lamps, etc. Employs Cormag® self-shielded mechanism — size only 6 3/4" x 6 1/4" x 7" — chart size 4" dia. Available in required ranges for a-c or d-c voltage or current measurements.

Specialized Instruments..

— to do important electronic and electrical measurement jobs better, quicker, at lower cost

WESTON Instruments

Literature on these and other Weston instruments for production, laboratory or maintenance needs, gladly sent on request.

WESTON ELECTRICAL INSTRUMENT CORPORATION
 614 Frelinghuysen Avenue, Newark 5, New Jersey



Weston 1301 Line Panel Instruments
 — a new line of 3 1/2" panel instruments employing the CORMAG® self-shielded mechanism, which provides added dependability and substantial cost-savings on built-in requirements. Instruments can be mounted on magnetic or non-magnetic panels interchangeably, and there is no magnetic intereffect when mounted in close proximity.



Weston Precision Portables (Model 901)
 — provide unequalled scale visibility due to wrap-around windows, efficient shielding, accuracy of 0.5%. Available as d-c voltmeters, volt-ammeters, ammeters and milliammeters — a-c single and 8 range voltmeters, single and 7 range ammeters, milliammeters — also a-c and d-c single phase wattmeters.



Weston All-Purpose ANALYZER (Model 980)
 — a versatile, rugged instrument with a combination of functional ranges to cover a wide range of test measurement needs. D-c sensitivity 20,000 ohms/volt, a-c sensitivity 1000 ohms/volt. Range and functional switching greatly simplified by use of a single dial. Accuracy 2% d-c; 3% a-c. Scale length 4.63" — size 6 1/4" x 7 1/2" x 3 1/4".

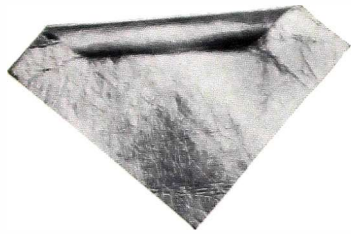


Weston Miniature CLAMP VOLT-AMMETER (Model 749)
 — light weight, pocket size, and really rugged. Employs CORMAG® self-shielded, shock-mounted mechanism. Shatter-proof Plexiglas window. One scale for all ranges and functions. Jaws take up to 1" round or 1 3/4" rectangular conductors. Ranges — current: 300/150/60/30/15/6 amperes a-c...voltage: 600/300/150 volts a-c.

microwave absorbers by

McMillan

McMillan Industrial Corporation makes various materials for the absorption of microwave energy, for indoor or outdoor use and for ground or airborne applications. Listed below are the three most popular absorbers, their typical applications, specifications and characteristics.

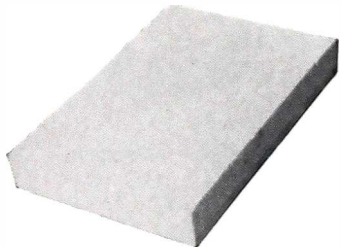


TYPE "T"
THIN — FLEXIBLE

Especially adaptable for airborne applications, the type "T" is an extremely versatile absorber where space and weight limitations are essential. Easily formed, it is impervious to effects of moisture, hydraulic fluids, gasoline etc., when edge sealed.

SPECIFICATIONS

Frequencies:	2500 to 35,000 MC.
Bandwidth:	± 3%
Power Reflection Coefficient:	
Perpendicular Polarization	2%
Parallel Polarization	4%
Perpendicular & Parallel Polarization	3%
Power Dissipation:	2 watts/sq. in.
Temperature Range:	-62°F to 172°F
Thickness & Weight:	at 9375 MC., $\frac{3}{16}$ " thick, 4.7 oz. sq. ft.
	at 5400 MC., $\frac{1}{4}$ " thick, 5.7 oz. sq. ft.
Standard Sheet Size:	18" x 36"



TYPE "BL" & "BH"
PERMANENT — LIGHTWEIGHT

Two stable absorbers whose high performance and long life is not affected by moisture, humidity and dust. Type "BL" is fine for walls, ceilings and test panels. Type "BH" is excellent for test room floors and outdoor installations, as its high absorption characteristics are unchanged when it is walked on.

SPECIFICATIONS

Frequency range:	2400 to 35,000 MC.
Power reflection coefficient:	0.4% at 24,000 MC.
(perpendicular and/or parallel polarization)	1.0% at 9,400 MC.
	2.0% at 5,400 MC.
Power dissipation:	2 watts sq. in.
Temperature range:	(type "BL") -62°F to 155°F
	(type "BH") -62°F to 175°F
Standard block size:	2 $\frac{1}{8}$ " thick, 4' long, 1' wide
Weight:	(type "BL") 1.5 lbs. sq. ft.
	(type "BH") 1.8 lbs. sq. ft.



TYPE "H"
LIGHTWEIGHT — ECONOMICAL

Recommended for indoor, temporary or portable type of panel test ranges. Lightweight — easily mounted. A good absorber for fast, accurate measurements.

SPECIFICATIONS

Frequency range:	500 to 35,000 MC.
Power reflection coefficient:	2%
(perpendicular and/or parallel polarization)	
Power dissipation:	1 watt sq. in.
Sheet size:	2' x 2'
Thickness and Weight:	(1" thick) .5 lbs./sq. ft.
	(2" thick) .65 lbs./sq. ft.
	(4" thick) .94 lbs./sq. ft.
	(8" thick) 1.9 lbs./sq. ft.
Temperature range:	-65°F to 122°F



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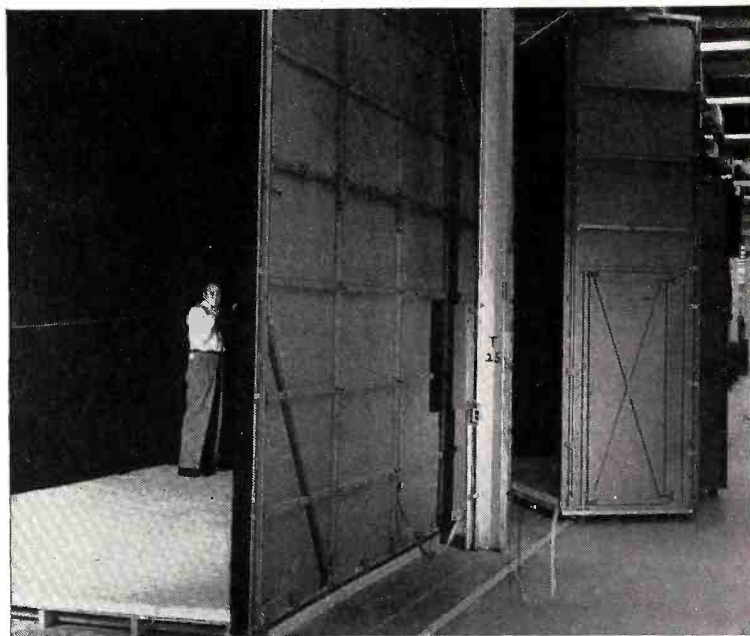
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**"free space"
 rooms . . . by**

McMillan

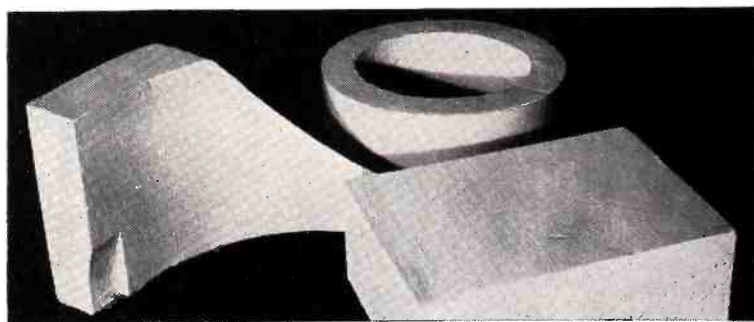


McMillan offers a **Prefabricated "Free Space" Room** which can easily be assembled, dismantled or changed in size. The room comes in "modular" units, consisting of structural steel frames 4' x 8', which are easily bolted together to form the size room for your requirements. Strong plywood panels, mounted with the proper microwave absorber, are then quickly clipped into place on the framework to form a complete portable "free space" room.

McMillan modular "free space" rooms can be produced for either indoor or outdoor use with whatever type absorber may be required. Generally, McMillan Type "BL" is used on ceiling and walls due to its light weight, while floor panels utilize McMillan Type "BH", which can be walked on without affecting its electrical performance. "Modular" panels are usually backed with copper shielding to prevent R.F. disturbance from outside.

McMillan also produces **Permanent "Free Space" Rooms** to meet your specific requirements. For such rooms, McMillan offers a complete design and consulting service in addition to the materials for the room.

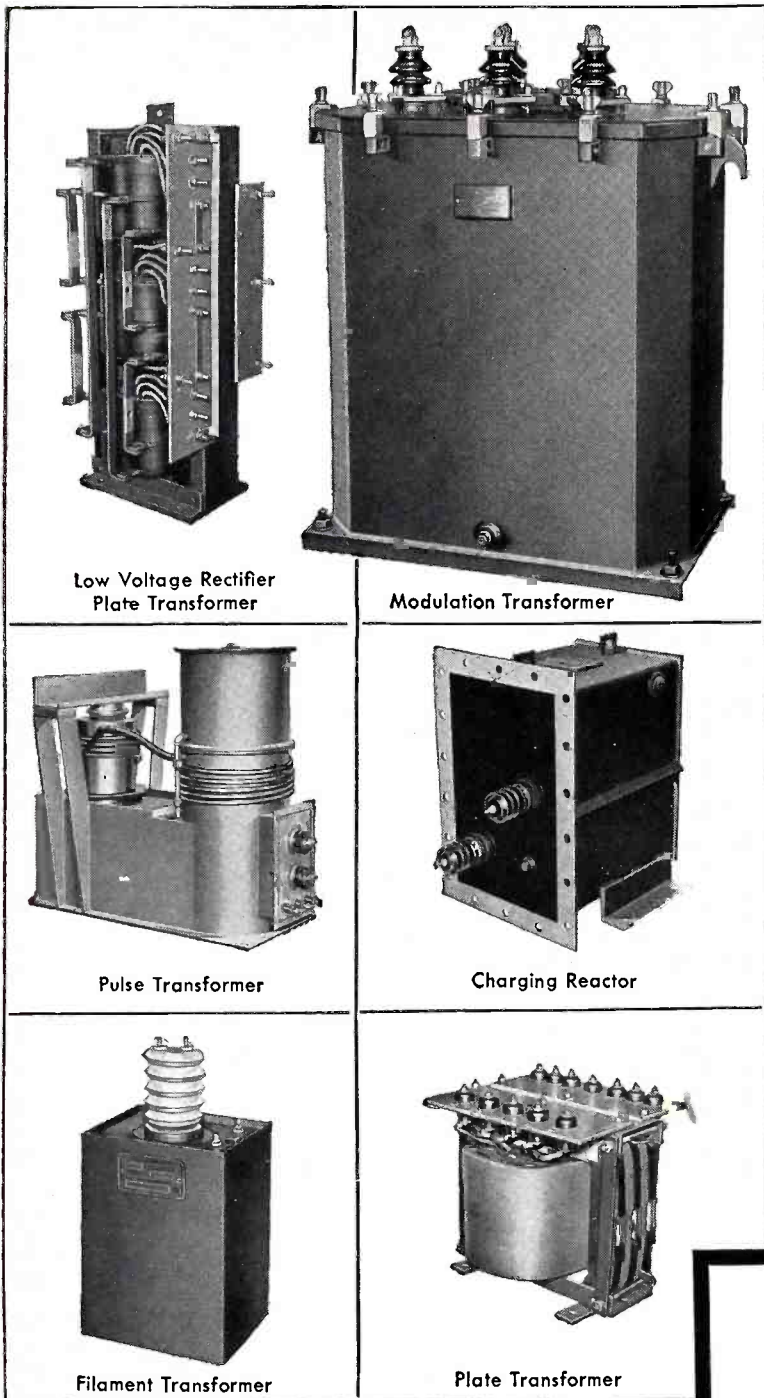
**and
 special microwave absorbers**



McMillan also designs and produces their microwave absorbers in special configurations to meet specific size and shape requirements as well as for unusual environmental and temperature conditions.



McMILLAN INDUSTRIAL CORPORATION
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Low Voltage Rectifier
Plate Transformer

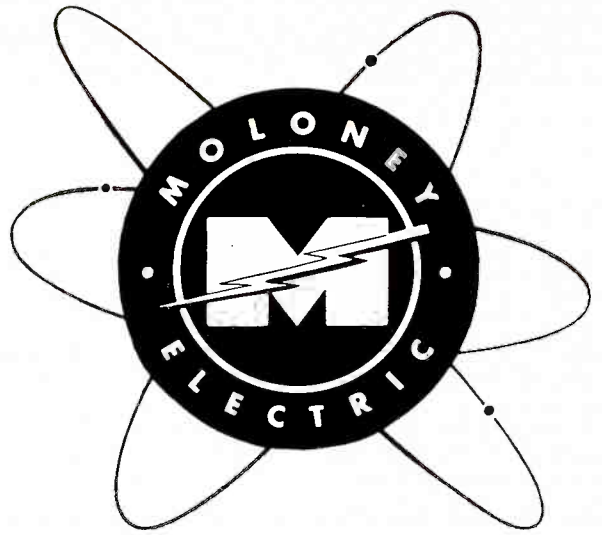
Modulation Transformer

Pulse Transformer

Charging Reactor

Filament Transformer

Plate Transformer



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Reactors • Filament Transformers • Unit Rectifiers
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Moloney engineers are pioneers in the use of grain-oriented, high permeability, silicon steel for transformer cores. This engineering background and experience enables the Moloney Electric Company to produce highest quality transformers that offer the maximum in reliability, endurance and efficiency with a minimum of size and weight.



Write for Catalog SR 206 "HyperCores for Magnetic Components" and Catalog ST 3506 "Magnetic Components for Electronic Applications"

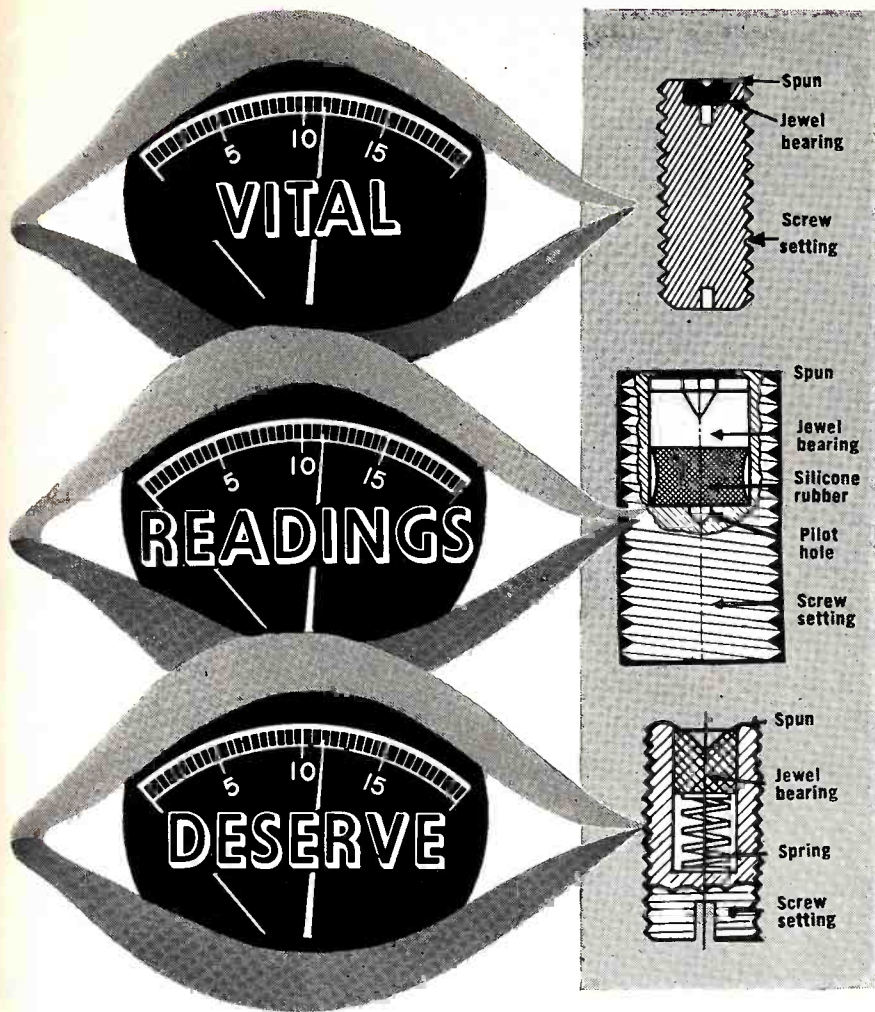


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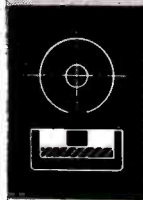
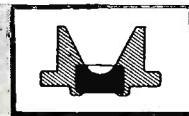
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SELENIUM



SILICON

RECTIFIERS

Selenium Power Rectifiers

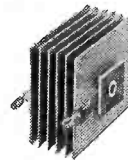
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Produced under mass production techniques but with very close quality control, Sarkes Tarzian Radio-Television type Selenium Rectifiers are the low cost answer on many medium power applications in all types of electronic equipment.



HIGH DENSITY—A new development in artificial barrier layers allows operation of rectifiers at high current density at no sacrifice of performance. Another Value-plus feature offered by Sarkes Tarzian.

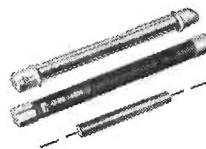
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Sarkes Tarzian embedments offer the advantages of hermetic sealing at a fraction of the size, weight and cost. Ideal for use in military equipments.



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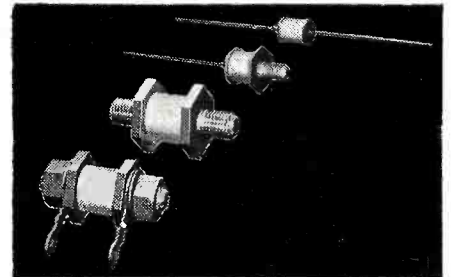


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- 5 Flexible connections eliminate shock problems.
- 6 Special pressure contact assures positive pressure under all conditions.
- 7 Pure silver contacts to avoid migration and contamination of the cell.
- 8 Three case sizes and seven terminal arrangements provide the widest range of ratings available.

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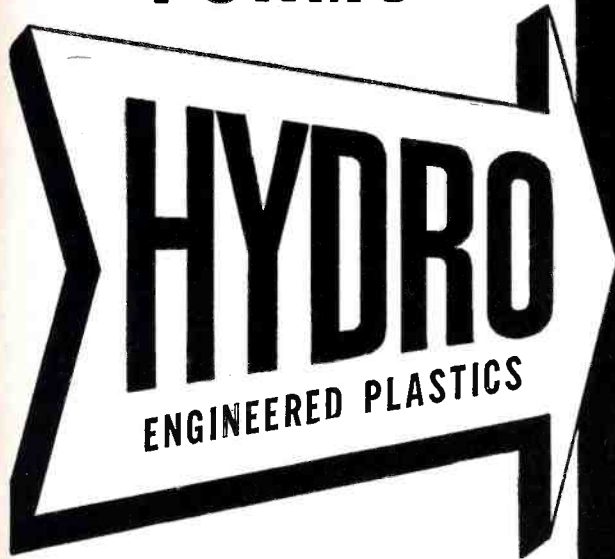
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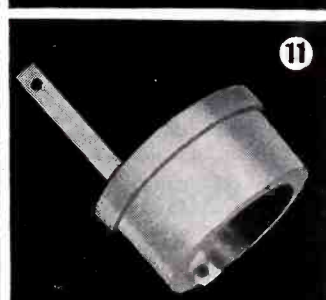
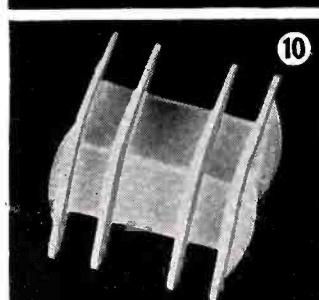
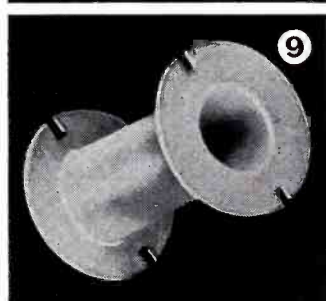
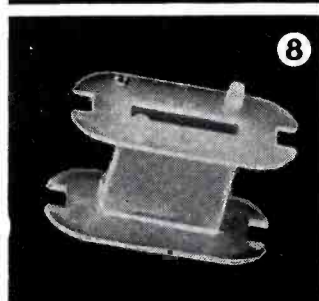
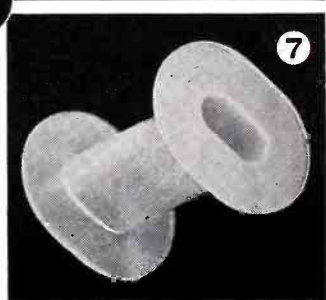
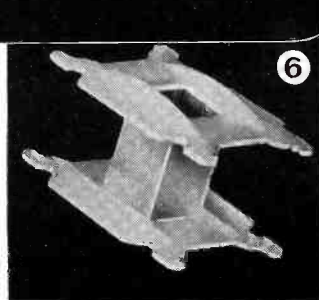
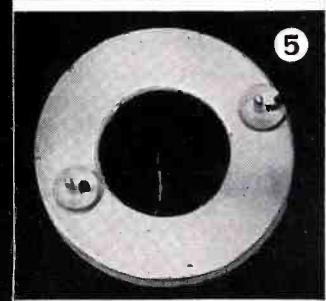
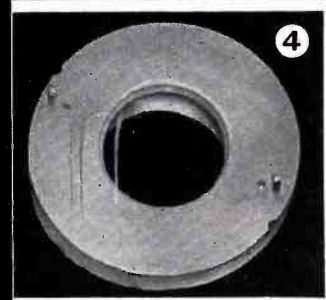
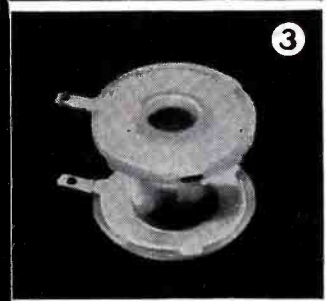
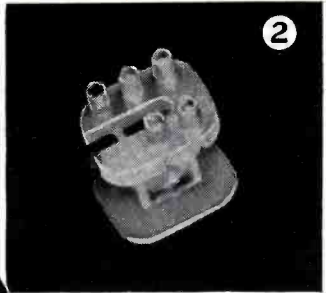
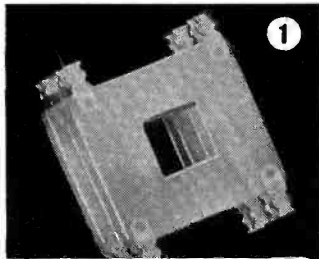
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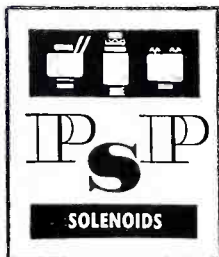
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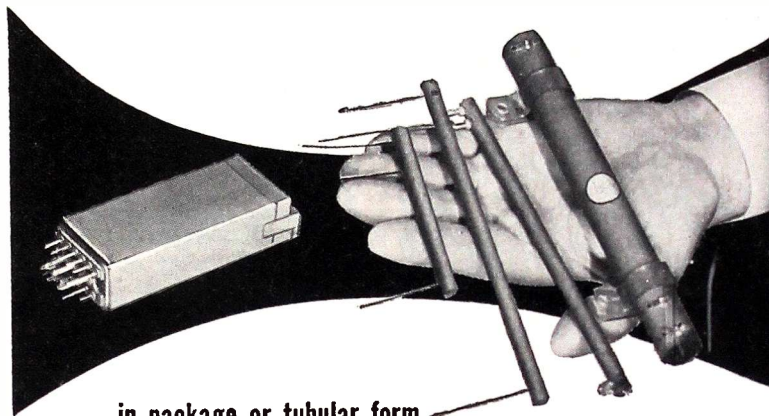
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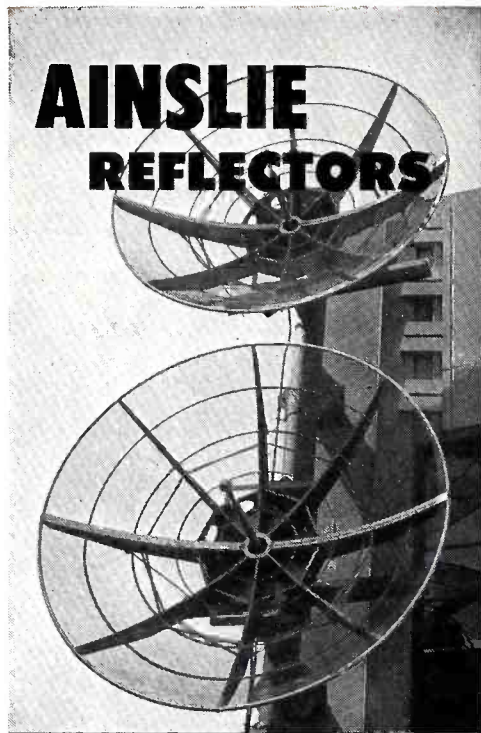
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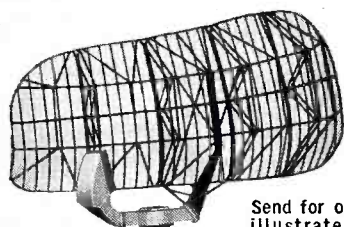
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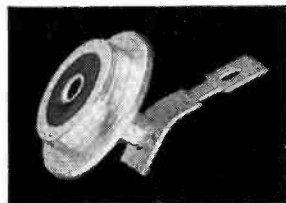


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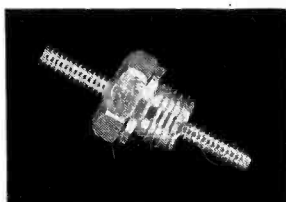
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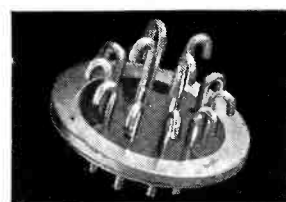
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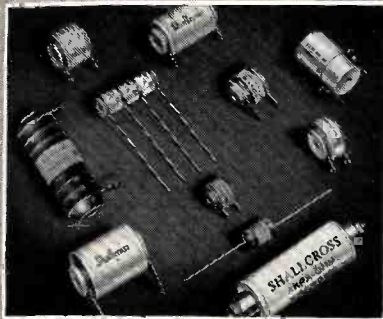
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California rep:
W. S. Harmon Co., 121 N. Robertson Blvd.,
Beverly Hills, Calif., CRestview 6-3027

ANCHOR INDUSTRIAL Co., Inc.

SHALLCROSS



AKRA-OHM® PRECISION WIREWOUND RESISTORS

Not only are Shallcross Akra-Ohm precision wire-wound resistors made to extremely close tolerances; equally important, they are physically protected to maintain their accuracy under difficult operating conditions. Standard ceramic bobbin types as well as new "P" Type

epoxy resin encapsulated resistors in sizes and mounting styles for MIL-R-93A and other exacting needs. Guaranteed tolerances to 0.01% and stabilities as low as 0.003% where required. Matched pairs and sets available. Write for detailed engineering bulletins on any type.

MULTI-POSITION SELECTOR SWITCHES

Shallcross regularly manufactures a wide variety of single or multi-deck selector switches having up to 180 positions and designed for dependable performance up to 250 volts 10 amperes, or 2500 volts 1 ampere A.C. Contact resistance ranges from as low as 0.0005 ohm to a maximum

of 0.005 ohm depending upon the size and material of the contacts. Standard types readily adaptable to over a thousand variations are described in Engineering Bulletins L-31, L-32. Outline your special requirements on Specification Sheet No. 6 for prompt recommendation.



PRECISION AUDIO ATTENUATORS

Improved materials and production techniques and careful quality control for Shallcross Attenuators have resulted in a line that sets higher standards of attenuation performance for practically every audio and communications use. Included are single and dual potentiometers, variable im-

pedance matching networks, V. U. meter multipliers, cueing attenuators, fixed pads, pre-emphasis and de-emphasis networks, attenuation boxes, ladder and balanced ladder controls, bridged T, straight T, bridged H, and straight H attenuators. Write for Attenuator Bulletin 4-A.

PRECISE MEASURING INSTRUMENTS

As long-time specialists in standard and special electrical measuring instruments.

Shallcross welcomes your inquiry for any desired types. Standard instruments include:

Resistance standards • Decade Potentiometers • Decade Resistance Boxes • Wheatstone Bridges • Combined Kelvin-Wheatstone Bridges • Wheatstone-Megohm Bridges • Wheatstone-Limit Bridges • Percent-Limit Bridges • Capacitor Analyzers • Decibel Meters • Tone Generators • Telephone Test Equipment • Low-Resistance Test Sets • High-Voltage Test and Measuring Equipment.

Write for Shallcross Bulletin DC



NEW! MINIATURE PRECISION SELECTOR SWITCHES

A compact new selector switch design for r-f switching, computer, and instrument applications. Uses highest quality materials—solid silver contacts, Silicone-Fibreglas, Nylon, and Melamine. 1 to 6 deck types with 1 to 4 poles /deck, 2 to 32 positions/pole. Shorting or non-shorting action. Positive ball-detent action and adjustable stop.



Operating voltage: 1500 volts
Breakdown voltage: 4000 volts
Contact resistance: 0.002 ohm
Breaking current: 5 amps @ 125 volts
Carrying current: 15 amps.
Indexing: 11¼°, 15°, 22½°, 30°
Back Panel Depth: 1st deck—1" additional decks—5/8"

Write for Bulletin L-45

CUSTOM-BUILT SPECIALTIES AND ENGINEERING SERVICE

Sealed networks, high voltage measuring equipment, special test sets, delay lines thermally controlled networks, precise decades and networks for computer devices, high resistance standards, and critical coil assemblies are designed by Shallcross Engineers and built to meet your requirements.

HIGH VOLTAGE MEASURING APPARATUS

Precision Shallcross kilovoltmeters, kilokilovoltmeter multipliers, hermetically sealed tubular resistors, Surge resistors, and Taylor Type corona-protected resistors. Combine close accuracy with safety and dependability. Types for voltages up to 200,000 volts or higher if required. Write for data on any type.

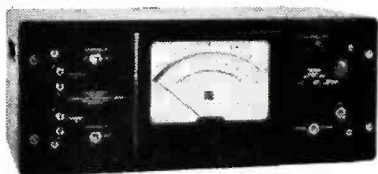
SHALLCROSS MANUFACTURING CO., 10 Jackson Ave., Collingdale, Pa.

Representatives in principal U. S. Cities, Toronto and Vancouver.



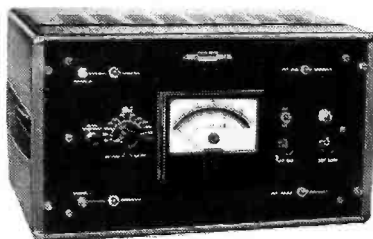
**TYPES 800-A
800-B VACUUM TUBE VOLTMETERS**

- Extended Ranges —
0.1 volt to 1000 volts DC (full scales) 800-A
0.1 volt to 300 volts AC (full scales) 800-A
3KV, 10KV, 30KV DC HV ranges with 800-B
(with accessory probe)
1 millimicroampere to 100 milliamperes
DC (full scales)
0.02 to 500 ohm resistance scale with
decade multipliers up to 10 meg.
- Frequency Range to 100 MC — 800-A;
700 MC — 800-B.
- High accuracy
- Very high stability



TYPE 320-AB PHASE METER

- Direct Reading from 0° to 360°
- 1 cps to 100 kc Frequency Range
- Operation Independent of Input Wave Shape



TYPE 322-A PRECISION PHASE METER

- $\pm 1^\circ$ Absolute Accuracy
- Incremental Accuracy of 0.25°
- 20 cps to 20 kc Frequency Range
- Expanded Scale Operation in any 30° Segment
- Direct Reading from 0° to 360°



TYPE 500-A WIDE BAND DECADE AMPLIFIER

- Zero Phase Shift for Use with 320-AB Phase Meters
- Constant Gains of 10, 100, and 1000
- Wide Frequency Range — 5 cps to 2 mc
- High Input Impedance
- High Output Voltage — 20 volts at All Ranges

precision electronic instrumentation on **FREE TRIAL**

You can't tell a book by its cover—and you certainly can't judge the quality of an electronic test instrument from an ad! Because of this obvious fact ALI has decided to make it easy for you to measure the quality and versatility of ALI instruments. Just for the asking, you can have a free, no-obligation trial of any standard ALI instrument.

Test ALI precision instrumentation in your own application. Compare the accuracy, stability and versatility with present equipment — or other equipment you contemplate purchasing. We are sure once you compare you will specify ALI.

Whether your requirements are direct-reading phase meters . . . precision phase standards . . . wide-range VTVM's . . . amplifiers . . . oscillators . . . direct-reading, 8-channel oscillographic recorders . . . or potentiometer test equipment — there's an ALI precision test instrument for your application.

Request your ALI Handbook of Precision Electronic Instrumentation. And ask for your free trial.



TYPE 310-A Z-ANGLE METER

- Direct Readings of:
Impedance (Ohms)
Phase Angle (Degrees)
Dissipation Factor (D)
Storage Coefficient (Q)
- 30 cps to 40 kc Frequency Range
- Internal 60 and 400 cps Test Signals
- Only One Balancing Step
- Compact and Portable

TYPE 550-A DIRECT-WRITING OSCILLOGRAPHIC RECORDER

- 0-1000 cps Frequency Range with Equalized Amplifiers
- Eight Channels Plus Marker Channel
- Wide Range of Recording Speeds
- Direct Writing
- Portable



Acton Laboratories, Inc.

520 MAIN STREET ACTON, MASSACHUSETTS





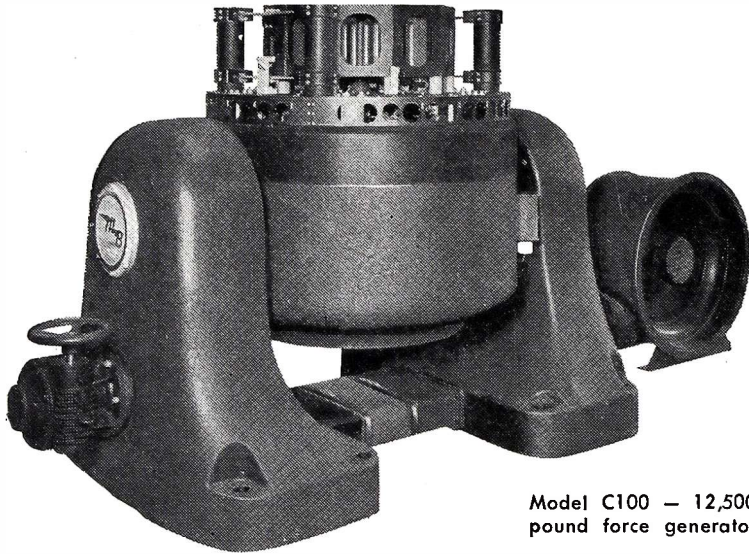
VIBRATION TEST and CONTROL EQUIPMENT

MB MANUFACTURING COMPANY

1070 State Street, New Haven 11, Conn.

A Division of Textron American, Inc.

for vibration GENERATION



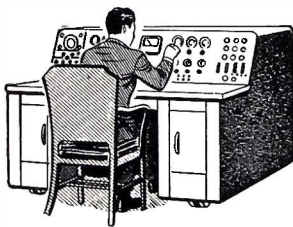
Model C100 - 12,500 pound force generator

MB VIBRATION EXCITERS

MB electromagnetic-type shakers have the versatility, force output, and dependability necessary for test applications such as: (1) Fatigue testing components to destruction . . . (2) Locating noise sources in automobile bodies and chassis, blowers, etc. . . (3) Shake testing electrical components like relays, switches, or radio chassis to determine their ability to operate under

high vibratory loads . . . (4) Determining the damping characteristics of rubber, steel, plastics, etc. . . (5) Identifying resonant frequencies and (6) Determining natural modes of aircraft structures such as wings, fins, and control surfaces.

Vibration tests to MIL-E-5272A and 41065-B and other specifications are performed easily on these exciters.



Automatic Control Systems for MB Vibration Exciters provide automatic control over table amplitude (displacement and acceleration) and frequency; manual control of either function also possible. Performance more than adequate to meet MIL-E-5272A vibration requirements.

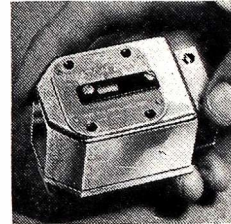
MB VIBRATION EXCITERS and CALIBRATORS

Rated Force (Model)	Total Stroke	Power Supply	Frequency Range c.p.s.
1.2 lb. (C8*) (or C7 sub-miniature tube tester)		Electronic	20 to 10,000
10 lb. (SD)	1/2 in.	Electronic	20 to 2,000
25 lb. (C31*)	1/2 in.	Electronic	5 to 2,000
50 lb. (C1*)	1/2 in.	Electronic	5 to 500
50 lb. (C11*)	1/2 in.	Electronic	5 to 2,000
150 lb. (S6)	2 in.	Electronic	0.35 to 500
200 lb. (C6)	1 in.	Electronic	5 to 5,000
600 lb. (C5H)	1 in.	Rotary or Electronic	2 to 2,000
1,200 lb. (C10)	1 in.	Rotary or Electronic	5 to 3,000
3,500 lb. (C25H)	1/2 in.	Rotary or Electronic	2 to 2,000
12,500 lb. (C100)	1/2 in.	Rotary	2 to 2,000
25,000 lb. (C250)	1/2 in.	Rotary	2 to 2,000

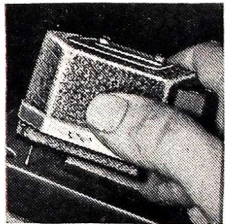
* Force generator or calibrator. Other models available.

for vibration MEASUREMENT

VIBRATION PICKUPS Sensitive to low-amplitude vibration, yet rugged for field test work. Electrically damped; maintain calibration over wide temperature range. Resonant frequency below 5 c.p.s. Over twelve types available for specific requirements. Type 122 for temperatures to 500° F; Type 115 probe-type for hand-held exploratory testing.

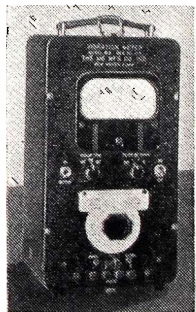


Type 122



Type 115

METERS MB Meters are compact, portable units, designed for use with MB vibration pickups. They give direct readings of vibration acceleration, velocity, or displacement. Model M6, designed specifically for jet-engine testing, has three high-pass filter networks (cut-off at 30, 70 and 110 c.p.s.) and features push-button selection of four pickup signals. A.C. operated. Also suitable for general test purposes.



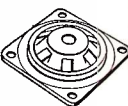
Model M6

for vibration ISOLATION



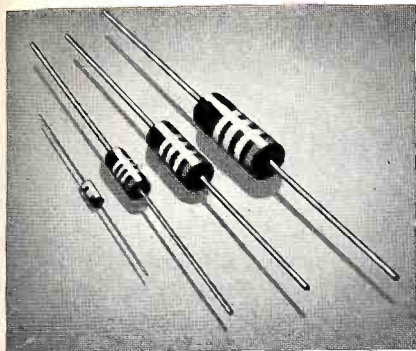
ISOMODE* INDUSTRIAL-TYPE ISOLATORS - provide large deflection ratings with high load capacity, small size, and exceptional stability. Spring rate equal in all directions - mount at any angle-absorb vibrations for every plane. Unit load-range 50 lbs. to 2500 lbs.

MIL-I-5432 (AN-I-16a) is met with Isomode* Type 17 vibration isolators: Load range 1/2 to 100 pounds per unit. They feature equal spring rate in every direction.



MANY OTHER ISOLATOR TYPES available, including units for special applications; Isomode grommets; mounts with small dimensions. Contact us on your specific requirements.

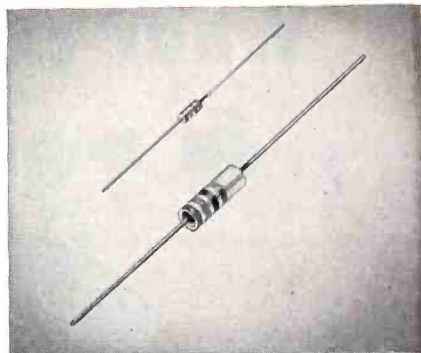
* Reg. U. S. Pat. Off.



FIXED MOLDED RESISTORS—In 1/10, 1/2, 1, and 2 watt ratings at 70C ambient. Available in standard RETMA values.

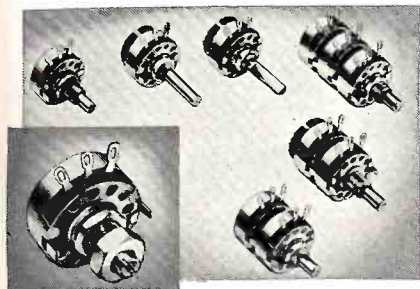


Allen-Bradley engineer checking resistors after humidity test.



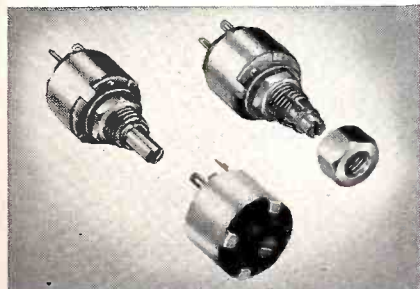
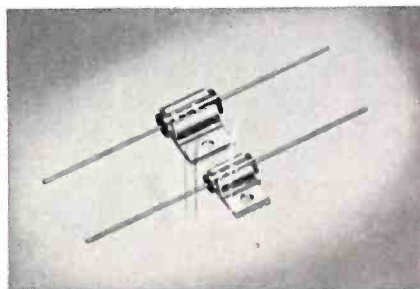
HERMETICALLY SEALED RESISTORS—Composition resistors sealed in a ceramic tube. 1 & 1/8 watt, 10 ohms to 500,000 megohms.

INSURE AGAINST CATASTROPHIC FAILURES BY USING ALLEN-BRADLEY QUALITY PARTS



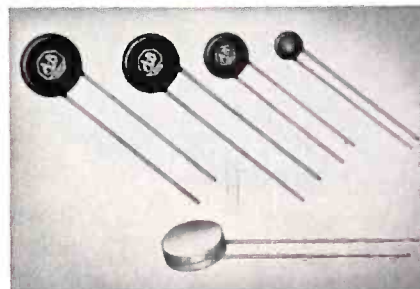
VARIABLE RESISTORS—Type J molded resistors, rated at 2 watts at 70C ambient. Total resistance values from 50 ohms to 5 megohms. Outstanding for low noise characteristics. Taps can be provided at 40, 53, and 68% of effective rotation. Metal parts are corrosion-resistant. Have solid molded resistor element.

COPPER-CLAD FIXED RESISTORS—Type GM rated at 3 watts at 70C and 4 watts at 40C. Type HM rated at 4 watts at 70C and 5 watts at 40C. Mounted in heavy copper clamps. Must be mounted on steel panel to radiate heat. Will not open circuit or exhibit erratic changes in resistance. Send for Bulletin 5002.



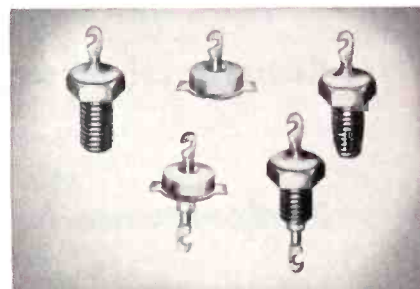
VARIABLE RESISTORS—Types G and F molded resistors are 1/2 inch in diameter. Available with plain or lock-type bushings. Total resistance from 100 ohms to 5 megohms. Type F is equipped with adjusting screw. Ideal for use in printed circuits. Rated at 1/2 watt. Available in standard tapers. Send for data.

CERAMIC CAPACITORS—Available in nominal capacitance values from 10 mmfd to .022 mfd in continuous d-c voltage ratings of 500, 1000, 2500, and 5000 volts. Also available in ceramic enclosures for greater mechanical strength and higher insulation dielectric strength. Operate up to 150C ambient temp.



VARIABLE RESISTORS—Type T solid molded resistors for rheostat and potentiometer applications. The molded plastic actuator serves also as the cover which makes this unit extremely flat and compact. Rated at 1/2 watt at 70C ambient. Available in maximum resistance values from 100 ohms up to 5 megohms.

FEED-THRU & STAND-OFF CAPACITORS—These rugged capacitors exhibit no parallel resonance effects normally encountered with tubular capacitors in the VHF and UHF frequency ranges. Available in standard nominal values from 5 mmf to 1000 mmf, with solder tabs or with screw-thread mountings.



INDUSTRIAL POTENTIOMETERS—Type H rated at 5 watts at 40C ambient. Resistance range 50 ohms to 2 megohms. Good for 100,000 cycles with less than 10% resistance change. Derate to zero at 120C. Maximum voltage 750 v, d-c. After 100 hrs. at 40C and 98% humidity, resistance change not more than 5%.

FERRITE CORES—In various shapes and sizes to fit needs of black and white, color television and general applications. There are U and L cores for color convergence and O cores for color convergence shields; also U and E cores for flyback transformers, and QR cores for deflection yokes. Many other shapes available.



Allen-Bradley Co.
110 W. Greenfield Ave.
Milwaukee 4, Wis.



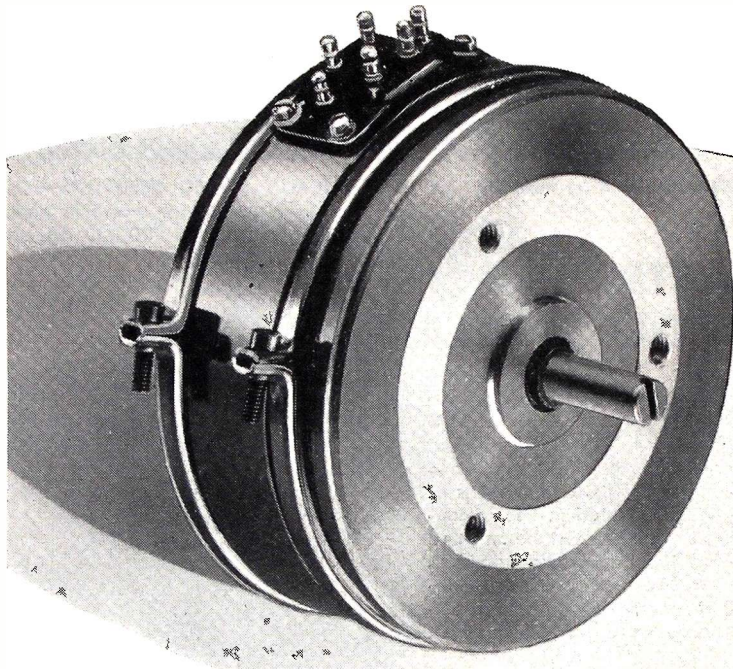
ALLEN-BRADLEY
RADIO & TELEVISION COMPONENTS



QUALITY

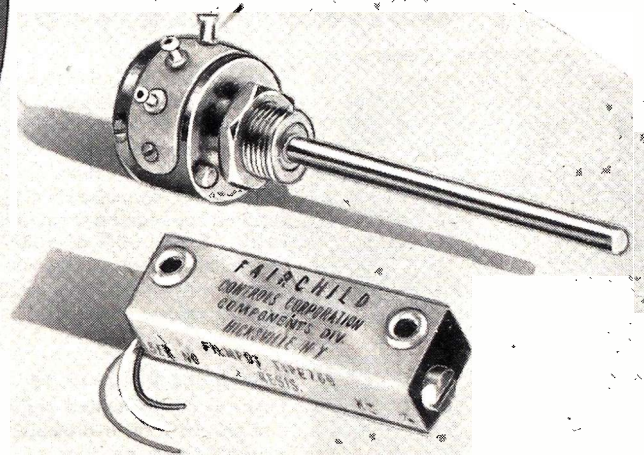
In Canada
Allen-Bradley Canada, Ltd.
Galt, Ont.

What characteristics do you need in a precision potentiometer?



The 3" Type 753 sine-cosine, $\frac{3}{4}$ " Type 771 FilmPot* and Type 769 FilmPot Trimmer shown represent extremes of the wide variety obtainable in the standard Fairchild line.

*Registered Trade Mark



Size?

In pioneering the manufacture of precision potentiometers, Fairchild has developed a line of more than twenty different types, ranging in size from 3" down to a miniature $\frac{3}{4}$ " unit. And even the smallest miniature meets the same requirements for accuracy and reliability as most larger units. Hence our claim "Miniaturization without sacrificing performance."

Construction and functions?

In addition to multi-turn, single-turn, wire-wound, metallic film and linear and non-linear function potentiometers, Fairchild presents a new line of pressure transducers having precision potentiometer outputs.

Performance?

Fairchild potentiometers have an outstanding reputation for sustained high accuracies, high resolution, low noise level and long life—a reputation built on performance.

Development facilities?

A staff of experienced Fairchild designers is always at your disposal to design potentiometers to meet your special requirements.

Fast Service?

Fairchild can help you solve all your precision potentiometer problems quickly. To do this, duplicate facilities have been set up on the east and west coasts. You get rapid, efficient assistance and service in any location from a large staff of Fairchild's own Sales Engineers. For more information, write Fairchild Controls Corporation, Components Division, Dept. 140-75G.

EAST COAST
225 Park Avenue, Hicksville, L. I., N. Y.

WEST COAST
6111 E. Washington Blvd., Los Angeles, Calif.

FAIRCHILD
PRECISION POTENTIOMETERS
and COMPONENTS

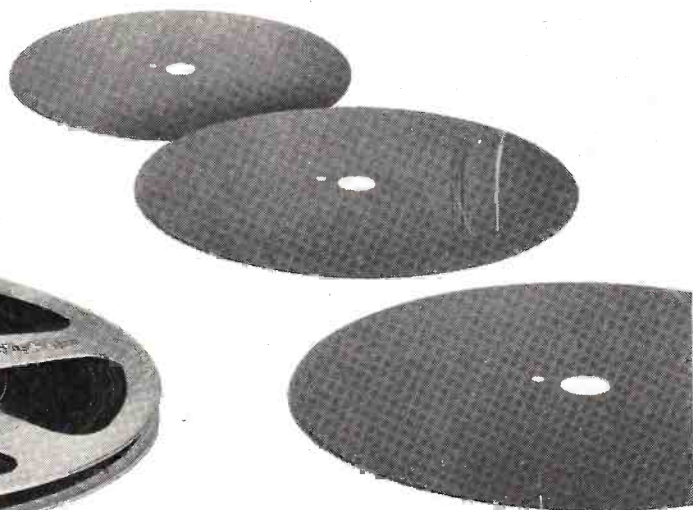
for **MAXIMUM PRECISION** in magnetic data recording
specify the tape and discs that are...

GUARANTEED DEFECT-FREE

type **EP** *Extra-Precision*
audiotape TRADE MARK



Magnetic-coated
audiodiscs TRADE MARK



Type EP Audiotape is especially produced to meet the most exacting requirements for uniformity and freedom from microscopic imperfections. This *extra precision* in manufacture contributes greatly to the dependable operation of magnetic data recording equipment for telemetering, electronic computers and other specialized applications. Type EP Audiotape is available on a base of 1 1/2-mil cellulose acetate and 1 1/2-mil or 1-mil Mylar* polyester film, in widths from 1/4" up and footages from 1200 to 7200 ft per reel. For complete information send for Bulletin T112A. *DuPont Trade Mark

Magnetic-coated Audiodiscs, for geophysical exploration, computers and specialized data recording work, are made to the same standards of extra precision as EP Audiotape. Magnetic oxides are precision-coated on strong, mirror-smooth aluminum discs, providing a uniform surface that is guaranteed free from dropouts or other defects on a free replacement basis. They are available in 10", 12", 13 1/4", 16" and 17 1/4" diameters and can be coated with any of the Audio magnetic oxides listed below.

MAGNETIC PROPERTIES OF STANDARD "EP" AUDIOTAPE

Property	Test Value	Test Method
Coercive Force (Hc)	250-260 Oersteds	60 cycle B-H curve tracer, at 1000 Oersteds magnetizing field
Remanence (Ør)	0.7 Maxwell	
Retentivity (Br)	650 Gauss	
Uniformity at 1 Kc, Peak Bias, 7 1/2" / sec.	±0.5 db or better ±0.25 db or better	Esterline-Angus Recorder
Reel-to-reel Within a reel		

PROPERTIES OF AUDIO MAGNETIC OXIDES

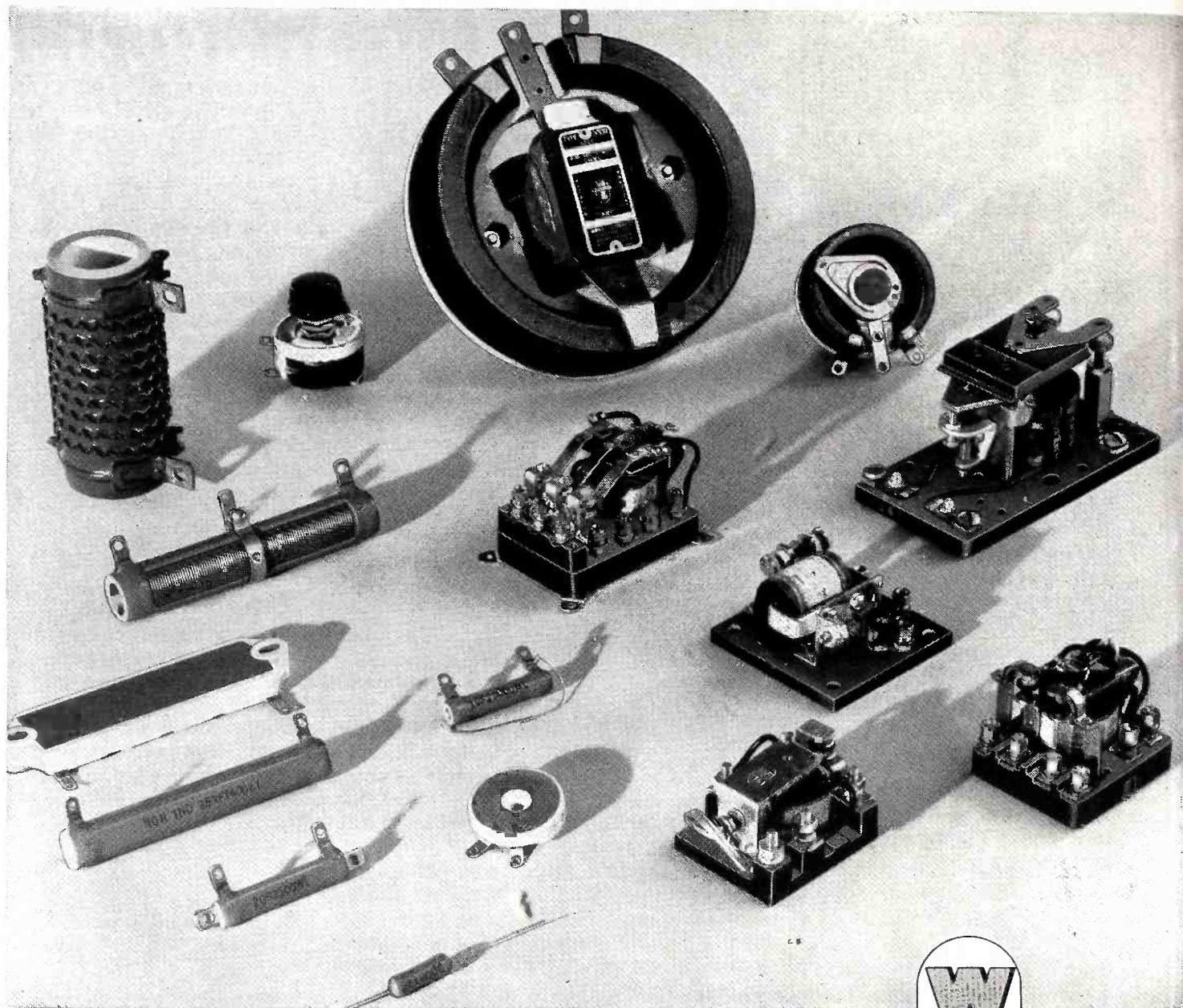
Type No.	Color	Coercive Force† (oersteds)	Remanence (gauss)	Range of Dimension (microns)	Specific Gravity
BA	Black	390	2100	.3	4.9
A	Reddish-Yellow	350	2000	.3	4.8
F	Reddish-Orange	300	1900	1.0	4.8
X	Red	220	1700	.2	4.8
BM	Black	120	1500	1.0	4.8

†Measurements taken at magnetizing intensity of 1000 oersteds on 60-cycle B-H curve tracer.

AUDIO DEVICES, Inc.

444 Madison Ave.,
New York 22, N. Y.

In Hollywood: 1006 N. Fairfax Ave. • In Chicago: 6571 N. Olmsted Ave. • Export Dept: 13 East 40th St., New York 16, N. Y., Cables "ARLAB"



Design made easy with reliable RESISTORS, RELAYS, RHEOSTATS

Want to know how? These data-packed bulletins and catalogs will show you.

RESISTORS—you'll find the widest selection of stock power resistors ever offered by any manufacturer in Ward Leonard Catalog 15.

RELAYS—long, trouble-free life under the most adverse conditions is the big plus the system designer gets with the a-c and d-c relays described in Ward Leonard's relay catalog.

RHEOSTATS—complete application data on smooth-acting 25- to 300-watt Vitrohm ring rheostats is contained in Ward Leonard bulletins 1105-16.

Write today for this helpful literature. You'll find plenty of design tips. And, you'll find Ward Leonard offers a wider selection of stock items, quicker service on made-to-order controls, and more performance per dollar than anyone else. Ward Leonard Electric Company, 23 South St., Mount Vernon, N. Y. (In Canada: D. M. Fraser Ltd.—Toronto.)

6.17



**WARD LEONARD
ELECTRIC COMPANY
MOUNT VERNON, NEW YORK**



RESISTORS

RHEOSTATS

RELAYS

CONTROLS

DIMMERS

Result-**E**ngineered Controls Since 1892

When ordering or seeking information
please mention *Electronics Buyers' Guide*.

June, 1956 — MID-MONTH — ELECTRONICS BUYERS' GUIDE

AMERAC'S PRECISION MICROWAVE PRODUCTS

MICROWAVE CAVITIES

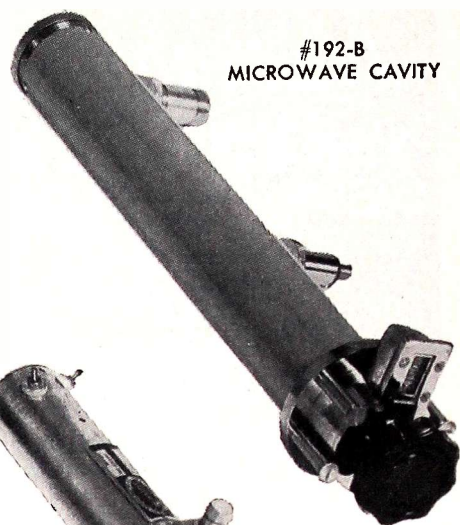
Amerac, Incorporated manufactures a comprehensive line of co-axial line cavities, utilizing various standard tubes, for numerous microwave applications including aircraft, guided missile and beacon work.

FEATURES

These cavities have such features as—single control tuning, fixed feedback, rugged anti-backlash tuning mechanism, accurate Root counter (optional), adjustable type "N" or "BNC" 50-ohm inductive loop coupling, convenient tube receptacle for quick replacement, long-duration R.F. output stability, operates on inexpensive power supply.

SPECIFICATIONS

MODEL	FREQUENCY RANGE	TYPE	CAVITY MODE	TUBE TYPE
192	2400—3200 MC	CW	3/4	2C36
192-A	2400—4000 MC	Pulse	3/4	2C36
192-AB	750—2000 MC	Pulse	1/4	2C36
192-B	750—2000 MC	CW	1/4	2C36
193-A	2400—4000 MC	Pulse	3/4	2C36
194	2300—3300 MC	CW	3/4	2C39B
194-A	2300—3300 MC	Pulse	3/4	2C39B
195	2000—3100 MC	CW	3/4	6442
195-A	2000—3100 MC	Pulse	3/4	6442
191-A	2400—3400 MC	Pulse	3/4	Pencil Triode
198-A	800—2050 MC	CW	1/4	6BM6
198-A	2050—4200 MC	CW	3/4	6BL6
198-A	800—2050 MC	Pulse	1/4	5837
198-A	2050—4200 MC	Pulse	3/4	5836



#192-B
MICROWAVE CAVITY



#193
"BEACON" CAVITY

CO-AXIAL LINE WAVEMETERS

FOR LABORATORY USE, Amerac, Incorporated manufactures a precision wavemeter that is handsomely finished with golden anodized aluminum panel and hand-rubbed walnut cabinet. The panel is sloped for easy observation. These Models feature high accuracy of measurement ($\pm 0.02\%$), high frequency stability (10°C to 40°C), extreme mechanical stability, ease of operation, rugged components and tri-plated surfaces.

GENERAL SPECIFICATIONS

Type "N" constant impedance input connector. BNC or Selector co-axial fitting for external video connection. Power handling capability: absorption — .5mw to 1 watt; transmission — 1mw to 1 watt. Peak power: up to 25 watts (transmission).

INDIVIDUAL SPECIFICATIONS

MODEL	FREQUENCY RANGE	LOADED Q	WIDTH	DEPTH	HEIGHT	NET WEIGHT
#228*	900—2400 MC	1000	15"	9 3/4"	7 3/4"	13 1/2 lbs.
#229	2300—4500 MC	1500	8"	6 1/2"	5"	4 3/4 lbs.
#230	3500—6500 MC	1500	8"	6 1/2"	5"	4 3/4 lbs.

*Model 228 has a direct-reading frequency control dial.



#230 "C" BAND WAVEMETER

FOR FIELD USE, Amerac, Incorporated manufactures two co-axial line wavemeters covering the "S" band, the Model 131 (Amerac's version of the popular military model TS-117) and the inexpensive, C&D Wavemeter Model 232.

Both models feature a rugged metal case, finished in gray, baked enamel; highly sensitive indication of resonance; rugged components; precision cavity assembly and anti-backlash device, for high accuracy.

GENERAL SPECIFICATIONS

Input connections are two type "N" jacks. R.F. detector is a selected type 1N21B silicon diode. They have a ruggedized 50 microampere indicating instrument for abusive field work and all silver-plated parts are Rhodium flashed to minimize corrosion.

INDIVIDUAL SPECIFICATIONS

MODEL	FREQUENCY RANGE	LOADED Q	LENGTH	DEPTH	WIDTH	NET WEIGHT
#131	2400—3400 MC	1500	6"	3 1/4"	5 1/2"	3 1/2 lbs.
#232	1800—3800 MC	1000	8"	2 1/4"	7 3/4"	2 1/2 lbs.



#232 "C & D" WAVEMETER



Amerac, INCORPORATED

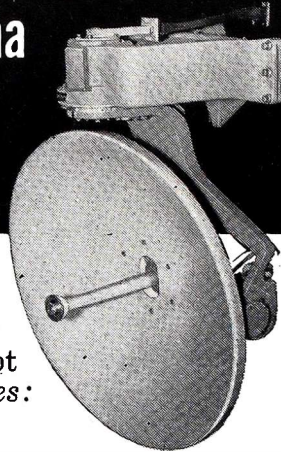
116 TOPSFIELD ROAD • WENHAM, MASSACHUSETTS

Complete line of Microwave Components

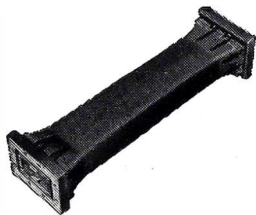
From Magnetron Through Antenna

Designed and Produced

by **Airtron** INC.

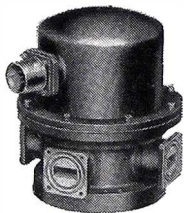
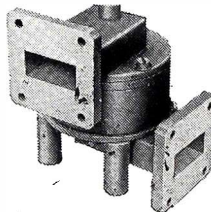


Whether it is "Standard" plumbing or designing an entirely new waveguide system, Airtron's complete facilities can substantially reduce the time and expense between concept and reality. Here are just a few examples:



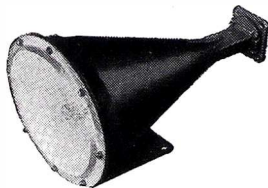
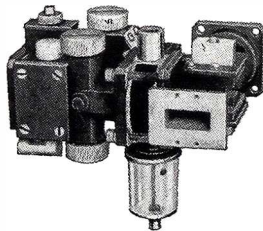
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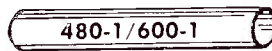
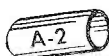
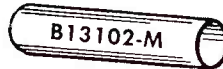
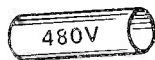
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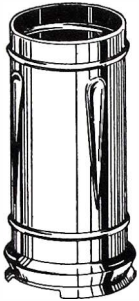
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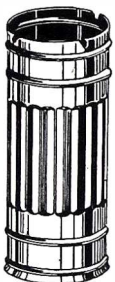
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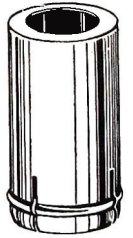


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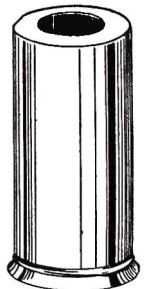
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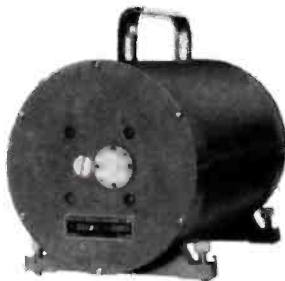
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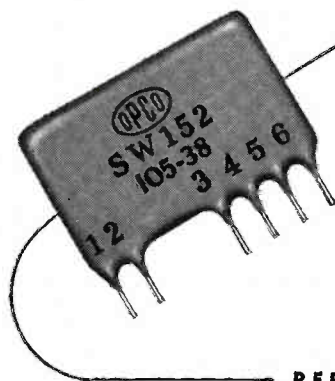
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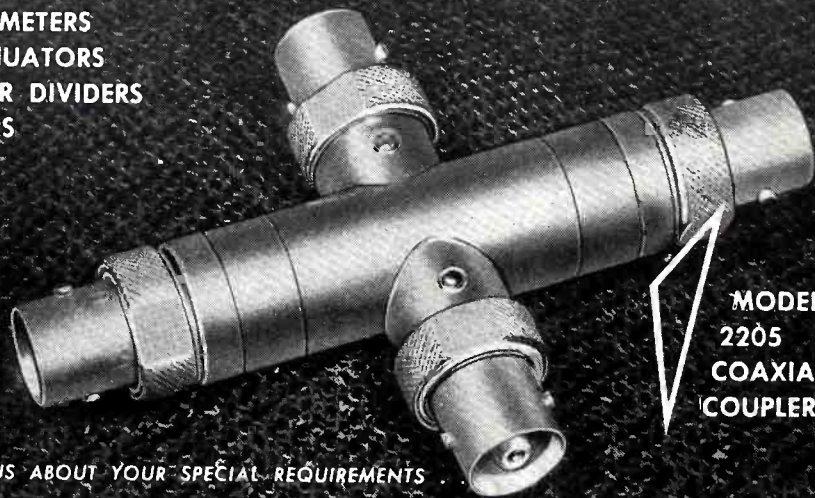
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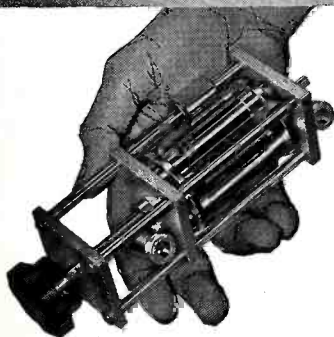
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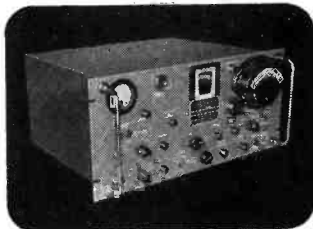
NM-20B (AN/PRM-1A)
150 kcs to 25 mcs



NM-30A (AN/URM-47)
20 mcs to 400 mcs



NM-50A (AN/URM-17)
375 mcs to 1000 mcs



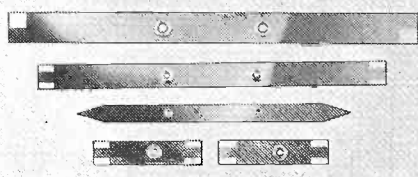
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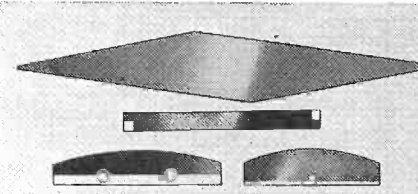
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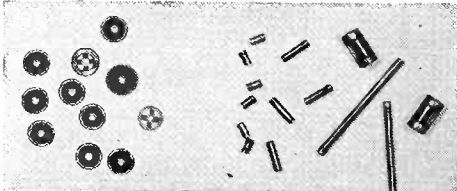


Metallized Glass Attenuator Plates with Metallized Eyelet.

U. S. Gov't. approved Metallized Glass Attenuator plates with Metallized Eyelets were developed under Prime Contract with the Signal Corps Supply Agency. These elements meet Gov't Specs MIL-A-11052A, and are available in six specific sizes for use with Waveguides RG-48U; RG-49/U; RG-50/U; RG-51/U; RG-52/U; and RG-91/U. Other types and sizes of Attenuator Plates with Metavac Metallized Eyelet are fabricated to customer's requirements.



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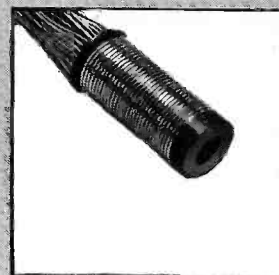
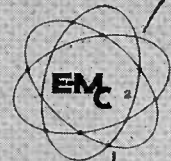


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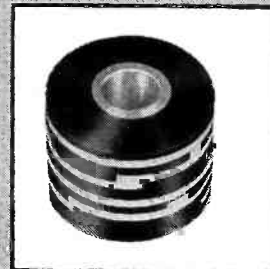
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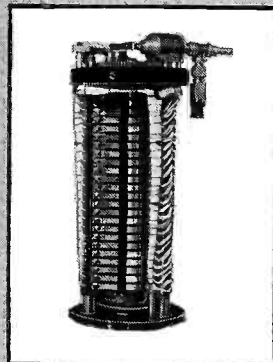
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Switching Commutators



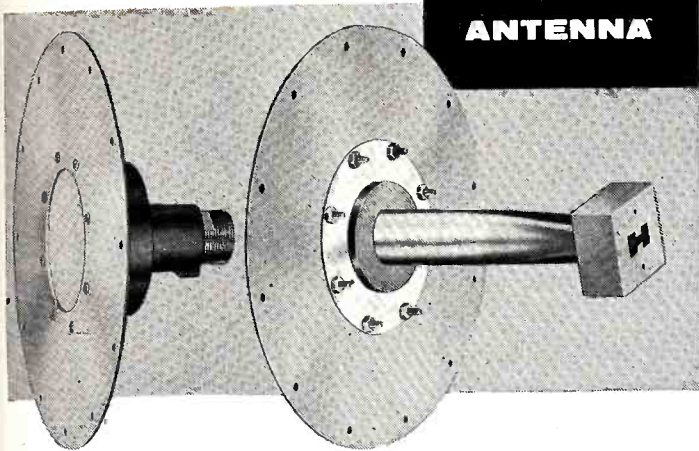
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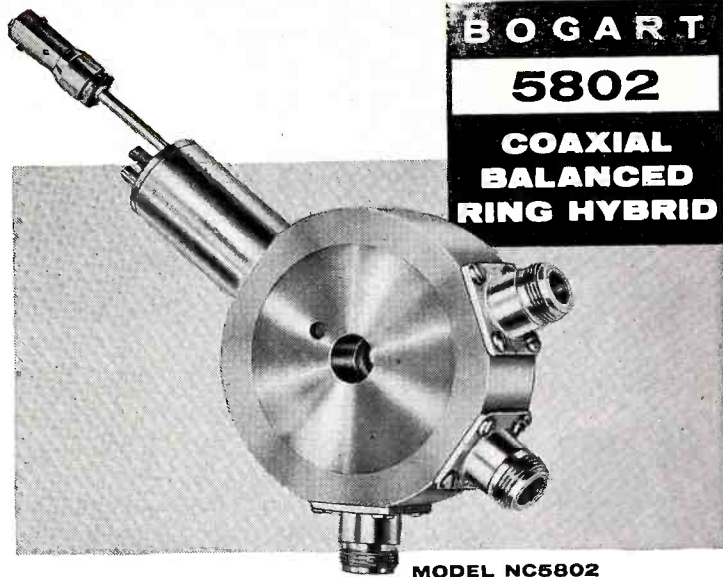
BOGART
9303
BROADBAND
ANTENNA



MODEL S9303

MODEL X9303

The Bogart 9303 Series of Broadband Antennas is used primarily for countermeasure applications. The circularly polarized antennas shown above are each designed to operate over approximately a 45% bandwidth centered about 10 CM. and 3 CM. respectively. Two basic designs are featured in this series. The S-9303 is a coaxially fed helix, designed to operate with RG-117/U coaxial cable and offering a minimum beamwidth of 50°. The X-9303 is a horn antenna with a dielectric phase shifter, designed to mate with Bogart Double Ridged Waveguide and also offering a minimum beamwidth of 50°. The Bogart Double Ridged Waveguide operates satisfactorily over the frequency range from 4750 to 11,000 MC/S. The Bogart L-9303 (30 CM.) and C-9303 (6 CM.) broadband antennas will soon be available. Our applications engineering group will be pleased to discuss your specific requirements with you.



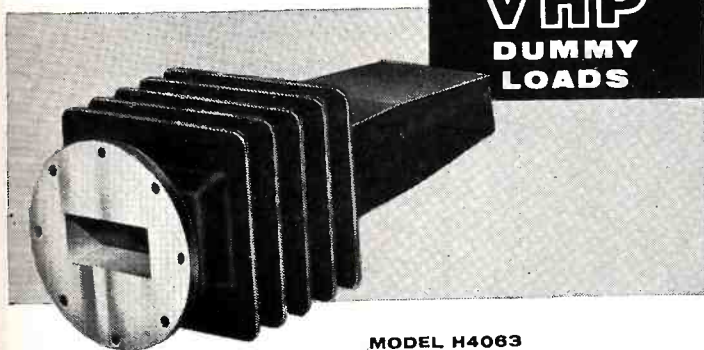
BOGART
5802
COAXIAL
BALANCED
RING HYBRID

MODEL NC5802

The Growth of the Guided Missiles Field has provoked increased engineering activity directed towards the miniaturization of microwave components. Special techniques and materials have been developed due to severe space limitations and extreme temperatures. The Bogart Model NC-5802 balanced ring hybrid has been designed to replace single ended and balanced waveguide mixers where space and weight factors have made it impractical to employ these traditional waveguide components. In addition to the NC-5802 which is intended for operation centering about 10 CM., Bogart applications engineers have designed the NL-5802 for 15 CM. use.

An Exceptionally Broadband balanced coaxial ring hybrid mixer is presently under development. Intended to operate over a 50% bandwidth, this unit will present a compact, light-weight design that is ideal for aircraft or missile application. A detailed technical analysis of properties of coaxial ring hybrids is available upon request. Special applications of Bogart Broadband Mixers can be designed to meet your specific requirements. Our applications engineers will be pleased to discuss your particular problems with you.

BOGART
4063
VHP*
DUMMY
LOADS



MODEL H4063

The Bogart Model 4063 Series of VHP Dummy Loads has evolved from a need by the Armed Forces for very high power dummy loads for both field and laboratory use. Originally developed for the Army Ordnance Fire Control Instrument Group, the 4063 series has won wide acceptance by other service branches by providing R-F silence during tuning and maintenance, ease of maintenance and standard test conditions. Designed to operate with the highest power radar systems, these dummy loads are lightweight, compact, resistant to moisture absorption and intended to last at least the life of the equipment with which they will be used. Reduced operating temperatures are obtained through the use of cooling fins. The 4063 series, as adopted by Armed Forces agencies, are provided with flanges noted in the chart. However, non-standard flanges, or adapters, are available for special applications. High temperature pressure sealing "O" rings are available as accessory equipment. All units are finished in a black enamel.

Special Applications of Bogart VHP Dummy Loads can be designed to meet your specific requirements. Our applications engineers will be pleased to discuss your particular problems with you.

Model No	Equivalent AN Nomenclature	Frequency Range (MC/S)	Max. Peak Power (Mega-watts)	Minimum Average Power (Watts)	Maximum VSWR	Length (Inches)	Width (Inches)	Height (Inches)	Approx. Weight (Lbs.)	Waveguide AN Type
X4063	DA-146/U	8.20-12.4	0.29	500	1.10	5 3/4	2 3/4	2 3/4	1	RG-67/U
B4063	DA-148/U	7.05-10.0	0.46	600	1.10	6 3/4	2 1/2	3 1/4	1 1/4	RG-68/U
C4063	DA-144/U	5.85-8.20	0.74	1000	1.10	8	3 1/4	3 3/4	2 3/4	RC-105/U
H4063	DA-149/U	3.95-5.85	2.0	2000	1.10	9 3/4	3 3/4	4 1/4	5	RC-95/U
S4063	DA-145/U	2.60-3.95	3.2	2500	1.10	14	4 1/4	6 3/4	9 1/2	RG-75/U
L4063	DA-147/U	1.12-1.70	17.2	6000	1.10	32 1/2	8 1/4	11 1/2	90	RG-103/U

Your inquiries are invited by our engineering staff who will be pleased to aid you in your problems.

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BOGART
9306
WAVEGUIDE
SWITCH AND
DUMMY LOAD
ASSEMBLY



MODEL 9306

The Bogart Model 9306 Waveguide Switch and Dummy Load Assembly is the result of an engineering program initiated with Bogart Manufacturing Corp. by one branch of the Armed Forces to retrofit an aircraft currently in the field. The purpose of this retrofit kit is to provide R-F silence during tuning and maintenance, ease of operation and maintenance, decrease vulnerability to jamming and permit standard test conditions. Due to the extreme space limitations, the utilization of standard components was not possible. It was necessary for the Bogart applications engineering group, working in conjunction with service engineers, to design a special waveguide switch and dummy load for this aircraft. This 9306 assembly is so uniquely tailored for this particular project, that it is doubtful that in its exact form, it may be used in another installation. However, where standard components cannot be used due to electrical or mechanical limitations, the Bogart applications engineers will work with the customers' engineers to modify existing components, or design new units for the particular application. The model 9306 is a typical result of just such an engineering program.

ELECTRO-MECHANICAL CHARACTERISTICS

Frequency Range	8500—9600 MC/S
Waveguide Flanges (Input and Output)	UG-135/U,—UG-136A/U UG-138/U OR UG-137A/U (Upon Customer's Request)
Max. V.S.W.R. Antenna Arm	1.10
Max. V.S.W.R. Dummy Load Arm	1.10
Switch Isolation	60 DB
Switching Time	0.05 SEC.
Peak Power	250 KW
Average Power	250 watts
Weight	Approx. 3 3/4 lbs.

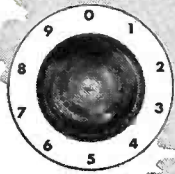
This unit has been tested satisfactorily in accordance with MIL-E-5400 environmental test conditions.

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MODEL 7240A PRESET COUNTER

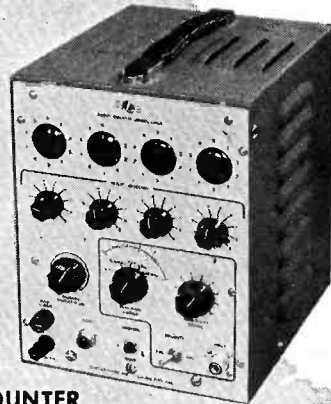
For Time Interval Generation

For Control of: • Sorting Equipment

• Counting and Packaging • Automatic Feeds

Model 7240A counts and indicates the number of input events up to a number (1 to 9,999) preset by four decade switches, at which time a relay operates and the count is held. Automatic recycling or manual reset to repeat the counting operation is provided. Provision is made for use of the equipment as a time interval generator by preset counting of the line voltage frequency.

Capacity: 1 to 9,999 events.



MODEL 7340A FREQUENCY INDICATOR AND COUNTER

Measures Frequency

Measures Speed or Repetition Rate

Counts Events Per Unit Time

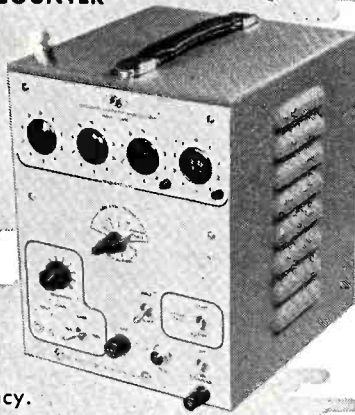
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Model 7340A counts the number of input events during the duration of a 1 or 10 second gate established by a precision synchronous motor. Indication is directly in events per second, with automatic decimal point location. Automatic recycling is provided, or the measurement may be held and indicated until a manual reset is operated.

Indication: .1 to 9,999 events per second.

Gate Times: 1 sec., 10 sec. or manual.

Accuracy: $\pm 0.1\%$ ± 1 count, based on line frequency.



MODEL 7440A TIME INTERVAL METER

Measurement of:

• Time Intervals • Periods • Velocity

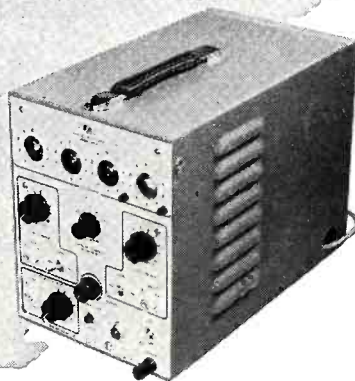
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Model 7440A utilizes electrical impulses defining the interval to be measured to start and stop a gate, then counts the number of cycles of an internally generated crystal controlled frequency occurring during this gate. Indication is directly in milliseconds, with automatic decimal point location. Automatic recycling is provided, or the measurement may be held and indicated until a manual reset is operated.

Indication: .1 to 9,999 milliseconds.

Time Bases: 1 KC, 10 KC, or external.

Accuracy: crystal stability ± 1 count.



Representatives in Major Cities

Write for Complete Data: { 7240A/BG
Our Bulletins { 7340A/BG
7440A/BG

EP Electro-Pulse, Inc.

11861 TEALE STREET, CULVER CITY, CALIFORNIA

Telephones: EXmont 8-6764 and TEXas 0-8006

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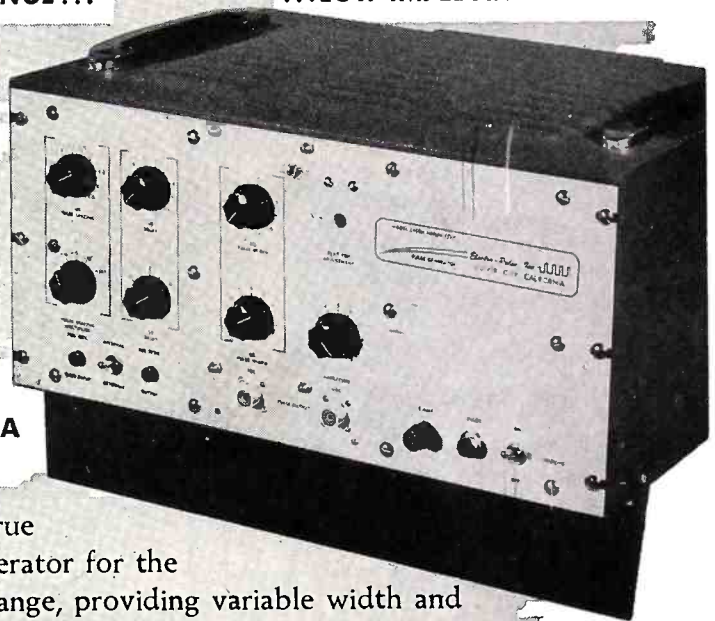
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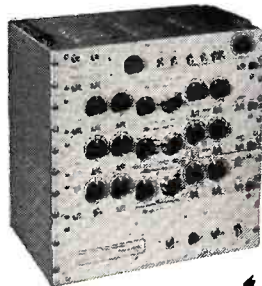


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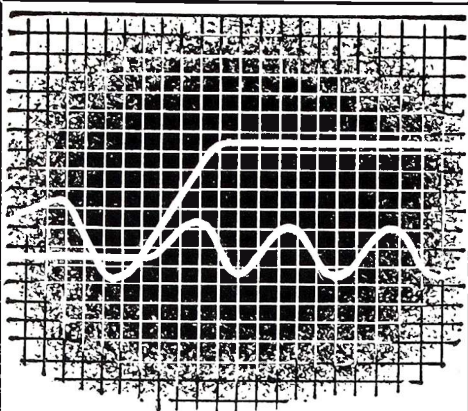
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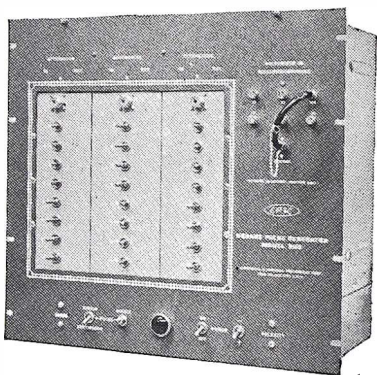
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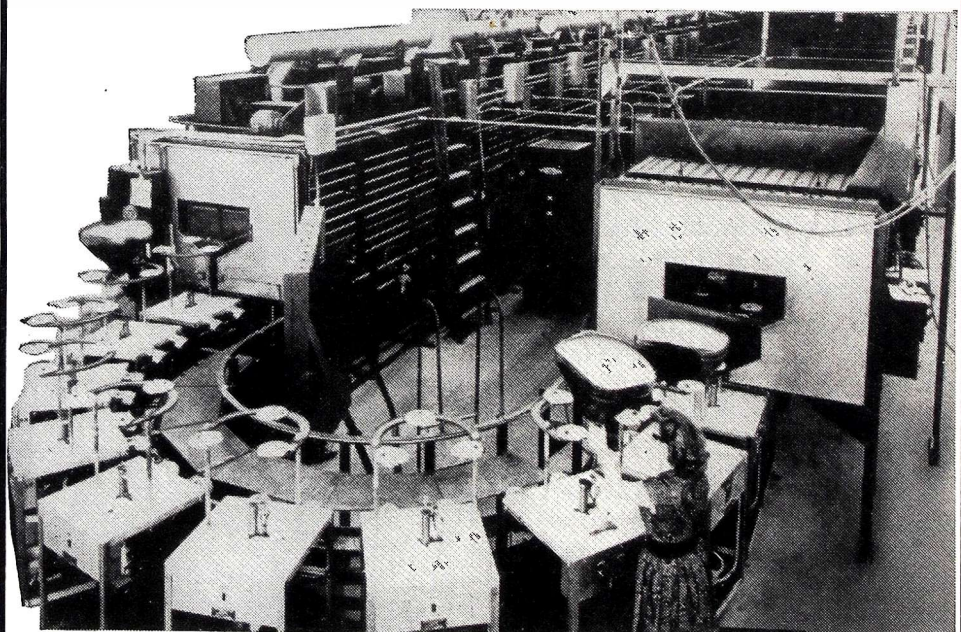
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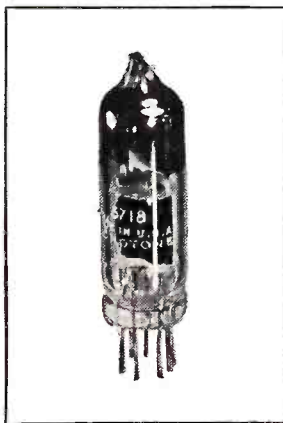
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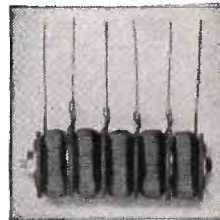
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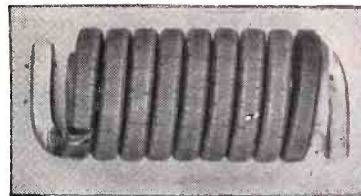
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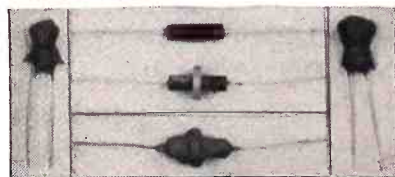


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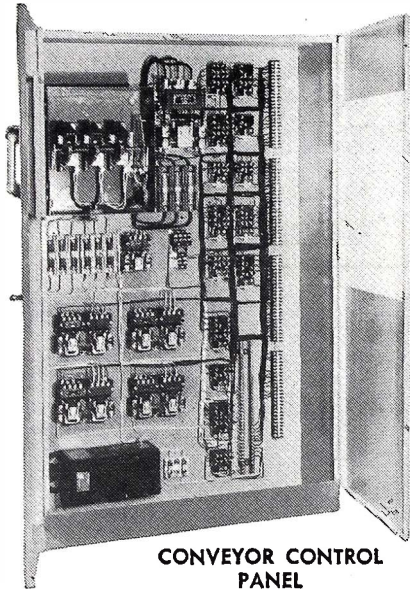
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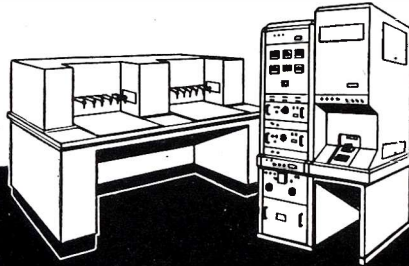
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E-80-2V	Variable 50-125 V.	2.5 Amp.	60 Cycles
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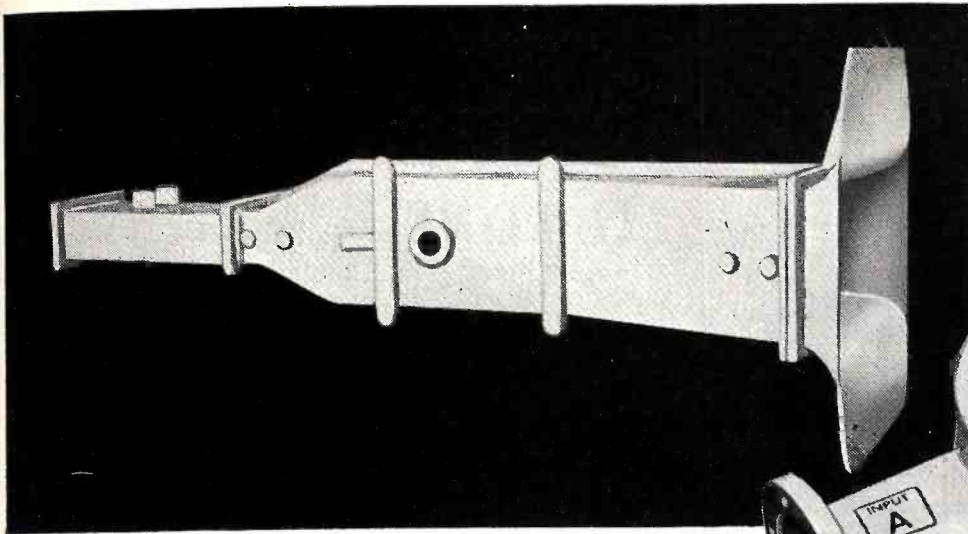


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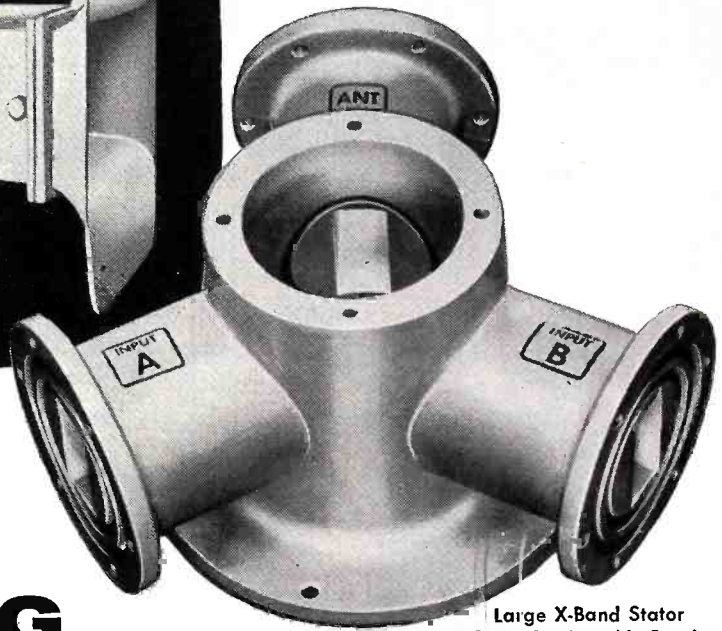
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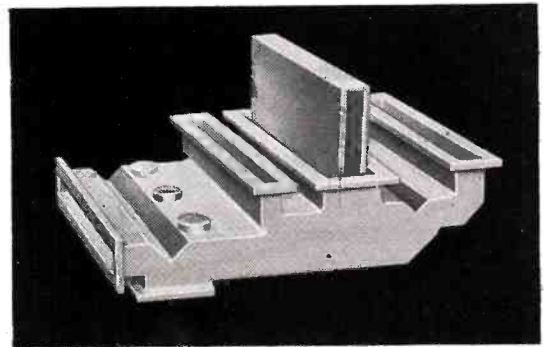
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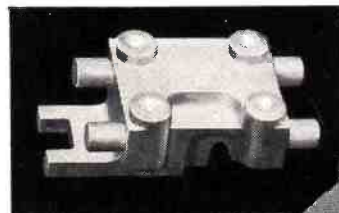
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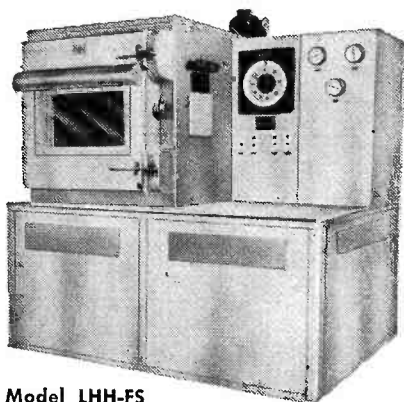
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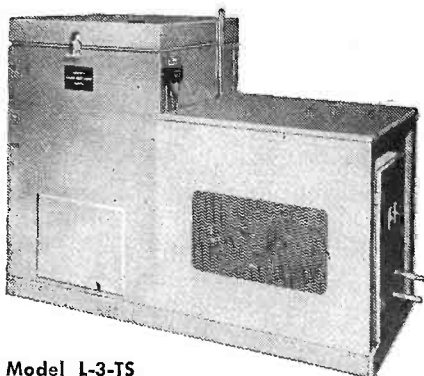
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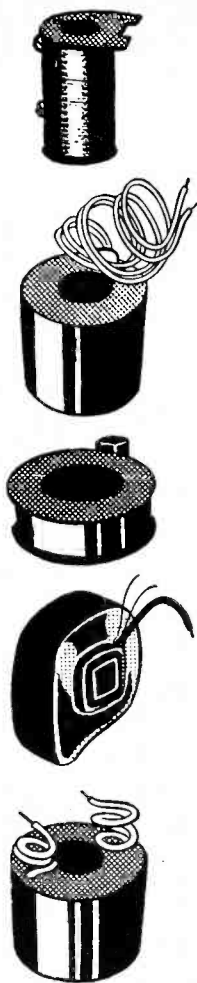
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SPECIFICATIONS

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12 megohm input resistance.
AC: RMS value of sine waves: 0 to 1500 volts in six ranges. Frequency response: 30 cycles—3 megacycles to 500 volts from low impedance source.

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METER MOVEMENT
Direct current for full scale deflections: 200 microamperes.

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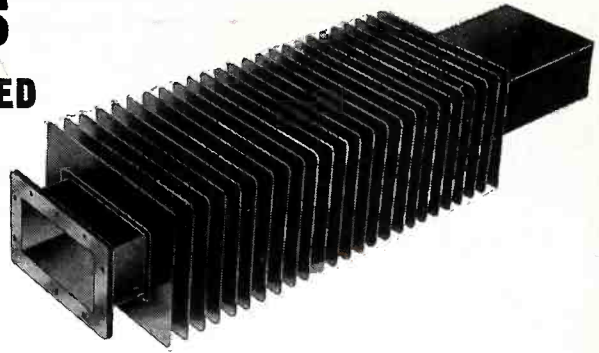
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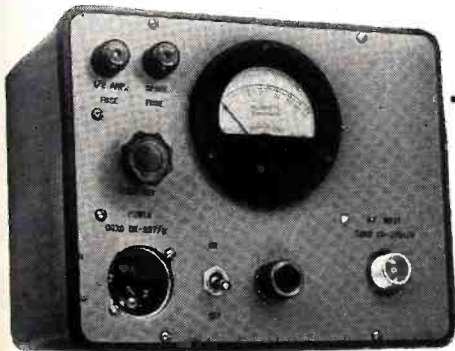
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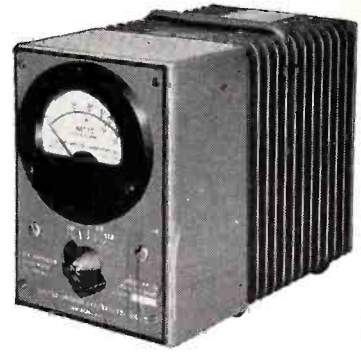
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Partial Listing of
Power Meters Shown Below

Model	Full Scale Power Measuring Ranges in Watts	Max. VSWR	Freq. Range Mcs.	Input Connector	Impedance Ohms	Supply Voltage	Tube or Crystal	Accuracy	Max. Power Dissipation	External Cooling
PM-6	1.5, 6	1.15	.2-700MC	Type N	51.5	None	1N82	±5%	10 W	None
PM-9	2.5, 10	1.15	.2-700MC	Type N	51.5	None	1N82	±5%	10 W	None
PM-10	15, 60	1.15	.2-700MC	Type N	51.5	None	1N82	±5%	90 W	None
PM-7	150, 600	1.15	.2-500MC	Type N	51.5	None	1N82	±5%	600 W	None
PM-19	1.5, 6, 15, 60, 120	1.15	.2-500MC		51.5	None	1N82	±5%	90 W	None
PM-14	1.5, 6, 15, 60, 150, 600, 1000	1.15	.2-500MC	To be specified	51.5	115 V 60 cps	2B22	±5%	600 W	None
PM-15	150, 600 2500	1.15	.2-500MC		51.5	None	1N82	±5%	2500 W	30 GPH tap water
PM-20	150, 600, 1500, 6000	1.15	.2-500MC		51.5 51.5	115 V 60 cps	2B22	±5%	6000 W	60 GPH tap water

PEAK READING

R. F. POWER METERS

.2 to 700 Megacycles • 0-50 or 0-500 Kilowatts

These peak reading power meters are designed to accurately measure the peak power of pulsed R.F. signals in the range of .2 to 700 MC with PRF of 800 to 10,000 pps and pulse duration of .5 micro-seconds or more, and less than specified maximum average power dissipation.

Model	Power Range	VSWR	Maximum Average Power Dissipation	Connector	Impedance	Supply Voltage	Accuracy	Frequency Response
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PM-18.....	0-500 kw	1.15	500 Watts		51.5	110 volts 60 cps	±10%	.2-700MC

WRITE TODAY FOR COMPLETE INFORMATION

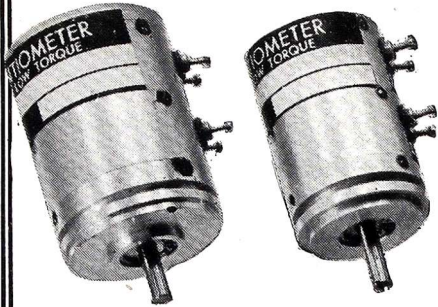
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- socket terminals
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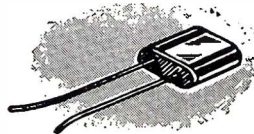
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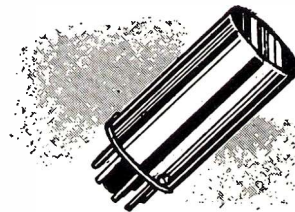
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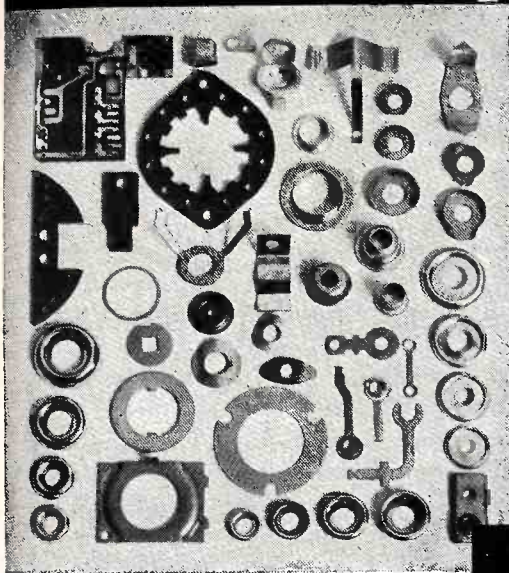
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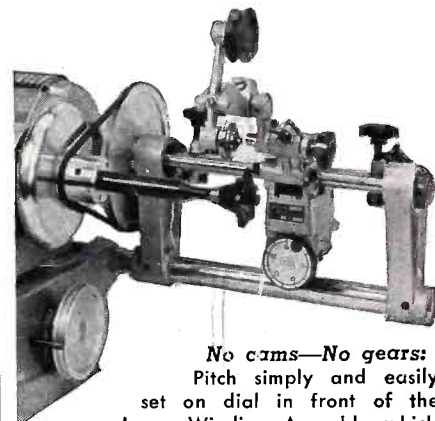
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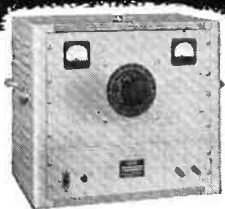
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INDUSTRIAL DUTY: 0-28 VOLTS

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Write for Technical Bulletins!

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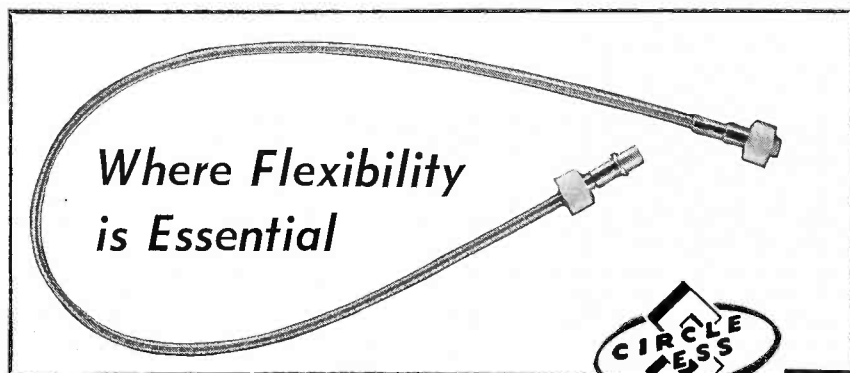
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To provide a connection for flexible shaft control where a bend sharp enough to damage the shaft is required. Ball bearing construction enables the handling of heavier loads.



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This adapter provides three outlets, which enables the running of three units from the same power source. Ball bearing construction enables this adaptor to handle heavy loads.



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To drive more than one unit from the same power source and to provide two gear ratios from the same power source.



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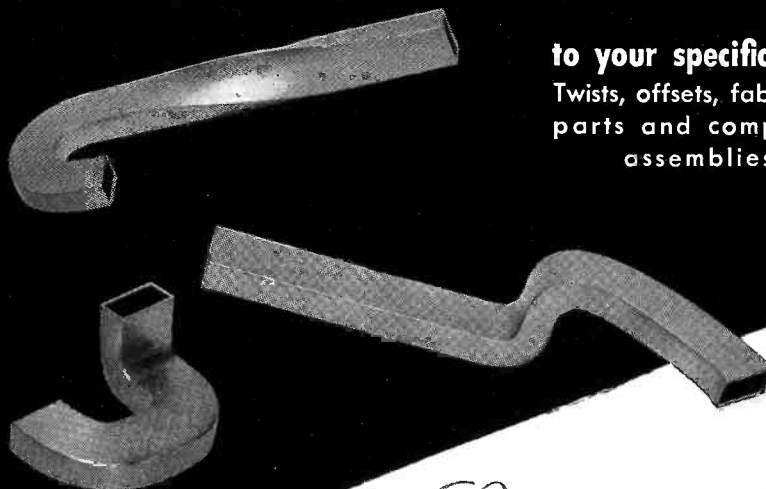
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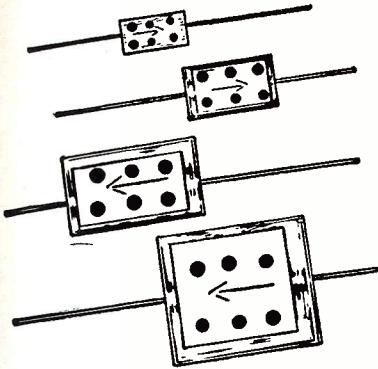
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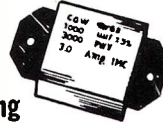


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CY60, CY65, CY70. Small, light, strong. Ideal for mobile RF transmitters. Electrically replace mica types CM45—CM70, offer many advantages.

High-capacitance, canned*



Characteristics and advantages of glass construction, to your specifications. Values and canning to your specifications.

Subminiature, tab-lead*



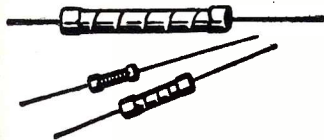
Up to 90% volume reductions possible when compared with wire lead types.

Extreme dependability plus temperature and moisture resistance in tiny-case sizes. To specification.

Special combination*

Advantages and characteristics of glass construction and performance in an infinite variety of shapes, sizes, leads, for unusual assignments.

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Type N . . . accurate Stable, economical

Critical accuracy and extreme stability, even under high temperature, high moisture, vibrating conditions. Range: $\frac{1}{2}$, 1, 2W. Operate to 140°C . ambient temperature with derating. Low noise level. Voltage coefficient less than .001% per volt average. Infinite load life. Average resistance change after 500 hours maximum dissipation is less than 0.5%. Permanent resistance change after standard 5-second overload of 6.25 times rated power is under .75%. And Corning Type N's are low-cost. To MIL-R-10509A specs.

Low-power resistors . . . Highest resistance range of any low-power resistor

Small, space-saving, noninductive and stable. *Low-priced!* Like all Corning resistors, the fired-in conductive film is tough, abrasion-resistant, requires no special handling. Resistance spiraled automatically under electronic control for uniformity and interchangeability. Impervious to moisture. Range: LP3—3W., 200—20,000 ohms; LP4—4W., 200—40,000 ohms; LP5—5W., 200—45,000 ohms; LP7—7W., 200—36,000 ohms. Tolerances $\pm 5\%$ and $\pm 10\%$. With derating, operate at ambient temperatures over 120°C . (Distributed by Erie Resistor Corp.)

Type S . . . high-temperature To MIL-R-11804A specs

Stable performance to 200°C . without encapsulation or hermetic sealing. Low-voltage coefficient, negligible inductive and capacitive effects. Difficult to measure noise level. Made to customer specifications rather than RTMA values. Size: 1, 2 and 4W.

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Range from 25 to 1,000,000 ohms, ratings from 7 to 115W., are noninductive. Well suited to sharp pulse work. Vertical or horizontal operation. Operate up to 200°C .; hot-spot temperature to 225°C . Meet MIL-R-11804A specifications.

Type H . . . high frequency Save space

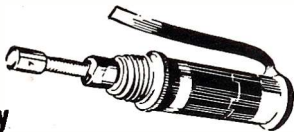
For dummy antennas, circuit loading, damping and terminating. Also for circuits subject to steep surges and saw-tooth patterns. Stable, rugged, noninductive. Standard line ranges from 10—1,000,000 ohms and has ratings of 5—150W. Also to your own requirements.

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Mechanical design permits direct mounting on 3" coax line end at RF ground potential. Extremely versatile, adaptable. Negligible skin effect. Range: 35—300 ohms with $\pm 15\%$ standard; 10 and 5% available, extra.

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Direct-traverse and midjet-rotary

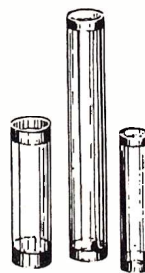


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OUTPUT
0-30 V.D.C.
5 Amps.

RIPPLE: 1/2 % at Maximum Load
REGULATION: 1/10 Load, 34.5 V.
Full Load, 30.0 V.

RACK MODEL KM75

BENCH MODEL (illus.) KM75B

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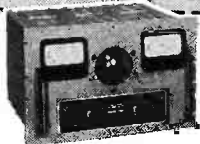
OUTPUT
0-30 V.D.C.
10 Amps.

RIPPLE: 1% at Maximum Load.
REGULATION: 1/10 Load, 35 V.
Full Load, 30 V.

RACK MODEL (illus.) KM81

BENCH MODEL KM81B

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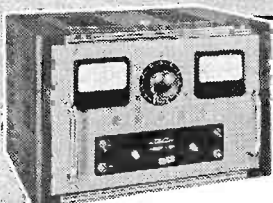
OUTPUT
0-28 V.D.C.
20 Amps.

RIPPLE: 1% at Maximum Load.
REGULATION: 1/10 Load, 33 V.
Full Load, 28 V.

RACK MODEL (illus.) KM88

BENCH MODEL KM88B

Request Bulletin No. 100



DUAL OUTPUT
0-32 V.D.C.
40 Amps.
0-64 V.D.C.
20 Amps.

RIPPLE: Less than 1%.

REGULATION: 1/10 Load, 36.5/73V.
Full Load, 32.0/64V.

RACK MODEL KM95

BENCH MODEL (illus.) KM95B

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UNFILTERED MODELS AVAILABLE

Request Bulletin No. 178



New O-PAC

Self-Contained DC Power Pack

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30 V.D.C. ± 6.5%
0-1 Amp.

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3150
\$45.00

RIPPLE: Less than 1%.
INPUT: 115 V.A.C. 60 cy.
DIMENSIONS: 4 3/4 x 6 x 6 1/2"

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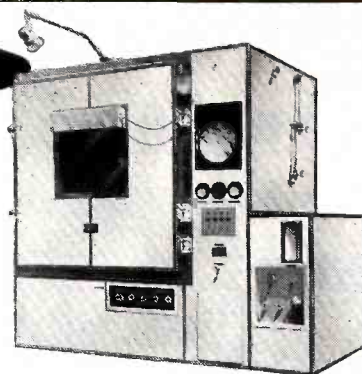


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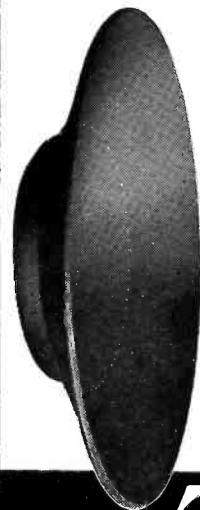


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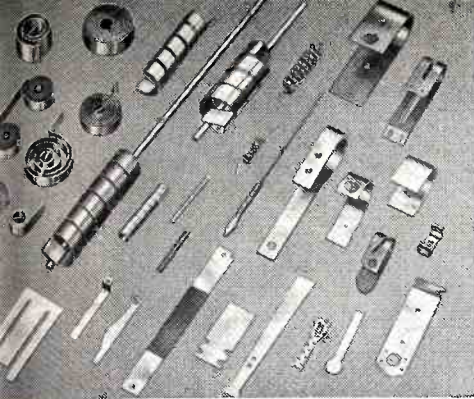


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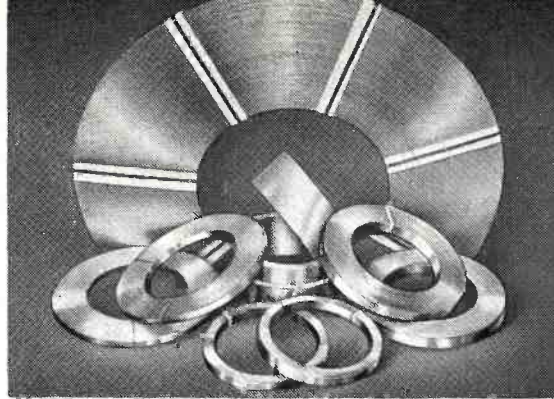
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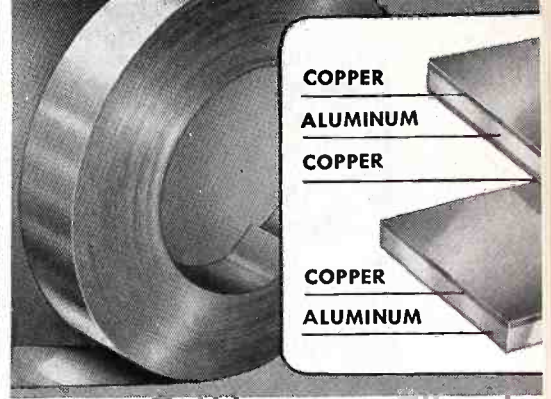
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TRUFLEX thermostat metals are manufactured in a wide variety of types, each with a different reaction to temperature. Uniformity of metal insures accurate and consistent performance. Precision parts fabricated to exact specifications.



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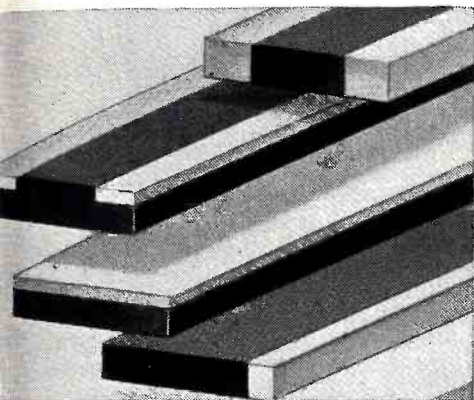
Available in practically any combination of precious to precious, precious to base or base to base metals. Combinations for electronics include aluminum-clad iron, nickel-clad iron for anode materials.



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ALUMINUM

ALCUPLATE

Copper-clad aluminum for component cases or cans, chassis, cooling fins, etc., light weight, excellent conductivity. Copper surface is ideal for soft soldering and electroplating.



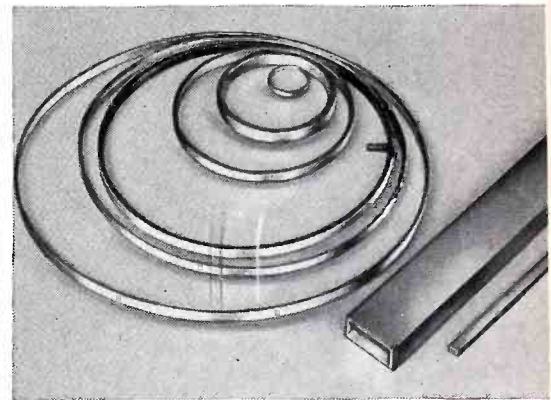
CLAD CONTACT MATERIAL

Precious metals and alloys bonded to base metals available in following types — overlay, single and double edgelay, single and double inlay, Top-lay, ready for you to fabricate into contacts.



CLAD CONTACTS

General Plate can supply all types of fabricated clad contacts, buttons, rivets, contact assemblies made to customer's specifications. These contacts give electrical conductivity and long life at reduced costs.



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RECTANGULAR WAVE GUIDES. Solid silver, silver lined brass or aluminum. Sizes to government specifications. COLLECTOR RINGS. Solid silver or precious metal on base metal. All sizes.

General Plate Products

that solve your Electronic Design Problems

General Plate Clad Metals, made by metallurgically bonding one metal to another, are available in sheet, strip, tubing or wire in various widths, thicknesses and diameters.

Silver, gold and platinum-group metals bonded on base metals give solid precious metal performance at a fraction of the cost of solid precious metal. The precious metal provides specific performance requirements such as electrical conductivity and corrosion resistance while the base metal provides workability, strength, and solderability.

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General Plate Engineers will gladly help you with your problems.

METALS & CONTROLS CORPORATION GENERAL PLATE DIVISION

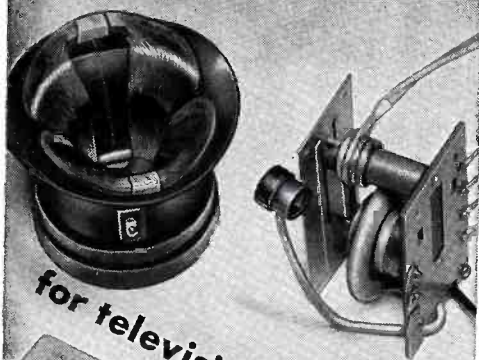
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General Plate Clad Metals

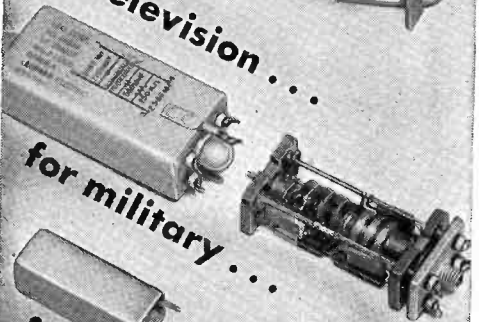
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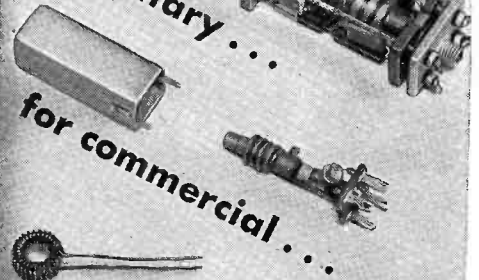
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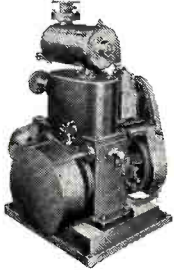
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HIGH VACUUM COMPONENTS, EQUIPMENT, and SYSTEMS

Mechanical Vacuum Pumps



NRC Model 100M

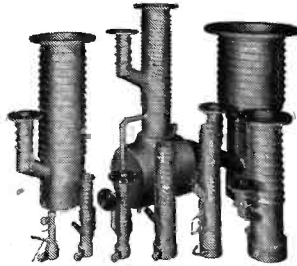
Because of the Gas Ballast feature, these pumps maintain their original high efficiency even when pumping 100% water, or other condensable vapors. Therefore, expensive oil purifiers and frequent and costly oil changes are not needed. NRC pumps have paid for themselves in three years from oil savings alone.

MODEL NO.	CAPACITY CFM	ULTIMATE VACUUM GAS BALLAST OFF mm. Hg (A)	ULTIMATE VACUUM GAS BALLAST ON mm. Hg (A)	PRICE (B)
SINGLE STAGE				
2-S	1.25	3×10^{-3}	Less than one half millimeter of mercury	\$155
4-S	3.3	3×10^{-3}		225
6-S	6.75	3×10^{-3}		312
15-S	11.6	3×10^{-2}		475
30-S	29.5	3×10^{-3}		800
100-S	100	3×10^{-3}		1475
200-S	202	1×10^{-2}	2500	
400-S	403	5×10^{-3}	3875	
DOUBLE STAGE				
2D	1.25	5×10^{-5}	2.5×10^{-2}	\$215
4D	3.3	5×10^{-5}	2.5×10^{-2}	280
6D	6.75	5×10^{-5}	2.5×10^{-2}	425
15D	14.75		2.5×10^{-2}	750
30M	29.5	3×10^{-3}	3×10^{-3}	1200
100M	100	3×10^{-3}	3×10^{-3}	1975
200M	202	3×10^{-3}	3×10^{-3}	3200
400M	403	3×10^{-3}	3×10^{-3}	5425

Note A: McLeod gauge reading

Note B: F.O.B. Newton, Mass. Price includes pump, base, v-belt drive, and motor

Diffusion and Booster Pumps



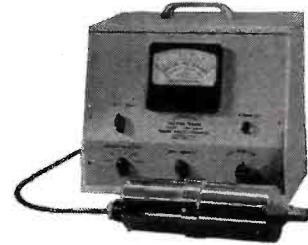
NRC Booster and Diffusion Pumps

While NRC high vacuum diffusion and booster pumps are unsurpassed for through-put, blank off, and fore-pressure tolerance, they are especially outstanding for reliability. They offer long, trouble-free life, and are easy to maintain. Narcoil pumping fluids are unusually stable, have excellent pumping characteristics, and are low-priced. Narcoil-10 is \$10.50 per gallon and Narcoil-40 is \$38.50 per gallon.

PUMP MODEL	BLANK-OFF, mm. Hg (C)	MAX. SPEED LITERS/SEC.	TOLERABLE FOREPRESSURE mm. Hg	PUMPING FLUID	PRICE (D)
DIFFUSION PUMPS					
G-2-M (A)	8×10^{-7}	30	0.50	Mercury	\$225
H-2-P	2×10^{-7}	80	0.25	Narcoil 40	125
A-2-P (B)	2×10^{-6}	85	0.20	DC 703	150
H-4-P	5×10^{-7}	300	0.31	Narcoil 40	245
H-6-P	5×10^{-7}	730	0.20	Narcoil 40	410
H-10-P	5×10^{-7}	1900	0.19	Narcoil 40	745
H-16-P	5×10^{-7}	5500	0.30	Narcoil 40	1320
BOOSTER PUMPS					
B-1	1×10^{-4}	8	0.30	Narcoil 10	\$ 65
B-2	1×10^{-4}	85	0.85	Narcoil 10	195
B-4	1×10^{-4}	260	1.30	Narcoil 10	355
B-6	1×10^{-4}	530	0.90	Narcoil 10	990
B-12	1×10^{-4}	3500	0.90	Narcoil 10	

Note A: Glass pump
 Note B: Air-cooled. Price includes blower
 Note C: Untrapped ion gauge, except for G-2-M
 Note D: Includes initial charge of pumping fluid

Vacuum Gages



Model 520

NRC vacuum gauges are outstanding for their accuracy and ability to withstand hard usage. The NRC Model 520 shown above is an all-purpose gauge with uniquely wide range and accuracy. Its ruggedized new circuitry eliminates troublesome components, minimizes contamination effects and provides highly stable linear amplification.

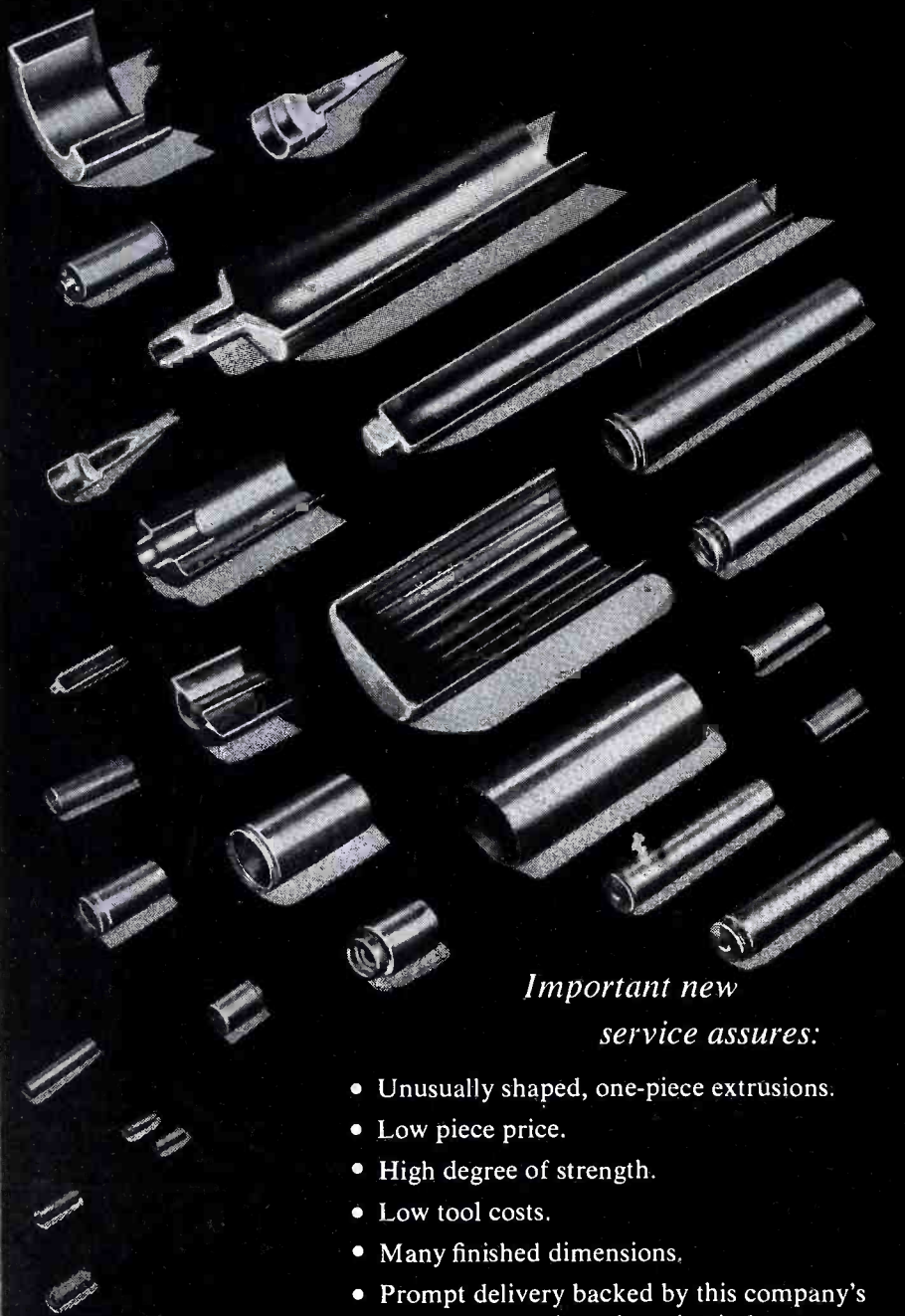
MODEL	TYPE	RANGE mm. Hg	PRICE complete with head(s)
NRC HIGH VACUUM GAUGES			
501	Thermocouple Head	10^{-3} to 1.0	\$10.50
507	Ionization Head	2×10^{-8} to 5×10^{-3}	22.00
510	Alphatron® Ionization	10^{-3} to 10.	520.00
515	Logarithmic Alphatron® Ionization	10^{-3} to 10.	250.00
516	Pirani	10^{-3} to 1.0	175.00
520	Alphatron Ionization	10^{-4} to 10^3	550.00
701	Thermocouple	10^{-3} to 1.0	130.50
710	Thermocouple Ionization	2×10^{-8} to 1.0	438.00

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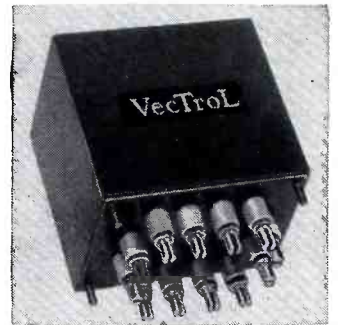
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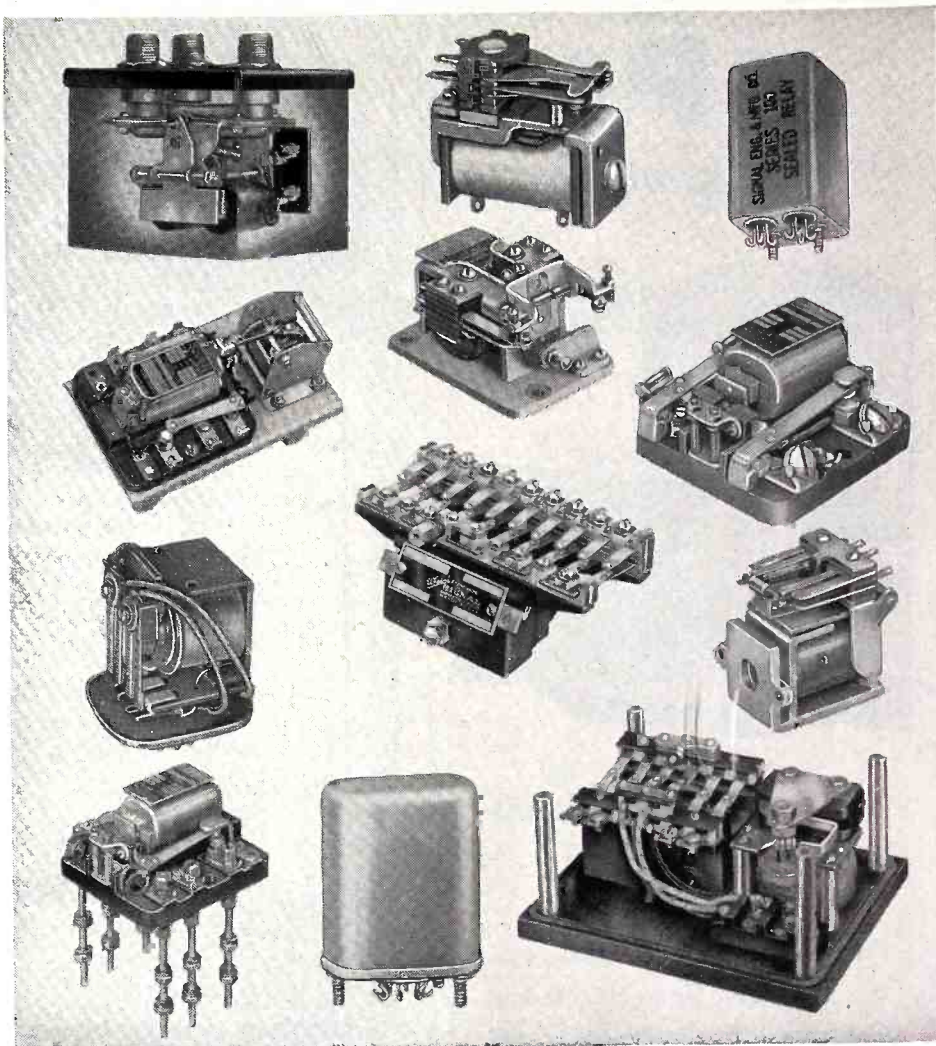
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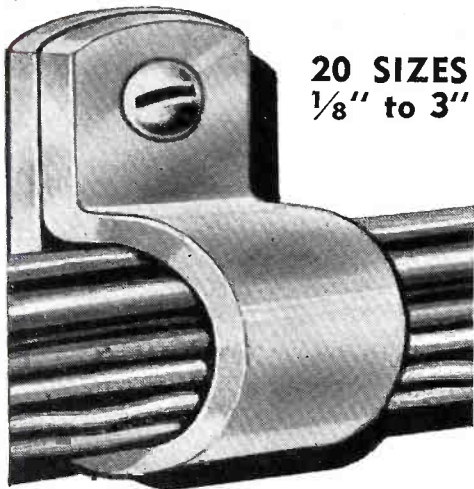
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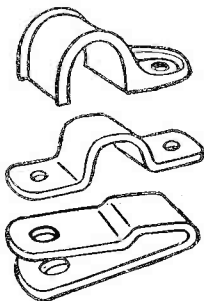


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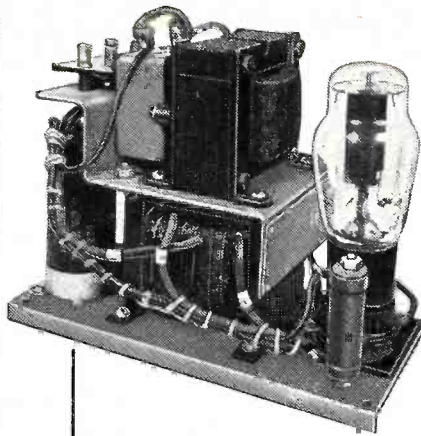
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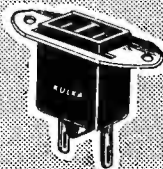
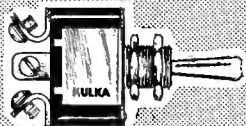
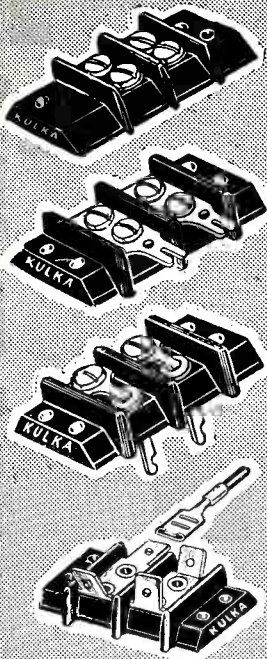
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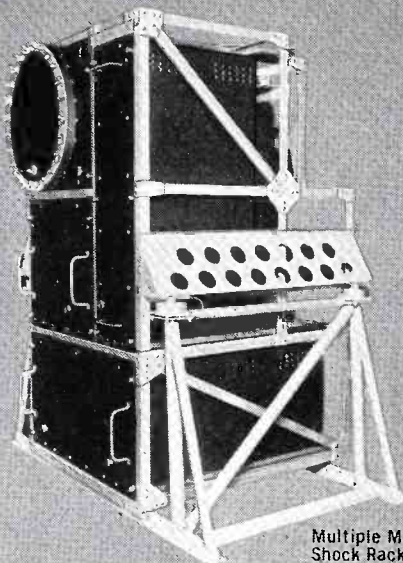
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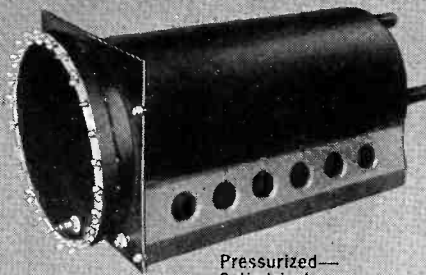
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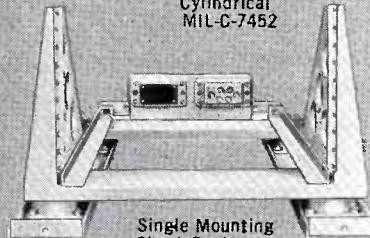
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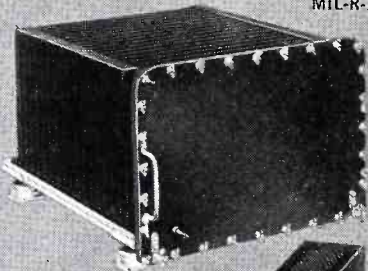
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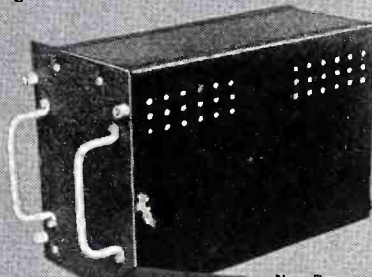
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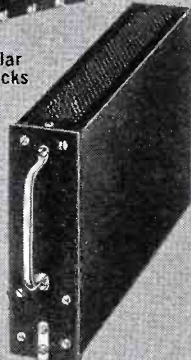
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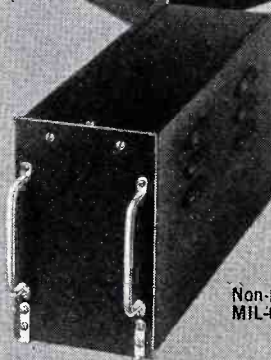
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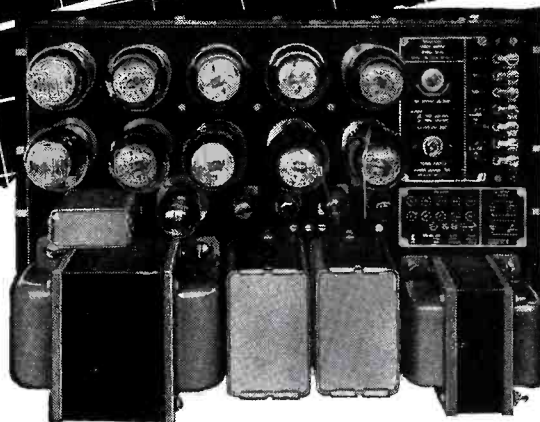
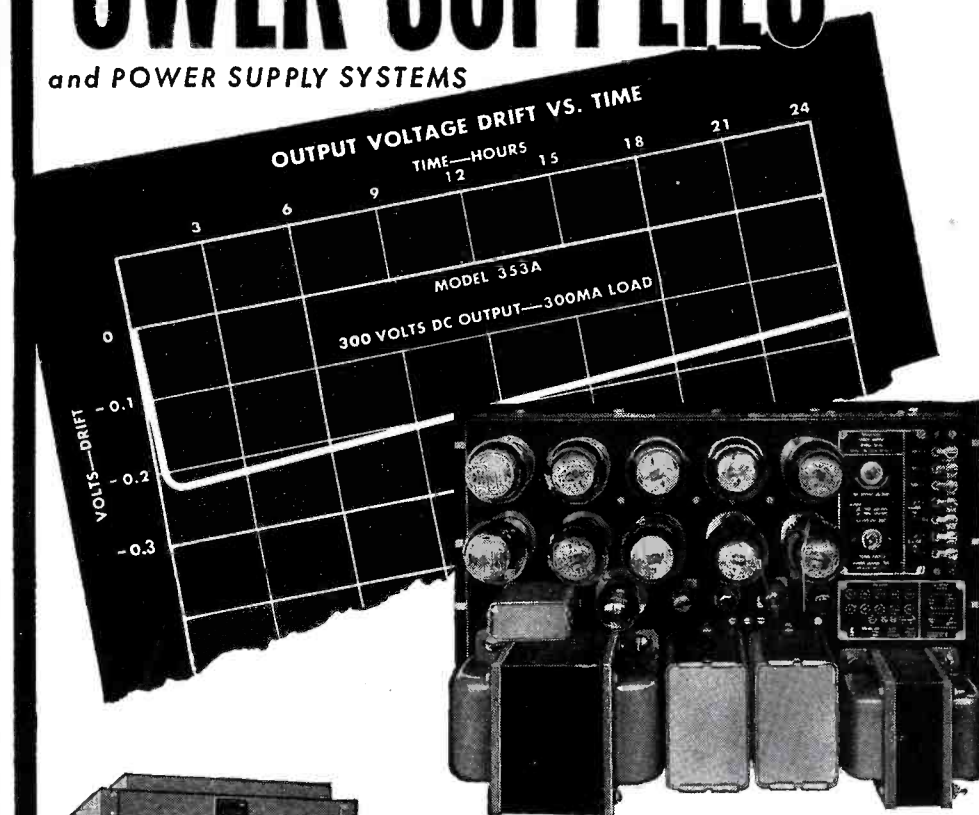
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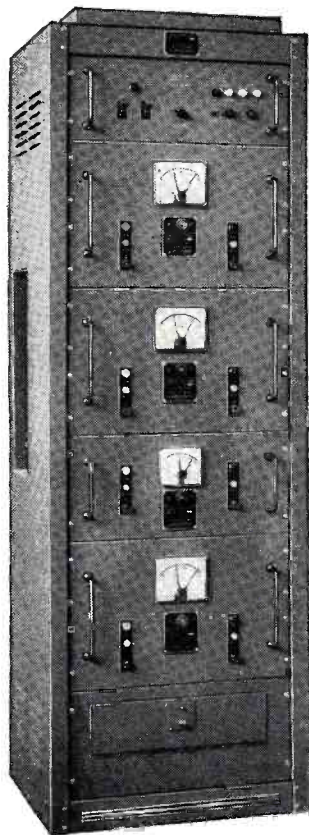
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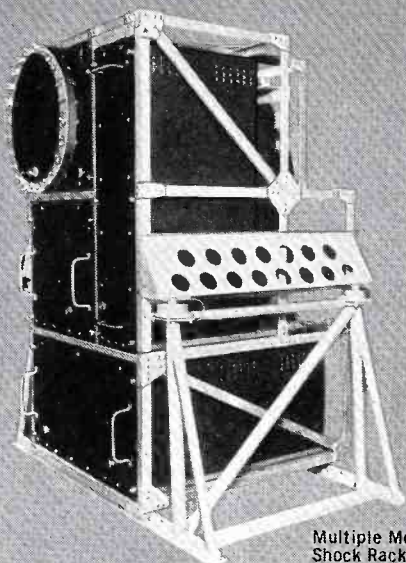
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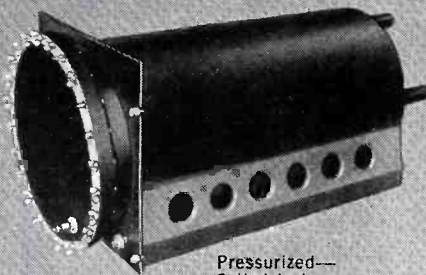
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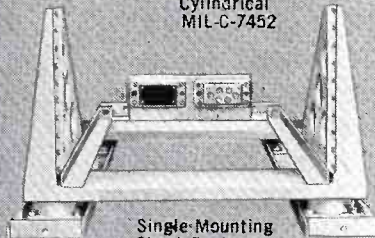
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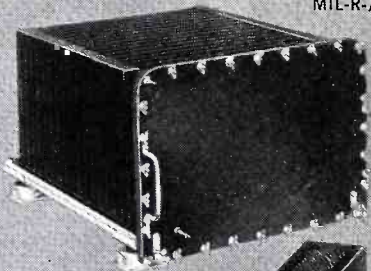
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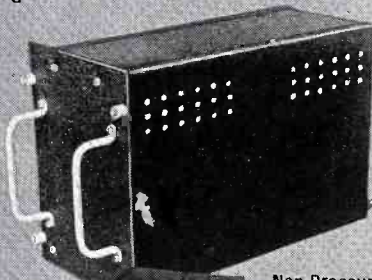
Pressurized—
Cylindrical
MIL-C-7452



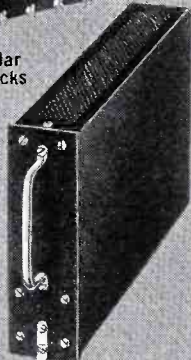
Single Mounting
Shock Rack
MIL-R-7453



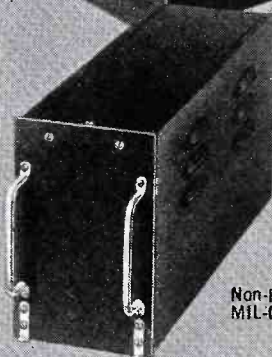
Pressurized—Rectangular
Fits Shock Mounting Racks
MS 91405



Non-Pressurized
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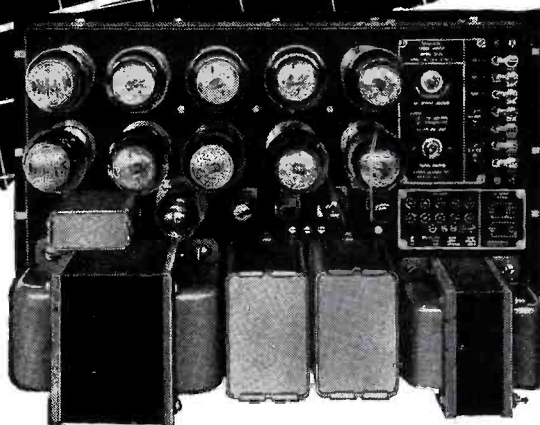
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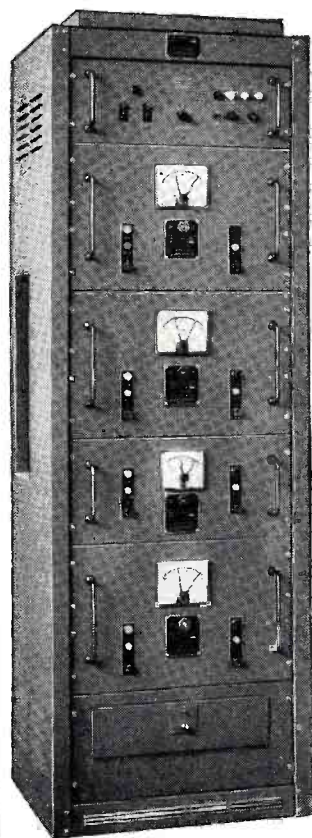
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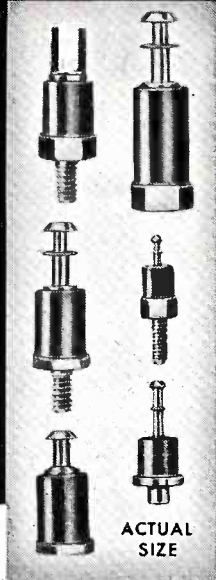
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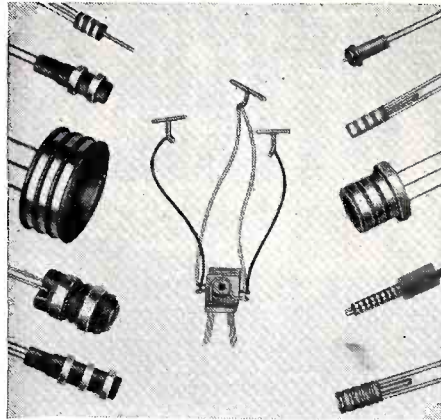


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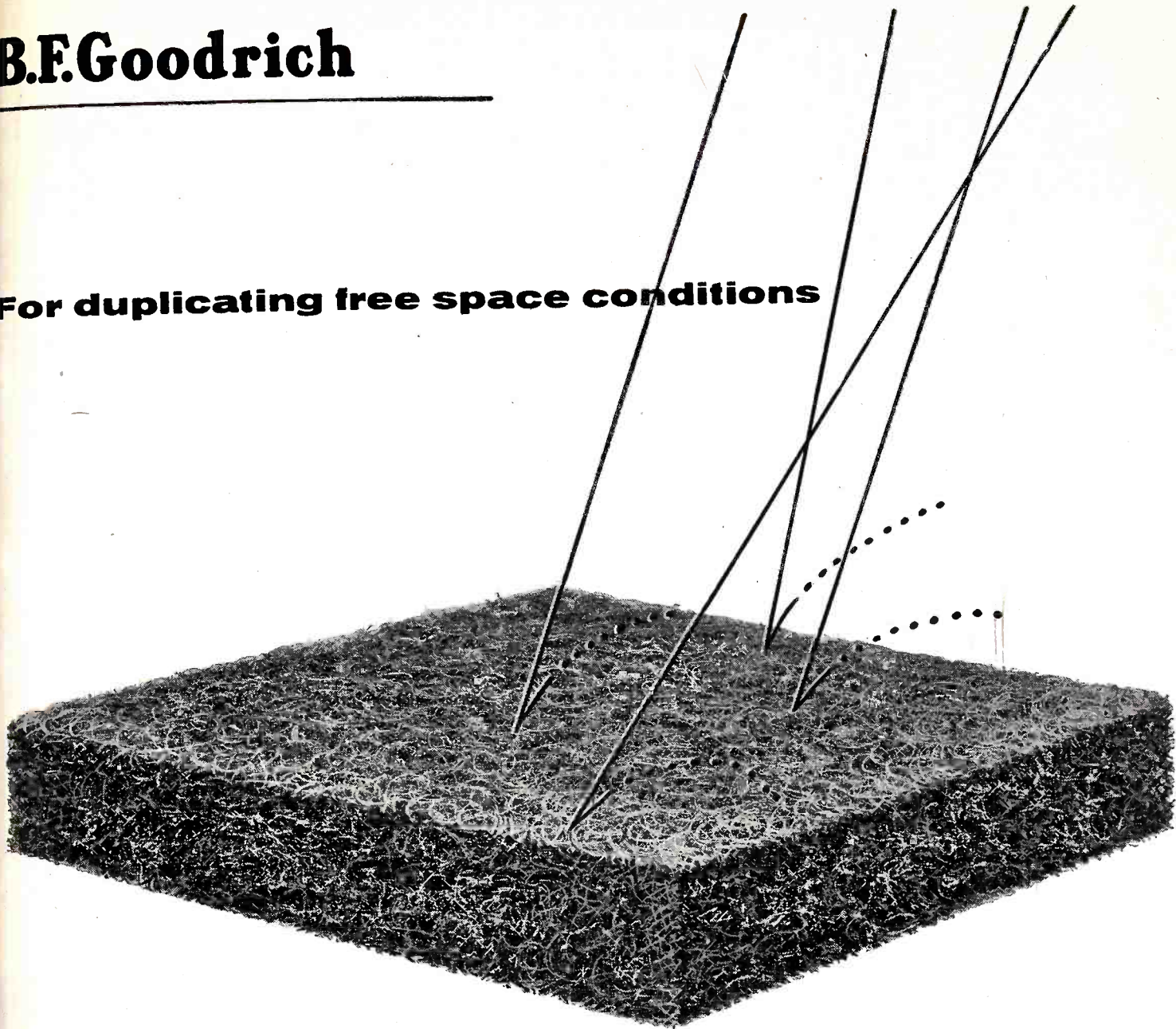
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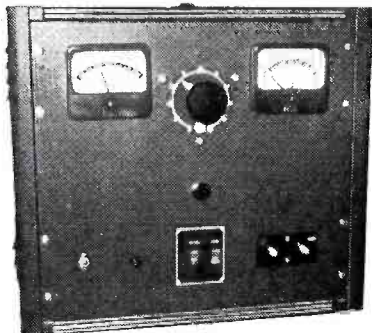
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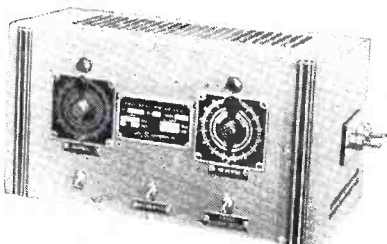


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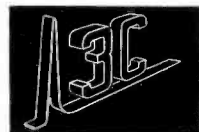
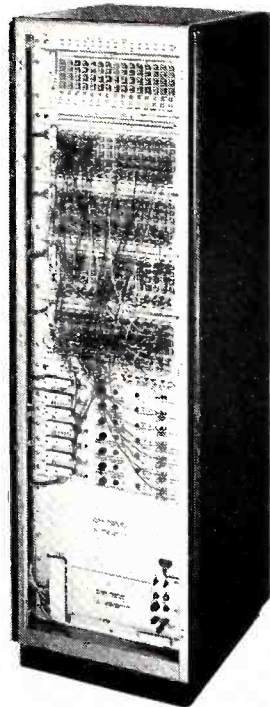
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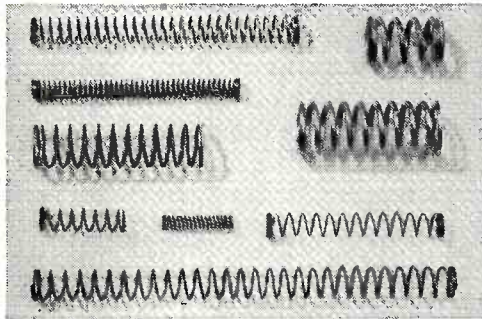
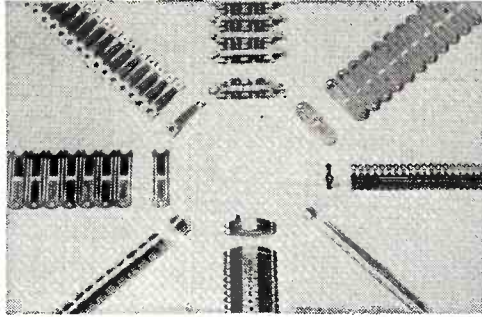
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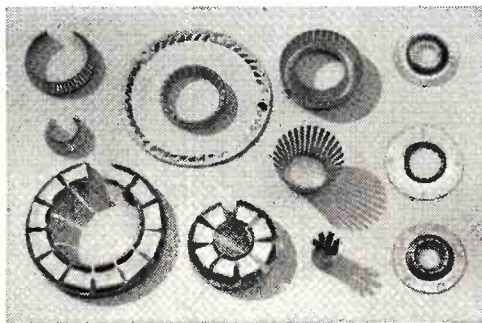
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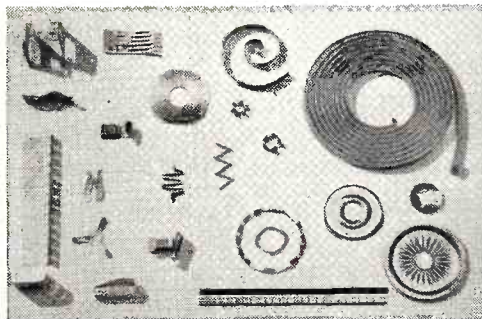


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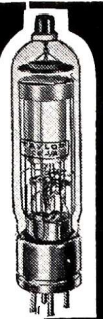
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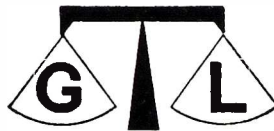
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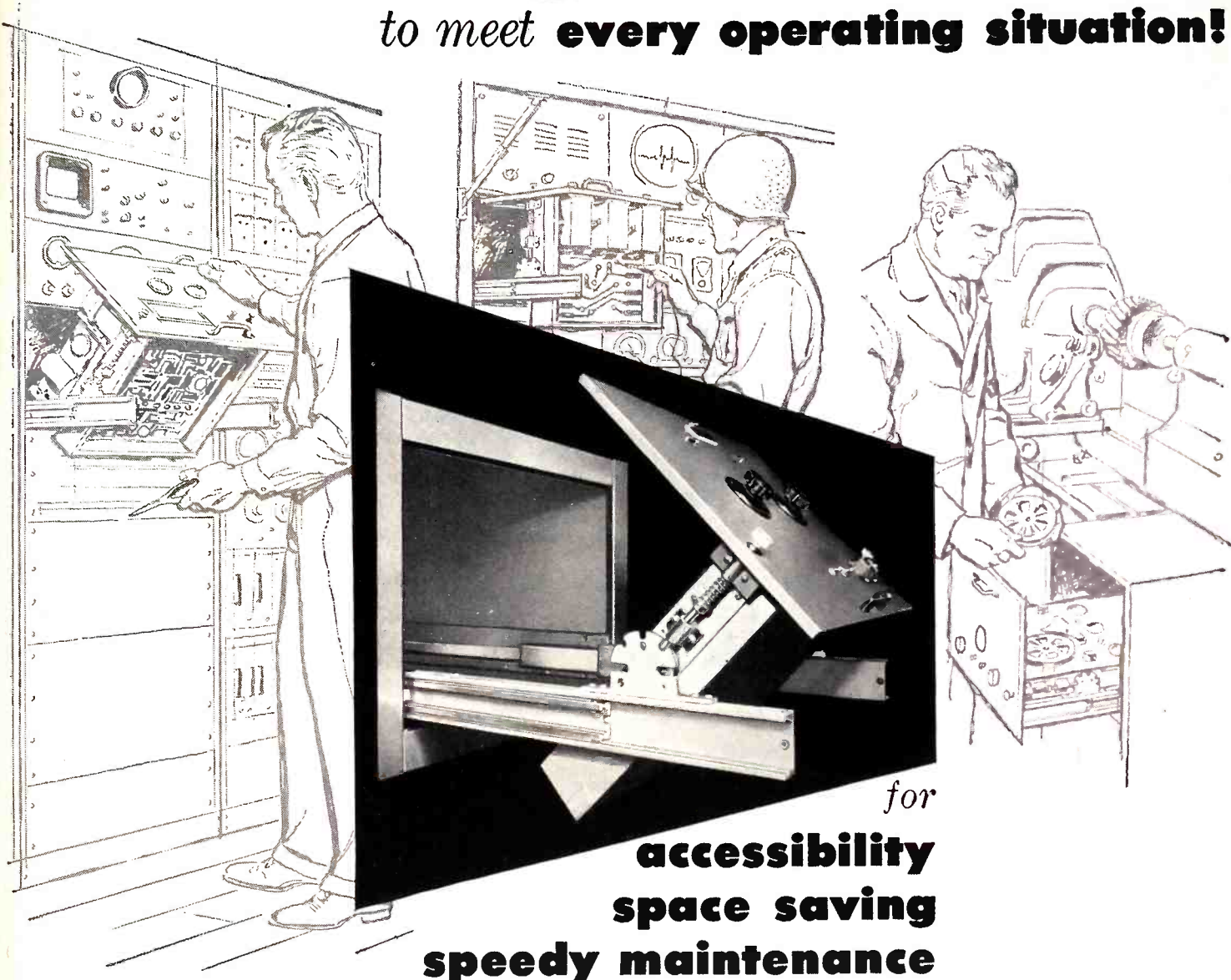
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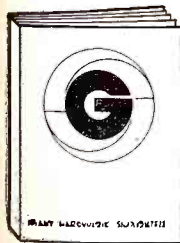
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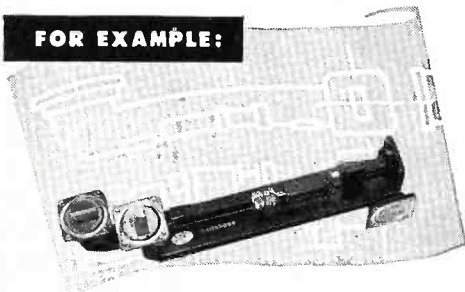
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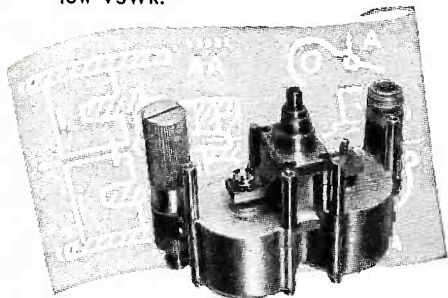
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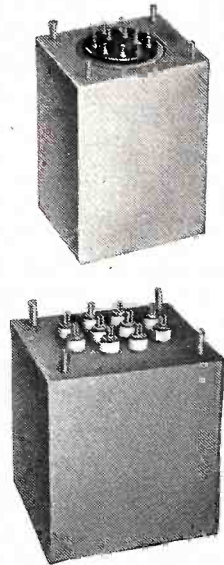
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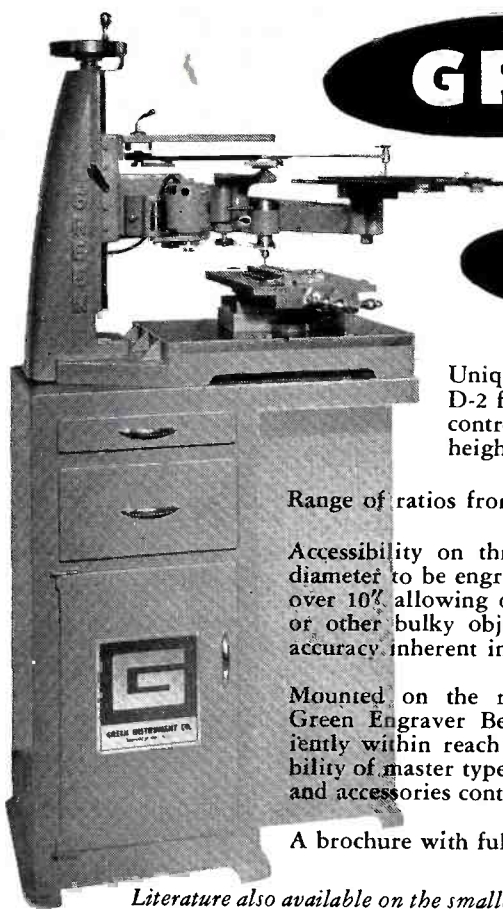
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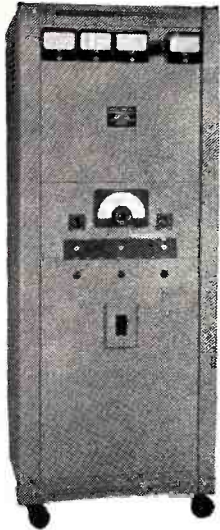
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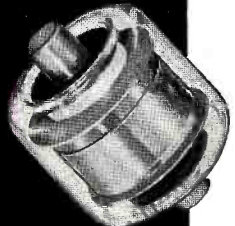
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VC75-20	75	20	45	4 1/2	2 3/8	1 3/16
VC100-20	100	20	45	4 1/2	2 3/8	1 3/16
VC250-20	250	20	65	6 1/2	2 3/8	1 3/16
VC500-20	500	20	120	9	3 3/8	2
VC6-16	6	16	25	4 3/4	1 3/8	3/16
VC12-16	12	16	25	4 3/4	1 3/8	3/16
VC25-16	25	16	25	4 3/4	1 3/8	3/16
VC50-16	50	16	45	4 3/4	1 3/8	3/16
VC100-16	100	16	45	4 3/4	2 1/4	3/16
VC25-10	25	10	20	2 3/4	1 1/4	1/8
VC50-10	50	10	20	2 3/4	1 1/4	1/8
VC50-10-A	50	10	40	3 3/4	2 1/4	3/8
VC100-10-A	100	10	40	3 3/4	2 1/4	3/8
VC150-10-A	150	10	40	3 3/4	2 1/4	3/8
VC250-10	250	10	45	4	3 1/4	3/8
VC500-10	500	10	45	4	3 1/4	3/8
VC100-7.5	100	7.5	35	4 3/4	1 3/4	3/8

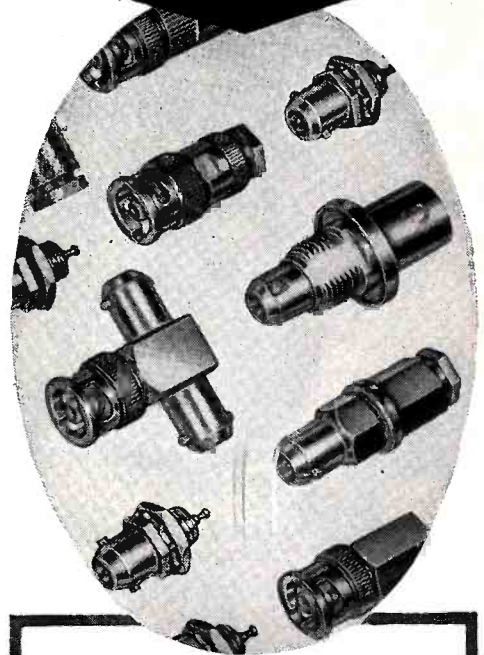
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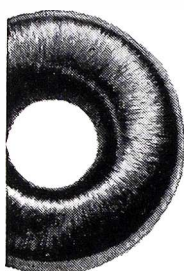
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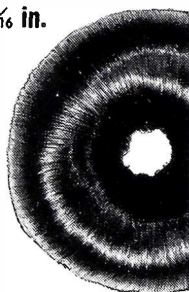
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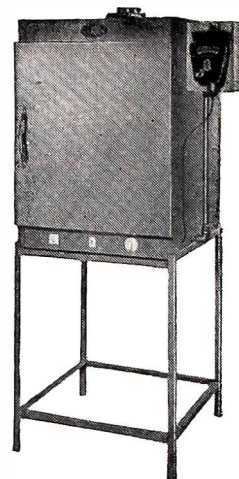
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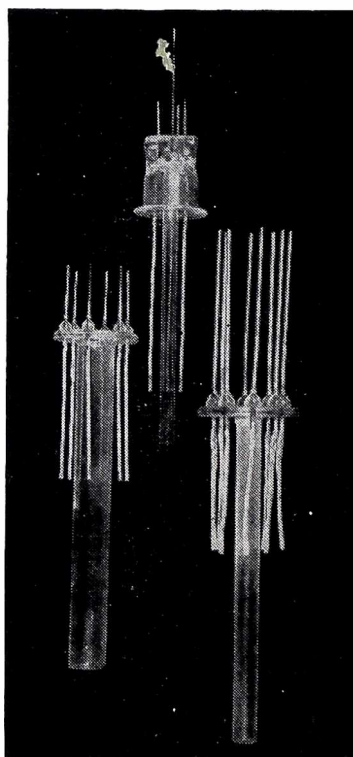
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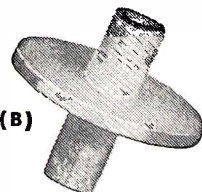
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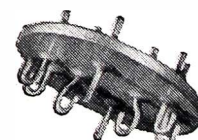
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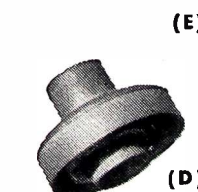
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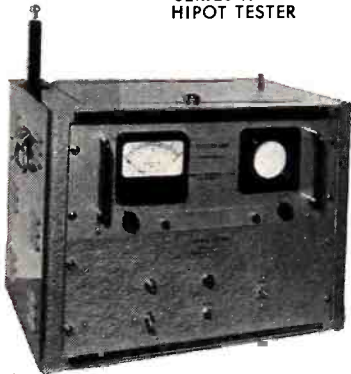
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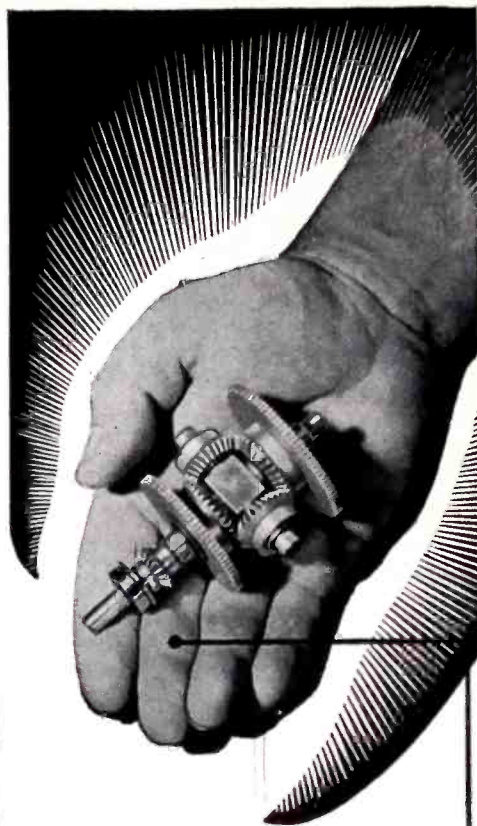
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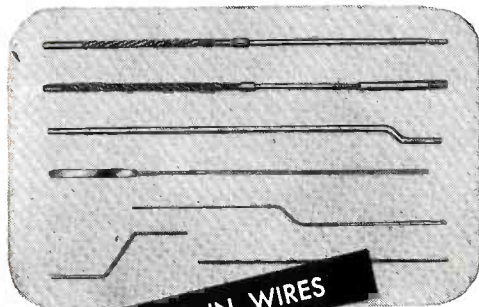
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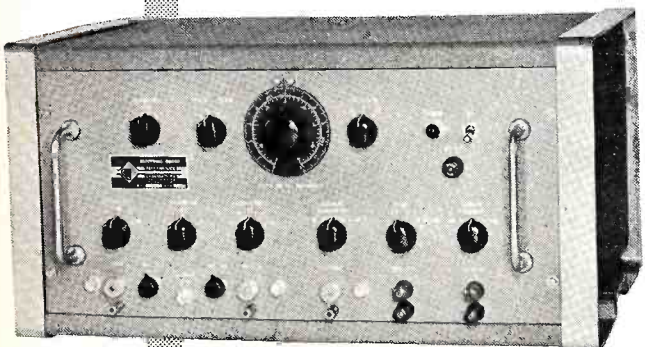
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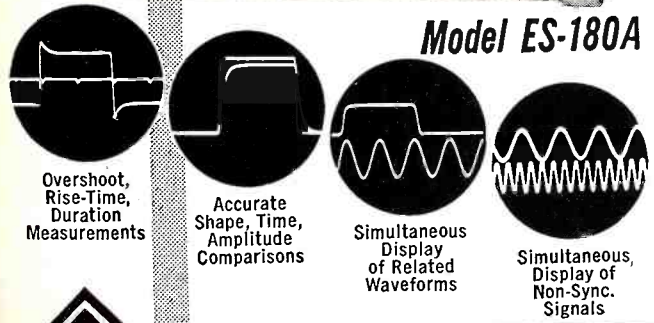
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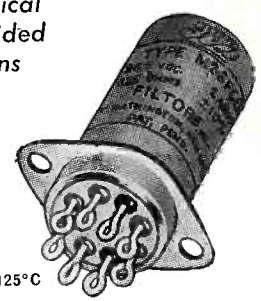
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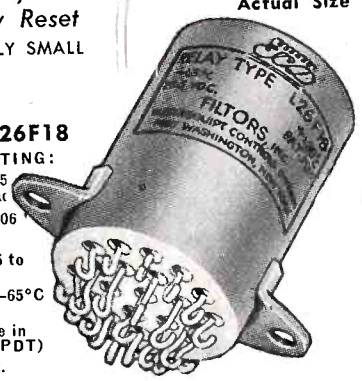


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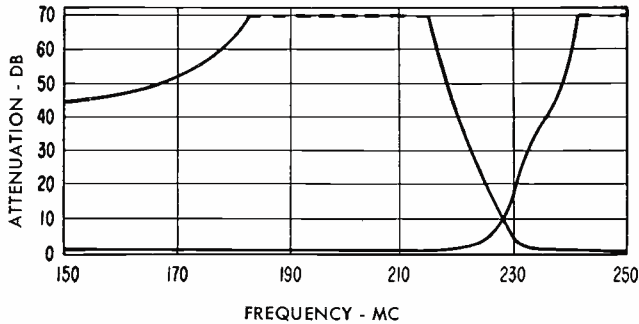
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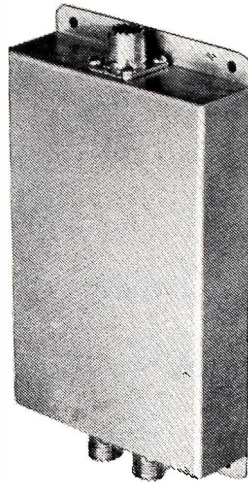


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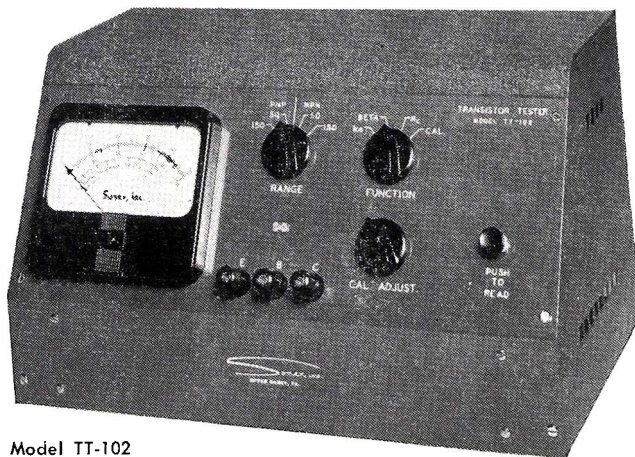
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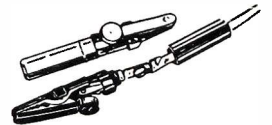
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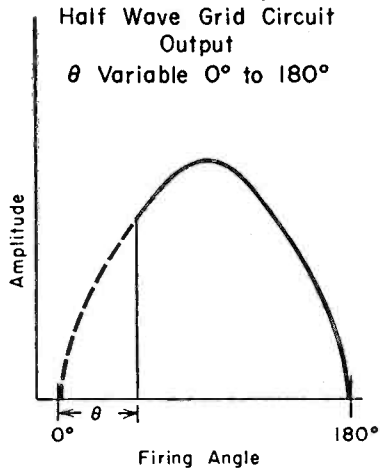


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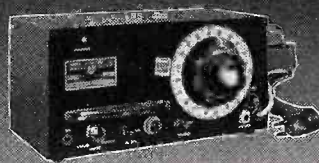
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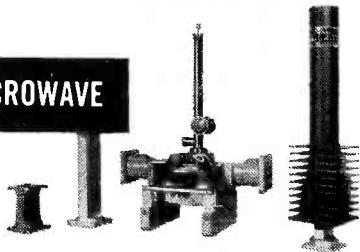
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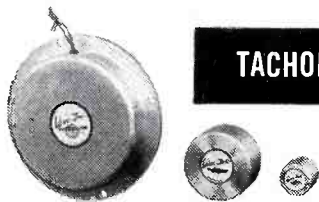
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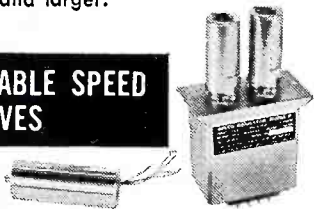
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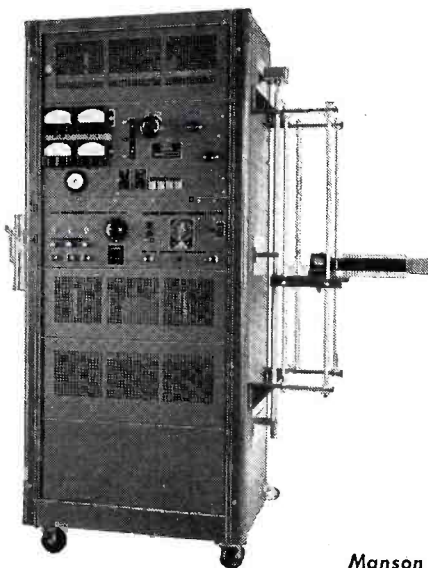
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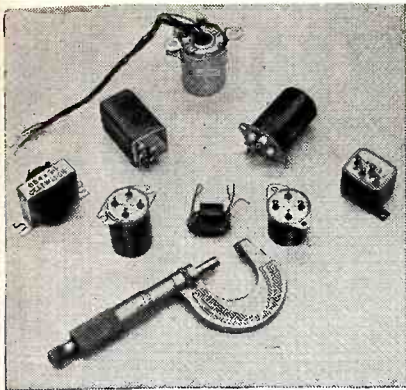
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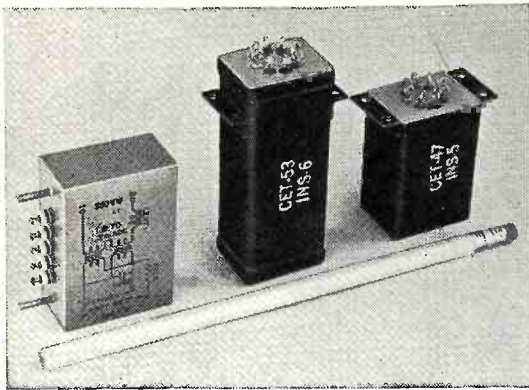
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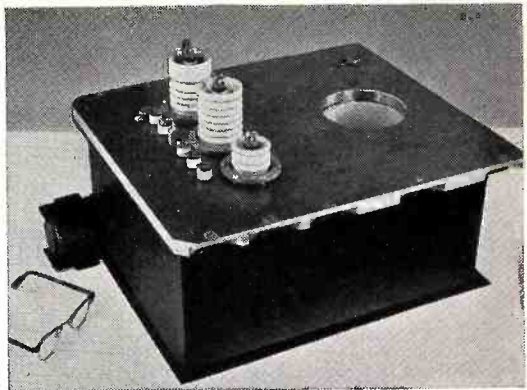
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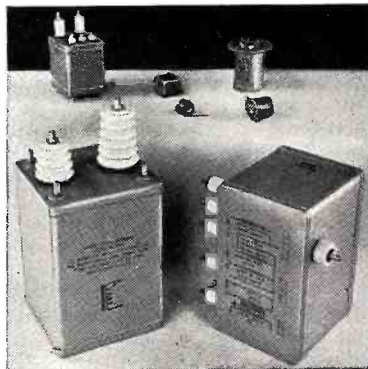


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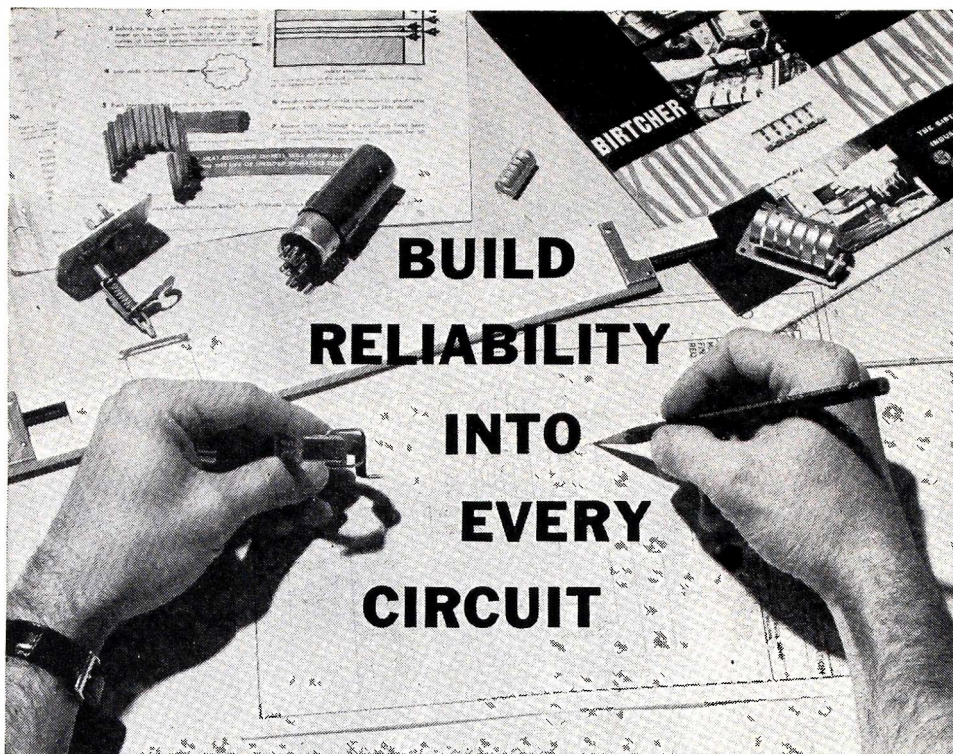
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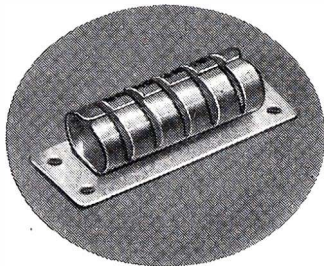


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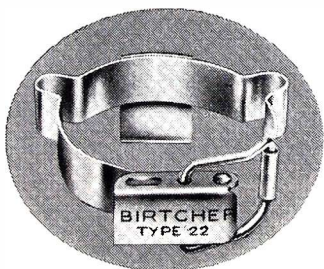
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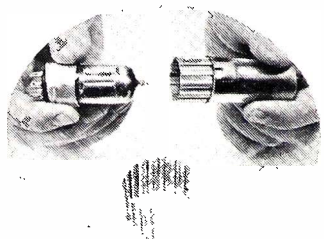
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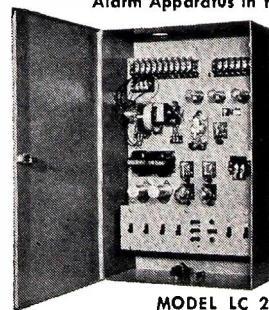
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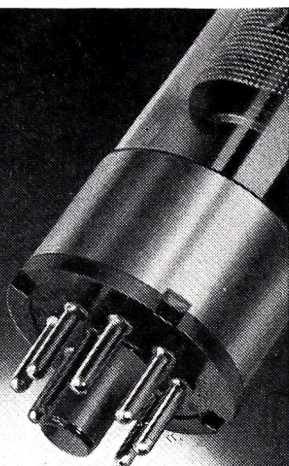
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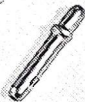
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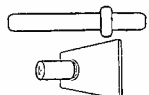


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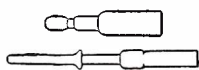
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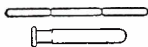
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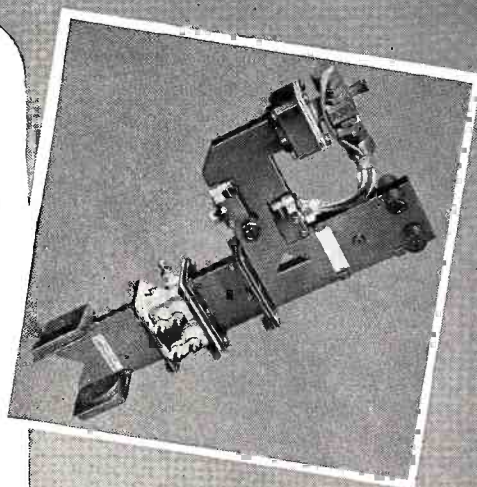
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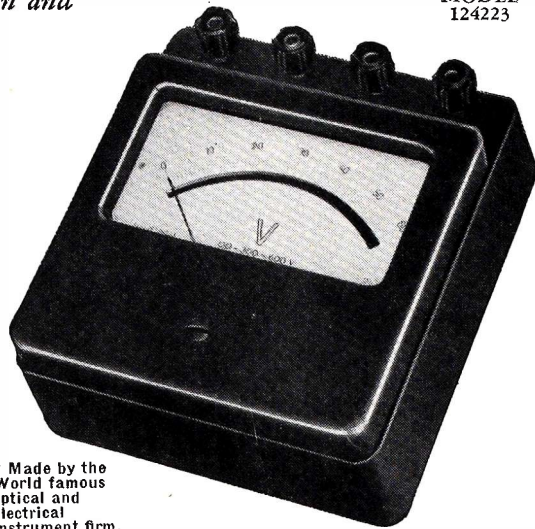
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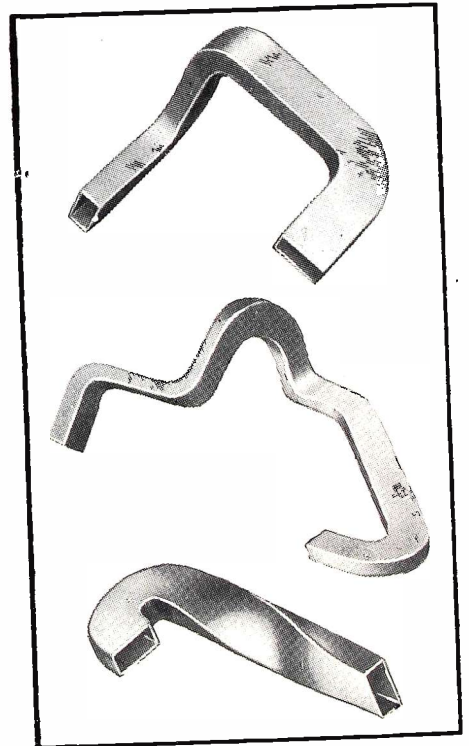
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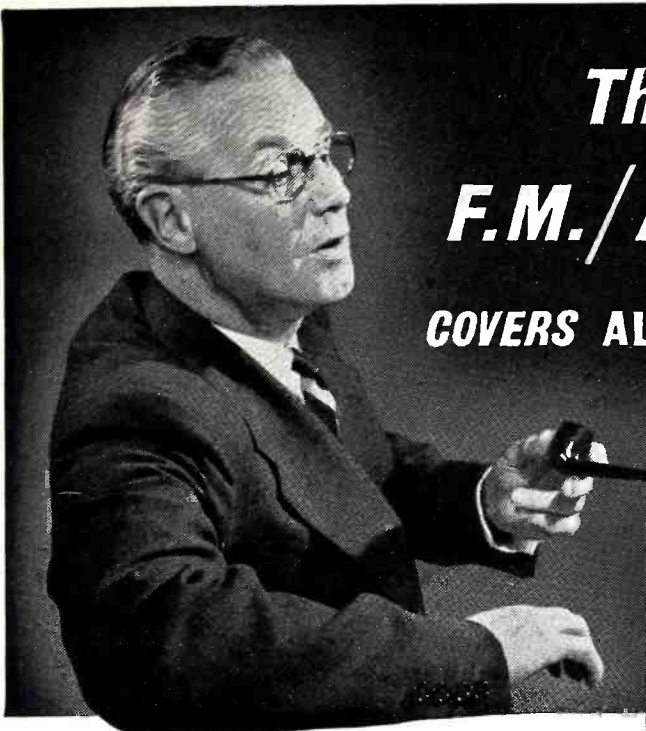
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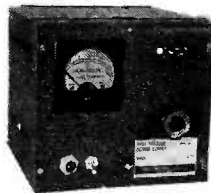
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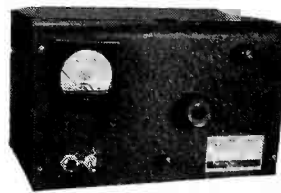
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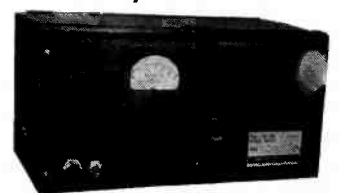
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22MR	5-30 KV	3 ma @ 20 KV	1/2 %
23C	5-40 KV	1.3 ma @ 25 KV	1/2 %
23CR	5-40 KV	1.3 ma @ 25 KV	1/2 %
23M	5-45 KV	1.5 ma @ 30 KV	1/2 %
23MR	5-45 KV	1.5 ma @ 30 KV	1/2 %
24C	5-50 KV	1 ma @ 35 KV	1/2 %
24CR	5-50 KV	1 ma @ 35 KV	1/2 %
24M	5-50 KV	2 ma @ 30 KV	1/2 %
24MR	5-50 KV	2 ma @ 30 KV	1/2 %
23S	3-35 KV	3 ma @ 30 KV	1/2 %
23SR	5-35 KV	3 ma @ 30 KV	1/2 %
REVERSIBLE OUTPUT MODELS:			
R-21K	1-10 KV	10 ma @ 5 KV	
R-21KR	1-10 KV	10 ma @ 5 KV	1/2 %
R-22C	3-26 KV	2 ma @ 18 KV	
R-22CR	5-26 KV	2 ma @ 18 KV	1/2 %
R-22M	5-30 KV	3 ma @ 20 KV	
R-22MR	5-30 KV	3 ma @ 20 KV	1/2 %
R-22SR	5-30 KV	2 ma @ 30 KV	1/2 %

Standard Models

Model	Voltage Range	Current Range	Regulation
21K	1-10 KV	10 ma @ 5 KV	
21KR	1-10 KV	10 ma @ 5 KV	1/2 %
21M	1-12 KV	6 ma @ 10 KV	
21MR	1-12 KV	6 ma @ 10 KV	1/2 %
22C	3-26 KV	2 ma @ 18 KV	
22CR	5-26 KV	2 ma @ 18 KV	1/2 %

Write to Dept. A for completely new catalog and price list.

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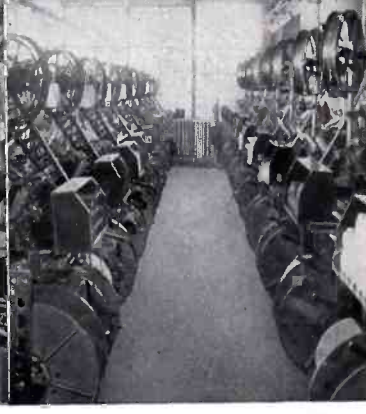
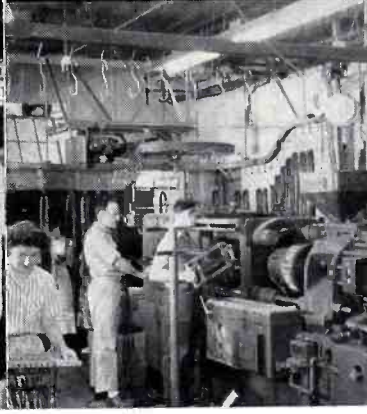
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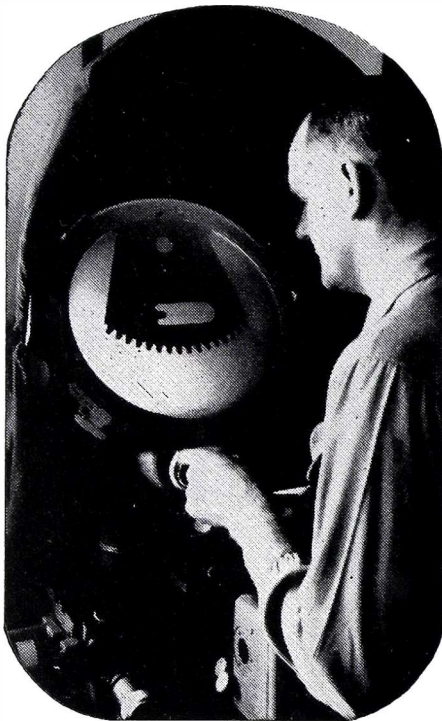
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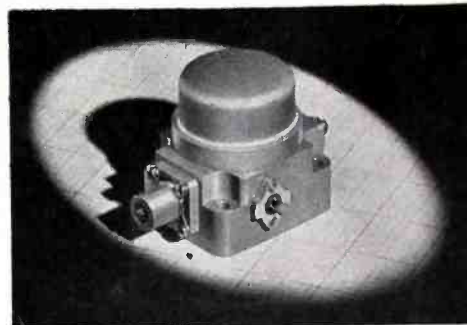
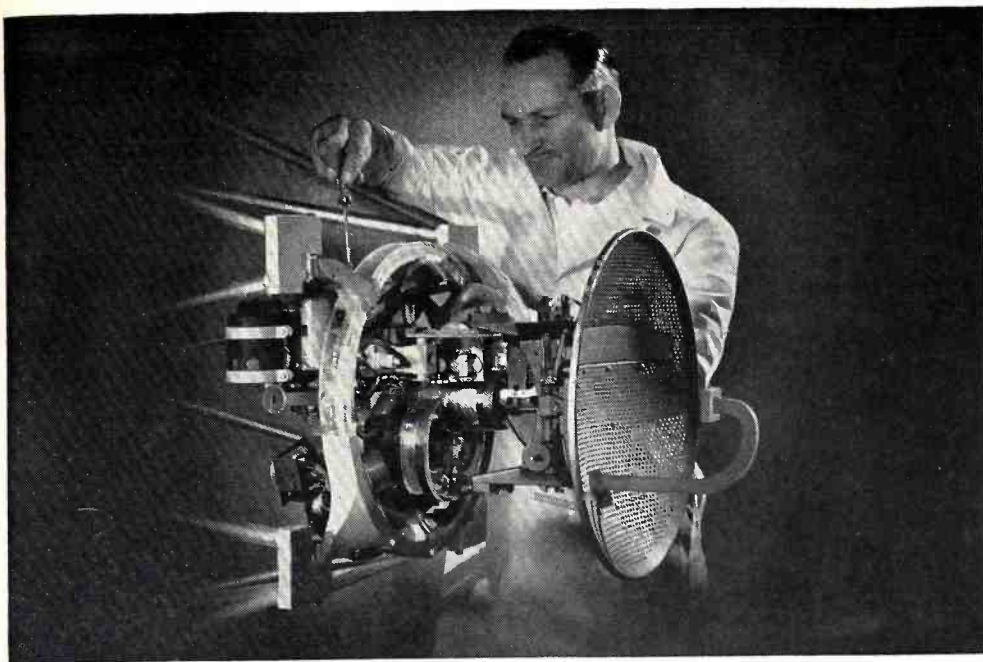
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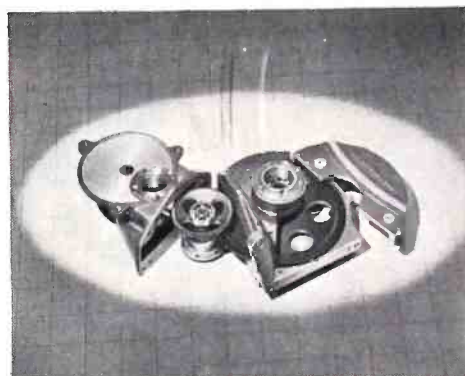
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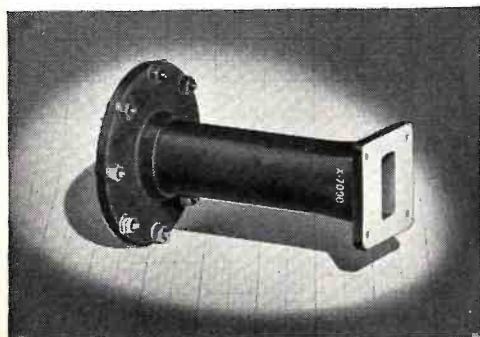
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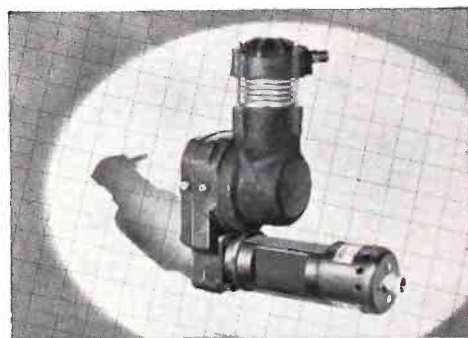
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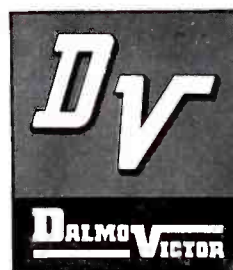
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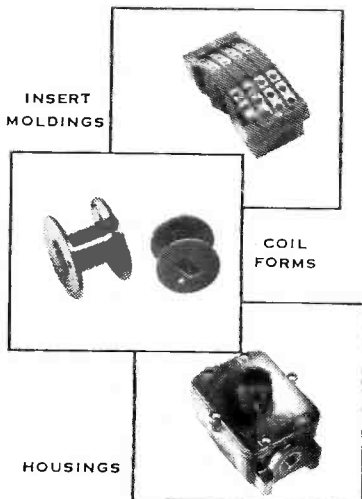
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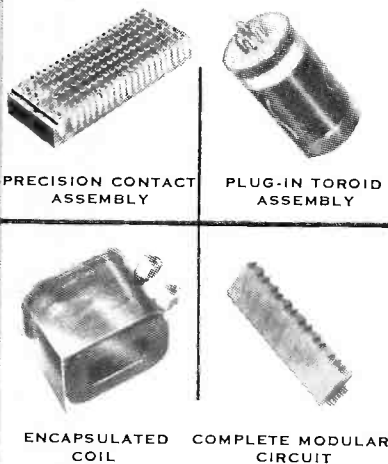
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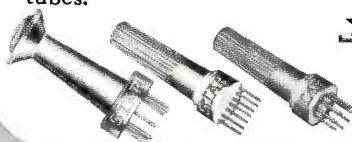
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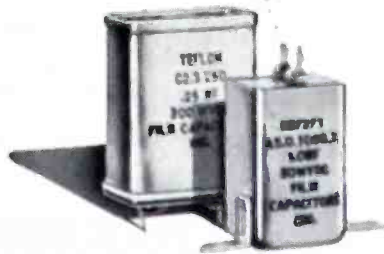


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Power Factor	.02% @ 1 kc	.02% @ 1 kc		0.3% @ 1 kc	0.3% @ 1 kc
Dielectric Absorption	.01%	.01%		0.1%	0.1%
Voltage Derating at 85°C.	none	none		30%	35%
Voltage Derating at 125°C.	not operable	none		66%	60%
Voltage Derating at 150°C.	not operable	none		not operable	not operable
Voltage Derating at 200°C.	not operable	33%		+500 ppm /°C.	+500 ppm /°C.
Temperature Coefficient	-100 ppm /°C.	-100 ppm /°C.		10 ⁴ megohms /mf	10 ⁴ megohms /mf
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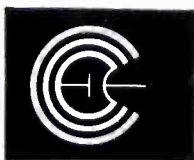
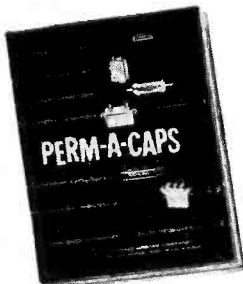
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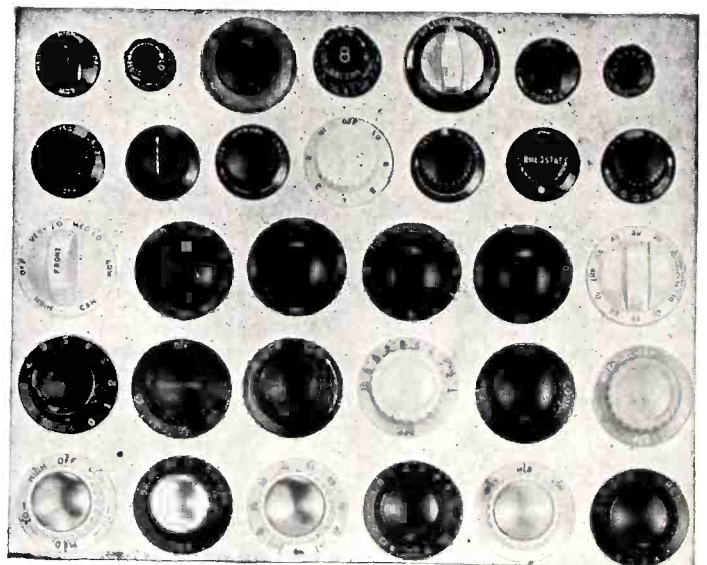
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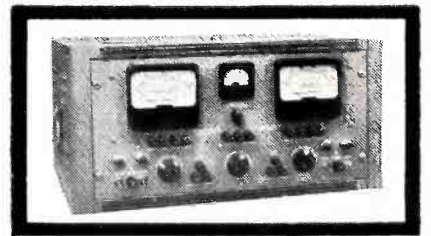
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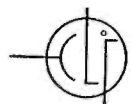
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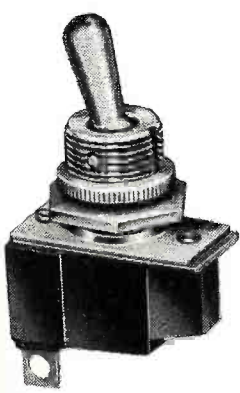
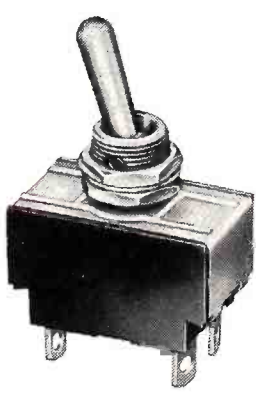
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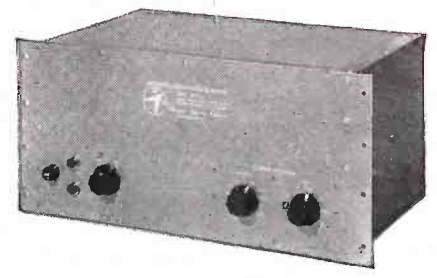
PRECISION SUPPLIES

Portable Pattern



Model	Voltage	Current
RE-1601	200-1600	0-25 Ma
RE-1602	300-1600	0-10 Ma
RE-1901	300-1900	0-25 Ma

Rack Pattern



Model	Voltage	Current
RE-1603	300-1600	0-10 Ma
RE-1606	300-1600	0-100 Ma
RE-2003	500-2000	0-25 Ma
RE-2006	500-2000	0-50 Ma
RE-3002	500-3000	0-20 Ma
RE-3004	500-3000	0-40 Ma
RE-5001	500-5000	0-10 Ma
RE-5502	1000-5500	0-25 Ma

Features

Either positive or negative of any supply may be grounded.
Regulation: .01 to .001 %
Line Stability: .05 to .005 %
Long-term Stability: .01-.05% per hour, about 0.1% per day
Impedance: 1 to 5 Ohms
Ripple: 0.5 to 3 Mv P-P
Standard tubes used

Constant Current Supplies

RI-021	0.1-25 Ma	0-400V
RI-222	1-220 Ma	0-340V

Millimeter Wave Generators

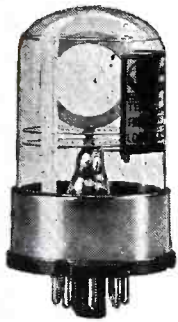
KSG-291	36.2-33.5 kmc	8.3-8.9 mm
KSG-290	33.5-29.7 kmc	8.9-10. mm
KSG-289	30-27.3 kmc	10.-11. mm
KSG-33	25-22 kmc	12.-13.6 mm

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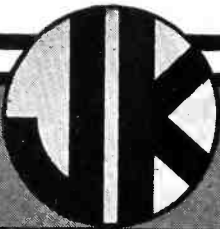
JK G-12A — with a proven stability potential of one part in 100 million at 1000 kc.



JK G-9

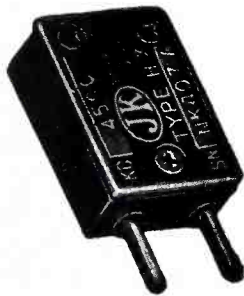
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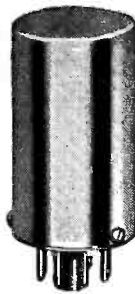


JK H-17



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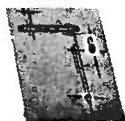
A Wide Range of TEMPERATURE CONTROL OVENS



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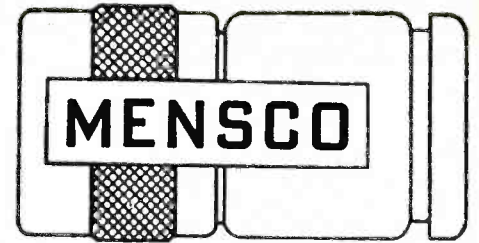
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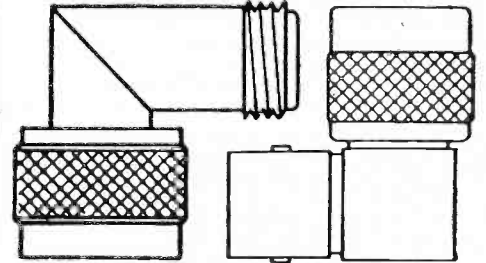


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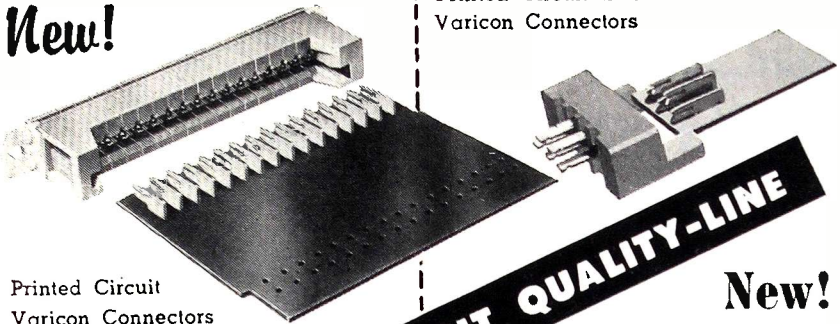
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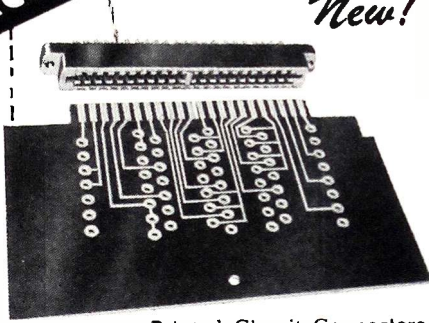
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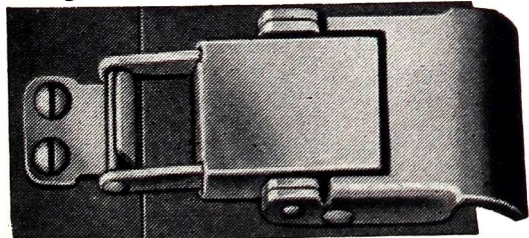
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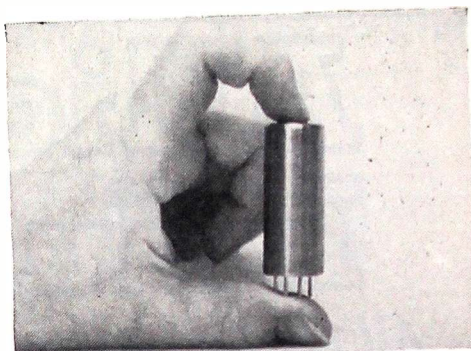
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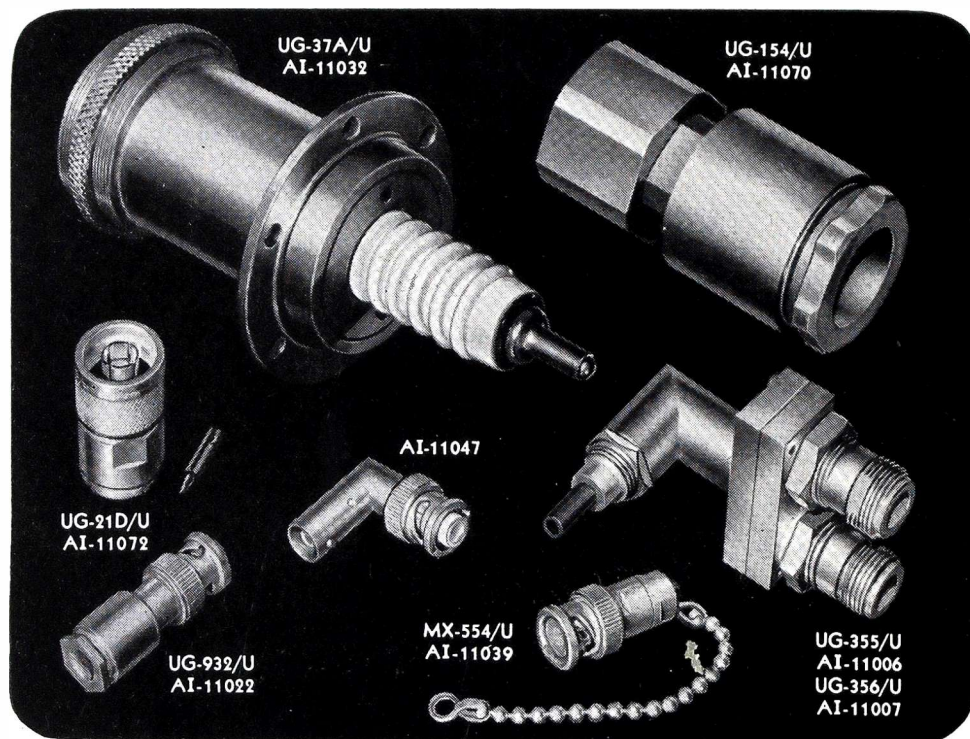
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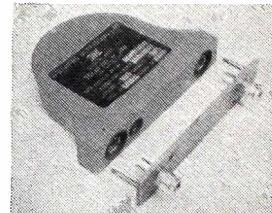
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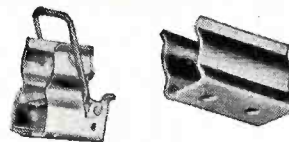
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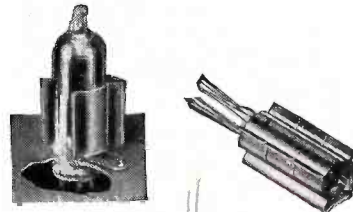
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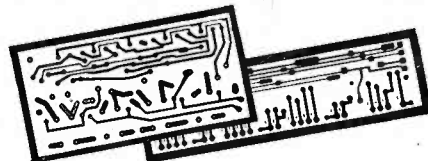
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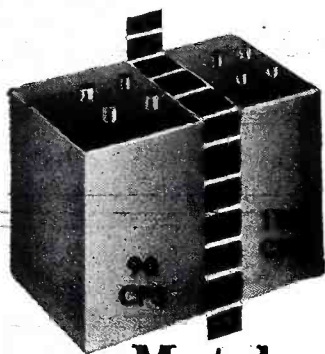
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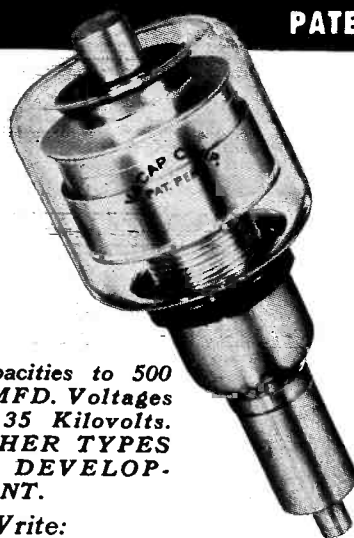


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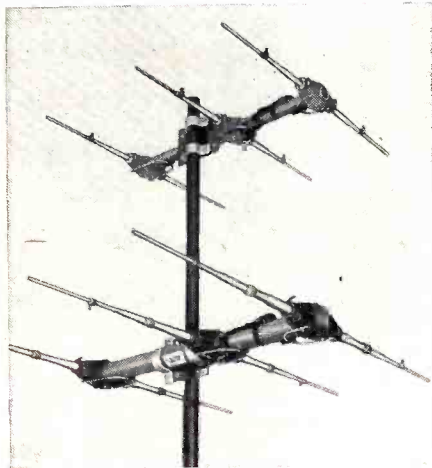
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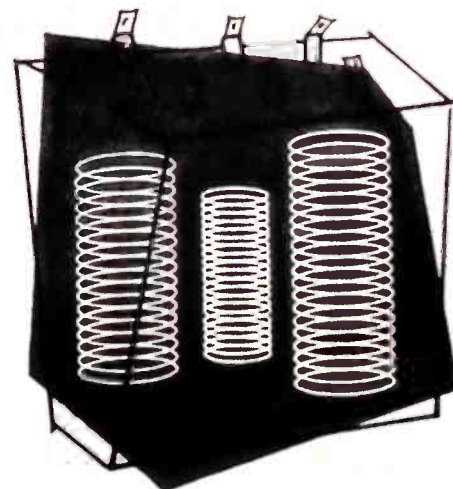
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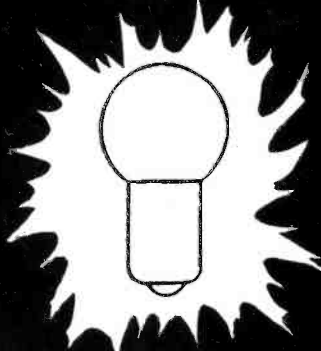
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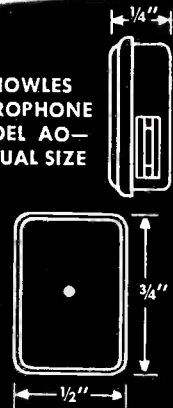
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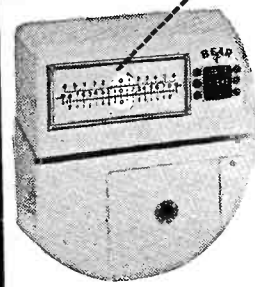
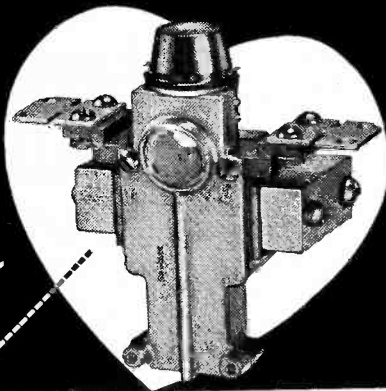
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0-350	0-6	full wave rectified DC	GO 350-6	Germanium	\$700.
0-350	0-5	3	GP 350-5	Germanium	\$775.
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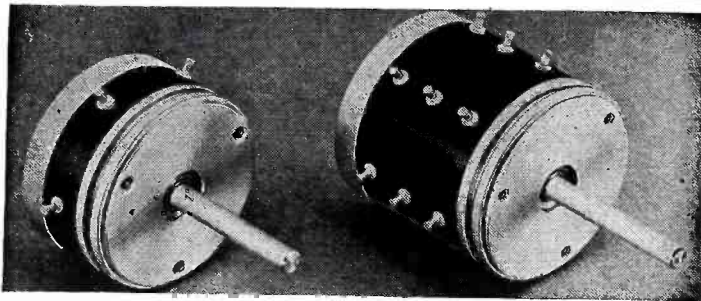
Front panel controls include a combined primary circuit breaker and on-off switch, low voltage circuit breaker, output control knob, voltmeter and ammeter, pilot light and output binding posts. Positive overload protection is assured by two circuit breakers, one in the primary circuit, and another in the output circuit. The primary circuit breaker functions if the AC current demand of the unit becomes abnormal. The secondary breaker, placed in the low voltage circuit, operates when rated DC current is exceeded. Both breakers may be reset from the front panel. Circuit breakers are chosen for their time delay characteristic. Powerunits using Germanium or Silicon rectification are generally provided with instantaneous circuit breaker protection while longer time delays are optional on units using selenium rectification.

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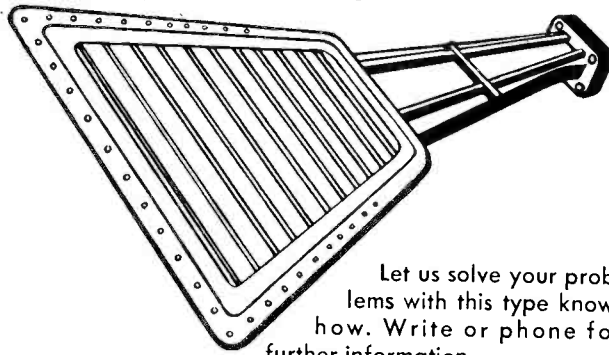
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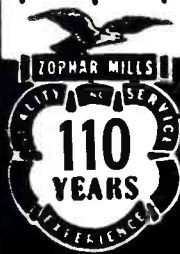
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ST2010

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Secondaries:	
570-0-570V	240 madc*
5.0V	3 A
6.3V	3 A
6.3V	1.2A
6.3VCT	6 A

*Note 40 ma provided

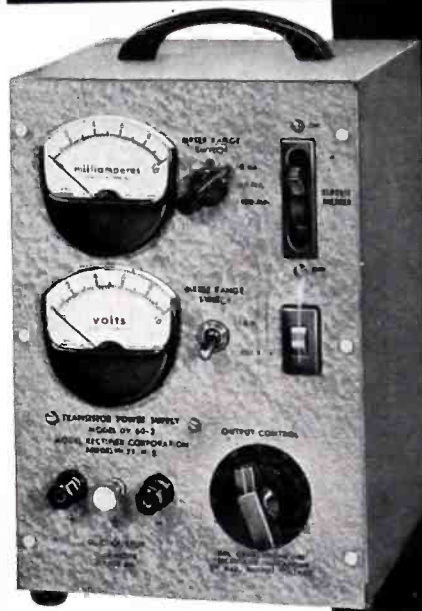
Size: 5 1/8 x 4 5/8 x 5 1/2 H
Mtg. Centers: 3 1/2 x 3 1/2
Weight 15 lbs.
Associated Choke: ST2009
4 Henries at 240 madc.

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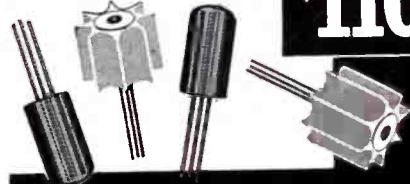
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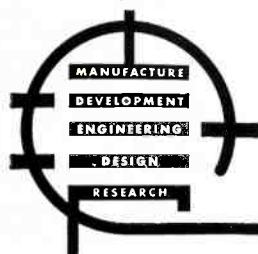
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	MEDIUM NOISE	BROADBAND >10 MW	10-20 db Noise Figure	BROADBAND >5 MW
				BROADBAND >100 MW
		BROADBAND >1 WATT		

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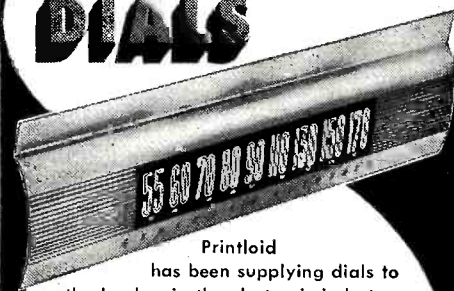
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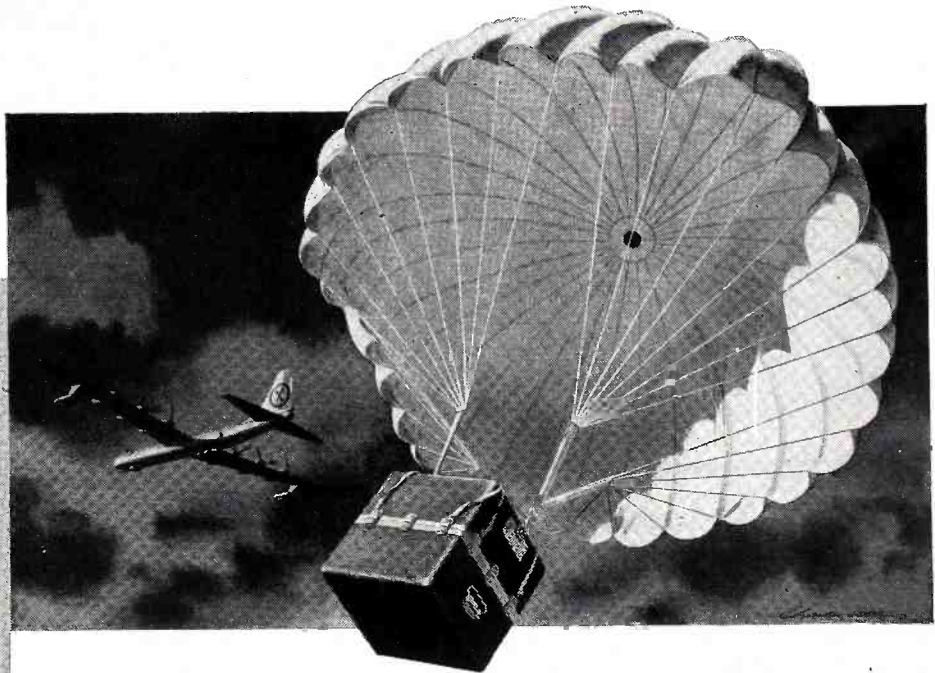
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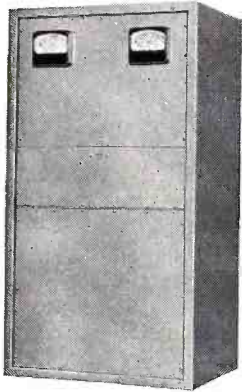


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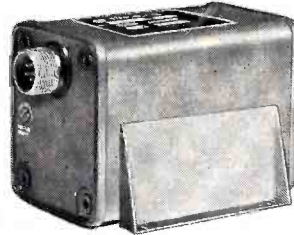


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Stabvolt d.c. power supply provides line transient-free, precision-regulated d.c. output voltage, meeting the strict requirements for analog and digital computer applications. Flux oscillator controlled. Very low ripple, excellent dynamic and static regulation. Extremely low internal impedance. Maintenance-free. Ultra-fast response. Short-circuit proof. Available in a wide range of voltage and current levels.

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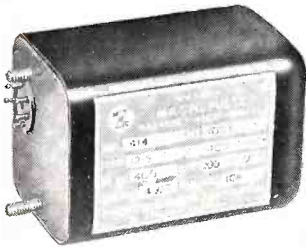
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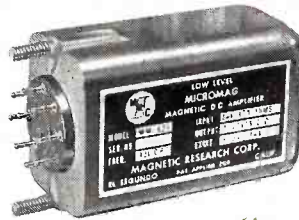


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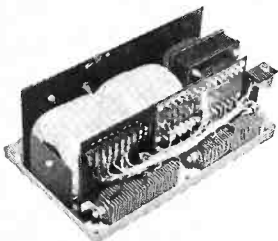
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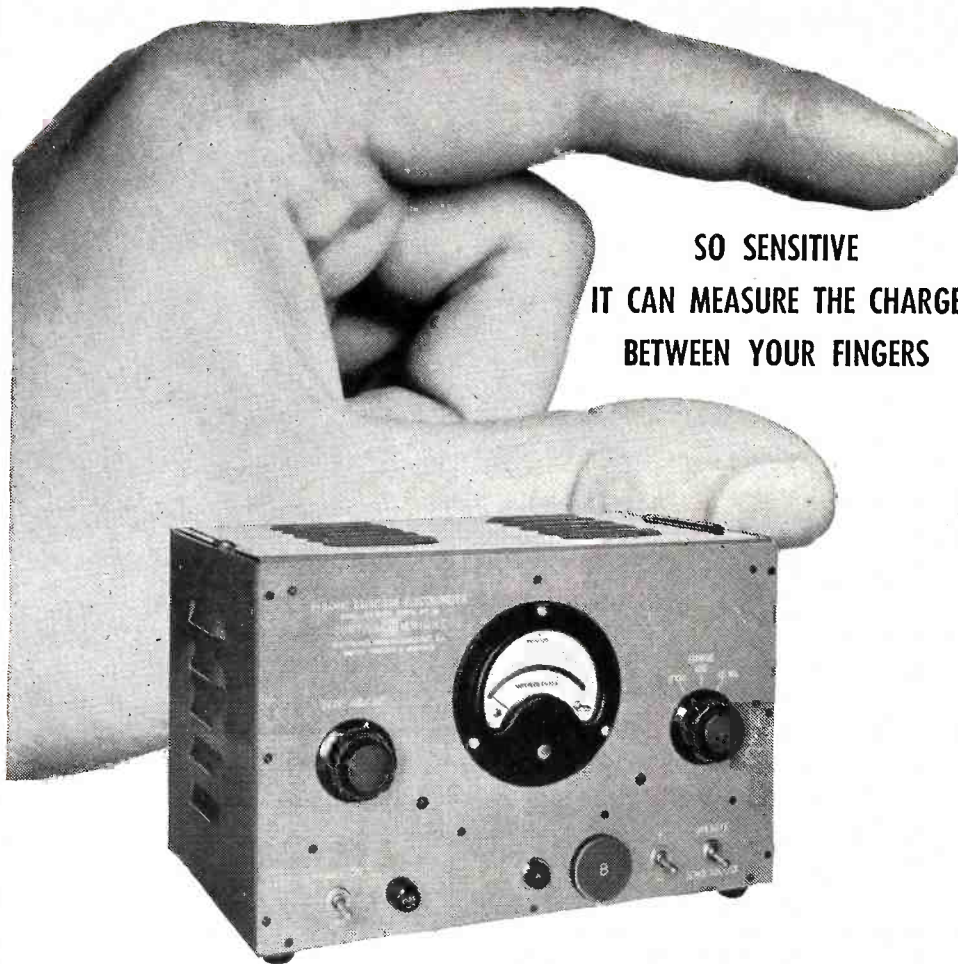
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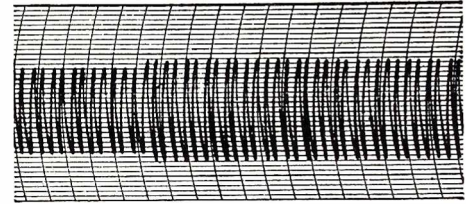
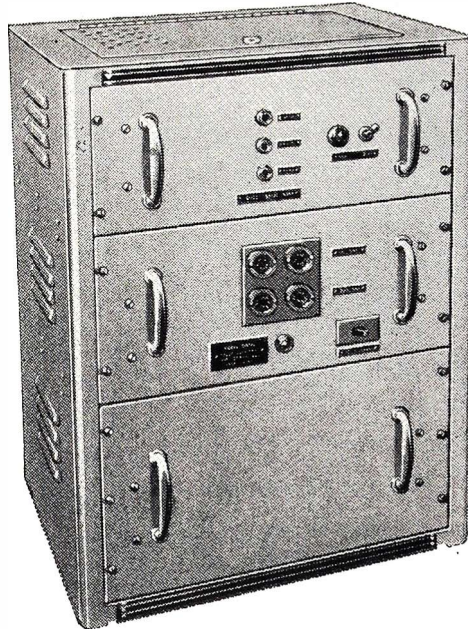
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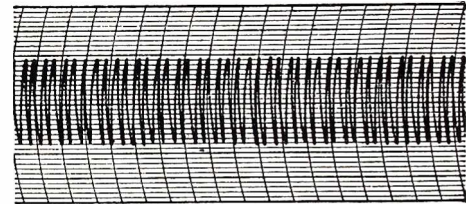
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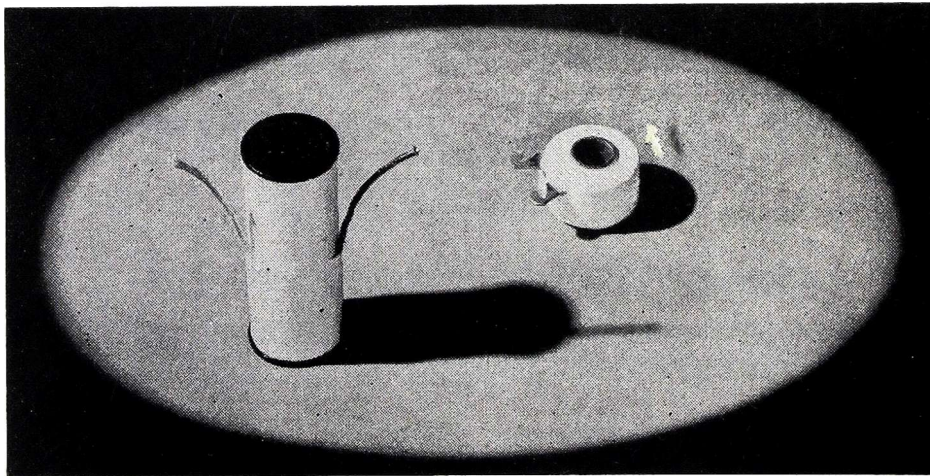
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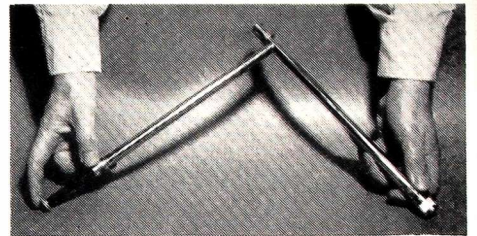
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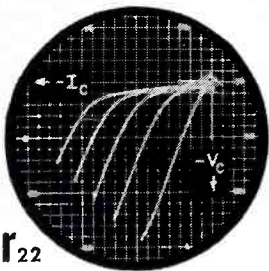
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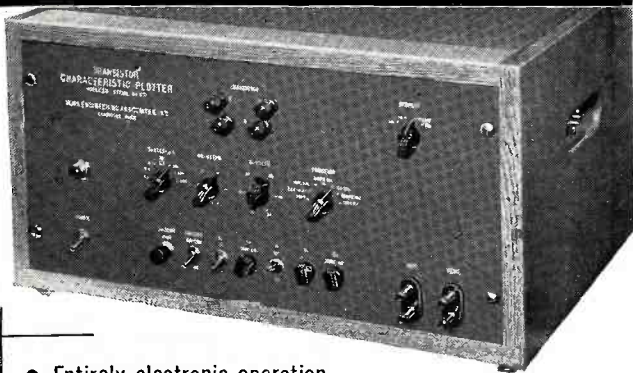
for 'scope displays of
 r_{22} r_{12} and h_{12}
characteristic curves



r_{22}

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 - Transistor circuit design
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- Trace and retrace of each curve presented by triangular waveform collector sweep.
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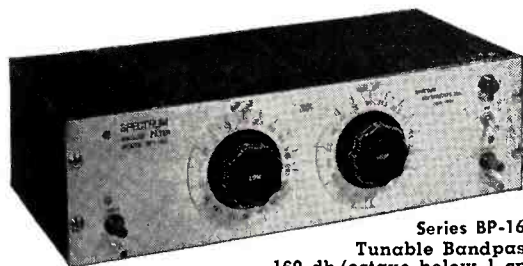
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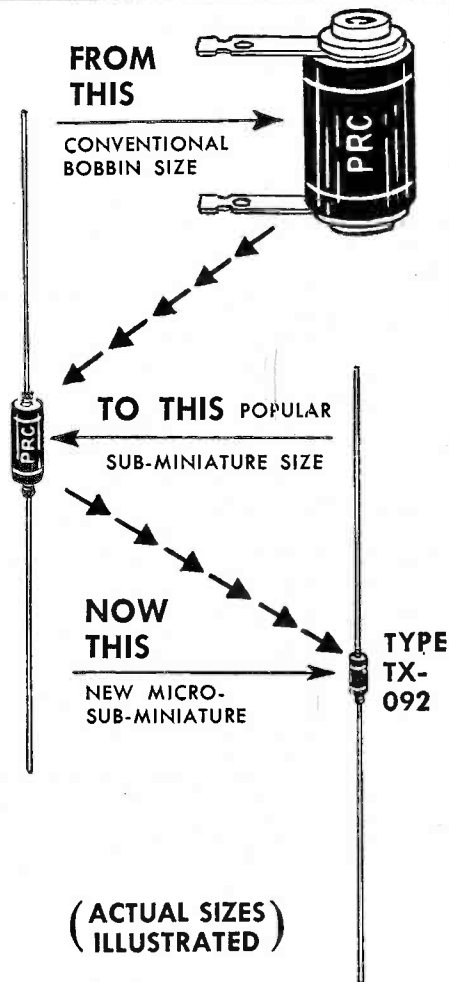


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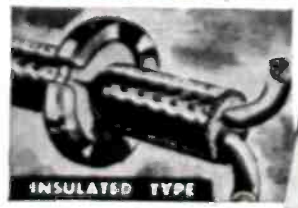
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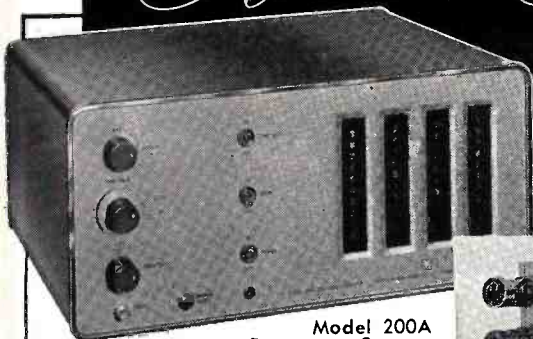
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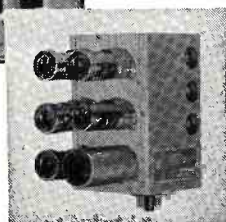
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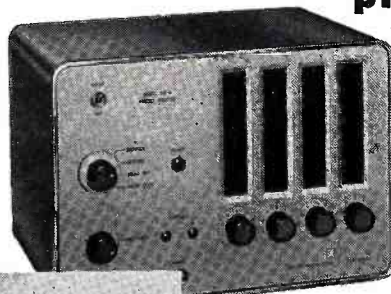
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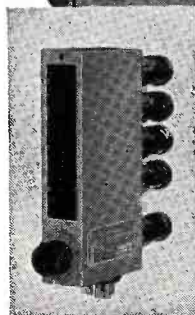
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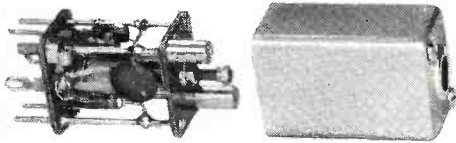
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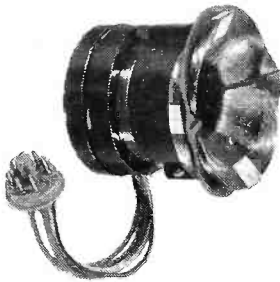
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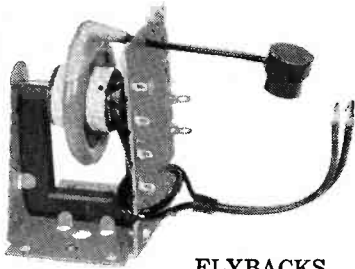
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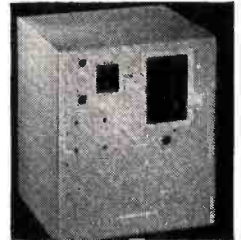
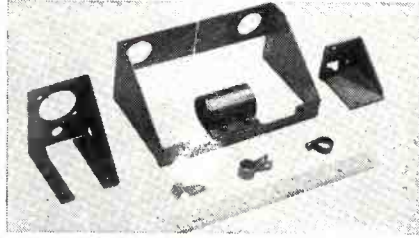
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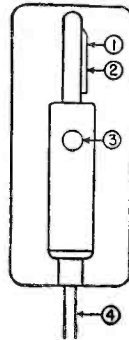
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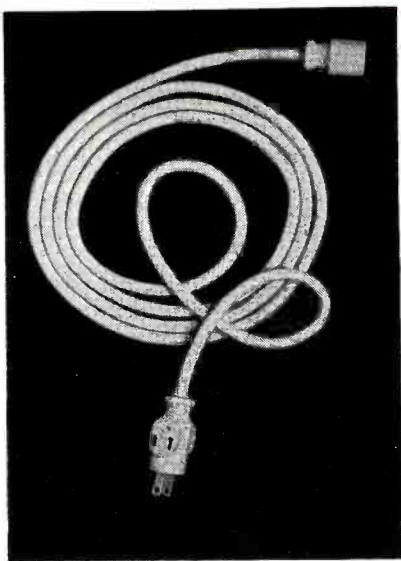
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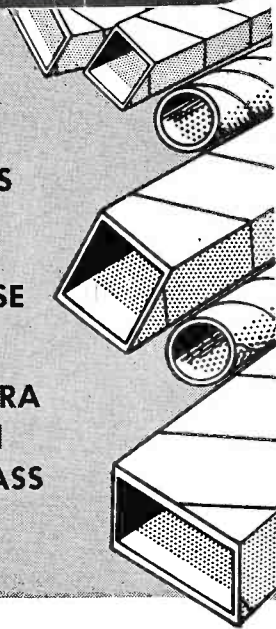
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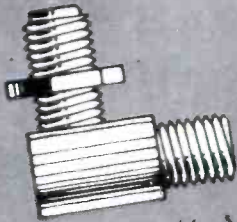
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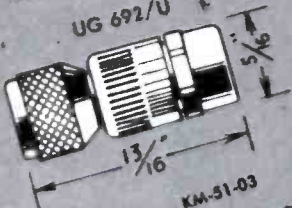
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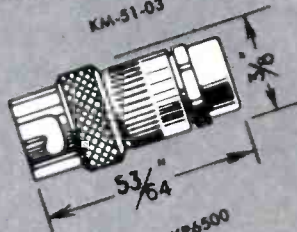
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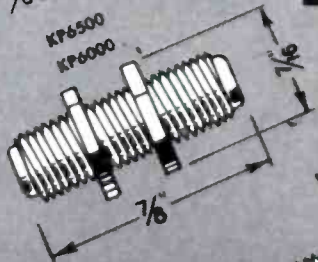
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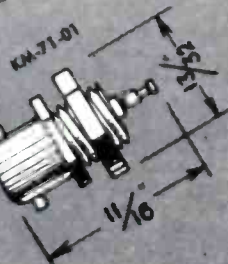
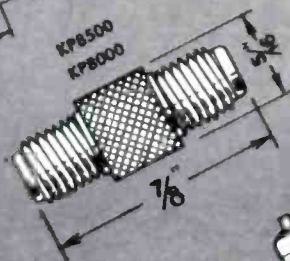
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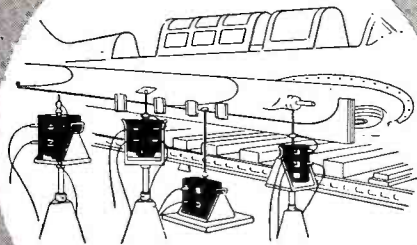
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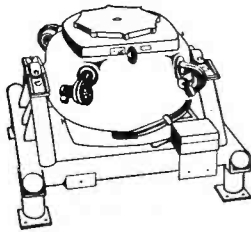
would permit accurately controlled testing over wide frequency ranges. A few of the many Calidyne accomplishments — each a "first" in the field — are shown here. Together, they have proved extremely useful in three major fields of application: "brute force" environmental shake testing; structural response determination, typical to airframe design analysis; and fatigue testing by application of high stresses at high frequency.

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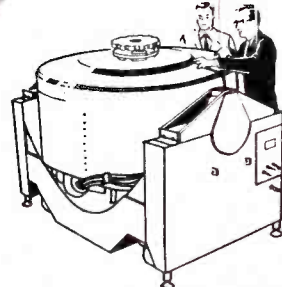
A twenty-four channel multiple Shaker System for aircraft ground vibration studies.

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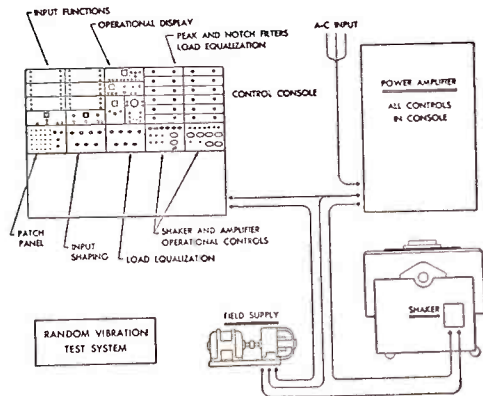


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RPC HIGH VOLTAGE RESISTORS

are stable compact units available in many sizes for use up to 125 KV. These resistors are used for VT voltmeter multipliers, high resistance voltage dividers, bleeders, high resistance standards and in radiation equipment. They can be furnished in resistance to 500,000 megohms. Available as tapped resistors and matched pairs. Low temperature and voltage coefficients. Standard resistance tolerance 15%. Tolerances of 10%, 5% and 3% available. Tolerance of 2% available in matched pairs. ENCAPSULATED RESISTORS AND SPECIAL ASSEMBLIES CAN BE FURNISHED.

RPC HIGH MEGOHM RESISTORS

are used in electrometer circuits, radiation equipment and as high resistance standards. Resistance available to 100 million megohms. (10^{14} ohms). For utmost stability under adverse conditions Type HSD and HSK Hermetically Sealed are recommended. Voltage rating to 15,000 volts. Low temperature and voltage coefficients. Standard resistance tolerance 10%. Tolerance of 5% and 3% available. Also matched pairs 2% tolerance.

RPC HIGH FREQUENCY RESISTORS

are used in circuits where the requirements specify resistors having extremely low inductance, capacitance and skin effects. These resistors find application as concentric line terminators, transmitter dummy loads, radio frequency probes, rhombic antenna terminators, etc. They are used in radar equipment, surge generators, television transmitters, high frequency heating equipment and circuits involving steep wave fronts. Standard resistance tolerance 20%. Tolerance of 15%, 10% and 5% available.

STYLE	RPC Type	Terminal (See Note Below)	Power Watts Max.	Volts Max.	DIMENSIONS (Inches)		RESISTANCE	
					Length	Diameter	Minimum Ohms	Maximum Meg.
HIGH VOLTAGE RESISTORS	BBF	1, 2	1	3.5KV	1	5/16	10,000	100,000
	BBM	1, 2	2	7.5KV	1 3/4	5/16	10,000	250,000
	BBR	1, 2	3	15KV	3	5/16	20,000	500,000
	BBV	1, 2	5	30KV	5 1/2	5/16	40,000	1,000,000
	BFO	1	4	15KV	2 1/2	9/16	20,000	500,000
	BFT	1	6	25KV	4	9/16	40,000	1,000,000
	BFW	1	10	40KV	6 1/2	9/16	70,000	1,000,000
	DJU	3	10	25KV	4 1/2	3/4	50,000	100,000
	DPW	3, 4	20	35KV	6 1/2	1 1/8	100,000	100,000
	DPX	3, 4	30	65KV	10 1/2	1 1/8	200,000	100,000
	DVY	3, 5	50	90KV	14 1/2	1 1/2	400,000	100,000
	DZW	3, 5	30	40KV	6 1/2	2	300,000	100,000
	DZZ	3, 5	90	125KV	18 1/2	2	700,000	100,000
	HIGH MEGOHM RESISTORS * Hermetically Sealed	HSD*	6	0.5	2.5KV	7/8	11/32	1 Meg	10 Million
HSK*		6	1	5KV	1 5/8	11/32	1 Meg	25 Million
HBF		1, 2	1	3.5KV	1	11/32	1 Meg	25 Million
HBM		1, 2	2	7.5KV	1 3/4	11/32	1 Meg	50 Million
HBR		1, 2	3	15KV	3	11/32	1 Meg	100 Million
HIGH FREQUENCY RESISTORS	FAC	6	.25	250	9/16	0.10	20	10
	FBF	1, 2	1	375	1	5/16	20	25
	FBM	1, 2	2	750	1 3/4	5/16	25	50
	FBR	1, 2	3	1400	3	5/16	35	100
	FBV	1, 2	5	2600	5 1/2	5/16	60	100
	FFQ	1	4	1100	2 1/2	9/16	20	50
	FFT	1	6	1900	4	9/16	25	75
	FFW	1	10	3100	6 1/2	9/16	40	100
	GJU	3	10	2000	4 1/2	3/4	20	50
	GPW	3, 4	20	2750	6 1/2	1 1/8	20	50
	GPX	3, 4	30	4750	10 1/2	1 1/8	30	100
	GVY	3, 5	50	6750	14 1/2	1 1/2	35	100
	GZW	3, 5	30	3000	6 1/2	2	20	35
	GZZ	3, 5	90	8500	18 1/2	2	30	100

TERMINAL NOTES:

- LUG TERMINALS.
- AXIAL WIRE LEADS. ADD SUFFIX "W" TO TYPE DESIGNATION.
- LUG TERMINAL BANDS.
- FERRULE ENDS 13/16 IN. DIA. ADD SUFFIX "-1" TO TYPE DESIGNATION.
- FERRULE ENDS 1 1/8 IN. DIA. ADD SUFFIX "-1" TO TYPE DESIGNATION.
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RPC Type L Encapsulated Resistors will withstand temperature and humidity cycling, salt water immersion and extremes of altitude, humidity, corrosion and shock without electrical or mechanical deterioration. Type L resistors are available in many sizes and styles, ranging from sub-miniature to standard with lug terminals, axial or radial wire leads. Available for operation at 105° C. or 125° C. ambient temperatures. These resistors will meet all applicable requirements of MIL-R-93A, Amdt. 3. Type L can be furnished with all resistance alloys and resistance tolerances from 1% to .05%.

To meet the requirements for printed circuitry, RPC has developed Type P Encapsulated Wire Wound Precision Resistors, Miniature, single ended units designed for easy rapid mounting on printed circuit panels with no support other than the wire leads. Many newly developed techniques are employed in the manufacture of Type P Resistors. These units can be operated in ambient temperatures up to 125° C. and will withstand all applicable tests of MIL-R-93A, Amdt. 3.

ENGINEERING DATA

Encapsulated PRECISION WIRE WOUND RESISTORS

STYLE	RPC Type	MIL-R-93A (Amdt. 3)	DIMENSIONS		RESISTANCE		RATING-WATTS	
			Length	Diameter	Min. Ohms	Max. Meg.	Military	Commercial
RADIAL LUGS	LCB	RB09A	7/16"	7/16"	1.0	0.3	0.125	0.40
	LCC	_____	5/8	7/16	1.0	0.6	_____	0.50
	LFB	RB15A	15/32	9/16	0.1	0.7	0.25	0.50
	LFC	RB16A	5/8	9/16	0.1	1.0	0.33	0.75
	LFF	RB17A	1	9/16	0.1	2.0	0.50	1.00
	LJS	RB18A	1 9/32	3/4	0.1	5.0	0.50	1.25
	LLP	RB19A	2 1/16	7/8	0.1	10.0	1.00	2.00
	_____	_____	_____	_____	_____	_____	_____	_____
RADIAL WIRE LEADS	LA	_____	1/4	5/16	1.0	0.1	_____	0.25
	LC	_____	3/8	5/16	1.0	0.2	_____	0.30
	LF	_____	5/8	5/16	1.0	0.4	_____	0.40
	LFBW	_____	15/32	9/16	0.1	0.7	_____	0.50
	LFCW	_____	5/8	9/16	0.1	1.0	_____	0.75
	LFFW	_____	1	9/16	0.1	2.0	_____	1.00
	_____	_____	_____	_____	_____	_____	_____	_____
AXIAL WIRE LEADS	LAA	_____	3/8	1/4	2.0	0.2	_____	0.15
	LAC	_____	1/2	1/4	2.0	0.3	_____	0.20
	LAD	_____	3/4	1/4	2.0	0.5	_____	0.35
	LAB	_____	9/16	5/16	1.0	0.2	_____	0.35
	LAF	RB52A	13/16	5/16	1.0	0.4	0.25	0.50
	LBC	_____	1/2	3/8	1.0	1.0	_____	0.50
	LBD	RB52A	3/4	3/8	1.0	1.5	0.25	0.75
	LBF	RB52A	1	3/8	1.0	2.0	0.25	0.85
	LCD	RB52A	13/16	15/32	0.5	1.0	0.25	0.75
	LEB	_____	1/2	1/2	1.0	0.5	_____	0.50
	LED	_____	5/8	1/2	1.0	1.0	_____	0.65
	LEF	RB52A	1	1/2	0.5	2.0	0.25	0.10
	LEK	_____	1 1/2	1/2	0.5	3.0	_____	1.25
	LEO	_____	2	1/2	0.5	4.0	_____	2.00
_____	_____	_____	_____	_____	_____	_____	_____	
HERMETICALLY SEALED, AXIAL WIRE LEADS	SCB	_____	9/16	11/32	1.0	0.2	_____	0.35
	SCF	RB52A	13/16	11/32	1.0	0.4	0.25	0.50
	SED	RB52A	13/16	15/32	0.5	1.0	0.25	0.75
	_____	_____	_____	_____	_____	_____	_____	_____
PRINTED CIRCUIT RESISTORS	PB	_____	5/16	1/4	2.0	0.6	_____	0.15
	PD	_____	13/32	1/4	2.0	1.0	_____	0.20
	PF	_____	9/16	1/4	2.0	1.4	_____	0.25
	PH	_____	3/8	5/16	1.0	1.0	_____	0.20
	PJ	_____	1/2	5/16	1.0	1.5	_____	0.25
	PN	_____	1/2	3/8	1.0	2.0	_____	0.30
	PQ	_____	3/4	3/8	1.0	3.0	_____	0.40
	_____	_____	_____	_____	_____	_____	_____	_____

RESISTANCE TOLERANCES 1%, 1/2%, 1/4%, 1/10%, 1/20%

Low TC alloy wire used for all resistors except when otherwise specified.

Wattage rating can be substantially increased by use of special high temperature wire.

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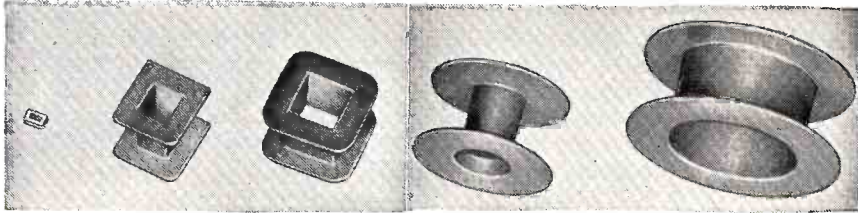
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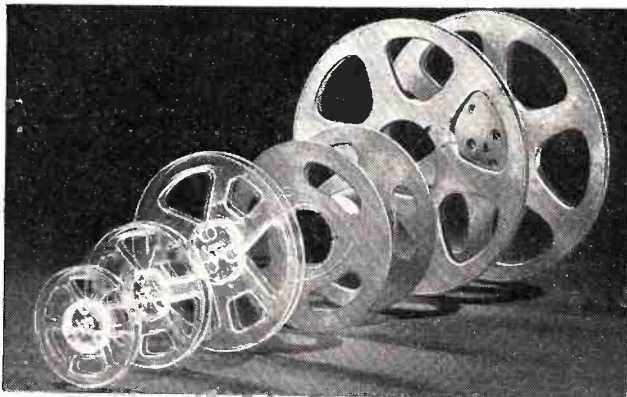
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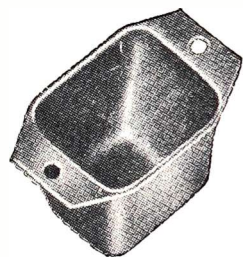


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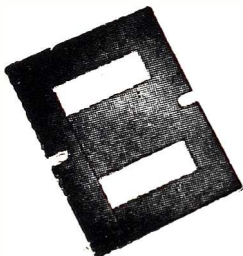
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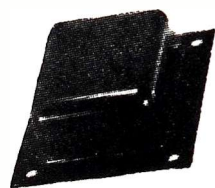
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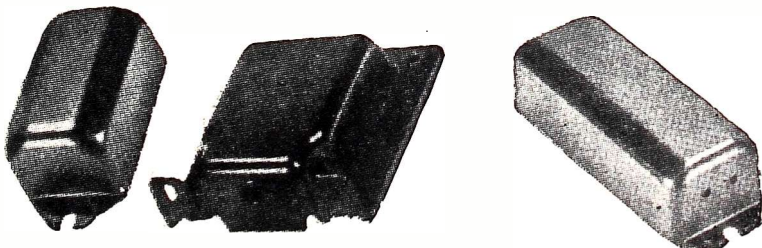


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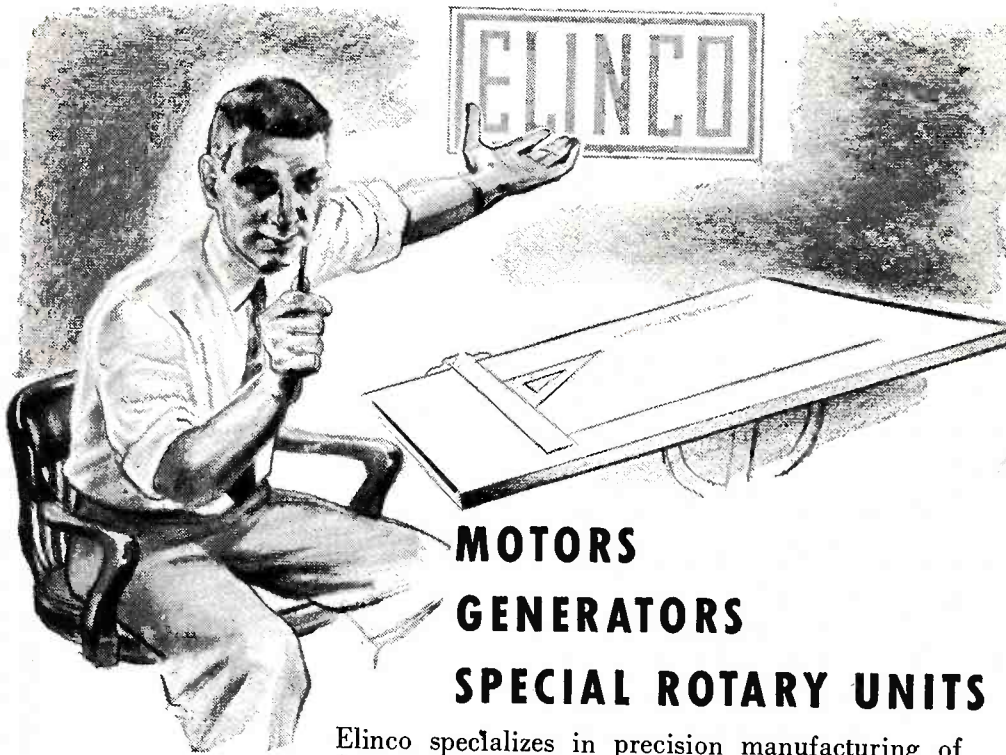
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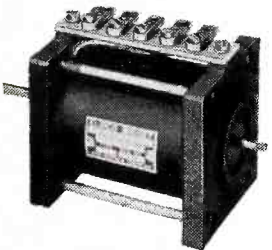
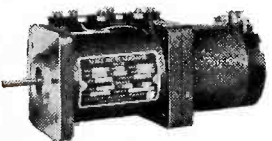
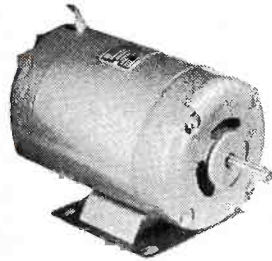
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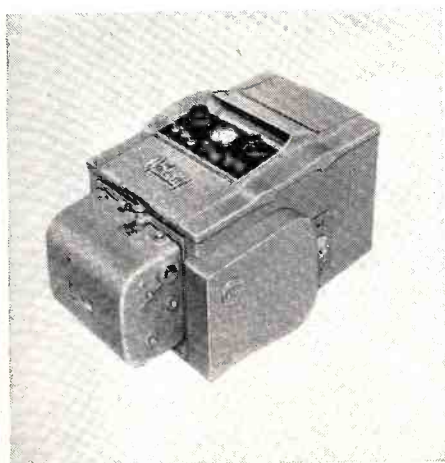
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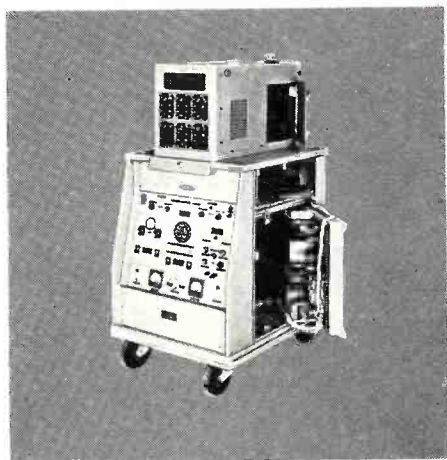
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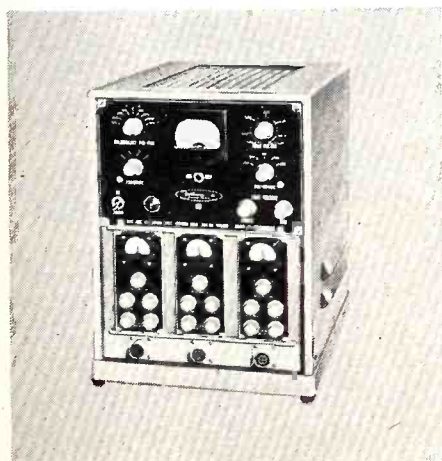
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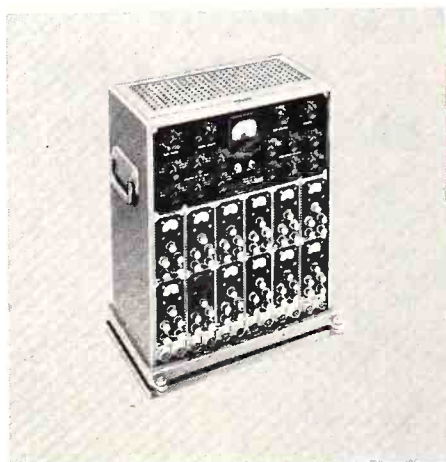
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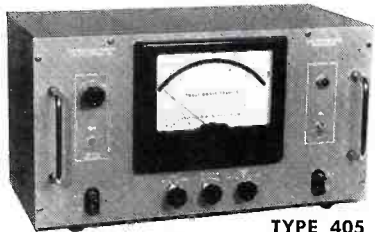
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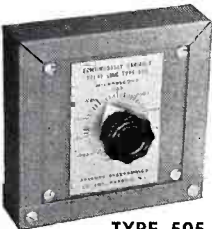
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Phase Angle Counter has an accuracy of 1 count per 100,000, .00001 cps to 1000 cps.



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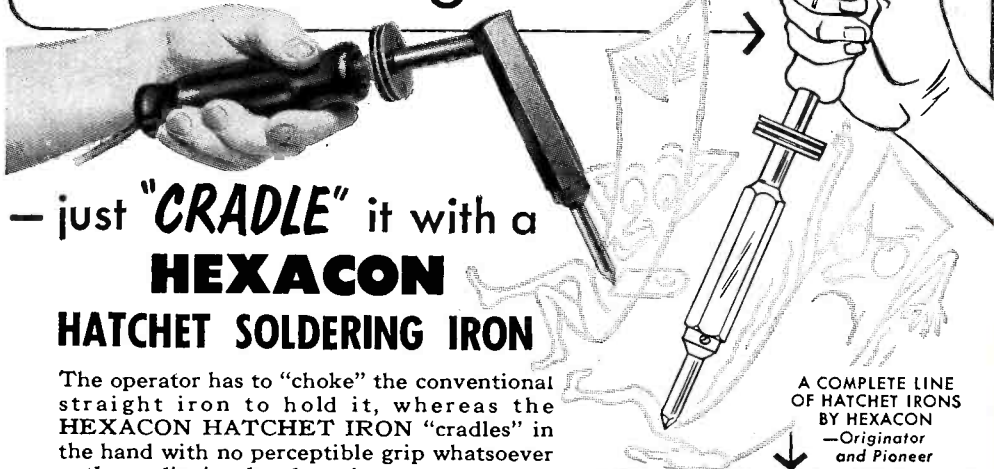
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100H	100	3/8"	12.00
150H	150	3/8"	12.75
151H	175	1/2"	13.50
200H	200	5/8"	14.00
300H	300	7/8"	18.25

Send for new circular No. 70H giving more details and comparative competitive performance data.

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for industrial control, guidance, telemetering

and audio equipment

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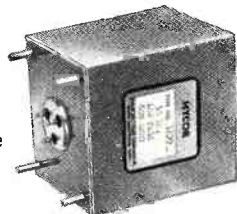
Over 50 encapsulated, precision wire-wound types from 0.1 watt to 4 watts. Shock-moisture-temperature proof. Meets MIL-R-93A spec. Axial leads, radial leads, lug types and units for printed circuitry.

send for bulletin PH

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Low-pass, high-pass, band-pass. High "Q" toroid inductor elements. Standardized designs. Available over wide impedance and frequency ranges. Special designs in circuitry and miniaturization on request.

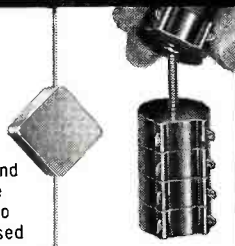
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TOROID COILS

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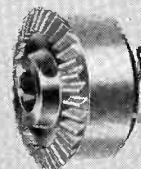
send for bulletin STP



miniature MAGNETIC CLUTCHES

Develop 15 oz.-in. of torque on only one watt of power. Response time: 5 milliseconds. Only 2 moving parts—no maintenance. Just 1" o.d. Low cost permits economical multiple clutching in inexpensive equipment.

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Plastic encapsulated, catalogued types to 15 V.A. Excellent regulation. From 400 cps and 115 V. Multiple secondaries for heater and plate voltages. Special designs on request.

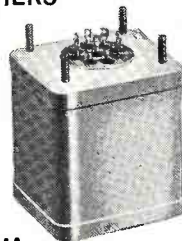
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Toroid construction. Standard catalogued types. Line frequencies of 60, 400 and 800 cps. Operating temperature: -55°C to +100°C. Cased per military specs. Special designs on request.

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For design and experimental work on audio filters, equalizers and tuned circuits from 150 to 20,000 cycles. Four units available, from 10 x .001 Henry to 10 x 1.0 Henry. Excellent stability.

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Low-pass, high-pass. Both low and high cutoffs cover 100, 250, 500, 1000, 2000, 3000, 4000 and 5000 cycles. Approx. 16 db attenuation per octave on both high and low cutoff points. Impedance: 500/600 ohms, in-out. Also available in kits. Ideal for use as sound effects filter.

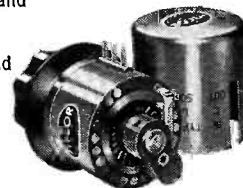
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Plastic-imbedded resistive elements and contacts withstand extreme humidity, mechanical shock and wide temperature variations. Switch contacts, flush in plastic, are easily cleaned. Brushes can't trip. Low switch noise level.

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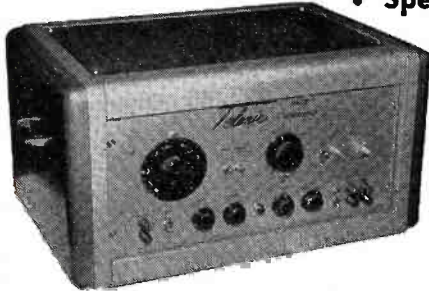
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sweep and marker generators IF VHF UHF

Telonic

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- Sweep and Marker Generators
- Color Test Instruments
- Special Equipment
- Accessories



ULTRA RANGE SWEEP

Model H-3

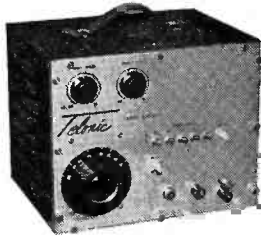
Freq. Range: 1-350 mc.
Center Freq.: 1-200 mc.
Sweep Width: 0-300.

Output: .2v. p. to p. into 50 ohm load.

LOW FREQCY. IF SWEEP

Model I-1

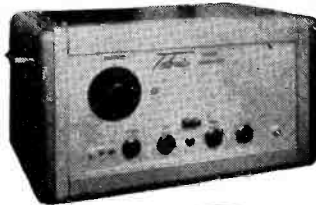
Freq. Range: 25-70 mc.
Sweep width: 0-40% of center freq.



UHF WIDE BAND SWEEP GEN.

Model SX-500

Freq. Range: 440-940 mc.
Fixed Center Freq.
Output: 1 v. 50 ohms
10% Flatness



BASIC SWEEPS COVERING FREQS. FROM 100 to 1400 MC.



Model	Center Freq.	Sweep Width
S-4	950-1250 mc.	0-50 mc.
S-5	225-500 mc.	0-30 mc.
S-6	1200-1400 mc.	0-50 mc.
S-2	100-225 mc.	0-25 mc.

Output: 1 v. 50 ohms.
Flat within 5%.
Other Models with Markers Available.

—Outstanding Features

- Broad frequency coverage: 0-2400 • Wide sweep widths: up to 85% of center frequency
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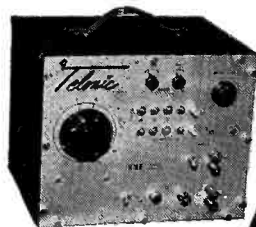


Model S-3A UHF

Freq. Range: 460-910 mc.
Sweep Width: 0-50 mc.
Output: 1 v. 50 ohms.
Flat within 5%.

Model SV-3A VHF

Freq.: 1F and Ch. 2-13
Video and Sound Markers
25 mc. Sweep Width.
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Condensed Specifications

size: 1/2" x 1/2"
 weight: 1/4 oz. including lock washer and nut
 resistance range: 200Ω to 250K standard, ±2%. Higher or lower on special order
 linearity: ±.3%
 resolution: extremely high
 torque: .035 oz./in. @ 20° C.
 power rating: 2 watts for 60° C. rise
 ambient temperature: -55° C. to 125° C.

case: one-piece precision machined aluminum, corrosion-resistant bushing
 standard threaded bushing, servo or flush mountings, and ganged units
 special shaft lock is self-contained no addition to size
 indexing pin provides non-rotational mounting
 all units fully sealed, moisture-proofed, anti-fungus treated
 meets applicable portions of JAN specs and MIL-E-5272A standards

ACETRIM . . . a new standard in sub-miniature wire-wound potentiometer trimmers, at a low price. Here again, through our special design, unique manufacturing and testing techniques, and use of new materials, you get precision accuracy and dependable performance in an ultra compact space and weight saving unit.

Condensed Specifications

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 weight: 1/4 oz. including lock washer and nut
 resistance range: 10Ω to 150K standard, ±3%. Other values on special order
 linearity: ±.3%
 resolution: excellent
 torque: low or high as required
 power rating: 2 watts for 60° C. rise
 ambient temperature: -55° C. to 125° C.
 case: one-piece precision ma-

chined aluminum, corrosion-resistant bushing
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 special shaftlock is self-contained; no addition to size
 indexing pin provides non-rotational mounting
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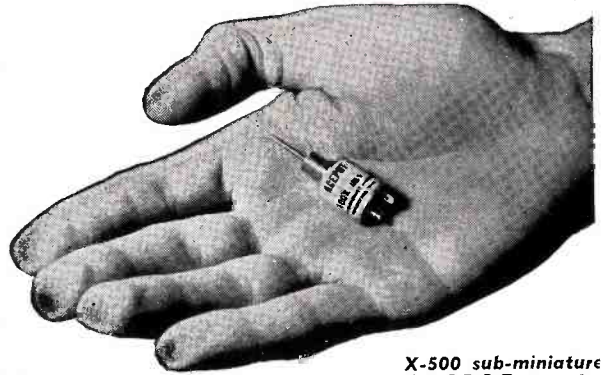
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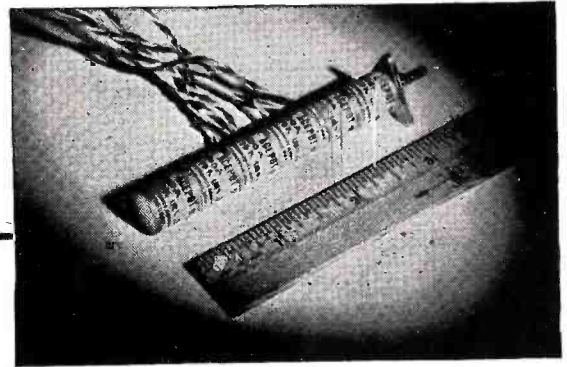
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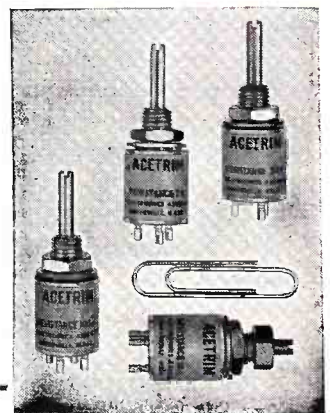
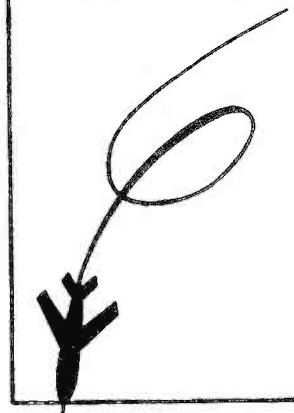
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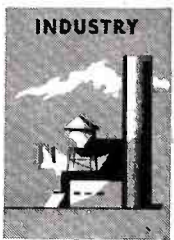
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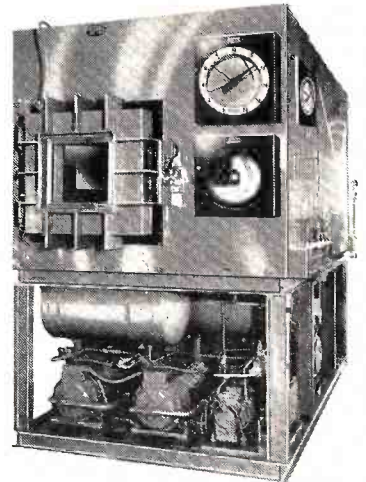
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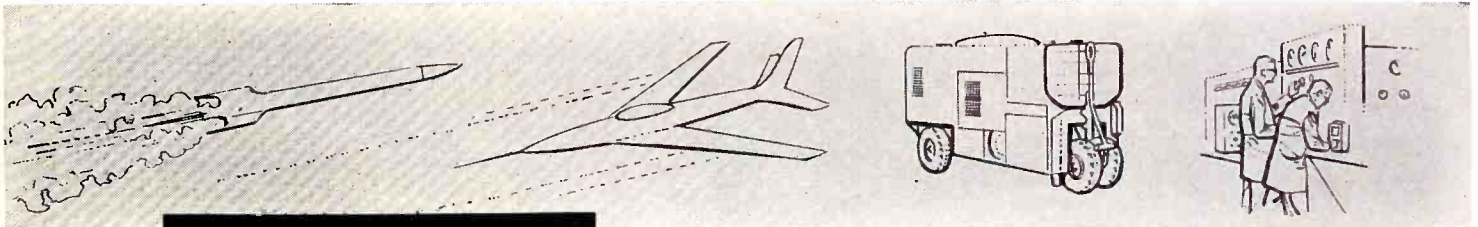
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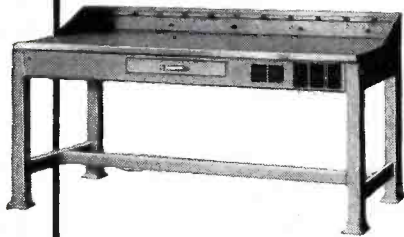
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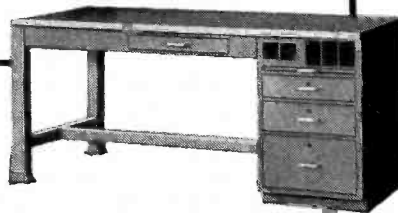
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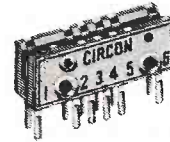
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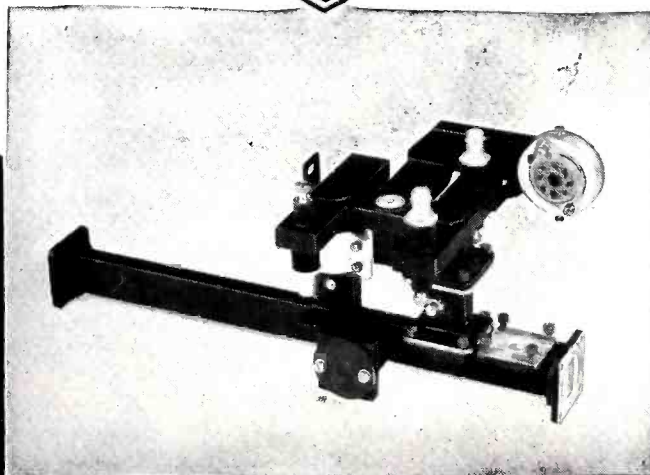


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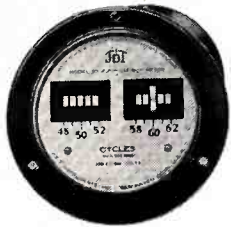


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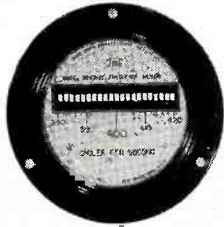
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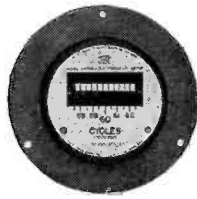




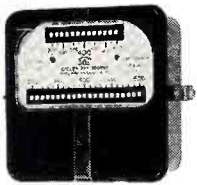
Model 30-F
Dual Range, Double Window



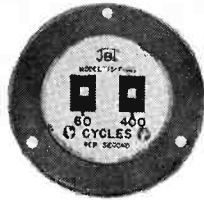
Model 36-FX-21
21-Reed Meter in 3 1/2" Case



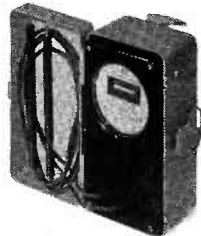
Model 34-FHXX
9-Reed in 3 1/2" Sealed Case



Model 41-FX
Dual Range in 4" Case



Model 15-FHAC
2-Reed in 1 1/2" Sealed Case



Model 33-FP-9M
Portable, Metal Case
TS-328 A/U (400 cy. type) Shown

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Meters illustrated are typical panel mounting or portable—for use where constant or known frequency is important to efficient operation of equipment.

- **Permanently Accurate** within $\pm 0.3\%$ or better at reference temperature, depending on the model. This accuracy is not affected by poor wave form, external magnetic disturbances, or voltage fluctuations.
- **Size and Type for Every Service.** Made in a wide variety of portable and panel case styles, reed groupings and frequency ranges from 12 to 650 cycles and above; 100-130 volts furnished unless otherwise specified.
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- **Suitable for Electronic Circuits** because of relatively low power consumption and J-B-T reeds with high Q and sharp, immediate response.

3 1/2" and 2 1/2" SEALED Types

3 1/2 inch FHXX Meters sealed, glass-to-metal construction with solder terminals, meet or exceed the sealing and electrical requirements of JAN-I-6 and MIL-M-6A including the 3000 volt breakdown, and use the front mounting dimensions specified. Max. barrel diameter, 2 1/16"; 2 7/8" overall depth behind flange. While not regularly stocked, these meters are in volume production. New 2 1/2" meters Model 21-FHXX available on special order.

1 1/2" SEALED Types

Model 15-FHAC (illustrated above). 60 and 400 cycles, 2 reeds, 8-10 volts, for cathode follower circuit. Widely used on audio oscillators to standardize output. Meets intent JAN-I-6, MIL-M-6A and amendments on sealed meters. Barrel, 1 1/2" diameter; detachable flange, 2.094" diameter; solder terminals.

Model 15-FH Series (not illustrated) — Same case, sealed, 5 reeds, 58-62 cycles, 100-130 volts, or 390-410 cycles, 100-130 volts. Variations such as 6 reeds or 25 cycles available on special order.

ASK FOR CATALOG 556

ELAPSED TIME METERS

For Maintenance, Tube Life Data, and Operating Time Records—on Motor Generators, Transmitters, Receivers, Rectifiers, Test Set-ups, etc.

Model 31-EX (illustrated) also known as running-time or total time meter, registers in 1/10 hours to 9,999.9 hours, then automatically resets. Normally stocked for 60 cycles, 110-130 volts. 3 1/2" standard meter mounting. Variations such as 50 cycles; 230 volts; 0-99,999 hours; 3" rectangular case; and readings in minutes available on special order.



SEALED ELAPSED TIME METERS

Model 31-EHXX—Fully sealed meter, reading 0-9,999.9 hours, same as Model 31-EX above. Glass-to-metal construction, solder terminals, and 3 1/2" detachable flange, all match XX metal frequency meter case. 1000 volt breakdown.

Model 33-EHXX — Operates on 400 cycles, 110-125 volts, to read 0-9,999.9 hours in 1/10 hour steps. It is presently made only in 3 1/2" flange sealed metal case, 2 3/4" diameter, 4" deep behind panel. 1000 volt breakdown.

Model 21-EHXX—New. 2 1/2" flange, sealed, full size counter.

FREQUENCY — TIME METERS

Combination Reed-Type Frequency — Elapsed Time Meters—One Meter Does the Work of Two.

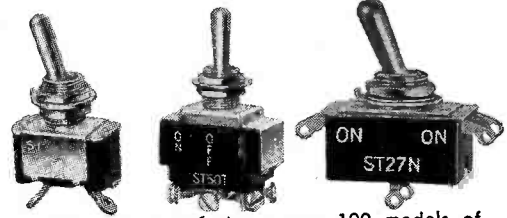
Model 31-FE (illustrated) pioneered by J-B-T, saves panel space and cost, and encourages periodic maintenance; 3 1/4" flange, metal case, 4 1/32" overall depth, standard. 3 1/2" case known as 31-FEX-1 supplied on custom orders. 5 reeds, 60 cycle range, standard; 7, 9, 11 reeds or 50 cycle range on special order.



DISTRIBUTOR SERVICE

Standard J-B-T items are available through authorized electronics parts distributors.

TOGGLE SWITCHES FOR JAN or MIL



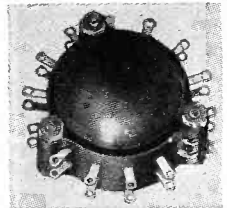
J-B-T now manufactures over 100 models of toggle switches, designed for exceptional reliability, as in JAN-S-23 and Ordnance Standards DDAX. Variations at additional cost are being added for MIL-S-6745 specialized AN Air Force Requirements and 4 series of MIL-S-3950 are being added.

ST40, 42, 50, 52 series—Solid coin silver contacts and rocker arms, unique to J-B-T, add overload protection and keep contact resistance under .005 ohms. Nominal ratings 20 amp at 125 VAC, 10 amp, 250 VAC. See Bulletin TS-4A. ST12, 13, 16, 17, 22, 23, 26, 27 series—Nominally rated 6 amp at 125 VAC, 3 amp, 250 VAC; threaded bushings 2 3/4" or 1/4" long. Current carrying parts heavily silver plated. See Bulletin TS-5A.

MOLDED ROTARY SWITCHES

Shorting and Non-Shorting... 14 or 20 Positions

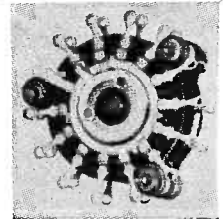
... 1 to 6 Decks (more on special order)... All moving contacts enclosed — eliminates dirt and corrosion... sturdy construction with 3-post deck suspension, double-grip collector arms, and rectangular drive shaft through decks for precision indexing... test results available covering certain procedures of MIL-E-5272 A... interchangeable, electrically and mechanically with J-B-T Series SS-14 and 20 position Laminated Switches. Carrying capacity (not make-and-break): 1 amp; maximum momentary, normal 5 amp; maximum voltage between contacts and ground, 1000 volts R.M.S.; between decks and ground, 2000 volts R.M.S. Average contact resistance 0.007 ohms or less. Also available in 6-pole per deck double throw construction. Non-shorting (break before make) and shorting (make before break).



Model MS-14-2

LAMINATED ROTARY SWITCHES

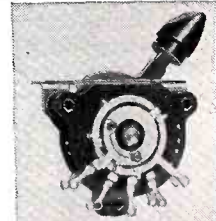
Used widely in quality test equipment, portable instruments, inspection setups and avionics where trouble-free, dependable performance counts. Two basic types — 14 pos. (2" dia.) or 20 pos. (2 3/32" dia.) give extra contacts in minimum space. One to six decks.



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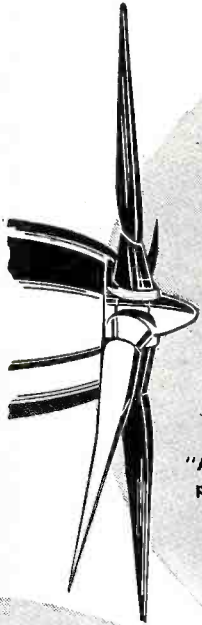


Model SS-14-1L4-2

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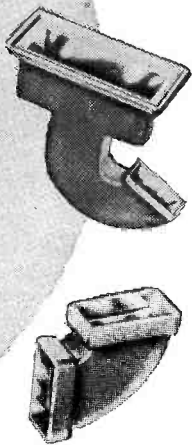
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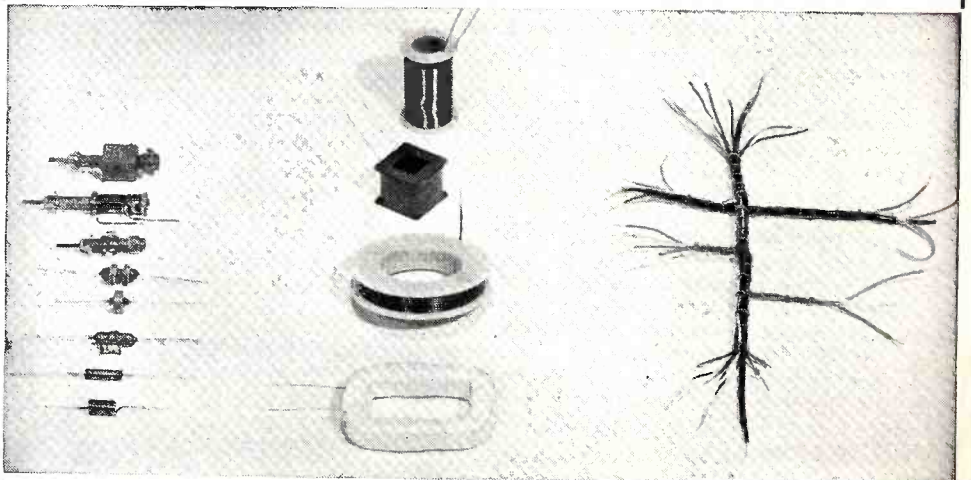
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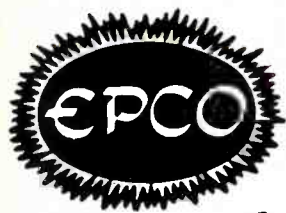
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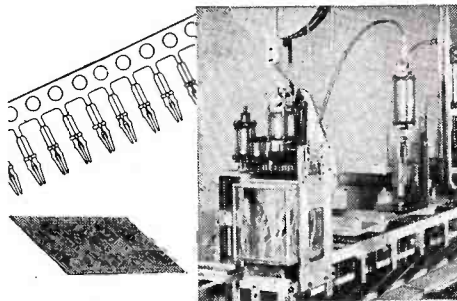
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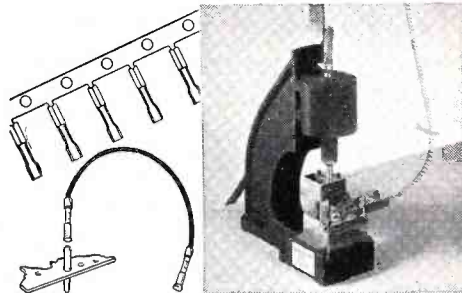
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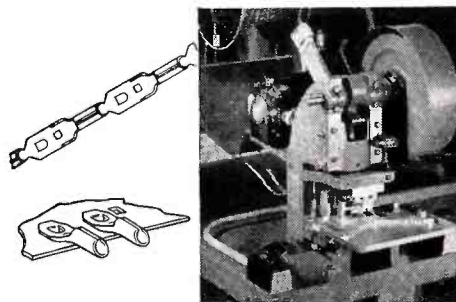
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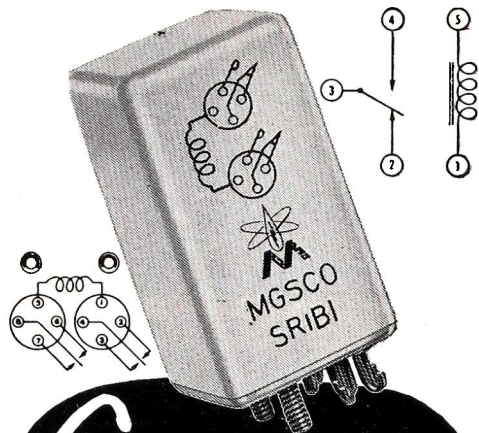
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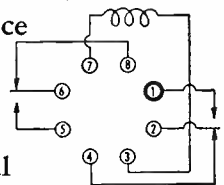


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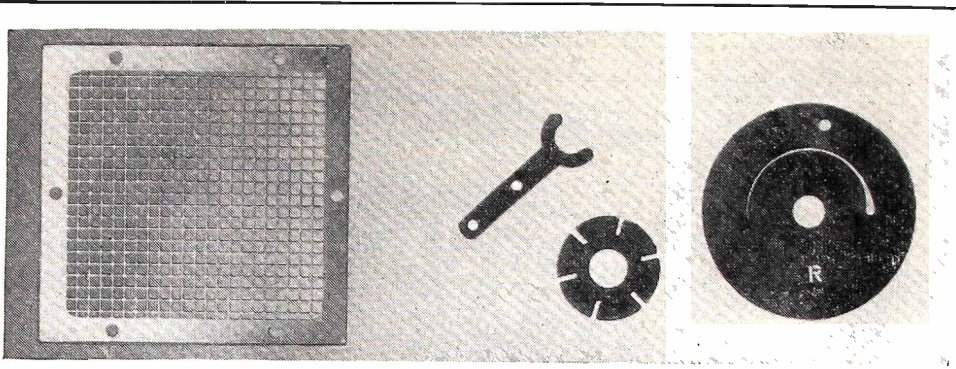
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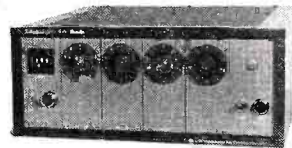
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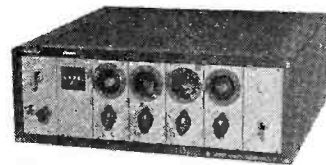
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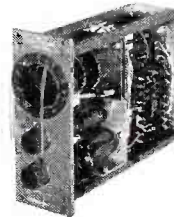
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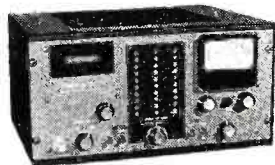


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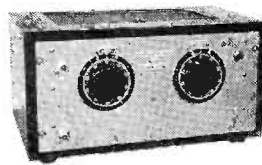
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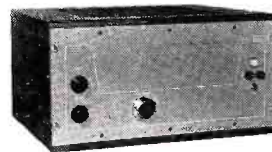
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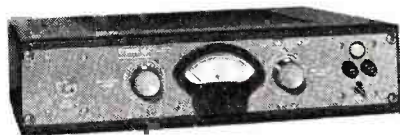
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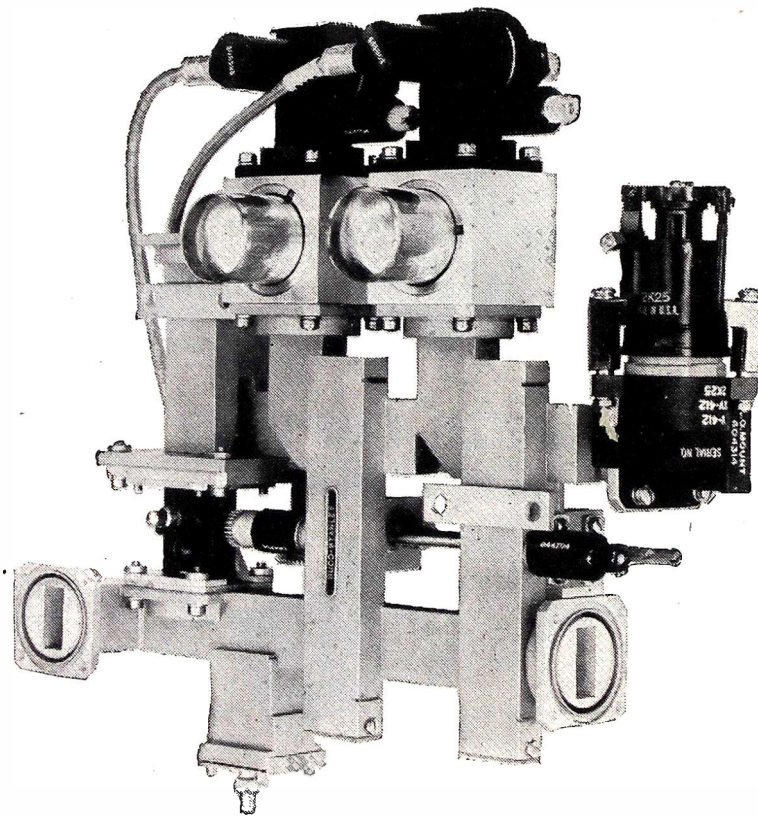
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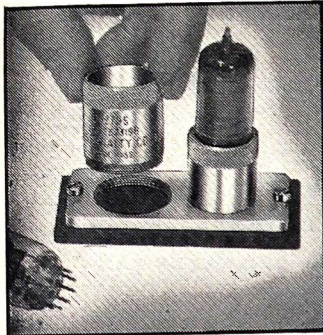
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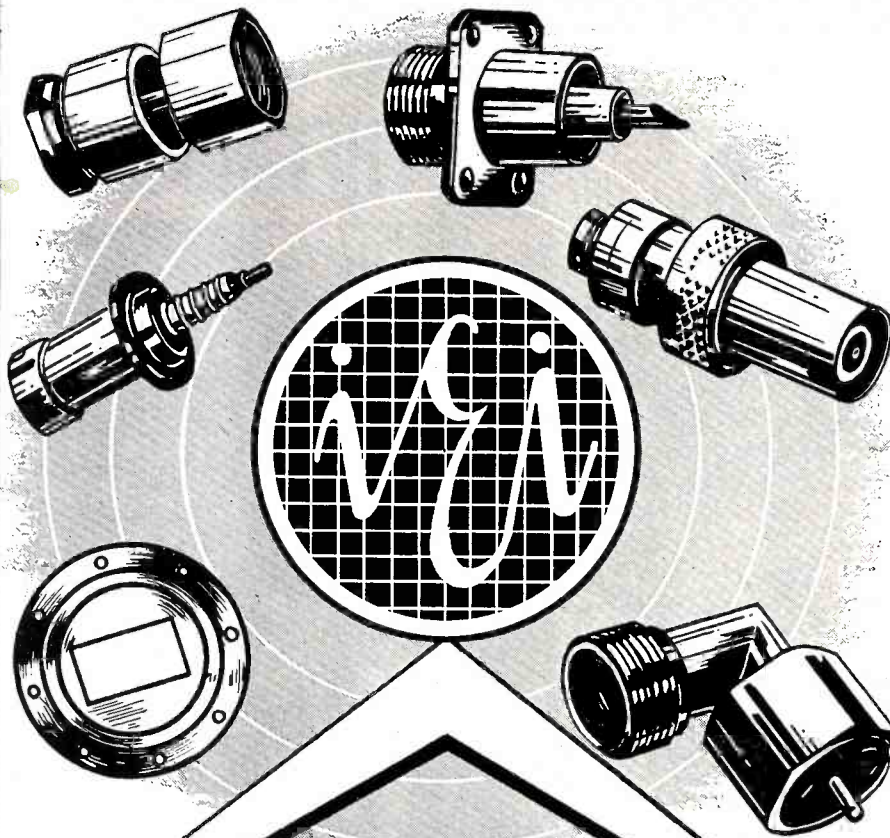
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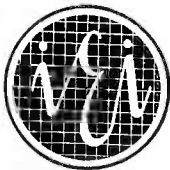
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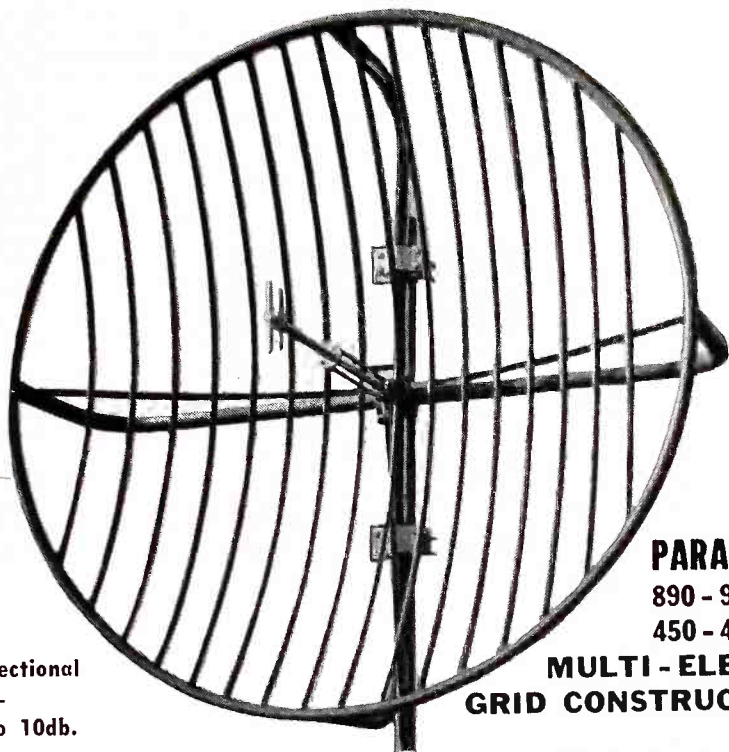
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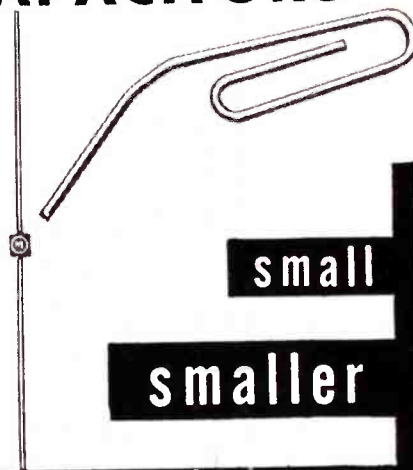
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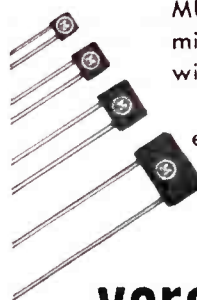
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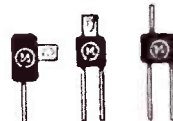
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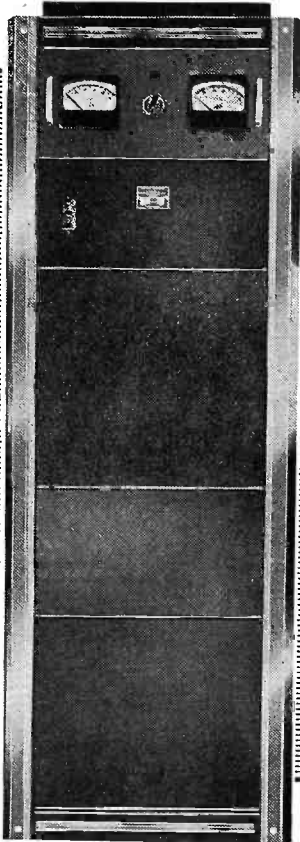
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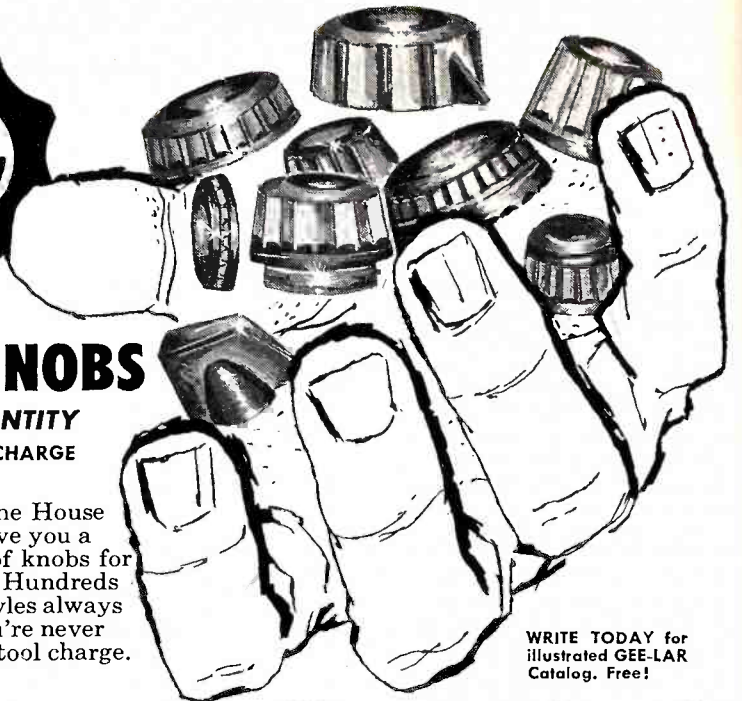
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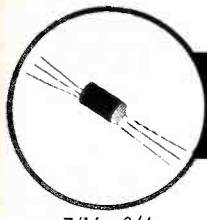
SIGMUND COHN CORP. 121 So. Columbus Avenue • Mount Vernon, N.Y.



Pulse Components

DESIGN FILE USE AND DESCRIPTION TUBES IMPEDANCE Z_0 , OHMS RISE TIME PULSE WIDTH PULSE KV PEAK POWER DESIGN FILE

MINIATURES

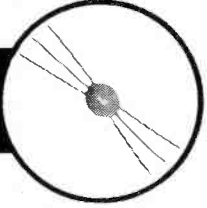


EF 71 Coupling, blocking oscillator differentiation, "Stat-tran" 5687 5902 6111 200 to 1000 to 0.01 0.1 to 2 0.3 75 w

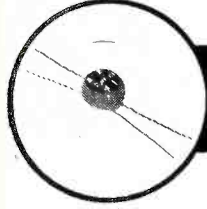
7/16 x 3/4

Miniature blocking oscillator and coupling, steel core, epoxy 5687 6111 12BH7 450 to 0.02 0.4 to 10 0.35 200 w

ES 6



7/16 x 9/16D

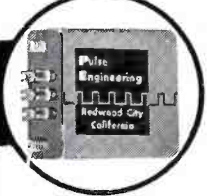


EF 7 Miniature blocking oscillator and coupling, ferrite core, epoxy 5687 6111 12BH7 350 to 0.01 0.1 to 1 0.3 75 w

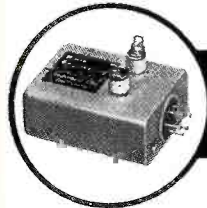
9/16D

Pulse coupling, reversing, computer readout 6197 6BG6G 12BH7 350 & 1000 to 0.04 0.4 to 10 1 0.8 kw

EF 8



1-1/16 x 1-3/16 x 1/2



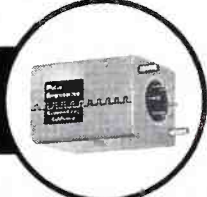
H 8 Pulse coupling, blocking oscillator, video trans. 50 to 1000 to 0.04 0.2 to 50 1 1 kw

11/16 x 1-9/32 x 1-23/32

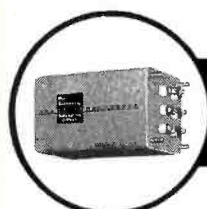
MEDIUM POWER

Medium power blocking oscillator — coupling 829 3E29 6BG6G 800 to 0.04 0.5 to 20 2 4 kw

H 10



1-1/4 sq x 2

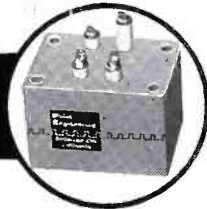


H 11 Medium power blocking oscillator for long pulses and square waves 3E29 6BG6G 4-65A 800 to 0.05 1 to 50 3 15 kw

1-5/8 x 1-7/8 x 3-1/4

Modulation, coupling (especially pulse groups) 4X150 3E29 2C39 1000 to 1600 to 0.04 0.5 to 10 3.5 7.5 kw

H 12



1-3/8 x 1-5/8 x 2-7/8



H 13 Modulation-magnetron, bifilar secondary RK6230 Thy-1258 35/5 k 0.1 0.2 to 1 5 7 kw

2-1/8 sq x 2

HIGH POWER

H 14 Modulation-magnetron, bifilar secondary 2J50 4J52 50/1 k 0.1 0.2 to 2 14 200 kw **H 14**

H 15 Modulation-coupling 4PR60A 1000 0.1 0.3 to 5 20 500 kw **H 15**

H 16 Modulation-magnetron, bifilar secondary 4J31-9 4J50 4J21 50/1 k 0.1 0.3 to 5 30 1 mw **H 16**

SPECIALS

- Pulse-forming networks
- Charging chokes
- Computer & Video Transformers

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Pulse Engineering

Redwood City California

HOW TO ORDER

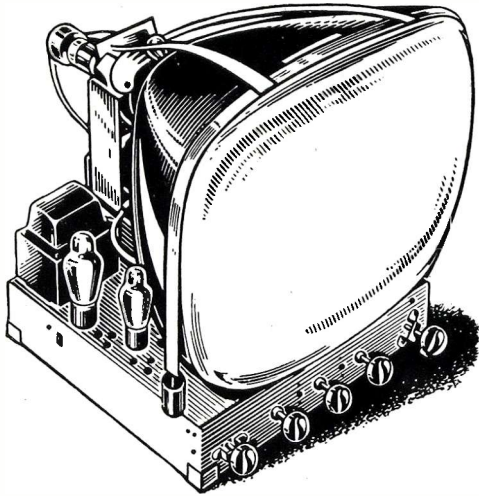
PULSE ENGINEERING catalog numbers refer to general design file. Exact requirements should be specified. For example: ES6-2, 1:1:1 specifies a miniature blocking-oscillator transformer. (E = Epoxy-sealed; S = Silicon-oriented core; 2 = 2 microseconds nominal pulse with standard circuit; 1:1:1 = 3 windings of 1:1:1 ratio). State if transformer is for pulse coupling or amplifying. For all units and especially high-power types, circuit and tube to be used should be identified with critical requirements: (1) rise time; (2) pulse width; (3) frequency; (4) pulse voltage; (5) droop; (6) input and output impedances.



Request Pulse Transformer Engineering Bulletin for helpful use data.

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Barium Carbonate
Barium Nitrate
Barium Tungstate
Cadmium Chloride
Cadmium Sulfate
Cadmium Sulfide
Calcium Carbonate
Calcium Chloride
Calcium Fluoride
Calcium Nitrate

Chemical R-500
Magnesium Chloride
Magnesium Oxide
Manganous Carbonate
Phosphoric Acid
Potassium Hydroxide
Radio Mixtures
Reagent Grade Acids
Silicic Acid
Sodium Hydroxide
Sodium Phosphate
Dibasic
Strontium Carbonate
Strontium Nitrate
Triple Carbonates
Zinc Nitrate
Zinc Oxide

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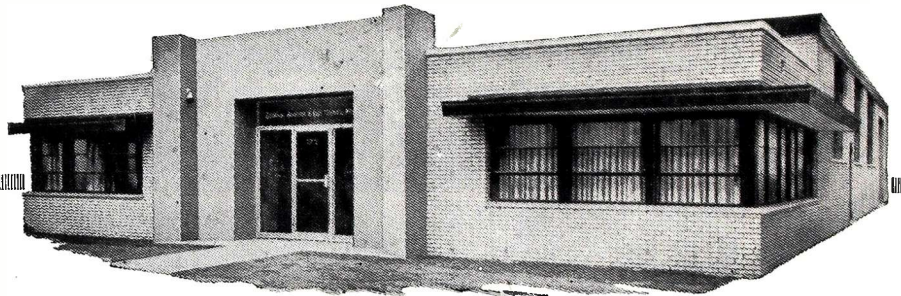
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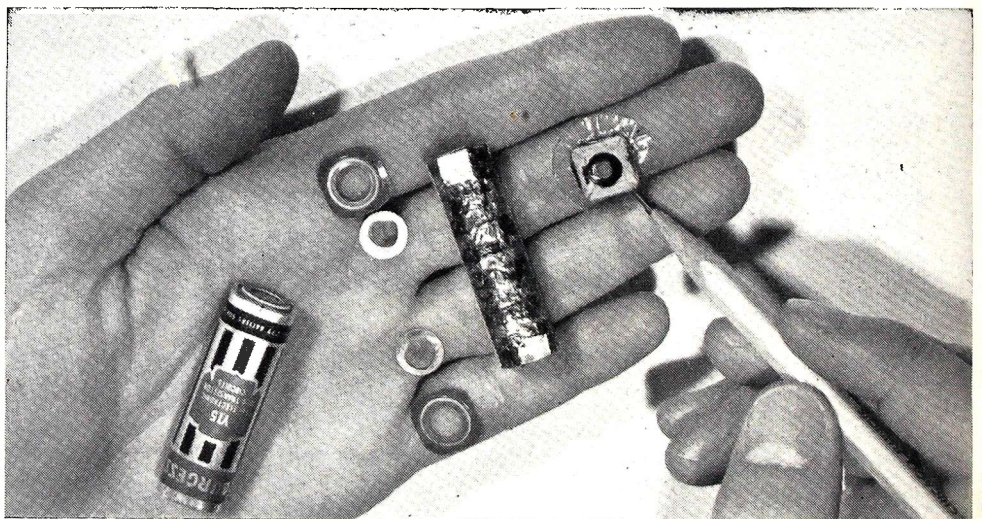
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179 BERGER STREET • WOOD-RIDGE, NEW JERSEY



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a column eliminating welded or soldered connections. Rigid inter-cell connections are maintained since the silver wax yields and molds itself to any necessary configuration between the cells to hold PERFECT ELECTRICAL CONTACT.

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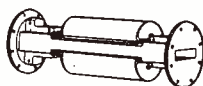
53 VICTORY LANE, LOS GATOS, CALIF.

UNILINE . . . an exclusive Cascade Research development . . . will provide substantial isolation between source and load with negligible loss in transmitted power. These characteristics are particularly important in radar systems where it is impractical to use a resistive attenuator to improve magnetron or klystron stability. Use of Uniline in communications applications provides isolation for the microwave transmitter tube by absorption of the transmitted energy reflected into the transmission line from the antenna. Phase distortion, due to the transmission line, is markedly reduced. Uniline also has many uses in test bench service. A typical application is the elimination of pulling of the microwave oscillator caused by variations in load impedance.

Both high and low power Unilines apply the desirable properties of ferrites at microwave frequencies. High power Unilines utilize the resonant absorption principle because designs based on this principle provide superior heat-dissipating characteristics. Low power Unilines operate upon the Faraday rotational principle for compactness and ruggedness.



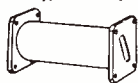
HIGH POWER UNILINES



FREQUENCY RANGE KMC	MODEL	PEAK POWER	AVERAGE POWER	INSERTION LOSS REVERSE	FORWARD	WAVEGUIDE	SPECIAL FEATURES	PRICE
23.5-24.5	K131	70KW	25W	10 db	0.6 db	.350" x .500"	Power	375.00
15.5-17.5	16-17	100KW	25W	20 db	0.8 db	.702" x .391"	Broad Band	250.00
16-17	H16-17	100KW	200W	17 db	0.5 db	.702" x .391"	Power	350.00
16-16	KU131	100KW	215W	10 db	0.3 db	.702" x .391"	Power	375.00
13.0-14.0	KU132	50KW	25W	30 db	0.7 db	.702" x .391"	Med. Power	275.00
8.9-9.9	XL151	300KW(p)	500W	10 db	0.5 db	5/8" x 1-1/4"	High Power	450.00
9.5-10.5	X143	40 KW	200W	14 db	0.4 db	1/2" x 1"	Compact	375.00
8.8-9.8	X131	90KW	90W	10 db	0.4 db	1/2" x 1"	Small Power	350.00
8.6-9.6	H86-96	150KW	125W	10 db	0.4 db	1/2" x 1"	Power	250.00
8.6-9.6	HL86-96	300KW(p)	300W	10 db	0.5 db	5/8" x 1-1/4"	Power	300.00
8.0-8.5	XL122	100KW	75W	18 db	1.0 db	5/8" x 1-1/4"	Gen. use	400.00
7.5-8.0	XL123	100KW	75W	18 db	1.0 db	5/8" x 1-1/4"	Gen. use	400.00
7.125-7.425	J126	100KW	75W	40 db	1.0 db	3/4" x 1-1/2"	Hi-isolation	240.00
6.875-7.125	J125	100KW	75W	40 db	1.0 db	3/4" x 1-1/2"	Hi-isolation	240.00
6.575-6.875	J123	100KW	75W	40 db	1.0 db	3/4" x 1-1/2"	Hi-isolation	240.00
6.175-6.425	J122	100KW	75W	40 db	1.0 db	3/4" x 1-1/2"	Hi-isolation	240.00
5.925-6.175	J121	100KW	75W	40 db	1.0 db	3/4" x 1-1/2"	Hi-isolation	240.00
5.925-6.425	J124	100KW	75W	30 db	1.0 db	3/4" x 1-1/2"	Hi-isolation	240.00
5.425-5.925	J127	100KW	75W	30 db	1.0 db	3/4" x 1-1/2"	Hi-isolation	375.00
5.425-5.925	G136	150KW	100W	20 db	0.7 db	1" x 2"	Gen. use	375.00
5.425-5.925	G151	250KW	300W	10 db	0.5 db	1" x 2"	Power	---
5.425-5.925	G161	1 meg.(p)	1000W	10 db	0.5 db	1" x 2"	High Power	---
4.4-5.0	44-50	150KW	150W	20 db	0.7 db	1" x 2"	Gen. use	400.00
3.8-4.2	38-42	---	25W	27 db	1.8 db	1" x 2"	Gen. use	350.00
2.8-3.2	28-32A	400KW	350W	27 db	1.6 db	1-1/2" x 3"	Gen. use	475.00
2.8-3.2	28-32B	400KW	350W	20 db	1.2 db	1-1/2" x 3"	Gen. use	450.00
2.8-3.2	28-32C	400KW	350W	13 db	0.8 db	1-1/2" x 3"	Gen. use	450.00
2.8-3.2	28-32D	400KW	350W	6 db	0.4 db	1-1/2" x 3"	Gen. use	450.00
2.8-3.0	S161	3 meg.(p)	2KW	10 db	0.8 db	1-1/2" x 3"	Med. Power	---
2.7-2.9	S171	5 meg.(p)	5KW	10 db	0.5 db	1-1/2" x 3"	High Power	---
2.7-2.9	S151	750KW	750W	15 db	0.75 db	1-1/2" x 3"	High Power	---
2.0-2.4	SL133	400KW	350W	20 db	1.0 db	2.31" x 4.46"	Gen. use	475.00
2.0-2.4	SL132	200KW	350W	20 db	1.0 db	"N" Coax	Coax fittings	575.00
1.7-2.0	SL131	150KW	350W	20 db	1.0 db	"N" Coax	Coax fittings	575.00

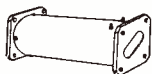
Characteristics are a function of frequency and those listed are typical average values.

LOW POWER UNILINES



FREQUENCY RANGE KMC	MODEL	PEAK POWER	AVERAGE POWER	INSERTION LOSS REVERSE	FORWARD	WAVEGUIDE	SPECIAL FEATURES	PRICE
34-36	KA121	---	1W	20 db	0.5 db	.360" x .220"	Compact	475.00
23-25	K23-25	---	10W	20 db	0.5 db	1/4" x 1/2"	Compact	350.00
16-17	R16-17	---	10W	20 db	0.7 db	.702" x .391"	Compact	300.00
15-16	R15-16	---	10W	20 db	0.7 db	.702" x .391"	Compact	300.00
13-14	R13-14	---	10W	20 db	0.7 db	.702" x .391"	Compact	225.00
9.6-10.4	R96-104	---	20W	20 db	0.7 db	1/2" x 1"	Compact	150.00
8.8-9.6	R88-96	---	20W	20 db	0.7 db	1/2" x 1"	Compact	150.00
8.0-8.8	R80-88	---	20W	20 db	0.7 db	1/2" x 1"	Compact	150.00
6.9-7.4	R69-74	---	10W	20 db	0.7 db	3/4" x 1-1/2"	Gen. use	215.00
6.4-6.9	R64-69	---	10W	20 db	0.7 db	3/4" x 1-1/2"	Gen. use	215.00
5.9-6.4	R59-64	---	10W	20 db	0.7 db	3/4" x 1-1/2"	Gen. use	215.00
5.4-5.9	R54-59	---	10W	20 db	0.7 db	3/4" x 1-1/2"	Gen. use	375.00

GYRALINES . . .



Gyraline is an electronically controlled variable attenuator. It may be used as an amplitude modulator, an automatic gain control or an on-off switch when operated in conjunction with suitable electronic equipment. Slight modification will also permit its use as a transfer switch. A Gyraline-modulated CW signal eliminates frequency modulation and double moding often present with square wave modulated klystron signals.

FREQUENCY RANGE KMC	MODEL	MAXIMUM CONT. DISS.	MAX. MOD. FREQUENCY	TYPICAL MAX. INSERTION LOSS	WAVEGUIDE	SPECIAL FEATURE	PRICE
34-36	KA211	1W	10 KC	25 db	.360" x .220"	Hi Freq. Mod.	650.00
23-25	K211	1W	5 KC	25 db	.500" x .250"	Gen. use	375.00
15.0-18.0	R1650	1W	3 KC	30 db	.702" x .391"	Gen. use	225.00
12.5-15.0	R1350	1W	3 KC	30 db	.702" x .391"	Gen. use	225.00
8.2-12.4	R920	1W	75 KC	35 db	.702" x .391"	Hi Freq. Mod.	275.00
8.2-12.4	R920A	1W	75 KC	35 db	1/2" x 1"	Gen. use	185.00
8.2-12.4	H920A	1W	75 KC	35 db	1/2" x 1"	Hi Freq. Mod.	225.00
8.2-12.4	R20NA	1W	200 cps	35 db	1/2" x 1"	Rugged	225.00
6.9-7.4	R720	1W	3 KC	30 db	3/4" x 1-1/2"	Gen. use	250.00
6.4-6.9	R670	1W	3 KC	30 db	3/4" x 1-1/2"	Gen. use	250.00
5.9-6.4	R620	1W	3 KC	30 db	3/4" x 1-1/2"	Gen. use	250.00
5.4-5.9	R570	2W	3 KC	30 db	3/4" x 1-1/2"	Gen. use	375.00
4.9-5.2	G221	2W	3 KC	25 db	1" x 2"	Gen. use	375.00

CIRCULATOR . . .

A circulator is a non-reciprocal microwave network which transmits power from one terminal to another in sequence. Power introduced at "A" leaves the network at "B" while power introduced at "B" leaves the network at "C". Similarly, power introduced at "C" goes to "D", that introduced at "D" goes to "A". This unit represents an entirely new parameter for the design of microwave circuits. The duplexing effect of the circulator is helpful in both radar and microwave relay applications.

FREQUENCY RANGE	MODEL	PEAK POWER	AVERAGE POWER	FORWARD INSERTION LOSS	REVERSE ATTENUATION	TYPE	PRICE
34.5-35.2	KA432	60KW	25W	0.5 db	25 db	FOUR TERMINAL	---
8.6-9.6	XL442	200KW	250W	0.5 db	25 db	FOUR TERMINAL	365.00
8.2-10.2	X441	150KW	150W	0.5 db	25 db	THREE TERMINAL	325.00
8.2-10.2	X442	150KW	150W	0.5 db	25 db	FOUR TERMINAL	365.00

UNIPLEXER . . .

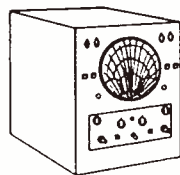
The Uniplexer combines a circulator and a Gyraline amplitude modulator in such a way that load isolation, duplexing action and sensitivity time control are provided. The Uniplexer provides several advantages over a conventional duplexer. By its use, no transmitter spike enters the receiver to cause deterioration of the crystal, there is no uncertainty of gas tube deionization time, the required dynamic range of the receiver input is reduced.

FREQUENCY RANGE	MODEL	PEAK POWER	AVERAGE POWER	TRANSMITTER RECEIVER	INSERTION LOSS ANTENNA RECEIVER	ANTENNA TRANSMITTER	ANTENNA TRANSMITTER	PRICE
34.5-35.2	KA432	60KW	25W	50 db 25 db	25 db 0.5 db	0.4 db	(isolation) 25 db	---
8.6-9.6	XL441	250KW	250W	80 db 25 db	35 db 1.5 db	0.4 db	25 db	---

MISCELLANEOUS FERRITE DEVICES . . .

Other Cascade Research ferrite devices for which complete technical information is available upon request include: SINGLE SIDEBAND MODULATOR . . . PHASE SHIFTERS . . . POLARIZATION ROTATOR . . . VARIABLE MISMATCH . . .

Z-SCOPE VISUAL MICROWAVE IMPEDANCE PLOTTER . . .



Z-Scope, an exclusive Cascade Research development provides a complete visual presentation of the impedance characteristics of a microwave antenna, or other load, over the entire X band. When used in conjunction with a swept source, an instantaneous plot of impedance is obtained.

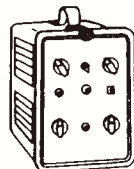
Z-Scope is complete, self-contained, and ready to operate. One cabinet contains all the electronic circuits while another cabinet contains the waveguide circuits. The magnitude and phase of the reflection coefficient is displayed on a 7" C-R tube provided with a Smith Chart reticle. All information necessary to calculate matching irises or other matching devices is available.

Paint-by-point measurements over a frequency band are eliminated. Z-Scope has no moving mechanical elements and is wholly electronic in operation. The wave guide control section is inserted in the microwave circuit between the power source and the unknown load. Samples of the direct and reflected waves are obtained by the control section and electronically analyzed by circuits in the presentation cabinet.

Presentation section, \$1650.00

Waveguide Control Section, \$1600.00

D-92A GYRALINE DRIVER . . .

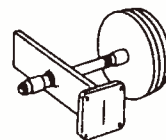


D-92A Driver supplies driving power over a wide frequency range (30 cps to 70 kcs) for several Gyraline models. The driver consists of tunable oscillator, AC power amplifier and self-contained power supply. Provision is made for an external input to power the amplifier. The Gyraline and Gyraline driver combination permits a large number of microwave test arrangements in which standard 1000 cycle, or other AC test instruments may be employed.

D-92A Driver \$350.00

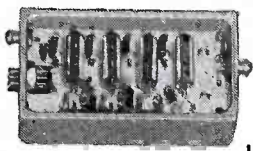
MICROWAVE VACUUM TUBES . . .

Backward Wave Oscillator, Model X521 is the first tube in a new series. This tube is all metal and ceramic and uses a folded line rather than a helix thereby improving mechanical characteristics and appreciably reducing both size and weight. Output level is one-half watt, nominal. Waveguide output covers the X band.



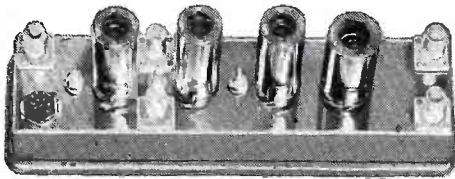
BWO X521 \$950.00

Solenoid \$250.00



IF-60

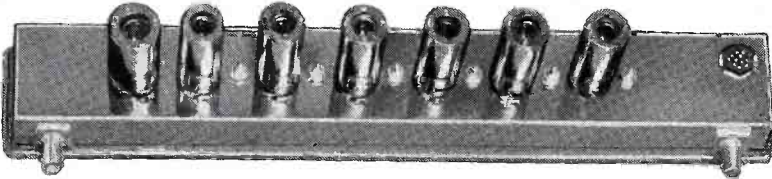
IF AMPLIFIERS for RADAR & GUIDED MISSILE Application



IF-31

Save valuable time in your development programs. Stock IF Amplifiers available for immediate delivery or modified to meet your end use requirements. Whatever your IF problem, contact our IF Engineering Department.

Frequencies: 5 to 100 MC & Higher

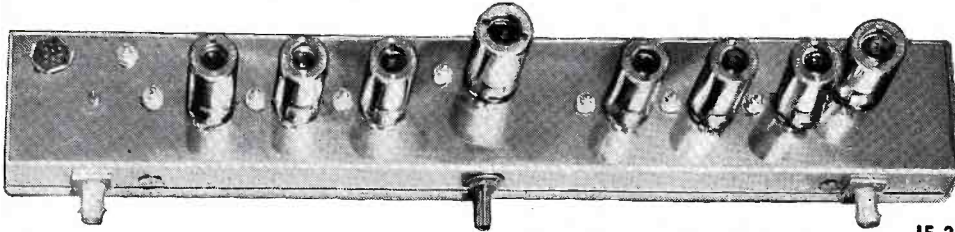


IF-30

Write for literature and quantity prices —or submit specifications for units to meet your specific application.

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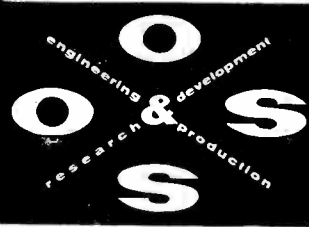
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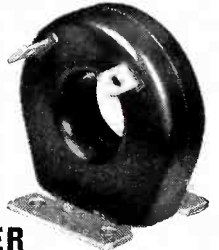
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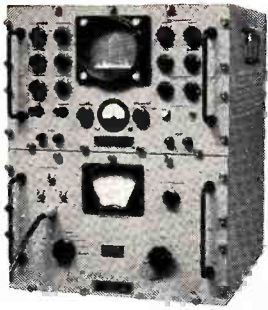
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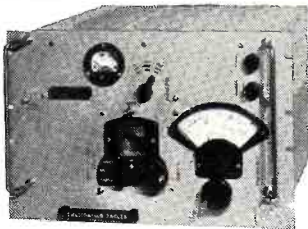
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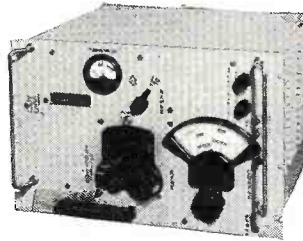
20-200,000 pps internal trigger, 0-200 kc external; 1.5 to 2500 microsecond delay, 0.5 to 2500 microsecond pulse width, one or two pulses. Output impedances 2000, 200 or 75 ohms. Approx. 0.1 microsecond rise time. Bulletin LA-592D.



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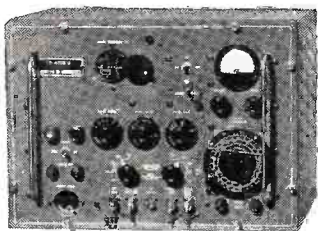
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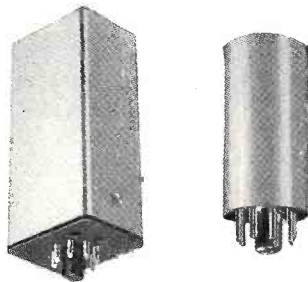
Frequency range 5 cycles to 15 mc flat, 0.03 v/cm sensitivity, internal voltage calibration, Z axis timing markers 0.2 to 2000 microseconds, internal trigger generator. Sweep speeds to 14 cm per microsecond. Ruggedized construction, standard rack mount. Bulletin LA-239C.



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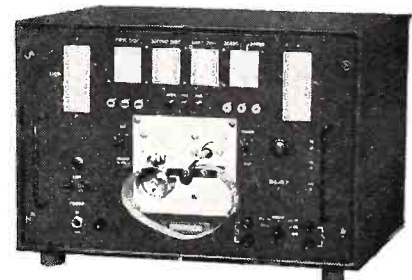
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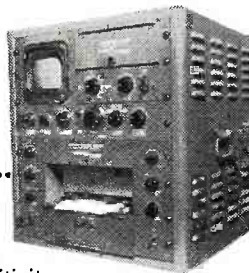
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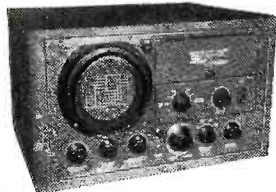
Y-axis scan, synchronized to loop recording represents playback interval. X-axis represents frequency distribution. Intensity indicates component level.

Panoramic Time-Frequency Analyzer, Model TFA-1

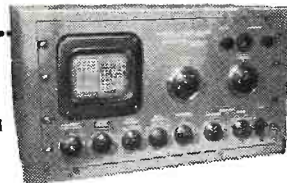


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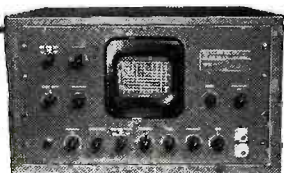


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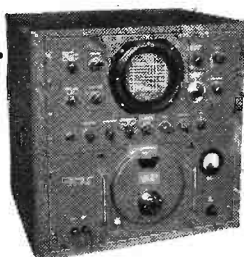


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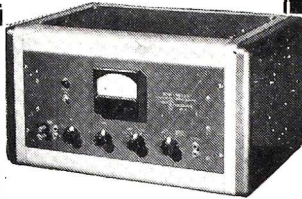
for microwave spectrum analysis 50 mc—4000 mc—Sensitivity: up to -100 dbm; SWEEPWIDTH: 10 mc continuously reducible to 0 mc; RESOLUTION: 9 kc—100 kc, continuously variable; SCAN RATES: 1 cps—60 cps, continuously variable; FREQUENCY COVERAGE: tuning heads RF-2 50—250 mc and RF-3 220—4000 mc.



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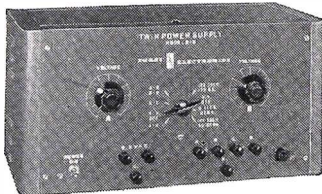
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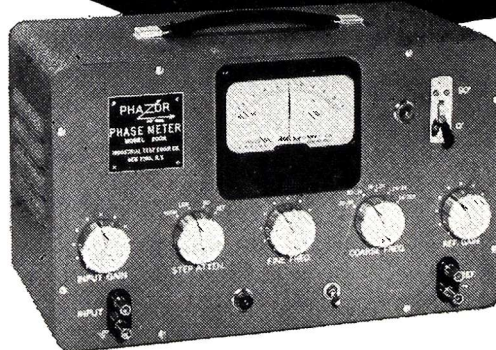
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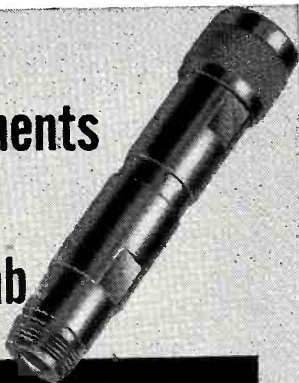
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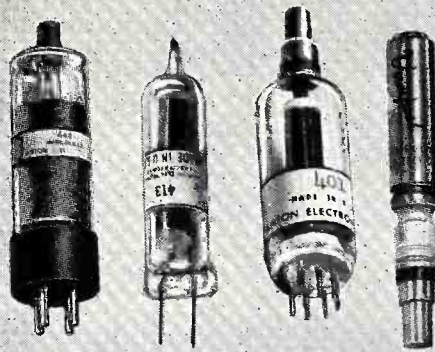
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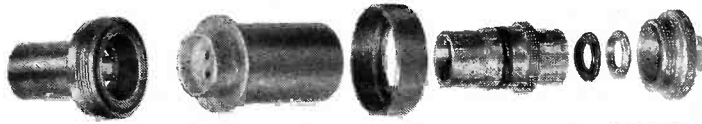
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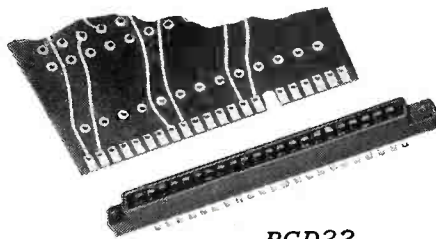
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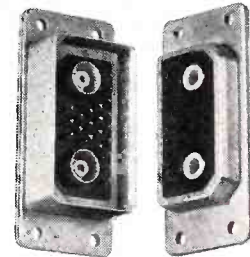


MS20-34

MP20-34



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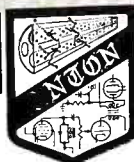
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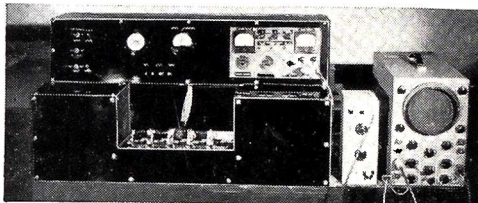
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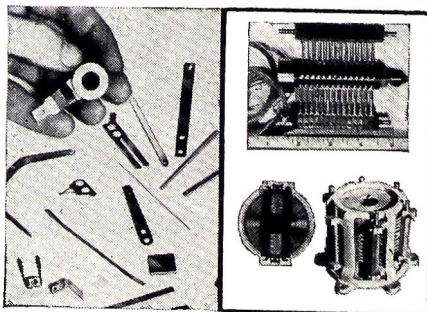
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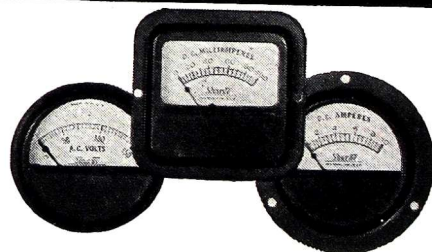
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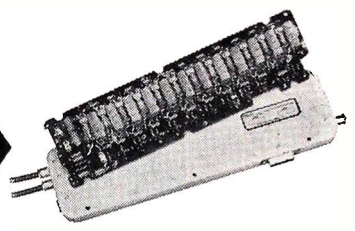
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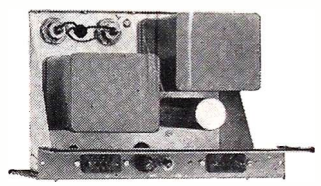
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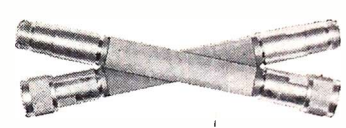
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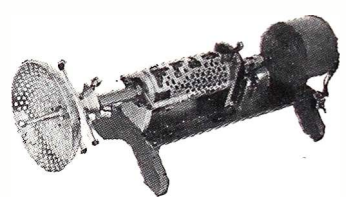
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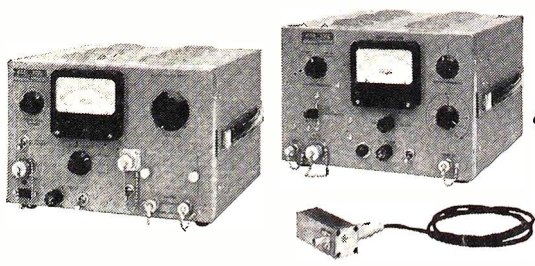
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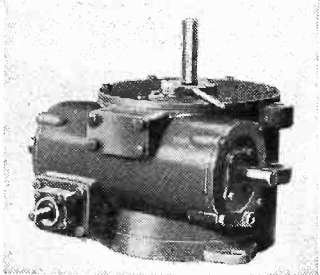
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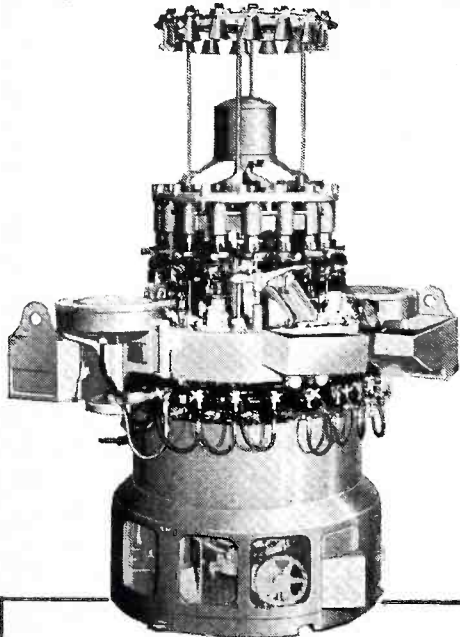
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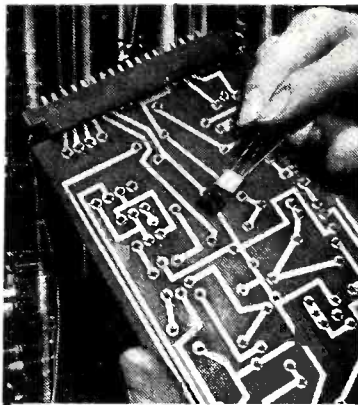
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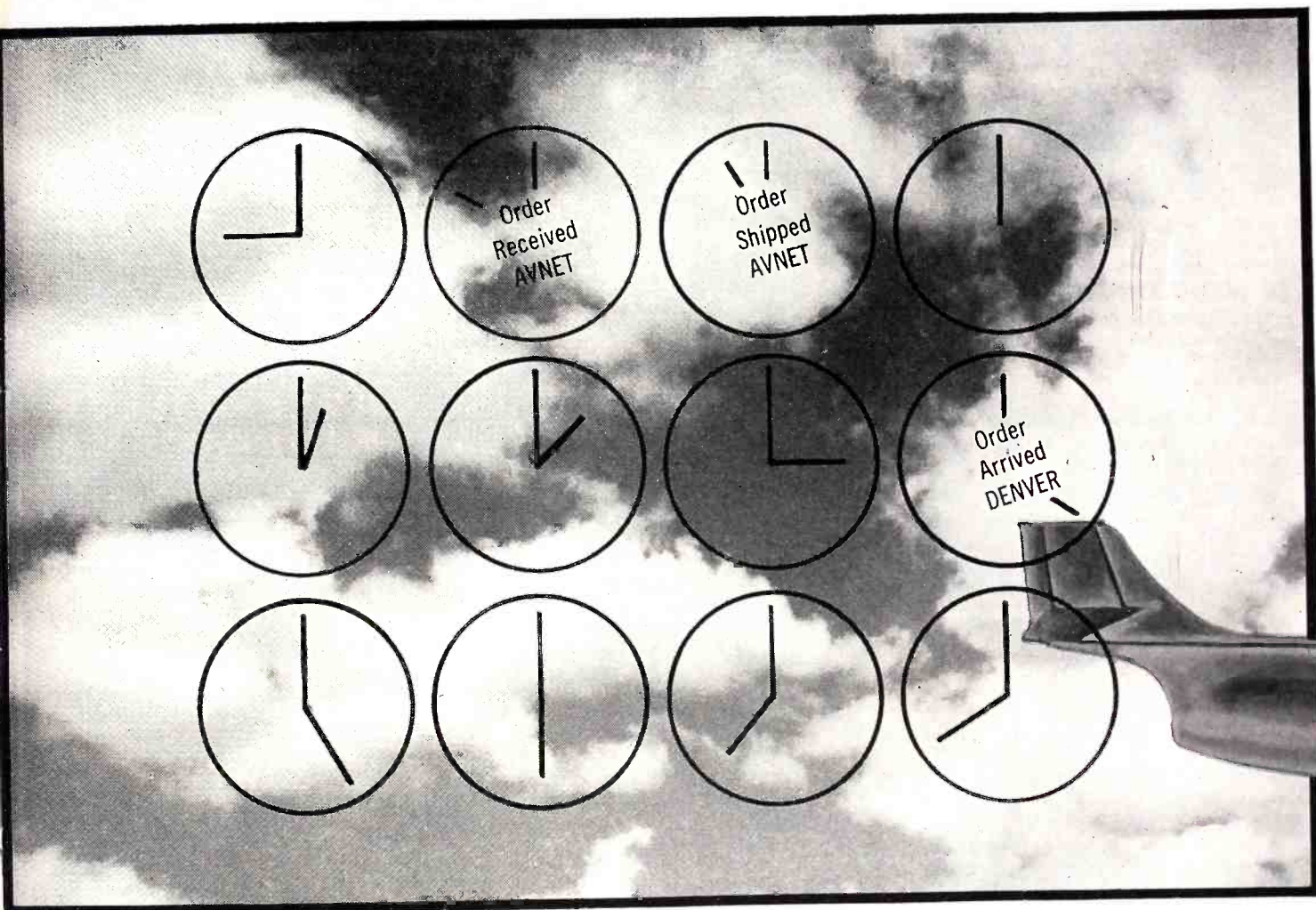
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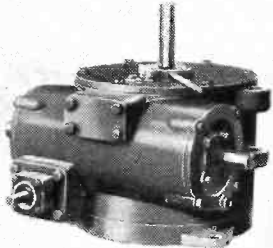
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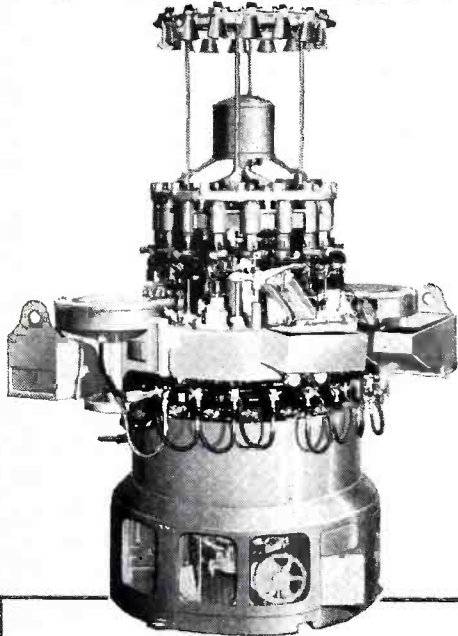
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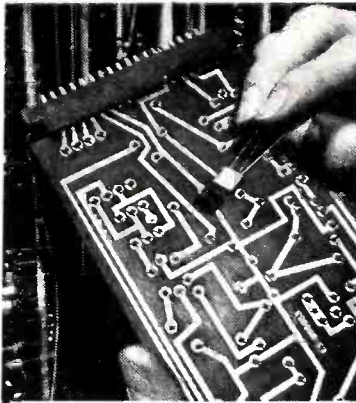
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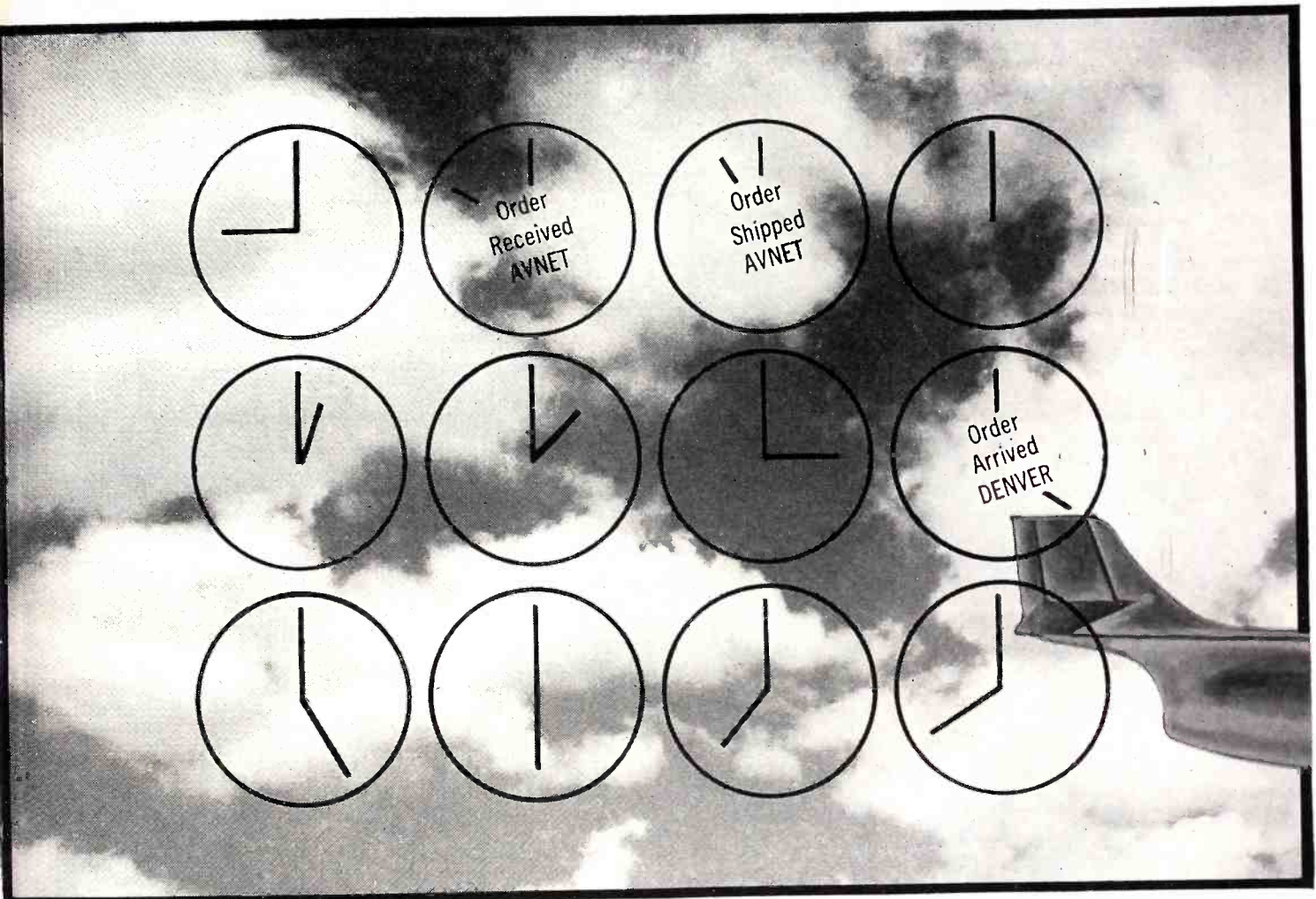
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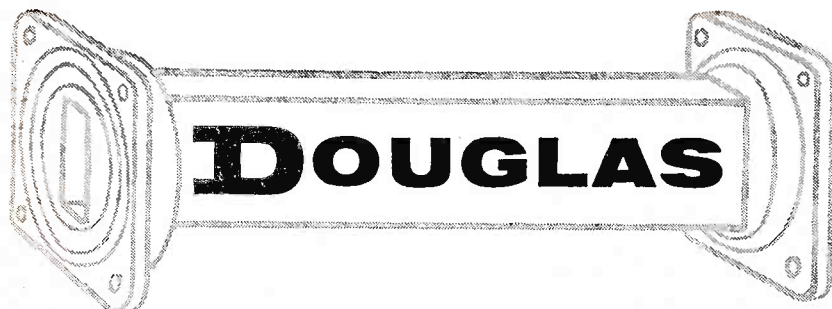
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Model No.	Frequency Kmc.	Connectors
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MATERIAL: (1) Brass and aluminum; (2) Teflon-insulators; (3) contacts.

CRYSTAL DETECTOR MOUNT WAVEGUIDE - TUNABLE
MODEL 161

Frequency km c.	Flange Type	Xtal Type	Dimen.
2.6-3.95	UG-53	IN21	12
3.95-5.85	UG-149	IN23	10.5
5.85-8.20	UG-344	IN23	9
7.05-10.0	UG-51	IN23	7
8.2-12.4	UG-39	IN23	6.5
12.4-18	UG-419	IN26	5.5
18-26.5	UG-595	IN26	3.5
26.5-40	UG-599	IN26	3

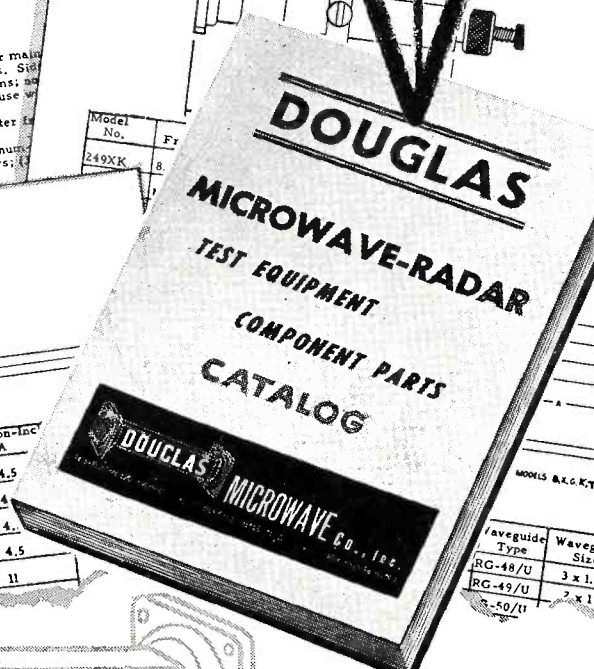
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Waveguide Input and Output
Model 249

Model No.	Frequency Kmc.	Connectors
249XK	8	

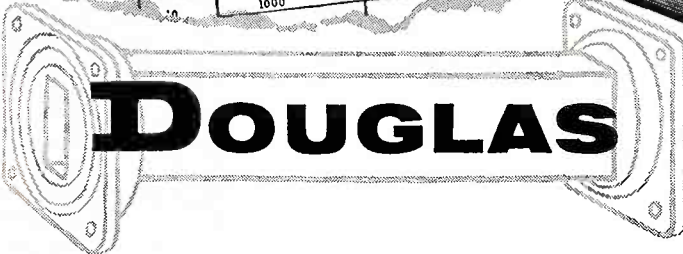
FILTER
Low Pass
Coaxial
MODEL 175

Model No.	Cut Off Frequency mcs.	Dimension-Inch A
175-1	100	4.5
175-3	300	4
175-5	500	4.5
175-7	700	4.5
175-11	1000	11



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MODEL 173

Waveguide Type	Waveguide Size	Frequency km c.	Flange Type	Atten. db.	Dimensions-inches
RG-48/U	3 x 1.5	2.6-3.95	UG-53	26	34 2.93 3 4
RG-49/U	2 x 1	3.95-5.85	UG-149	26	24 1.93 3 2
UG-50/U	2 x 1	5.85-8.20	UG-344	26	24 1.93 3 2



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VARNISHED RAYON—Developed as an alternate for varnished silk, and used in substantially the same applications. High tensile and dielectric strength with exceptional smoothness. Available in yellow only; finish, dry. Full width rolls, 25 yd. and 50 yd.; tapes, 25 yd. and 50 yd.; bias cut strips approximately 51 in. standard; other lengths on special order.

VARNISHED FIBERGLAS—Class B insulation (130°C) used primarily to insulate equipment which operates at temperatures above the normal safe working range of varnished cambric. Permits higher current densities with consequent reduction in size and weight. Has great mechanical strength and excellent dielectric properties. Available in standard weave or open-weave; yellow or black; in all standard commercial sizes and thicknesses; standard finish, dry; mica-dusted on specification. Full width rolls, 25 yd. and 50 yd.; sheets, 36" x 36" and 24" x 36"; tapes, 36 yd. and 72 yd.; standard; other lengths and sizes on special order.

ISOGLAS—For higher continuous operating temperatures (150°C). Consists of glass fabric coated with newly developed isocyanate type resin. Has outstanding resistance to heat, to crazing and cracking, and to solvents including the askarels. It is tough and has excellent abrasion resistance, wet dielectric strength, low temperature flexibility and fungistatic qualities. Full width rolls (approx. 36"), 25 yd. and 50 yd.; standard; slit tapes also available.

SILICONE COATED FIBERGLAS—Class H insulation (180°C) used wherever reduction of size and weight are vitally important. Retains its excellent mechanical and dielectric properties at higher temperatures. Full width rolls, 25 yd. and 50 yd.; tapes, 36 yd. and 72 yd., standard; other lengths on special order.

VARNISHED PAPERS—Chemically inert rope and kraft stocks selected for uniform thickness, tensile and dielectric strength and coated with highest grade electrical varnish. Yellow varnished condenser type tissues, single or multiple ply; yellow or black varnished heavy papers, single ply. Full width rolls, single ply, 25 yd. and 50 yd.; multiple ply, 25 yd.; sheets, 36" x 36" and 24" x 36"; tapes, 36 yd. and 72 yd., standard; other sizes and lengths on special order.

COMBINATION INSULATIONS—Slot cell insulation is a combination of 100% rag paper stock firmly cemented to a layer of varnished cambric, either straight or bias cut. The high dielectric strength and moisture resistance of Natvar varnished cambric with the toughness and abrasion resistance of rag paper make a slot insulator which will withstand pounding and chafing without impairment of its electrical properties. Available in black and yellow; full width rolls, 25 yd. and 50 yd.; sheets, 36" x 36" and 24" x 36", standard; other lengths and sizes on special order.

Aboglas® insulation is a new class B insulation (130°C) consisting of a layer of varnish saturated asbestos paper sandwiched and securely bonded between two layers of varnished open-weave Fiberglas. It is less expensive than mica combinations and does not flake. Excellent resistance to breakdown even under extreme heat, moisture, abrasive dust, oil and grease. Standard sheets approximately 36" x 36"; other sizes on special order.

Other duplex and triplex composite insulations such as silicone coated Fiberglas, Quinorgo, Mylar, etc. are also available.

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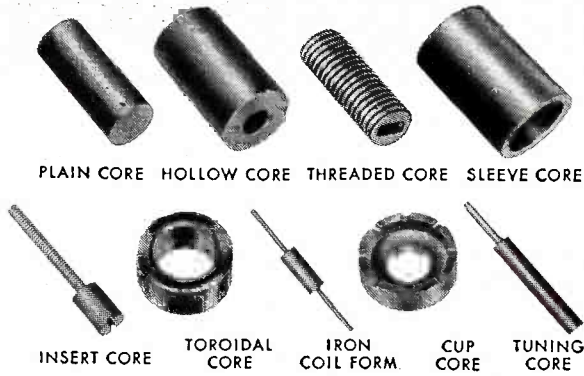
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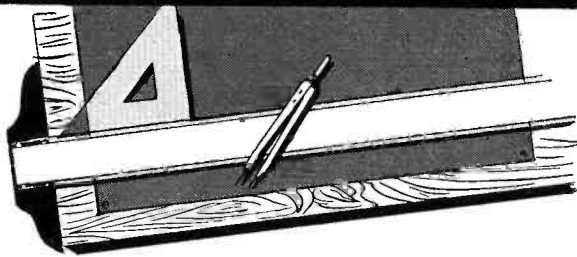
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THE 16TH YEAR

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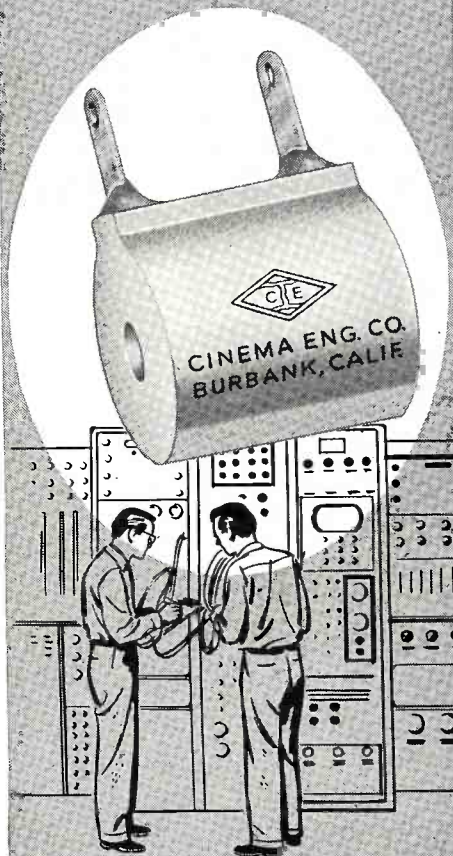
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- For Trade Name Listings
- For Manufacturer's Representatives

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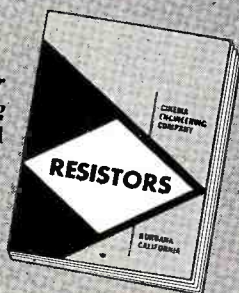
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used in the
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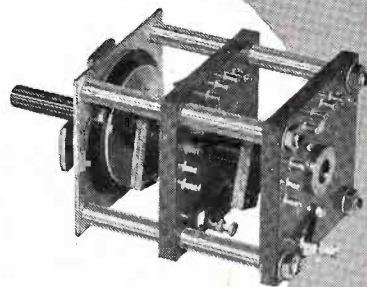
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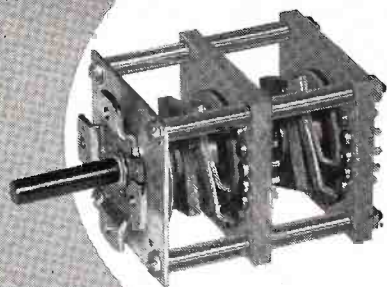


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INSTRUMENT SWITCHES



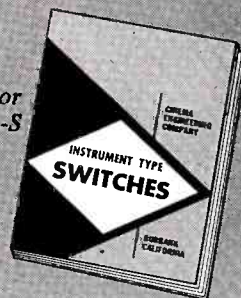
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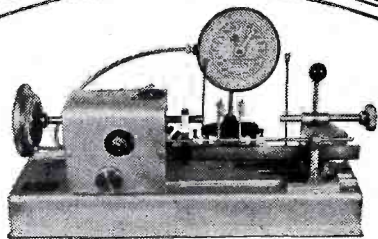
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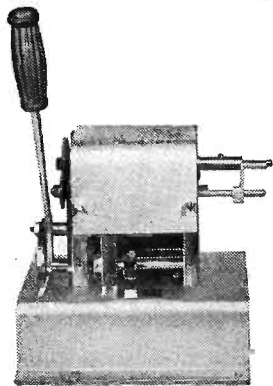
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Year after year, the designers of the industry have preferred the "Guide" for its *Simplicity of Style* (as easy to use as a telephone directory), for its *Accuracy* (the industry helps the Research Staff revise its listings every year) and its *Complete Product Specs* (advertisers have told their complete product stories in the "Guide" consistently).

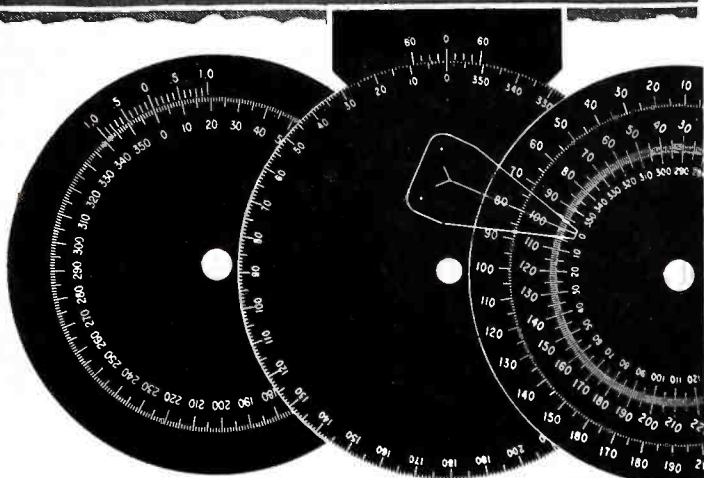
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 and the only
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 available.
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APPLIED RADIATION CORPORATION

A COMPANY SPECIALIZING in research and development of VERY HIGH POWER microwave linear accelerators and components

Offering these Services . . .

- **DESIGN and DEVELOPMENT** of VERY HIGH POWER klystrons, pulsed modulators and pulse transformers.
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 Electron beam energy 5 million volts

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The first multi-megawatt klystron operated as an oscillator
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 Average power 12 Kilowatts
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Maximum average output power 40 Kilowatts
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 Repetition rate variable to 360 per second
 Pulse length variable to 15 μ seconds
 Peak voltages variable to 150 kilovolts
 Maximum peak current @ 150 kilovolts and 15 μ seconds 60 amperes

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HOLD IT!

You can etch
Soldered Circuits
FASTER in
**HUNT
S.C.E.**

(Solder Circuit Etch)

Hunt saw the need for an etchant that was faster, would work at normal temperatures and was more reliable in its action than the commonly used sulphuric-chromic acid solution.

Hunt now offers you Hunt S.C.E. (Solder Circuit Etch) a ready-prepared product designed to etch solder plated circuit boards . . . designed to do it more easily, more effectively than it has ever been done before. You'll find that Hunt S.C.E.:

1. Etches rapidly at room temperatures.
2. Has a fairly high capacity for copper.
3. Never attacks the solder-plated circuit.
4. Has guaranteed uniformity, and is of the highest quality because of rigid laboratory control.

Hunt S.C.E. is essentially an oxidizing solution with the capacity to keep the oxidized copper permanently in solution. Although many acids will etch copper, S.C.E. solution has the peculiar property of not attacking the solder . . . but giving fast, odorless etching of the copper.

HUNT R.C.E. (RAPID CIRCUIT ETCH) FOR PRINTED CIRCUITS

Hunt R.C.E. is a proprietary etchant, formulated to etch printed circuits fast and to speed up production.

It offers these 6 big advantages:

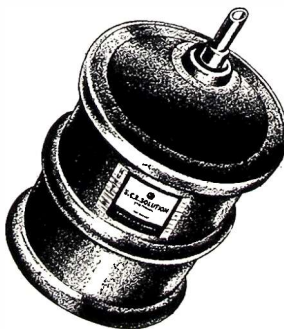
1. 15% increase in etching speed.
2. Immediate action over entire circuit.
3. Uniformly smooth etching.
4. Easily removed by washing.
5. Substantial increase in capacity.
6. Freedom from fumes.

A temperature between 100°F and 120°F is recommended as optimum etching temperature. With splash etching and 110°F temperature, a printed circuit board should etch in 2½ minutes in fresh R.C.E. solution.

Both etchants are described in Technical Bulletins No's 1 & 3 available from your nearest Hunt branch or Palisades Park, N. J.



Hunt S.C.E.
solution is
supplied
in 125 lb.
carboys;
Hunt
R.C.E.
solution
in 145 lb.
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the electronics BUYERS' GUIDE

COAXIAL RELAYS & SWITCHES

ACTUAL SIZE
CM - 26



- **SMALL SIZE • LIGHT WEIGHT.**
- **LOW COST • EXTREME RELIABILITY.**

Low VSWR not only through the UHF frequencies but in many types into the microwave range.

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Any Connector Type with almost any orientation.

Fast Operation—15 milliseconds for CR types operated by DC.

Long Life—1,000,000 cycles minimum for CR types, 100,000 for CM types.

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Teflon RF Insulation in all types using BNC, UHF, N, or C connectors.

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Fine Silver Contacts—On special order Palladium contacts can be supplied in most types.

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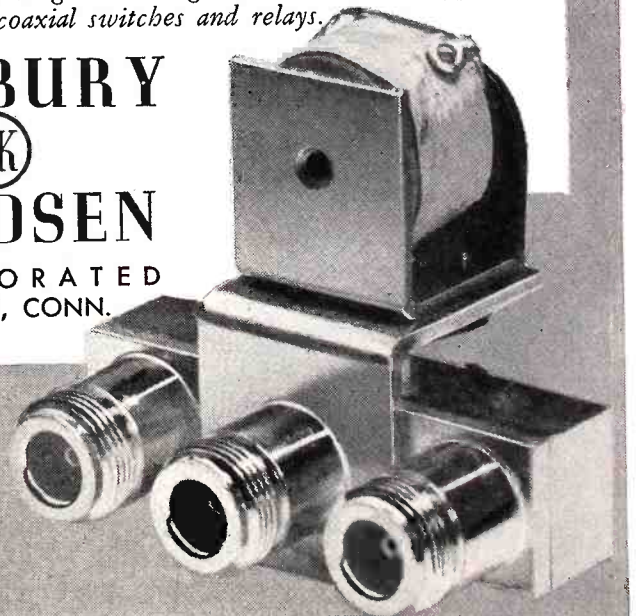
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DANBURY



KNUDSEN

INCORPORATED
DANBURY, CONN.



ACTUAL SIZE
CR - 72

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HERE IS THE MOST VERSATILE SOLDERING GUN!

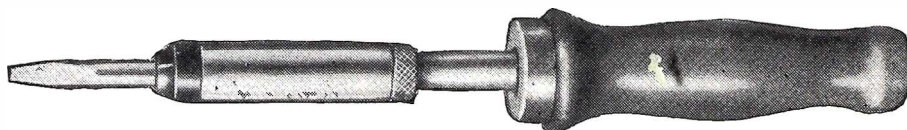
The Esico Luger with its wide range of tips meets a long felt need on the part of radio servicemen, engineers and laboratory technicians. Due to its special construction, it is adaptable for use with tips of high and low temperatures, thus meeting a wide range of soldering requirements. Whether you now have a gun or not, you will want a Luger.

FINE BALANCE! Once you have soldered with a Luger you will want no part of the top heavy conventional type guns. The ease with which you will make small, delicate soldered connections will be reflected in the high quality work you will do.

GET A LUGER TODAY! If your dealer has not yet stocked this new gun, send your order to us with his name. Model A, single heat \$9.95. Model B, dual heat \$11.95.



Famous ESICO Production soldering irons

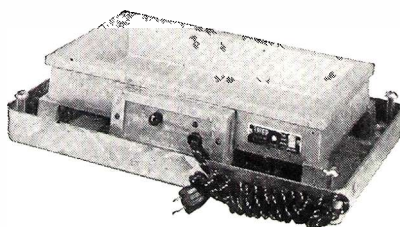
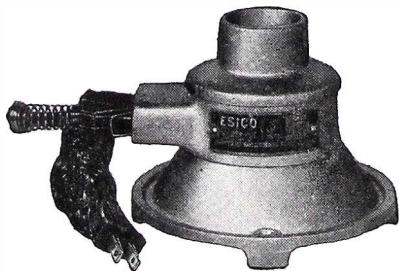


Twenty-one different styles of irons ranging from 25 to 550 watts make up the Esico line. These tools have been used in the radio and electronic industry practically from its inception. Many famous name radio and TV manufacturers standardized on Esico upon their entrance into the industry and continue to use Esico irons exclusively.

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products in the
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PT-3	120	.03 μ s	20	40	75	5.95	
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Chromed case, reflector, 6 ft. cord.....\$9.95

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Berkshire Labohm Resistor Kit, RK-1/2-5, compact and convenient, containing 153 1/2 watt, 5% tolerance, insulated resistors, meeting MIL specifications. Every RETMA 5% value, 10 ohms to 22 megohms inclusive. Resistance, maximum current, maximum voltage, and color code printed adjacent to each resistor. Handy for engineers, technicians, development laboratories, service personnel. Check circuit performance with various resistance values without the added stray capacitance and inductance of a decade box.
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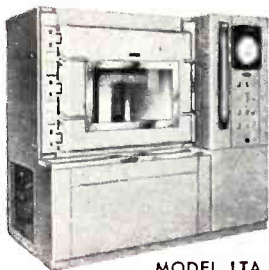
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• ALTITUDE SIMULATION • HUMIDITY SIMULATION • LOW TEMPERATURE • HIGH TEMPERATURE

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MODEL LTA 12
12 CUBIC FT. TEST SPACE

ALTITUDE SIMULATION UNIT

- Altitude Ranges over 200,000 ft.
- Temperature Range from +1200°F to -120°F
- Humidity cycle 20% to 95% from +35°F to 185°F
- New design—greater capacity per horsepower—lower operating cost . . . greater efficiency

Available in units with 12 to 64 cubic ft. of test space, M & M Altitude Simulation Chambers offer every standard and optional feature for faster, more flexible testing. Optional features include Program Controlled Heating, Cooling and Humidity Cycles, Automatic Recorders, Special Wiring, etc. etc.

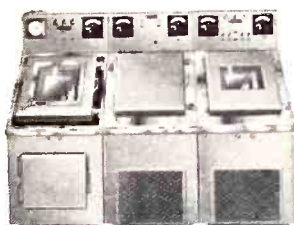


MODEL H 12
12 CUBIC FT.
TEST SPACE

HUMIDITY TEST CABINET

- Provides Relative Humidities between 20% and 95%
- Temperatures from +185°F to -35°F
- Instant response of humidity system insures accurate testing
- Uniform temperature and humidity throughout test cycles.

High capacity heating, refrigeration and forced air systems insure fast, accurate temperature rise and pull-down. Program control cycle for temperature, humidity and cooling available. Models manufactured with test spaces to 64 cubic feet.



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- A decade of experience is your quality guarantee
- 10,000 standard designs comprise the largest selection of HV power supplies ever offered. A

few of the more popular designs are listed below:

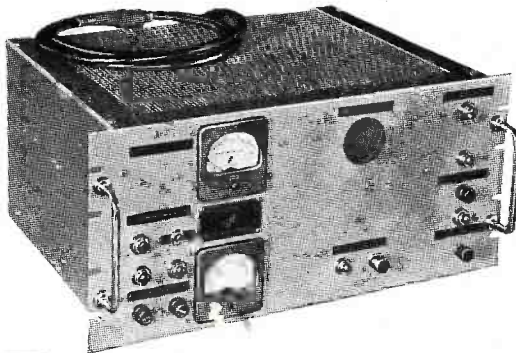


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continuously variable 1-60,000 volts @ 600-1.0 ma negative, positive, center-tapped or reversible polarity

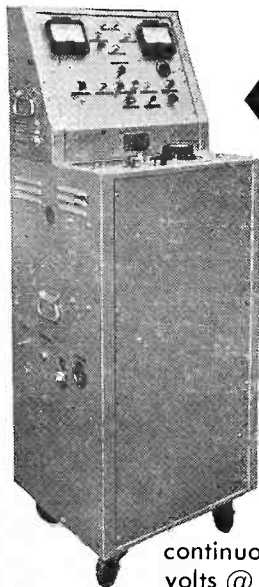
**SERIES 201 PORTABLE
DC POWER SUPPLIES**

continuously variable 0-30,000 volts @ 5 ma lightweight and compact



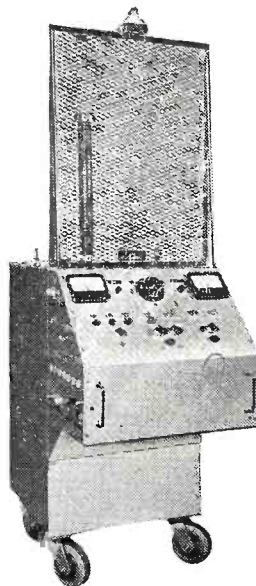
**SERIES 2000 AC, DC &
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continuously variable 2000-250,000 volts @ 5 ma—1 a negative, positive or reversible bench or console models



**SERIES 3000
DC MOBILE
OVERPOTENTIAL
TESTERS**

continuously variable 0-15,000 to 0-250,000 volts @ 2-10 ma negative, positive or reversible polarity test voltages non-destructive



BETA Field Engineering Representatives are available for consultation throughout the United States and Canada

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BETA ELECTRIC CORP.
333 East 103 Street, New York 29, N. Y.

THE "STANDARD" IN HIGH VOLTAGE

THE
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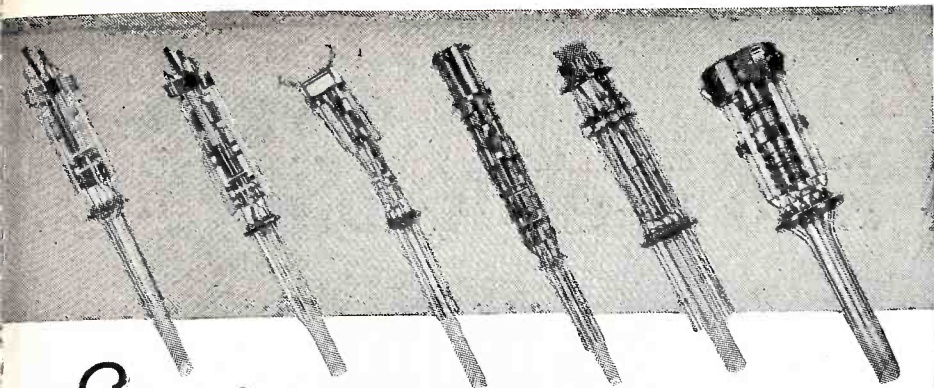
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Superior manufactures superior ELECTRONIC GUN MOUNTS!

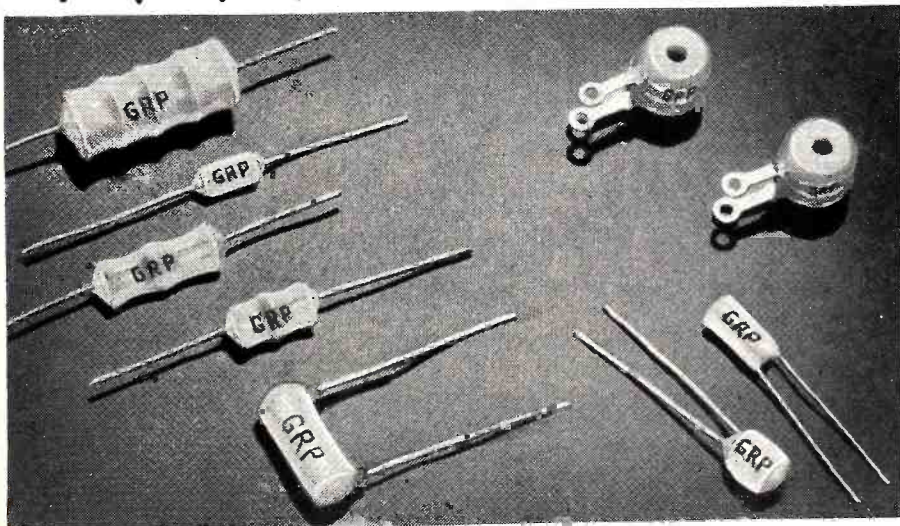
For the CRT industry, SUPERIOR offers a full range of magnetic, electrostatic and color gun mounts . . . all precision engineered. You may order magnetic and electrostatic mounts with insulators of ceramic, pyrex cane or multiform glass. Electron guns for radar, and industrial tube types, custom built to your specifications.

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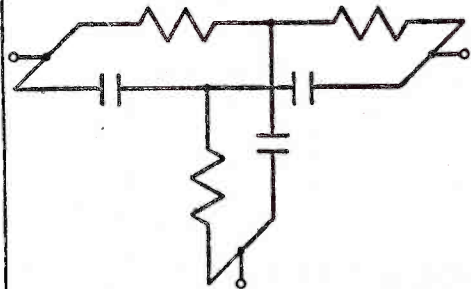
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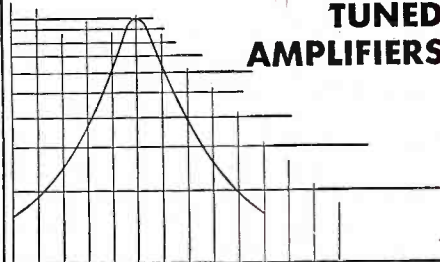
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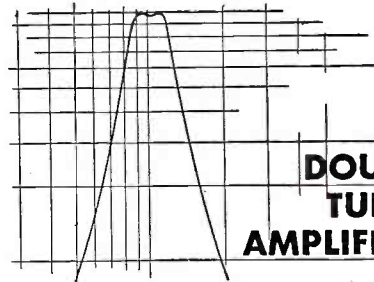
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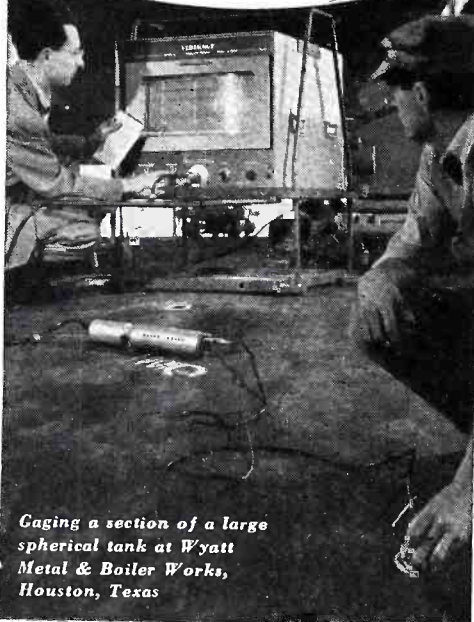
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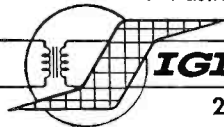
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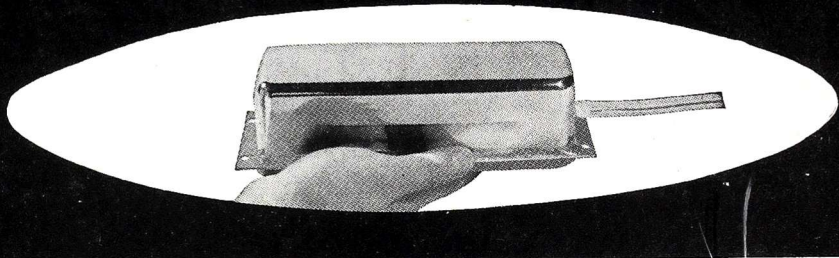
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ULTRASONIC CLEANING

BY THE SQUARE FOOT



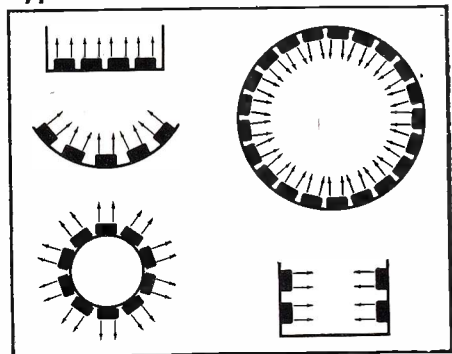
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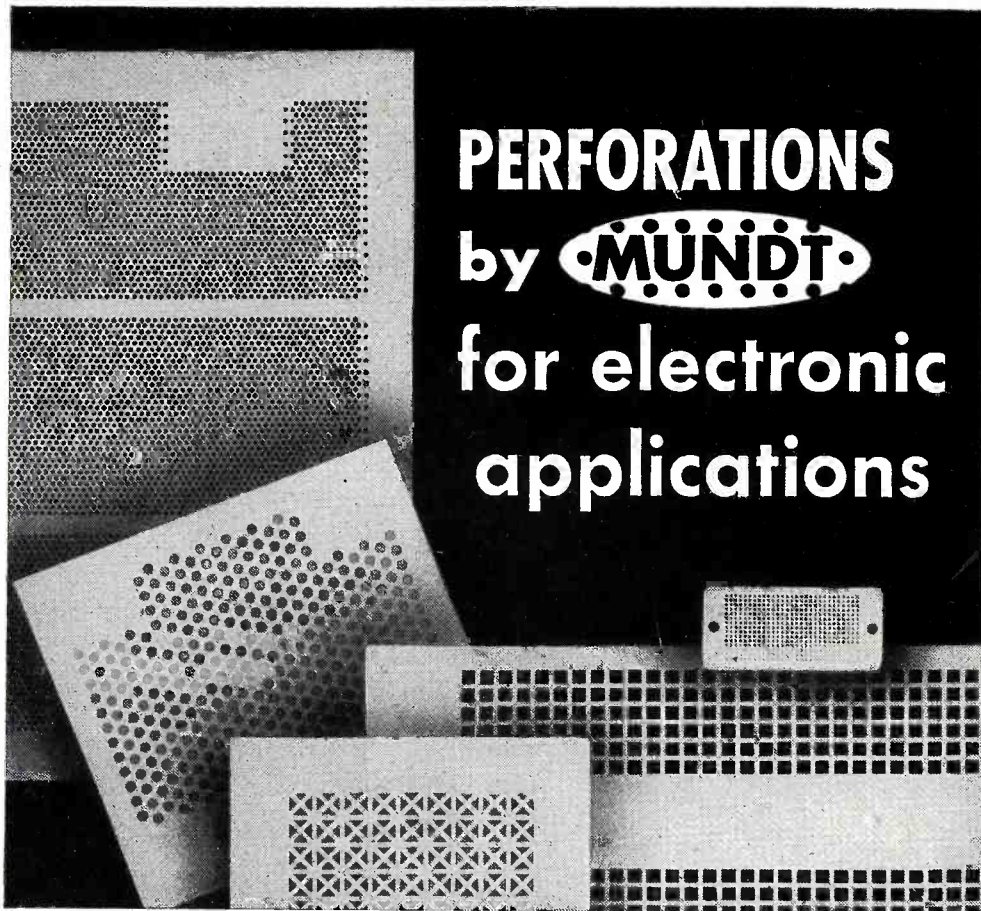
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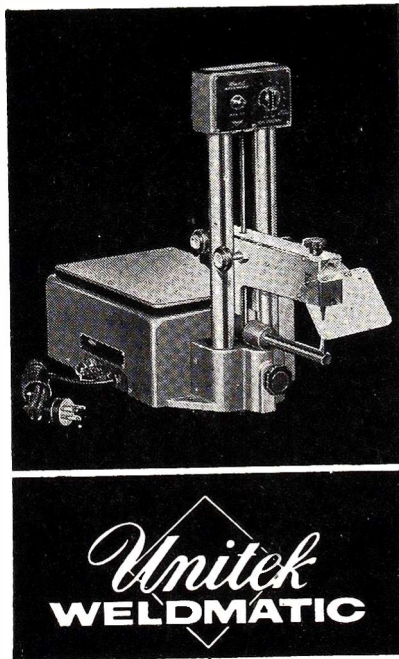
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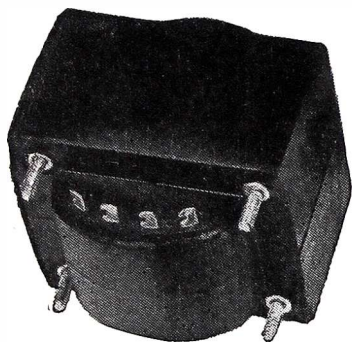
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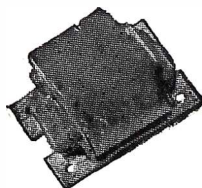
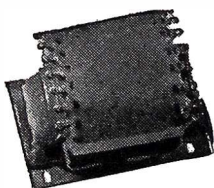
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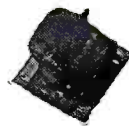
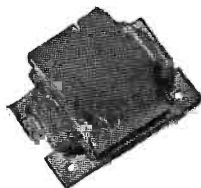
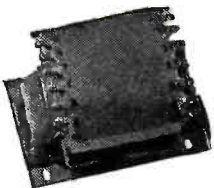
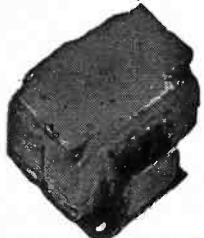
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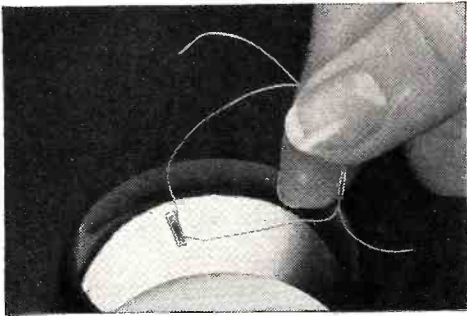
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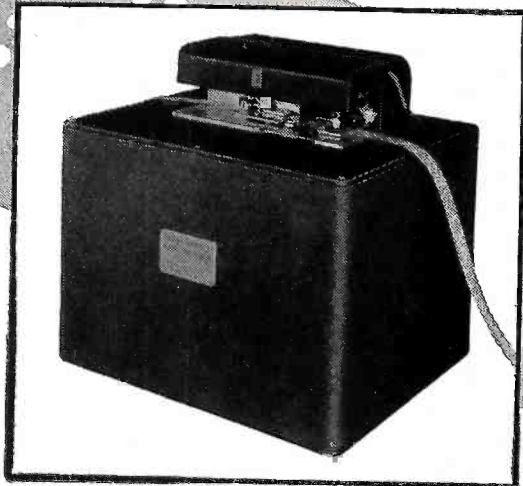
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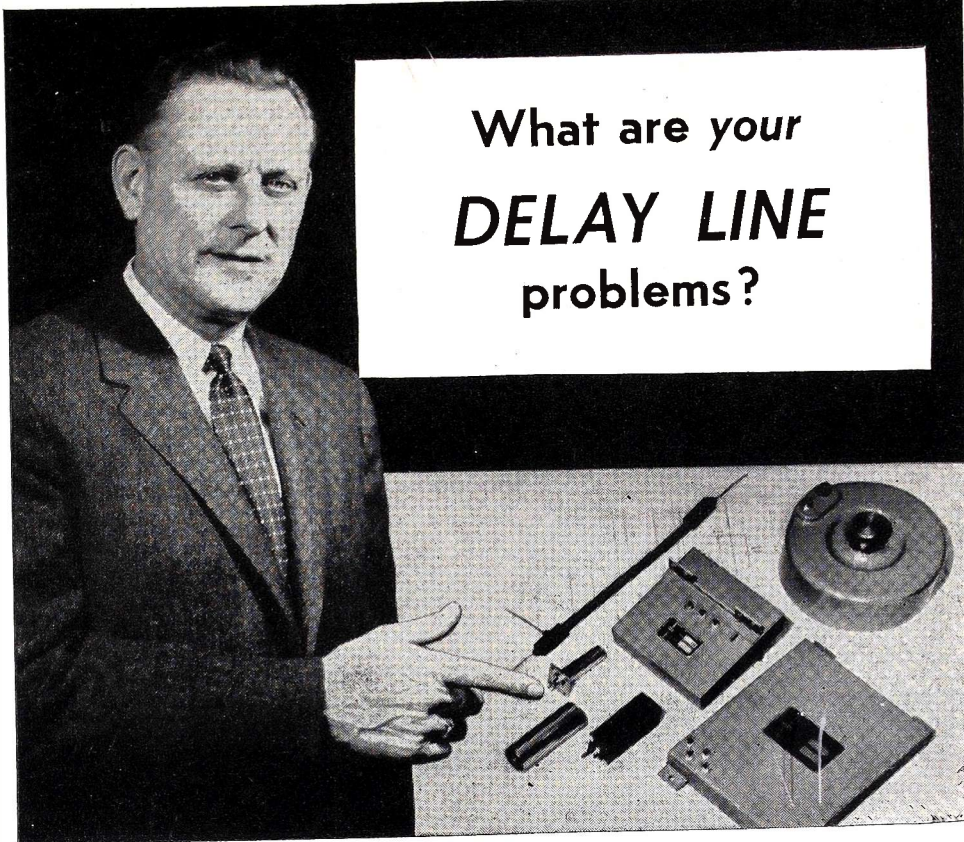
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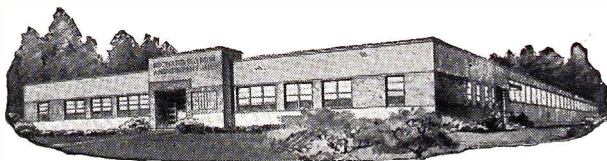
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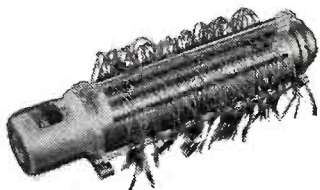
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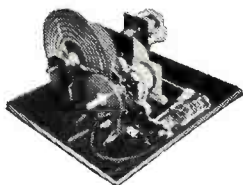
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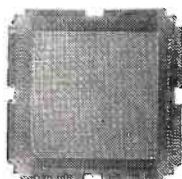
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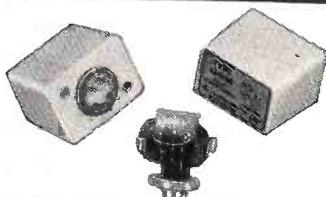
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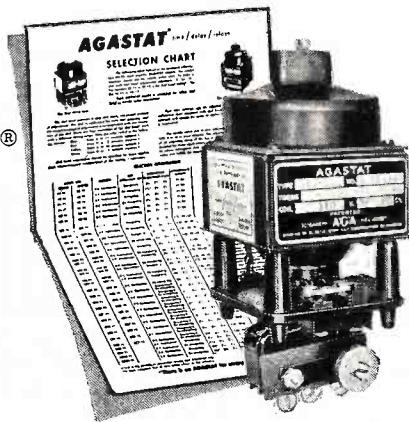
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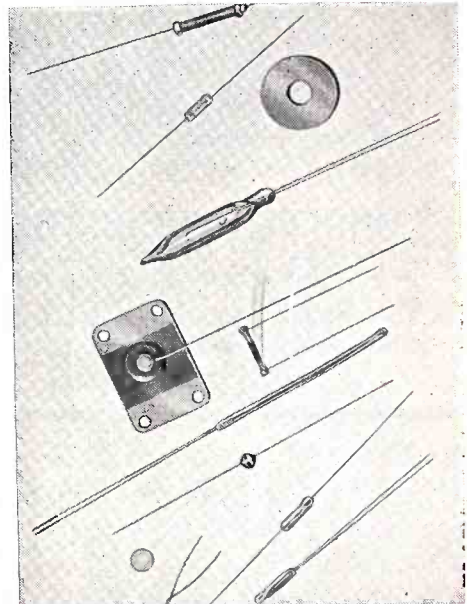
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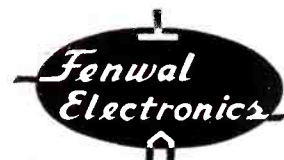
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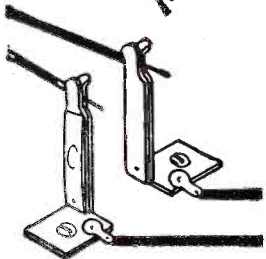


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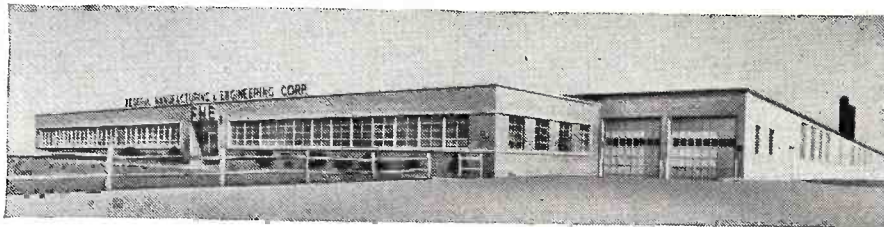
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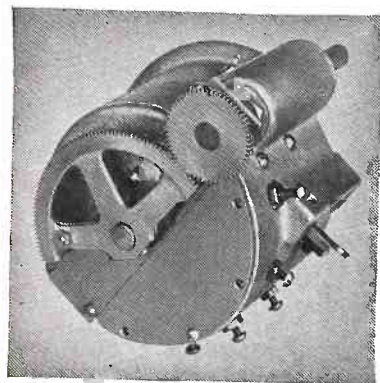
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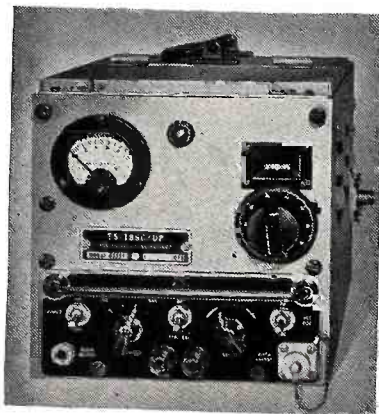
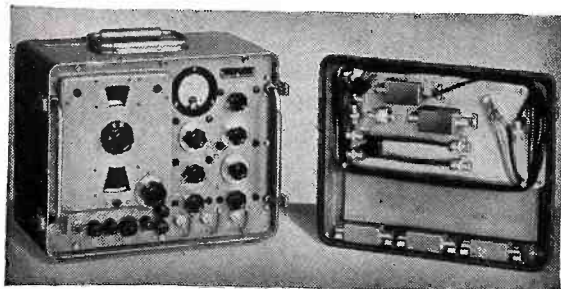
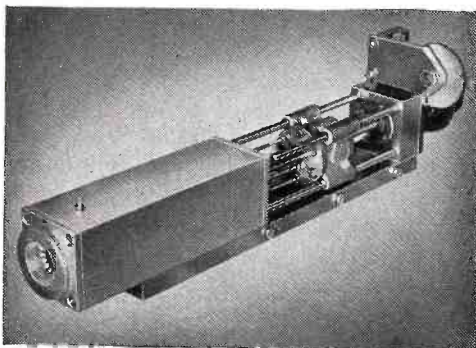


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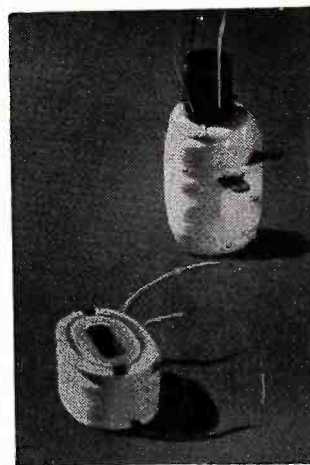
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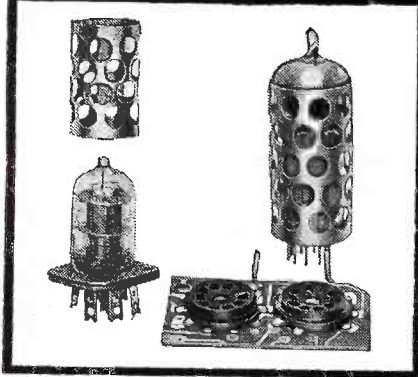
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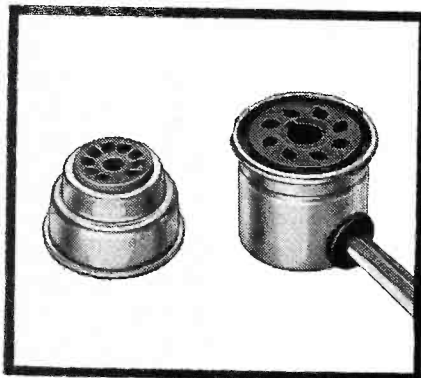
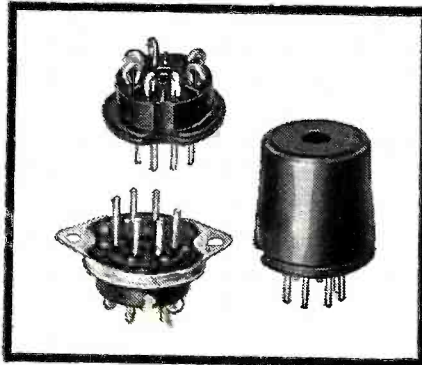
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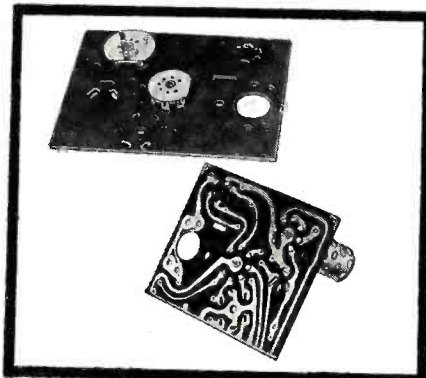
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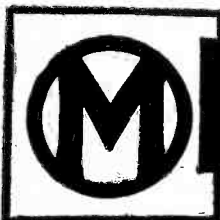
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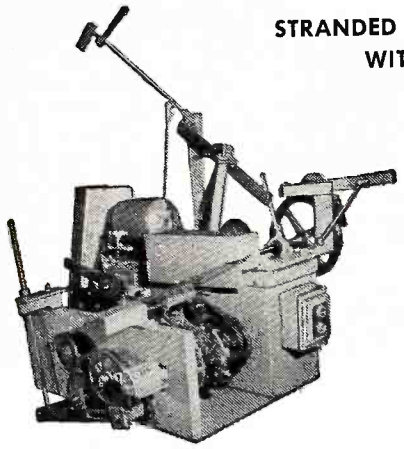
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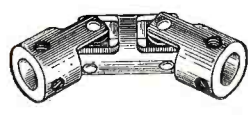
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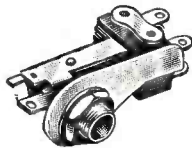
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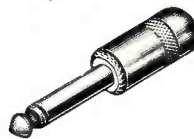
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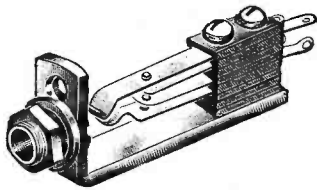
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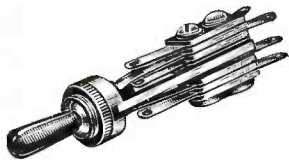
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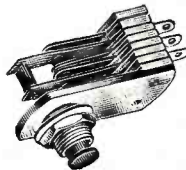
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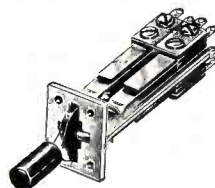
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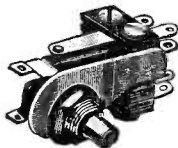
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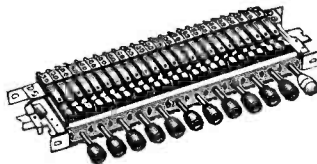
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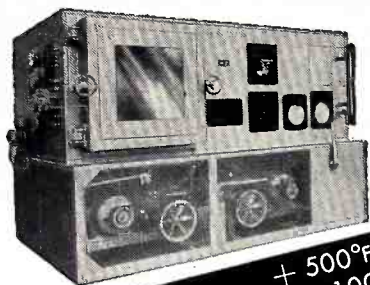
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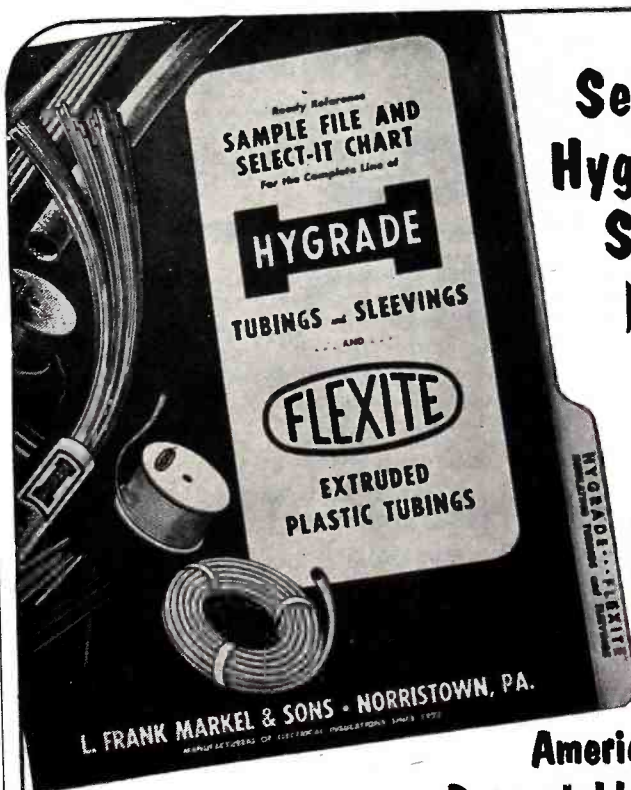


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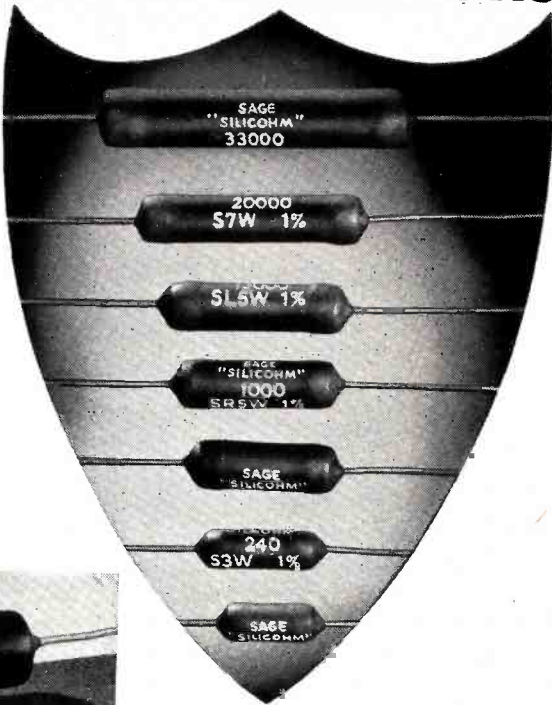
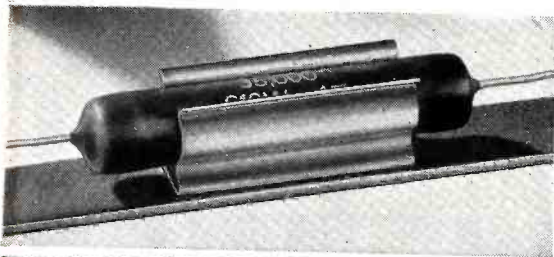
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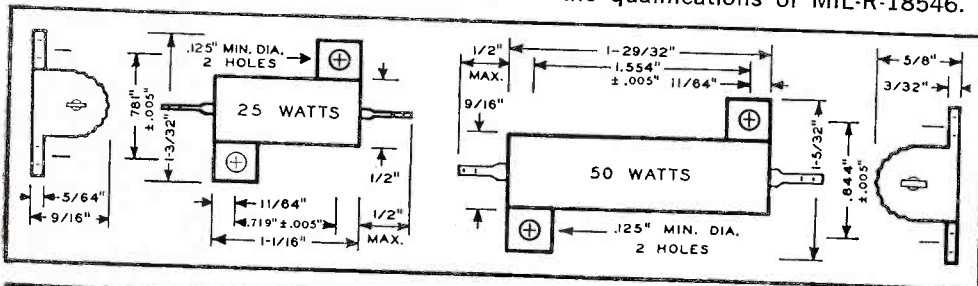
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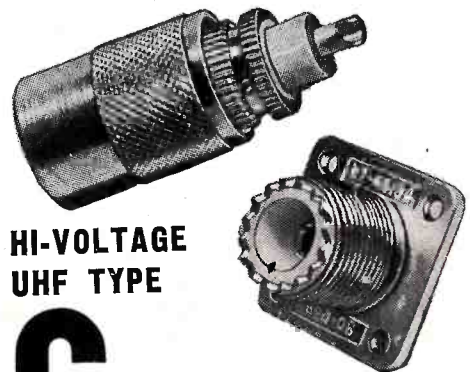
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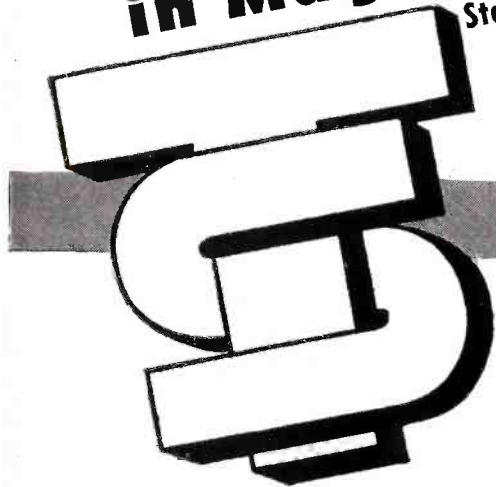
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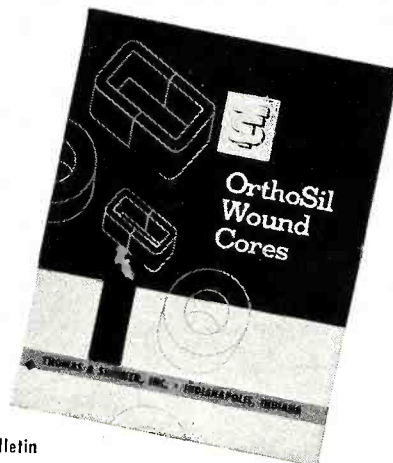
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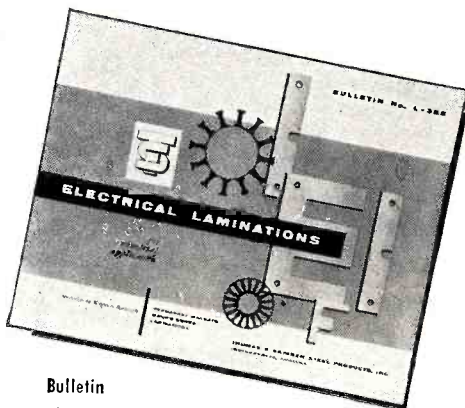
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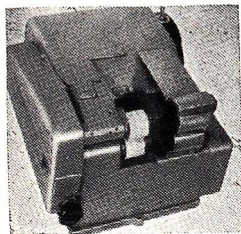
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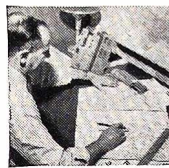
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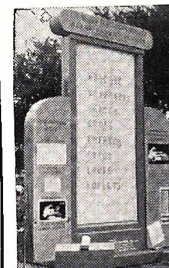
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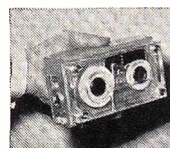
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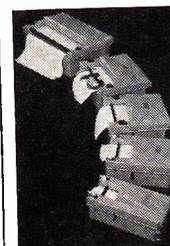
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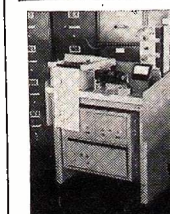
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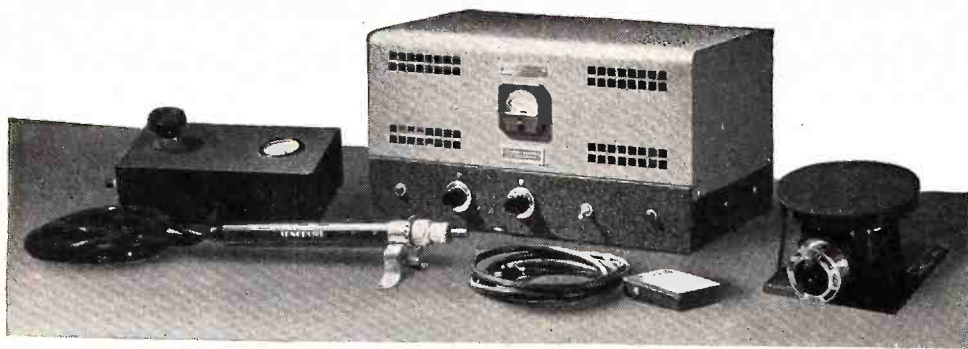


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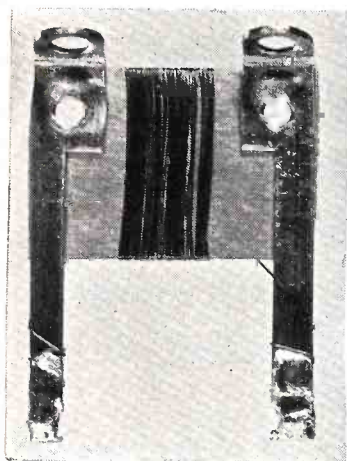
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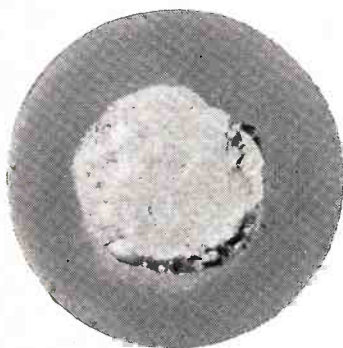
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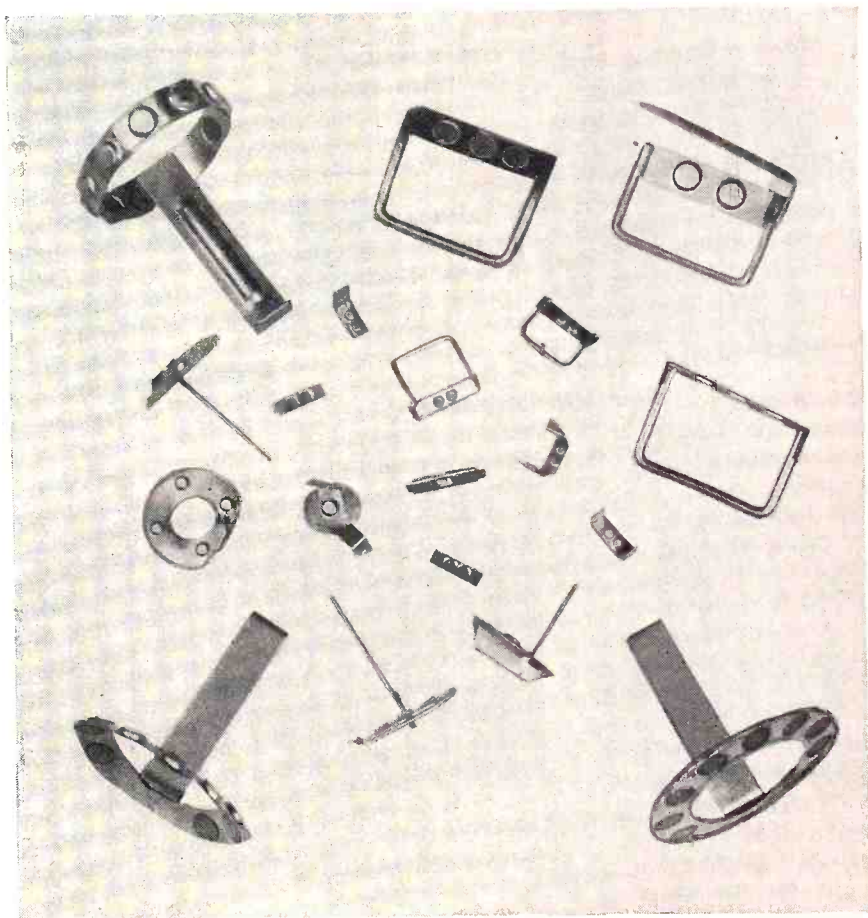
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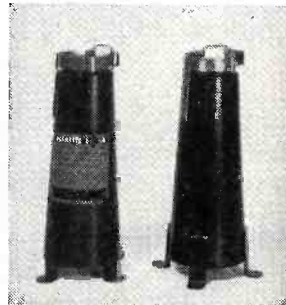
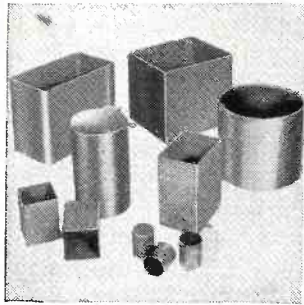
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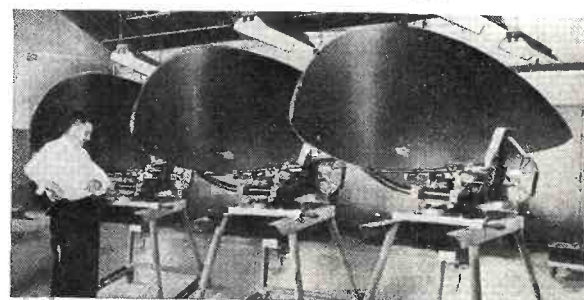
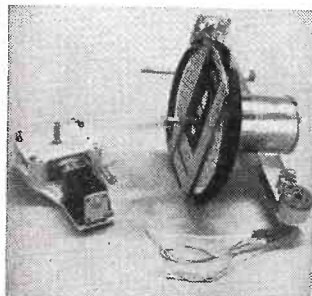
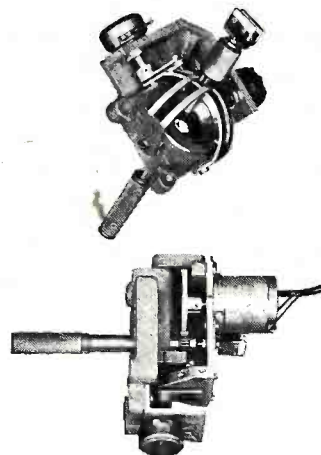
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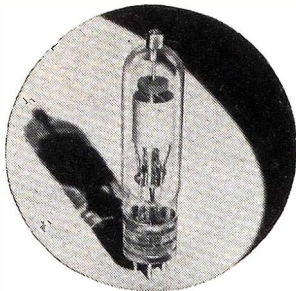
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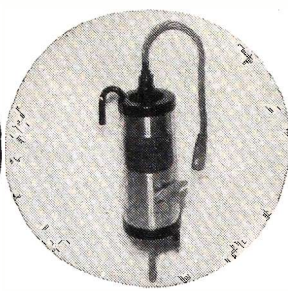
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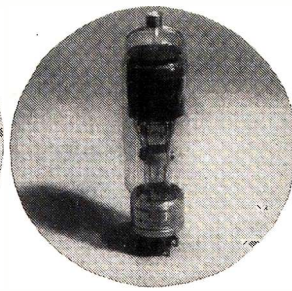
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		KVA	Amps	KVA	Amps
NL-1001	250-600	150	4.9	50	9.0
NL-1005	250-600	600	30.2	200	56.0
NL-1022	1500 peak	1200	20.0	420	70.0
NL-1051	250-600	600	30.2	200	56.0
NL-1052	250-600	1200	75.6	400	140.0
NL-1053	250-600	2400	192.0	800	355.0
NL-1054	250-600	4800	486.0	1600	900.0
NL-5550	250-600	300	12.1	100	22.4

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NL-3C23	Arg. Merc.	1.5	6	1250	2.5	7.0
NL-323B	Arg. Merc.	1.5	6	1250	2.5	7.0
NL-393A	Arg. Merc.	1.5	6	1250	2.5	7.0
NL-632B	Merc.	2.5	30	1500	5.0	4.5
NL-710/6011	Arg. Merc.	2.5	30	1500	2.5	9.0
NL-714	Arg. Merc.	1.0	3	1250	2.5	5.0
NL-715/5557	Merc.	.5	2	5000	2.5	5.0
NL-716	Arg. Merc.	1.0	8	1250	2.5	6.3
NL-730	Arg. Merc.	3.2	40	1500	2.5	12.0
NL-740	Arg. Merc.	4.0	30	1500	2.5	16.0
NL-741	Merc.	2.5	15	5000	2.5	16.0
NL-760	Arg. Merc.	6.4	77	1500	2.5	21.0
NL-761	Merc.	4.0	30	5000	2.5	21.0
NL-5559/FG57	Merc.	2.5	15	1000	5.0	4.5
NL-5560/FG95	Merc.	2.5	15	1000	5.0	4.5
NL-5720/FG33	Merc.	2.5	15	1000	5.0	4.5
NL-6014/CIK	Xenon	1.0	8	1250	2.5	6.3

RECTIFIERS

Type No.	Gas	DC Amps	Peak Amps	Peak Inv. Volts	Fil. Volts	Fil. Amps
NL-604	Arg. Merc.	2.5	10	900	2.5	11.5
NL-606	Arg. Merc.	6.4	25	900	2.5	17.0
NL-614	Xenon	2.5	15	900	2.5	9.0
NL-615	Merc.	2.5	10	2000	2.5	7.0
NL-616	Arg. Merc.	2.5	30	1250	2.5	9.0
NL-617	Merc.	5.0	20	1000	2.0	11.5
NL-618	Xenon	6.4	40	900	2.5	18.0
NL-619	Merc.	6.0	20	300	2.0	11.5
NL-623	Merc.	15.0	45	500	2.5	20.0
NL-625	Merc.	15.0	45	900	2.5	20.0
NL-627	Merc.	20.0	120	1000	2.5	26.0
NL-633	Merc.	30.0	225	900	2.5	50.0
NL-635	Merc.	6.4	77	1000	2.5	18.0
NL-643	Merc.	15.0	90	700	2.5	23.0
NL-649/5834	Merc.	2.0	10	900	2.5	7.0
NL-653/5835	Merc.	3.0	12	900	2.5	9.5
NL-5558/FG32	Merc.	2.5	15	2000	5.0	4.5

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Wherever designers and specifiers have immediate need for readily accessible, necessary product information at their breadboards, there, year after year, will you find the ELECTRONICS BUYERS' GUIDE. "Who makes what product or provides what service?" "Where can I buy it?" "Where can I find complete and accurate product specs?" These are questions that are asked daily by the men who design-in electronic products; these are questions that have been answered for the past fifteen years by the "Guide," the accepted reference book of the industry.

Year after year, the designers of the industry have preferred the "Guide" for its *Simplicity of Style* (as easy to use as a telephone directory), for its *Accuracy* (the industry helps the Research Staff revise its listings every year) and its *Complete Product Specs* (advertisers have told their complete product stories in the "Guide" consistently).

The key people of the industry—the buying influences—rely on the "Guide" for the answers to their product problems.

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the electronics BUYERS' GUIDE

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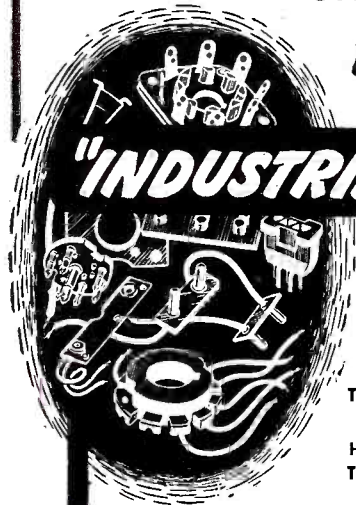
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For details and literature address Department N

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SPECTROL

Precision

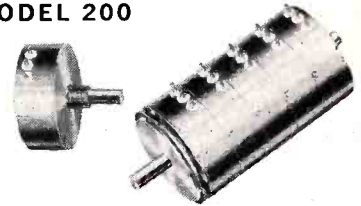
Potentiometers

MODEL 100



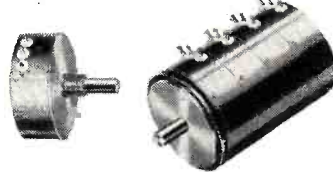
Precision 1 1/8" dia. single-turn potentiometer. Standard Resistance Range—10Ω to 30 KΩ ±3.0%. Standard linearity ±0.5%. May be ganged—2 to 15 sections. Up to 14 extra taps per section.

MODEL 200



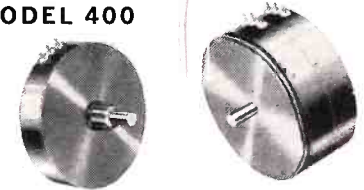
Precision 1 3/4" dia. single-turn potentiometer. Standard Resistance Range—10Ω to 65 KΩ ±3.0%. Standard linearity ±0.3%. May be ganged—2 to 15 sections. Up to 21 extra taps per section.

MODEL 300



Precision 2" dia. single-turn potentiometer. Standard Resistance Range—20Ω to 75 KΩ ±3.0%. Standard linearity ±0.3%. May be ganged—2 to 15 sections. Up to 21 extra taps per section.

MODEL 400



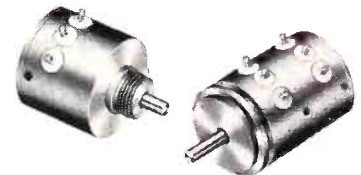
Precision 3" dia. single-turn potentiometer. Standard Resistance Range—100Ω to 100 KΩ ±3.0%. Standard linearity ±0.3%. May be ganged—2 to 15 sections. Up to 33 extra taps per section.

MODEL 500



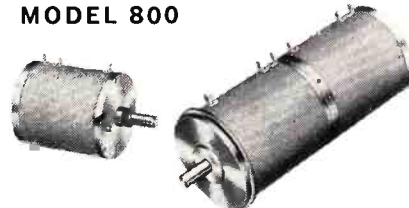
Precision 7/8" dia. miniature 10-turn potentiometer. Standard Resistance Range—25Ω to 120 KΩ ±3.0%. Standard linearity ±0.3%. Up to 38 extra taps per section.

MODEL 700



Precision 7/8" dia. miniature single-turn potentiometer. Standard Resistance Range—10Ω to 20 KΩ ±3.0%. Standard linearity ±0.5%. May be ganged—2 to 6 sections. Up to 9 extra taps per section.

MODEL 800



Precision 1 1/8" dia. 10-turn potentiometer. Standard Resistance Range—50Ω to 400 KΩ ±3.0%. Standard linearity ±0.3%. May be ganged—2 to 3 sections. Up to 48 extra taps per section.

MODEL 850



Precision 1 1/8" dia. 3-turn potentiometer. Standard Resistance Range—20Ω to 120 KΩ ±3.0%. Standard linearity ±0.3%. May be ganged—2 to 3 sections. Up to 18 extra taps per section.

Spectrol potentiometers may be tailored to comply with a wide variety of electrical and mechanical requirements.

Write for complete details

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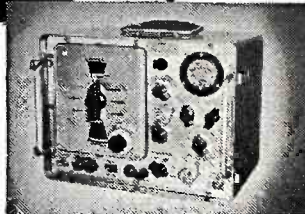
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QUALITY INSTRUMENTS
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SG-25 STANDARD SIGNAL GENERATOR

Equivalent to AN/URM-25D For alignment of radio receivers measurements of receiver sensitivity and selectivity, and in all radio frequency voltage measurement work.

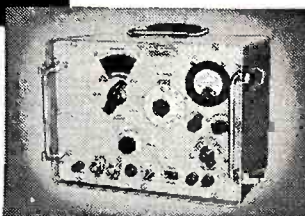
- Frequency Range: 10 KC to 50 MC in 8 bands
- Calibrated Output: 0.1 to 100,000 microvolts into 50 ohms
- High Output: 2.0 volts, 500 ohms impedance



SG-26 STANDARD SIGNAL GENERATOR

Equivalent to AN/URM-26B. For alignment of radio receivers, measurements of receiver sensitivity and selectivity, and in all radio frequency voltage measurement work.

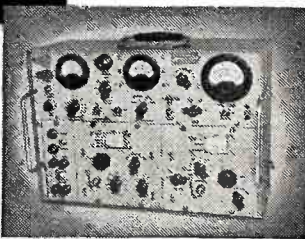
- Frequency Range: 4 to 405 MC in 6 bands
- Calibrated Output: 0.1 to 100,000 microvolts into 50 ohms
- Output Impedance: 50 ohms nominal



RT-500 RECEIVER-TRANSMITTER TESTER

Equivalent to AN/TRM-1. Laboratory-quality portable instrument, designed to measure performance on transmitting and receiving equipment.

- Frequency Range: 190 KC to 400 MC
- Signal Generator Output: 2.5 to 100,000 microvolts into 50 ohms
- Transmitter Tester Power Range: 3 to 100 watts
- Volt/Milliwatt Meter: multi-range meter measures AC, DC volts and milliwatts



PO-400 PULSE OSCILLOSCOPE

Equivalent to AN/USM-38. Precision portable oscilloscope for analyzing amplitude and time characteristics of complex electrical waveforms.

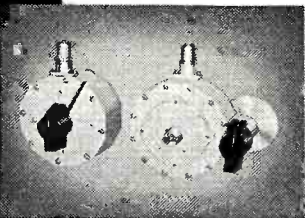
- Transient Response: 0.06 microseconds (rise time)
- Square Wave Response: less than 5% drop at 50 cycles
- Deflection Sensitivity: 0.1V RMS per inch
- Sweep: 1 to 100,000 microseconds per inch, triggered or recurrent



AT-120 R. F. STEP ATTENUATOR

Designed for use in output systems of signal generators, precision microvolters, IF strips of microwave receivers, etc.

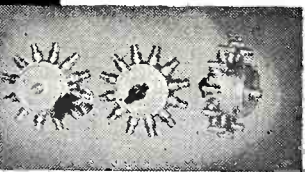
- Frequency Range: 0 to 1000 MC
- Attenuation Range: up to 120 db in ten steps
- Output Impedance: 50 ohms standard, 75 ohms optional
- VSWR: 1.1 up to 500 MC, 1.2 up to 1000 MC



CS-200 SERIES COAXIAL SWITCHES

For all types of coaxial switching.

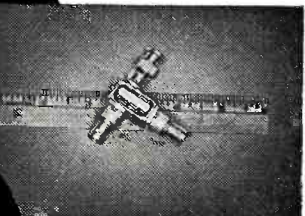
- Positions: up to 12
- Nominal Impedance: 5 ohms
- VSWR: 1.2 up to 500 MC, 1.3 up to 1000 MC
- Cross-talk for 12 Position: greater than 75 db down at 1000 MC



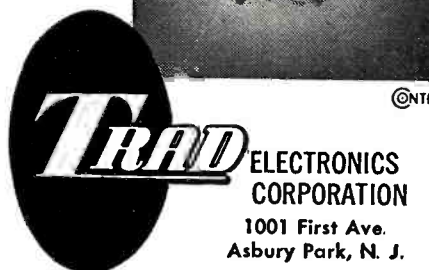
CM-300 CRYSTAL DETECTOR MOUNT

For general purpose in RF monitoring 50 or 75 ohm coaxial systems. Can be used with Trad Attenuator AT-120.

- Frequency Range: 10 to 1000 MC
- Accuracy: 1/2 db
- Impedance: available in 50, 75, 100, 150 and 225 ohms
- Maximum Signal Output: 2.5 V RMS



Trad has a complete, diversified line of electronic products, some of which are listed here. All products are available for speedy delivery. Trad's national representative organization is now being expanded. Interested reps may write or call George Trad at Prospect 6-7445 for appointment.



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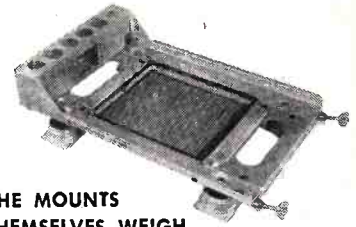
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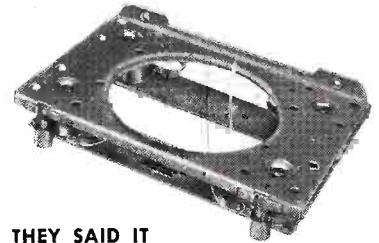
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**THE MOUNTS
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**THEY SAID IT
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Previous aluminum models of this widely used base failed the shake and drop tests, and their makers were forced to use stainless. Finn designers, however, came up with an all-aluminum model that passed every test—is officially approved.



**AND NOW ...
MAGNESIUM!**

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Finn has the staff, the laboratory and the plant facilities to solve your toughest shock and vibration problem. "QPL", of course. Write for complete engineering bulletins and learn how you can cut both weight and costs with Finn-engineered vibration mounts and bases.

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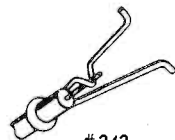
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ELECTRONIC COMPONENTS

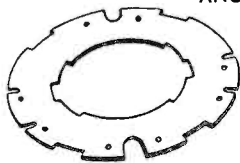
STRIPS—TERMINAL, CONTACT, BINDING POST, MINIATURE • LUGS—MOUNTING, SOLDERING, ETC. • CONNECTORS—PHONO, ANODE, TIP & TEST • PLUGS—INTERLOCK, BANANA, PHONO, PHONE TIP & TEST PRODS • BOARDS—TERMINAL, TO GOVERNMENT SPECIFICATIONS. • TUBE SOCKETS—LAMINATED, MOLDED MINIATURE • STAMPINGS METAL & PHENOLIC • FABRICATION TO SPECIFICATIONS

36 D
PHONO PLUG



242
CORONA FREE
ANODE CONNECTOR

329
CONNECTOR
TAKES 1/8" PIN PLUG



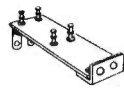
CUSTOM STAMPING

245
SPIRAL TYPE
CABLE ASS'Y
TO SPECIFICATIONS



245
SPIRAL TYPE

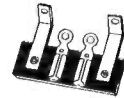
TO GOV'T SPECS.



TERMINAL BOARD



BATTERY CONN.

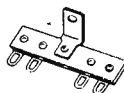


CONTACT STRIP

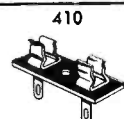
ANTENNA BOARD



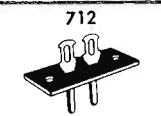
BINDING POST



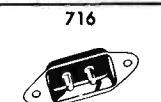
P-11R11



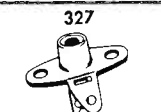
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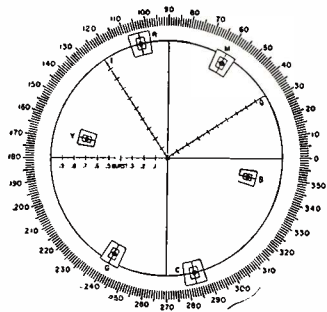


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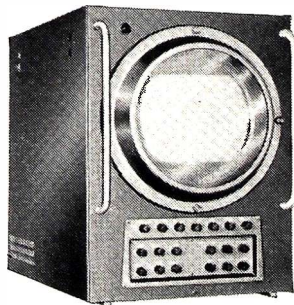
Portable, self-contained monitor designed to check picture quality of standard F.C.C. (N.T.S.C.) color signals or monochrome signals.

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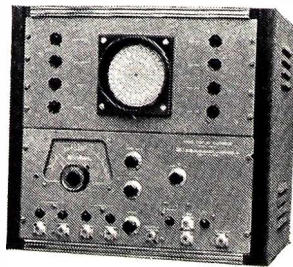
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BEFORE YOU INVEST IN COLOR TV EQUIPMENT investigate these units from Wickes. Complete engineering service is included with all equipment. Detailed data and prices on listed equipment are available upon request . . . or write for complete Wickes catalogue.



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SHORTED TURN
INDICATOR**

MODEL	MANDREL SIZE	PRICE
101-D	5/32"x7/32"x2"	\$175.00
101-E	7/64"x7/64"x1 3/8"	185.00
101-F	To Order	200.00

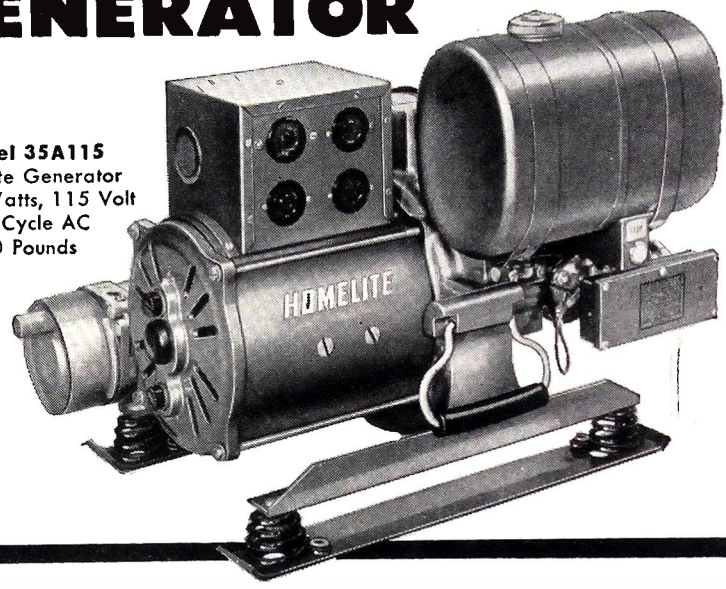
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GENERATOR**

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1500 Watts, 115 Volt
60 Cycle AC
90 Pounds



- 1. New Money-Saving features...** No DC brushes; just two easy-to-get-at collector ring brushes... No commutator or DC windings... No intermediate couplings; armature keys directly to shaft. Fewer parts to wear out — longer trouble-free generator service.
- 2. Constant Voltage...** less than 4% change from no load to full 1500 watt capacity... assures long service life for your electrical requirements... guarantees top performance at all times.
- 3. Overload Capacity...** 1500 watt continuous duty with generous overload capacity prevents stalling under heavy loads... insures uninterrupted service even when starting loads exceed operating loads.
- 4. Compact and Lightweight...** one man can easily carry this generator wherever you need electricity to power time-saving electronic and communications equipment. No need for long, hazardous power-consuming cables.

SAVE EVEN MORE!

New Homelite idle control unit, available as optional accessory, runs engine at idle speed when no current is drawn... automatically brings engine to full speed when load is applied.

HOMELITE

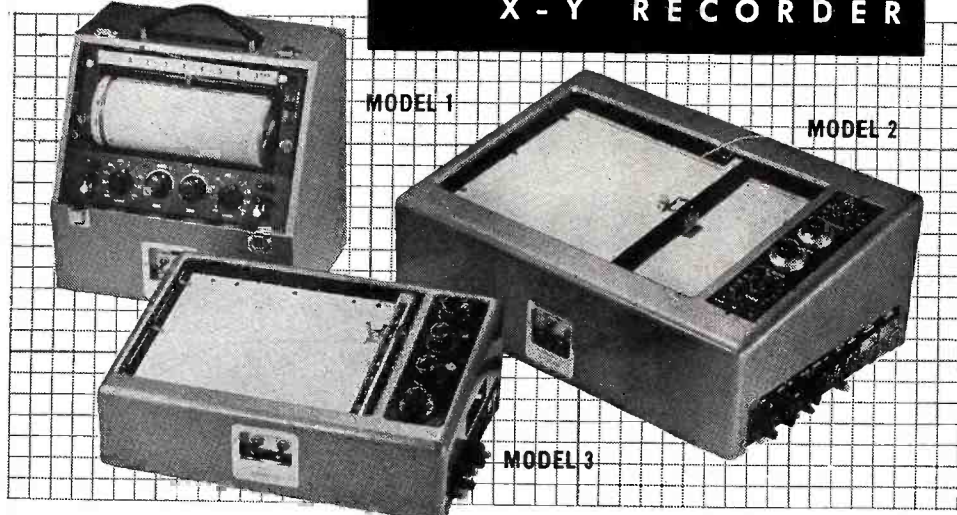
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AUTOGRAF
trade mark
X - Y RECORDER



Three versatile models feature ranges from 5 millivolts to 500 volts; 200,000 ohms per volt input resistance; zero set and full scale zero off-set; speeds up to 1/2 second full scale; accuracy of 0.25%.

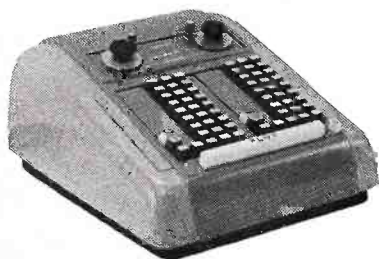
Rugged and stable, all models provide facilities for curve drawing and curve following. Digital data may be plotted in point form from keyboard, tape, or card sources, utilizing accessories described below.

MODEL 1
Drum type
8 1/2" x 11" paper
X-Y Recorder-
Curve Follower

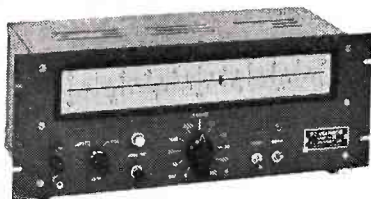
MODEL 2
Flat-bed
11" x 16 1/2" paper
X-Y Recorder-
Curve Follower-
Point Plotter

MODEL 3
Desk Type
8 1/2" x 11" paper
X-Y Recorder-
Curve Follower

MOSELEY ACCESSORY PRODUCTS



MODEL 40 KEYBOARD provides a convenient means for plotting large amounts of tabular data in point-curve form. Self-contained voltage source together with full three column keyboard in both X and Y axes; unit plugs directly into MODEL 2 AUTOGRAF.



MODEL 20 DC VOLTMETER is a servo-actuated, fast, accurate and sensitive instrument. Has large, easy-to-read scale for general laboratory use where ranges from 3 millivolts to 300 volts are desired. For data handling it is furnished with a built-in Coleman digitizer and delivers digital output for operation of printers, typewriters, tape or card punches, etc.



MODEL 30 CARD TRANSLATOR converts information from punched cards into point form for automatic plotting. Handles up to 50 cards per minute, 10 to 200 counts per inch. Plugs directly into MODEL 2 recorder, controls both card reader and recorder for completely automatic operation.

Bulletins describing these instruments are available and we'll be glad to send them to you.

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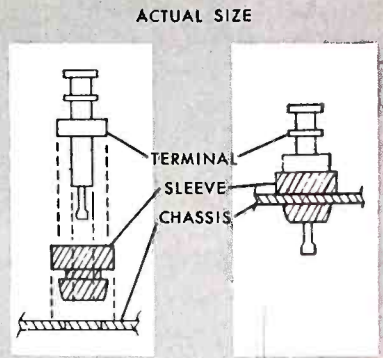
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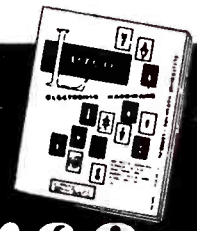
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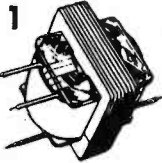
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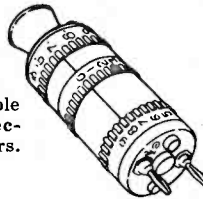
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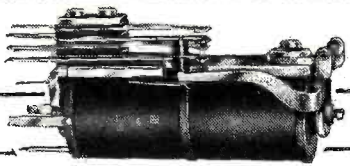
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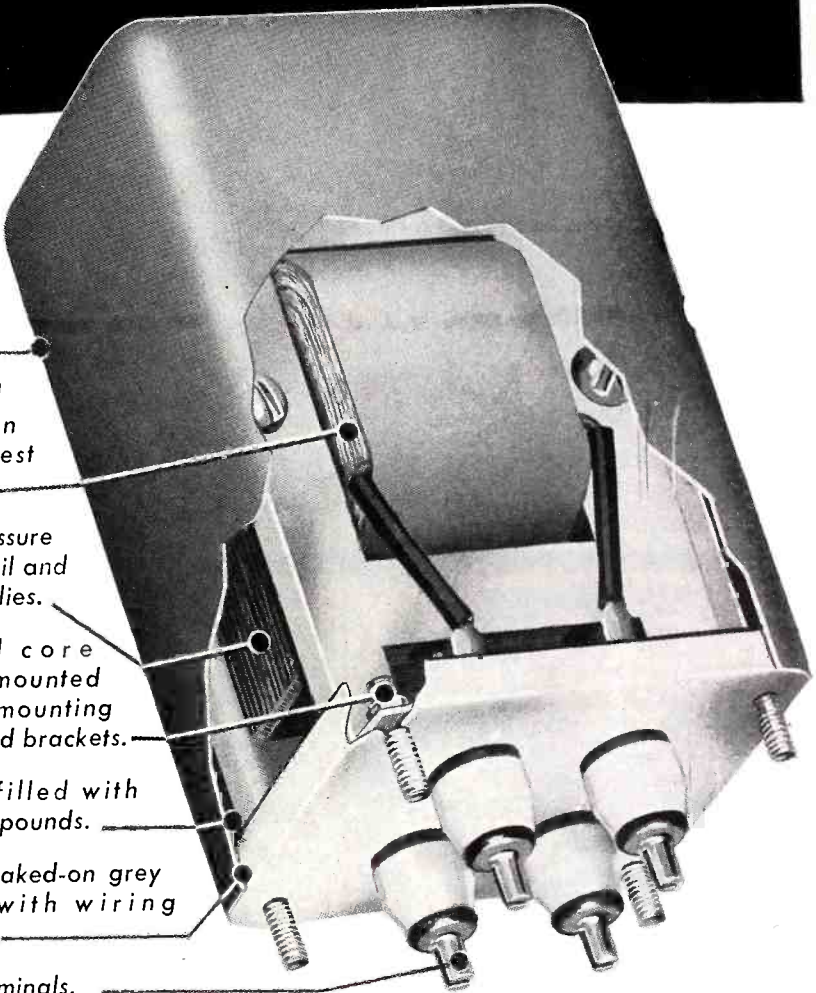
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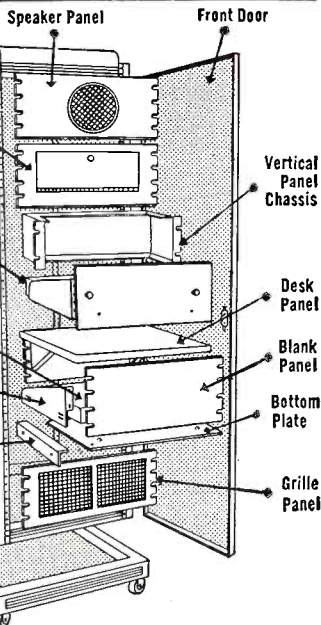
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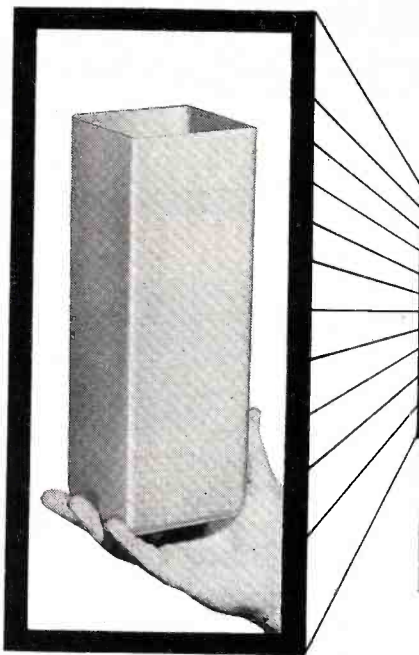
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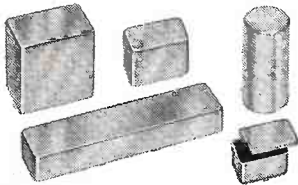
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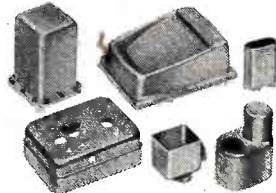
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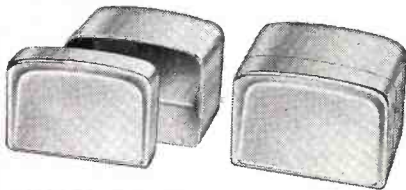
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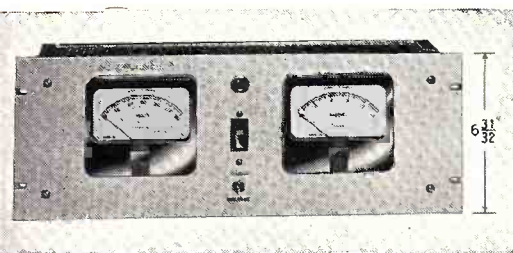


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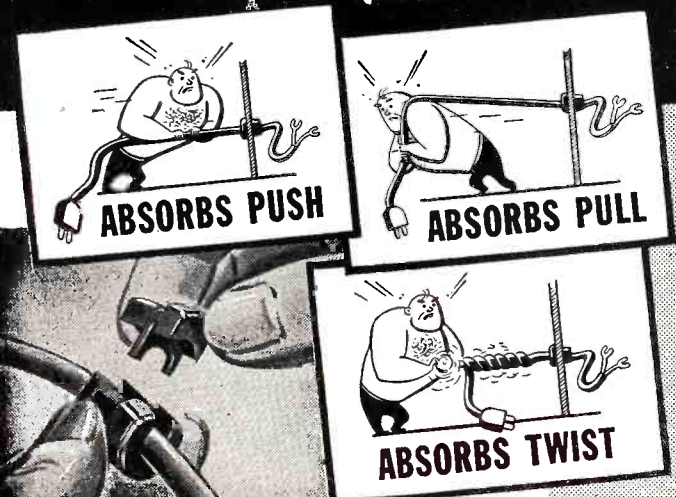


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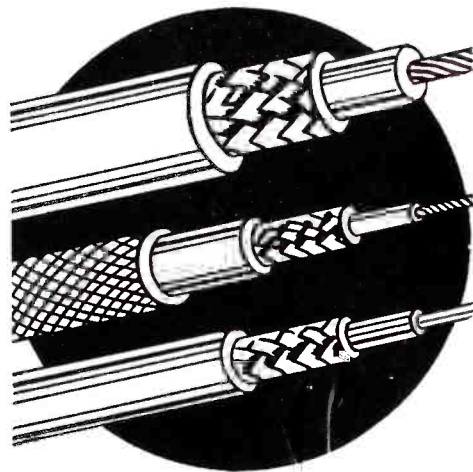
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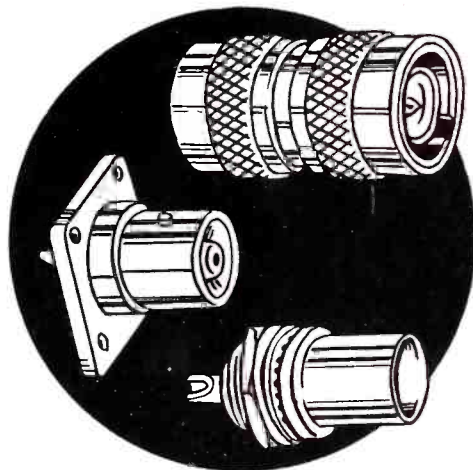
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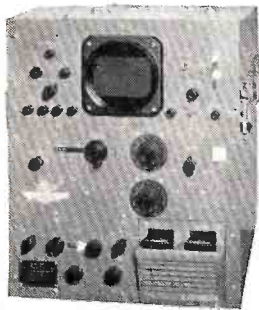
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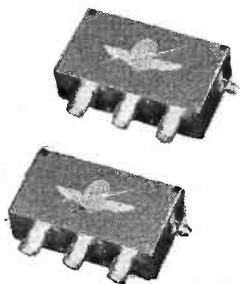
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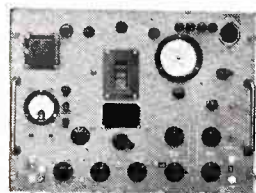
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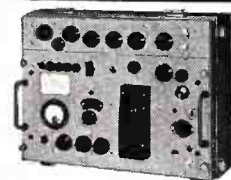
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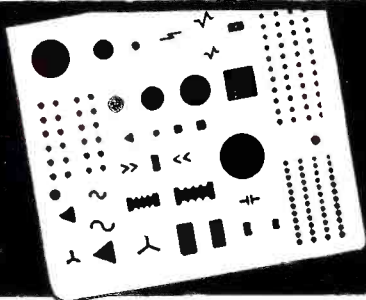
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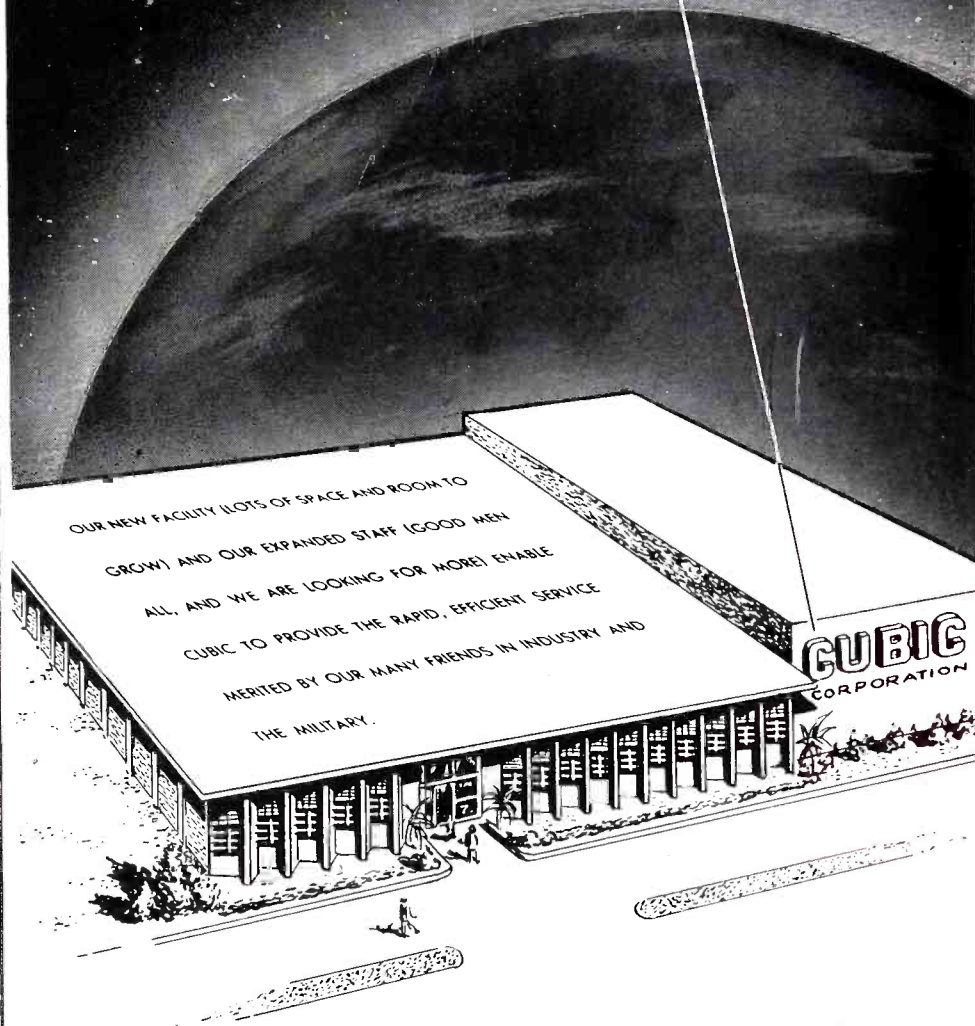
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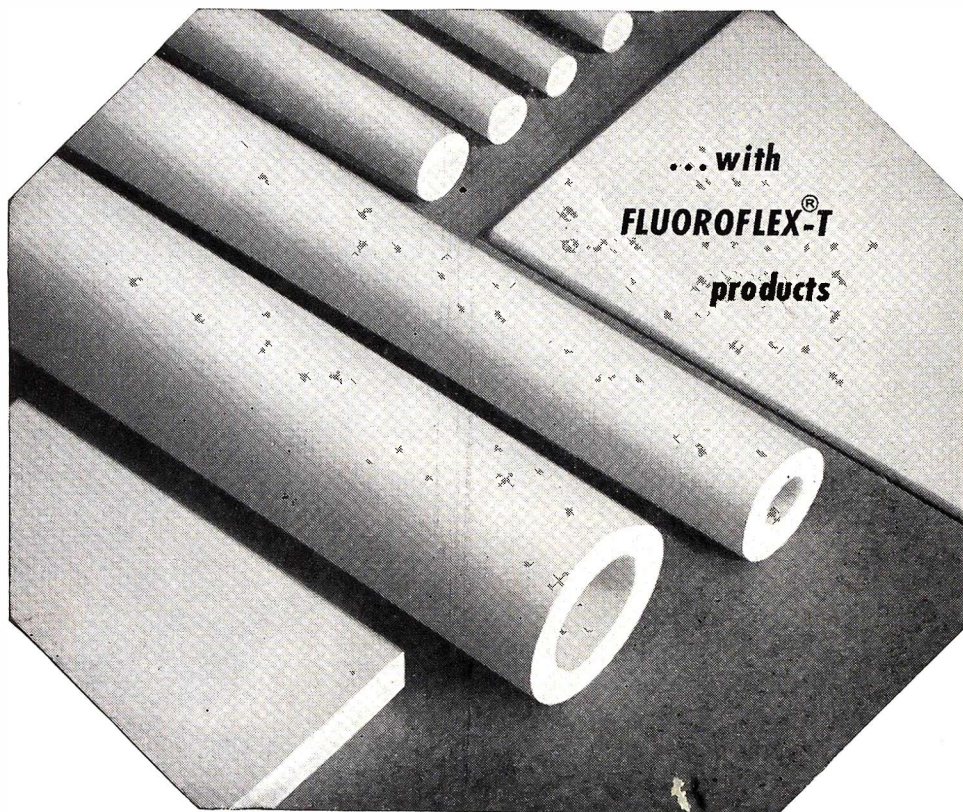
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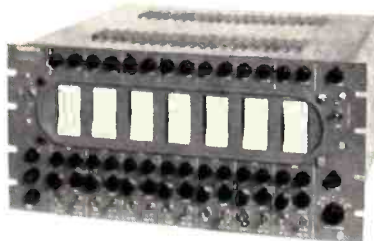
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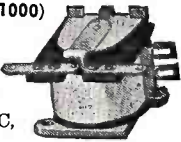
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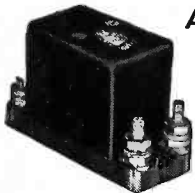
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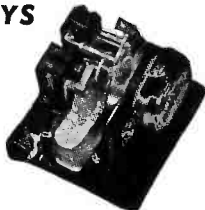
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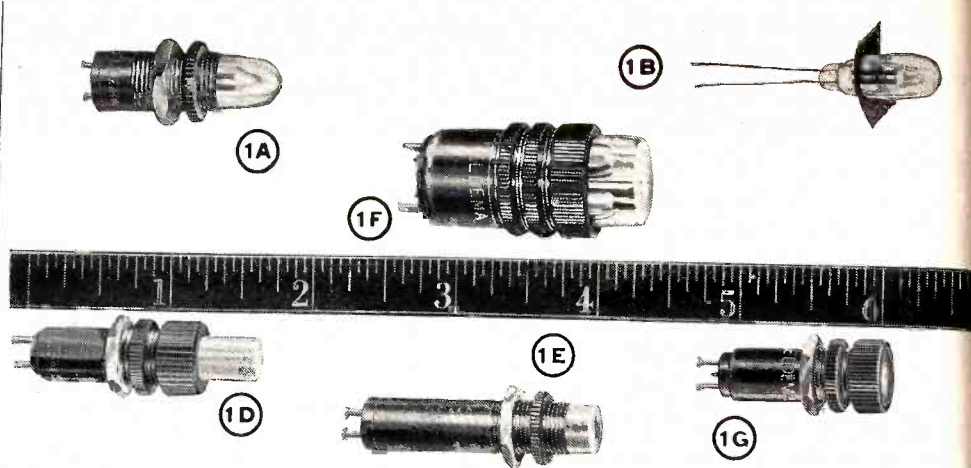
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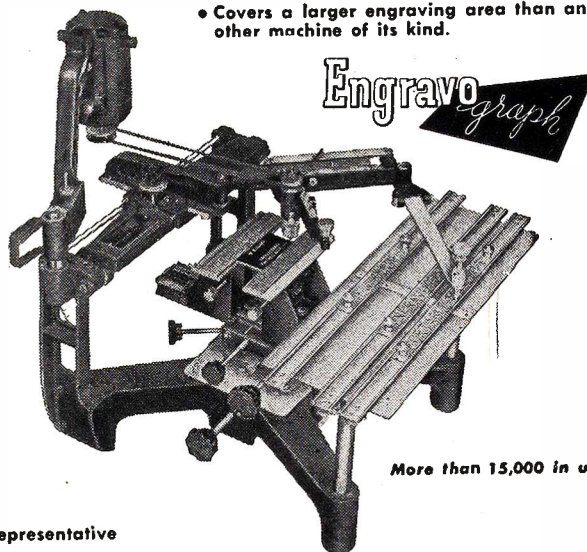
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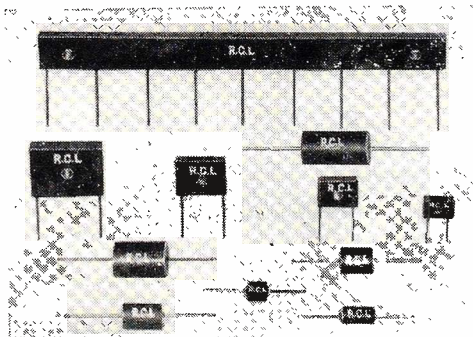
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1/8	3/4	7/8
1/4	1/4	3/8
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1/4	3/4	7/8

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3/4	1/2
1	1/2

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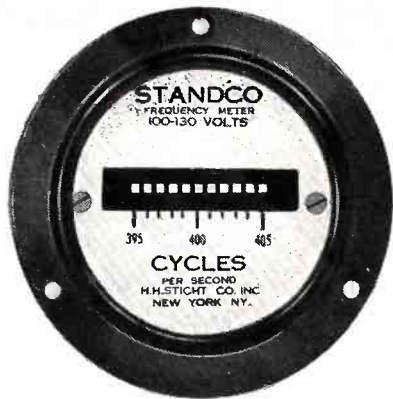
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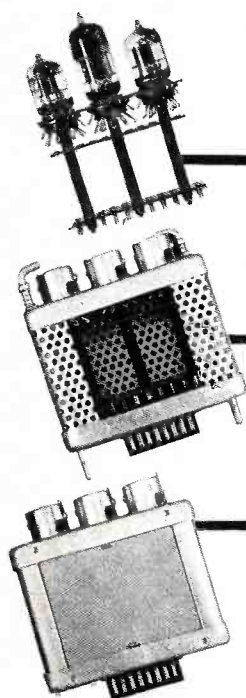
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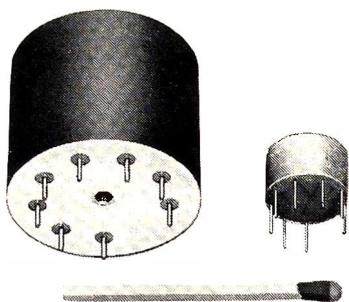
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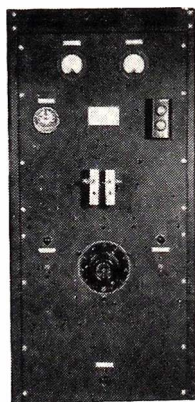
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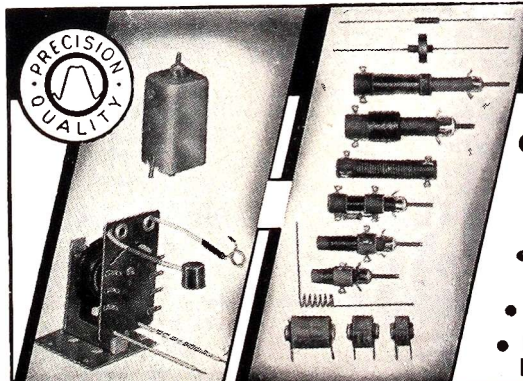
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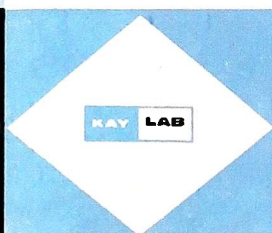
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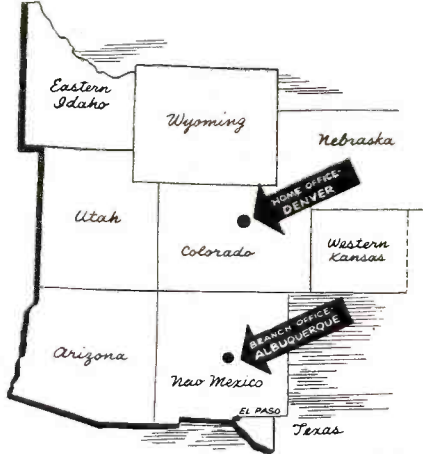
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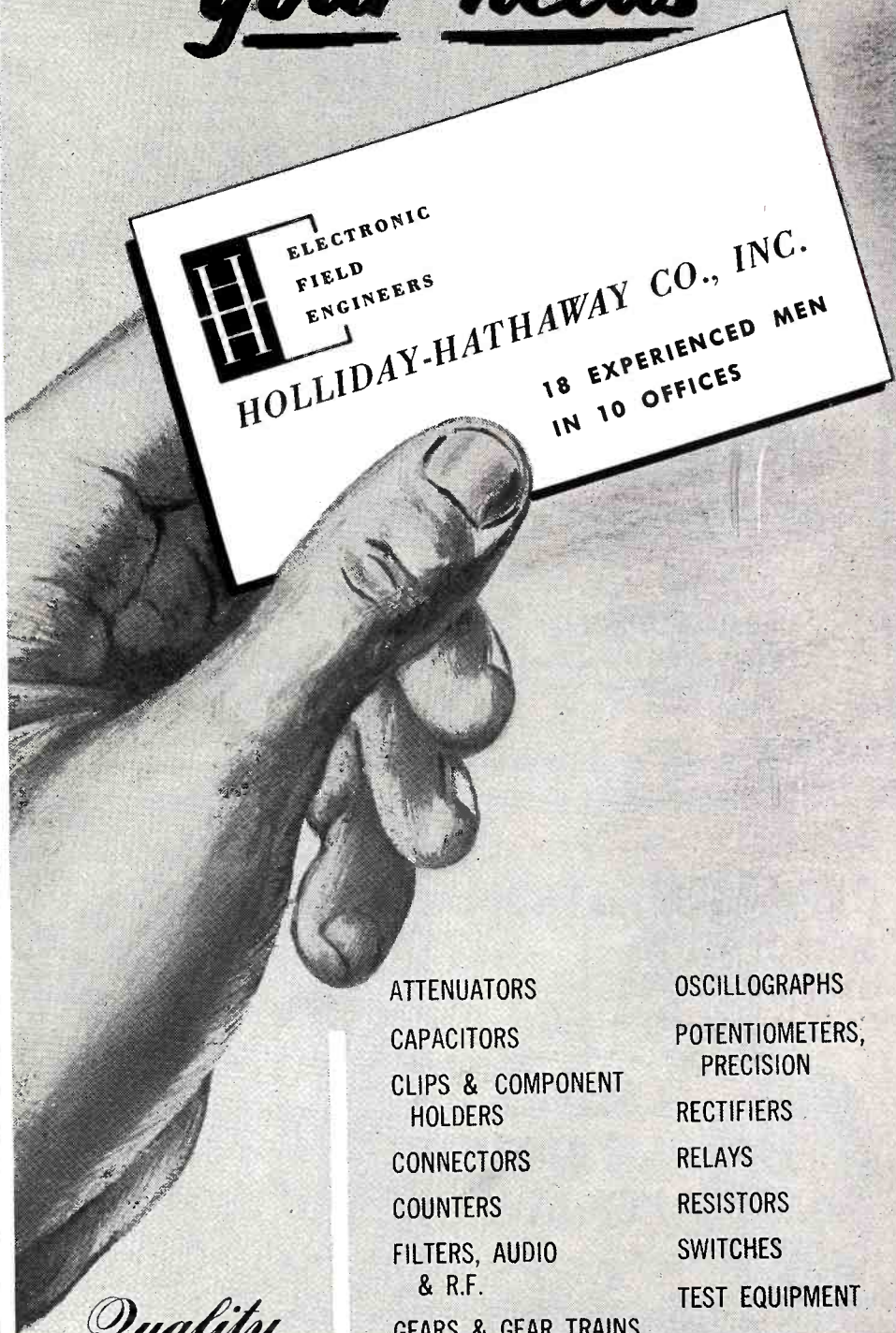
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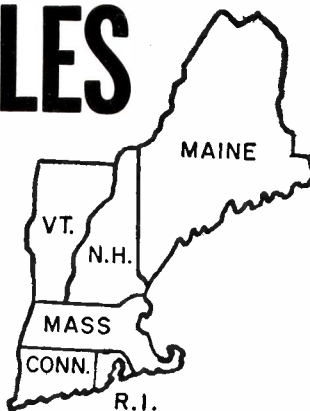
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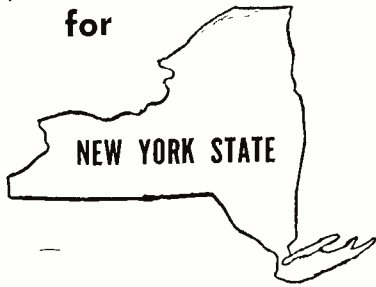
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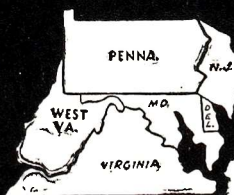
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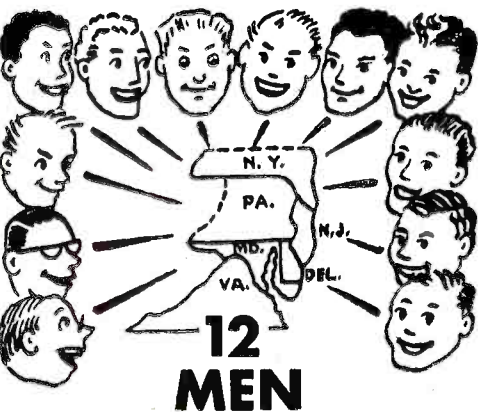
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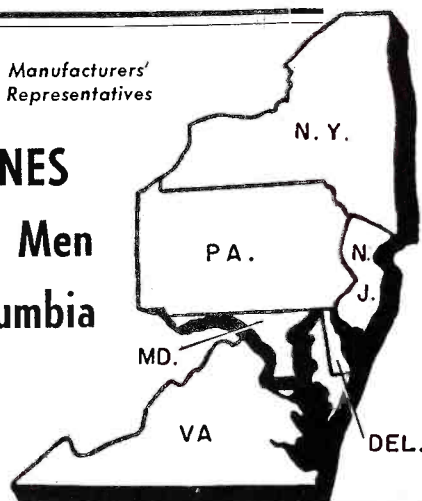
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2E36.....1.25	5NP1.....2.00	WE-245A.....7.50	808.....1.00	5651.....1.25
2J21A.....2.50	5R4GY.....1.00	WE-249B.....3.00	809.....2.25	5654.....1.00
2J26 & 27.....2.50	5R4WGY.....2.50	WE-249C.....2.50	810.....10.00	5656.....5.50
2J29.....10.00	5X3.....3.00	250R.....3.75	811.....2.75	5670.....1.45
2J30.....35.00	5X3P1.....75.00	250TH.....17.50	811A.....3.50	5672.....1.15
2J31-40.....10.00	5Z2P7.....50.00	250TL.....14.50	812.....2.75	5676.....1.25
2J51.....100.00	5Z4P11.....100.00	WE-251A.....75.00	813 (RCA).....12.00	5678.....1.00
2J52.....50.00	EL-C6J.....6.00	WE-252A.....7.50	814.....1.25	5687.....2.00
2J54.....25.00	EL-C6L.....5.00	WE-253A.....2.50	815.....1.00	5691.....4.00
2J55.....35.00	EL-6C/4B25...8.00	WE-254A.....3.50	816.....1.00	5692.....4.00
2J56.....50.00	6A27W.....1.00	WE-257A.....3.00	826......50	5693.....3.50
2J61.....15.00	6AD4.....2.50	FG-258A.....80.00	SD-828A.....6.50	5696.....1.00
2J62.....5.00	WE-6AK5.....1.00	WE-262B.....5.00	SD-828E.....6.50	5703.....1.00
2K22.....15.00	6AK5W......50	267B.....5.00	828.....8.50	5720.....15.00
2K25.....11.00	6AN5.....2.00	WE-268A.....7.50	829.....4.50	5725.....1.50
2K30.....100.00	6AR6.....1.25	FG-271.....40.00	829B.....8.50	5726......50
2K33A.....50.00	6AR6A.....3.75	WE-271A.....7.50	830B......50	5727.....1.25
2K34.....85.00	6AS6WA.....1.15	WE-274B......90	832.....3.00	5728.....9.00
2K39.....100.00	6AS6W.....1.50	WE-276A.....7.50	832A.....4.75	5734.....9.00
2K41.....75.00	6AS7G.....2.75	WE-282A.....5.00	833A.....35.00	5740.....35.00
2K45.....30.00	6BA5.....2.50	WE-283A.....3.50	SD-834.....3.75	5750.....2.50
2K47.....100.00	6C21.....15.00	WE-285A.....5.00	834.....5.00	5763.....1.25
2K54.....5.00	6J4.....1.75	WE-286A.....6.00	836.....1.50	5800.....7.50
2K55.....5.00	6J4A.....2.50	287A.....2.50	837.....1.00	5801.....5.00
2P21 (I.O.).....25.00	6J6W.....1.50	WE-300B.....5.00	838.....1.00	5803.....6.00
2V3G.....1.25	6L6WGB.....2.50	304TH.....7.50	842.....1.50	5819.....30.00
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3A5......50	6SU7GT.....2.00	WE-310A.....4.00	849.....17.50	5842.....12.50
3AP1.....1.50	6X4WA.....2.00	WE-313C.....3.00	851.....9.00	5847.....12.50
3AP11A.....5.00	6X5W.....1.25	316A......50	860.....2.50	5915......75
3B21.....3.50	7BP7.....3.50	WE-323A.....7.50	866A.....1.20	5932.....3.75
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3B25.....3.00	7HP7.....10.00	WE-337A.....6.00	872A.....1.25	5949/1907...125.00
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3DP1A.....7.50	25E6WG.....3.00	WE-396A.....2.90	SN-947D.....8.50	8013A.....3.25
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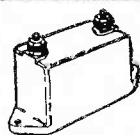
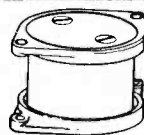


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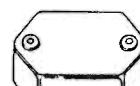
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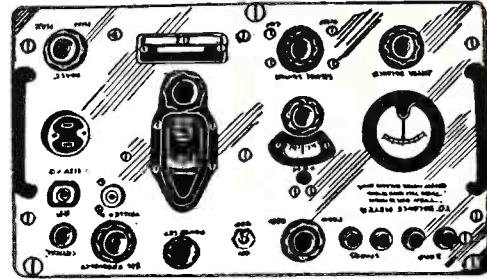
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C1B	2.95	4J38	150.00	719A	22.50
1B22	1.50	4J39	150.00	720A Y/GY	50.00
1B23	6.95	4J40	150.00	721A	1.50
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1B27	12.50	4J51	190.00	724A	1.95
1B38	35.00	4J52	225.00	724B	2.25
1B50	23.00	4J53	225.00	725A	18.00
1B51	7.50	5BP1	3.95	726A	18.00
1B56	35.00	5BP2A	12.00	726B	45.00
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1N21	.55	5CP1	7.50	730A	22.50
1N21A	.95	5CP7	9.95	750TL	45.00
1N21B	1.50	5CP7A	18.00	801A	9.00
1N21C	12.50	5CP12	15.00	802	3.95
1N22	.66	5D21	10.00	803	5.95
1N23	.90	5J1P1	27.50	805	4.95
1N23A	.90	5J2P2	19.50	807	1.25
1N23B	1.50	5J3P4	27.50	808	1.95
1N23C	7.50	5J23	25.00	809	2.95
1N25	4.50	5LP11A	25.00	810	10.50
1N26	6.75	C6A	11.00	811A	3.75
1N27	3.50	C6J	7.50	812A	3.95
1N34A	.79	7BP7	5.00	813	13.75
1N43	2.25	7DP4	5.00	814	3.75
1P25	75.00	2AP4	50.00	815	3.25
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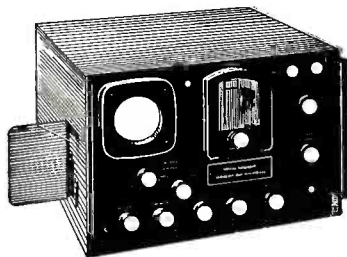
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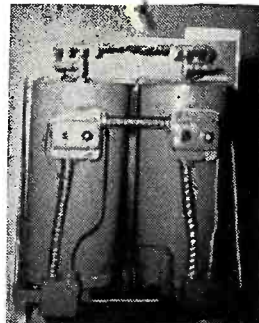
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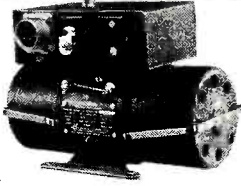
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| 2J1F3 Gen. 115/57.5V 400 cy. | 10.00 |
| 2J1FA1 Gen. 115/57.5V 400 cy. | 7.50 |
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| 2J1H1 Diff. Gen. 57.5V 400 cy. | 7.50 |
| 2J5D1 Cont. Trans. 105/55V 60 cy. | 17.50 |
| 2J5F1 Cont. Trans. 105/55V 60 cy. | 17.50 |
| 2J5H1 Gen. 115/105V 60 cy. | 17.50 |
| 2J15M1 Gen. 115/57.5V 400 cy. | 17.50 |
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| 6G Syn. Gen. 115/90VAC 60 cy. | 34.50 |
| 7G Syn. Gen. 115/90VAC 60 cy. | 42.50 |
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| C56701 Type 11-4 Rep. 115V 60 cy. | 20.00 |
| C69405-2 Type 1-1 Transm. 115V 60 cy. | 20.00 |
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| C78248 Syn. Transm. 115V 60 cy. | 12.50 |
| C78249 Syn. Diff. 115V 60 cy. | 5.00 |
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| C79331 Transm. Type 1-4 115V 60 cy. | 20.00 |
| 851 Bendix Autosyn Mtr. 32V 60 cy. | 7.50 |
| 403 Kollsman Autosyn Mtr. 32V 60 cy. | 7.50 |
| CK5 Bendix Mtr. 2 phase 26V 400 cy. | 17.50 |
| FPE-25-11 Diehl Servo Mtr. 75/115V 60 cy. | 22.50 |
| FPE-43-1 Resolver 400 cy. | 25.00 |
| FJE-43-9 Resolver 115V 400 cy. | 25.00 |
| 999-0411 Kollsman 26V 400 cy. | 15.00 |
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| 10047-2-A Bendix 26V 400 cy. | 12.50 |
| 2900 Transicoil 115V 400 cy. | 15.00 |

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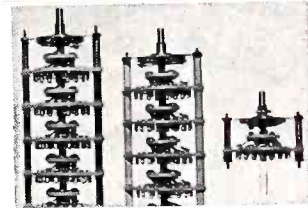


Type 12602-1-A. Includes CK 5 Servo motor coupled to output shaft thru 125:1 gear reduction train. Output shaft coupled to autosyn follow-up (AY-43). Ratio of output shaft to follow-up autosyn is 30:1 Includes base mounting type cover for motor and gear train. **\$34.95**

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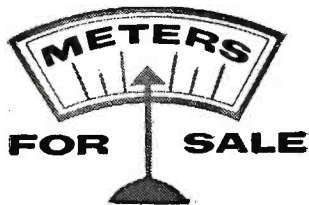
a) 1 deck, 17 positions, 3 pole	\$2.50
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c) 6 deck, 17 positions, 3 pole	8.50

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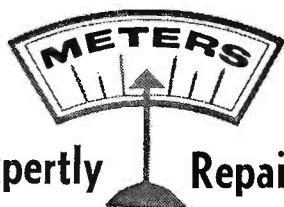


- (approx. size overall 3 3/4" x 1 1/4" dia.)
- | | |
|--|---------|
| 506900 Delco PM 27.5 VDC 250 rpm | \$12.50 |
| 5069230 Delco PM 27.5 VDC 145 rpm | 15.00 |
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| 5069625 Delco 27.5 VDC 120 rpm w/governor | 15.00 |
| MM A-11 Globe PM 24 VDC | 7.50 |
| 5BA10AJ18 GE 24 VDC 110 rpm | 10.00 |
| 5BA10AJ37 GE 27 VDC 250 rpm reversible | 10.00 |
| 5BA10AJ52 27 VDC 145 rpm reversible | 12.50 |
| 806069 Oster series reversible 1/50 h.p. 10,000 rpm 27.5 VDC 1 5/8" x 3 1/2" | 5.00 |
| C-28P-1A 27 VDC 1/100 h.p. 7,000 rpm | 3.00 |
| 7100-B PM Hansen 24 VDC 160 rpm | 7.50 |
| SSFD-6-1 Diehl PM 27.5 VDC 10,000 rpm | 4.00 |
| 6-volt PM Mtr. mfgd. by Hansen 5,000 rpm 1 1/4" in dia. 2" long overall | 4.00 |

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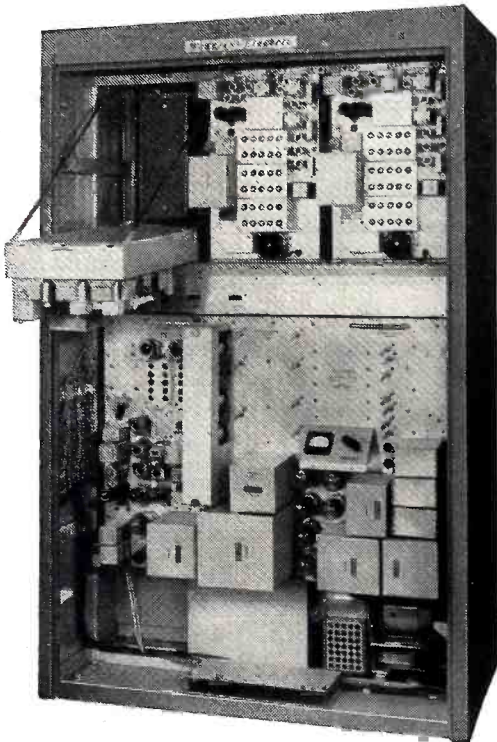
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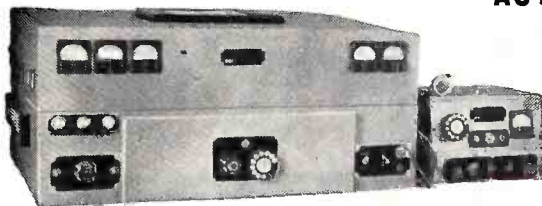
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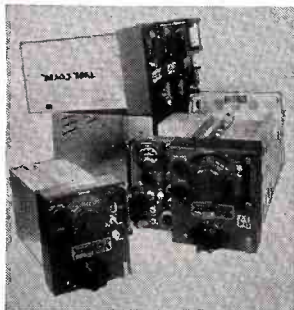
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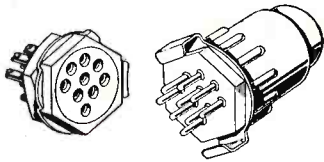
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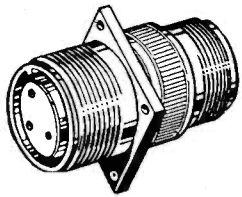
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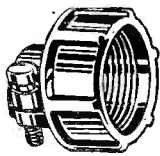
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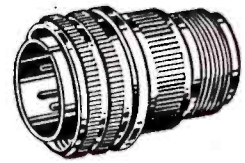
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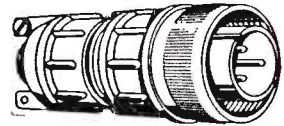
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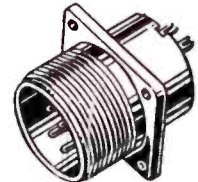
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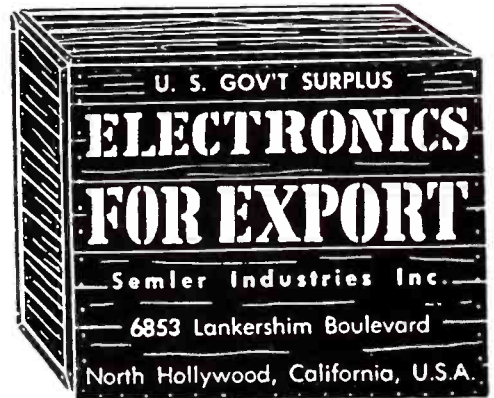
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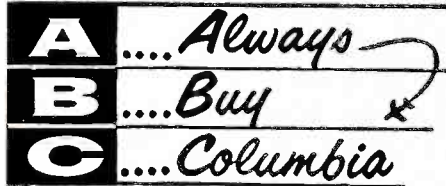
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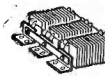
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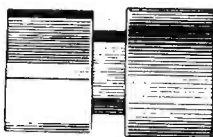
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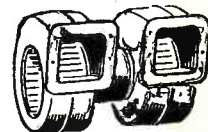
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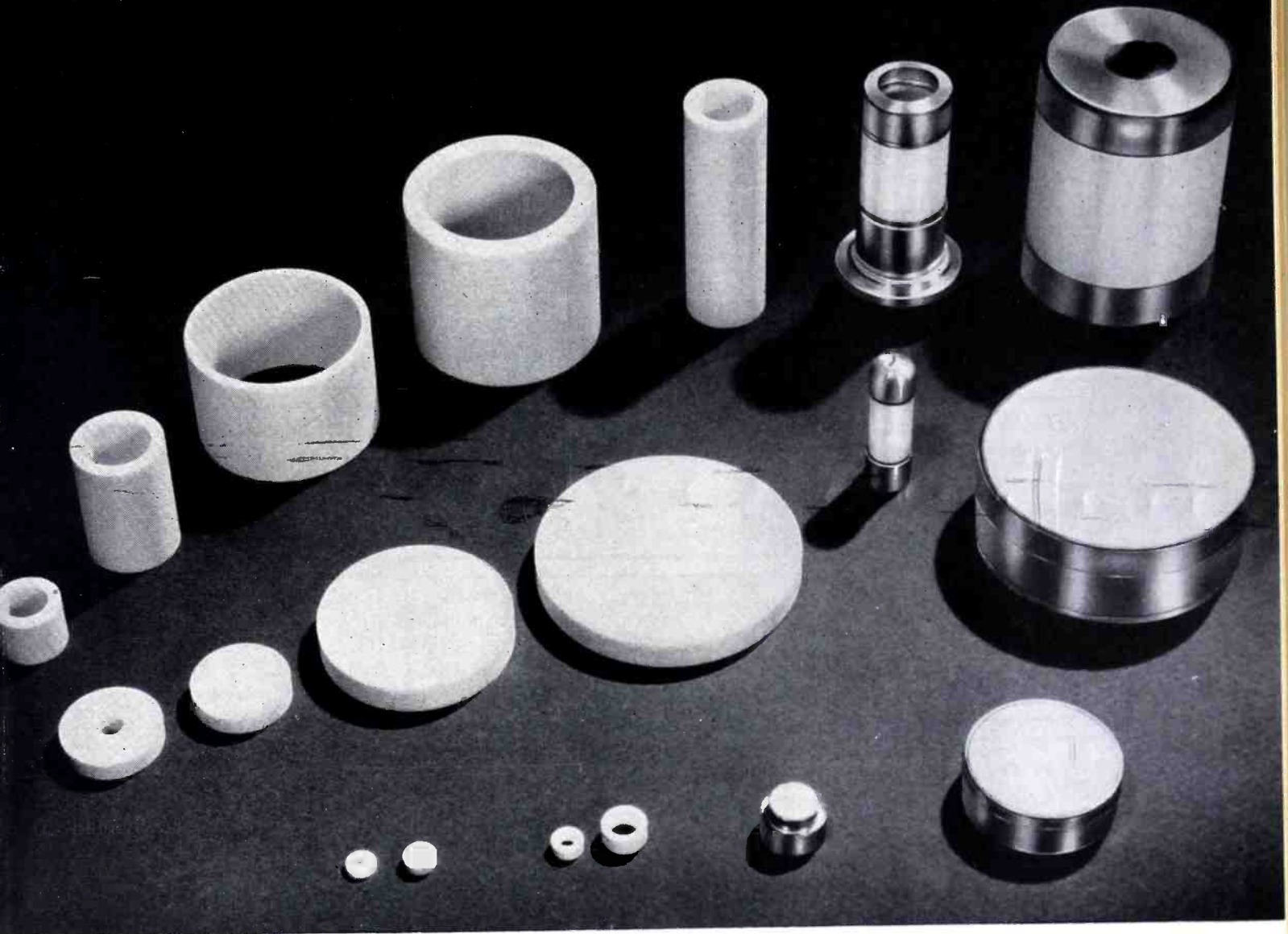
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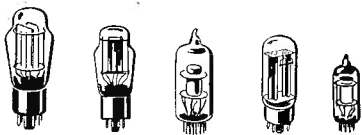
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MICROWAVE COMPONENTS



ROCKET TUBES

Sylvania Rocket Tubes are planar-electrode disc-seal triodes for use as oscillators and amplifiers at frequencies up to 3300 mc. Design permits broad band operation. Tuning is simpler and covers a greater continuous range than that of many other types of UHF tubes.

2C36—is a pulse-modulated oscillator for frequencies up to 1200 mc.

2C37—is designed for use as a c.w. oscillator up to 3300 mc. Plate disc is flat, grid disc folded.

5764—is a pulse-modulated oscillator for use up to 3300 mc.

5765—is for use as a c.w. oscillator without external feedback in the range from 900 to 3000 mc.

5767—is a c.w. oscillator for use up to 3300 mc. Both discs are folded.

5768—is intended for use as a c.w. amplifier-multiplier up to 3000 mc.

6018—is intended for use as a c.w. amplifier-multiplier up to 3000 mc.

6BA4—High gain, low noise, UHF television amplifier.

6481 (RT434)—c.w. amplifier for use up to 3000 mc.

6503—c.w. amplifier for use up to 3000 mc.



KLYSTRONS

These are reflex klystrons designed for use with external cavity resonators, affording the equipment designer wide latitude in the choice of external circuitry for both c.w. and pulsed operation. Cavities may be used whose characteristics are tailored to fit very wide-band or very narrow-band circuits.

Type No.	Mode	Frequency mc.
6BL6	1 $\frac{3}{4}$	1600-4000
	2 $\frac{3}{4}$	2100-4500
	3 $\frac{3}{4}$	3600-6500
6BM6	1 $\frac{3}{4}$	550-2300
	3 $\frac{1}{4}$	1100-3000
	3 $\frac{3}{4}$	1500-3800
5836	1 $\frac{3}{4}$	1600-4000
	2 $\frac{3}{4}$	2100-4500
	3 $\frac{3}{4}$	3600-6500
5837	1 $\frac{3}{4}$	550-2300
	2 $\frac{3}{4}$	1100-3000
6BM6A	2 $\frac{3}{4}$	1100-3000

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CRYSTAL DIODES, DUO-DIODES & VARISTORS



SYLVANIA CRYSTAL DIODES

MAXIMUM RATINGS AT 25° C

CHARACTERISTICS AT 25° C

Type	Description	Continuous Reverse Working Voltage (Volts)	Recurrent Peak Anode Current (MA.)	Average Anode Current (MA.)	Peak Reverse Voltage For Zero Dynamic Resistance (Volts MIN.)	Forward Current AT + 1 Volt (MA. MIN.)	Reverse Current (µa Max.)
1N34A	General Purpose Diode	60	150	50	75	5	500 @ -50V 30 @ -10V
1N35	Matched Duo-Diode (Note 1)	50	60	22.5	75	7.5	500 @ -50V 10 @ -10V
1N38A	100 Volt Diode	100	150	50	120	4	500 @ -100V 600 @ -200V 100 @ -100V 600 @ -200V
1N39A	High Back Voltage General Purpose Diode	200	150	50	225	3	100 @ -100V 600 @ -200V
1N40	General Purpose Varistor (Note 2)	25	60	22.5	75	12.75 @ 1.5V	35 @ -10V
1N41	General Purpose Varistor (Note 2)	25	60	22.5	75	12.75 @ 1.5V	40 @ -10V
1N42	100 Volt Varistor (Note 2)	100	60	22.5	120	12.75 @ 1.5V	800 @ -100V 100 @ -50V
1N54A	High Back Resistance Diode	50	150	50	75	5	7 @ -10V 100 @ -50V
1N55	150 Volt Diode	150	150	50	170	4	500 @ -150V
1N55A	150 Volt Diode	150	150	50	170	4	500 @ -150V
1N56	High Conduction Diode	40	200	60	50	15	300 @ -30V
1N56A	High Conduction Diode	40	200	60	50	15	300 @ -30V
1N58A	100 Volt Diode	100	150	50	120	4	600 @ -100V
1N59	250 Volt Diode	260	150	50	275	3	800 @ -250V
1N60	Video Detector Diode	25	150	50	30	Note 3	Note 4
1N63	High Back Resistance Diode	100	150	50	125	4	50 @ -50V 100 @ -150V
1N64	General Purpose Diode	25	150	50	30	2.5	200 @ -50V
1N65	General Purpose Diode	70	150	50	85	5	5 @ -5V
1N355	High Back Resistance Diode	80	100	35	100	5	50 @ -50V 50 @ -10V 850 @ -50V
1N69	General Purpose Diode	60	125	40	75	5	25 @ -10V 300 @ -50V
1N70	100 Volt	100	90	30	125	3	300 @ -50V 300 @ -30V
1N71	Low Impedance Varistor (Note 5)	40	200	60	50	15	10 @ -10V
1N81	High Back Resistance Diode	40	90	30	50	3	...
1N82	UHF Mixer (Note 11)	...	...	...	Note 6	...	...
1N82A	UHF Mixer (Note 11)	...	...	...	Note 6	...	...
1N105	Video Detector Diode	25	150	50	30	Note 3	Note 4
1N109	Harmonic Generator Diode	15	150	50	20	Note 7	...
1N111	Computer Diode	60	150	25	75	5	Note 8
1N112	Computer Diode	60	150	25	75	5	Note 8
1N113	Computer Diode	60	150	25	75	2.5	Note 8
1N114	Computer Diode	60	150	25	75	2.5	Note 8
1N115	Computer Diode	60	150	25	75	2.5	Note 8
1N119	Computer Diode	60	150	25	75	5	Note 8
1N120	Computer Diode	60	150	25	75	5	Note 8

Note 1—Units are matched in the forward direction at 1 volt so that the current flowing through the lower resistance unit is within 10% of that through the higher resistance unit. Ratings are shown for each diode.

Note 2—Consists of four specially selected and matched diodes whose resistances are balanced within ±2.5% in the forward direction at 1.5 volts. For additional balance, the forward resistance of each varistor pair is matched to within three ohms. Ratings shown are for each diode in free air.

Note 3—Units are tested in a circuit employing an input of 1.6 volts rms at 40 MC, 75% modulated at 400 cycles. Demodulated output across a 4700 ohm resistor shunted by a 5 µmf capacitor is a minimum of 1.55 volts peak to peak.

Note 4—Minimum specified reverse resistance applies to all points between 0 and -10 volts with 60 cps sweep.

Note 5—Consists of four specially selected diodes whose forward currents are matched within a range of 1 ma. with 1 volt applied. Ratings shown are for each diode in free air.

Note 6—The 1N82 and 1N82A are low noise and low conversion loss UHF television mixer crystals.

Note 7—Units are tested in a circuit employing a fundamental frequency of 126 MC. The rectified 3rd harmonic output is 0.4 ma. minimum.

Note 8—Minimum specified reverse resistance applies at 55°C for all points between -10V and -50V with 60 cps sweep.

Note 9—Reverse recovery time for these units is specified and defined as the time required for the diode to recover to a given reverse current when the operating voltage necessary to give 30 ma. forward conduction is rapidly switched to -35 volts.

Type	Reverse Current µa	Recovery Time usec.
1N119	700	0.5
	87.5	3.5
1N120	700	0.5
	175	3.5

Note 10—Units are tested in a circuit employing an input of 0.1 volts rms at 44 MC. Rectified output is a minimum of 140 µa with a 3600 ohm load and 165 µh shunted by 5 µmf capacitor.

Note 11—Normally supplied with 1/8" minimum leads but will be supplied without leads for clip-in applications upon request.

The polarity of all Sylvania crystals is indicated by a graphic symbol (—|◀—) on the body, the arrow of which indicates the direction of easier (conventional) current flow.

Sylvania Crystal Diodes are long-life, lightweight, heaterless components that have found hundreds of applications in clippers, limiters, discriminators and other circuits calling for low power rectification at frequencies up to several hundred megacycles. They have low shunt capacity and no contact potential.

Convenient pigtail leads eliminate the need for mounting hardware.

Sylvania Duo-Diodes consist of two matched diodes mounted in a single unit.

Sylvania Varistors, types 1N40, 1N41 and 1N42, consist of 4 specially selected and matched germanium diodes whose resistances are balanced

within ±2.5% in the forward direction at 1.5 volts. Sylvania Varistor Type 1N71 consists of 4 matched low impedance diodes, whose forward currents are within a range of 1 ma. with +1 volt applied.

Ratings shown are for each diode. Types 1N40, 1N42 and 1N71 are plug-in type; 1N41 is lug type.



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MICROWAVE CRYSTALS, Transistors, Photodiodes and Glow Transfer Tubes



MICROWAVE CRYSTAL DIODES

Type	Design Freq. (mc)	Max. Conv. Loss (db)	Max. Output Noise Ratio	Burnout Test	I.F. Imp. (ohms)
1N21B	3,000	6.5	2.0	Bs = 2.0 erg	200-800
1N21C	3,000	5.5	1.5	Bs = 2.0 erg	200-800
1N21D	3,000	5.0	1.3	Bs = 2.0 erg	325-475
1N23B	10,000	6.5	2.7	Bs = 1.0 erg	150-600
1N23C†	10,000	6.0	2.0	Bs = 1.0 erg	325-475
1N23D††	10,000	5.0	1.7	Bs = 1.0 erg	350-450
1N25	1,000	8.0	2.5	Bp = 6.5 watts	100-400
1N25A	1,000	6.5	2.0	Bs = 6.5 watts	100-300
1N26	24,000	8.5	2.5	Bs = 0.1 erg	300-600
1N53	35,000	8.5	2.5	Bs = 0.1 erg	400-800
1N78	16,000	7.5	2.5	Bs = 0.3 erg	325-625
1N78A	16,000	7.0	1.5	Bs = 0.3 erg	365-565
1N79	3,000	Instrument Rectifier Rated			
1N150	6,750	6.0	2.0	Bs = 1.0 erg	250-500
1N160	6,750	6.5	2.7	Bs = 1.0 erg	200-500
1N286	10-22 KMC	8.5	2.5	.....	250-450

All types are available with reverse polarity.

MATCHED PAIRS

Conversion loss is matched within 0.3 db
IF impedance is matched within 25 ohms.

Type	Frequency	Type	Frequency
1N21B Matched Pair.....	3000 mc	1N23B } Matched Pair.....	10,000 mc
1N21C } Matched Pair.....	3000 mc	1N23BR } Matched Pair.....	10,000 mc
1N21D } Matched Pair.....	3000 mc	1N23C Matched Pair.....	10,000 mc
1N21E } Matched Pair.....	3000 mc	1N23D } Matched Pair.....	10,000 mc
1N21F } Matched Pair.....	3000 mc	1N23E } Matched Pair.....	10,000 mc
1N21G } Matched Pair.....	3000 mc	1N23F } Matched Pair.....	10,000 mc
1N21H } Matched Pair.....	3000 mc	1N23G } Matched Pair.....	10,000 mc
1N21I } Matched Pair.....	3000 mc	1N23H } Matched Pair.....	10,000 mc
1N21J } Matched Pair.....	3000 mc	1N23I } Matched Pair.....	10,000 mc
1N21K } Matched Pair.....	3000 mc	1N23L } Matched Pair.....	10,000 mc
1N21L } Matched Pair.....	3000 mc	1N23M } Matched Pair.....	10,000 mc
1N21M } Matched Pair.....	3000 mc	1N23N } Matched Pair.....	10,000 mc
1N21N } Matched Pair.....	3000 mc	1N23O } Matched Pair.....	10,000 mc
1N21P } Matched Pair.....	3000 mc	1N23P } Matched Pair.....	10,000 mc
1N21Q } Matched Pair.....	3000 mc	1N23R } Matched Pair.....	10,000 mc
1N21R } Matched Pair.....	3000 mc	1N23S } Matched Pair.....	10,000 mc
1N21S } Matched Pair.....	3000 mc	1N23T } Matched Pair.....	10,000 mc
1N21T } Matched Pair.....	3000 mc	1N23U } Matched Pair.....	10,000 mc
1N21V } Matched Pair.....	3000 mc	1N23V } Matched Pair.....	10,000 mc
1N21W } Matched Pair.....	3000 mc	1N23X } Matched Pair.....	10,000 mc
1N21X } Matched Pair.....	3000 mc	1N23Y } Matched Pair.....	10,000 mc
1N21Y } Matched Pair.....	3000 mc	1N23Z } Matched Pair.....	10,000 mc
1N21Z } Matched Pair.....	3000 mc		

VIDEO DETECTOR CRYSTALS

Type	Figure of Merit Min.	Video Imp. (ohms)	Burnout Test	Carrier Freq. (mc)	Video Freq.	Tang. Sens.
1N31	55	6000-23,000	Bp 0.02 watt	10,000	500 cps—5 mc	.....
1N32	85	4000-22,000	Bp 0.36 watt	3000	500 cps—5 mc	.....
1N76	Rated in specified circuit	.....	.....	10,000	.....	.....
1N358	.....	4500-1800	Bp 0.02 watt	1-12.4 KMC	.....	—40 dbm
1N446	.....	3000-23,000	Bp 0.02 watt	26.5-40 KMC	.....	—40 dbm

Bs = total energy in simulated spike of pulse from TR box in radar service.
Bp = peak power pulse under pulsed conditions.

†Over-all noise figure 10 db max.
††Over-all noise figure 8.5 db max.

V.L.I. DIODES

Very low impedance diodes provide high forward conductance with stable, drift-free performance and fast recovery time.
V.L.I. Diode Characteristics @ 25° C.

Silicon Junction Diodes—for computer and voltage-regulator applications

1N137A

1N138A

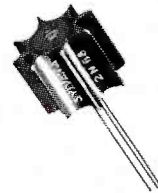
High Temperature Silicon Diodes—for stable operation at elevated temperatures of 150° C.

1N193

1N195

1N194

1N196



Transistors—hermetically sealed leads can be clipped for plug-in applications.

2N34—PNP Junction type general purpose amplifier for high gain, low power, low frequency applications.

2N35—NPN Junction type for general-purpose use in the audio to low frequency range.

2N68—PNP Junction type for general-purpose, high power, low frequency applications. Intended for high current, low voltage operation from 6.0 to 30 V. Single unit will deliver up to 750 mw of output (class AO or up to 10 w per class B pair).

2N94,
2N94A—NPN Junction type for use in high-frequency amplifier, oscillator and computer applications.

2N95,
2N101—PNP Junction type for general purpose, high power transistor. For applications see 2N68.

2N102—NPN Junction type for general-purpose, high power applications similar to those of 2N68.

2N141—PNP Junction type for general-purpose, high power, low frequency applications. Intended for high current low voltage operation up to 60 volts. Single unit will deliver up to 750 mw output (class AO or up to 10 w per class B pair).

2N143—PNP Junction type, general-purpose, high power transistor. For applications see type 2N68.

V.L.I. DIODES

V.L.I. DIODE CHARACTERISTICS @ 25° C						
Forward Current @ +1V ma min.	Reverse Current Microamps Max.				Working Voltage	Max. Average Anode Current ma
	-10V	-30V	-50V	-100V -150V		
1N447	25	20	60		30	60
1N448	25	30	100		100	60
1N449	50	10	30		30	60
1N450	50	30	100		100	60
1N451	50			150	150	60
1N452	100	30			30	80
1N453	100	30	100		100	80
1N454	200		50		50	100
1N455	300	30			30	100

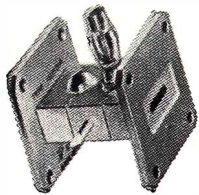


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MICROWAVE COMPONENTS



TR AND ATR TUBES

These microwave gas switching tubes are designed for automatic switching service in rectangular waveguides or coaxial plumbing in radar sets. Low level gaseous discharge attenuator tubes are also available.

CHARACTERISTICS:—TR TUBES

Type	Frequency Range (Mc)	Insertion Loss @ Center (db max.)	Recovery Time (μ Sec. Max. @ -3 db)	VSWR Max.	Leakage Power (MW Max.)	Life (Min. Hrs.)
1840	1045-1155	1.0	50	...	...	500
1858	2659-2969	0.5	15	1.2	0.4 erg.	500
5853	2870-3230	0.7	15	1.4	0.4 erg.	500
5927	3070-3530	0.7	15	1.4	50	500
1855	3360-3740	0.7	15	1.4	40	500
5863	5395-5905	0.8	10	1.4	70	500
5865	8490-9578	0.7	8	1.6	30	500
6232	8490-9578	0.7	4	1.4	40	500
1824A	8490-9600	1.5	4	...	30	500
1863A	8490-9578	0.7	10	1.4	40	500
6035	8490-9578	0.7	4	1.4	40	500
6164	8500-9600	0.7	4	2.0	30	500
*6334	8190-9560	Duplexer Loss = 1.0 db	7	1.2	10	1000
6545	33,814-35,906	2.5	4	...	30	500
5790	33,814-35,906	2.0	4	...	30	500
6795	5490-9578	0.7	10	1.4	40	500
6624	5370-5430	0.7	10	1.4	50	500

CHARACTERISTICS:—ATR TUBES

Type	Center Frequency (Mc)	Tuning Susceptance (mhos)	Equivalent Conductance (max.)	Arc Loss (db Max.)
1844	2750	$\pm .05$	.05	...
6024	2800	$\pm .05$	.05	...
1856	2850	$\pm .05$	.05	...
5792	2950	$\pm .05$	.05	...
5793	3050	$\pm .05$	.05	...
5921	3200	$\pm .05$	.05	0.8
5922	3400	$\pm .05$	.05	0.8
6081	5640	$\pm .06$	0.1	0.8
1851	6425	$\pm .06$	0.1	0.5
1837A	8750	$\pm .06$	0.1	0.8
6034	8750	$\pm .06$	0.1	0.8
5883	8800	$\pm .06$	.06	0.6
6163	9050	$\pm .06$	.06	0.8
1835A	9300	$\pm .06$	0.1	0.8
6033	9300	$\pm .06$	0.1	0.8
6214	9375	$\pm .06$	0.1	0.8
6546	34,860	$\pm .07$	0.15	0.9
5791	34,860	$\pm .07$	0.15	0.7
6591	5400	$\pm .06$	0.10	0.8

*Tests are conducted with the dual TR mounted between two short-slot hybrid couplers whose VSWR shall not exceed 1.10 from 8490-9578 Mc. Each hybrid shall split the power evenly within 0.25 db.

TRAVELING WAVE TUBES



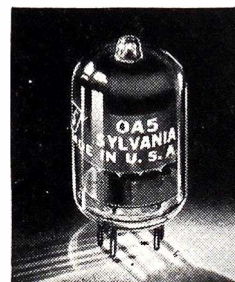
Type	Description	Frequency (KMC)	Power Output	Max. Noise Figure (db)	Min. Gain
6493	Wide Band Low Power TWT Amplifier	2-4	15 mw	25	35
6496	Backward Wave Oscillator	2-4	50 mw (2 KMC) 300 mw (4 KMC)	...	...
6559	TWT C.W. or Pulsed Amplifier	2-4	1.0 w	30	25

MAGNETRONS

• The Sylvania family of Magnetrons operates in the microwave band at peak power levels ranging from 7 to 300 kw. and at average power ranging from 14 to 300 watts. 2J42 and 6027 are of the vane type; 4J50, 4J52 and 4J78, hole and slot. All are supplied with magnet.

Characteristics:

Type	Frequency Range (mc)	Pulsed Power Out (kw) min.	Average Power Out (watts) min.
2142	9345-9405	14	14
6027	9345-9405	18	18
4J50	9345-9405	225	225
4J52	9345-9405	65	65
4J78	9003-9168	225	225
5789	34,512-35,208	32	8
6002	9230-9404	250	250
6799	34,512-35,208	100	26
6551	23,800-24,270	40	24



Trigger Tubes

O A5
S-340
6483

Counter Tubes

6476
6802



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CHEMICALS:

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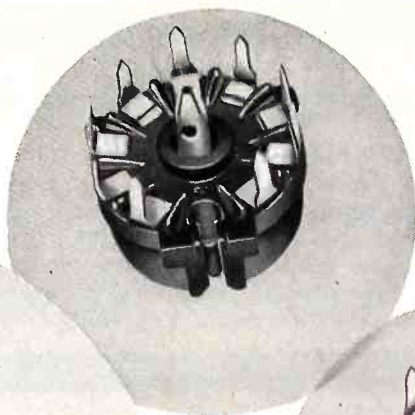
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NEW OCTAL SOCKET

—LETS YOU STANDARDIZE
PRINTED CIRCUIT TECHNIQUES

● Sylvania introduces a new octal socket designed for printed circuits. It incorporates the basic design features of the widely used 7- and 9-pin sockets, making it possible for you to develop new, more compact printed circuitry which can be standardized in production.

Current production can be speeded, too, by incorporating the new Sylvania printed-circuit octal socket wherever standard or compromise mountings are now being used.

Sylvania printed circuit sockets offer these important features

- All molded insulator
- Superior contact characteristics
- Top surface insulation
- Nesting for automatic feeding
- Positive orientation
- Cross-contact wiring

NEW SPECIAL SOCKETS

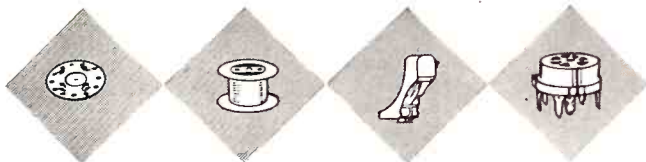
Neo-diheptal socket assembly for color TV picture tubes. Molded in low loss phenolic or alkyd. Compact design, only 11/16" deep. Leads can be supplied taped, stripped, twisted and solder dipped.



Counter Tube Socket with "zero-adjust" feature. Provides $\pm 10^\circ$ adjustment of socket orientation, providing for positive zero adjustment upon original installation as well as replacement.



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University Tower Bldg., Montreal



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Please send complete data samples on the following sockets
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 Neo-diheptal socket assembly
 Counter tube socket

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Company _____
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Condenser
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MOTORS AND GENERATORS

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TV
FM Multiplex

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Portable
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Telephone

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Turntables

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RELAYS

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Record Players, transcription

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Magnetic tape
Tape, Prerecorded

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Bells & buzzers
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Consoles, studio
Equalizers
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Public address systems
Telephone systems
Telephones, sound powered

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Remote audio equipment

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Microwave

TRANSMITTER ACCESSORIES

Control consoles
Diplexers

TUBES — ALL TYPES

TUNERS — AM, FM

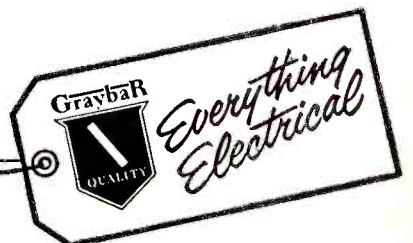
WIRE, CABLE, AND WAVE GUIDE

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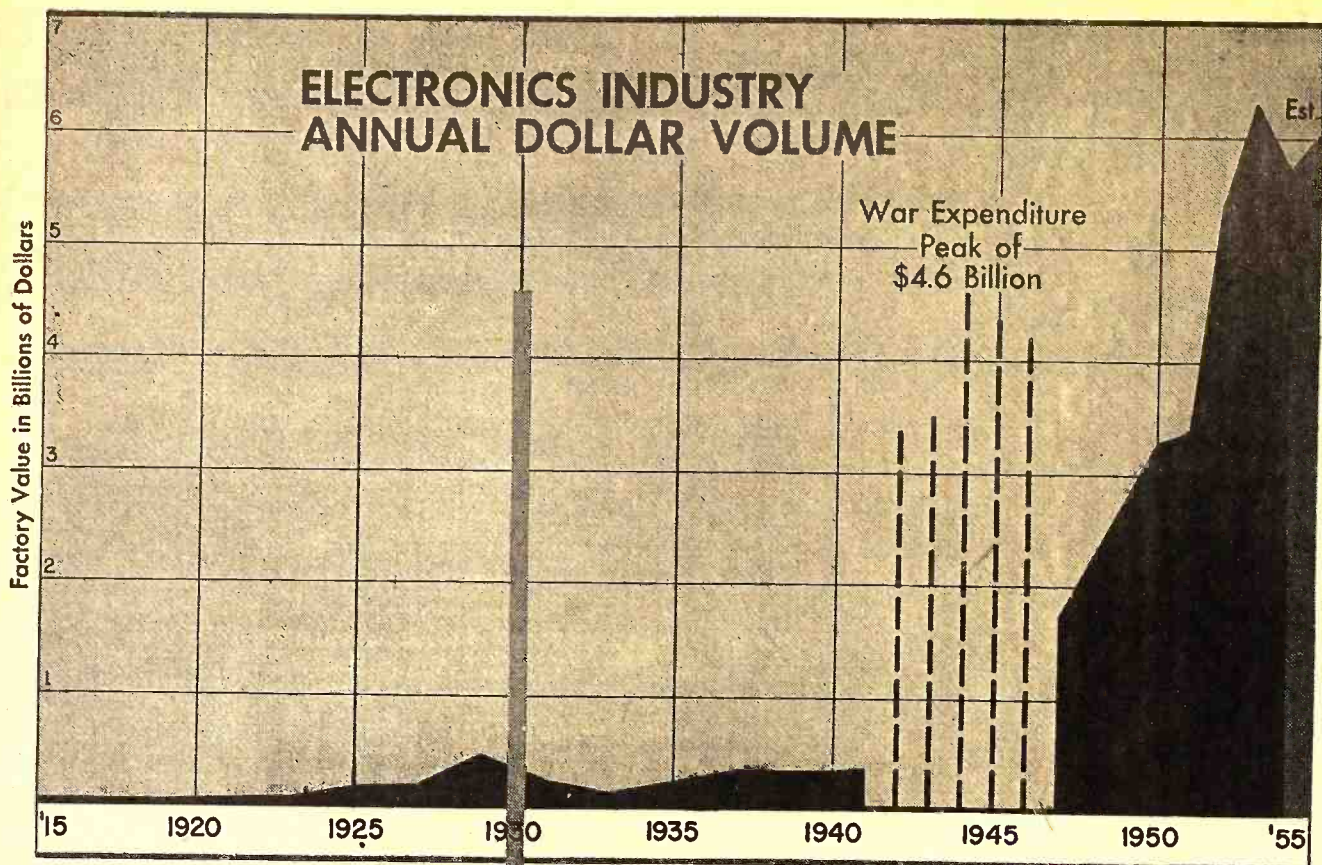
REFERENCE SHEET SECTION

POPULAR FEATURE of **ELECTRONICS** since the first issue of this magazine has been its reference articles, pages that constitute graphical and tabular shortcuts for engineers who design, produce, install and maintain equipment. Presented in the following pages are 20 of the articles that have proven generally useful

The Editors

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25 YEARS

SUMMARY—Expanding technical principles, ideas and applications familiar to engineer-readers produced growth rate that suggests logarithmic progression. The business side of the industry moved rapidly ahead by capitalizing on engineering know-how

ENGINEERS involved in the design of electronic equipment should be familiar with the economics of their amazing field. The accompanying graphs show some of the strides that electronics has taken in becoming a major industry.

Any complete review of advances made in the last 25 years would require several hundred pages. But highlights of the beginning of the electronics era are interesting in at least two ways. They show, by contrast, what is now being done and what might have been done earlier, and they show things done in the

early days that still seem to be the best way today. These serve as guides for the future.

Radio

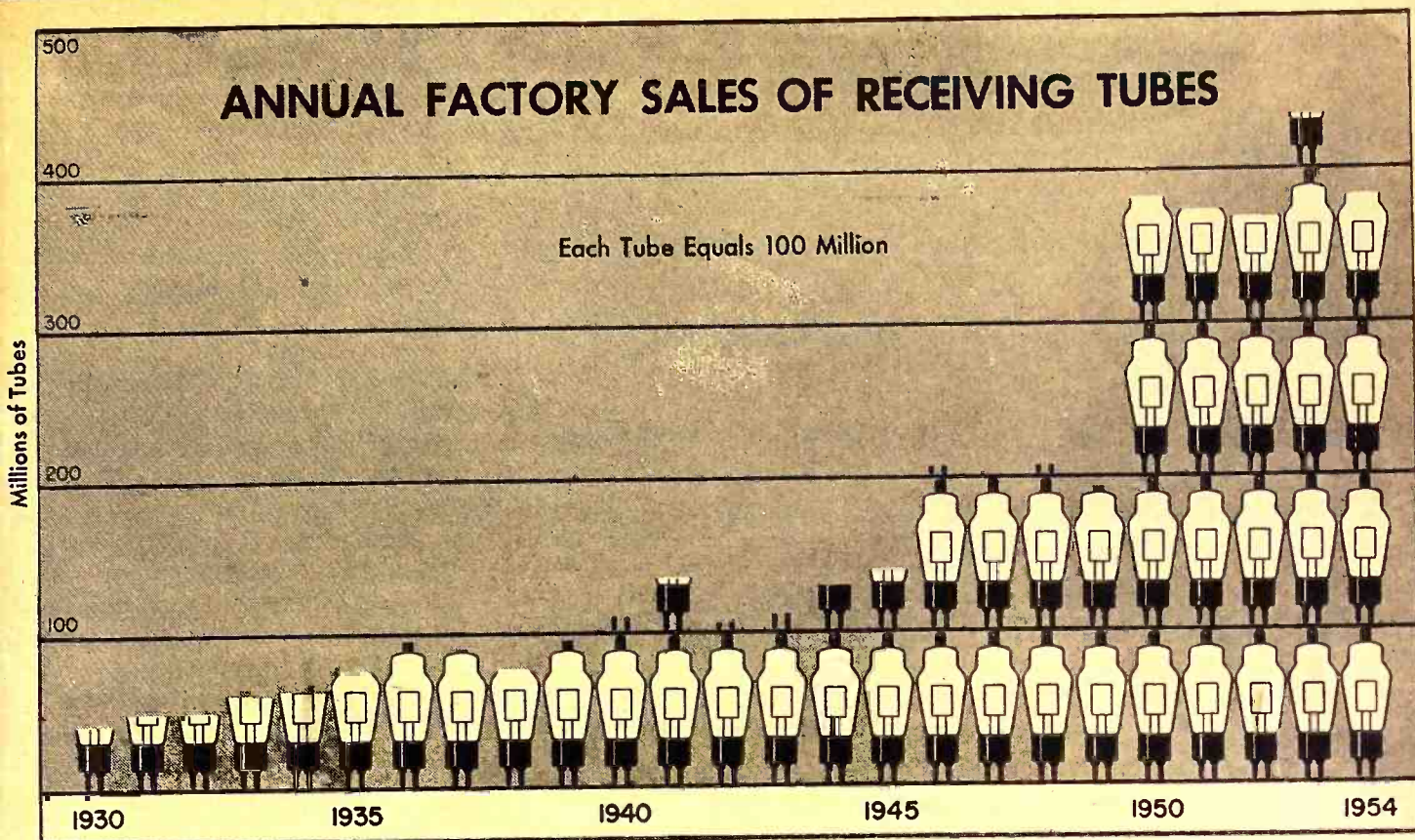
The art and industry in 1930 revolved around radio. Broadcasting was nine years old and 600 stations served the country. Commercial communications had been well established for a much longer period. Some photoelectric equipment was in use but industrial electronics was still in the cradle stage. Even so, about twelve million dollars worth of electronic equipment was purchased for industrial purposes

that year. The overall electronics business totalled 350 million dollars.

Receivers designed for home use were "all-electric" and usually employed a line-up of tuned-radio-frequency stages, a plate-circuit detector and two audio amplifier stages. Some superheterodyne receivers were available with 175-kc intermediate stages.

Modern design of the day included electrodynamic loudspeakers and push-pull output stages using transformer coupling. Some loudspeakers went as high as 12,000 cycles. Interstage r-f coupling and

ANNUAL FACTORY SALES OF RECEIVING TUBES



OF ELECTRONICS

By VIN ZELUFF and
WILLIAM G. ARNOLD

antenna coupling were problems then, the latter in view of the wide variation of L and C of the antenna that the consumer might use. Three and four-gang capacitors were the usual but five gangs were not uncommon.

The most evident new technical idea at the Trade Show in Atlantic City was the tone control.

Radio receiver sales in 1930 were 3.7 million sets. There were 29 million homes in the U.S. and only 12 million had radios. Of these only 7,700,000 had a-c sets; 4.3 million homes had battery sets. Many of these had been "electrified" with B eliminators and trickle chargers.

The RMA Annual Convention was held during the Trade Show. Some 200 companies exhibited in 30,000 sq ft of space. Officers of RMA for the year were: president, Morris Metcalf, American Bosch Magneto Corp.; vice presidents, Joseph L. Ray, Radio Corp. of

America, Ben G. Erskine, Sylvania Products Co., and Arthur L. Walsh, Thomas A. Edison Inc.; treasurer, E. A. Rauland, Rauland Corp.; Bond Geddes was re-elected executive vice president.

Tubes of the Day

Designers of home radio receivers were favoring type 27, 24 and 45 tubes but some older types, 71A, 26, 10 and 50, were still found in new models. Types 30, 31 and 32, 2.0-volt filament tubes, were brought out for battery portables. The 30 was a triode, the 31 a power triode and the 32 an r-f screen-grid type.

Screen-grid tubes in those days were often rated in amplification factor. The 32 had a factor of 440 and a mutual conductance of 550 micromhos.

Pentodes were at the drawing-board stage. A subcommittee of RMA consisting of five receiver de-

signers and five tube engineers was appointed to collect and study all data on the five-element tube and to formulate pentode standards.

The first issue of *ELECTRONICS* had an article on the split-anode magnetron by W. C. White (just now retiring in 1955) of the Vacuum Tube Engineering Dept. of General Electric. The tube was a water-cooled version and provided an output of 2.5 kw at 75 megacycles. A smaller tube provided about 10 watts at 400 megacycles. Both were operated as oscillators.

Hot-cathode mercury-vapor rectifier tubes had been available for about two years. The 866 was being used in broadcast station transmitters and is still a popular tube today, 25 years later. Its receiver counterparts, the 82 and 83, were smaller double-diode types. These were needed for the class-B audio systems designed for home receivers in the early thirties. They

EARLY RADAR

- 1922** Reflection of radio signals from steel buildings and ships noted
- 1930** Discovery that radio signals were reflected from aircraft in flight
- 1934** Experimental pulse radar system for detection of aircraft tested
- 1936** Range achieved of 40 miles over land and resolution of 500 yards
- 1938** First service radar for marine use installed on USS New York
- 1941** 20 radar sets in operation in the Fleet on Pearl Harbor Day

dropped out of wide use quickly along with that type of audio design for home sets.

Development of the hot-cathode gas diode led to the grid-controlled gas triode, the thyatron. It went to work in 1930 in motor-control circuits.

Broadcasting

Eight clear-channel broadcasting stations were operating at 50 kw and 28 stations applied to the Federal Radio Commission (preceded FCC) for permission to go to that level. WGY and KDKA planned to go to 200 kw and 400 kw respectively for experimental purposes.

Poland was building a transmitter using six 100-kw water cooled tubes to combat propaganda broadcasts from Moscow.

Tallest of the new style of vertical antennas for a-m stations was being built for WABC, Wayne, N. J. Its height was 676 feet.

Amplion Corp. announced a transverse-current microphone in which current was forced to cross the face of the device by the provision of two carbon electrodes, located near the periphery of the diaphragm, diametrically opposite each other. Between these electrodes a shallow channel was cut and filled with granules.

A fifty-kw American-built broad-

cast station, then the largest in Europe, was operating in Rome, Italy.

Industrial Electronics

Selsyns and thyratrons were used in tube control of stage lighting at the Chicago Civic Opera House.

In several cities, electrical dis-

play signs were being lighted at dusk each evening by phototubes. In steel mills, red-hot billets as they came from the rolls were being reversed by photoelectric controls.

Carrier current dispatching systems were being used on power lines by utility companies. The longest line in regular use was 445 miles.

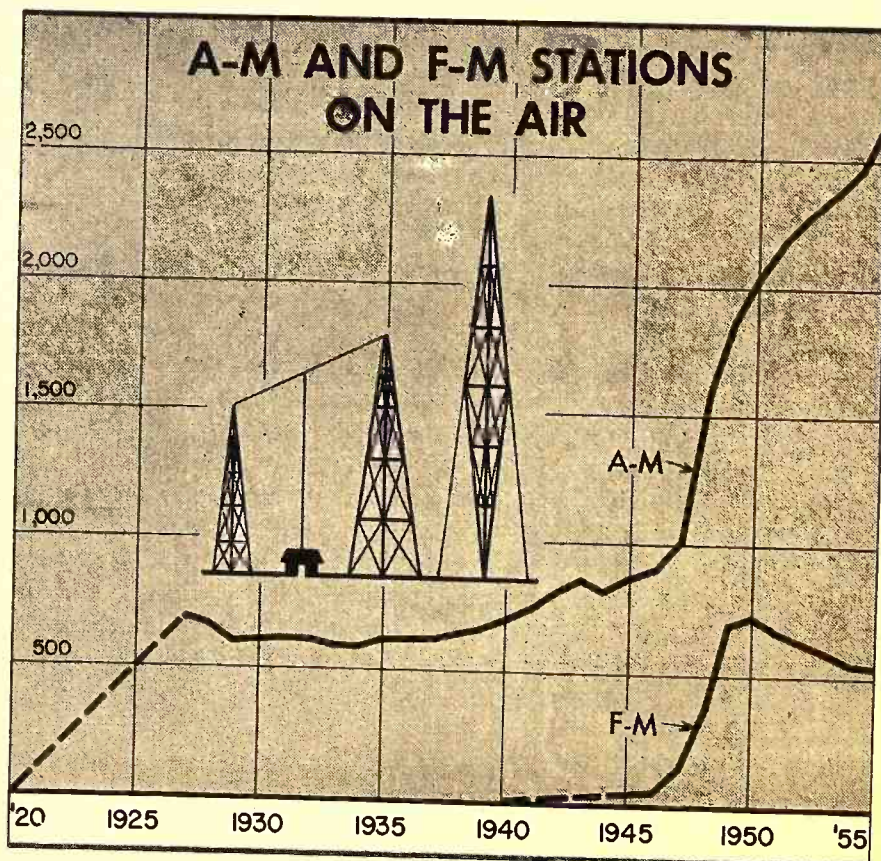
One company at least was marketing a packaged photoelectric relay. It contained a phototube, a sensitive relay, a contactor, and an amplifier tube and was designed for operation of counters, control of mechanisms and for starting and stopping machinery.

A Westinghouse vice-president in charge of engineering placed a tiny model corner stone in position and actuated phototubes, relays and motors that caused a large crane in synchronism to swing into place the actual corner stone. The work was done at the site of a new \$2 million laboratory.

Automatic door openers operated by phototubes were demonstrated at a railway supply convention in 1930.

Measurements

An electronic colorscope for analyzing hues and matching sam-



ples, even miles apart, was shown.

Sonic and x-ray tests of steel welds were demonstrated at Lehigh University. An amplifier and loud-speaker reported strains by characteristic sounds when the wall was struck in the sonic test. The x-ray revealed hidden faults visually.

Vacuum-tube voltmeters and signal generators were battery operated.

Sound Reproduction

Audiophiles may take some comfort from the fact that the advantages of push-pull versus single-ended output were shown in curves of power and distortion published in May 1930. Push-pull output was found to be double that of a single tube provided the proper load was used, and distortion was roughly one-sixth that of a single tube.

A new phonograph pickup design featured reduction of weight on the needle to 4 ounces, while keeping the pickup head weight high enough to insure the inertia of the head would not be overcome due to needle vibration.

The number of manufacturers of sound equipment totalled 154 and sales in 1929 were 125 million dollars, largely to the movie industry. The motion picture industry supplied 22,600 theatres in the United States, of which 9,500 were equipped for sound. About 5,000 more were equipped during 1930.

Amplifier loudspeaker systems were used in factories for radio programs, phonograph records and to enable the boss to address all hands without leaving his desk.

Large-Screen Movies

Wide film for panoramic pictures was used to some extent and it was estimated that universal adoption of the panoramic picture would cost the industry one half as much as the introduction of sound. "Grandeur" film was being promoted by Fox Film Corp. and a film, "Happy Days", was shown at the Roxy Theater, N. Y. on a screen 21 by 42 feet. Sound track on the 70-mm film was 250 mils in width compared to 100 mils for standard film.

It was expected that if binaural recording and reproduction became feasible that the wide sound track

INDUSTRIAL TOE HOLD

- 1922** Locomotives first used 32-volt pilotrons to amplify block-signal-code impulses inductively picked up from tracks
- 1930** 4,500 locomotives were so equipped and 7,000 miles of track protected
- 1930** Thyratrons controlled 200 color-changing projectors in floodlighting of building
- 1930** Oil burner control by grid glow and amplifier tubes was operating in several hundred homes
- 1931** Control of cut-off knives in wrapping waxed paper on cereal boxes was established in food industry
- 1931** Continuous sheet processes were using electronic oscillators for measuring thickness of rubber, and moisture in paper
- 1931** Steam valve for power plants was controlled by audio over telephone line

would be split to allow recording and reproduction of two separate systems from the same film.

Use of color film was growing and Technicolor, Photocolor, Eastman-Sonochrome, Multicolor and Harris were overcoming technical difficulties.

Television

Although there was no television broadcasting except sporadic transmissions of an experimental nature around 100 meters, attempts were made to interest the fans of the day in purchase of equipment for closed-circuit experiments or reception of the occasional broadcasts.

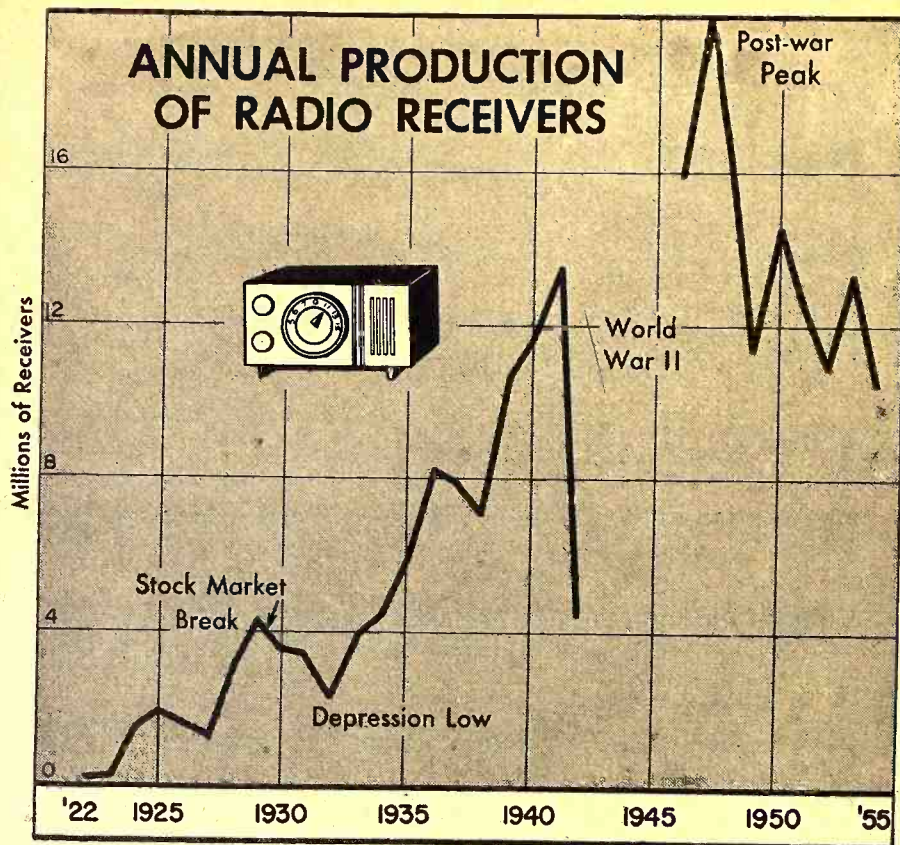
At the transmitter units, a Nipkow disk scanned light from the object being televised across the sensitive surface of a phototube to obtain the video signal. At the receiver, a similar disk was synchronized to scan the light from a neon-filled lamp. Picture size for direct viewing was one or two inches on a side, the dimensions of a flat plate in the neon lamp.

The technique provided a recognizable face with 50 lines, while 72 showed marked improvement in detail. Even with the latter, the detail was insufficient to show the

division between normal teeth in a close-up of a face. It was felt that one hundred lines might constitute a television service of good quality for reproducing faces. Viewed ten to fourteen inches from the eye and one inch square, a hundred-line reproduction was said to be the minimum which might be expected to attract and hold public attention.

A typical televisor was that of Jenkins Television Corp. The kit consisted of motor-control rheostat, television lamp house and a Faraday induction motor which drove a scanning disk at synchronous speed. The disk was obtainable in 48, 60, 24, and 45-hole types with corresponding rotors for the desired number of pictures per second. Kit and television lamp (picture tube) retailed for \$50, and up.

To provide amateurs and experimenters with a basic television transmitter and receiver, Insuline Corp. of America brought out a complete unit selling under \$300. The transmitter consisted essentially of a motion-picture projector, utilizing standard 35-mm safety film. A synchronous motor operated the projector through a suitable gear reduction and the same



motor also operated a transmitting scanner.

An optical focusing system was mounted in front of the reel housing, while a condensing lens focused the scanned diverging rays into a photoelectric cell. Closed-circuit connections were made from the photocell to the receiver, which consisted of a four-stage, resistance-coupled amplifier, working into a neon lamp.

Large-screen television was demonstrated by E. F. W. Alexanderson. The size of six by seven feet for the images was made possible by use of a high-intensity arc and a light valve. The latter, a Karolus cell, changed the plane of polarization of the light beam going through it by means of an electrostatic field. The system employed a scanning disk, too.

Communications

Regular radiotelephone service was available in 1930 to London, Paris, Buenos Aires, Havana and Mexico.

Police and fire departments of 30 American cities had transmitters operating and 22 other cities held construction permits.

Facsimile reproduction of a newspaper page was accomplished

from San Francisco to Schenectady within three hours of issue from the printing press. Radio impulses were used to transmit typewritten messages from Washington to Hampton Roads, Va.

Then operated by the Department of Commerce, the Federal monitoring station opened at Grand Island, Nebraska.

Some interesting techniques were disclosed in patents granted. One covered a method of cutting off one side band of a modulated carrier by varying the transfer admittance as a function of frequency. Another described a system of transmitting broadcast matter over wires to several subscribers, using modulated radio waves and heterodyne frequencies.

Measurements of echoes on telephone lines received attention. A method of transmitting color pictures was described in another patent.

Other patents covered a remote metering system and a method of effecting grid modulation by using a transformer in the grid return circuit of an r-f stage.

Early Diathermy

While working on high-frequency oscillators, GE engineers noticed

that their feet heated rapidly, especially when they were standing on metal plates. The company physician found that when working with a six-to-eight-kilowatt generator producing 20 to 30 meter waves the blood temperature was slowly raised when the men were close to the equipment.

Further experiments deliberately produced artificial fever in man. A high-frequency oscillator was built using two 500-watt tubes and feeding two large metal plates mounted vertically on a table. The plates were connected to the ends of the tank coil. The patient was suspended on cotton tapes stretched across a wooden frame made of two-by-six timbers. Sheets of half-inch thick Celotex further surrounded the body to form a fairly airtight chamber around it.

Temperature rises to 104 F were common and, in one instance, a temperature of 106.5 F was recorded. Best results were obtained at 10 megacycles.

Dielectric Heating

Using an r-f generator of similar power, a live mouse was subjected to increasing field intensities, with consequent increases in body temperature. Soon the mouse lost its tail, but apparently without discomfort. It was a case of dehydration; the short waves had driven out the moisture and the tail shriveled and dropped away.

Using the same equipment, insects were killed, metals were melted, rats responded to insensible heat, moisture was driven out of procelain, and hibernating fruit flies were revived despite zero temperatures.

Science

A. A. Michelson repeated his famous speed-of-ether-waves experiment in a mile-long evacuated pipe laid on the ground near Pasadena, Calif.

The concept of electrons as wave motions rather than corpuscular bodies assembled in atomic solar systems was argued before the American Philosophical Society.

Electronic synthesis of heavy atoms from light ones was demonstrated before the American Chemical Society.

Military

Japanese soldiers at the Tokyo military college were conducting experiments in operating pilotless army tanks by short-wave control from behind the lines.

A squadron of British bombing planes flew 400 miles by radio control. Pilots were aboard for take-off and landing but kept hands off controls during ground-station control.

Transmission of sketch maps and pencilled notes by facsimile was accomplished from a Signal Corps plane flying along the west coast. Part of one message transmitted was "located two subs approaching Golden Gate".

Aeronautics

The 5th annual convention of the IRE was held at Toronto in 1930. The liaison committee on aeronautic radio research reported to the Assistant Secretary of Commerce for Aeronautics the value of radio to aviation and the material progress of aeronautics that could be accomplished by research in several pertinent problems. It recommended, particularly, research in the fields of transmission data on medium and high frequencies, radio re-

ceiver design, airplane direction finders, simultaneous reception of telephone and beacon service, altimeters, collision prevention, blind landing aids, characteristics of various types of fixed antennas, ice formation on antenna, ignition in-

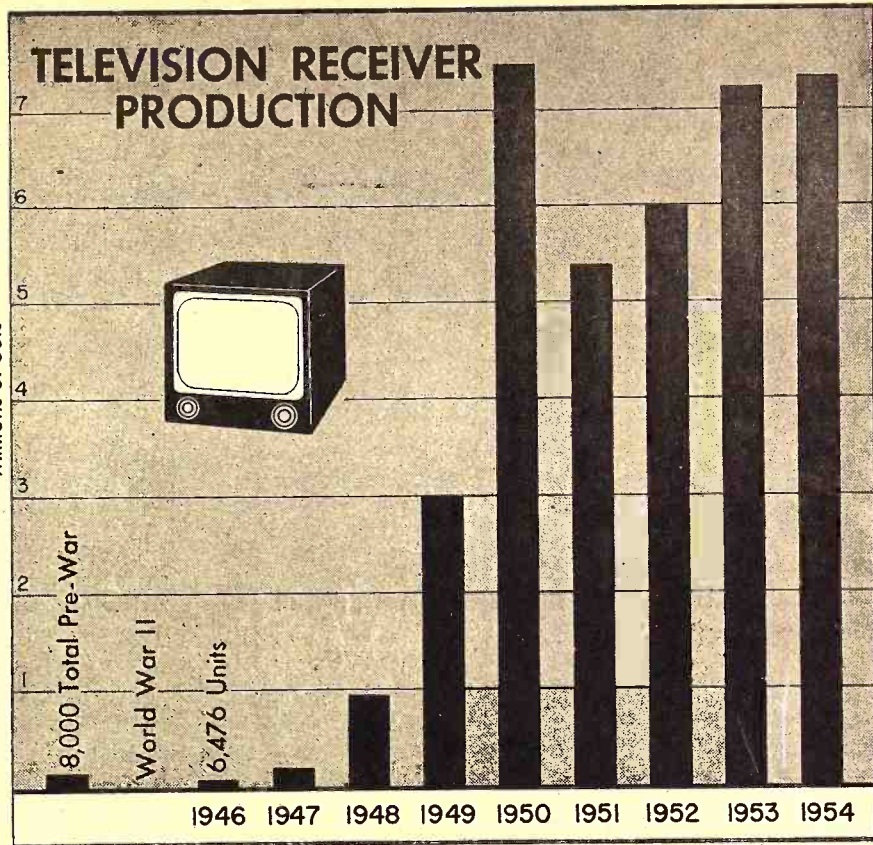
terference problems, antenna design and location of receiver, spark-plug shielding, drag of wind-driven generators and engine-driven generator problems, including ripples and voltage variation.

A television system was applied to airplanes in flight so that the pilot might locate his position and see the landing field below him despite fog.

Now Assistant Secretary of State, Herbert Hoover, Jr. was elected president of Aeronautical Radio, Inc., formed to operate the radio divisions of the principal aviation companies.

Such was the status of the electronics industry 25 years ago. The accompanying graphs show the growth of the whole industry since then. Particularly outstanding is the progress of the past five years. The present level, if level is the right word, greatly exceeds that of the wartime peak.

That this is only the beginning, and that the next 25 years will show even greater growth, is inevitable. Much of the progress in this field will continue to be due to the efforts of engineers in developing new techniques and equipment for new applications of electronics.



TRACING ELECTRON PATHS

SUMMARY—Straight edge across nomograph shows directly the angle of reflection of an electron when angle of incidence and ratio of potentials for adjacent areas are known. Electromagnetic waves through several media are similarly traced

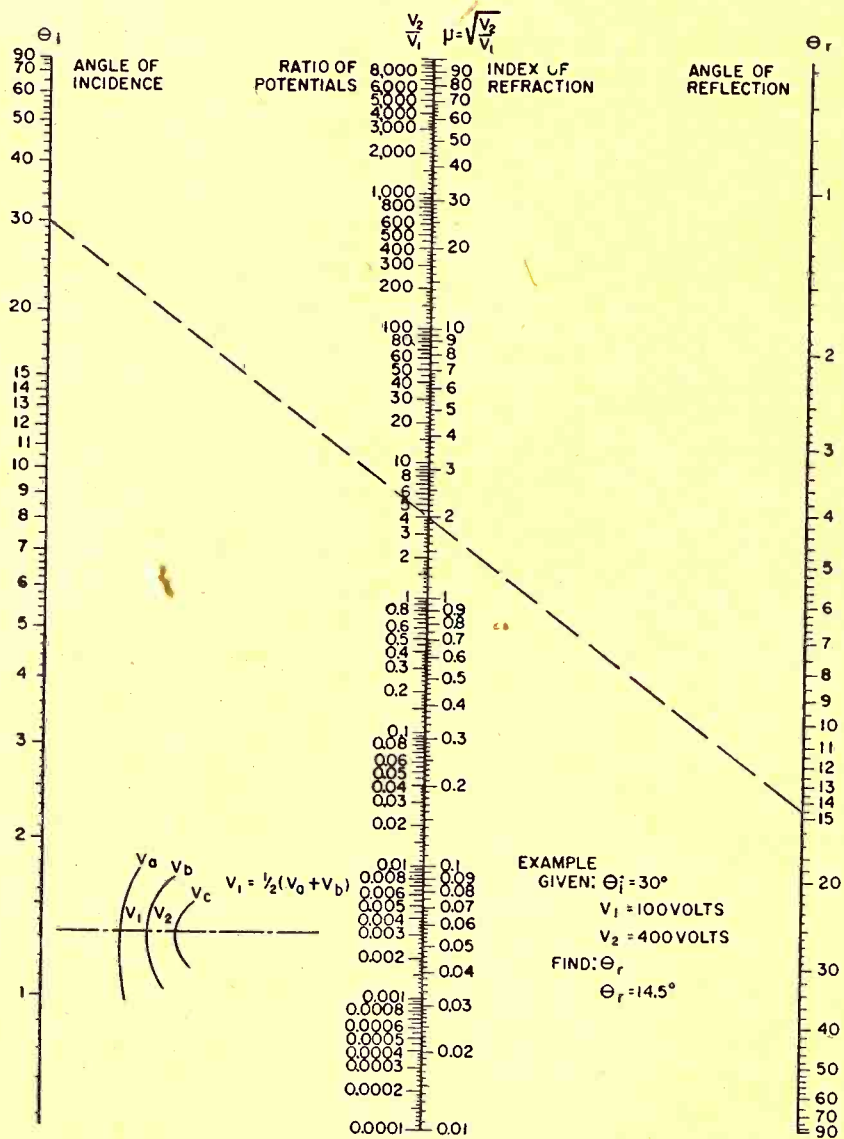
By WILLIAM J. SPAVEN

THE PATH of an electron through an electrostatic field may be readily determined by the repeated application of Snell's law, given the initial electron potential, the angle of incidence and the ratio of electron potential for two areas.

A simple procedure using a nomograph is outlined here. Determine the initial velocity of the electron entering the field in terms of potential V_1 . Obtain a plot^{1,2,3} of the equipotential lines of the field. Determine the angle θ_i at which the electron enters the field. This angle is measured from a line perpendicular to the boundary line at the point of entry.

Determine the average potential for the area between the first and second equipotential lines, as $V_1 = \frac{1}{2}(V_a + V_b)$. Determine the ratio of the two potentials. Referring to the nomograph, draw a straight line between the point corresponding to the angle of incidence θ_i and the point corresponding to the ratio of the two voltages. Extend the line to θ_r on the nomograph. The point of intersection gives the angle of refraction.

Repeated application of the process for succeeding areas will yield the path of the electron through the electrostatic field.



Although developed to aid in tracing electron paths and therefore useful in solving electron optics problems, the nomograph may also be used to trace paths of electromagnetic waves through several media with different wave velocity characteristics.

REFERENCE

- (1) Zworykin, Morton, Ramberg, Hillier and Vance, "Electron Optics and the Electron Microscope," John Wiley and Sons, Inc., New York, N. Y.
- (2) Spangenberg, "Vacuum Tubes", McGraw-Hill Book Co., Inc., New York, N. Y.
- (3) Klemperer, "Electron Optics", Cambridge University Press, London, England.

DIELECTRIC MIXTURE CHART

SUMMARY—Nomograph determines dielectric constant of mixture of two dielectrics when their respective dielectric constants and proportions are known. Computation is useful for filled resins used in encapsulation

By ELIO SION

PLASTIC materials used for encapsulation are often mixed with filler material such as glass fibers, asbestos, silica or alumina to reduce shrinkage and increase

dimensional stability. The dielectric constant of the resulting compound can be determined from the nomograph given here.

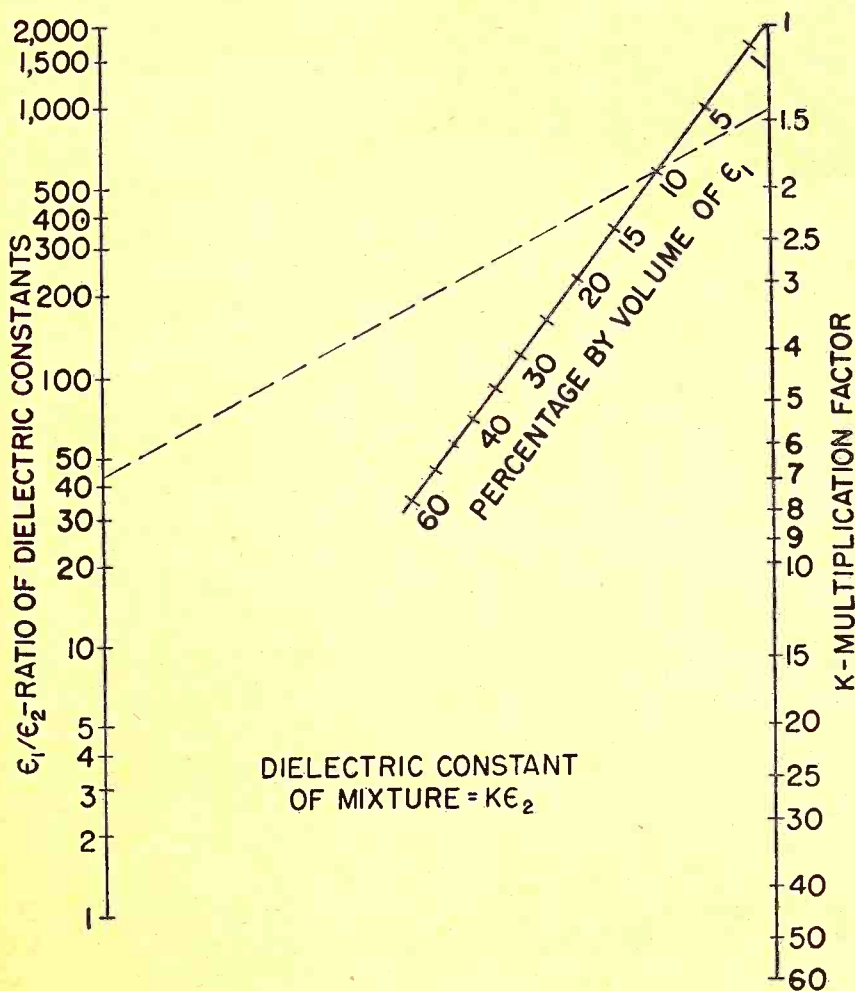
The law governing the di-

electric constant of a mixture of two different dielectrics is

$\log E = p_1 \log \epsilon_1 + p_2 \log \epsilon_2$ where E is the dielectric constant of the resultant mixture and p_1 and p_2 are the percentages by volume of substances with dielectric constants ϵ_1 and ϵ_2 respectively. For convenience, this nomograph assumes ϵ_1 to be the additive and to have the higher dielectric constant.

To find the dielectric constant of a mixture, find the ratio ϵ_1/ϵ_2 and enter the left-hand scale at this value. Draw a line joining this value with the percentage by volume of ϵ_1 to be added on the intermediate scale. The intersection of this line with the right-hand scale yields the factor K which is the value by which ϵ_2 is to be multiplied to give the dielectric constant of the new mixture; that is, $K\epsilon_2 = E$.

For example, to find the resultant dielectric constant of a mixture containing 10 percent rutile (TiO_2) by volume for which $\epsilon_1 = 110$, and 90 percent polystyrene for which $\epsilon_2 = 2.54$, enter the left-hand scale at $\epsilon_1/\epsilon_2 = 110/2.54 = 43.4$, join the intermediate scale at 10 percent and extend the line finding $K = 1.46$. Hence the dielectric constant of resultant mixture is $E = K\epsilon_2 = 1.46 \times 2.54 = 3.7$.



VHF TRANSMISSION LINE CALCULATOR

By A. E. SANDERSON

SUMMARY—Phase shift and attenuation introduced by transmission line connecting unknown impedance and measuring equipment can be quickly corrected by use of simplified calculator dial together with Smith or $Z-\theta$ chart. Dial is also useful in design of filters, antennas and matching networks

CORRECTION of vhf impedance measurements for phase shift and attenuation introduced by the transmission line connecting an unknown impedance with measuring apparatus can be made with the calculator shown here.

It is used in conjunction with

either a Smith chart or $Z-\theta$ chart. With this device corrected measurements may be plotted directly on the Smith chart without the necessity of reading values from a separate calculator and transcribing them. Scales not necessary for transmission line corrections are omitted for sim-

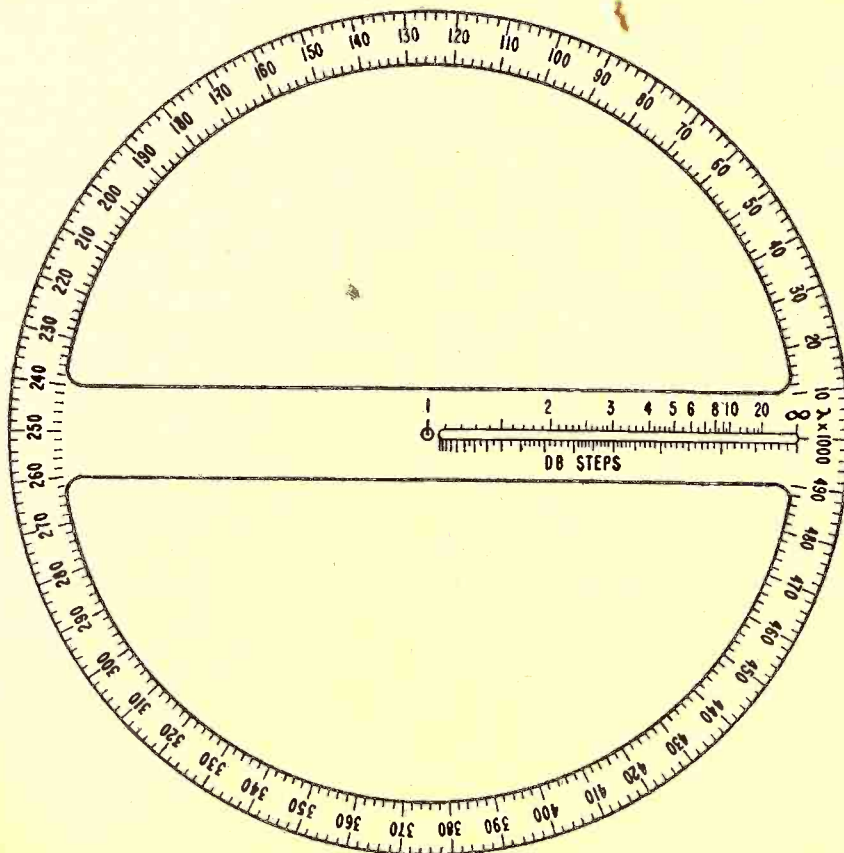
plicity on the chart below.

An impedance curve plotted on these charts is valuable in the design of vhf filters, matching networks and antennas. Such a curve will tell not only how good the network may be in terms of vswr, but with proper interpretation, will tell exactly what steps should be taken to perfect the design of the network.

Calculator Design

The transmission line calculator consists of a clear plastic disk about 8 inches in diameter with printed scales. Two D-shaped sections and a radial slot are cut out of the disk to allow marks to be made directly on the graph paper as the measurements are taken. A small hole is located at the center for a thumbtack pivot.

A scale around the outer perimeter of the calculator is marked off in units of $1/1,000$ wavelength. The scale goes from 0 to 500, since 1 revolution of the calculator corresponds to the phase-shift correction for a section of line $\frac{1}{2} \lambda$ in length. A scale along the upper edge of the radial slot from the center to the outer edge of the calculator is marked off in vswr from 1 at the center to ∞ at the outer edge. This scale is nonlinear, but may easily be calculated from the re-



lation $vswr = (1 + \Gamma)/(1 - \Gamma)$ where Γ is a linear function, being 0 at the center and 1 at the outer edge. This scale allows impedance points to be interpreted directly in terms of vswr.

A third scale extends along the lower side of the radial slot from the center to the outer edge of the calculator. This scale is marked off in db steps, starting from the outer edge as reference. Each db step represents the radial movement of a point by a given percentage of its distance from the center. Since this motion can be either toward or away from the center, no numbers appear on the scale. Lines marking 1-db steps are longer than the intermediate lines. This scale allows corrections to be made for the effect of line attenuation.

To determine proper line corrections as a function of frequency for the length of line used between the measuring equipment and an unknown impedance, the line is first terminated in a known or calibrating impedance. This may conveniently be a short circuit. The input impedance of the line is then measured at one frequency and the point is plotted on the Smith chart. The calculator is placed over the Smith chart and rotated until the slot is aligned with the point. Assuming a short-circuit termination, the phase correction for the line is read on the outer scale of the calculator at zero ohms on the Smith chart. The attenuation correction is the number of db steps between the measured input impedance point and the outer end of the scale.

This process is repeated for each frequency at which measurements are to be made and the phase and attenuation corrections recorded. The line input impedance can then be transformed to corresponding terminating impedances and plotted directly on the Smith chart.

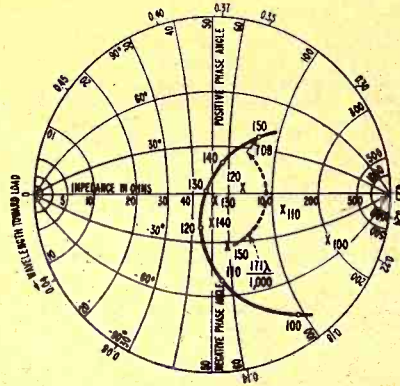


FIG. 1—Solution of transmission line problem. Input impedance of transmission line is indicated by crosses and impedance of antenna by circles

To do this, the short-circuit is replaced by the unknown impedance and the input impedance of the line is measured at one of the chosen frequencies. The slot of the calculator is then positioned over the point representing this measured impedance. Moving outward along the slot from this point by the tabulated db step correction gives the vswr of the unknown terminating impedance. The calculator is then rotated counterclockwise by the tabulated phase correction and the chart is marked through the slot opposite the vswr previously established. The impedance represented by this point is the terminating impedance.

With lines that are several wavelengths long, some precautions should be observed. Frequencies of measurement must be accurately determined, preferably with a crystal calibrator, be-

Table I—Line Corrections for 133-mc Antenna

Frequency in Mc	Phase Correction	Attenuation Correction in Db Steps
	λ 1,000	
100	455	0.7
110	398	0.7
120	341	0.7
130	285	0.7
140	228	0.7
150	171	0.7

cause a small frequency error will result in a large error in the phase-shift correction.

Attenuation correction may become large and should therefore be determined quite accurately. For best accuracy, the calibrating impedance should have a vswr fairly close to that of the unknown impedance since the attenuation of the line is a function of vswr and will be greater for large vswr. If such a calibrating impedance is used, the line corrections must be determined by a method analogous to that described above for a short-circuit termination.

Example

As an example, consider the determination of the input impedance and resonant frequency as seen at the terminals of an experimental antenna unit mounted on a finite ground plane. The desired resonant frequency is 133 mc. The line used to feed this antenna has a characteristic impedance of 50 ohms.

Figure 1 illustrates measured data on such an antenna, plotted with the calculator. The antenna was replaced by a short-circuit and input impedance of the shorted line was measured at 100, 110, 120, 130, 140 and 150 mc. A table of line corrections was then made up (see Table I). The antenna was put back on the line, the new input impedances were measured, corrections applied and a corresponding series of five points were obtained. A smooth curve connecting these points intersects the axis of pure resistance at 46 ohms. The frequency at which this occurs is 129 mc. When the antenna was shortened to become a pure resistance at 133 mc, the vswr was 1.08.

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NORMALIZED FILTER DESIGN

By SAMUEL D. BEDROSIAN and R. McCOY, Jr.

SUMMARY—Design chart for composite low-pass filters permits predetermining decibels of rejection from trial design. Six normalized designs are presented as examples to cover a practical range of stop-band loss

THERE IS NEED for a simple means of predetermining the rejection in decibels to be expected from a trial design of a composite filter to meet specific requirements.

Six normalized precut designs which cover a practical range of stop-band loss are presented.

Equal-ripple or Chebychev behavior of the stop band of a low-pass filter is illustrated in

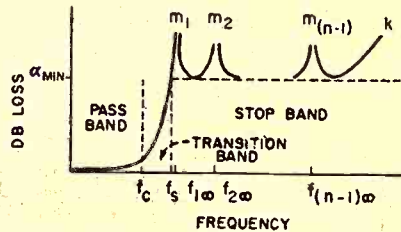


FIG. 1—Ideal Chebychev stop-band response

Fig. 1. The attenuation loss of the filter in the stop band is al-

ways greater than a prescribed minimum loss.

The normalized curves shown in Fig. 2 are derived by conventional Zobel design to give such equal-ripple attenuation loss. Each curve is related to a ladder-filter structure consisting of one k section and a number of full m -derived sections as shown in Fig. 3A. Note that the curve numbers in Fig. 2 indicate the number of elements in the com-

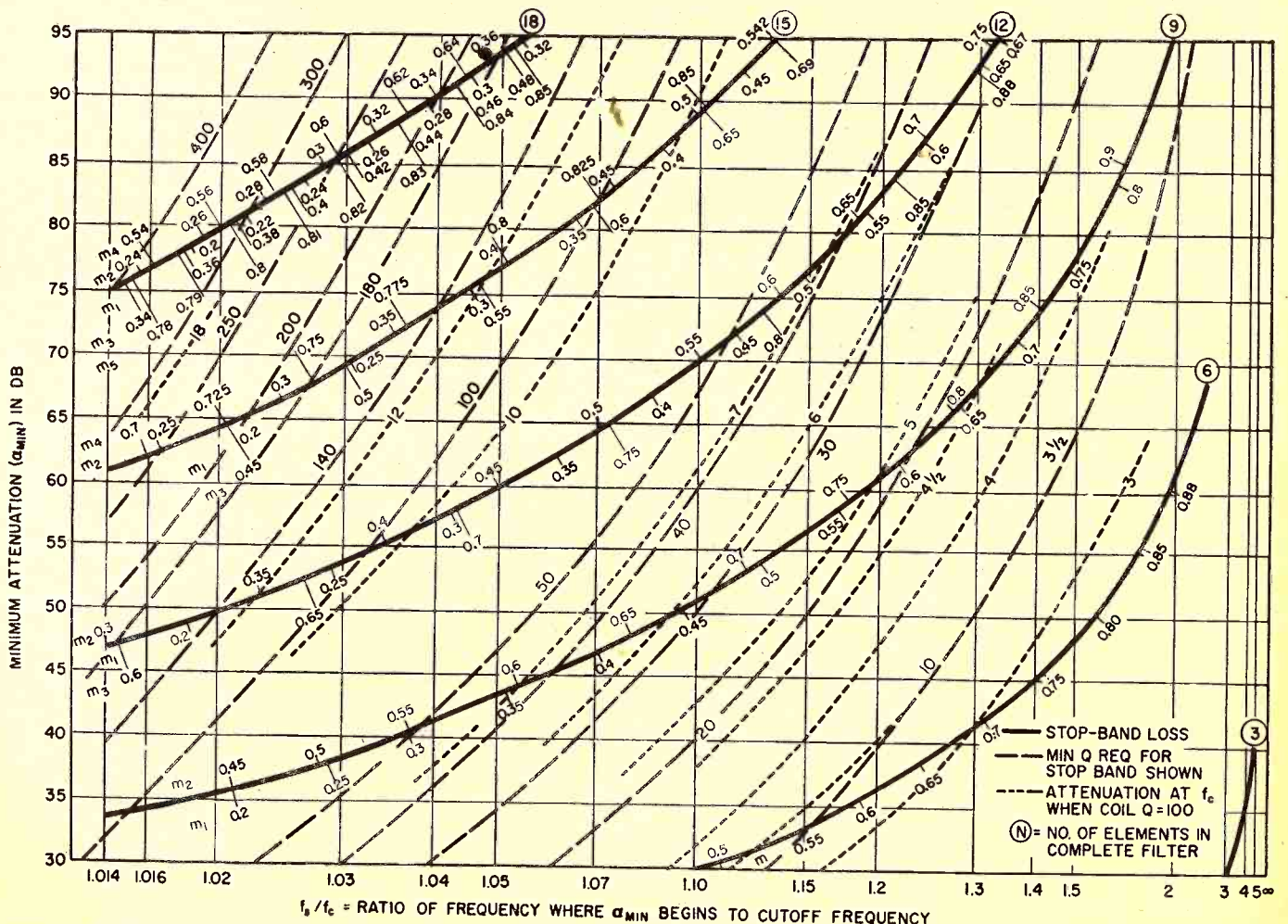
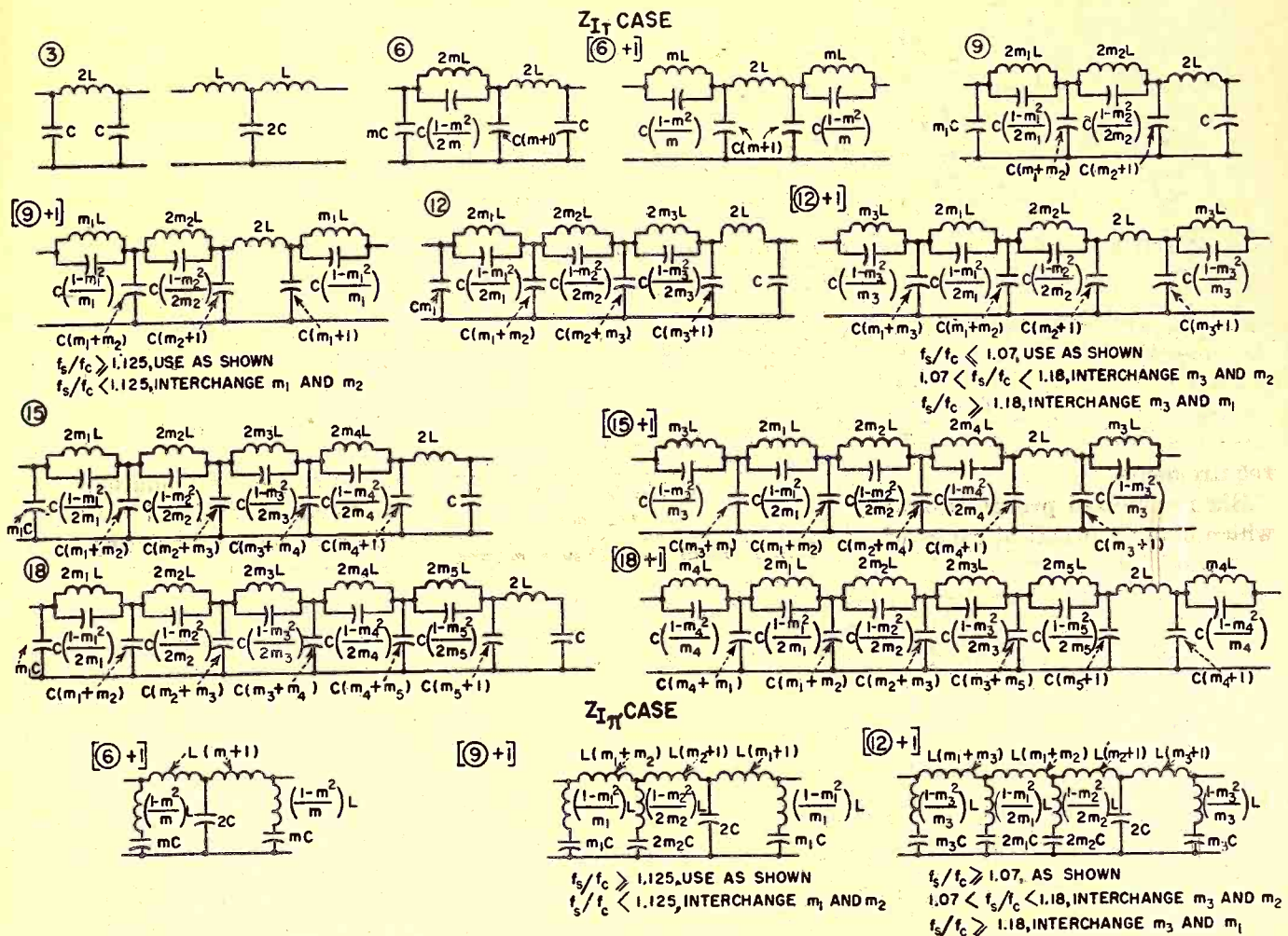


FIG. 2—Design chart. Encircled numbers on curves represent number of elements in complete filter

Table I—Filter Configurations



plete filter. Figure 3B gives the image-impedance characteristic of this network in the pass band.

To obtain a better impedance match with resistive circuits, while maintaining the same attenuation-loss characteristic, the filter section having an m value closest to 0.6 may be divided and used as terminating half-sections at each end. This will result in a complete filter network with only one additional element as shown in Fig. 4A. Various image-impedance characteristics may be obtained depending on the choice of m for the end section as shown in Fig. 4B.

Other variations in network configuration are possible, some of which are given in Table I.

Since image-parameter filters are being considered, corrections must be made to theoretical attenuation to give the insertion loss of the network for resistive

circuit applications. Insertion loss is the sum of attenuation, reflection and interaction losses.

Corrections to the stop-band loss due to reflection loss at both ends of the filter are given in Fig. 5 for the k (or $m = 1.0$) and $m = 0.6$ types of termination. Note that the reflection effect does not assist in providing the desired net loss. Thus it indicates the basis for the rule of thumb which calls for a 6-db safety factor in the attenuation characteristic when designing conventional filters.

Interaction loss is negligible for attenuation losses greater than 15 db. It is not important in the pass band, but is a factor near the cutoff frequency.

Loss Characteristic

Two design conditions must be known or established before using the curves which give the

constants needed in low-pass filter design equations. The first is the minimum attenuation loss (α_{MIN}) desired in the stop band. The second is the steepness of the transition band as expressed by f_s/f_c , the ratio of the frequency at which the minimum attenuation begins (f_s) to the cutoff frequency (f_c). The use of these two values as coordinates locates a point on Fig. 2, on or near one of the solid stop-band attenuation loss curves.

If the nearest stop-band attenuation-loss curve, with appropriate allowance for reflection loss, does not meet the design conditions either or both design conditions must be changed so the point selected will be located on an attenuation loss curve. The particular stop-band attenuation loss curve selected determines a specific filter network

given in Table I. The required m values can be read at the point selected on the curve.

The long-dash curves in Fig. 2 indicate the Q necessary in the tuned circuit, giving the first peak in the attenuation-loss characteristic to obtain the desired minimum attenuation loss in the stop band. If the necessary Q is too high to be readily obtainable, one or both design conditions must be altered to find a new point on the same or a higher-order curve. It is possible to use active circuits employing Q multipliers or transistors if the filter application warrants this added complication. Figure 6 permits calculation of loss at the nominal cutoff for other values of Q .

Figure 7 provides data to permit determination of the effect of Q on the theoretically infinite loss at the critical frequencies when additional discrimination against particular frequencies is required.

In filter work it is usual to employ essentially lossless capacitors so the Q value of the filter network is the Q of the coils used measured at the cutoff frequency. In the event that all the coils do not have approximately the same Q , the m sections with theoretically infinite frequency closest to cutoff frequency are the most critical.

The previous procedure refers

Table II—Transformations of a K Section

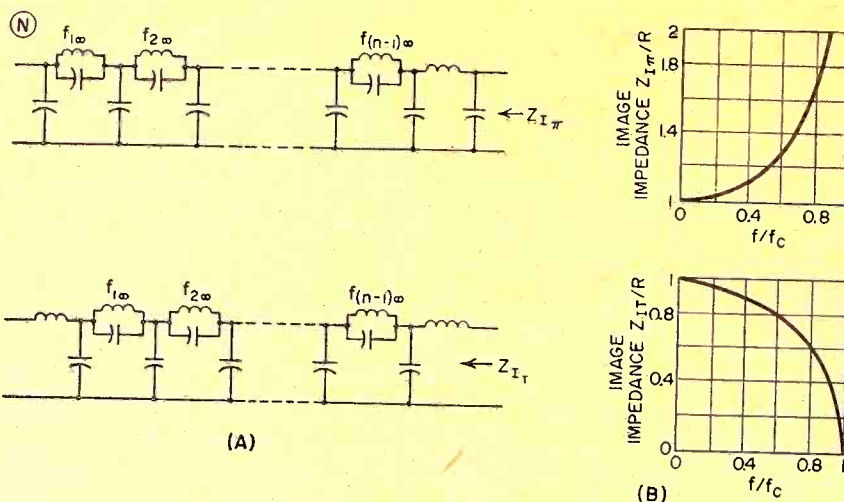
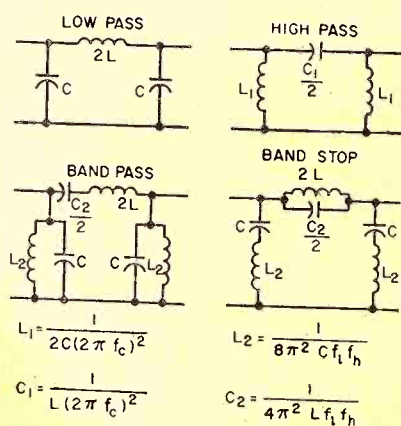


FIG. 3—Filter networks with N elements (A) and impedance characteristics (B)

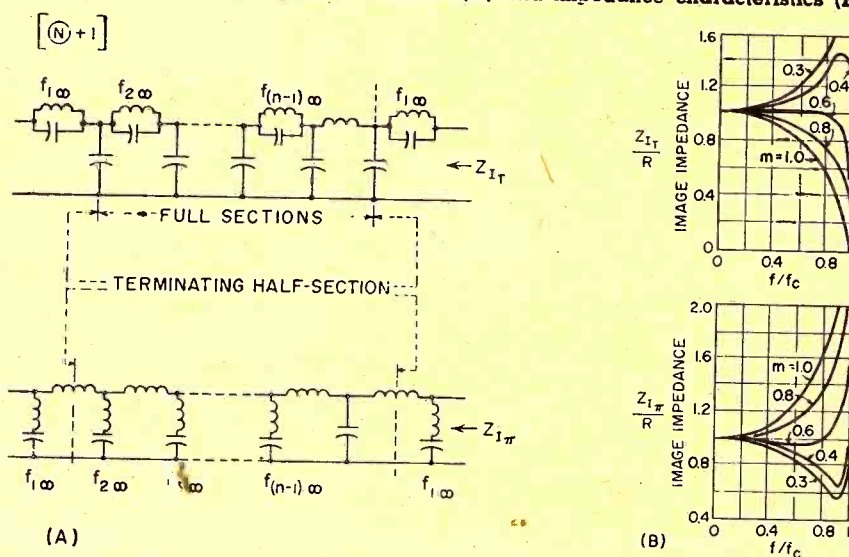


FIG. 4—Filters of Fig. 3 with additional element as terminating half-section at ends

to the filter configurations of Table I. Actual choice of network depends on such considerations as the terminating impedance to be matched and the availability of inductors and capacitors. Note that the preferred combination of m values is indicated in the table for the $[(N) + 1]$ element case to give terminating half-sections closest to $m = 0.6$.

Since impedance and cutoff frequency of a normalized filter are both unity, the transformation required to get a practical filter is accomplished by making R equal to the desired nominal filter impedance in ohms and setting f_c equal to the desired cutoff frequency in cps. The data in Fig. 2 and 6 should be used as a guide to adjust the nominal

cutoff frequency to get the effective cutoff frequency of the low-pass filter.

The element values for the normalized filter networks of Table I are given by $L = R/(2\pi f_c)$ in henrys and $C = L/R^2 = 1/(2\pi R f_c)$ in farads. The m -parameter values are read from Fig. 2.

The value of $(1 - m^2)/(2m)$ which appears for every full m -derived section is given in Fig. 8.

Examples

(1) A low-pass filter is required with 40-db rejection in the stop band. The pass band extends to 2.2 kc (3-db point) and the stop band starts at 3.1 kc. Nominal impedance is 500 ohms. Compute the steepness factor

$f_s/f_c = 3.1/2.2 = 1.41$. Use the rule of thumb of 6-dB additional loss in the stop band since no specific details are available on the impedance requirement.

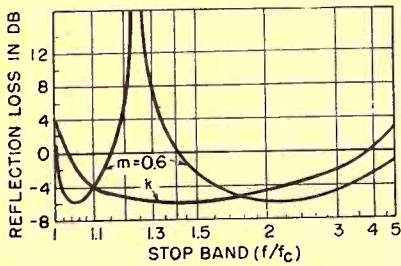


FIG. 5—Stop-band loss due to reflection loss at ends of filter

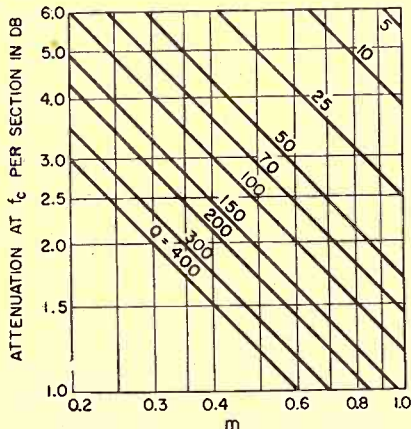


FIG. 6—Loss at cutoff frequency

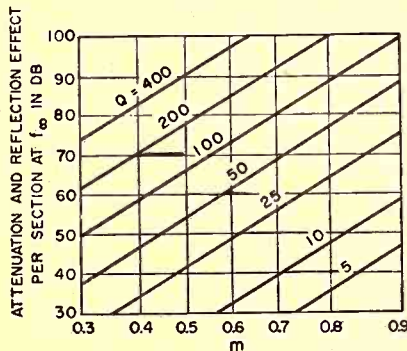


FIG. 7—Effect of Q on infinite loss at critical frequencies

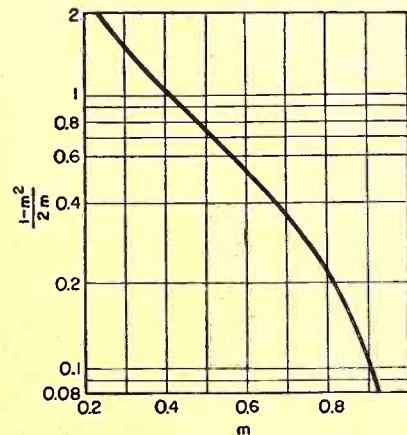


FIG. 8—Magnitude of $(1-m^2)/(2m)$ vs m

Keeping Fig. 5 in mind refer to Fig. 2 where the requirement of 46 db is met by curve 6.

Note also from Fig. 2 that the required Q is less than 10, which imposes no problem. The loss at cutoff is less than 3 db for coils with a Q of 100. Reading the curve, $m = 0.74$ for $f_s/f_c = 1.41$.

Figure 8 shows $(1 - m^2)/(2m) = 0.305$ for $m = 0.74$. For a terminating half-section, this factor is twice as large or 0.611.

Calculate the prototype inductance and capacitance, $L = 500/(2\pi \times 2,200) = 36.171$ mh and $C = 0.03617/(500)^2 = 0.1447$ μ f.

The complete filter is shown in Fig. 9A and the measured characteristics are shown in Fig. 9C. Coil Q is 50 to 55 at 2.2 kc.

(2) A low-pass filter is required to pass up to 4 kc (3-dB-down point). The stop band with a minimum of 40-dB rejection starts at 4.85 kc. The nominal impedance is 600 ohms.

Checking the curves in Fig. 2, it is found that curve (9) looks promising for 46 db attenuation $(40 + 6)$, in that it gives 1.06 for steepness factor f_s/f_c ; therefore $f_c = 4.45$ kc.

Proceeding as in the previous example, calculate the element values after reading off the m

parameters. The complete filter for $[(9) + 1]$ elements (Z_{IT} case) with $m_2 = 0.62$ and $m_1 = 0.375$ is shown in Fig. 9B. The loss at the theoretical cutoff equals 6.3 db using data found on Fig. 6 for $Q = 100$. Measured characteristics for this filter are given in Fig. 9C. Coil Q is 90 to 100 at 4 kc.

Network Transformation

Ordinary reactance-frequency transformations can be utilized to convert a low-pass filter into a high-pass, band-pass or band-stop filter. For low pass to high pass, change every coil to a capacitor and every capacitor to a coil; for low pass to symmetrical band pass, change every coil to a series-tuned circuit and every capacitor to a parallel-tuned circuit; for low pass to a symmetrical band stop, change every coil to a parallel-tuned circuit and every capacitor to a series-tuned circuit. This is shown for a k section in Table II. The low-pass frequency scale, f/f_c , is transformed to f_c/f_s for high-pass, to $[f_{sm} - (f_s f_n / f_{sh})] / f_n - f_i$ for band pass and to $(f_{sh} - f_i) / (f_{sh} - f_n f_i / f_{sh})$ for band stop.

Note in Fig. 10 that $f_c = f_{sh} - f_i$; $f_s = f_{sh} - f_{sl}$ and $f_i f_{sh} = f_s f_{sl}$.

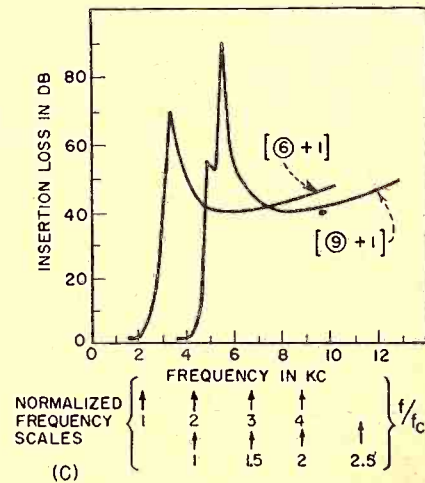
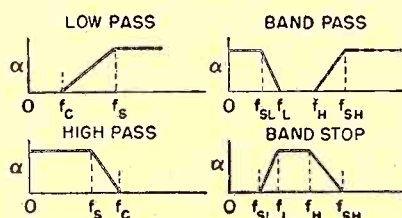
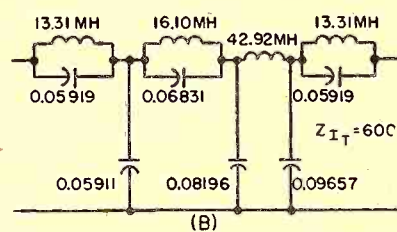
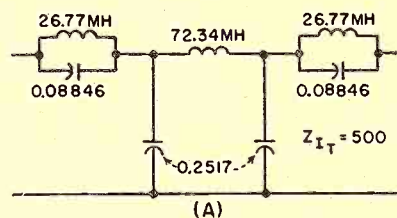


FIG. 9—(above) Filter configurations (A and B) for examples in text and characteristics (C). Coils wound on molybdenum Permalloy toroids with 0.8-in. diameter and permeability = 125

FIG. 10—(left) Converted filter characteristics

DELAY-LINE DESIGN

SUMMARY—Simulating networks to replace delay lines may be designed from nomograph that relates time delay to inductance, capacitance and impedance of line. Expanded scales determine additional significant figures

By **JOSEPH F. SODARO**

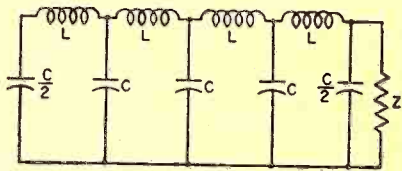


FIG. 1—Simulated time-delay network

DELAY-LINES may be either a coil of transmission-line or an artificial line or simulating network as shown in Fig. 1.¹

The time delay in seconds for n unit lengths of line is

$$t = n \sqrt{LC} \quad (1)$$

and the characteristic impedance in ohms is

$$Z = \sqrt{L/C} \quad (2)$$

in which L is the inductance per unit length in henrys and C is the capacitance in farads.

When long delays are required from a small component, the delay network is used. In this case n is the number of sections.

The nomograph evaluates Eq. 1 and Eq. 2 for either transmission-line or lumped-constants networks. Select the desired time delay on the t scale. Pivot a straightedge about this point and read combinations of inductance and capacitance on adjacent L and C_1 scales, which give the required time delay. Next, place the straightedge on the same values on the L and C_2 scales. Read characteristic impedance in ohms where the straightedge crosses the Z scale. This procedure may be reversed if Z is the independent variable.

Each scale stem has two sides. The right-hand scales are expanded left-hand cycles. Use the left-hand scales for decimal-point location. Use the right-hand scales for significant figures.

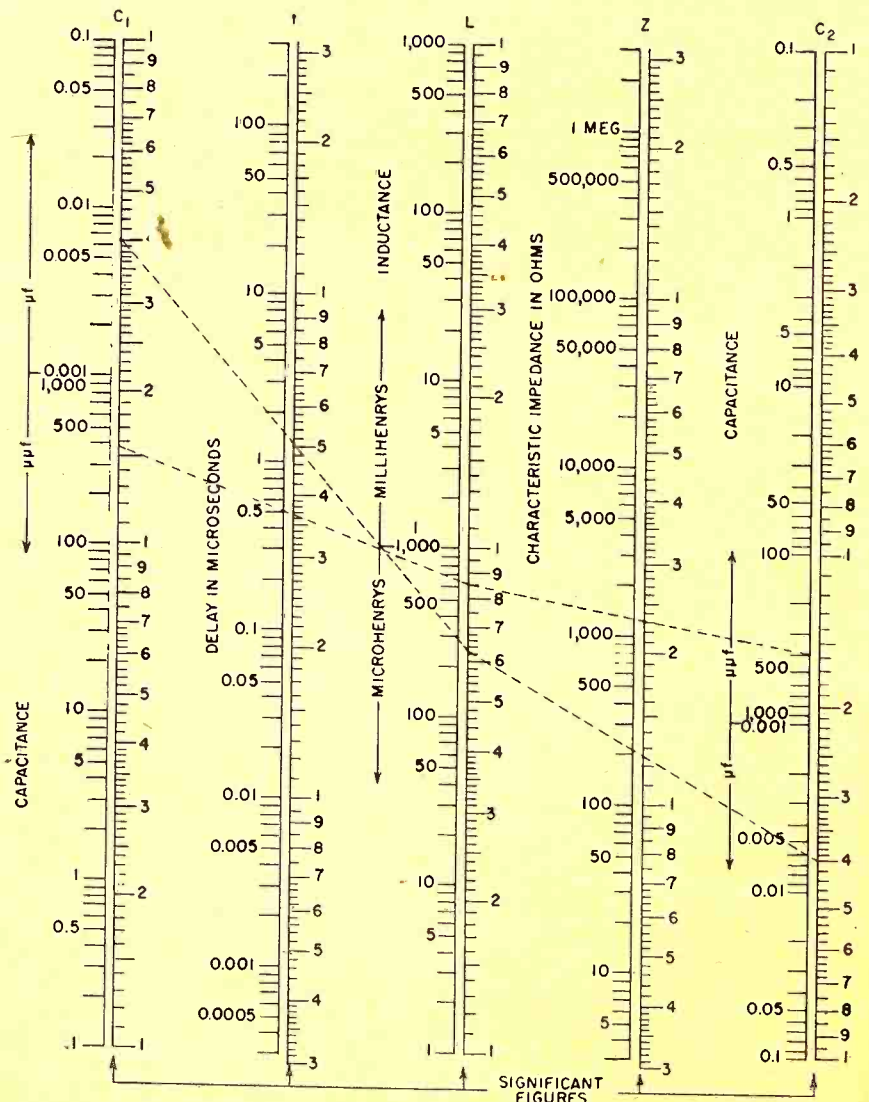
As an example, design a 10-section line having a total delay of 5 μ sec. Since the delay per section is 0.5 μ sec, place a straightedge on 0.5 on the t scale. Pivot the straightedge about this point selecting 400 μ mf on C_1 as a value of shunt capacitance. Estimate

630 μ h where the straightedge intersects the left-hand L scale. Repeat on right-hand scales to obtain 625 μ h.

Place the straightedge on the same values on left-hand L and C_2 scales. Estimate 1,300 ohms on the left-hand Z scale. Repeat on right-hand scales to read 1,250 ohms.

REFERENCE

(1) Allen A. Barco, Measurement of Phase Shift in Television Amplifiers, *RCA Review*, Apr. 1939.



POWER RATING PARASITIC SUPPRESSORS

SUMMARY—Incomplete bypassing of parasitic suppressors to harmonic currents imposes power requirements on the resistors. Chart enables designer to estimate power ratings of resistors used as parasitic suppressors

By **JOSEPH A. HUIE**

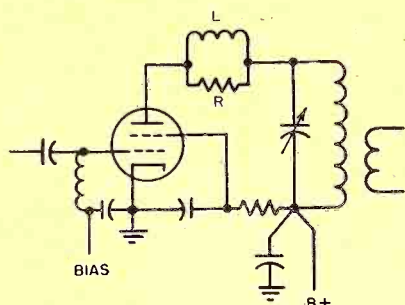


FIG. 1—R-L parasitic suppressor

ONE most common and effective method for preventing vhf parasitic oscillation in high-frequency amplifiers is use of a parallel R-L network in the plate lead of the amplifier as shown in Fig. 1. The coil is usually about 4 to 6 turns wound on a small form, often the resistor. The resistor value is normally between 50 and 100 ohms.

It is sometimes assumed that the coil at the operating frequency acts as a perfect bypass so the resistor carries no current and the wattage rating is not important. This is not strictly the case. The coil always has some reactance and at high operating frequencies this becomes an important consideration.

The curves relate the factor K

to the inductive reactance-over-resistance ratio X_L/R at the fundamental frequency, where K is proportional to the square of the effective heating current through the resistor. Curves are given for three values of conduction angle in class-C amplifier operation. The curves were computed assuming $a = 3/2$ and considering all harmonics up to the fourth.

Example

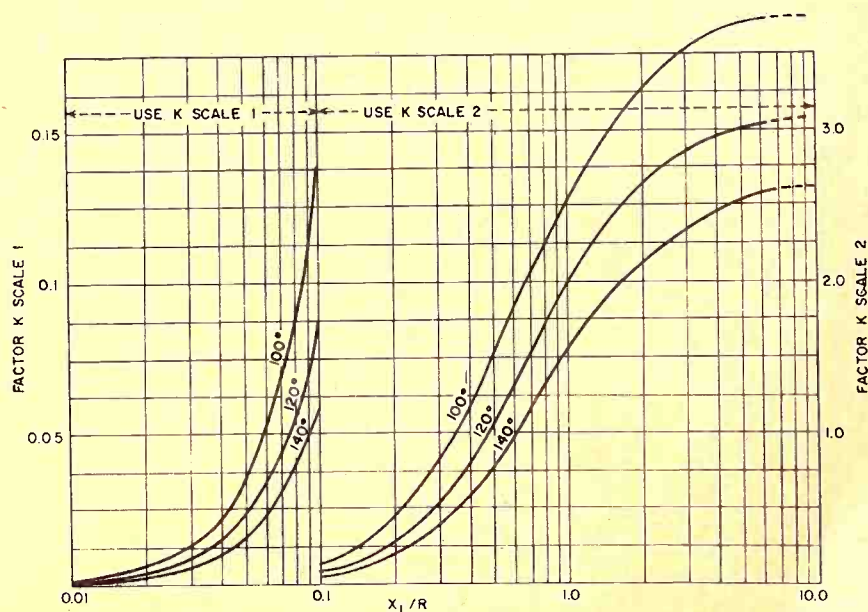
The power dissipated in the parasitic suppressor resistor is $I_{a-c}^2 RK$, where I_{a-c} is the d-c plate current in amperes, R is the resistance in ohms and K is the factor taken from the curves.

The following information is known: coil = $\frac{3}{8}$ in. dia \times $\frac{5}{8}$ in. long, 5 turns; resistor = 47 ohms; $I_{a-c} = 200$ ma.; conduction angle = 120 deg and frequency = 20 mc.

The coil inductance can be computed or measured to be about $0.115 \mu\text{h}$. Then $X_L = 2\pi fL = 14.4$ ohms and $X_L/R = 0.308$.

From the curves K is found to be 0.6, so the power dissipated in the resistor is $I_{a-c}^2 RK = 1.12$ watts.

If the amplifier is modulated 100 percent with a sine wave, the resistor power will be about 1.5 times the unmodulated power or 1.68 watts. A 2-watt resistor should then be used.



DESIGNING OVER-HORIZON

SUMMARY—Long-distance, wide-band circuits are possible using the phenomenon of tropospheric propagation provided high transmitter power and diversity receiving equipment are used. Design considerations, including antenna gain and order of diversity, show how to set up a working system with a given percentage of reliability

POINT-TO-POINT communication with ultrahigh and super-high frequency transmissions has always appeared attractive because of three important considerations: high reliability as a result of freedom from ionospheric, atmospheric and geomagnetic disturbances; large information bandwidths; and privacy.

For many years these transmissions were believed to be of service only within or slightly beyond the radio horizon, although Marconi refused to recognize this limitation. However, with advances in transmission and reception techniques and in the technology of materials, it was demonstrated that useful signals could indeed be propagated well beyond the horizon, for distances of several hundred miles, possibly by a forward-scattering mechanism or by progressive partial reflections within the troposphere.

The discussion presented here outlines briefly the design of typical point-to-point over-the-horizon cir-

cuits, with emphasis on the operating margins that must be incorporated for accommodation of various types and grades of service.

Frequency Range

The frequency range from 100 to 5,000 mc is best suited for point-to-point over-the-horizon (o-h) transmissions. The propagation mechanism still operates at frequencies as low as 30 mc, but difficulties in achieving narrow-beam antennas and intrusion of ionospheric effects raise the lower limit to about 100 mc.

The upper frequency limit is established by the heavy absorption of very short microwave radiation by water vapor in the atmosphere. Accordingly, the relationships that will be employed in discussing various system parameters as a function of frequency will be treated as valid only in the range 100 to 5,000 mc.

The path loss between two points connected by an o-h link consists of two major contributions, a free-

space loss and an over-the-horizon loss. This breakdown of the total loss is purely a bookkeeping convenience, since experimentally only the total loss can be measured. The free-space loss contains the frequency dependence, while the o-h loss (in the 100-5,000 mc range under discussion) is substantially independent of frequency.

Both losses, however, are dependent upon distance, with the o-h loss exacting the greater toll at long distances. The free-space loss represents the reduction in power density with increasing distance in free-space from the source of radiation. The frequency dependence of the free-space loss stems from the variation in collecting area (expressed in square wavelengths) of any receiving aperture of given gain as the frequency is altered.

The o-h loss is the loss remaining when the free-space loss expressed in decibels is subtracted from a median total loss (also in db) determined by a number of experiments^{1,2,3} over the frequencies and distances of interest. Various theoretical foundations for the form of the o-h loss⁴⁻⁷ have been given. It is the experimentally determined path loss that must be principally considered in the design of point-to-point o-h links.

Free-Space Loss

The free-space loss, L_{fs} , when expressed in decibels, takes the form

$$L_{fs} = 10 \log_{10} \frac{G_r G_t}{P_r / P_t} = \quad (1)$$

$$20 \log_{10} \left(\frac{4\pi d}{\lambda} \right) = 22 + 20 \log_{10} (d/\lambda)$$

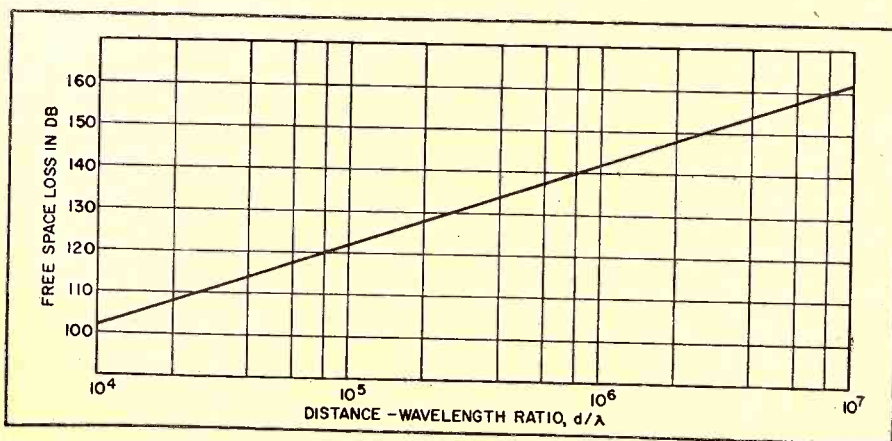


FIG. 1—Free-space loss is dependent upon distance and wavelength

COMMUNICATIONS LINKS

By DAVID DAVIDSON and ALFRED J. POTÉ

where P_r is the received power at a receiving antenna of gain G_r in the direction of the link, P_t is the transmitted power delivered to an antenna of gain G_t in the direction of the link, d is the distance between terminals and λ the wavelength. Note that it is the ratio d/λ , the distance in wavelengths, that determines the character of the free-space loss as shown in Fig. 1.

Over-Horizon Loss

Path loss L_p is the sum of L_{fs} , the free-space loss and L_{oh} , the o-h loss, all quantities being expressed in decibels. The empirical formulation of L_{oh} is

$$L_{oh} = A + B(d - d_0) \quad (2)$$

where A is the o-h loss associated with the distance d_0 and B is the rate at which the o-h loss accrues with distance (attenuation rate). For present purposes, d_0 will be taken as 100 miles; the expression then becomes

$$L_{oh} = 57 + 0.13(d_{mi} - 100) \quad (3)$$

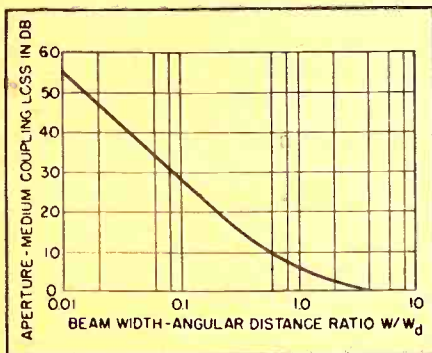


FIG. 3—Aperture-to-medium coupling loss results from failure to realize plane-wave antenna gain

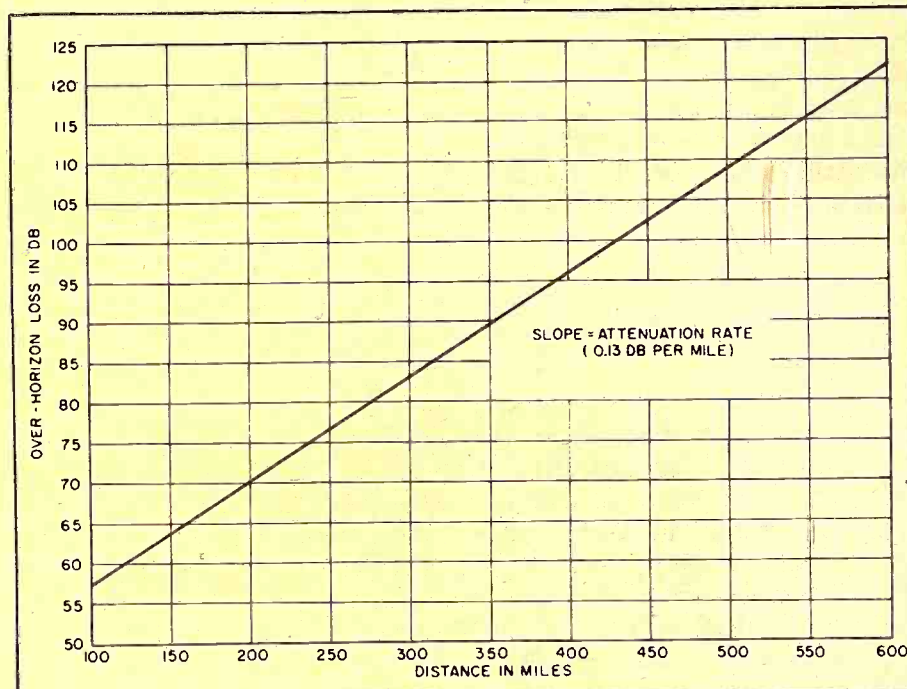


FIG. 2—Over-horizon loss for typical northern U.S. overland transmission

where d_{mi} indicates that distance should be entered in miles. The attenuation rate B is dependent on the average refractive properties of the atmosphere for the path under discussion. The value 0.13 db per mile is taken as typical for overland transmission in northern U. S. A. and southern Canada. It may be as low as 0.11 db per mile for semitropical, over-water paths and as high as 0.15 db per mile for dry, arctic conditions.

Parameter L_{oh} is plotted in Fig. 2 for the case of $B = 0.13$ db per mile. For other values of B , some adjustment might be necessary for the value of A .

Total path loss L_p in decibels, can then be written as

$$L_p = L_{fs} + L_{oh} + 79 + 20 \log_{10}(d/\lambda) + 0.13(d_{mi} - 100) \quad (4)$$

Antennas

The ratio of antenna gains to the ratio of received and transmitted powers, as shown in Eq. 1, implies that transmitted power may, up to a point, be exchanged for antenna power gain. Since increasing the antenna gain results in a narrowing of the antenna beam, an exchange of transmitted power for antenna gain is accompanied by increased privacy. This is not directly evident from Eq. 1.

Assuming that paraboloidal reflector antennas of diameter D are used, with illumination efficiencies of 64 percent, numerical power

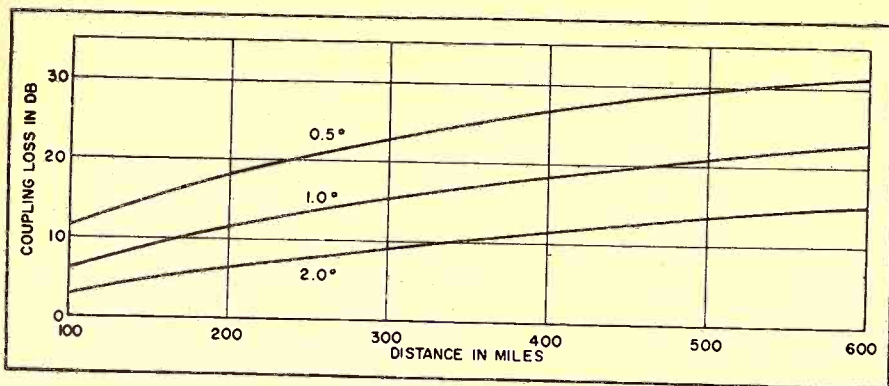


FIG. 4—Coupling loss for three different beam widths

gain is given by

$$G = 2\pi (D/\lambda)^2 \quad (5)$$

The half-power beam width in degrees, w° , is given⁷ by

$$w^\circ = 70\lambda/D \quad (6)$$

The net path loss L_{net} can then be expressed in decibels as

$$L_{net} = L_{fs} - G_s + L_{oh} \quad (7)$$

where G_s is the system gain and is the sum of the terminal antenna gains expressed in decibels. That is, for similar antennas

$$G_s = 20 \log_{10} 2\pi (D/\lambda)^2 \quad (8)$$

The relation of system gain to beam width can be expressed in decibels as

$$G_s = 89 - 40 \log_{10} w^\circ \quad (9)$$

For example, with a beam width of 1° , G_s equals 89 db; with a beam width of 2° , G_s falls to 77 db.

Thus far, the effect of increased antenna gain has been related to increased privacy and a reduction in the net path loss. When the antenna beams become extremely narrow (large apertures), the volume of the atmosphere intercepted by the beams does not contribute as much to the scattering process⁸ as it would with wider beams. The result can be regarded as an increase in o-h loss or as a failure to realize the full plane-wave antenna gain; the latter view is presently more prevalent.

This aperture-to-medium coupling loss L_c has been defined theoretically² under the assumption of identical terminal antennas. The magnitude of L_c depends on antenna beam width and distance between stations. As shown in Fig. 3, L_c is a function of w/w_a , where w is the beam width and w_a the angular distance between stations for an

assumed radius of the earth of 5,000 miles. Loss L_c is a function of distance only for a given antenna beam width.

An example of this dependence on distance is given in Fig. 4 for beam widths of 0.5, 1.0 and 2.0 degrees. It is difficult to determine L_c experimentally, but this has been done⁹ by Lincoln Laboratory, M.I.T. The results indicate that L_c is generally several decibels lower than predicted in Fig. 3 and 4. Temporal variations noted in L_c are indicated in Fig. 8 of Reference 9.

Besides increasing privacy, the narrowing of an antenna beam provides increased protection from the strong, interfering reflections caused by aircraft flying in or near the path. These reflections produce violent, rapid fading and furthermore, introduce multipath distortion that may be extremely deleterious to certain pulse transmissions and which may also restrict the effective information bandwidth.

A radio receiver amplifies and demodulates not only the input

signal but also the noise voltages generated in the antenna and in its own resistances and tubes. Since all antennas generate noise, all received signals are inherently contaminated by noise. To this minimum noise the receiver adds its own noise. As a practical matter, only the first two stages of a receiver contribute significantly to the noise output.

A measure of this additional noise output is the so-called noise factor that may be defined as the quotient of the s-n ratio at the receiver input terminals and the s-n ratio at the receiver output. When expressed in decibels it is called the noise figure F_n . The minimum attainable noise figure in a receiver depends largely on the state of the art. In general, the figure increases with frequency.

For receivers of current design, at frequencies above 100 mc, a conservative estimate of the noise figure in decibels is

$$F_n = 5.3 + 3.6 \log_{10} (f_{mc}/100) \quad (10) \\ = 3.6 \log_{10} f_{mc} - 1.9 \quad (f_{mc} \geq 100)$$

where f_{mc} is the frequency in mc.

For a frequency of 2,000 mc Eq. 10 yields $F_n = 10$ db, a figure that agrees well with recent developments¹⁰ in r-f amplifier design.

Noise appearing in a receiver when an antenna is connected may be considered as arising in a resistance equal to the radiation resistance of the antenna, assuming the antenna is not trained on a cosmic noise source. This thermal noise power as it affects the receiver output is

$$P_n = kTB \quad (11A)$$

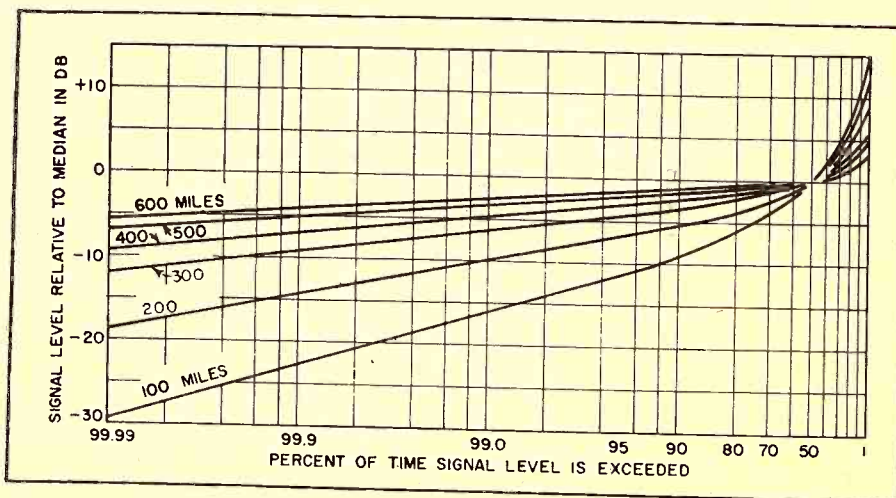


FIG. 5—Long-term fading characteristic based on 100-mc data

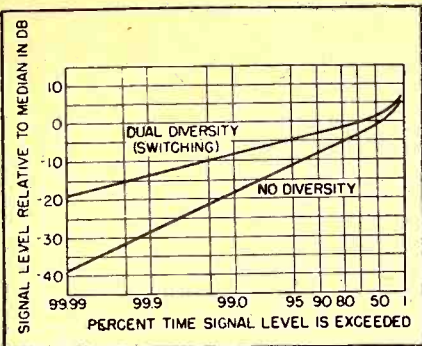


FIG. 6—Short-term fading characteristic taking place within an hour

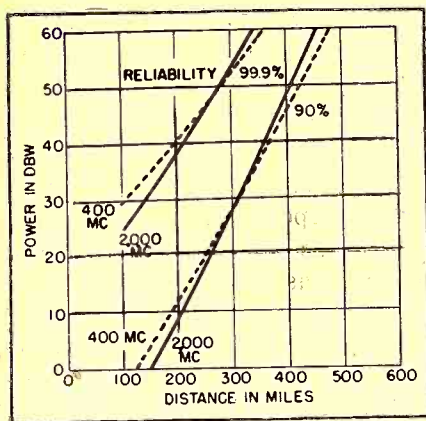


FIG. 7—Required power depends upon reliability desired

where P_n is the noise power in watts, k is Boltzmann's constant, T is the absolute temperature and B is the receiver i-f bandwidth in cps.

The minimum noise output of a receiver is proportional to the i-f bandwidth. Hence, for low noise output, the receiver must be designed for the minimum bandwidth commensurate with the rate of information involved.

As an example, assume that a proposed link is to handle a single teleprinter channel at 60 words per minute.

While in an ideal wire circuit a 60 wpm transmission would require a bandwidth of only 22.5 cps, the characteristics of practical wire transmission circuits are such that 100 cps is necessary. In a radio link more bandwidth may be used to give the required reliability in the presence of fading. For conventional frequency-shift (fsk) systems a bandwidth of about 1,000 cps is needed for a 60-wpm circuit. This value of 1,000 cps will be used as reference bandwidth B_0 .

In Eq. 11A the noise introduced by the antenna in the range of frequencies discussed is described by a temperature T which is custom-

arily taken as 60 F (289 degrees absolute). Since then $kT = 4 \times 10^{-21}$ watt-seconds, Eq. 11A becomes, if all figures are expressed in decibels

$$P_n (60F) = 10 \log_{10} B - 204 \quad (11B)$$

For the reference bandwidth B_0 . Eq. 11B becomes (relative to 1 watt)

$$P_n (60F) = -174 \text{ dbw} \quad (11C)$$

For any other bandwidth simply add $10 \log_{10} (B/B_0)$ to the right hand side of Eq. 11C. Some typical services with corresponding bandwidth figures are listed in Table I.

Signal-to-Noise Ratio

In a communications link, the transmitter not only must deliver enough signal power to overcome noise in the receivers; it must also provide enough additional signal power for acceptable readability. Readability depends upon the signal-to-noise ratio at the detector input and upon the possible improvements achieved by the method of detection for some systems²⁸ of modulation.

With frequency modulation, for example, the improvement is proportional to the square of the modulation index. For a given information rate the latter can be increased only at the expense of greater bandwidth, which in turn involves more thermal noise and hence raises the level to which a signal must rise before the improvement can be realized.

In the examples in this discussion it is assumed that an input signal-to-noise ratio of 10 db is just acceptable for reception of 60-wpm teleprinter. With other

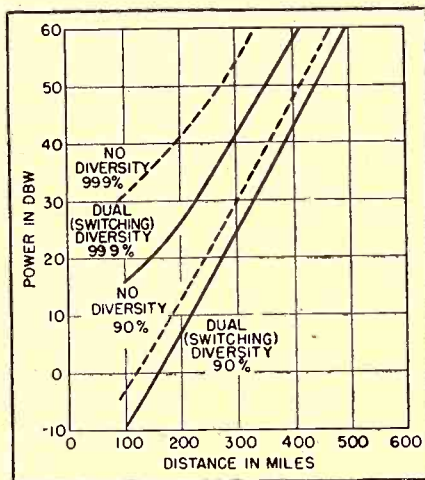


FIG. 8—Advantage of dual diversity for teleprinter channel

Table I—Teleprinter and Voice Requirements

Teleprinter, 60 wpm, fak 425 cps	i-f band- width ¹¹	db added to -174 dbw (Eq 11C)
1 channel	1,000 cps	0
4 channels	1,700	2.3
12 channels	3,400	5.3

Voice, 4 kc per channel	Subcarrier modulat- ing fre- quency	i-f band width ¹² (mod index = 1.5)	db added to -174 dbw (Eq 11C)
12 channels	12-60 kc	468 kc	26.7
24 channels	12-108 kc	842 kc	29.3
36 channels	12-156 kc	1,220 kc	30.9

systems an adjustment of this figure will be necessary; for example, in commercial (a-m) television a signal-to-noise ratio of at least 40 db is required for high-grade service.

Fading Safety Margins

The o-h loss L_{oh} shown in Fig. 2 represents a median value obtained from experimental data. There is a long-term, seasonal fading that is not yet completely known for the entire frequency range 100-5,000 mc. However, some very complete data¹ have been obtained through transmissions in the commercial f-m band centered at 100 mc. It is this long-term fading characteristic that is displayed in Fig. 5.

Other experimental evidence indicates that the 100-mc information may be applied to much of the uhf range. As Fig. 5 shows, the long-term fading becomes less and less pronounced as the length of the link is increased. For 99-percent reliability on a long-term basis it is necessary to supply a margin of about 11 db to the median o-h loss for a path 200 miles long, while at 400 miles only 5.0 db need be supplied.

Short term, within-the-hour, fading follows a Rayleigh law; this is shown in Fig. 6 for a nondiversity system, and for a dual-diversity system that merely utilizes the better of two signals received in widely separated antennas. This technique is known as switching diversity and is less effective than combining diversity.¹⁴

In computing the total safety margin for fading, it is well to

Designing Over-Horizon Communications Links (Continued)

note that long-term and short-term fading are essentially independent. Long-term fading establishes the immediate median level upon which within-the-hour fading is superimposed. It is thus reasonable to strive for a system that will possess a given signal-to-noise ratio for at least a certain percentage of time on a long-term basis and in addition will provide perhaps equal protection on a short-term basis.

Whatever combinations of fading margins are used, there will be periods of the year characterized by low path loss during which most of the fading margin incorporated results in the realization of an unusually high within-the-hour reliability. Weighting of the two types of fading margins will be influenced by the kind of information to be transmitted and whether errors will accumulate often enough to be objectionable.

A complete consideration involves not only the fading statistics shown in Fig. 5 and 6 but also the effect of the rate of fading upon the transmitted information. The fading rate increases with frequency.¹

In an illustrative example reliability will be assumed for q percent of the time on a long-term basis along with reliability p percent of the time on a short-term basis. The two fading margins are simply added.

Terminal Loss and Site Noise

Certain other losses are always considered when designing o-h links. These are losses in transmission lines and connectors at each terminal and losses in effective operating margins owing to site noise.

Transmission line and connector losses arise from the attenuation characteristics of the lines connecting transmitter to antenna, antenna to receiver, from the power wasted in impedance mismatches at each terminal and from power lost to connector junctions. These losses generally increase with frequency. The losses at transmitter and receiver may be conveniently grouped together and denoted by L_j . A typical behavior of this loss in decibels is

$$L_j = 5 \log_{10} (f_{mc}/100) = 5 \log_{10} f_{mc} - 10 \quad (12)$$

The losses L_j should be evaluated

Table II—System Parameters At 400 Mc

Item	100 mi	200 mi	300 mi	400 mi	500 mi	600 mi	Remarks
$L_{fs} + L_{oh}$	185	20	221	239	257	275	Eq 2 and 3
L_j	3.0	3.0	3.0	3.0	3.0	3.0	Eq 10
G_s	-52	-52	-52	-52	-52	-52	20-ft dish
L_c	0	0.9	1.8	2.7	3.6	4.5	from Fig. 3
s/n	10	10	10	10	10	10	acceptable teleprinter
F_n	7.5	7.5	7.5	7.5	7.5	7.5	Eq 8
$10 \log_{10} B$	30	30	30	30	30	30	$B = 1,000$ cps
$10 \log_{10} kT$	-204	-204	-204	-204	-204	-204	$T = 60$ F dbw
P_m	-20.5	-1.6	17.4	36.2	55.1	75.0	median
ML_{90}	9.0	5.5	3.5	2.5	2.0	1.8	based on 100-mc data (Fig. 5)
MS_{90}	8.0	8.0	8.0	8.0	8.0	8.0	no diversity Fig. 6
P_{90}	-3.5	11.9	28.9	46.7	65.1	83.8	plotted in Fig. 7
$ML_{99.9}$	22.5	14	8.5	7.0	5.0	4.0	based on 100-mc data (Fig. 5)
$MS_{99.9}$	28	28	28	28	28	28	no diversity Fig. 6
$P_{99.9}$	30.0	40.4	53.9	71.2	88.1	106	plotted in Fig. 7
$P^{(2)}_{90}$	-8.8	6.6	23.6	41.4	59.8	78.5	dual diversity switching Fig. 6
$P^{(2)}_{99.9}$	15.2	25.6	39.1	56.4	73.3	91.2	dual diversity switching Fig. 6

Table III—System Parameters At 2,000 Mc

Item	100 mi	200 mi	300 mi	400 mi	500 mi	600 mi	Remarks
$L_{fs} + L_{oh}$	199	216	235	253	271	289	Eq 2 and 3
L_j	6.5	6.5	6.5	6.5	6.5	6.5	Eq 10
G_s	-80	-80	-80	-80	-80	-80	20-ft dish
L_c	3	7	10	13	15	16	from Fig. 3
s/n	10	10	10	10	10	10	acceptable teleprinter
F_n	10	10	10	10	10	10	Eq 10
$10 \log_{10} B$	30	30	30	30	30	30	$B = 1,000$ cps
$10 \log_{10} kT$	-204	-204	-204	-204	-204	-204	$T = 60$ F; dbw
P_m	-25.5	-4.5	17.5	38.5	58.5	77.5	median
ML_{90}	9.0	5.5	3.5	2.5	2.0	1.8	based on 100-mc data Fig. 5
MS_{90}	8.0	8.0	8.0	8.0	8.0	8.0	no diversity Fig. 6
P_{90}	-8.5	9.0	29.0	49.0	68.5	87.3	plotted in Fig. 7
$ML_{99.9}$	22.5	14.0	8.5	7.0	5.0	4.0	based on 100-mc data Fig. 5
$MS_{99.9}$	28	28	28	28	28	28	no diversity Fig. 6
$P_{99.9}$	25.0	37.5	54.0	73.5	91.5	99.5	plotted in Fig. 7
$P^{(2)}_{90}$	-13.8	3.7	23.7	43.7	63.2	82.0	dual switching diversity Fig. 6
$P^{(2)}_{99.9}$	10.2	22.7	39.2	58.7	76.7	94.7	dual switching diversity Fig. 6

carefully for a given equipment, transmission line and operating condition. In practice, these losses may be found to be greater than that indicated by Eq. 12 and frequently losses that are charged mistakenly against the propagation path will be found to occur at the terminals.

At any appreciable distance from a terminal the cross section of even a narrow antenna beam is large, so that the system may become vulnerable to impulse noise generated near the path by a city, a town, a manufacturing activity or a radar transmitter. In that event, an additional amount of power may be required for the link to overcome this site noise. No simple rule exists for the margin to be allowed for this kind of noise, since

The symbols have the same meanings as before and s/n is the signal-to-noise ratio expressed in decibels. For service at least q percent of the time on a short-term and a long-term basis

$$P_q = P_m + ML_q + MS_q \quad (14)$$

where P_q is the power required for q percent reliability, ML_q is the long-term fading margin for q percent reliability and is a function of distance, MS_q is the short-term fading margin for q percent reliability.

Tabulations of the various losses and system parameters are given for 400 mc in Table II and for 2,000 mc in Table III. The results are plotted in Fig. 7 for the 90 and 99.9-percent reliabilities desired. While the tables show powers in excess of 60 dbw (1 megawatt) for

presence of obstacles in the path. It is assumed that along the path to the horizon the clearance between the path and any obstacle exceeds the radius of a first Fresnel zone. If obstacles are present, the computation must be altered as recommended^{11, 18} in the literature.

The advantage to be gained by employing dual diversity of the switching type at one terminal is illustrated in Fig. 8 for 400-mc transmission. While diversity can be regarded as a means of saving transmitted power, if it is done by spacing the receiving antennas, or as an increase in reliability, it is instructive to evaluate its advantage in extending the working distance possible with a given transmitted power.

Table IV presents the additional distances obtainable by including the diversity fading margins as scaled from Fig. 8. With higher orders of diversity and with systems that combine¹⁷ the outputs of spaced antennas, greater gains in distance or savings in power are possible.

Table IV—Additional Distance With Diversity at 400 Mc

Reliability	Order of Diversity	1 kw	10 kw	100 kw	1,000 kw
90%	1	308 mi	366 mi	420 mi	472 mi
90%	2	336	384	448	500
	Additional Distance:	28	28	28	28
99.9%	1	98	200	275	340
99.9%	2	217	300	360	420
	Additional Distance:	119	100	85	80

this will depend on the character of the noise and the way in which the improvement normally afforded by the modulating method^{11, 15} is degraded in its presence.

Illustrative Example

An organization wishes to provide over-the-horizon communication for a number of links of various lengths and has two frequency allocations at its disposal, 400 mc and 2,000 mc. Equipment can be obtained for these frequencies. The paraboloidal antenna aperture must not exceed 20 feet in diameter because of cost and mounting difficulties. It is desired to determine the power required for both 90 and 99.9-percent reliability, for 60-wpm teletype, single channel, fsk, with a frequency shift of 425 cps.

The power required, in decibels above 1 watt, for median service, 50-percent the time, is given by

$$P_m = L_{fs} + L_{oh} - G_a + L_c + L_j + F_n + (s/n) + 10 \log_{10} B_o - 204 \quad (13)$$

completeness, the curves in Fig. 7 are carried only up to this level.

Interpretation

Added gain provided by the 20-foot paraboloid at the higher frequency is hardly sufficient at the longer distances to overcome the additional free-space loss. This is the result of the increasing effect of L_c , the aperture-to-medium coupling loss for the narrowed beam.

Curves in Fig. 7 are plotted for distances from 100 to 600 miles. Some reservations should be attached to extension of the curves for distances of less than 100 miles. In that range, depending upon the height of the terminal antennas, there may be an appreciable diffracted surface wave present that would serve to widen the fading range and in any case, would provide substantially different short-term fading characteristics¹ than are indicated by Fig. 6.

The curves do not include any gains or losses incurred by the

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MICROPHONE NOMOGRAPH

SUMMARY—Chart relates sound pressure level, microphone sensitivity and output in decibels and volts as aid in design of microphone systems and related equipment. Typical sound levels for common sounds are indicated

By **WILLIAM B. CONOVER**

MICROPHONE response is usually expressed in decibels referred to 1 volt per dyne/cm². Thus a microphone which produces 1 volt when exposed to a sound pressure of 1 dyne/cm²

has a response of 0 db. Most microphones are far less sensitive than this.

Unless otherwise specified, the open-circuit voltage is used in arriving at the response figure.

The nomograph is based on the definition of pressure response in the American Standard Specification for Laboratory

Standard Microphones.

Expressed symbolically, this definition becomes

$$\rho = 20 \log (e_o/p) \quad (1)$$

where ρ = pressure response, e_o = open-circuit output voltage and p = pressure in dynes/cm².

Equation 1 may be rewritten

$$= 20 \log e_o - 20 \log p \quad (2)$$

Sound pressure is commonly expressed in decibels relative to a reference pressure $p_o = 2 \times 10^{-4}$ dynes/cm². When so expressed it is called sound pressure level *SPL* and is defined by

$$SPL = 20 \log (p/p_o) \text{ decibels} \quad (3)$$

Equation 2 and 3 yield

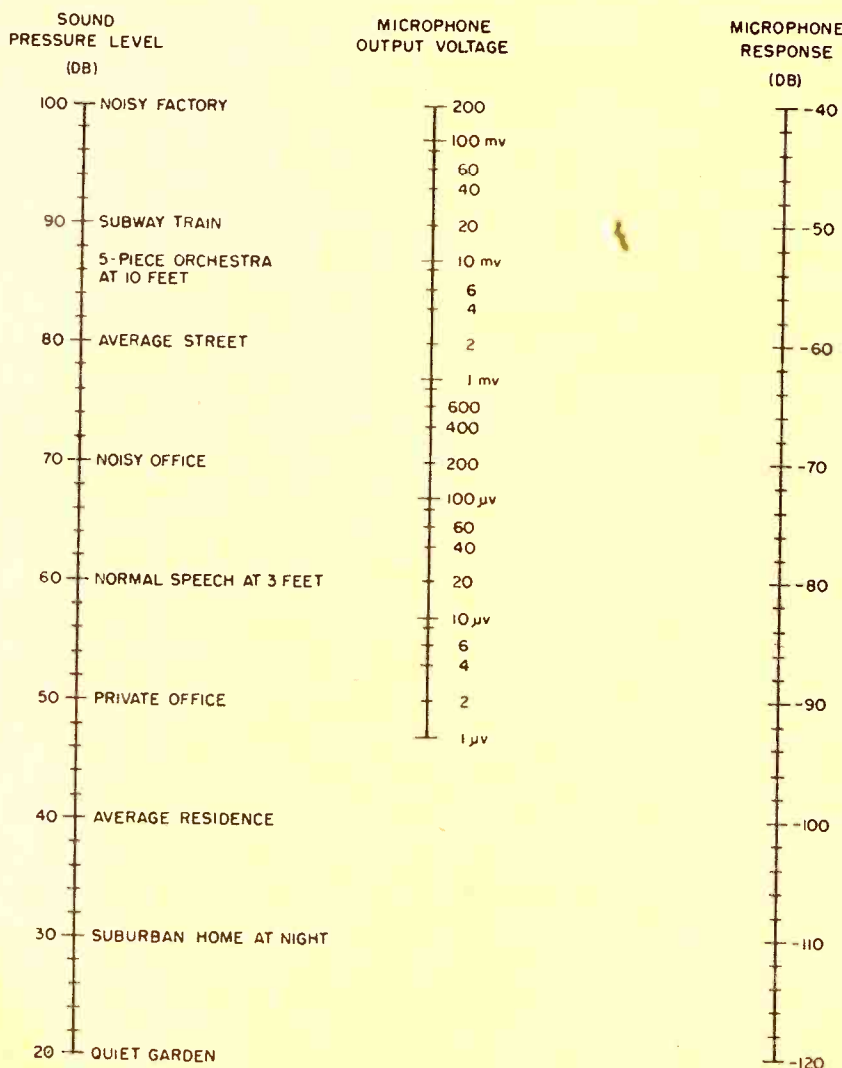
$$\rho = 20 \log e_o - SPL + 74 \text{ decibels} \quad (4)$$

Should absolute sound pressures be required, they may be filled in on the lefthand scale by noting that 100 db = 20 dynes/cm², 80 db = 2 dynes/cm², 60 db = 0.2 dyne/cm² and so forth.

A microphone with a response of -50 db is to be used to measure sound levels of 35 db or more. For what minimum input voltage should the amplifier be designed?

A straight line drawn between 35 db on the *SPL* scale and -50 db on the ρ scale intersects the e_o scale at about 35 μ v. This is the open-circuit microphone voltage.

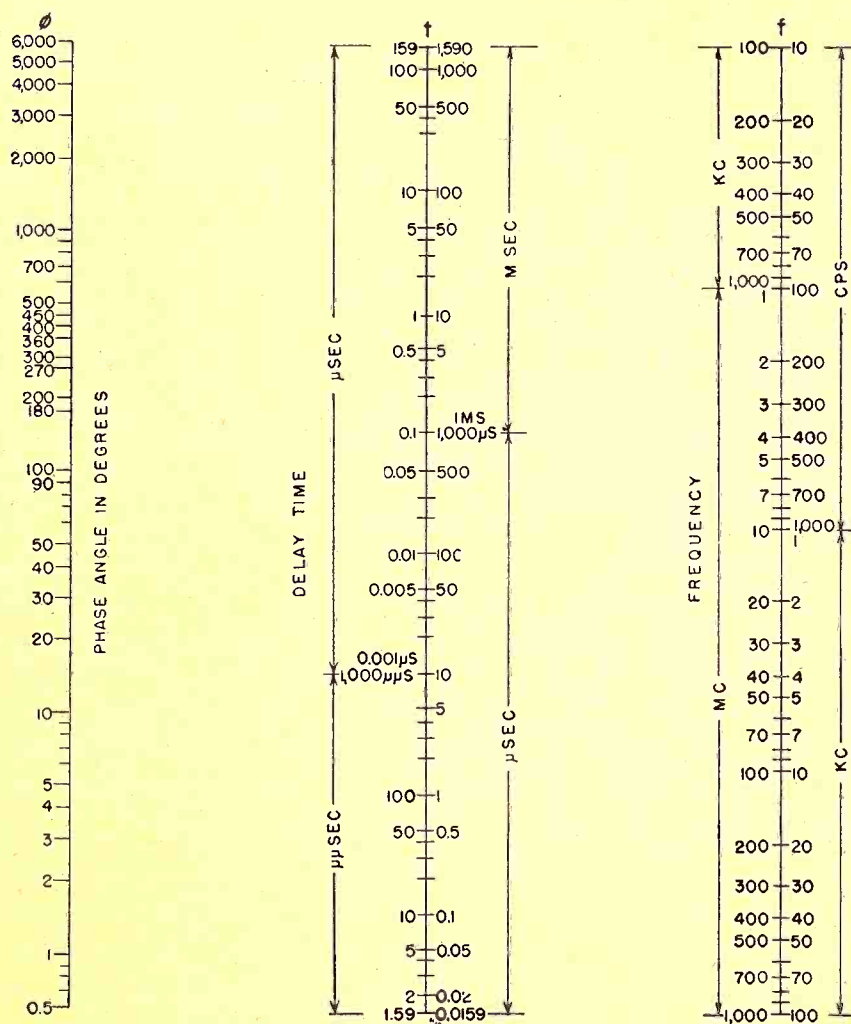
Sound level in a jet-engine test control room is 112 db; a pneumatic chipper at a distance of 5 feet has a sound level of 122 db. At takeoff and 80 ft from the tail, an F-84 has a sound level of 130 db, all typical values.



PHASE-LINEARITY NOMOGRAPH

SUMMARY—Chart relating time delay, phase shift and frequency facilitates testing of phase-shift, band-pass and delay time characteristics of video amplifiers and other pulse circuits

By **JOSEPH F. SODARO**



IN the design of video amplifiers, i-f amplifiers, delay lines and similar circuits, it is desirable to obtain uniform gain and linear phase shift over the desired passband.

This condition of phase shift proportional to frequency may also be defined as constant time delay. If phase shift in radians is expressed as $\phi = 2\pi ft$, the expression can also be written as $t = \phi/2\pi f$.

If ϕ is proportional to frequency f , the right-hand member of the second equation is a constant. Thus, t , the time delay is a constant.¹

Large angular measurements may be simplified if frequencies corresponding to principal angles are measured. At these angles the cro pattern is a straight line or circle. Small angles can be measured by the intercept method in which the phase-angle sine equals the ratio of y -intercept to maximum-deflection values. From this, the angle can be calculated.²

As frequency is varied and angular difference observed on the cro the amount and constancy of time delay can be determined from the nomograph. Select angular difference on the ψ scale in degrees.

Draw a line to the frequency on the right-hand scale. Read time delay where the line intersects the t scale on right or left-hand scale corresponding to the f scale used. As frequency is varied, pivot a straight-edge about the time-delay value to other ϕ and f combinations. Observe the deviation from a constant time delay to determine bandpass limits of the circuit under test.

By providing limit lines on the t scale in accordance with test specifications, this chart can be used by production test personnel.

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DESIGNING I-F TRANSISTOR

By ROGER R. WEBSTER

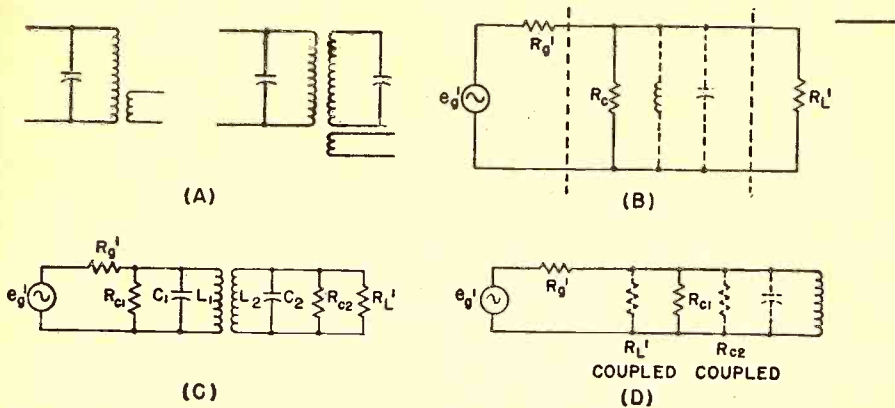


FIG. 1—Single and double-tuned transformers (A), equivalent circuit of single-tuned unit (B); schematic (C) and equivalent circuit (D) of double-tuned unit

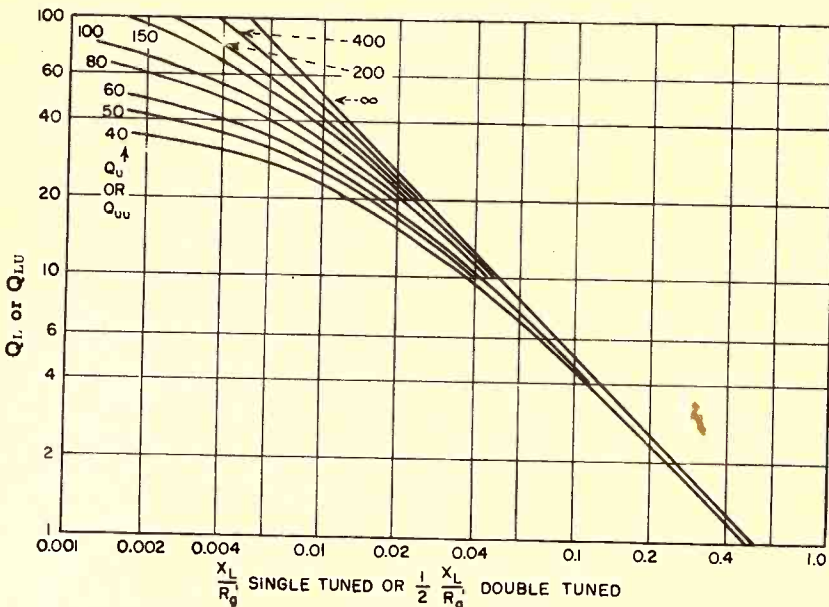


FIG. 2—Ratio of coil reactance to generator impedance vs loaded Q

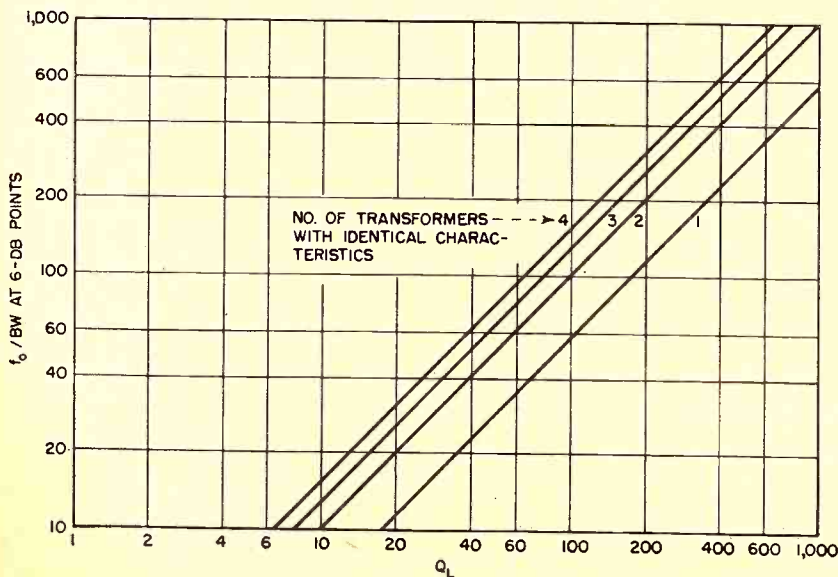


FIG. 3—Loaded Q vs 6-db bandwidth ratio for single-tuned transformers

INTERMEDIATE-FREQUENCY transformers used in vacuum-tube amplifiers are essentially independent of vacuum-tube impedances and the desired band-pass characteristics may be determined independently of vacuum-tube loading at ordinary intermediate frequencies. Grid loading is insignificant and plate loading will often be small enough to be neglected since the plate resistance of many receiving-type pentodes may be $\frac{1}{2}$ megohm or higher.

Such is not the case with transistors. The collector impedance of a high-frequency transistor such as the Texas Instruments type 225 may be as high as 100,000 ohms or more at 455 kc but the input impedance is low—of the order of 300-500 ohms, grounded emitter. Impedance matching is important to secure maximum power transfer and the band-pass characteristics of the transformer cannot be determined without considering the effects of transistor loading.

Single-tuned transformers have been widely used for transistor i-f amplifiers since for equal 3-db bandwidths they have less insertion loss than double-tuned transformers. However, where adjacent channel rejection is important, double-tuned transformers will often give less insertion loss than single-tuned transformers. Keeping transformer losses low is important with the limited gains available from present-day high-frequency transistors. Figure 1A shows some practical arrangements for both single and

TRANSFORMERS

SUMMARY—Design of tuned coupling networks for i-f transistor transformers requires matching collector and base impedances while meeting bandwidth requirements and providing minimum insertion loss. This article presents detailed procedure and curves of single and double-tuned units

double-tuned transformers.

The design equations for single and double-tuned i-f transformers are easily obtained. Consider the basic tuned coupling networks as transformers with generator and load impedances referred to the primary on a unity-turns-ratio basis and the unloaded resonant impedance of the coil as an equivalent shunt loss resistance.

Single-Tuned Transformer Design

Refer to Fig. 1B for the equivalent schematic of a single-tuned transformer:

R_g = generator impedance, R_g' = generator impedance referred to unity turns ratio, R_c = antiresonant unloaded coil impedance, R_L = load impedance and R_L' = load impedance referred to unity turns ratio.

When both R_g' and R_L' can be controlled, maximum power will be delivered to the load when $R_g' = R_L'$.

From basic theory $Q_u = R_c/X_L$ where Q_u = unloaded coil Q and X_L = coil reactance. Quantity $Q_L = (R_g' + R_c + R_L')/X_L$ = loaded circuit Q and is determined by bandwidth requirements

$$Q_L = \left[\frac{1}{\frac{1}{R_g'} + \frac{1}{R_c} + \frac{1}{R_L'}} \right] \left[\frac{1}{X_L} \right]$$

where $X_L/R_c = 1/Q_u$ and $R_g' = R_L'$ for maximum power transfer.

Solving for X_L/R_g'

$$X_L/R_g' = \frac{1}{2}[(1/Q_L) + (1/Q_u)] \quad (1)$$

Figure 2 is a plot of Eq. 1 for

various values of Q_L and Q_u . From bandwidth requirements for a single transformer $Q_L = f_o/2\Delta f$ where Q_L = loaded circuit Q, f_o = intermediate frequency and Δf = deviation from f_o giving 3-db attenuation.

When more than one transformer is involved, each tuned to the same frequency, each transformer will be down 3/T db at the Δf points, where T is the number of transformers and Δf is specified for the entire amplifier.

From a standard text on tuned circuit design¹

$$\frac{A_o}{A} = \left[1 + Q^2 \left(\frac{f}{f_o} - \frac{f_o}{f} \right)^2 \right]^{1/2}$$

where A_o/A = (voltage at frequency f_o /voltage at frequency f) and Q is the loaded circuit Q.

Letting $\Delta f = f - f_o$ and rearranging terms

$$Q_L = [(A_o/A)^2 - 1]^{1/2} \left[\frac{1 + (f_o/\Delta f)}{2 + (\Delta f/f_o)} \right] \quad (2)$$

Figure 3 is a plot of Eq. 2 for values of A_o/A corresponding to 1, 2, 3 and 4 transformers with identical characteristics. Since in circuit design, bandwidth is usually specified at the 6-db points, Fig. 3 has been plotted for 6-db bandwidth versus loaded Q rather than for 3-db bandwidth.

If transistor impedance, i-f frequency, bandwidth and unloaded coil Q are known, the reactance of the coil may be computed from the value obtained from Fig. 2 or from Eq. 1. For the usual case, the primary will be untapped. When the value of X_L obtained from Fig. 2

is less than the desired amount any greater X_L obtained from Fig. 2 is less than the desired amount any greater X_L may be used provided the driving transistor is matched by tapping down on the primary winding according to

$$n = R_o/R_g' \quad (3)$$

where R_o = transistor output impedance, R_g' = value obtained from Eq. 1 or from Fig. 2 and n = tap to overall primary turns ratio.

The secondary winding may be computed from

$$n' = R_L/R_g' \quad (4)$$

where n' = secondary to primary turns ratio, R_g' = generator impedance and R_L = transistor input impedance.

This involves an approximation, since it assumes unity coupling exists between the primary and secondary. With ordinary close coupled windings the resulting inaccuracies will be considerably less than those caused by transistor impedance variations.

Double-Tuned Transformer Design

Only the case of critically coupled coils will be considered. Less than critical coupling is not recommended, since additional transformer losses are involved. Overcoupled transformers are not subject to a simple design procedure. The circuit, with resistances referred to a unity-turns-ratio basis, is shown in Fig. 1C.

The coils and external loading are identical, so that $L_1 = L_2 = L$; $C_1 = C_2 = C$; $R_{e1} = R_{e2} = R_c = QX_L$, the antiresonant unloaded, uncou-

pled coil impedance, and $R_p' = R_L'$.

The equivalent coupled circuit diagram Fig. 1D shows the coupled impedance of R_L' and R_{c2} transferred to the primary side of the transformer.

When the coils are critically coupled, the coupled impedance is equal to the loaded primary impedance. The loaded coupled Q of either primary or secondary is $\frac{1}{2}$ the loaded uncoupled Q . The combined impedance of R_L' coupled and R_{c2} coupled is equal to the combined impedance of R_p' and R_{c1} .

Since $R_{c2} = R_{c1}$ and $R_L' = R_p'$, then R_L' coupled = R_p' and R_{c2} coupled = R_{c1} . As in the case of the single-tuned transformer, this represents the minimum insertion loss.

Let $Q_{uu} = R_o/X_L =$ unloaded, uncoupled coil Q , $Q_{Lu} =$ parallel impedance of R_p' and R_c/X_L and

$$Q_{Lu} = \left[\frac{1}{\frac{1}{R_p'} + \frac{1}{R_c}} \right] \left[\frac{1}{X_L} \right]$$

Noting that $X_L/R_o = 1/Q_{uu}$ and solving for X_L/R_p' gives $X_L/R_p' = (1/Q_{Lu}) - (1/Q_{uu})$.

This is equal to twice the single-tuned transformer value for X_L/R_p' and is indicated on Fig. 2.

To determine Q_{Lu} , an equation for coupled circuits from standard texts¹ may be rearranged

$$\frac{A_o}{A} = \left[\left(1 - \frac{Q^2 Y^2}{1 + K^2 Q^2} \right)^2 + \left(\frac{2QY}{1 + K^2 Q^2} \right)^2 \right]^{1/2} \quad (5)$$

where $Y = (f/f_o) - (f_o/f)$ and $Q = Q_{Lu}$.

For critical coupling, $K = 1/Q$ and substituting $\Delta f = f - f_o$ Eq. 5 can be solved for Q_{Lu}

$$Q_{Lu} = \left(\frac{1}{\sqrt{2}} \right) \left(\frac{f_o}{\Delta f} \right) \left[\frac{(f_o/\Delta f) + 1}{(f_o/\Delta f) + \frac{1}{2}} \right] \left[\left(\frac{A_o}{A} \right)^2 - 1 \right]^{1/4} \quad (6)$$

Figure 4 is a plot of Eq. 6 for values of A_o/A corresponding to 1, 2, 3 and 4 transformers with identical characteristics.

For transformer design, either single or double tuned, the follow-

ing information is required:

Overall amplifier bandwidth, $f = bw/2$.

Intermediary frequency, f .

Number of i-f transformers

Quantity Q_u or Q_{uu} , the unloaded uncoupled coil Q . For preliminary determination a value such as 100 may be assumed and when final determination of Q_u or Q_{uu} is made the

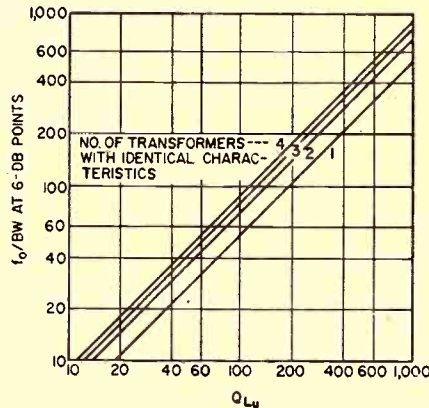


FIG. 4—Loaded circuit Q plotted against 6-dB bandwidth ratio for double-tuned transformers

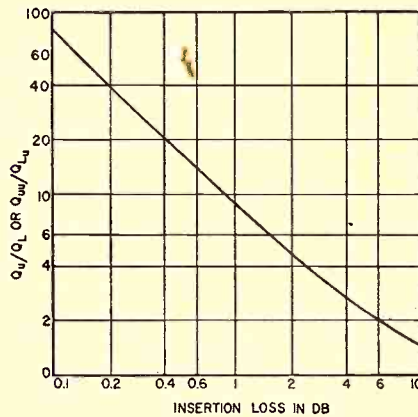


FIG. 5—Insertion loss in db plotted against loaded circuit Q for single and double-tuned transformers

coil X_L may be adjusted to suit.

Transistor input and output impedances.

Quantities Q_L or Q_{Lu} . These may be read directly from Fig. 3 or 4. The adjacent channel attenuation may be specified if the i-f frequency is 455 kc and Q_L or Q_{Lu} read from Fig. 6.

Ratio X_L/R_p' , which may be read directly from Fig. 2.

For an untapped primary, $R_p - R_p'$ and X_L . These may be computed directly. For a tapped primary, compute N from Eq. 3 knowing X_L and R_p' .

Compute the secondary for a single-tuned transformer or tertiary for a double-tuned transformer from primary turns and Eq. 4. For double-tuned transformers, critical coupling may be determined easily since the loaded coupled Q of the primary is equal to $\frac{1}{2}$ the loaded uncoupled primary Q . Adjust the spacing between primary and secondary until this condition exists.

Transformer Losses

The Q of unloaded coils must be as large as possible if excessive insertion loss is to be avoided. Circuit efficiency is involved rather than the fraction of power coupled through the transformer.

Circuit efficiency is defined as $\eta =$ power delivered to load/maximum power available from generator = P_L/P_g , where $P_L = (e_o)^2/R_L$ with e_o the output voltage and $P_g = (e_g)^2/4R_g$ with e_g the generator voltage.

From Fig. 1B, it is found that $e_o = e_g [R_c/(2R_c + R_p)]$

Substituting these into the equation for η gives

$$\eta = \left[\frac{1}{1 + (R_o/2R_c)} \right]^2$$

which may be further simplified to give for the single-tuned case

$$\eta = [1 - (Q_L/Q_u)]^2$$

and for the double-tuned case

$$\eta = [1 - (Q_{Lu}/Q_{uu})]^2$$

Figure 5 is a plot of insertion loss for single-tuned and double-tuned transformers. It shows the importance of maintaining a high ratio of Q_u if reasonable coil losses are to be realized.

While the expression for circuit efficiency is essentially the same for both single and double-tuned transformers, the realizable efficiency depends on Q_L or Q_{Lu} . These are in

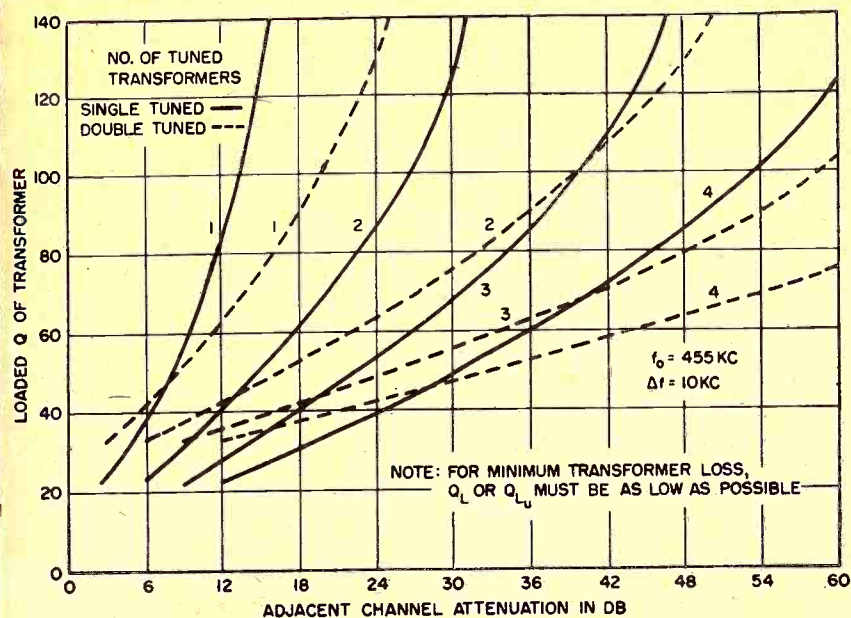


FIG. 6—Adjacent channel attenuation plotted against loaded circuit Q for single and double-tuned transformers

turn dependent on bandwidth, and except for the special case noted in the next section, Q_L and Q_{Lu} are not equal for equal bandwidths. Thus η will not be identical in the two cases.

Single-Tuned vs Double-Tuned Transformers

Ordinarily, the use of single-tuned transformers will result in less insertion loss than the use of double-tuned transformers. However, if skirt selectivity is of greater interest than bandwidth at 3-db points, double-tuned transformers may often result in less insertion loss than single-tuned transformers.

Since the expression for insertion loss involves the loaded and unloaded coil Q's and is identical for both single and double-tuned transformers, Eq. 2 and Eq. 4 may be equated, which sets $Q_L = Q_{Lu}$ and lets $Q_u = Q_{uu}$.

For $(f_o/\Delta f) > 1$

$$\frac{1 + (f_o/\Delta f)}{2 + (f/f_o)} \cong \frac{1}{2} \left(\frac{f_o}{\Delta f} \right)$$

and

$$\frac{(f_o/\Delta f) + 1}{(f_o/\Delta f) + 2} \cong 1$$

then

$$A_o/A = \sqrt{5} \quad \text{or} \quad 7 \text{ db} \quad (7)$$

The significance of Eq. 7 is that if the bandwidth is specified at the 7-db points, the insertion losses of the single-tuned and double-tuned transformers are equal, assuming Q of coils equal, since the values of loaded circuit Q are equal.

If the bandwidth is specified at points more than 7 db down from maximum, the double-tuned transformer will have less insertion loss than the single-tuned transformer and conversely

Equation 7 holds for a single transformer. When more than one transformer is used, the db points for equal insertion loss for either single or double-tuned transformers are given by $T \times 7$ where T is the number of transformers. Thus, if two transformers are used, insertion loss will be equal if bandwidth is specified at the 14-db points. Likewise, for three transformers at the 21-db points etc.

Figure 6 has been computed from Eq. 2 and Eq. 6 and shows Q_L or Q_{Lu} versus adjacent channel attenuation in db. This chart is good only for i-f is at or near 455 kc. This figure shows the superiority of double-tuned transformers if large adjacent channel attenuation is required, since much smaller insertion loss is possible than if single-tuned transformers are used.

Example

A double-tuned transformer design for a grounded-base transistor i-f amplifier was desired, having the following characteristics: number of transformers = 4; bandwidth to 6-db points = 15 kc; maximum insertion loss of transformer = 3 db; i-f frequency $f_o = 455$ kc; transistor impedances—input = 50 ohms and output = 120,000 ohms.

Calculate $f_o/BW = 455/15 = 30.4$.

Determine Q_{Lu} from Fig. 4, $Q_{Lu} = 34$.

Determine Q_{uu}/Q_{Lu} from Fig. 5, $Q_{uu}/Q_{Lu} = 3.4$.

The minimum value of $Q_{uu} = 3.4 \times 34 = 115$.

Using the values of Q_{Lu} and Q_{uu} read $\frac{1}{2} (X_L/R_o') = 0.01$.

No primary tap was desired, so that $R_o' = R_o = 120,000$ ohms. Therefore, $E_L = 2 \times 0.01 \times 120,000 = 2,400$ ohms at 455 kc and $L = 0.85$ millihenry.

After three or four attempts a 0.85-millihenry coil with Q of 115 was wound using 170 turns of No. 5-44 Litz wire with a ferrite cup core and a coil width of $\frac{1}{8}$ inch. A second identical coil was wound. Both coils were tuned to 455 kc and loaded with 120,000 ohms. By observing the Q on a Q meter, the spacing between coils was adjusted until the Q dropped to $\frac{1}{2}$ the uncoupled value at which time the coupling was critical. Spacing was $\frac{3}{2}$ inch. The turns of the tertiary coupling coil to following transistor were computed using Eq. 4, $N' = R_L/R_o' = 50/120,000 = 0.0205$. The tertiary winding is equal to 0.0205×170 or 3.5 turns. The adjacent channel attenuation for four transformers with Q_{Lu} of 34 may be read from Fig. 6 and is approximately 14 db.

The author acknowledges the help and suggestions of P. D. Davis and J. L. Nygaard of Texas Instruments Inc.

The author acknowledges the help and suggestions of P. D. Davis and J. L. Nygaard of Texas Instruments Inc.

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MULTIPLEXING F-M

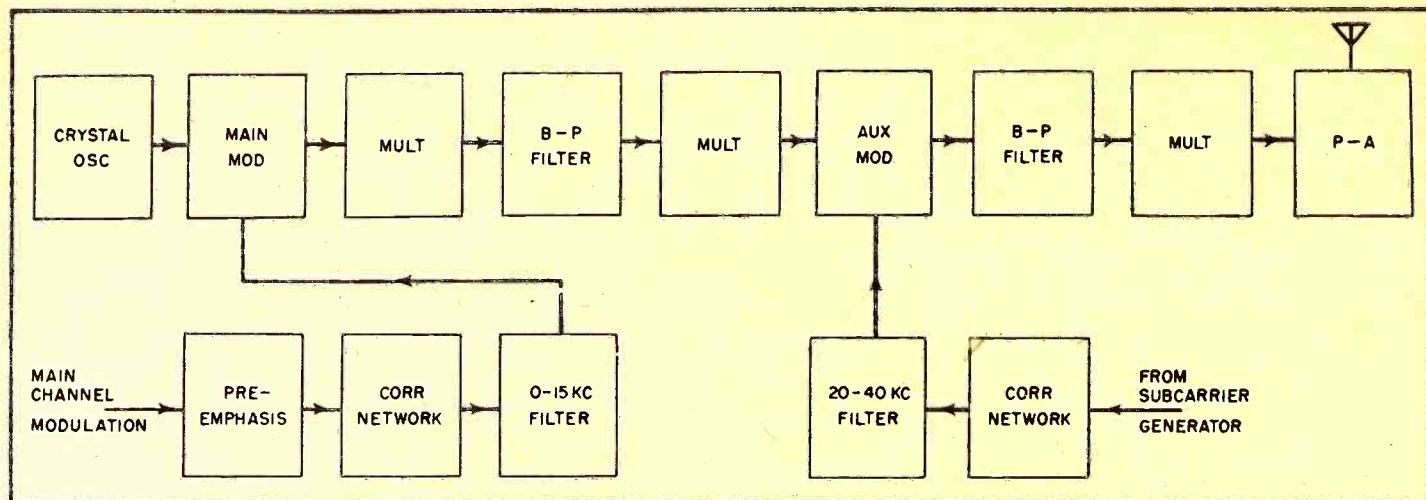


FIG. 1—Multiplex system modulator uses second phase-shift modulator at higher point in multiplication chain since less frequency deviation is needed for the subcarrier

RECENT ACTION by the Federal Communications Commission makes possible, for the first time, extensive use of frequency-modulation broadcasting facilities in special commercial applications. Any f-m broadcast licensee may now obtain a subsidiary communications authorization (SCA) that permits him to transmit for pay a simultaneous multiplex program. A special receiver is employed to detect the subcarrier modulation. Audio muting or amplification can, in addition, be actuated by transmission of ultrasonic or so-called beep tones.

While these techniques are entirely feasible, good engineering practices must be employed to avoid crosstalk between the main and subcarrier channels. In general, only skillfully designed transmitters and receivers will meet high-quality commercial performance requirements. While present legal authorization extends only to multiplexing of entertainment and news, there are no technical barriers to employment of two or more subcarriers for narrow-band communications purposes.

Experiments carried on since 1934 clearly indicate the general nature of inherent problems and their successful solutions. At that time, four different sets of signals were successfully transmitted at

By **JOHN H. BOSE**

41 mc from station W2XDG located in the Empire State Building in New York City to Haddonfield, N. J., a distance of 85 miles. These signals comprised a musical program on the main channel, a facsimile program on a superaudible subcarrier on a second channel, a synchronizing signal for facsimile on a third and a telegraph order circuit on a fourth subcarrier frequency. Amplitude-modulated subcarriers were used at this time.

In April 1935, a frequency-modulated subcarrier was employed for simultaneous transmission of two broadcast music programs. There was substantial improvement as compared with the a-m subcarrier technique and this has since become accepted experimental practice. Operations under an SCA can only be carried out using f-m subcarriers.

Transmitter Problem

Exhaustive tests continuing over the years and particularly since 1948 show that considerable care must be paid to both the transmitter and receiver. These tests were carried on by the late E. H. Armstrong assisted by the author and

others using laboratory facilities at Columbia University and those of the experimental f-m broadcast station KE2XCC at Alpine, N. J. In broadcasting where transmission is basically for entertainment, the effect of cross modulation in transmitters is much more severe than in communications. This is particularly so during the transmission of a separate program on a second channel when a diminuendo or a period of silence of that channel corresponds with a crescendo on the main channel. Experience indicates that cross talk above the level of the background noise of the second channel is objectionable. The energy content of the cross modulation with respect to signal level must be held to -50 decibels or less, or an energy content in the order of one one-hundred-thousandth part of the program level of the second channel. A ratio of 60 db or one part in a million is an attainable goal.

Since the auxiliary channel lies in the 20 to 40 kilocycle band and since the second and third harmonics of the upper half of the main channel modulation fall within that band, it will be clear that the transmitter problem will not yield readily to a solution by any direct method of modulation, for the free oscillator type of cir-

BROADCAST TRANSMITTERS

SUMMARY—Long-term practical experiments prove that the main carrier of an f-m broadcast station can be modulated ± 20 kc with an f-m subcarrier of 30 kc without affecting quality or disturbing receivers now in use. Signal-noise ratio in the auxiliary channel is better than 60 db

circuit does not lend itself to the required low-distortion level.

Present-day practice in f-m broadcast transmission uses the phase-shift method of producing frequency modulation. The invention by J. R. Day of the Serrasoid² type of modulator (which made use of an idea originally advanced by R. D. Kell) has solved, for simplex signaling, the problem of residual modulator noise in the phase-shift method of producing frequency modulation.

Background Noise

All phase-shift modulators have had to contend with transmitter background noise, which comes about basically because the limited initial frequency change that can be obtained in a phase-shift modulator entails a high degree of frequency multiplication to produce the ultimately required deviation of the transmitted wave. The high order of multiplication has the effect of enhancing those noise frequency modulations that result from the interaction of thermal and tube noise currents with the basic carrier in the oscillator and modulator circuits. An appreciable background hiss level was thus characteristic of the early phase-shift modulators (-65 db) which was reduced to values that were relatively unimportant for simplex signaling by the inventions of the double-channel, (-70 db) and the Serrasoid modulators (-80 db).

For multiplex signaling in the broadcast service, when an attempt is made to increase the frequency range of modulation, then, even with the Serrasoid modulator, the difficulty again manifests itself. This results because the fluctuation

current components lying 20 to 40 kc distant from the oscillator frequency produce correspondingly enhanced frequency deviations within the range of subcarrier channels.

These deviations, after being enhanced by the same amount of frequency multiplication that is required for a 30-cycle modulating frequency, produce a level of background noise in auxiliary channels that is not acceptable. A second difficulty incident to introducing subcarrier modulation on phase-shift modulators lies in the cross-modulation introduced in the multiplier chain because of the selectivity characteristics required of the multiplier coupling impedances.

It is essential that the lower frequency stages be sufficiently selective to eliminate the frequency-modulation superimposed on the transmitted frequency at the basic oscillator frequency, a phenomenon that has its origin in the initial multiplier stages. Hence, the selectivity that is needed in the inter-multiplier coupling stages to remove this frequency modulation results in a lack of linearity in the phase characteristic for frequencies required to carry the subcarrier and so gives rise to cross modulation in those stages.

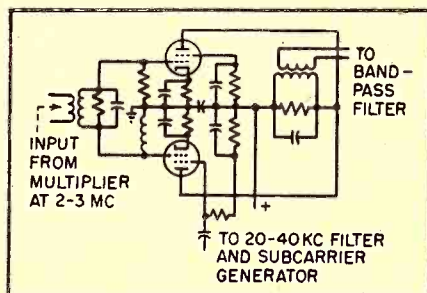


FIG. 2—Phase-shift modulator of the type used for subcarrier multiplexing

A solution for this difficulty has been found through segregation of the modulation functions shown in Fig. 1. Here the modulation and the initial multiplications of the main channel are carried out (with certain modifications) as in simplex operation. The modulation of the auxiliary channel is superimposed at a point in the multiplication chain where relatively few additional stages are required to obtain the necessary subcarrier swing at the radiated frequency. An appropriate point for introducing the auxiliary modulation is around the 2 to 3 megacycle frequency range where the amount of phase shift necessary at the subcarrier frequency to produce the required ultimate change in frequency of the radiated wave is in the order of 1 degree.

By contrast, the shift necessary at the modulator for the main channel is approximately 150 degrees (plus and minus) to obtain the full deviation range at 30 cycles.

Linearity Solution

As a consequence, no linearity problem results from the operation of two phase-shift modulators in cascade. A phase shift modulator like that in Fig. 2 may be employed. The cross-modulation problem in the multiplier coupling stages is avoided because it is possible to make the coupling circuits of the last few multiplication stages quite broad. This can be done because the frequency modulations imposed on the transmitted carrier by the basic oscillator frequency and by the fluctuation disturbances lying in the subcarrier frequency range are no longer a problem at this

Multiplexing F-M Broadcast Transmitters (Continued)

point. The noise difficulties attendant upon operating a wide range frequency modulation system have been avoided by the narrowing down of the band width of the early multiplication stages of the main channel, so that the frequency changes introduced by thermal and tube noise component currents lying more than plus and minus 15 kilocycles from the oscillator frequency are not passed on into the auxiliary channel.

The cross-modulation problem is avoided by keeping the two channels separated until the normal circuit bandwidth requirements permit the use of circuits sufficiently wide to insure the necessary phase linearity to prevent the effect. To generate the subcarrier, a Serrasoid modulator of standard design, multiplied the frequency up to 10 to 12 megacycles and heterodyned this frequency down to the subcarrier frequency of 27.5 kc by means of an appropriate crystal-controlled oscillator. The output current was then passed through a correction network and a band-pass filter to the auxiliary modulator. Usual pre-emphasis was employed. In practice, this method of obtaining the subcarrier channel has proved stable and reliable. While somewhat more apparatus is required than for other ways of obtaining the result, it is doubtful if their reliability or performance can equal that of the present method.

Receiver

Receiving equipment used in field tests comprised r-f amplifier,

converter, crystal-controlled oscillator, five stages of 10.7-mc amplification, a double limiting system and phase-shift discriminator detector, making a total of 13 tubes.

The auxiliary channel receiver for which a circuit diagram is shown in Fig. 3 employs a 15.5-kc high-pass filter, resistance-coupled amplifier, band-pass filter and frequency-sensitive network. Following the limiters there is a gated beam detector tube followed by a 10-kc low-pass filter.

The 10-kc filter was used to prevent overload of the audio amplifier for the second channel by the subcarrier frequency. It is determined by the choice of 8 kc for the modulating band of the second channel.

In some experimental receivers, the low-pass filter configuration used to shift phase between V_{3A} and V_1 was replaced by a double-tuned capacitance-coupled circuit.

Use of multiple filter sections in the phase-shift network is predicated upon the ability to obtain straight-line phase shift over a wide range of frequency by this method as indicated in Fig. 4. The curve of interest is that marked $a = \infty$.

Where requirements are less stringent, the simplified circuit shown in Fig. 5 can be used between points A and B on Fig. 3. It would be adequate for receiving a 5-kc subchannel on which 5-percent distortion and a signal-noise ratio of about 55 db could be tolerated.

Important considerations in evaluating the system include: the overall frequency response and dis-

tortion characteristics of the auxiliary channel; the cross talk from the main channel into the auxiliary channel for different modulation levels of the main channel as a function of main channel modulating frequency; and the signal to noise ratios of the two channels for various signal input levels to the multiplex receiver.

This data is based on a main carrier frequency of 93.1 megacycles, modulated ± 20 kc, with a subcarrier of 27.5 kc. For field tests the program modulation of the main channel was held to ± 50 kc. For the auxiliary channel ± 5 kc corresponded to 100 percent modulation.

Multiplex Transmitter

Equipment was set up as shown in Fig. 1. To reduce crosstalk due to harmonics in the main channel modulating signal, a 15-kc low-pass filter was used ahead of the audio input to the main channel modulator.

The advantages of this arrangement are that the overall audio frequency response, the noise and distortion characteristics, that is, the basic performance characteristics of the main channel, remain unaffected by this modification. In addition, the signal-to-noise ratio of the auxiliary channel is improved. Crosstalk problem between the main and the auxiliary channel in the transmitter has been avoided by keeping the two channels separated until the normal circuit bandwidth requirements permit the use of circuits sufficiently wide to insure the necessary

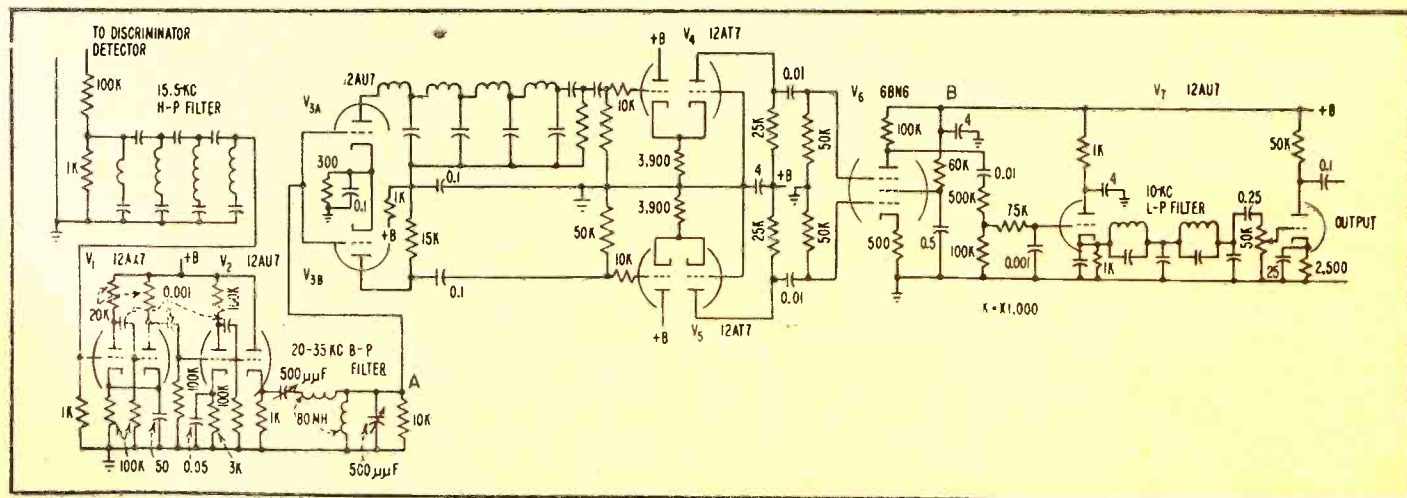


FIG. 3—Circuit diagram of the subcarrier receiver portion that follows discriminator of main-channel receiver

phase linearity to prevent the effect.

To contain the frequency range of the auxiliary channel modulation to the channel capability, an 8.5-kc low-pass filter was used ahead of the audio input to the auxiliary channel modulator.

The advantages of this method of generating the subcarrier are crystal control of the subcarrier with the attendant advantages of reliability and stability of operation and low noise and distortion characteristics of the modulator.

The usual 75 microsecond pre-emphasis circuits were available for use in both the main channel and the auxiliary channel.

Multiplex Receiver

The general arrangement of the receiving equipment used in the field tests and for making the measurements has been described under discussion of the receiver.

Field experience indicated the desirability of preceding this receiver with a fixed tuned 93.1-mc 6BK7 cascode amplifier. Such an amplifier was used ahead of the above described receiver in making the reported measurements. The input impedance of this pre-amplifier was approximately 75 ohms.

The auxiliary channel portion of the multiplex receiver which receives its signal from the main channel discriminator detector has been described.

Overall frequency characteristics of the auxiliary channel are shown in Fig. 6A. For these measurements no pre-emphasis was used in the auxiliary channel transmitter. The audio input was held constant so that for all modulating frequencies the deviation of the 27.5-kc subcarrier was ± 5 kc.

The resultant frequency characteristic was obtained by subtracting the 75 microsecond de-emphasis characteristic from the measured characteristic to take into account the effect of the 75 microsecond de-emphasis network following the detector in the auxiliary channel receiver.

The roll-off above 6,000 cycles results from the cumulative effect of the low-pass filter at the input and the band-pass filter at the out-

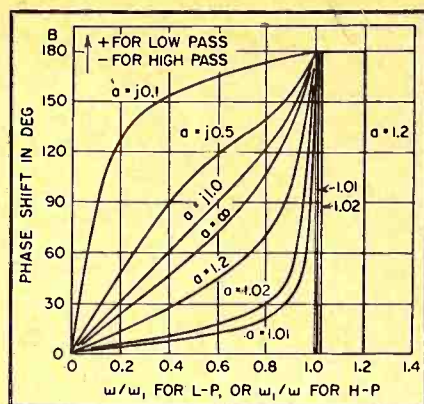


FIG. 4—Phase-shift per section for constant k filter

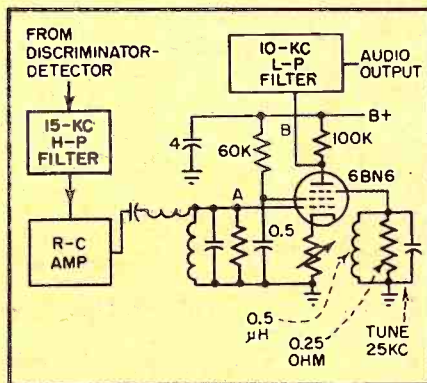


FIG. 5—Simplified receiver not used in accumulating data gives satisfactory reception

put of the auxiliary channel transmitter, the band-pass filter and the frequency-sensitive network in the auxiliary channel receiver and the 10-kc low-pass filter used to remove the subcarrier. These are factors within the control of the designer and are governed by the requirements of the system to be established.

Overall distortion characteristics of the auxiliary channel is illustrated in Fig. 6B. Distortion measurements shown were made for 100 percent and 50 percent modulation of the auxiliary channel. A Hewlett-Packard model 330B distortion analyzer connected to the audio output terminals of the auxiliary channel receiver was employed in recording these data.

A public demonstration at Columbia University was made with this receiver. Subsequent work with a similar receiver has shown that the distortion can be held to less than 2 percent for ± 5 kc deviation of the subcarrier for all the modulating frequencies involved. To do this requires closer attention to the design of the band-pass circuits and a different frequency-sensitive network. Here again, the

system requirements would control.

Crosstalk in the auxiliary channel due to main-channel modulation is shown in Fig. 6C. For these measurements the deviation of the 93.1-mc carrier by the 27.5-kc subcarrier was ± 20 kc.

To minimize the masking effects of hum and any residual subcarrier leakage in the output of the auxiliary channel receiver, a 500-cycle high-pass and a 15-kc low-pass filter were connected in cascade in the receiver output. The signal level was then established by modulating the subcarrier ± 5 kc with a 600-cycle modulating tone. With this modulation removed and no modulation on the main channel, the noise in the auxiliary channel was down 69 db.

It should be noted that for these measurements the 93.1-mc signal level across the 75-ohm input to the external cascode was approximately 1 millivolt, at which level the noise in the main and auxiliary channels is independent of receiver noise and is determined by the respective transmitters. This will be evident on examining Fig. 6D.

Main Modulation

The curves shown are for three different modulation levels of the main channel. In each case the main-channel deviation was held constant and the frequency of the main-channel modulating voltage was varied. The curves show the resultant crosstalk measured in the auxiliary channel output in db below the level established by modulating the auxiliary channel ± 5 -kc with a 600-cycle modulating tone.

These measurements were made in the laboratory at Columbia University but were spot checked at a receiving location approximately 2.5 miles from KE2XCC at Alpine, New Jersey. The site was chosen to make the measurements independent of receiver noise and possible multipath effects. No significant differences were observed between the field measurements and the curves shown in Fig. 6C.

For normal program modulation of the main channel (peak deviation ± 75 kc) the cross talk as measured with a Hewlett-Packard model 330B distortion analyzer

Multiplexing F-M Broadcast Transmitters (Continued)

point. The noise difficulties attendant upon operating a wide range frequency modulation system have been avoided by the narrowing down of the band width of the early multiplication stages of the main channel, so that the frequency changes introduced by thermal and tube noise component currents lying more than plus and minus 15 kilocycles from the oscillator frequency are not passed on into the auxiliary channel.

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The 10-kc filter was used to prevent overload of the audio amplifier for the second channel by the subcarrier frequency. It is determined by the choice of 8 kc for the modulating band of the second channel.

In some experimental receivers, the low-pass filter configuration used to shift phase between V_{3a} and V_4 was replaced^{3,4} by a double-tuned capacitance-coupled circuit.

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Equipment was set up as shown in Fig. 1. To reduce crosstalk due to harmonics in the main channel modulating signal, a 15-kc low-pass filter was used ahead of the audio input to the main channel modulator.

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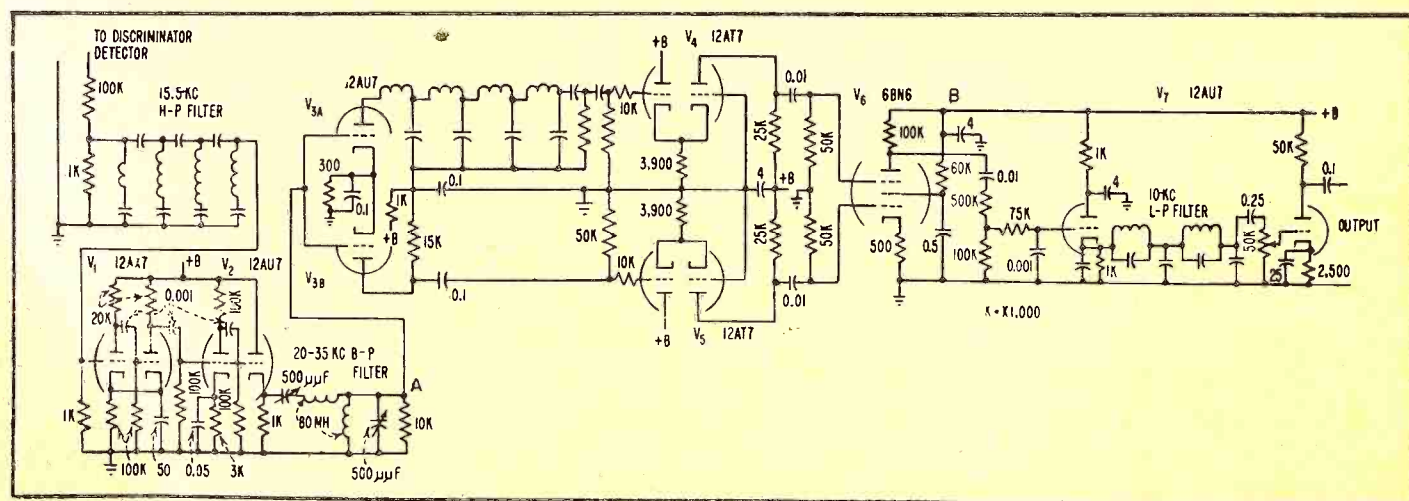


FIG. 3—Circuit diagram of the subcarrier receiver portion that follows discriminator of main-channel receiver

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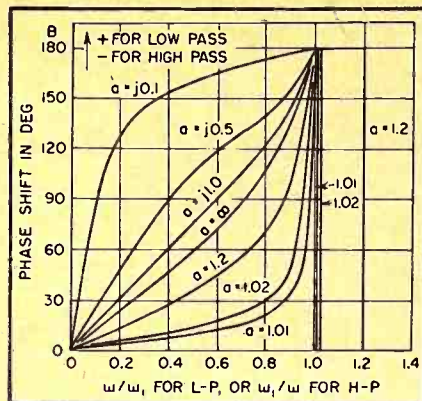


FIG. 4—Phase-shift per section for constant k filter

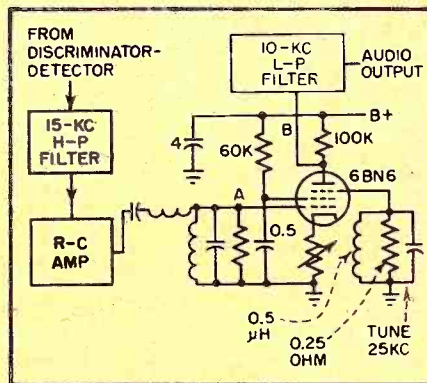


FIG. 5—Simplified receiver not used in accumulating data gives satisfactory reception

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It should be noted that for these measurements the 93.1-mc signal level across the 75-ohm input to the external cascode was approximately 1 millivolt, at which level the noise in the main and auxiliary channels is independent of receiver noise and is determined by the respective transmitters. This will be evident on examining Fig. 6D.

Main Modulation

The curves shown are for three different modulation levels of the main channel. In each case the main-channel deviation was held constant and the frequency of the main-channel modulating voltage was varied. The curves show the resultant crosstalk measured in the auxiliary channel output in db below the level established by modulating the auxiliary channel ± 5 -kc with a 600-cycle modulating tone.

These measurements were made in the laboratory at Columbia University but were spot checked at a receiving location approximately 2.5 miles from KE2XCC at Alpine, New Jersey. The site was chosen to make the measurements independent of receiver noise and possible multipath effects. No significant differences were observed between the field measurements and the curves shown in Fig. 6C.

For normal program modulation of the main channel (peak deviation ± 75 kc) the cross talk as measured with a Hewlett-Packard model 330B distortion analyzer

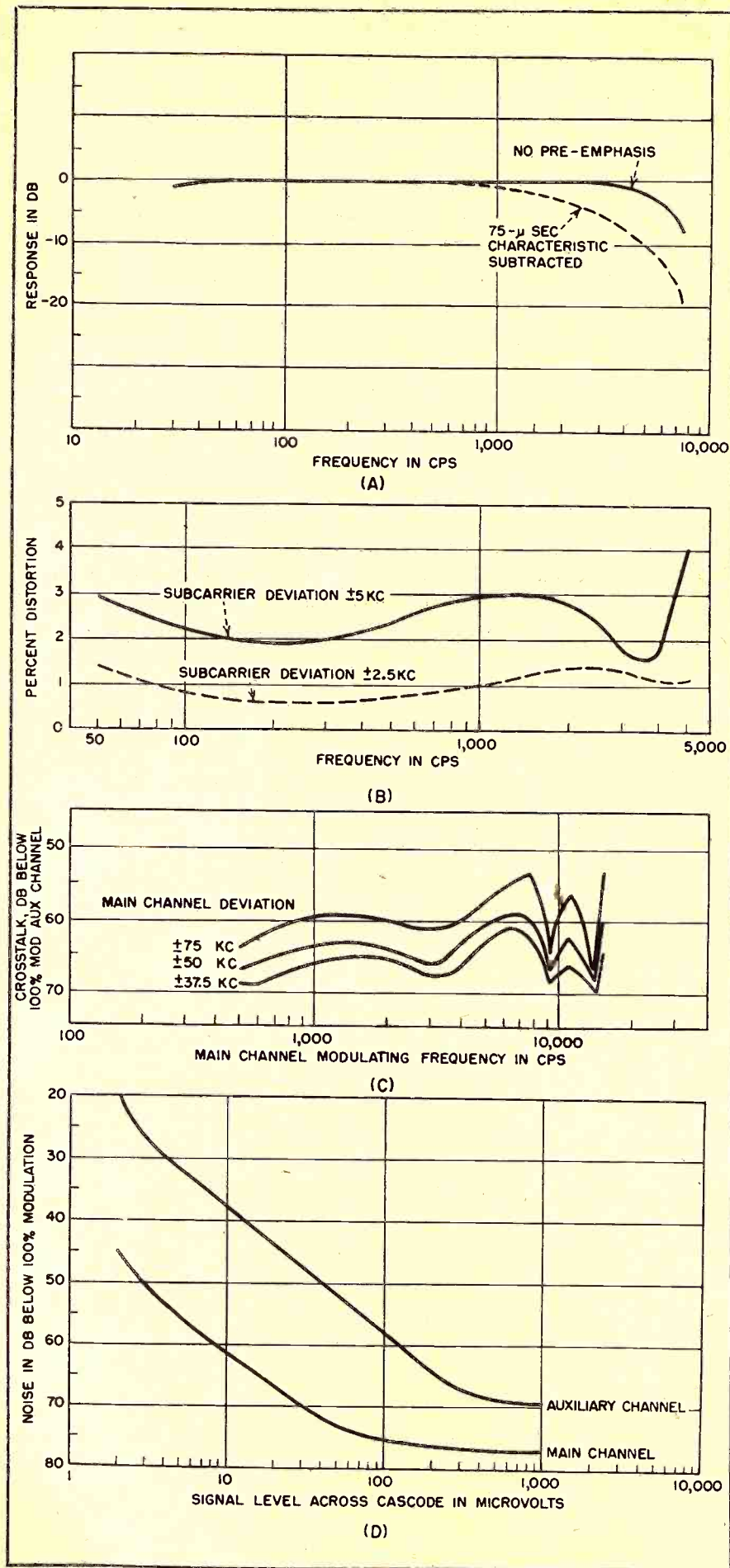


FIG. 6—Overall frequency characteristic of the auxiliary channel (A) overall distortion of the auxiliary channel for two subcarrier deviations (B) crosstalk in auxiliary channel owing to main-channel modulation (C) and signal-noise ratios of main and auxiliary channels using external cascode amplifier (D)

averages between -60 db and -65 db below full signal level for the auxiliary channel. For field tests where the peak deviation of the main channel was limited to ± 50 kc, the crosstalk was usually difficult to measure.

Signal to noise ratios of the main and auxiliary channels are shown in Fig. 6D. For these curves, the 93.1-mc carrier was deviated ± 20 kc by the 27.5-kc subcarrier.

The signal level for the auxiliary channel was established by deviating the subcarrier ± 5 kc with a 600-cycle modulating tone. The upper curve shows the noise in db below this level as a function of the signal level across the 75-ohm input to the cascode preamplifier.

The signal level for the main channel was established by deviating the main carrier ± 75 kc with a 600-cycle modulating tone. The lower curve shows the noise in db below this level as a function of the signal level as above.

For both curves the noise is measured in a 500-to-15,000 cycle band to eliminate the masking effects of hum and subcarrier leakage. This was found to be necessary in view of the high signal-to-noise ratios being measured.

It is of interest to note that for signals in excess of 500 microvolts across the input terminals, the signal-to-noise ratio of 69 db for the auxiliary channel and 77 db for the main channel are determined by the noise in the respective modulators.

Postwar laboratory development of the application of multiplexing to carriers in the 88 to 108-mc f-m broadcast band was begun in 1946, with field testing starting in the spring of 1949. This development was continued, with minor interruptions, until the present time and has included field experience with facsimile and program modulated subcarriers.

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NOISE FACTOR NOMOGRAPH

SUMMARY—Chart for receiver designers relates bandwidth, noise factor and power in antenna circuit. Noise factors for both 10-db and 3-db signal-to-noise ratios may be obtained

SIGNAL-TO-NOISE RATIO sets an absolute limit to the sensitivity of a receiver. The noise generated by the radiation resistance of the antenna over the overall bandwidth of the receiver sets a limit on how far receiver noise may be reduced. Therefore, the noise factor, which compares a receiver to what could be achieved if the antenna were the sole source of noise, allows receivers with drastically different bandwidths and antennas to be compared.

Above broadcast-band frequencies, power in the antenna circuit is important since the first tube has a finite input resistance. Therefore, the dbm concept, which refers all power levels to 1 mw, is convenient.

This chart allows the designer knowing any two of the factors: power in the antenna, bandwidth, noise factor, to determine the third. The center section of the chart enables various levels in μv in the more commonly used antennas to be translated into dbm.

The following examples are for communication receivers where the convention is to specify a 10-db signal-to-noise ratio, $(S + N)/N$, and a 30-percent modulated r-f input.

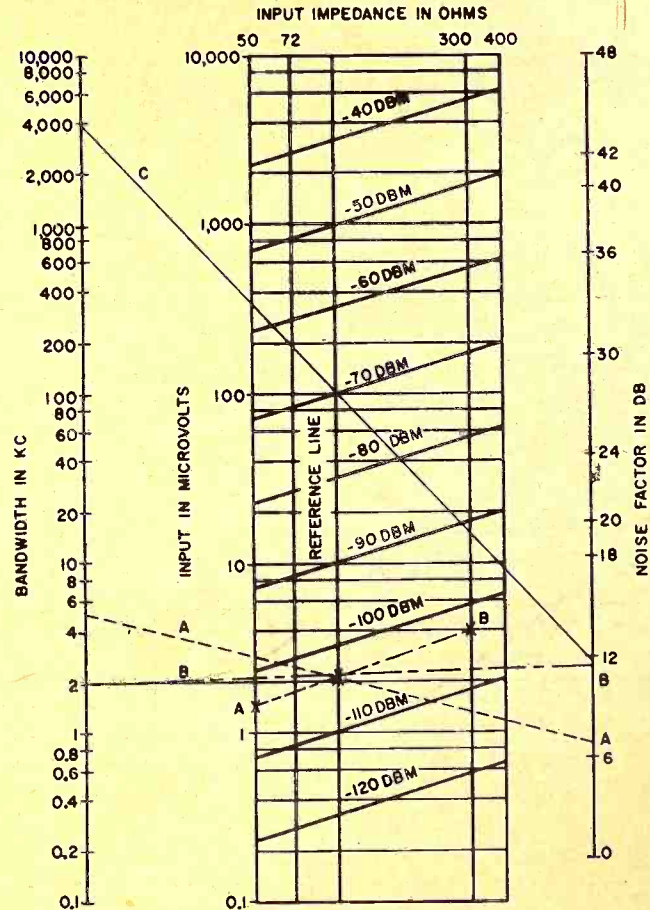
(1) Input = 1.5 μv , antenna resistance = 50 ohms and bandwidth = 5 kc. Locate point A at 50 ohms and 1.5 μv . Draw a line parallel to a dbm line to intersect the reference line. Connect 5 kc on bandwidth scale with this point and project the connecting line to the noise-factor column where $\text{NF} = 6.5$ db.

By **STUART McCARRELL**

(2) Input = 4 μv ; antenna resistance = 300 ohms and bandwidth = 2 kc. Locate point B at 300 ohms and 4 μv . Draw a line parallel to a dbm line to intersect the reference line. Connect 2 kc on the bandwidth scale with this point and project to the noise-factor column where $\text{NF} = 11$ db.

The same chart, with a fixed correction factor of + 3.4 db, may be used for radar systems where a 3-db signal-to-noise ratio and a 100-percent modulated r-f are specified.

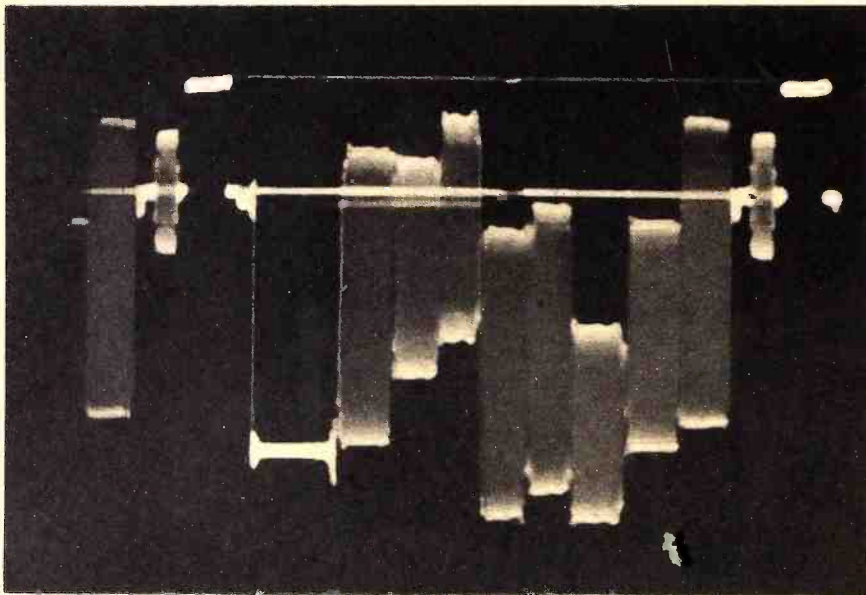
(3) If a radar receiver is to have an overall bandwidth of 4 mc and a noise factor of no worse than 15 db, what dbm sensitivity may be expected? Connect 4 mc and 11.6 db (15 db - 3.4 db) in the noise-factor column. This line (C) intersects the reference line at -70 dbm.



Noise factor scale is for 10-db signal-to-noise ratio with 30-percent modulation. Adding 3.4 db to noise factor value corrects scale for 3-db signal-to-noise ratio with 100-percent modulation

MATRIXING AND ENCODING

SUMMARY—Single encoded composite video signal appears at the output terminals of unit that combines color television signals under the NTSC system and feeds tv transmitter without distortion of any signal element



Signal at output of matrix and encoder unit in response to color-bar generator signal input

THE NTSC SYSTEM of color television transmission specifies that a composite video signal shall contain in separable form: a luminance signal which can be utilized by existing monochrome receivers to give a normal black and white picture and a two-component chrominance signal, which together with the luminance signal, conveys the complete color information.

Each of these signals is normally composed of a linear combination of the gamma-corrected red, green and blue signal outputs of a color camera, slide scanner or color-bar generator. Since the luminance and two components of the chrominance signal must be transmitted over a common communication channel, these signals must be distinguished from one another. The chrominance signal is superimposed as a modu-

lation on a subcarrier signal. The individual chrominance components are in turn distinguishable because their respective subcarrier signals are in phase quadrature.

The subcarrier must be transmitted at periodic intervals to provide the reference against which the phase of the chrominance signal may be compared. Modulation is accomplished in a balanced modulator to secure the advantages of a disappearance of the subcarrier in the absence of color. To minimize crosstalk between luminance and chrominance signals and between the components of the chrominance signals bandwidth limiting is required of the chrominance components before modulation.

The unit to be described accepts as inputs a blanking signal, a sync signal, a subcarrier signal, a burst-

key signal and the red, green and blue color signals. The unit performs the necessary operations of matrixing, modulation, bandwidth limiting, subcarrier reference-signal insertion and addition of blanking and sync signals.

Operational Stability

Feedback is used in all amplifier stages of this matrix and encoder unit to assure stability of gain and linearity of operation. In the modulator stages feedback is not easily achieved. Here the problem of stability is met by operating these stages at a high signal level. The drive signals, sync and blanking, are amplified and passed through limiting stages. This insures that the waveform and amplitude of these signals, as they appear at the output, are insensitive to amplitude and waveshape at the inputs.

NTSC Specifications

The NTSC specifications, that are relevant in the present discussion are given in Table I, Eq. 1 through 4. The symbols R , G and B represent respectively the gamma-corrected amplitudes of the signals furnished by the red, green and blue cameras and have a maximum amplitude of unity. The symbol Y represents the luminance signal, while I and Q represent the amplitudes of the two quadrature subcarrier voltages that convey color information. Finally, the symbol E represents the total video signal.

In the absence of color, $I = Q = 0$, the subcarrier amplitude is required to be zero. This feature requires that the modulators operate

as balanced modulators and hence furnish zero output in the absence of modulation. A pure luminance signal results when the R , G and B camera signals are of equal amplitude. Note in the derived relationships in Table I, Eq. 5 through Eq. 8 that $I = Q = 0$ when $R = G = B$.

The Y signal bandwidth is limited only by channel space allotted, while, as noted in Table I, the I and Q signals are restricted to bandwidths of 1.3 mc and 0.5 mc respectively.

The color-bar signal chart of Table II specifies the amplitudes of camera signals that give rise to maximum amplitude of the color signals listed in the column labeled signal. The subcarrier phase is specified with respect to the phase of the reference burst whose phase is arbitrarily specified to be 180 deg. The information in the last two columns of the chart is also given as a sinor diagram in Fig. 1.

In Fig. 2 the appearance of the composite video signal on a line basis, that is, from one horizontal sync pulse to the next is shown. The solid line represents the luminance signal which serves as the pedestal upon which the subcarrier signal is superimposed. The dotted lines represent the peak positive and negative excursions of the subcarrier signal. The reference phase burst is nominally eight cycles in duration and sits on the back porch of the horizontal blanking pulse. For convenience, black level has been set arbitrarily at zero. The small separation between blanking level and black level is referred to as set-up.

Matrixer and Encoder

Each of the camera input signals is fed directly to the Y -matrix as shown in Fig. 3. The Y -matrix, composed purely of resistors, provides at its output a linear combination of the R , G and B signal, which is proportional to the signal Y as given in Table I. From Eq. 5 and 6 note that it is possible to form I and Q signals in a matrix, the input signals to which are the R , G and B signals. Such an arrangement would require the use of two inverting amplifiers to provide the signals $-G$ and $-B$.

These inverting amplifiers would then be required to have a high de-

gree of gain stability and freedom from distortion. The gain stability is needed to assure accuracy in the matrixing. Freedom from distortion is required so that $I = Q = 0$ when $R = G = B$. If either of the inverting amplifiers produces some harmonic components of the input signals, these harmonic components will constitute a residual in the I and Q channels when, in principle, no chrominance signal should be present. Thus the I and Q signals are formed on the basis of the alternative formulations given by Eq. 7 and 8. Now only the Y signal need be inverted.

The Q signal from the Q -matrix is passed through a bandwidth-limiting filter and then into the Q amplifier. The signal is amplified and converted finally into the symmetrical signal required for the push-pull operation of the Q modu-

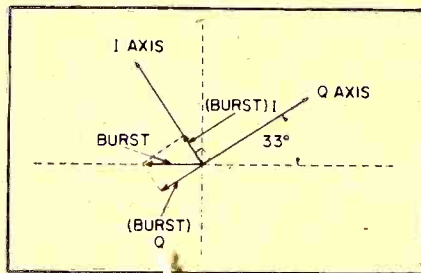


FIG. 4—Burst signal generated by simultaneous unbalance of the I and Q modulators

lator. The I signal from the I -matrix is treated in an identical fashion with the single exception that the I signal passes additionally through a length of delay cable. This delay is required because the delay in the Q filter is appreciably larger than the delay through the I filter. The NTSC specifications require that all components that contribute to the final video signal must be delayed by an equal amount to a tolerance of $\pm 0.05 \mu\text{sec}$. This requirement also accounts for the delay introduced into the sync, blanking and burst-key channels.

In addition to the I and Q video signals, which are fed to their respective modulators, each modulator also receives a push-pull 3.58-mc subcarrier signal. This subcarrier signal, provided by a color sync generator, is amplified and limited in a two-stage tuned amplifier so its amplitude at the modu-

Table I—NTSC Specifications Relevant to Matrixing and Encoding Unit and Derived Relations

NTSC SPECIFICATIONS	
(1)	$E = Y + [Q \sin(\omega t + 33^\circ) + I \cos(\omega t + 33^\circ)]$
(2)	$Y = 0.30R + 0.59G + 0.11B$
(3)	$I = -0.27(B - Y) + 0.74(R - Y)$
(4)	$Q = 0.41(B - Y) + 0.48(R - Y)$
DERIVED	
(5)	$I = 0.599R - 0.2773G - 0.3217B$
(6)	$Q = 0.213R - 0.5251G + 0.3121B$
(7)	$I = 1.472R + 1.449G - 2.925Y$
(8)	$Q = 0.480R + 0.410B - 0.890Y$
Q-Channel Bandwidth	
At 400 kc less than 2-db down	
At 500 kc less than 6-db down	
At 600 kc at least 6-db down	
I-Channel Bandwidth	
At 1.3 mc less than 2-db down	
At 3.6 mc at least 20-db down	

lators is independent of variations at the subcarrier input jack. The subcarrier is applied directly to the I modulator and phase shifted by 90 deg before application to the Q modulator.

The output of each modulator is a balanced, a-m signal. The amplitude in one case is proportional to the I signal; the amplitude in the other case is proportional to the Q signal. The two outputs are added in a common plate load. Since the two outputs are in quadrature, the resultant signal is one that is modulated in both amplitude and phase. The phase indicates the relative amounts of I and Q while the amplitude, $(I^2 + Q^2)^{1/2}$ is related to the amount of chrominance signal. For a purely black and white scene there would be no output from the modulators and a signal would appear only in the luminance channel.

Owing to the slight but inevitable nonlinearity of operation of the modulators, second and higher harmonics of the subcarrier are generated, which must be eliminated. For this purpose, the modulated subcarrier is passed through a low-pass filter. The frequency response from the plates of the modulators to the composite video output jack is uniform to within 1 db up to 5 mc and negligible at 7.16 mc ($2 \times$ subcarrier) and thereafter.

The color burst constitutes the phase reference for the chromi-

Table II—Color Bar Signal Chart

SIGNAL	R	G	B	Y	SUBCARRIER	
					Amplitude	Phase
R	1	0	0	0.30	0.635	103.42°
RG (Yellow)	1	1	0	0.89	0.447	167.13°
G	0	1	0	0.59	0.593	240.83°
GB (Cyan)	0	1	1	0.70	0.635	283.42°
B	0	0	1	0.11	0.447	347.13°
BR (Magenta)	1	0	1	0.41	0.593	60.83°
RGB (White)	1	1	1	1	0	.....
B - Y	0.1571	0	1	0.1571	0.4135	359.63°
(R - Y = 0)	0.5371	0	1	0.2711	0.4265	33°
(I = 0)						
R - Y	1	0	0.3371	0.3371	0.5848	90.03°
(B - Y = 0)						
I	1	0.4056	0	0.5393	0.4865	123°
(Q = 0)						
(G - Y) |90°	1	0.7317	0	0.7317	0.4313	146.38°
(G - Y = 0)						
Color Burst					0.20	180°
-(B - Y)	0.8429	1	0	0.8429	0.4135	179.63°
(R - Y = 0)						
-Q	0.4629	1	0	0.7289	0.4265	213°
(I = 0)						
-(R - Y)	0	1	0.6629	0.6629	0.5848	270.03°
(B - Y = 0)						
-I	0	0.5944	1	0.4607	0.4865	303°
(Q = 0)						
-(G - Y) |90°	0	0.2683	1	0.2683	0.4313	326.38°
(G - Y = 0)						

chrominance signal. The NTSC specifications require that on a sinor diagram on which the phase of the burst is 180 deg, that the phase of a pure Q signal shall be 33 deg while the phase of a pure I signal shall be (33 deg + 90 deg) = 123 deg. These phase relations are indicated in Fig. 4. A color burst of proper phase can be generated by unbalancing simultaneously the I and Q modulators so that the relative amplitudes of the modulator outputs are related by the equation

$$\frac{(\text{Burst})I}{(\text{Burst})Q} = -\tan 33 \text{ deg}$$

The burst-key pulse is furnished by a color sync generator and has a duration of nominally eight cycles of the subcarrier signal. This color pulse is passed through an impedance-matching cathode follower into a delay cable and then through a shaping amplifier. The signal then proceeds through a gain-and-phase-control amplifier. This amplifier provides two burst-pulse outputs and has provision for adjusting independently the relative amplitudes and overall amplitudes of the burst-pulse outputs. The burst pulses are then injected into the I and Q amplifiers through a pair of buffer amplifiers.

Sync and blanking signals are passed through shaping amplifiers to make them independent of the input amplitudes, then mixed to-

gether and added to the Y signal. This composite Y signal is delayed, further amplified and added to the chrominance signal. This forms a composite video signal that is delivered to the output jack through an output amplifier. This output amplifier is adjustable in gain, has excellent linearity and will furnish a 1.4-volt peak-to-peak signal across a 75-ohm load. The output impedance is 75 ohms.

Synchronous clamping circuits are employed at the input to the output amplifier and at the video inputs to the modulators.

Video Amplifiers

Long-time stability results in large measure from use of nega-

tive feedback in all video amplifiers. With the exception of the output stage all are of the form shown in Fig. 5A. The merits of this stage with respect to stability and linearity are apparent through a comparison of the characteristics of this stage with a conventional stage of video amplification as shown in Fig. 5B. The conventional stage has a nominal gain, $A = -g_m R_L$ and an upper 3-db frequency, $f_2 = (2\pi R_L C_o)^{-1}$, C_o being the total capacitive loading of the stage. The cathode compensated stage of Fig. 5A when adjusted so that $R_k C_k = R_L' C_o$ has a gain and 3-db frequency given respectively by

$$A_c = \frac{g_m R_L'}{1 + g_m R_k} \text{ and } f_{2c} = \frac{1 + g_m R_k}{2\pi R_L' C_o} \quad (9)$$

Note from Eq. 9 that in both cases the gain-bandwidth product is the same, $A f_2 = A_c f_{2c}$.

If R_L' in the cathode compensated amplifier is selected to be $R_L' = k R_L$ and R_k is selected so $g_m R_k = k - 1$, then, from Eq. 9, the gain and bandwidth of the compensated stage will individually be equal to the gain and bandwidth of the conventional stage. In the conventional stage a given percentage variation in g_m will produce an equal percentage variation in gain. In the compensated stage however the fractional change $\Delta A_c / A_c$ in gain resulting from a fractional change $\Delta g_m / g_m$ in transconductance is given by

$$\frac{\Delta A_c}{A_c} = \frac{1}{k} \frac{\Delta g_m}{g_m} \quad (10)$$

This result follows from the gain

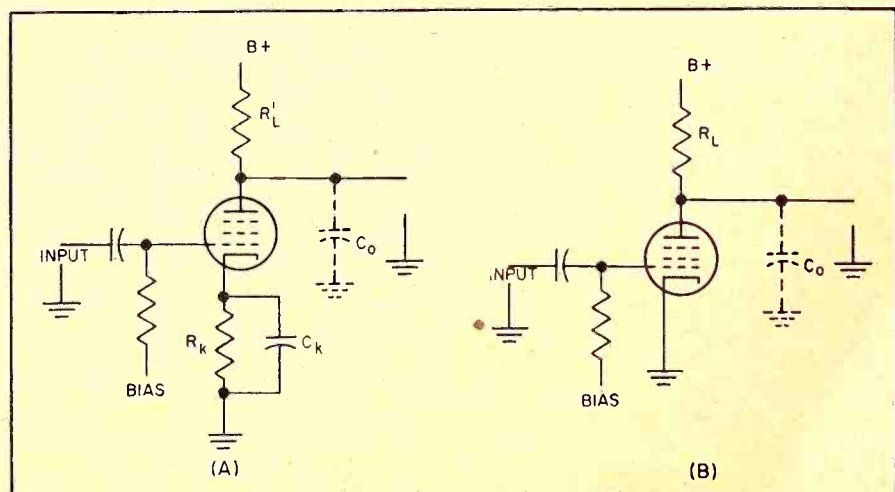


FIG. 5—Cathode-compensated amplifier stage (A) and conventional stage (B)

expression in Eq. 9. The principal source of gain instability in a video amplifier is the variation of g_m resulting from tube aging. Equation 10 indicates that the modification of a conventional amplifier in accordance with the procedure given above will preserve gain and bandwidth and reduce gain drift by the factor k .

Another advantage of the use of cathode compensation is a reduction of the nonlinearity of the amplifier. In a conventional amplifier nonlinearity of operation results essentially from the fact that the transconductance is a function of tube current and that, as a consequence, the amplifier gain varies over the range of the signal excursion.

Reduction of distortion may also be seen from the following considerations. Suppose that a peak-to-peak output signal E is required. In a conventional amplifier the tube must swing through a current range ΔI such that $R_L \Delta I = E$. In the compensated amplifier, since $R_L' = kR_L$, the tube is only required to swing through a current range $\Delta I/k$ and

hence through a correspondingly smaller range of transconductance.

The output amplifier is of the type developed by Peterson and Sinclair and is illustrated in Fig. 6. Tube V_1 serves as a phase inverter to provide push-pull signals to the grids of V_2 . In the quiescent condition the currents through V_{2A} and V_{2B} are equal and the load current is zero. A signal excursion at the grids of V_2 causes a current change, say ΔI , in V_{2A} and a current change $-\Delta I$ in V_{2B} . The difference current $2\Delta I$ flows through the load. Thus, the output tubes operate effectively in push-pull with a consequent reduction in even harmonic distortion. At the same time the circuit provides the convenience of a single ended output.

Shaper Amplifiers

Shaper amplifiers are used in this unit to standardize certain signals: blanking; sync; and the burst-key signal. The shaper chain shown in Fig. 7 is typical. Composite blanking is fed to the triode section of the 6U8 tube whose output is sufficient to drive the pentode section from clamp to beyond cutoff. The positive peaks of the output of the pentode are clean, free of overshoots and yet sharply rising owing to the rapidity with which the tube was driven to cutoff. The final stage of this chain, V_2 , is driven from zero bias to beyond cutoff. Direct coupling to the grid of this stage insures that no overshoots will be generated due to grid-current charging of coupling capacitors. The output of this stage is clean on both ends, independent of the amplitude of the

input blanking signal and suitable for mixing into the luminance channel. Gain control of the signal is accomplished by varying the screen voltage of V_2 , which controls the plate-current swing for a given grid-voltage swing.

The balanced modulator provides an output subcarrier signal whose amplitude is proportional to the video input signal and is zero when the video signal is zero. The basic modulator circuit is shown in Fig. 8.

If the two tubes are operating identically, and if the input signals are perfectly balanced, there will be zero output in the common plate load. If, due to asymmetries of circuit components or tubes or unbalance of subcarrier signals, output is obtained for zero video input, control R_2 may be adjusted to give zero output. If an unbalance exists that results in a video signal appearing at the output the video gains of the two sides may be equalized by adjusting R_1 .

Varying the bias on grid 1 affects sharply the total space current. Grid 3 controls the partition of this current between plate and screen. For a given voltage swing on grid 3 the plate-current swing will be greater if the total space current is greater and smaller if the space current is smaller. Hence R_2 , which controls the grid-1 biases, may be used to control the subcarrier output of each side. Changing the bias on grid 1 also changes the video gain of the tube and this appears as a secondary effect.

Adjusting R_1 varies the amount of cathode degeneration of the video gain of each side and there-

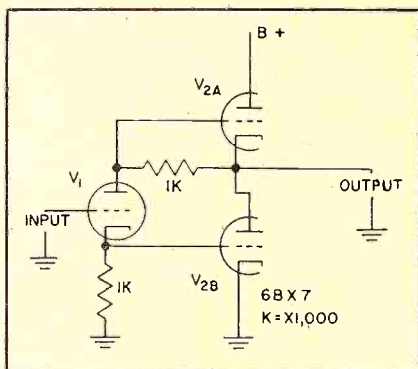


FIG. 6—Composite video output amplifier circuit

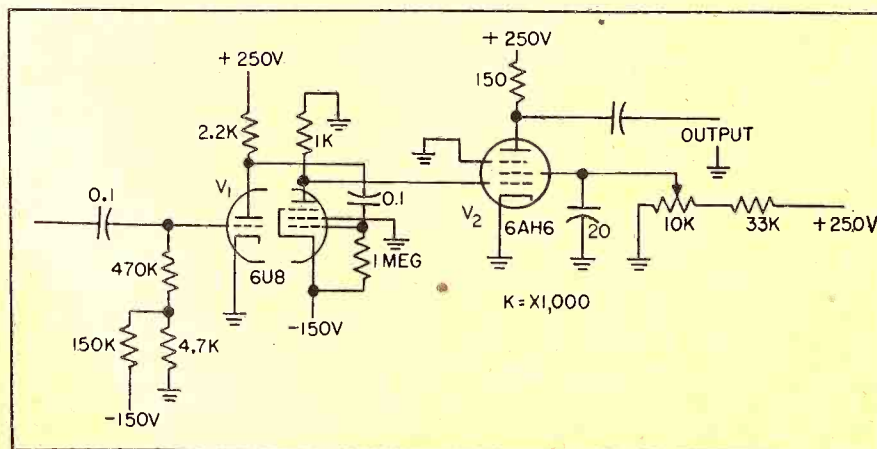


FIG. 7—Composite blanking is fed to the grid of V_1 of the shaper-amplifier chain

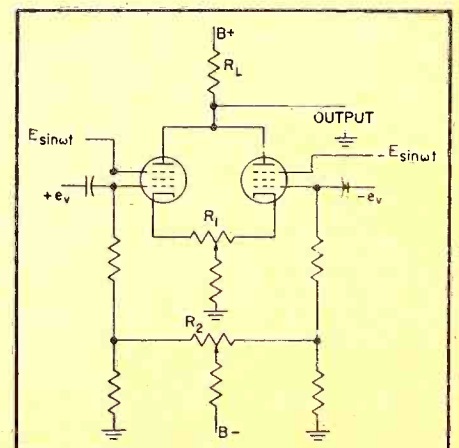


FIG. 8—Basic balanced modulator

fore acts as a video balance. However, it also affects the net grid-1 bias and therefore has the secondary effect of influencing the sub-carrier balance.

Synchronous Clamping

A modulator must provide zero subcarrier output during the blanking interval of its video input. Hence, during this blanking interval the two first grids of a modulator must return to the same voltage level. However, the chroma amplifiers are a-c coupled and the absolute voltage level at the modulator grids individually will be a function of the chrominance-signal duty cycle.

Provision is therefore required for resetting both modulator grids to some common reference voltage during the blanking interval. The problem may not be solved through the use of d-c coupled amplifiers, since the *R*, *G* and *B* camera-input signals are a-c coupled. An examination of Eq. 7 and 8 in Table I shows that the *I* and *Q* signals may make either positive or negative excursions with respect to the zero voltage blanking level and therefore conventional d-c restoration is not suitable. The synchronous clamping circuit of Fig. 9 provides a satisfactory system of d-c restoration.

During the unblanked portion of the line, the diodes are held non-conducting by voltages developed across capacitors C_1 and C_2 . During the blanking interval, pulses are applied to the diodes that force them into conduction and thereby connect the modulator grid through the conducting diodes and resistors *R* to the reference voltage.

If the two clamp signals are alike (but opposite in polarity) there will be no net clamp signal appearing at the modulator grid. Any difference in rise and fall times between the pulses will result in spikes appearing at the modulator grid. Any difference in shape of pulse tops will appear as signal at the modulator grid. Significant differences in pulse amplitude are tolerable.

To obtain pulses as nearly alike as possible, a special pulse transformer has been designed having a pair of bifilar-wound output windings. Two other windings in the

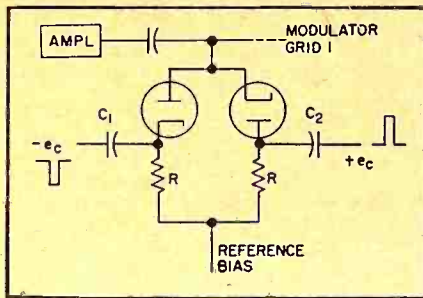


FIG. 9—Synchronous-clamp circuit

transformer are used in a conventional synchronized blocking-oscillator circuit. The synchronizing signal for the blocking oscillator is obtained from composite sync, which has been suitably delayed to match the delays in the chrominance and luminance channels. The blocking-oscillator timing has been so adjusted that, while it is easily synchronized by pulses occurring at line rate, it behaves as a 2-to-1 divider during the interval of the equalizing and serrated vertical pulses. The advantage of this 2-to-1 division is that it avoids a 60-cycle component in the clamping signal.

A synchronous clamp is also used at the grid of the output stage to minimize the required dynamic range of the output amplifier. If the signal applied to this amplifier were a-c coupled in conventional fashion, the average voltage level at the amplifier input would always be zero. As the duty cycle of the signal varies from one extreme to the other, the signal excursion with respect to zero goes positive or negative by an amount equal to the peak-to-peak voltage of the signal. Hence the amplifier is required to handle linearly a signal that is nominally twice the peak-to-peak input amplitude. Where linearity is at a premium, such operation is wasteful. The situation is corrected through the use of a synchronous clamp that restores the voltage at the output amplifier grid to a fixed reference at the end of each line.

The phase-shift circuit is shown in Fig. 10. A signal $E \sin \omega t$ is converted to a pair of push-pull signals by means of a bifilar-wound transformer LL' . To obtain a signal 90-deg out of phase, the original signal is fed to a series resonant circuit LC . The voltage across coil L will lead the input signal by 90 deg. The voltage across L will equal

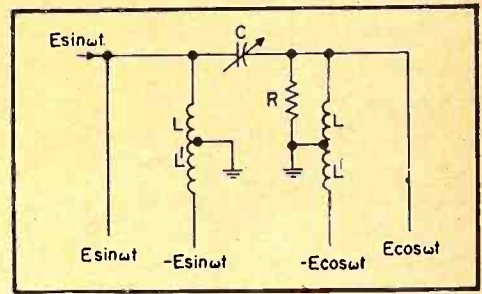


FIG. 10—Ninety-degree phase shift circuit

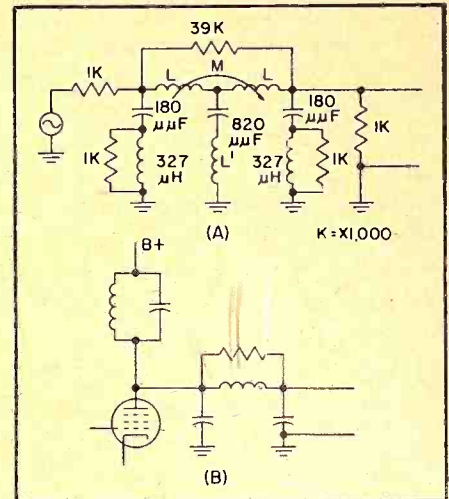


FIG. 11—*Q*-channel filter has Z_0 of 1,000 ohms (A) and *I*-channel filter (B)

Q times the input voltage. To make the output equal to the input we make $Q = 1$, that is, $R = X_L$. The actual calculation of R , L and C is complicated by the presence of stray capacitance across C , L and L' and the reflected impedance of L' into L .

I and *Q* Filters

The filter in the *Q* channel is shown in Fig. 11A. It consists of a single *m*-derived section and has a characteristic impedance of 1,000 ohms. The resistors shunted directly across the coils are employed for damping purposes to minimize ringing. An *m*-derived section ($m \cong 1.27$) is employed rather than a prototype section since the former provides a more nearly linear phase characteristic. This improved phase characteristic serves further to reduce ringing.

The *I* filter is of the form shown in Fig. 11B. It consists of a combination of tuned shunt peaking and series peaking. Both *I* and *Q* filters meet the NTSC specifications with a comfortable margin of safety. In both filters the residual ringing and overshoot is small enough to be negligible.

CROSS PULSE PICKUP

SUMMARY—To reduce bulk and expense in station layouts, engineers are often tempted to use twisted-pair cable instead of coaxial cable. Chart showing pickup in various kinds of cable indicates when this practice is acceptable

WHERE PULSED video signals must be connected to many different points in large electronic systems, the conservative approach is to use coaxial cables throughout. This ensures against cross pickup of signals between circuits, but can be expensive because of the cost of cable, terminations and installation labor. The bulk of the cable trunks can present problems in the layout of the system.

Tests on a sample length of twisted-pair communication cable and subsequent system experience have shown that certain types of pulsed signals, gate waveforms etc can be transmitted appreciable distances over twisted pairs without difficulty due to cross pickup. The feasibility of this method for a given application will depend on the steepness of pulses, sensitivity of other circuits to spurious interfering transients, length of cables etc.

It is important that the designer have some idea of the magnitude of the attenuation of cross pickup between pairs that can be expected under various conditions. The following information may help in deciding whether coaxial cable or twisted pairs can be used in a specific case.

A series of measurements was

By **J. GREGG STEPHENSON**

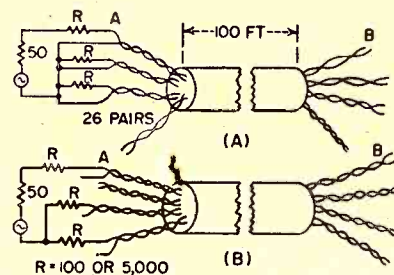


FIG. 1—Method for observing cross pickup in twisted pairs (A) and in single wires (B)

made on the cross pickup of pulses in a 100-foot length of standard, vinyl-jacketed, 26-pair communication cable, made with No. 22 solid copper wire with plastic insulation.

The connections for testing are shown in Fig. 1. Pair No. 25 was driven by a pulse generator with 10-microsecond pulses at 1,000 pps and 50 volts amplitude. The internal impedance of the generator was adjusted until the rise time of the pulse on the driven pair was 1 microsecond. Under these conditions the decay time was also found to be approximately 1 microsecond. The peak amplitude and nature of the transient on each of the other wires or pairs in the cable was then observed

and recorded on a wide-band oscilloscope.

Various impedance levels on the other wires or pairs were set by the value of resistors R. The attenuation data plotted in Fig. 2 were taken at the sending end of the cable, point A. Cable reflections complicate the nature of the transient observed at the far end of the cable, point B, but the general level of peak transients is about the same as that recorded at point A. The attenuation figures refer to the level of the observed peak of the transient due to cross pickup in decibels below the 50-volt input pulse on the driven pair. The attenuation figures actually represent a voltage ratio $20 \log_{10} 50/V_a$ where V_a is the peak voltage amplitude of the transient due to cross pickup. Strictly speaking, this is not in decibels because of the differing impedance levels.

Typical transients observed as a result of cross pickup are shown in Fig. 3.

Conclusions

The measured results lead to the following conclusions, which apply specifically to a 100-foot length of standard communication cable.

(1) With no grounded wires

IN TWISTED-PAIR CABLE

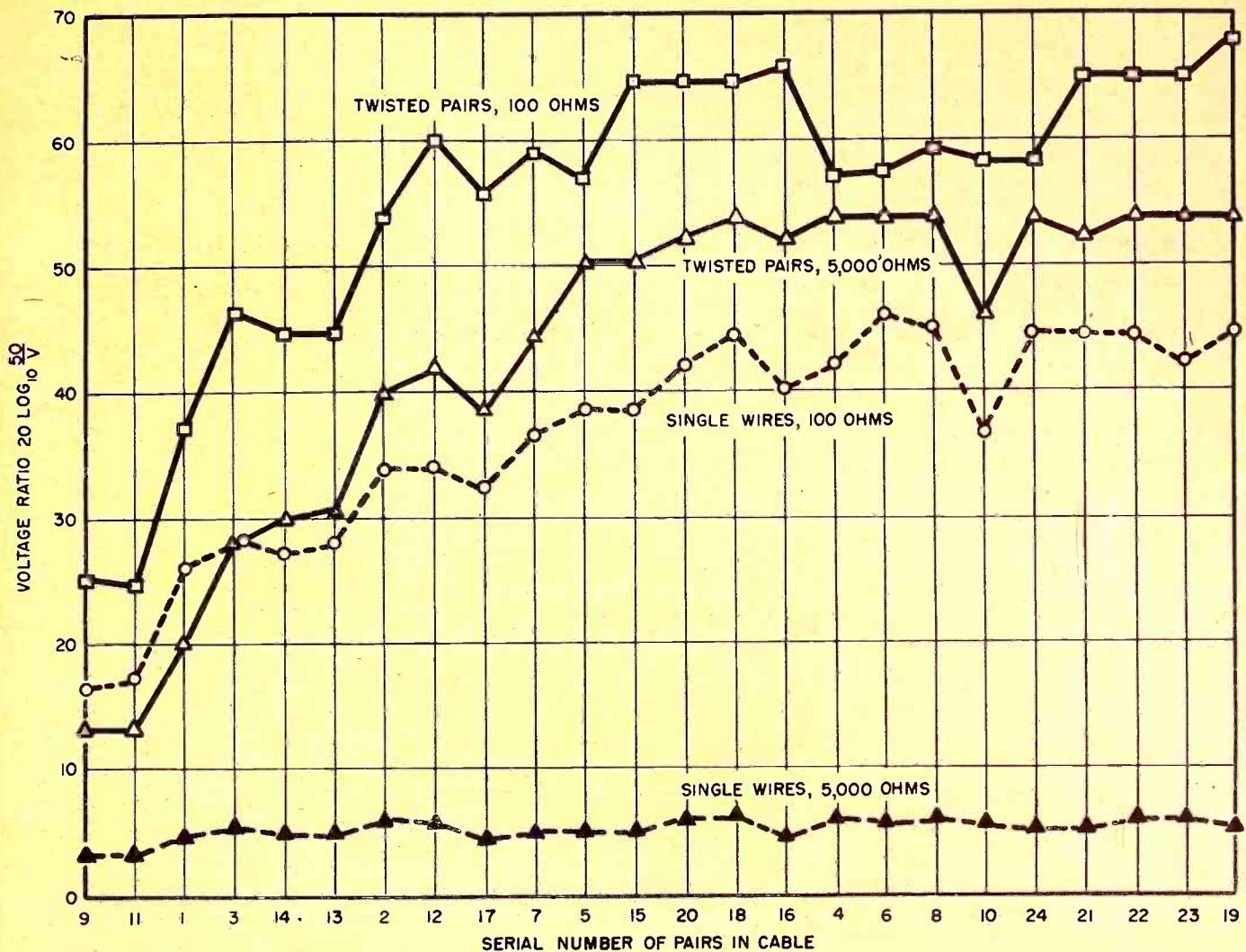


FIG. 2—Attenuation versus serial number of pairs in Alpha 1312 cable 100 ft long with 26 pairs of No. 22 solid wire; 50-v input pulse is applied to pair No. 25

in the cable, the cross pickup on individual wires of the other pairs is attenuated only 3 to 6 db.

(2) With no grounded wires in the cable, the cross pickup on individual wires of the other pairs improves to a level between 16 and 44 db when the impedance level is reduced to 100 ohms.

(3) Using twisted pairs, with one wire of each twisted pair grounded and serving as a partial shield, the attenuation of cross pickup increases markedly. At a 5,000-ohm impedance level, twisting improves the attenuation by 10 to 48 db. At a 100-ohm impedance level, twisting increases the attenuation by 9 to 26 db.

(4) The best conditions for attenuation of cross pickup were observed at a 100-ohm impedance level with twisted pairs.

The total attenuation varied from 24 to 68 db on various pairs. At a 5,000-ohm impedance level with twisted pairs, the attenuation varied from 13 to 54 db.

(5) The worst cases of cross pickup were observed on the

pairs physically nearest to the driven pair in the cable lay (pairs 9 and 11). The really bad cases appear to be limited to about 10 percent of the pairs in the cable. All others show at least 10 db more attenuation than the few worst pairs.

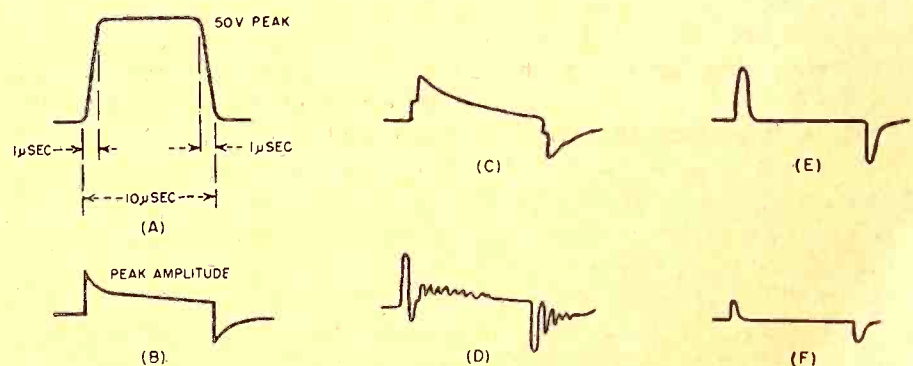


FIG. 3—Typical transients: 50-v input pulse (A), pickup at 5,000-ohm level, single wire (B), 5,000-ohm level, twisted pair (C), 5,000-ohm level, single wire at unterminated end (D), 100-ohm level, single wire (E) and 100-ohm level, twisted pair (F)

DESIGNING OVERSTAGGERED DOUBLETS

SUMMARY—Stagger-tuned amplifiers can be peaked to give response curves similar to overcoupled transformers. Advantages include increased gain and skirt selectivity. Curves provide a useful aid in designing the tuned circuits

By HAROLD D. WEBB

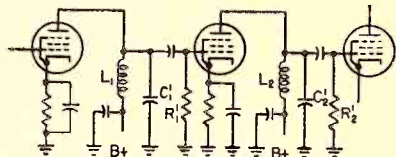


FIG. 1—Staggered doublet

DESIGN PROBLEMS

To select components for an overstaggered doublet, the designer must first determine the Q and resonant frequency of each tuned circuit. He begins by knowing only the desired center frequency, f_o , bandwidth B and permissible dip in db d .

The Q 's are to be equal for both tuned circuits. The resonant frequencies are related by α . If the frequencies are f_{o1} and f_{o2}

$$f_{o1} = f_o/\alpha$$

$$f_{o2} = f_o\alpha$$

Should the designer want to work from equations, he would determine first the quantity γ

$$d = 20 \log_{10} [1/\sqrt{1 - (\gamma^2 - 1)^2}]$$

from which $\gamma^2 - 1$ must be negative for overstaggering. This quantity is used to solve for q

$$q = 1/b \sqrt{(1 - \gamma^2) + \sqrt{1 - (\gamma^2 - 1)^2}}$$

where b is defined by $b = f_o/B$.

The designer may now evaluate the Q of the tuned circuits

$$Q^2 = [4 + q^2 + \sqrt{(4 + q^2)^2 - 8q^2\gamma^2}]/4q^2\gamma^2$$

Now α is found in terms of Q , q and γ

$$\alpha^2 = q^2\gamma^2Q^2 - 1 + \sqrt{(q^2\gamma^2Q^2 - 1)^2 - 1}$$

THE OVERSTAGGERED doublet gives an amplitude response with a dip resembling that for an overcoupled transformer. Its advantages include increased peak and center-frequency gain, increased skirt selectivity and less critical adjustment. The desired type of output can be obtained only in the absence of regeneration or any other type of feedback that affects the shape of the response characteristic. A staggered doublet is shown in Fig. 1.

Curve family I shows Q plotted against b for various values of dip d . Curve II plots a versus b . Quantity b is the ratio of center frequency to half-power bandwidth, and a is used to find the resonant frequencies. The values of a versus b are so nearly the same for various amounts of dip that only one curve for a versus b is given. This is the curve for the maximally flat case, $d = 0$. Also plotted are γ^2 versus d , curve III; peak gain improvement in db versus d , curve IV; center-frequency gain improvement in db versus d , curve V; and skirt selectivity versus d , curve VI. Skirt selectivity is the ratio of bandwidth 10 db down to bandwidth 3 db down.

From curves I the value of Q

may be read directly. The stage resonant frequencies are found using the value of a read from curve II. For a given value of C , L is found from $L = 1/C\omega^2$ and R is found for each stage from $R = Q/C\omega$.

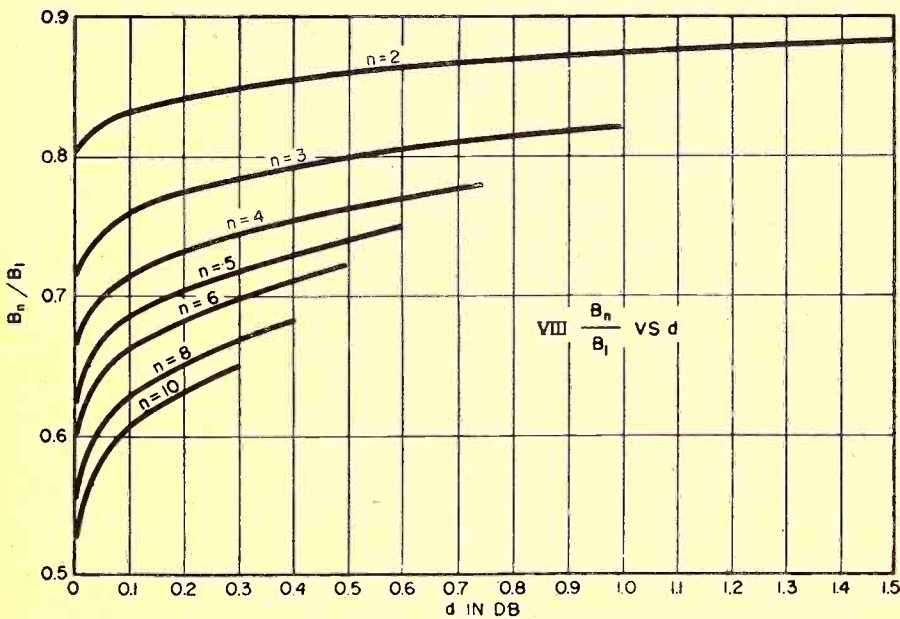
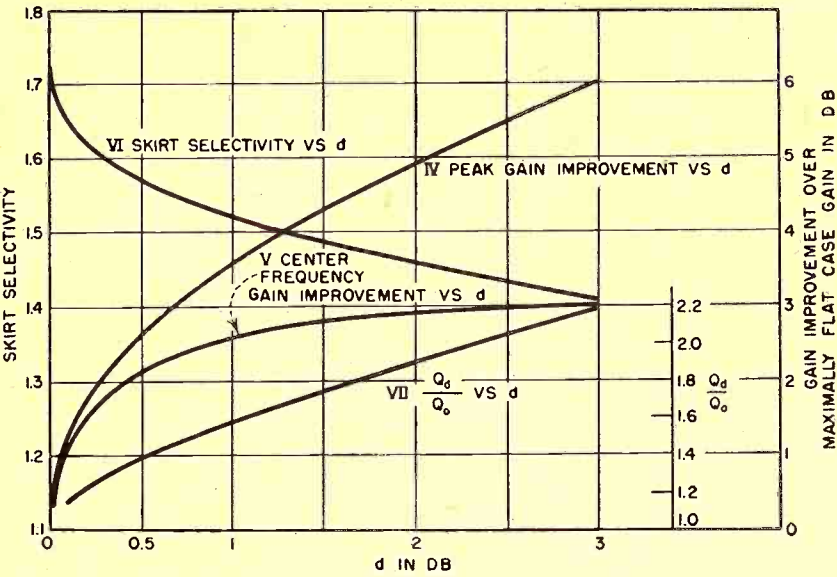
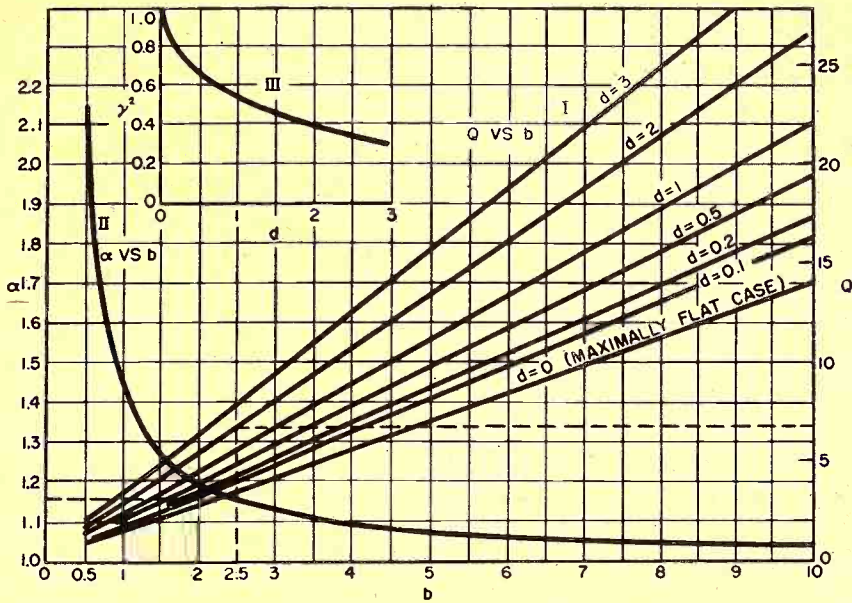
For the curves the value of b is limited between 0.5 and 10. When the value of b is too large to be represented on the graph, find Q for $b = 8$, divide this value by 8 and multiply the result by the given value of b . To find f_{o1} and f_{o2} for values of b greater than 10 use $f_{o1} = f_o - B/2\sqrt{2}$ and $f_{o2} = f_o + B/2\sqrt{2}$; B is half-power bandwidth.

Example

Design a staggered doublet with center frequency 20 mc, bandwidth 5 mc at the half-power points and 1-db dip. Let C_1 and C_2 , the total shunt capacitances for each stage of the doublet, each be 12 μmf .

First, $b = f_o/B = 20/5 = 4$. From the 1-db dip curve I for $b = 4$, $Q = 8.9$.

From curve II for $b = 4$, $a = 1.093$. The center frequencies are $f_{o1} = f_o/a = 20/1.093 = 18.3$ mc and $f_{o2} = \alpha f_o = 21.9$ mc.



Two stages are used having center frequencies of 18.3 and 21.9 mc and effective Q's of 8.9.

The effective parallel resistance for the stage at 18.3 mc is $R_1 = Q/C_1\omega_{01} = 6,450$ ohms and for the stage at 21.9 mc $R_2 = Q/C_2\omega_{02} = 5,390$ ohms. The inductances are $L_1 = 1/C_1\omega_{01}^2 = 6.3 \times 10^{-6}$ henrys and $L_2 = 1/C_2\omega_{02}^2 = 4.4 \times 10^{-6}$ henrys.

The gain at the center frequency is $G = g_m/2\pi CB$, and the gain at the peaks is 1 db greater. From curves IV and V the peak and center-frequency gain improvements over a maximally flat stage are 3.6 and 2.6 db. The 10-db-down to 3-db-down skirt selectivity from curve VI is 1.52.

An alternate method is to determine Q from the 0-db-dip curve I, from which $Q_0 = 5.7$ for $b = 4$, and multiply this Q by the Q ratio obtained from curve VII for $d = 1$ db, which is 1.57. The Q used in the design is then $5.7 \times 1.57 = 8.95$.

Cascaded Pairs

In the design of overstaggered pairs for wide bandwidth response it is frequently necessary to use more than two stages. It may be desired to use two or more overstaggered pairs that are alike in design rather than to use a staggered quadruplet or sextuplet. The designer will be concerned with the overall bandwidth 3 db down from the peaks as compared to the bandwidth 3 db down from the peaks for one staggered pair. This information can be read from curve VIII, which is the ratio of the bandwidth 3 db down from the peaks to that of one pair versus d for various values of n where n is the number of like pairs that are cascaded. For n cascaded pairs the db dip for the overall response is n times the dip for one pair, if the pairs are all alike.

CHARACTERISTICS OF COMPUTERS

SUMMARY—Results of survey of digital computer manufacturers gives technical specifications on 32 computers with data on their associated magnetic-drum, tape and electrostatic-tube storage systems

Digital Computers

Model	Number Base	Word Length	Instruction Type	Computing Element	Active Components
APEXC	2	32 bits incl sign	2 address, 32 bits	6J6	230 electron tubes 90 crystal diodes
D-12	10	7 digits	Special		720 electron tubes 2,400 crystal diodes
G-15A	2	29 digits incl sign	2 address, 29 digits		400 electron tubes 2,800 crystal diodes
Gamma 3	10	1 to 12 digits, sign optional	1 address coded plugboard 1 inst equals 16 bits		400 electron tubes 7,100 crystal diodes
UDEC	Binary coded decimal	10 incl sign	1 address 2 inst per word, 5 digits per inst		3,000 electron tubes 15 relays
E 101	10	12 sign additional	1 address—externally stored	Flip-flops & diodes	160 electron tubes 1,500 crystal diodes
Tape DRUM					
Datatron	10	11 incl sign, 2 inst digits	1 address, 11 digit word, 2 inst, 4 address	Flip-flops & blocking oscillators	1,200 electron tubes 3,000 crystal diodes
Magnefile	10	15-42 decimal digits excl sign	1, 2, 3 & 4 address models 8 digit word		130-300 electron tubes 50-600 crystal diodes 40-90 relays
402	2	32 digits incl sign	one + one address (operand & next inst)	Germanium diodes	590 electron tubes 3,500 crystal diodes
Circle 1	Binary internal, decimal or sexadecimal external	44 binary digits incl sign & 6 binary inst digits	1 address, 5 sexadecimal digits per instruction	Vacuum tubes	700 electron tubes
Circle 2	Binary internal, decimal or sexadecimal external	48 binary digits incl sign & 6 binary inst digits	1 address, 5 sexadecimal digits per instruction	Vacuum tubes	900 electron tubes
Circle 3	Binary internal, decimal & sexadecimal external	44 binary digits incl sign & 7 binary inst digits	1 address, 5 sexadecimal digits per instruction	Vacuum tubes	1,000 electron tubes
CPC	Binary coded decimal	±10 excl sign	2-3 address, 7 inst digits if 3 address	Flip-flop	1,400 electron tubes 123 relays
604	Binary coded decimal	Variable	20-60 program steps (control panel)	Flip-flop	1,103-1,245 electron tubes 96 relays
607	Binary coded decimal	Variable	40-140 program steps (control panel)	Flip-flop	1,272-2,419 electron tubes 94 crystal diodes 123 relays
650	±10 (biquinary representation)	10 excl sign	2 address, 2 operation, 4 data address & 4 inst address	Series-parallel diode matrix adder capacitor to hold data	2,218 electron tubes 3,960 crystal diodes 600 relays
702	Binary coded decimal	Variable 1-10,000 incl sign	1 address, 5 digits per instruction	Crystal diodes	5,562 electron tubes 9,574 crystal diodes
705	Binary coded decimal	Variable 1-20,000 incl sign	1 address, 5 digits per instruction	Crystal diodes	6,259 electron tubes 11,549 crystal diodes
Libroscope	2	31 incl sign	1 address, 16 digits per inst word	Diodes	100 electron tubes 1,000 crystal diodes
ALWAC III	2	32 excl sign	1 address, 2 instructions per word	Flip-flops	240 electron tubes 6,000 crystal diodes
Mimiac	Binary coded decimal & pure binary	10 decimal or hexadecimal digits plus sign (41 bits)	1 address, 20 bit inst word, 2 inst digits for command, 4 for address	Static flip-flop registers	700 electron tubes 1,400 crystal diodes
Mourobot	Binary coded decimal	20 decimal digits (instructions 10 decimal digits)	4 address	Tubes	650 electron tubes 200 crystal diodes
CRC 102-D	10	9 excl sign	3 address, 14 octal digits per instruction word		400 electron tubes 5,000 crystal diodes 36 relays
Raycom	Binary coded decimal—alphameric	11 plus sign	3 address	Dynamic flip-flops & logical diode circuitry	2,000 electron tubes
Univac 60 & 120	10	10	Prewired on plugboard	22 ring counters	1,500 electron tubes 200 relays
Univac	10 (excess-3 code) alphameric (6-bit code plus check bit)	12 incl sign (instructions—6 characters)	1 address, 2 per word	Flip-flops	5,600 electron tubes 18,000 crystal diodes 300 relays
Univac Scientifico	2	36 binary digits	2 address	Flip-flops	4,500 electron tubes 6,000 crystal diodes 150 relays
180	2	45 incl sign	4 address, 45 digits	Diode logical circuits	2,500 electron tubes 40,000 crystal diodes 200 relays
Teleregister	2	8 & 11 bits	1 address		1,500 electron tubes 50 crystal diodes
Elecom 125	Binary coded decimal	10 plus sign	2 address, automatic address sequence	Delay-line registers using lumped parameter electrical delay lines with ferrite cores	600 electron tubes 6,000 crystal diodes
Elecom 50	Binary coded decimal	10 plus sign	2,400 operating steps on program tape	Dynamic flip-flops	160 electron tubes 2,000 crystal diodes

AND STORAGE DEVICES

BY JOHN M. CARROLL

Storage Devices

Model	Storage Media										
	Magnetic Drum				Electrostatic Tubes			Magnetic Tape			Other Media
	Dimensions (in.)	Speed (rpm)	Capacity (words)	Access Time (millisec)	No. of Tubes	Capacity (words)	Access Time (millisec)	Length	Capacity (words)	Access Time (millisec)	
APEC	5 (dia) 8 (length)	4,000	8,000	0.35-16							
D-12	11 (dia)	4,700									
G-15A	12	1,800	2,176	29 (max.)							
Gamma 3											Lumped parameter delay lines 48-84 decimal digits, internal —up to 372, external. Max access—0.17 millisec.
UDEC	8.5	3,500	5,300	0.3-17.0							
E 101	6	3,600	100	1.67-16.7							
TapeDRUM	12-30	1,000	200,000 digits per page								
Datatron	12	3,600	4,080	17.0 (max.)				2,400 ft	200,000	6.5 min (max.)	
Magnefile	8	1,200- 3,600 ft/min.	10,000	0.5-4 sec							
402	9	4,600	2,944	13.0 (max.)							Plug-in nickel delay line—15 word capacity, immediate access
Circle 1	8	3,450	1,024	0.5-16							
Circle 2	8	3,450	4,096	0.5-16							
Circle 3	8	3,450	4,096	0.5-16				2,400 ft	390,000	16 millisec-8 min (locate block) 22-80 (read/ write word)	
CPC											Vacuum tubes—50 positions electromech relays—160 positions—400 msec access accum register relays—80 positions—400 msec access Up to 5 aux storage units
604											Vacuum tube registers—50 decimal digits
607											Vacuum tube registers 66-162 decimal digits
650	4 (dia.) 16 (length)	12,500	1,000 or 2,000	0.098-4.8							
702			60,000 char.	0.04-16		10,000 char.	0.023 cycle time	2,400 ft		speed 75 ft/sec	
705			60,000 char.	0.04-16				2,400 ft		speed 75 ft/sec	Ferrite cores—20,000 char. 0.017 millisec cycle time
Librascope	6.5	3,600	4,096	0.25-17							
Alwac III	7.5	3,500	4 128 32 4,096	0.5 (computing storage) 0.5-7.5 (working storage) 0.5-15.5 (storage of constants) 96 (main storage—32-word block transfer time)							
Miniac	6.5	6,000	3,840 256	1.25-10 1.25-2.5 (fast access)							
Monrobot	10	3,600	100 numbers 200 inst	16							
CRC 102-D	12	2,400	1,024 8	0.4-25 0.5-3.2 (fast access)				1,200 ft	115,000	170 millisec to 160 sec	
Raycom								2,800 ft 3" wide	34 million digits	reading rate 56,000 dec. digits/sec	104,000 ferrite cores, 2,000 word capacity, 0.01 millisec access
Univac 60 & 120											Relays—10 digit capacity
Univac								1,500 ft	96,000	3 min max	Mercury delay lines—1,000 words 0.0404-0.404 millisec access
Univac Scientific	17×10	1,725	16,384	0.004-34	3.6	1,024	0.006- 0.01	4 units	200,000	45 in./sec	
180											Acoustic—128 elements, 1,024 words, 0.048-0.384 millisec access
Teleregister	20	1,200	74,000	0.1-50							
Elecom 125	9.5	3,600	1,000 to 10,000	1.7 (rapid) 8.3 (average)							Sorter—5 acoustic quartz delay lines
Elecom 50	8×2	1,800	50								

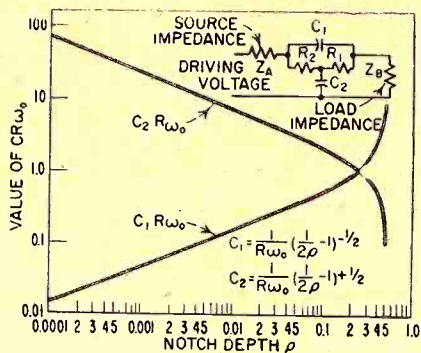


FIG. 1—Capacitor value curves

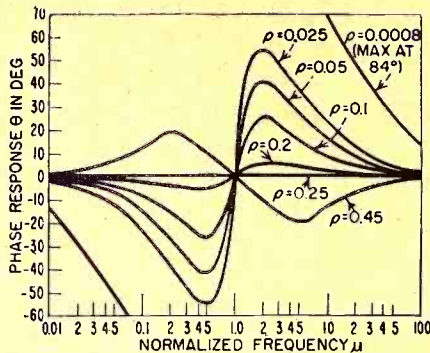


FIG. 2—Phase response curves

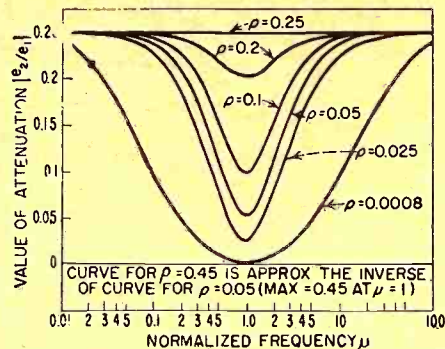


FIG. 3—Attenuation response curves

NOTCH NETWORK DESIGN

SUMMARY—Charts and simple synthesis procedure speed determination of component values for loaded bridged-tee network operating between equal impedances, for any desired notch depth and frequency. Attenuation and phase response are also given

By G. J. SAVANT, Jr. and G. A. SAVANT

SERVOMECHANISM design and equalization often call for amplitude attenuation at a particular frequency. This requirement, as with noise filters and many other applications, can often be satisfied by use of a bridged-tee notch network.

Practically, these requirements are usually reduced to approximately a ten-to-one ratio of load impedance to network and driver impedance. But even this simplification cannot be accomplished in many cases without undue circuit complexity.

Design of the R-C bridged-tee network in Fig. 1 involves specifying the notch frequency ω_0 , the notch depth ρ expressed as the gain of the network at the notch frequency, the source impedance Z_A and the load impedance Z_B .

The parameter for notch width n need not be considered in the

synthesis procedure presented here because notch width is minimized.

In this design procedure the source and load impedances are taken to be equal. This advantageous choice permits the cascading of a number of networks all of the same impedance level.

Design Procedure

As the first step, enter Fig. 1 with the notch depth ρ and read the values of $C_1R\omega_0$ and $C_2R\omega_0$. Now set $R_1 = R_2 = Z_A = Z_B = R$ and calculate C_1 and C_2 . If necessary, the source impedance can be made equal to the load impedance by padding.

Example: $Z_A = Z_B = 100,000$ ohms, $\rho = 0.05$ and $f_0 = 20$ cps. From Fig. 1, $C_1R\omega_0 = 0.33$ and $C_2R\omega_0 = 3.0$. Now $Z_A = Z_B = R_1 = R_2 = 100,000$ ohms, $\omega_0 = 6.28 \times 20 = 125.6$ radians per sec, $C_1 = 0.33/100,000 \times 125.6 = 0.026$

μf and $C_2 = 3/100,000 \times 125.6 = 0.24 \mu\text{f}$.

The attenuation and phase response for the bridged-tee network of Fig. 1 are plotted in Fig. 2 and 3 as a function of the normalized frequency $\mu = \omega/\omega_0$. The amplitude curves have the same symmetrical appearance and form as in the unloaded case¹ with two exceptions: (1) The d-c and infinite frequency gain is $\frac{1}{4}$. This means that the network acts as a four-to-one voltage divider at any frequency; (2) the minimum notch width becomes excessively wide for values of ρ over 0.025. The characteristics invert for values of ρ greater than 0.25 and the notch network changes from a band-reject to a band-pass filter.

REFERENCE

(1) C. J. Savant, Jr., How to Design Notch Networks, p 188, ELECTRONICS, May 1953.

TRANSISTOR CHARACTERISTICS FOR CIRCUIT DESIGNERS

SUMMARY — Tables indicate physical properties, maximum electrical ratings, small-signal low-frequency parameters and average characteristics for grounded-base, grounded-emitter, grounded-collector and switching circuits for 218 transistor types: 106 junction triodes, 46 high-frequency triodes, 6 tetrodes, 23 high-power units, 25 point-contact and 12 phototransistors

SUCCESSFUL transistor circuit design requires not only familiarity with transistor equivalent circuits and characteristic curves but also an understanding of the behavior of the parameters describing the transistor and the variation of these parameters with bias and temperature. Tables I to VI have been compiled as a systematic presentation of data necessary for transistor circuit design.

Each of the charts presents physical properties, maximum electrical

By **SEYMOUR SCHWARTZ**

ratings, typical small-signal low-frequency parameters, average characteristics for grounded-emitter, grounded-base and grounded-collector circuits and switching characteristics. Figure 2 illustrates the circuits referenced in Tables II and III.

Small-signal parameters are expressed as resistances. This permits a familiar physical representation of the transistor in circuit design. Box on p R-59 enables transformation between h and r parameters.

All the characteristics are for fixed-bias conditions. However, these values vary with operating conditions. Examples of these variations are shown in Fig. 1A, 1B, 1C and 1D.

Figure 1A illustrates how collector capacitance C_c varies with collector voltage V_c . In designing an i-f tuned circuit, the tuning capacitor must be large enough to swamp out the effects of the variation of collector capacitance. If the i-f stage is a grounded-emitter rather than a grounded-base stage, the collector capacitance is magnified by the base-current amplification factor, β .

In i-f stages where neutralization is used to maximize gain by balancing out C_c , instability may occur when the battery voltage decreases.

This variation of C_c with V_c permits use of the transistor as a reactance element in i-m applications.

At low current bias, Fig. 1B, 1C and 1D, the noise factor of the transistor decreases and emitter resistance r_e , base resistance r_b , and collector resistance r_c increase, providing increased power gain and larger values of input and output impedance. This is advantageous in hearing aids where low bias currents are used.

Temperature Effects

In the germanium transistor, noticeable changes in α , β and I_{co} take place at approximately 60 C as shown in Fig. 1E. These changes can lead to instability at high temperatures by α becoming equal to or greater than unity or by I_{co} increasing and causing a collector runaway effect due to self heating.

Temperature problems are minimized in silicon transistors as seen in Fig. 1F. The value I_{co} becomes almost negligible in design consideration as the upper limit or temperature range is above 100 C. In such special applications as d-c amplifiers, the slightest change in α over the normal temperature operating range can produce a significant change in d-c current gain of the grounded-emitter stage.

The low-frequency low-power triode junction transistor, Table I, is most commonly used. The majority are utilized in hearing aids audio systems, low-power control systems

ABBREVIATIONS USED IN TABLES

α	Current gain
β	Base-current amplification factor
BW	Bandwidth
C_c	Collector capacitance
$f_{\alpha co}$	Alpha cutoff frequency
$g-b$	Grounded base
$g-c$	Grounded collector
$g-e$	Grounded emitter
I_b	Base current
I_{b2}	Second base current (tetrode)
I_c	Collector current
I_{co}	Collector cutoff current
I_e	Emitter current
I_{eo}	Emitter cutoff current
NF	Noise figure
r_b	Base resistance
r_c	Collector resistance
r_e	Emitter resistance
R_g	Generator resistance
R_i	Input resistance
R_L	Load resistance
R_o	Output resistance
V_c	Collector voltage

TABLE I—JUNCTION TRIODE LOW-POWER TRANSISTORS

Manufacturer	Type No.	Type	Max Coll Power (mw)	Max Coll Voltage (v)	Max Coll Current (ma)	Max Ambient Temp (degC)	Small-Signal Low-Frequency						
							Bias		β	r_e (ohms)	r_b (ohms)	r_c (meg)	
							V_c (v)	I_c (ma)					
Amperex Electronic Corp. 230 Duffy Ave. Hicksville, N. Y.	OC70	pn _p fused ¹	25 (45C)	-10	-10	45	-2	0.5	30	39	1,000	1.43	
	OC71	pn _p fused ¹	25 (45C)	-10	-10	45	-2	3	47	6.5	500	0.625	
CBS-Hytron Danvers, Mass.	2N36	pn _p fused	50	-20	-8	50	-6	1	45	30	450	0.95	
	2N37	pn _p fused	50	-20	-8	50	-6	1	30	30	350	0.55	
	2N38	pn _p fused	50	-20	-8	50	-6	1	15	25	350	0.5	
	HA-1	pn _p fused	50	-20	-8	50	-3	0.5	40	24	700	1.7	
	HA-2	pn _p fused	50	-20	-8	50	-3	0.5	30	35	350	0.8	
	HA-3	pn _p fused	50	-20	-8	50	-3	0.5	35	30	450	0.6	
	HC-1	pn _p fused	50	-20	-8	50	-6	1	45	30	450	0.95	
Germanium Prod. Corp. 26 Cornelison Ave. Jersey City, N. J.	NPN-3/ 2N103	np _n grown	50 (25C)	35	10	75	4.5	-1	4	25	100	2.0	
	RD2517A/ 2N97	np _n grown	50 (25C)	30	10	75	4.5	-1	13.3	25	100	3.0	
	RD2518A/ 2N97A	np _n grown	50 (25C)	40	10	85	4.5	-1	13.3	25	100	10.0	
	RD2521A/ 2N98	np _n grown	50 (25C)	40	10	75	4.5	-1	40	25	150	5.0	
	RD2522A/ 2N98A	np _n grown	50 (25C)	40	10	85	4.5	-1	40	25	150	10.0	
	RD2523A/ 2N99	np _n grown	50 (25C)	40	10	75	4.5	-1	40	25	150	5.0	
	RD2525A/ 2N100	np _n grown	25 (25C)	25	5	50	4.5	-1	140	25	400	5.0	
	2N43	pn _p fused	150 (25C)	-45 ^s	-50	100	-5	1	49	32	400	1.0	
	2N44	pn _p fused	150 (25C)	-45 ^s	-50	100	-5	1	21.2	26.5	300	1.0	
	2N45	pn _p fused	150 (25C)	-45 ^s	-50	100	-5	1	11.5	20	250	1.0	
General Electric Co. Electronics Park Syracuse, N. Y.	2N43A	pn _p fused	150 (25C)	-45 ^s	-50	100	-5	1	43.4	15	575	1.43	
	2N43A USAF	pn _p fused	150 (25C)	-45	-50	100	-5	1	43.4	15	575	1.43	
General Transistor Corp. 95-18 Sutphin Blvd Jamaica, N. Y.	2N76	pn _p fused	50 (25C)	-20 ^s	-10	60	-5	1	19	17	300	1.0	
	GT-14	pn _p fused	70 (50C)	-25		85	-4.5	1	28	30	800	1.5	
	GT-20	pn _p fused	70 (50C)	-25		85			45	30	800	1.5	
	GT-34	pn _p fused	70 (50C)	-25		85			15	30	800	1.5	
	GT-81	pn _p fused	70 (50C)	-25		85			65	30	800	1.5	
	GT-83	pn _p fused	70 (50C)	-25		85			45	30	800	1.5	
	GT-87	pn _p fused	70 (50C)	-25		85			28	30	800	1.5	
	GT-88	pn _p fused	70 (50C)	-25		85			65	30	800	1.5	
	2N34	pn _p fused	70 (50C)	-25		85	-4.5	1	40	30	350	2.0	
	2N36	pn _p fused	70 (50C)	-25		85	-4.5	1	45	30	850	2.0	
	2N37	pn _p fused	70 (50C)	-25		85	-4.5	1	30	30	600	2.0	
	2N38	pn _p fused	70 (50C)	-25		85	-4.5	1	15	30	400	2.0	
	2N39	pn _p fused	70 (50C)	-25		85	-4.5	1	45	30	850	2.0	
	2N40	pn _p fused	70 (50C)	-25		85	-4.5	1	28	30	600	2.0	
	2N42	pn _p fused	70 (50C)	-25		85	-4.5	1	13	30	400	2.0	
	Hughes Aircraft Co Culver City, Calif.	HA5001	np _n alloyed	500 (25C)	30	100	85	5	1	65.6	16.5	900	2
		HA5002	np _n alloyed	500 (25C)	20	100	85	5	1	27.5	16	400	1
HA5003		np _n alloyed	500 (25C)	20	100	85	5	1	99	26	400	1	
Hydro-Aire Inc. Burbank, Calif.	J-1	pn _p fused	150 (25C)	-40	-10	50	-6	1	34	30	400	1.0	
	J-2	pn _p fused	150 (25C)	-40	-10	50	-6	1	15	30	300	0.7	
	J-3	pn _p fused	150 (25C)	-40	-10	50	-6	1	9	30	300	0.5	
	HA-1	pn _p fused	100 (25C)	-20	-10	50	-6	1	40	30	350	0.75	
	CQ-1	pn _p fused	150 (25C)	-40	-10	50	-6	1	9	30	200	0.5	
Nat'l Union Electric 350 Scotland Rd. Orange, N. J.	2N39	pn _p fused	47 (25C)	-27	-12	60	-4.5	1	32.4			1 to 2	
	2N40	pn _p fused	47 (25C)	-27	-12	60	-4.5	1	15.7-32.4			1 to 2	
	2N42	pn _p fused	47 (25C)	-18	-12	60	-4.5	1	9			0.5 to 2	
	T34D	pn _p fused ¹	56 (25C)	-27	-12	70	-4.5	1	32.4	20		1 to 2	
	T34E	pn _p fused ¹	56 (25C)	-27	-12	70	-4.5	1	15.7-32.4	20		1 to 2	

Parameters				Grounded-Emitter Connection					Grounded-Base				Grounded-Collector			
f_{aco} (mc)	C_c ($\mu\mu f$)	I_{co} (μa)	NF (db)	I_b (ma)	R_i (ohms)	R_L (ohms)	R_g (ohms)	Gain (db)	R_i (ohms)	R_L (ohms)	R_g (ohms)	Gain (db)	R_i (ohms)	R_L (ohms)	R_g (ohms)	Gain (db)
		- 8	10													
		- 8	10													
0.5						30,000	1,000	40								
0.5						30,000	1,000	36								
0.5						30,000	1,000	32								
		-12	12			30,000	1,000	30								
		-12	27			30,000	1,000	30								
						1,200	1,000	35								
0.7		-12				30,000	1,000	40								
0.75	20	5	22	0.25	225	100,000	matched	33	45	250,000	matched	30	2,500	500	matched	7
1.0	19	2	20	0.07	400	100,000	matched	38	35	250,000	matched	32	7,000	500	matched	11
1.0	19	2	15	0.07	400	100,000	matched	38	35	250,000	matched	32	7,000	500	matched	11
2.5	14	2	20	0.025	850	100,000	matched	47	35	250,000	matched	35	20,000	500	matched	15
2.5	14	2	15	0.025	850	100,000	matched	47	35	250,000	matched	35	20,000	500	matched	15
3.5	10	2	15	0.025	850	100,000	matched	47	35	250,000	matched	35	20,000	500	matched	15
5.0	14	2	20	0.007	3,500	100,000	matched	53	45	250,000	matched	35	70,000	500	matched	20
1.0	40	-10	22		1,000	30,000	600	39	60	50,000	100	28	30,000	600	30,000	15
1.0	40	-10	22		700	30,000	600	38	55	50,000	100	28	15,000	600	15,000	12
1.0	40	-10	22		450	30,000	600	36	50	50,000	100	28	7,500	600	7,500	11
1.0	40	- 5	10		1,000	30,000	600	39	60	50,000	100	28	30,000	600	30,000	15
1.0	40	- 5	30		1,000	30,000	600	39	60	50,000	100	28	30,000	600	30,000	15
1.0	40	- 5	18		1,000	30,000	600	38	55	50,000	100	28	15,000	600	15,000	12
0.65		-10	16													
0.65		-10	16													
0.65		-10	16													
0.65		-10	16													
0.70		-10	16													
0.50		-10	16													
1.0		-10	16													
		-15	24													
		-15	24													
		-15	24													
		-15	24													
		-15	24													
		-15	24													
2.5	15	5														
0.8		12	15													
1.5		10	15													
1.0		-10	11					40								
0.5		-15	22					35								
0.5		-20	33					30								
		-10	20													
0.5		-20	33													
		-10	20			30,000	500	39								
		-10	24			30,000	500	38								
		-20	28			30,000	500	36								
		-10	20			30,000	500	39								
		-10	24			30,000	500	38								

and low-speed computing circuits. Present units are available in the *pn*p and *np*n fused germanium, the *np*n grown germanium and *np*n grown silicon types. Of the fused type of transistor, the *pn*p is more available commercially and consequently has found a wider range of applications. The *np*n fused type is suitable for complementary symmetry circuitry. The grown silicon type is used for high temperature and low I_{co} applications.

The germanium and silicon grown transistors are used in almost the same manner as the fused transistor. Frequently, the grown types, owing to their lower value of collector capacitance and higher value of α cutoff, may be employed as

Table I (Continued)

Manufacturer	Type No.	Type	Max Coll Power (mw)	Max Coll Voltage (v)	Max Coll Current (ma)	Max Ambient Temp (degC)	Small-Signal Low-Frequency					
							Bias		β	r_o (ohms)	r_b (ohms)	r_c (meg)
							V_b	I_b				
Nat'l Union (cont)	T34F	<i>pn</i> p fused ¹	56 (25C)	-18	-12	70	-4.5	1	9	20		0.5 to 2
Philco Corp.	2N47	<i>pn</i> p fused ¹	50 (25C)	-35	-20		-5	1	39	25	600	1.0
4700 Wissahickon Ave. Philadelphia, Pa.	2N49	<i>pn</i> p fused ¹	50 (25C)	-35	-20		-5	1	39	25	600	1.0
RCA	2N104	<i>pn</i> p fused ²	110 (25C)	-30	50	85	-6	1	44	24.5	750	2.25
Harrison, N. J.	2N77	<i>pn</i> p fused ¹	35 (25C)	-25	15	50	-4	0.7	40	36	560	2.3
Raytheon Mfg Co.	CK721	<i>pn</i> p fused ²		-15 ^s	-10	70	-6	1	45	25	700	2.0
55 Chapel St. Newton, Mass.	CK722	<i>pn</i> p fused ²		-22 ^s	-10	70	-6	1	22	25	250	2.0
	CK725	<i>pn</i> p fused ³		-12 ^s	-10	70	-6	1	90	25	1,500	2.0
	CK727	<i>pn</i> p fused ³		-6 ^s	-10	70	-1.5	0.5	35	50	500	2.0
	2N63	<i>pn</i> p fused		-22 ^s	-10	85	-6	1	22	25	350	2.0
	2N64	<i>pn</i> p fused		-15 ^s	-10	85	-6	1	45	25	700	2.0
	2N65	<i>pn</i> p fused		-12 ^s	-10	85	-6	1	90	25	1,500	2.0
Sylvania Electric	2N34	<i>pn</i> p fused	50 (25C)	-40	-10		-6	1	40	26	800	2.0
1740 Broadway New York, N. Y.	2N35	<i>np</i> n fused	50 (25C)	-40	-10		-6	1	40	26	800	2.0
Texas Instruments	200	<i>np</i> n grown	50 (25C)	30	5	50	5	-1	9	22	150	0.4
6000 Lemmon Ave. Dallas, Texas	201	<i>np</i> n grown	50 (25C)	30	5	50	5	-1	19	22	170	0.4
	202	<i>np</i> n grown	50 (25C)	30	5	50	5	-1	49	35	200	0.4
	206S	<i>np</i> n grown ¹	50 (25C)	30	5	50	2.5	-0.5	35			
	207S	<i>np</i> n grown ¹	50 (25C)	30	5	50	2.5	-0.5	19			
	208S	<i>np</i> n grown ¹	50 (25C)	30	10	50	2.5	-10	19			
	300	<i>pn</i> p fused	50 (25C)	-30	-10	50	-5	1	9		550	0.4
	301	<i>pn</i> p fused	50 (25C)	-30	-10	50	-5	1	19		1,000	0.4
	903	<i>np</i> n grown	150 (25C)	30	10	150	5	-1	9-19	150	500	0.5
	904	<i>np</i> n grown	150 (25C)	30	10	150	5	-1	19-39	150	1,250	0.5
	905	<i>np</i> n grown	150 (25C)	30	10	150	5	-1	39	150	2,500	0.5
	904A	<i>np</i> n grown	150 (25C)	30	10	150	5	-1	19	150	1,250	0.5
	210	<i>np</i> n grown	50 (25C)	30 ⁷	5	50	22.5	-2				
	302	<i>pn</i> p fused	50 (25C)	-30	-10	50	-5	1	44			
	350		50 (25C)	-12								
Transitron	2N85	<i>pn</i> p fused	750	-45	-100	100	-12	10	40	2.5	300	0.16
407 Main St. Melrose, Mass.	2N86	<i>pn</i> p fused	750	-60	-100	100	-12	10	20	2.5	300	0.125
	2N87	<i>pn</i> p fused	750	-30	-100	100	-12	10	20	2.5	300	0.125
	2N88	<i>pn</i> p fused ¹	25	-12	-10	85	-1.3	0.5	25	50	1,000	0.5
	2N89	<i>pn</i> p fused ¹	25	-12	-10	85	-1.3	0.5	25	50	1,000	2.0
	2N90	<i>pn</i> p fused ¹	25	-12	-10	85	-1.3	2.5	40	10	600	0.5
	2N91	<i>pn</i> p fused	125	-15	-500	85	-3	30	25	1.5	50	2.0
	2N92	<i>pn</i> p fused	125	-25	-200	85	-3	5	30	5	500	1.0
	2N34	<i>pn</i> p fused	125	-25	-20	100	-6	1	40	18	600	1.0
	2N36	<i>pn</i> p fused	125	-25	-20	100	-6	1	45	18	700	1.0
	2N37	<i>pn</i> p fused	125	-25	-20	100	-6	1	30	20	500	1.0
	2N38	<i>pn</i> p fused	125	-25	-20	100	-6	1	15	20	250	1.0
	2N43	<i>pn</i> p fused	375	-45	-50	100	-6	1	33	20	500	1.0
	2N44	<i>pn</i> p fused	375	-45	-50	100	-6	1	16	20	300	1.0
	2N45	<i>pn</i> p fused	375	-45	-50	100	-6	1	9	20	250	1.0
	2N63	<i>pn</i> p fused	125	-25	-20	100	-6	1	20	20	350	2.0
	2N64	<i>pn</i> p fused	125	-25	-20	100	-6	1	30	20	700	2.0
	2N65	<i>pn</i> p fused	125	-25	-20	100	-6	1	50	18	1,500	2.0
Tung-Sol Electric	DR126	<i>pn</i> p fused ⁴	50 (25C)	-10 ⁷		85	-1.5	0.5	24	26	900	1.5
100 Eighth Ave. Newark, N. J.	DR128	<i>pn</i> p fused ⁴	50 (25C)	-10 ⁷		85	-1.5	0.5	49	34	1,400	2.0
	DR129	<i>pn</i> p fused ⁴	50 (25C)	-25 ⁷		85	-1.5	0.5	32.4	26	1,200	2.0
	DR130	<i>pn</i> p fused ⁴	50 (25C)	-25 ⁷		85	-1.5	0.5	13	20.5	650	1.3
	DR154	<i>pn</i> p fused ⁴	50 (25C)	-25 ⁷		85	-1.5	0.5	124	55	600	1.2
Western Electric	2N27	<i>np</i> n grown	50 (60C)	30	5	85	4.5	-1	19-198	50	700	2.0
120 Broadway New York, N. Y.	2N28	<i>np</i> n grown	50 (60C)	30	5	85	4.5	-1	5-198	125	1,000	1.0
Westinghouse	2N54	<i>pn</i> p fused ¹	200 (25C)	-45	-10	60	-6	1	33	25	400	1.0
Box 284 Elmira, N. Y.	2N55	<i>pn</i> p fused ¹	200 (25C)	-45	-10	60	-6	1	20	20	400	1.0
	2N56	<i>pn</i> p fused ¹	200 (25C)	-45	-10	60	-6	1	13	5	400	1.0

high frequency transistors.

The maximum power ratings on most of the low-power transistors

are of the order of 50 milliwatts collector dissipation at room temperature. Some of these units have

external heat sinks and are able to dissipate considerably more power.

The rating most commonly em-

TABLE II—HIGH-FREQUENCY TRANSISTORS

Manufacturer	Type No.	Type	Max Coll Power (mw)	Max Coll Voltage (v)	Max Coll Current (ma)	Max Ambient Temp (degC)	Storage Temp (deg C)	Typical Small-Signal				
								Bias		β	r_e (ohms)	r_b (ohms)
								V_c (v)	I_c (ma)			
General Electric	2N78	nnp rate grown	50 (30C)	15	20	100	100 max	5	-1	27.5		
	2N123	npn fused	150 (25C)	-15	150		85	-5	1	30-150		
	2N135	npn alloyed	100 (25C)	-20	-50		85	-5	1	20		
	2N136	npn alloyed	100 (25C)	-20	-50		85	-5	1	40		
	2N137	npn alloyed	100 (25C)	-10	-50		85	-5	1	60		
Germanium Prod.	RD2523A (2N99)	npn grown	50 (25C)	40	10	75		5	-1	40	25	150
	RD2525A (2N100)	npn grown	25 (25C)	25	5	50		5	-1	100	25	400
	RD2521A (2N98)	npn grown	50 (25C)	40	10	75		5	-1	40	25	150
	RD2517A	npn grown	50 (25C)	30	10	75		5	-1	13	25	100
Hydro-Aire	HF-1	npn fused	35 (25C)	-15	-5	55		-4.5	1	25	30	500
	IF-1	npn fused	35 (25C)	-15	-5	55		-4.5	1	20	30	500
Philco	SB-100	surface barrier ¹	10 (40C)	-4.5	-5		-55 to 85	-3	0.5	19	50	
Raytheon	CK-760	npn fused		-6 ³	-5		-55 to 85	-6	1	45	22	70
	CK-761	npn fused		-6 ³	-5		-55 to 85	-6	1	50	22	70
	CK-762	npn fused		-6 ³	-5		-55 to 85	-6	1	60	22	70
Sylvania	2N94	npn alloyed	50 (25C)	20	10		-55 to 85	6	-0.5	30	52	500
	2N94A	npn alloyed	50 (25C)	20	10		-55 to 85	6	-0.5	30	52	500
Texas Inst.	220	npn grown ¹	50 (25C)	30	5	50		22.5				
	221	npn grown ¹	50 (25C)	30	5	50		22.5				
	222	npn grown ¹	50 (25C)	30	5	50		22.5				
	223	npn grown ¹	50 (25C)	30	5	50		22.5				
	904A	npn grown	150 (25C)	30	10	150		5	-1	≥ 19	150	1,250
	224-1											
	2											
	3											
	4											
	5											
	225-1											
	2											
	3											
	4											
	5											
	226-1											
	2											
	3											
	4											
5												
227-1												
2												
3												
4												
5												
Tung-Sol	DR-155	npn fused ²	50 (25C)	-10		85	-55 to 85	-1.5	0.5	32		
	2N112	npn fused	50 (25C)	-10	-8	85	-55 to 85	-6	1	32	31	110
	2N113	npn fused	50 (25C)	-10	-8	85	-55 to 85	-6	1	32	31	110
Western Electric	2N27	npn grown	50 (60C)	30	5	85		4.5	-1	20-198	50	700

Socket types A to H unless otherwise noted

¹ Socket type A only

² Socket types A and J

TRANSISTOR CHARACTERISTICS

Low-Frequency Parameters						H-F Parameters	High-Frequency Circuit Conditions				High-Speed Switching Characteristics				
r_c (meg)	f_{aco} (mc)	C_c ($\mu\mu f$)	I_{co} (μa)	I_{eo} (μa)	NF (db)	$r_b C_c$ ($\mu\mu sec$)	Application	R_i (ohms)	R_o (ohms)	Power Gain (db)	Circuit	Rise Time (μsec)	Fall Time (μsec)	Reverse Emitter Voltage (v)	Circuit
	5.5	6	1		14		r-f amp	1,000	6,000	20					
							i-f amp	1,500	10,000	30					
	7.5	14	-2	5	10	1,000	switching					0.1	0.2	5	
	4.5	14	5				r-f/i-f amp			29					
	6.5	14	5				"			31					
	10	14	5				"			33					
5.0	3.5	10	2		15		i-f amp	500	10,000	22		<0.2	<0.3		
							unneut								
5.0	5.0	14	2		20		"	750	10,000	23		<0.2	<0.3		
5.0	2.0	14	2		20		"	500	10,000	22		<0.2	<0.3		
3.0	1.0	19	2		20		"	350	10,000	20		<0.2	<0.3		
1.0	5.0	10	-10												
1.0	2.0	10	-10												
0.4	30 (osc)	2.2-0.5	0.5			800									
1.0	5	14	-2	2	25	1,000									
1.0	10	14	-2	2	25	1,000									
1.0	20	14	-2	2	25	1,000									
2.0	3.5	10	3	-3	15	1,000	i-f (g-b)	80	100,000	25 ⁴	C	0.15	0.15	≥ 0	F
							i-f (g-e)	500	25,000	32 ⁴	D				
2.0	6.0	10	3	-3	15	1,200	i-f (g-b)	80	100,000	25 ⁴	C	0.1	0.1	≥ 0	
							i-f (g-e)	800	25,000	35 ⁴	D				
							r-f (g-b)	80	15,000	20 ⁵	E				
			50				262-kc (g-e) i-f	750	70,000	31	A				
			50				"	750	70,000	33	A				
			50				"	750	70,000	35	A				
			50				262-kc conv	300	60,000	20	B				
0.5	≥ 8		1				neut 262-kc	600	70,000	26	H				
							g-e i-f			28					
										30					
										32					
										34					
							neut 455-kc	500	50,000	24	H				
							g-e i-f			26					
										28					
										30					
										32					
							neut 262-kc	65	120,000	18	I				
							g-b i-f			20					
										22					
										24					
										26					
							neut 455-kc	65	150,000	18	I				
							g-b i-f			20					
										22					
										24					
										26					
1.0	1.4		-15		28										
1.2	5		-10		28		i-f	600	25,000	32	G				
1.2	10		-10		28		i-f	600	25,000	33	G				
2.0	2	17	10												

Characteristics measured at 25 C unless otherwise noted

³ Characteristics measured at 27 C

⁴ Bandwidth 12 kc

⁵ Bandwidth 25 kc

TABLE III—GROWN NPN JUNCTION TETRODE TRANSISTORS

Manufacturer	Type No.	Max Coll Power (mw)	Max Coll Voltage (v)	Max Coll Current (ma)	Max Base-to-Base Current (ma)	Application	Small-Signal Low-Frequency				
							Bias		I_{b2} (ma)	α	r_e (ohms)
							V_c (v)	I_c (ma)			
Germanium Prod.	RDX-302/ 3N23	50(25C)	30	5	5	video amp, switching 10-mc osc	4.5	1	0	0.95	30
	RDX-301/ 3N23A	50(25C)	30	5	5	video amp, switching 20-mc osc	4.5	1	0	0.97	30
	RDX-300/ 3N23B	50(25C)	30	5	5	video amp, switching 35-mc osc 20-mc i-f	4.5	1	0	0.98	30
	RDX-300A/ 3N23C	50(25C)	30	5	5	video amp, switching 50-mc osc, 20 to 30 mc i-f	4.5	1	0	0.99	30
Texas Inst.	700	50(25C)	30	5	5	low-level, low-freq age	5	-1	0	0.95	30
Western Electric	3N22	30(25C)	12	5	5	video amp, r-f	9	-2	-4.5	0.90	25
							9	-2	0	0.975	25

TABLE IV—POWER TRANSISTORS

Manufacturer	Type No.	Type	Max Power Output (w)			Max Coll Power (w)	Max Coll Voltage (v)		Max Coll Current (amp)	f_{aco} (kc)	Small-Signal		
			Class A	Class B (push-pull)	D-C Switch		Circuit				Bias		β
							g-e	g-b			V_c (v)	I_c (ma)	
Amperex	2N115	pn _p fused ¹	1.5	2.5		2(45C)	-12(B) -6(A)	-1	300				
CBS-Hytron	2-OC72	pn _p fused ²				0.045(45C)	13(B)		0.045	10			
	HD-197	pn _p fused ¹				0.5(25C)	-40			150	-10	50 10	
Hydro-Aire	JP-1	pn _p fused ²	0.45	0.9	1.5	0.5(25C)	-45	-0.1	50	-22.5	20	9	
Minneapolis-Honeywell	H-1	pn _p fused ¹	5	10	40	20(21C)	-30 -60	-0.8	20	-2			
Regulator Co. 2753 4th Ave. S Minneapolis, Minn.	2N57	pn _p fused ¹	6	12	48	20(21C)	-30 -60	-1	20	-2			
	H-2	pn _p fused ¹	8.5	18	68	20(21C)	-30 -60	-1.4	20	-2			
	H-3	pn _p fused ¹	2	4	16	5(21C)	-30 -60	-0.35	20	-2			
	H-4	pn _p fused ¹	2	6	16	5(21C)	-30 -60	-0.5	20	-2			
Sylvania	2N68	pn _p alloyed ²	0.75	10		4(25C)	-25	-1.5		-6	50	40	
	2N95	np _n alloyed ²	0.75	10		4(25C)	25	1.5		6	-50	40	
Texas Inst.	2N101	pn _p alloyed											
	2N102	np _n alloyed											
	X-2	np _n grown							35	0.075	225	5 -1 9	

imum current is selected where β has not decreased to too low a value.

Table II, high-frequency transistors, includes *pnp* and *npn* fused junction, *npn* grown junction and *pnp* surface-barrier units. Except for the *npn* grown type, which is of either germanium or silicon, all of these units use germanium.

Physically, one of the main distinctions between these units and the low-frequency units is the closer spacing between emitter and collector junctions. Electrical characteristics are higher alpha cutoff, lower collector voltage breakdown and in many units lower collector capacitance and lower base resistance. The widest application is in radio receivers and high-speed switching circuits.

In selecting a high-frequency transistor for a grounded emitter i-f amplifier, note that the β cutoff frequency of the amplifier is equal

to a cutoff frequency divided by β .

Table III lists tetrode junction transistors which are high-frequency triode *npn* grown junction transistors with an extra base lead and a narrower base region. The electrical characteristics of the grown tetrode transistor are almost identical to the grown triode transistor except for a lower value of base resistance and higher value of α -cutoff frequency. The extra base lead makes the tetrode applicable in specialized control circuits and avc applications. Bias for the extra base lead is usually obtained from a bleeder across the main supply.

High-Power Units

The high-power transistor, Table IV, is in most cases the largest of all transistors. One element is attached to the container. In most units the case may be connected to the chassis either directly or

Parameters			Typical Operation	
			Freq (mc) Circuit J	Power Gain at 5mc Circuit K
r_b (ohms)	r_c (megohms)	I_{co} (μa)		
70	2	10	10 to 20	12
100	2	10	20 to 35	14
200	2	10	35 to 50	15
300	2	10	50 to 80	17
1,000	1	10		
100	1	10	15	
1,000	1			

Characteristics measured at 25 C

Low-Frequency Parameters

Typical Operating Conditions

r_e (ohms)	r_b (ohms)	r_c (ohms)	C_c ($\mu\mu f$)	Rise Time (μsec)	I_{co} (μa)	Class & Circuit	Supply Voltage (v)	Coll Current (ma)	Base Current (ma)	Zero Signal Current (ma)	Power Output (w)	Power Gain (db)	Driving Power (mw)	R_c (ohms)	R_L (ohms)	R_o (ohms)
						B(g-e)	-6	-1,280		-5	5 ⁴	27				
						B(g-e)	-6				0.2 ⁴	27				
	70	5,000				A		-50			30			5,000	100	
2	150	100,000				B(g-b)	-22.5	-40			0.7 ⁴	20				
				1.5	-8,000	A(g-e)	-28	400	50		5	15	158	20	70	4
						B(g-e)	-28	510		4	10 ⁴	12	630	100	140	4
				1.2	-8,000	A(g-e)	-28	500	45		6.25	16	156	35	56	4
						B(g-e)	-28	640		4	12.5 ⁴	13	625	140	128	4
				0.5	-8,000	A(g-e)	-28	600	30		7.5	20	75	40	47	4
						B(g-e)	-28	890		4	17.5 ⁴	16	440	100	80	4
				1.2	-1,000	A(g-e)	-28	150	15		1.9	16	48	100	187	4
						B(g-e)	-28	220		0.5	4.4 ⁴	12	278	240	320	4
				0.6	-1,000	A(g-e)	-28	150	10		1.9	21	15	60	187	4
						B(g-e)	-28	318		0.5	6.25 ⁴	14	250	200	224	4
1	30	100,000	300			-100 A(g-b)	-12	-150			0.6	23		75	100	50
						B(g-e)	-12	-550		-1	5 ⁴	15		50	12	50
						B(g-c)	-12	-550		-1	5 ⁴	10		250	12	100
						B(g-b)	-24	-950		-1	10 ⁴	10		2	24	2
1	30	100,000	300		100	A(g-b)	12	150			0.6	23		75	100	
						B(g-e)	12	550		1	5 ⁴	15		50	12	
						B(g-c)	12	550		1	5 ⁴	10		250	12	
						B(g-b)	24	950		1	10 ⁴	10		2	24	
25	0.75	200,000				25 B(g-b)	22.5	40			0.5 ⁴	9.5			1,000	
						B(g-b)	22.5	40			0.5	22.7			1,000	

Table IV (Continued)

Manufacturer	Type No.	Type	Max Power Output (w)			Max Coll Power (w)	Max Coll Voltage-(v)		Max Coll Current (amp)	f_{aco} (kc)	Small-Signal		
			Class A	Class B (push-pull)	D-C Switch		Circuit				Bias		β
							g-e	g-b			V_c (v)	I_e (ma)	
Texas Inst. (cont.)	951	npn grown silicon	0.45(25C)	0.3(100C)	1(25C)	50	-	-	0.06				
			0.15(150C)	0.3(100C)	0.5(100C)								
			0.15(150C)	0.15(150C)	0.15(150C)								
	952	npn grown silicon	0.6(25C)	0.4(100C)	1(25C)	80	-	-	0.05				
			0.15(150C)	0.15(150C)	0.5(100C)								
			0.15(150C)	0.15(150C)	0.15(150C)								
	953	npn grown silicon	1(25C)	0.5(100C)	1(25C)	120	-	-	0.04				
			0.15(150C)	0.5(100C)	0.5(100C)								
			0.15(150C)	0.14(150C)	0.14(150C)								
Transistor Products 241-251 Crescent Ave. Waltham, Mass.	X-107	pn _p fused ¹	1			2(25C)	-30	-60	-1	200	-20	100	8
	X-120	pn _p fused ¹	7.5			15(25C)	-30	-60	-4	200	-20	360	20
Transitron	2N83	pn _p fused ²	5	15	40	10(25C)	-30	-45	-1	200	-20	100	8
	2N84	pn _p fused ²	5	10	30	10(25C)	-22	-30	-1	200	-20	100	12
Tung-Sol	DR-150	pn _p fused	1		3.5	5(25C)		-25	-1	250	-15	10	33
Western Electric	2N66	pn _p fused ¹				5(25C)	-40	-60	-0.8	500	-4.5	100	45

¹ Type A sockets

² Socket types A to H

TABLE V—POINT-CONTACT TRANSISTORS

Manufacturer	Type No.	Application	Max Coll Power (mw)	Max Coll Voltage (v)	Max Coll Current (ma)	Max Reverse Emitter Voltage (v)	Max Emitter Current (ma)	Max Emitter Power (mw)	Small-Signal			
									Bias		$-\alpha$	r_e (ohms)
									V_c (v)	I_e (ma)		
Hydro-Aire	A-0	amp, osc	0(25C)	-20	-8				-8	0.3	2	425
	A-1	amp, osc	50(25C)	-20	-8				-8	0.3	2	425
	A-2	amp, osc	50(25C)	-20	-8				-8	0.3	2	375
	A-3	amp, osc	50(25C)	-20	-8				-8	0.3	2	350
	S-0	switching	50(25C)	-40	-8	-30						
	S-1	switching	50(25C)	-40	-8	-30						
	S-2	switching	50(25C)	-30	-8	-30						
Sprague Electric Transistor Prod.	5A	switching	80(25C)	-50	-10	-50			-10	1	3	
	2A	amp, osc, sw	120(25C)	-50	-8	-50						
	2C	switching ¹	100(25C)	-50	-8	-50						
	2D	amp, osc ¹	100(25C)	-50	-8	-50						
	2E	amplifier ¹	100(25C)	-50	-8	-50						
	2G	switching ¹	120(25C)	-50	-8	-50						
	2H	amplifier ¹	100(25C)	-50	-8	-50						
	2L	switching ¹	50(25C)	-50	-8	-50						
	2N32	switching ¹	50(25C)	-40	-8	-40						
	2N33	switching ¹	30(25C)	-8.5	-7							
	2N50	switching ¹	50(25C)	-15	-1	-15						
Western Electric	2N51	sw, osc ¹	100(25C)	-50	-8	-50						
	2N52	amp, osc ¹	120(25C)	-50	-8	-50						
	2N53	switching ¹	120(25C)	-50	-8	-50						
	2N21	switching	120(25C)	-100	-60	-100	60	80(25C) ²	-10	1	2.5 ⁶	200
	2N21A	amp, osc, sw	120(25C)	-100	-60	-100	60	80(25C) ²	-10	1	2.5 ⁶	200
	2N110	switching	200(25C)	-100	-75	-100	75	100(25C) ²	-10	1	2.5 ⁶	200
	2N67	hi-speed sw	100(25C)	-100	-60	-100	60	60(25C) ²	-10	1	3	900

Socket types A to H unless otherwise noted

¹ Socket types A and L

Maximum ambient temperature 50 C unless otherwise noted

² Maximum ambient temperature 85 C

Characteristics of A-0, A-1, A-2, A-3, 2N21, 2N21A, 2N110 and 2N67 measured at 25 C

Low-Frequency Parameters

Typical Operating Conditions

r_e (ohms)	r_b (ohms)	r_c (ohms)	C_c ($\mu\mu f$)	Rise Time (μsec)	I_{co} (μa)	Class & Circuit	Sup- ply Volt- age (v)	Coll Cur- rent (ma)	Base Cur- rent (ma)	Zero Signal Cur- rent (ma)	Power Output (w)	Power Gain (db)	Driv- ing Power (mw)	R_c (ohms)	R_L (ohms)	R_o (ohms)
						5 B(g-e)	28	30			0.45(25C) ⁴ 0.15(150C)	20			1,500	1,000
						6 B(g-e)	45	25			0.6(25C) ⁴ 0.15(150C)	21			4,000	1,000
						8 B(g-e)	67.5	20			1(25C) ⁴ 0.15(150C)	23			8,000	1,000
0.85	12	50,000				-120 A(g-b)	-28	-80			1	24	4	1.5	375	
0.65	1	10,000				-200 A(g-b)	-28	-360			5	20	50	0.8	100	
0.3	15	20,000	400	1.5		-100 B(g-e)	-30	-160			2.5 ⁴	24			600	100
0.3	15	20,000	400	1.5		-100 B(g-e)	-20	-160			2.0 ⁴	22			400	100
		30,000														
			400													
							75									
							300									

³ Socket types A and K

⁴ Push-pull connection

PARAMETER CONVERSION FORMULAS

$$H_{21} = \frac{R_{21}}{R_{22}} = -\alpha$$

$$H_{11} = R_{11} - \frac{R_{21}R_{12}}{R_{22}} = r_e + (1 - \alpha)r_b$$

$$H_{12} = \frac{R_{12}}{R_{22}} = \frac{r_b}{r_c}$$

$$H_{22} = \frac{1}{R_{22}} = \frac{1}{r_c}$$

$$r_c = \frac{1}{H_{22}}$$

$$\begin{aligned} r_b &= r_c H_{12} \\ |\alpha| &= |H_{21}| \\ r_e &= H_{11} - r_b(1 - \alpha) \end{aligned}$$

Low-Frequency Parameters

Large-Signal Parameters

r_b (ohms)	r_e (ohms)	f_{aco} (mc)	C_c ($\mu\mu f$)	Nf (db)	I_{co} (μa)	Rise Time (μsec)	Turn- Off Time (μsec)	Off I_c (ma)	On V_c (v)	Emitter Rev Resist. (ohms)	α (at max rise time)
200	13,000	3			-1,200						
200	13,000	2			-1,500						
175	13,000	1			-2,000						
150	13,000	0.3			-2,000						
						0.2 ³		-1	-2	50,000	
						0.5 ⁴		-1	-2	50,000	
						1 ⁵		-1	-2	50,000	
		5		43		0.12	0.5				
90	10,000	2		45	-1.1	0.2	1.3	-1.1	-1	200,000	5
90	10,000	2		45	-1.1	0.2	1.3	-1.1	-1	200,000	5
90	15,000	1.5			-0.9	0.3	1.3	-0.9	-1	200,000	4
500	20,000	20			-0.9	0.02	0.9	-0.9	-0.8	2,000,000	7

³ Fall time = 1 μsec

⁴ Fall time = 2 μsec

⁵ Fall time = 6 μsec

⁶ Large-signal $\alpha = 2.4$

TRANSISTOR SOCKETS

Code	Manufacturer	Type
A	Solder connections	—
B	Elco Corp.	3-pin polarized
		3-pin printed-circuit
C	Cinch Mfg. Corp.	3-pin polarized
D	Super-Ear Prod. Co.	3-pin polarized
E	Mycalex Tube Socket Corp.	3-pin polarized
F	Elco Corp.	4-pin polarized
		4-pin printed-circuit
G	Super-Ear Prod. Co.	5-pin
H	Elco Corp.	5-pin
		5-pin printed-circuit
I	Super-Ear Prod. Co.	3-pin equal spacing
J	Cinch Mfg Corp.	5-pin
K	Amphenol Co.	—
L	Cinch Mfg Corp.	—
M	Cinch Mfg Corp.	4-pin polarized

TABLE VI—PHOTOTRANSISTORS

Manufacturer	Type No.	Type	Max Coll Volt-age (v)	Max Coll Cur-rent (ma)	Max Coll Power (mw)	Max dark Cur-rent (μ a)	Max Amb-ient Temp. (deg C)	Cutoff Freq. (kc)	Noise (ft-candles)	Sensitivity (μ a/ft-candles)
General Transistor	GT-66	fused, 3 lead ¹	12	20	50(25C)	15		750	6×10^{-8}	25
Texas Inst.	800	grown, 2 lead ²	20	20	50(25C)	250	40	20		35
Transistor Prod.	1N188	grown, 2 lead	100		40(25C)		50		3 to 10 μ v	10 μ a/millilumen
	1N189	nonrect, 2 lead			30(25C)	20	50			0.08%/ft-candle
	10A	grown, 2 lead	15		100(25C)	500	50		15 to 100 μ v	4ma for 300 ft-candles
	10B	grown, 2 lead	15		100(25C)	50	50		15 to 100 μ v	50% for 10 ft-candles
	5B	grown, 2 lead	50		100(25C)	20	50		3 to 10 μ v	1ma for 300 ft-candles
	5C	grown, 2 lead	50		100(25C)	5	50		3 to 10 μ v	50% for 40 ft-candles
	11A	nonrect, 2 lead	15		50(25C)	4,000 ohms	50			2,000 ohms for 300 ft-candles
	11B	nonrect, 2 lead	15		50(25C)	4,000 ohms	50			3,000 ohms for 300 ft-candles
	17A	grown, 2 lead							below 1 μ v	
Western Electric	1N85	grown, 2 lead ¹	90	1	50	20	85	25	2×10^{-8} μ a	0.35 μ a/ μ w

¹ Socket type A

² Socket type A to H

through a thin mica spacer. The types used as power transistors are the germanium *pn*p fused and silicon *npn* grown.

The *pn*p fused transistors are usually the high-power units whose larger physical size provides collector power dissipation up to 20

watts. The larger physical size also contributes a higher collector capacitance and lower α -cutoff frequency. Medium power *pn*p and *npn* fused units which retain their smaller physical size and most of the electrical characteristics of the low-power transistors are used

in applications requiring collector power dissipation below 1/2 watt.

The characteristics peculiar to the high-power transistor are the lower values of input resistance, output resistance and α , resulting from the higher values of bias currents employed. Bias stability tech-

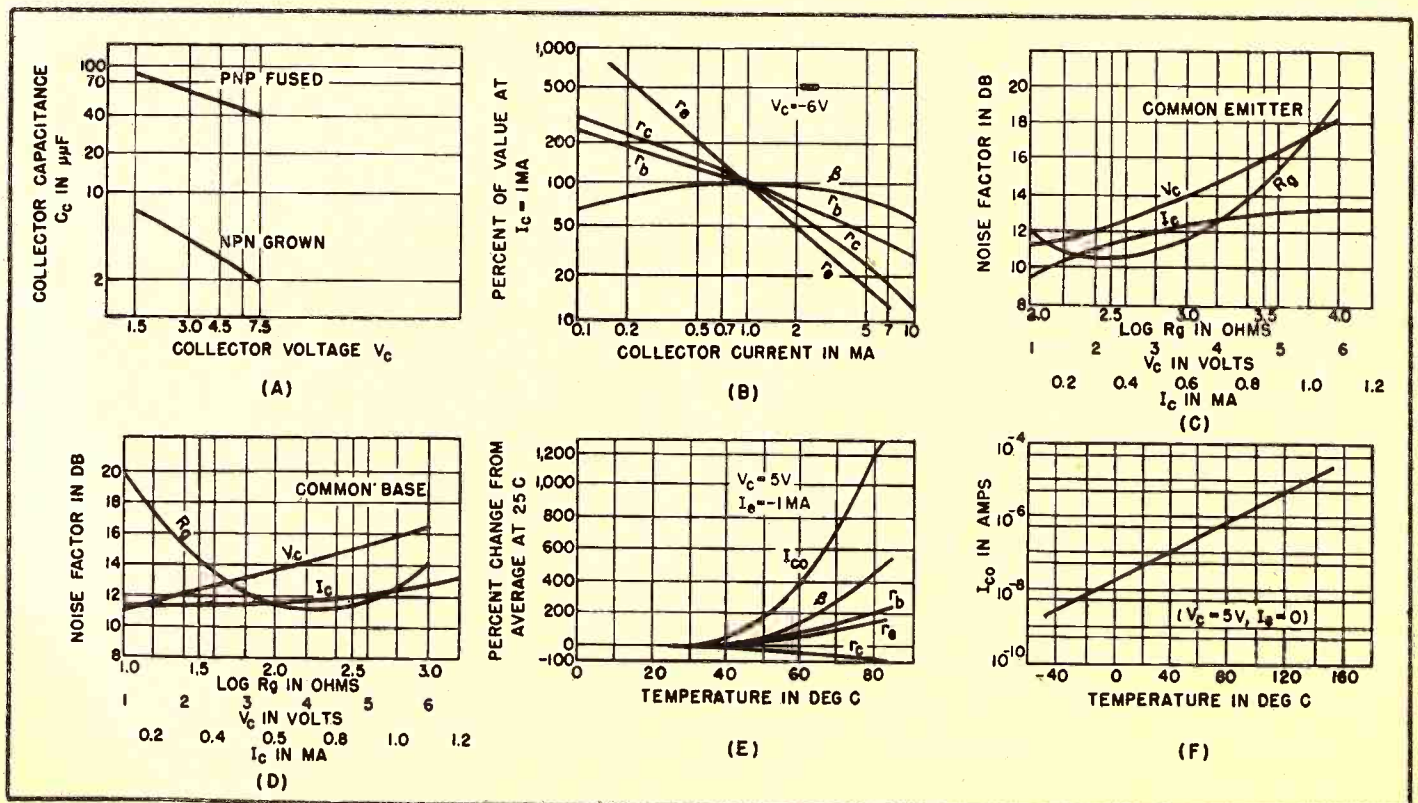


FIG. 1—Variation of transistor parameters with operating point (A to D) and ambient temperature (E, F)

niques are used to minimize the effect of runaway due to self-heating of the collector.

The point-contact transistor, Table V, is limited to high-speed switching circuitry. Phototransistor devices, Table VI, are divided into two basic types: the two-lead and

three-lead devices. In the two-lead unit, one lead is attached to the base and the other to the collector. The three-lead device has leads going to the emitter, base and collector respectively.

The two-lead device is used in circuits providing d-c amplification

for unmodulated light while the three-lead device can be used in circuits employing a-c amplification for modulated light.

Acknowledgment is given to Ann M. Field and Elizabeth A. Sewell for their assistance in compiling data.

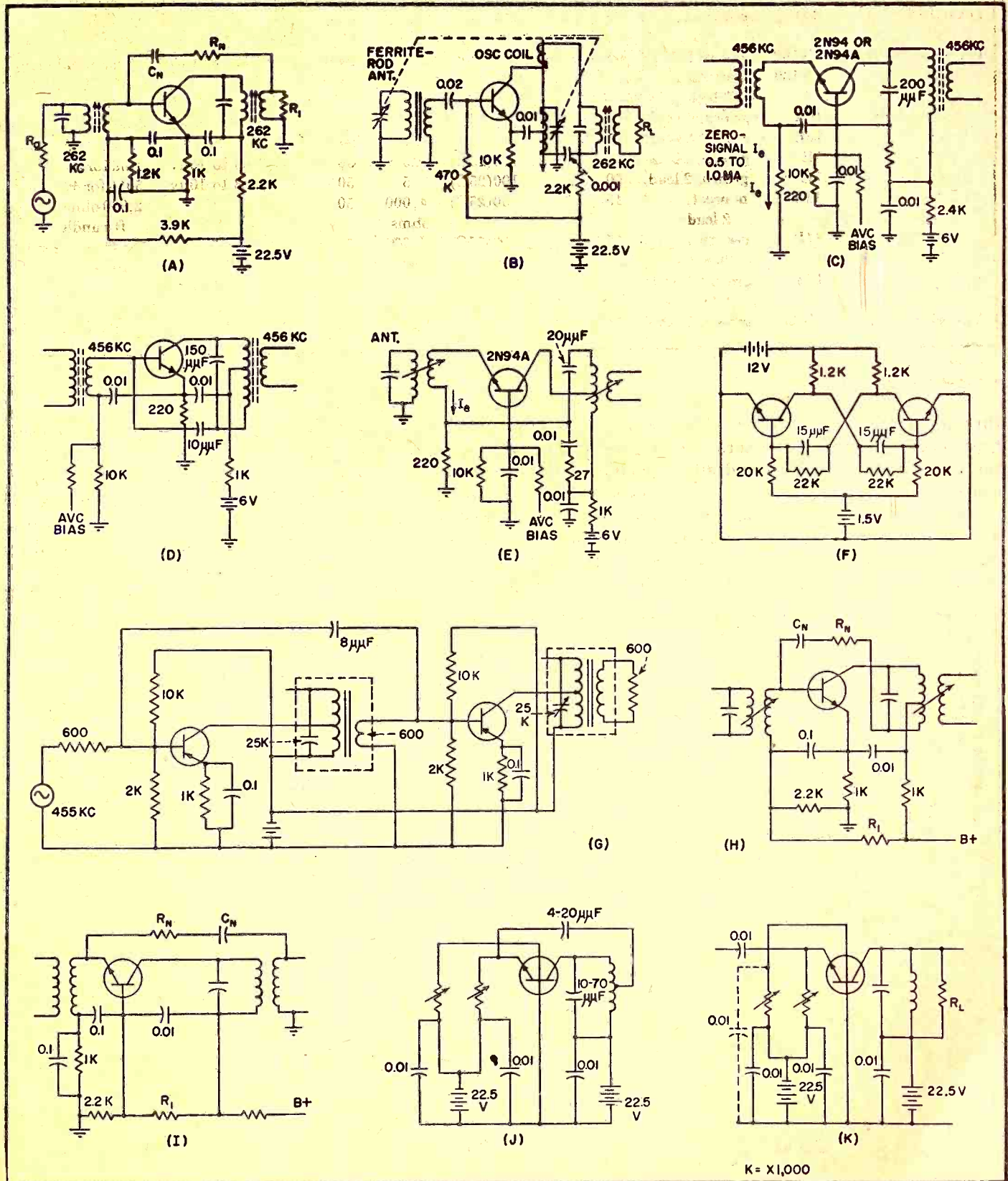


FIG. 2—Typical circuits for high-frequency transistors (A to I) and junction tetrode transistors (J, K) referred to in Tables II and III

STANDARD SYMBOLS

SUMMARY—Further simplification speeds drafting and cuts costs. Simple half-circles are now favored for coils. Basic switch loses arrowhead. Metallic rectifier symbol now serves for crystal diodes. Antenna goes back to triangle. Many microwave, transistor and photocell symbols appear here for first time

MOST-USED schematic symbols for electronic components are collected here on three pages for convenient reference, as abstracted from the new 54-page American Standards Association publication Y32.2-1954, "Graphical Symbols for

Electrical Diagrams" and (for transistors) from MIL-STD-15A, "Military Standard Electrical and Electronic Symbols".

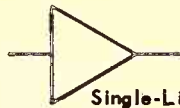
Symbols may have any orientation, size and line weight. The open-circle terminal symbol may be added to leads if desired. Ar-

rowheads may be either filled or open unless otherwise noted. Electrically actuated devices are normally shown in the power-off position. One-line symbolism has been adopted for waveguide diagrams, as indicated for microwave symbols.—J.M.

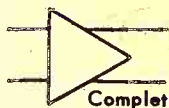
A-C SOURCE



AMPLIFIER



Single-Line Diagrams



Complete Diagrams

(Triangle points in direction of transmission. Rectangle may be used in place of triangle.)

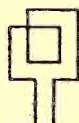
ANTENNA



General



Dipole



Loop

ATTENUATOR

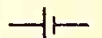


Balanced



Unbalanced

BATTERY



One Cell



Multicell



Tapped Multicell

(Long line is positive)

BELL

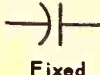


Bell



Buzzer

CAPACITOR



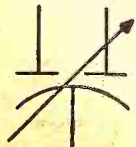
Fixed



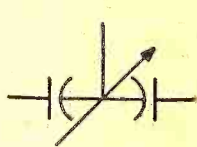
Variable



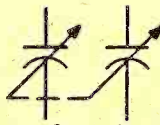
Trimmer



Differential



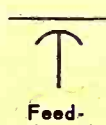
Split-Stator



Ganged



Shielded



Feed-through

(When electrode identification is necessary, curved element represents outside electrode of paper and ceramic units, negative of electrolytics and low-potential electrode of feed-through capacitors.)

CHASSIS

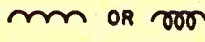


(Chassis or frame is not necessarily at ground potential)

COIL



Magnetic Core



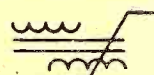
Tapped



Adjustable



Variable or Variable



Saturable-Core Inductor or Reactor (Upper coil is d-c winding)

CONNECTOR



Female Contact



Male Contact



Engaged

(Not an arrowhead; draw lines at 90°)



Jack



Jack



Plug



Outlet or Connector with Female Contacts



Outlet or Connector with Male Contacts

CONTACT



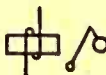
CRYSTAL



Piezoelectric

(For crystal diode, see RECTIFIER)

COUNTER



Electromagnetic

DIRECTION



OR



OR



Mechanical Motion

One-Way Signal Flow

Two-Way Signal Flow

Mechanical Motion

FUSE



GROUND



KEY



Telegraph

LAMP



Pilot



Switchboard



Ballast



A-C Glow



D-C Glow

LOUDSPEAKER



General



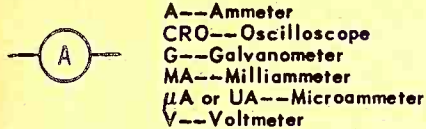
PM Permanent-Magnet



EM Electro-dynamic

FOR ELECTRONICS

METER



MICROPHONE

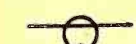


MICROWAVE

DIEL

Guided Path, General

Path other than Air



Coaxial Cable



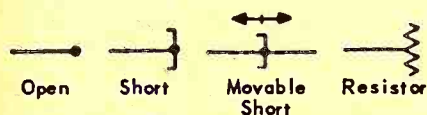
Circular Waveguide



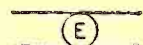
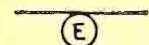
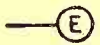
Rectangular Waveguide



Ridged Waveguide



Coax and Waveguide Terminations



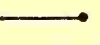
E-Plane Coupling by Aperture, with 1, 2, 3 & 4 Path Ends Available



Coupling by Loop to Space



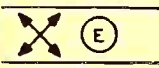
Coupling by Loop to Guided Path



Coupling by Probe to Space



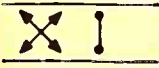
Coupling by Probe to Guided Path



E-Plane Aperture Directional Coupler



Loop Coupling



Probe Coupling



Resistance Coupling



Equivalent Series Element, General



Resistance



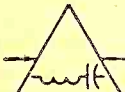
Capacitive Reactance



Inductive

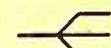


L-C with Reactance Infinite at Resonance

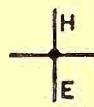


L-C with Zero Reactance at Resonance

(For conductance and susceptance discontinuities in coax and waveguide, rotate symbols 90° clockwise inside triangles.)



Hybrid, General

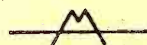


Hybrid Junction



Circular Hybrid

(Use single letter for principal transverse field in plane of ring; use HE for all other cases.)



Mode Suppression



Mode Transducer

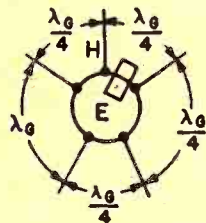


Resonator for Coax & Waveguide

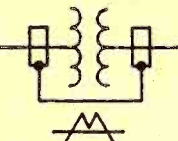
MICROWAVE EXAMPLES



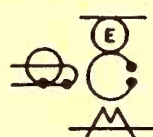
Transducer from rectangular guide to coax, with d-c grounds connected



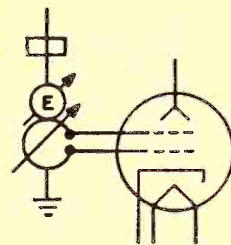
Circular 5-arm hybrid with principal coupling in E plane and 1-arm H coupling using rectangular waveguide



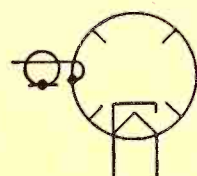
Transformer with d-c grounds and mode suppression between 2 rectangular guides



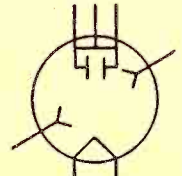
Resonator with mode suppression, coupled by E-plane aperture to guided path and by loop to coax



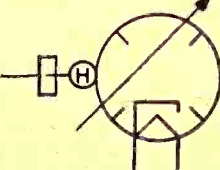
Tunable resonator with d-c ground, connected to electron device and adjustably coupled by E-plane aperture to rectangular guide



Resonant magnetron with coaxial output

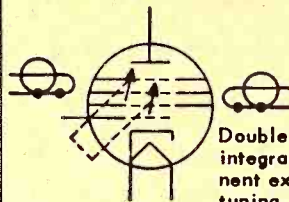
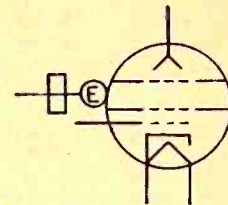


Transit-time split-plate magnetron with stabilizing deflecting electrodes and internal circuit

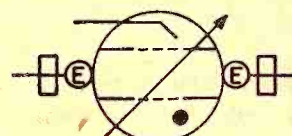


Tunable magnetron, aperture-coupled

Reflex klystron, integral cavity, aperture-coupled



Double-cavity klystron, integral cavity, permanent external ganged tuning, loop coupling



Transmit-receive (TR) tube, gas-filled, tunable integral cavity, aperture-coupled, with starter

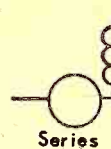
MOTOR & GENERATOR



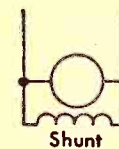
Motor



Generator



Series



Shunt

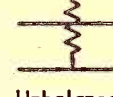


Separately Excited

PAD



Balanced



Unbalanced

PATH



No Connection



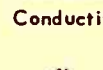
Connection



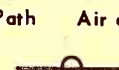
Connections

Conductive Path

Air or Space Path



Shielded Single Conductor



2-Conductor Cable, Unshielded



2-Cond. Cable with Grounded Shield

Terminal

PERMANENT MAGNET



PHONES



General



Single



Double

Standard Symbols for Electronics (Continued)

PHOTOCELL



Asymmetrical Photoconductive Transducer (Resistive. Use solid arrowhead; λ means element varies with light)



Symmetrical Photoconductive Transducer; Selenium Cell



Photovoltaic Transducer; Barrier or Blocking-Layer Cell

PICKUP

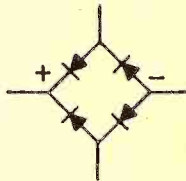


RECTIFIER



Metallic Rectifier; Crystal Diode; Electrolytic Rectifier; Asymmetrical Varistor (Use solid arrowhead. Arrow shows direction of forward or easy current, not electron flow)

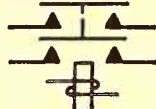
Example: Full-wave bridge rectifier. Polarity of d-c output voltage is as shown when a-c is applied between top and bottom leads of bridge



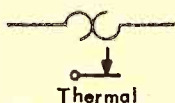
RELAY



SPDT Contacts



Two-Circuit



Thermal

RESISTOR



Basic Tapped Adjustable Variable

SHIELDING

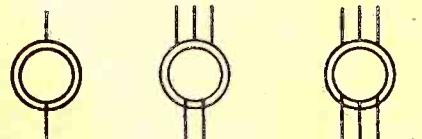


SWITCH



Basic DPDT Selector Selector

SYNCHRO



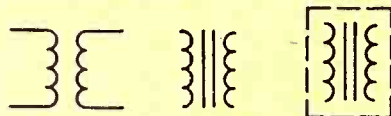
Basic Synchro Control Receiver, Transmitter or Transformer Differential Synchro Receiver or Transmitter

THERMISTOR



General With Heater

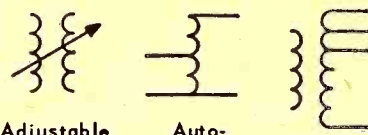
TRANSFORMER



General Magnetic Core Shielded



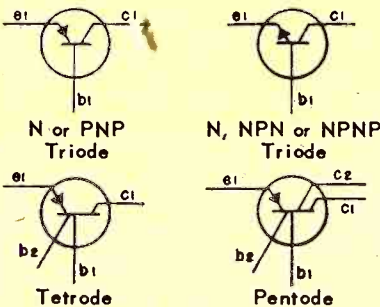
Shield between Windings, Connected to Frame One Winding Adjustable Both Windings Adjustable



Adjustable Mutual Inductor Auto-transformer Tapped

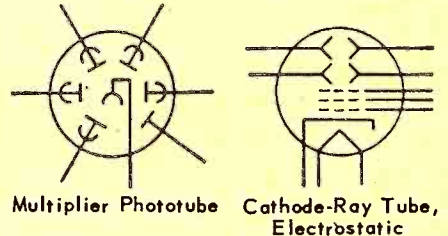
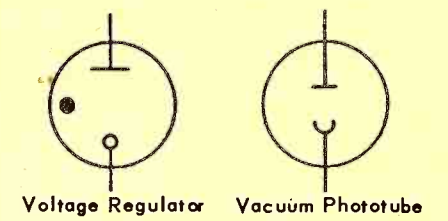
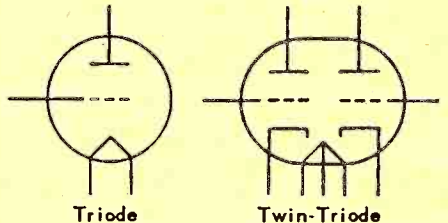
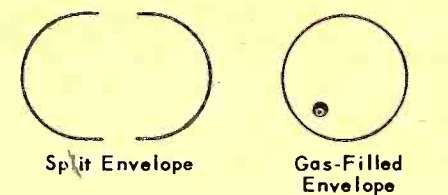
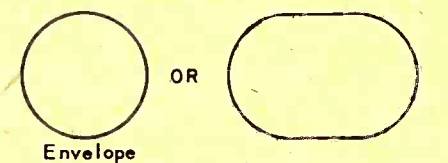
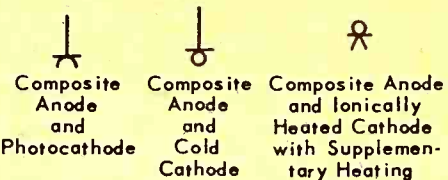
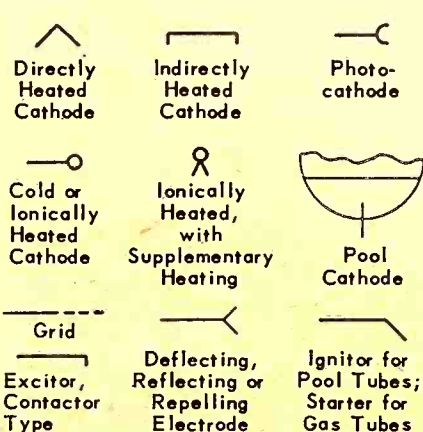
(There is now no special core symbol for powdered iron cores; symbol for adjustable inductance serves instead to indicate a movable core)

TRANSISTOR

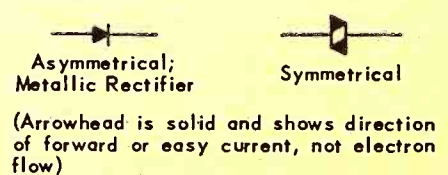


(Arrowhead on emitter is solid and shows current flow, not electron flow. Arrowhead must not touch circle or base line. Letters are not part of symbol; e = emitter, c = collector and b = base. These are MIL-STD-15A symbols, not yet in ASA)

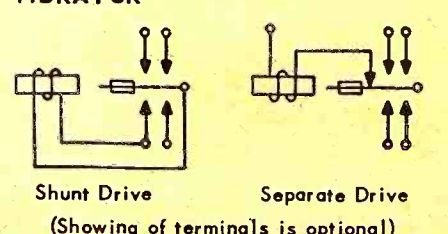
TUBES



VARIATOR



VIBRATOR



COMPILED BY THE RESEARCH DEPARTMENT OF ELECTRONICS

product listings

O F T H E 1 9 5 6 - 1 9 5 7

electronics

B U Y E R S ' G U I D E

In the preparation of **ELECTRONICS BUYERS' GUIDE**, every effort was made to insure the completeness and accuracy of the Product Listings according to the information provided by the manufacturers.

The listings were compiled from information provided by more than 3,000 companies manufacturing electronic or allied products and include all products that will be available in the coming year, insofar as the companies themselves can determine. The completeness and accuracy of the listings are entirely due to the helpful cooperation of these manufacturers.

Products are arranged and indexed in a simple, easy-to-find, telephone-book style. Names of Manufacturers who are advertisers in the **BUYERS' GUIDE** are bold-faced in the listings and page numbers of their advertisements are shown. This makes it possible to obtain complete information on products quickly and easily by referring to the advertising pages.

Several new product headings have been added. Due to lack of sufficient information, only manufacturers who were known are included under these new headings. Listings include an index of registered trade names and an alphabetical listing of all companies engaged in the manufacture of electronic components, complete equipment or allied products.

NOTE: *This punch-out tab is for your convenience in locating the Product Listings in this issue. Simply push out and fold under. It will then serve as a tab mark to indicate where the listings start.*

PUSH OUT
AND FOLD



Alphabetical Listings Of All COMPONENTS—COMPLETE UNITS—ALLIED PRODUCTS Used in Electronic Equipment for All Purposes

The complete electronic and allied product lines of more than three thousand manufacturers are arranged and indexed in a simple, easy-to-use, telephone book style in the following listings.

Products are listed alphabetically by generic names followed by descriptive or type names where necessary, as **ADAPTERS—Battery**.

For example: To find the manufacturers of ionization tubes you would turn to the generic product heading **TUBES** and listed alphabetically under that you would find **TUBES—Ionization**.

The only exceptions are **INSULATING COMPOUNDS; INSULATION MATERIALS; INSULATION PARTS; METALS; PLASTIC MATERIALS; and TUBE PARTS**. Products falling in these classifications are arranged alphabetically under those six headings. A breakdown of electrical measuring

instruments is listed under the generic product heading **INSTRUMENTS, ELECTRICAL MEASURING** and cross-indexed. The same holds true for **MICROWAVE ACCESSORIES**.

Cross references are provided wherever necessary to cover names, other than the standard ones, that are sometimes used.

Manufacturers under each product heading are also arranged alphabetically. Those companies who are advertisers in this issue are bold-faced and the page numbers of their advertisements given to permit quick and easy reference for the necessary technical data.

In compiling the listings for this year's **ELECTRONICS BUYERS' GUIDE** extreme care has been taken to ascertain those products which are in production, or available within a reasonable time and, unrestricted for general industrial use.

THE ONLY *Completely Verified* LISTING OF MANUFACTURERS OF ELECTRONIC AND ALLIED PRODUCTS

ABSORBERS—Microwave

Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
McMILLAN INDUSTRIAL CORP., Brownville Avenue Plant, Ipswich, Mass. ADV. PG. 484, 485.
SPONGE RUBBER PRODUCTS CO., Div. of B. F. Goodrich Co., Shelton, Conn. ADV. PG. 193, 535.

ACCELERATORS—Particle

APPLIED RADIATION CORP., 1210 Spring Brook Rd., Walnut Creek, Calif. ADV. PG. 643.
High Voltage Engineering Corp., 7 University Rd., Cambridge 38, Mass.
Stanford Laboratories Co., P. O. Box 252, Menlo Park, Calif.

ACCELEROMETERS

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
B & F Instruments Inc., 4732 N. Broad St., Philadelphia 41, Pa.
BOURNS LABORATORIES, 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 134.
BULOVA WATCH CO., Quartz Crystal Div., Valley Stream, N. Y. ADV. PG. 378, 379.
Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
CALIDYNE CO., THE, 120 Cross St., Winchester, Mass. ADV. PG. 593.
Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
Chesapeake Instrument Corp., Shadyside, Md.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Control Devices, Inc., 8299 E. Nine Mile Rd., Van Dyke, Mich.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
Endevco Corp., 161 E. California St., Pasadena, Calif.
Epic, Inc., 154 Nassau St., New York 38, N. Y.

FORD INSTRUMENT CO., DIV. OF THE SPERRY CORP., 31-10 Thomson Ave., Long Island City 1, N. Y. ADV. PG. 667.
General Cybernetics Corp., 1751 N. Coronado St., Los Angeles 26, Calif.
Genisco, Inc., 2233 Federal Ave., Los Angeles 64, Calif.
Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.
Gray Research & Development Co., Inc., 685 Hilliard St., Manchester, Conn.
GREENLEAF MFG. CO., THE, 7814 Maplewood Industrial Court, St. Louis 17, Mo. ADV. PG. 287.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
Instrument Development Laboratories, Inc., 163 Highland Ave., Needham Heights, Mass.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
Kistler Instrument Co., 15 Webster St., Tonawanda, N. Y.
Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
MAXSON INSTRUMENTS, A DIV. OF THE W. L. MAXSON CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 438.
Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
Minatron Corp., 14 Cliveden Place, Belle Mead, N. J.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.
PICKERING & CO., 309 Woods Ave., Oceanside, N. Y. ADV. PG. 679.
Ram Meter Inc., 1102 Hilton Rd., Ferndale, Detroit 20, Mich.
REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.
Sanders Associates, Inc., Nashua, N. H.

Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.
Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.
Statham Laboratories, Inc., 12401 W. Olympic Blvd., Los Angeles 64, Calif.
STERLING PRECISION CORP., INSTRUMENTS DIV., 34-17 Lawrence St., Flushing, N. Y. ADV. PG. 199.
Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.
Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.
Teiner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.

ACCUMULATORS

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.

ADAPTERS—Battery

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
Eby Co., Hugh H., 4700 Stanton Ave., Philadelphia 44, Pa.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.

ADAPTERS—Foreign

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
KULKA ELECTRIC MFG. CO., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.
Morse Co., Frank W., 1300 Soldiers Field Rd., Boston 35, Mass.

ADAPTERS—Panoramic

C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
PANORAMIC RADIO PRODUCTS, INC., 10 South Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.
 Transiron, Inc., 186 Granite St., Manchester, N. H.

ADAPTERS—Phase

Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
NAGOG ASSOCIATES, INC., Littleton, Mass. ADV. PG. 571.
 Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.

ADAPTERS—Test

ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ASSOCIATED ENGINEERING CORP., 65 Kent St., Brookline 46, Mass. ADV. PG. 590, 591.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 C B C Electronics Co., Inc., 2601 N. Howard St., Philadelphia 33, Pa.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass.
 Mack Electronics Division, Inc., Plainfield, N. J.
 Pomona Electronics Co., Inc., 1126 W. Fifth Ave., Pomona, Calif.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
SWITCHCRAFT INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 668.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.
 Vidaire Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.

ADAPTERS—Tube

ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
ELCO CORP., "M" St. below Erie Ave., Philadelphia 24, Pa. ADV. PG. 569.
 Mack Electronics Division, Inc., Plainfield, N. J.
NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.
 Pomona Electronics Co., Inc., 1126 W. Fifth Ave., Pomona, Calif.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.
 Vidaire Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.

ADHESIVES

Ambroid Co., Weymouth 88, Mass.
 American Cyanamid Co., 38 Rockefeller Plaza, New York 20, N. Y.
 American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
 Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Armstrong Cork Co., Lancaster, Pa.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 Borden Co., Chemical Div., 350 Madison Ave., New York 17, N. Y.
 Cox & Co., Inc., 115 E. 23rd St., New York 10, N. Y.
 Dow Corning Corp., Midland, Mich.
 Durez Plastics Div. of Hooker Electrochemical Co., 1921 Walck Rd., North Tonawanda, N. Y.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 General Electric Co., Chemical Materials Dept., Pittsfield, Mass.
 Goodyear Tire & Rubber Co., Chemical Div., 1144 E. Market St., Akron 16, Ohio.
 Hardman Co., Inc., H. V., 571 Cortland St., Belleville 9, N. J.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.

Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Marbette Corp., 37-21 30th St., Long Island City 1, N. Y.
 Marbon Chemical Div. of Borg-Warner Corp., 1926 W. Tenth Ave., Gary, Ind.
 Micro-Circuits Co., New Buffalo, Mich.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Moyon Co., C. P., 8157 Monticello Ave., Skokie, Ill.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Paisley Products, Inc., 630 W. 51st St., New York 19, N. Y.
 Philadelphia Quartz Co., 1146 Public Ledger Bldg., Philadelphia 6, Pa.
 Reichhold Chemicals, Inc., 525 Broadway, White Plains, N. Y.
 Rubber & Asbestos Corp., 225 Belleville Ave., Bloomfield, N. J.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
 Terrell Corp., 19 Lane St., Waltham 54, Mass.
 Union Bay State Chemical Co., Inc., 491 Main St., Cambridge 42, Mass.
UNITED SHOE MACHINERY CORP., 140 Federal St., Boston 7, Mass. ADV. PG. 250, 251.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 U. S. Stoneware Co., The, Akron 9, Ohio.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
 Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.

ADHESIVES—Waterproof & Corrosion Proof Compounds

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Ambroid Co., Weymouth 88, Mass.
 American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
 Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Armstrong Cork Co., Lancaster, Pa.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 Borden Co., The, Chemical Div., 350 Madison Ave., New York 17, N. Y.
ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. ADV. PG. 571.
 Ellanor Chemical Co., 2308 Oakton St., Evanston, Ill.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Goodyear Tire & Rubber Co., Inc., Chemical Div., 1144 E. Market St., Akron 16, Ohio.
 Hardman Co., Inc., H. V., 571 Cortland St., Belleville 9, N. J.
 Javex, P. O. Box 646, Redlands, Calif.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Marbette Corp., 37-21 30th St., Long Island City 1, N. Y.
 Metal & Thermit Corp., Rahway, N. J.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Paisley Products, Inc., 630 W. 51st St., New York 19, N. Y.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Union Bay State Chemical Co., Inc., 491 Main St., Cambridge 42, Mass.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 U. S. Stoneware Co., The, Akron 9, Ohio.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

AGING RACKS

See **RACKS—Aging for Vacuum Tubes & Transistors**

AIR CLEANERS—Electronic

Air Control Installations Ltd., Ruislip, Middlesex, England.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
 Radex Corp., 2076 N. Elston Ave., Chicago 14, Ill.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Trion, Inc., 1000 Island Ave., McKees Rocks, Pa.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

ALARM SYSTEMS

See **CONTROLS, Alarm Systems**

ALTERNATORS

See **CONVERTERS and INVERTERS**

ALUMINUM OXIDE

See **INSULATION MATERIALS**

AMMETERS

AMMETERS—RF
 See **INSTRUMENTS—Electrical Measuring**

AMPLIFIERS—Audio Frequency

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Acme Telextronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
 Allegany Instrument Co., Inc., Cumberland, Md.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
 American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 415.
 Ansley Mfg. Co., Arthur, New Hope, Pa.
 Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.
 Berlant Concertone-Audio Div. of American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
 Bliss Electronic Corp., Box 366, Sussex, N. J.
 Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
 British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
 British Radio Electronics Ltd., 1833 Jefferson Place N. W., Washington 6, D. C.
 Brocine Electronics Corp., 344 E. 32nd St., New York 16, N. Y.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
 Capehart-Farnsworth Corp., 3700 E. Pontiac, Fort Wayne 1, Ind.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
 Collins Audio Products Co., P. O. Box 368, Westfield, N. J.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
 Control Corp., 718 Central Ave., Minneapolis 14, Minn.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Denson Electronics Corp., Ellington, Conn.
 Dukane Corp., St. Charles, Ill.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 Electron Enterprises, 6917-19-21 Stanley Ave., Berwyn, Ill.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
 Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Fairchild Recording Equipment Corp., 154th St. & 7th Ave., Whitestone, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Knigsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fidelity Amplifier Co., 703 Willow St., Chicago 14, Ill.
 Fisher Radio Corp., 21-21 Forty-Fourth Drive, Long Island City 1, N. Y.
 Fluke Mfg. Co., Inc., John, 1111 W. Nickerson St., Seattle 99, Wash.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Gosnet Co., 801 S. Main St., Burbank, Calif.
 Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y.
 Gotham Television Corp., 123 W. 64th St., New York 23, N. Y.
 Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
 HEATH CO. A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I.D.E.A. Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 Infra Electronic Corp., Roseland, N. J.
 INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
 KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.
 KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 48, 49.
 L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
 L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
 Lake Mfg. Co., 2323 Chestnut St., Oakland, Calif.
 LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439.
 Lauehik Radio Mfg. Co., 3931 S. Wayne Rd., Wayne, Mich.
 LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirly-Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Loge Sound Engineers, J. M., 2171 W. Washington Blvd., Los Angeles 18, Calif.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 MB MFG. CO., A DIV. OF TEXTRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 496.
 M. P. Engineering Co., Fairfield 3, Conn.
 McIntosh Laboratory, Inc., 320 Water St., Binghamton, N. Y.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Melody Master Mfg. Co., 2842 N. Cicero Ave., Chicago 41, Ill.
 MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 59.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 PARAPLEGICS MFG. CO., INC., 10068 Franklin Ave., Franklin Park, Ill. ADV. PG. 528.
 Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
 Peer, Inc., Benton Harbor, Mich.
 Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Precision Electronics Inc., 9101 King St., Franklin Park, Ill.
 Precision Radiation Instruments, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Pulse Techniques, Inc., 1411 Palisade Ave., West Englewood, N. J.
 Q.R.K. Electronic Products, 445 N. Circle Drive, Fresno, Calif.
 R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Radio Craftsmen, Inc., 4401 N. Ravenswood Ave., Chicago 40, Ill.
 RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.
 Rangertone, Inc., 73 Winthrop St., Newark 4, N. J.
 Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Remler Co., 2101 Bryant St., San Francisco 10, Calif.
 Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Sargent-Raymont Co., The, 4926-28 E. 12th St., Oakland 1, Calif.

SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
 Scott, Inc., Herman Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 SONEK, INC., 245 Sansom St., Upper Darby, Pa. ADV. PG. 546.
 SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.
 Special Products Co., P. O. Box 188, Rockville 3, Md.
 Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stelma, Inc., 389 Ludlow St., Stamford, Conn.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlsson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Symphony Radio & Television Corp., 925 South Western Ave., Los Angeles 6, Calif.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. ADV. PG. 685.
 Transistor Components Co., 301 Oakwood Ave., East Aurora, N. Y.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 UNIVOX-EASTERN CORP., 102 Warren St., New York 7, N. Y. ADV. PG. 226.
 VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
 Volkert & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.
 WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
 Western Electro-Acoustic Lab., 11789 San Vicente Blvd., Los Angeles 49, Calif.
 WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.
 WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
 Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

AMPLIFIERS—Audio Input Systems

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 Allegany Instrument Co., Inc., Cumberland, Md.
 ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Berlant Concertone-Audio Div. of American Electronics Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
 Brainard Electronics, 8586-90 Santa Monica Blvd., Los Angeles 46, Calif.
 British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
 Brociner Electronics Corp., 344 E. 32nd St., New York 16, N. Y.
 Capehart-Farnsworth Corp., 3700 E. Pontiac, Fort Wayne 1, Ind.
 CENTRALAB DIV. GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Dukane Corp., St. Charles, Ill.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 Fairchild Recording Equipment Corp., 154th St. & 7th Ave., Whitestone, N. Y.
 Fisher Radio Corp., 21-21 Forty Fourth Drive, Long Island City 1, N. Y.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.

Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y.
 Hartley Products Co., 521 E. 162nd St., New York 51, N. Y.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Holl Audio Inc., 5014 N. Encinta Ave., Temple City, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Johnson Co., E. F., Waseca, Minn.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
 LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439.
 McIntosh Laboratory, Inc., 320 Water St., Binghamton, N. Y.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Magnasyn Mfg. Co., Ltd., 5546 Satsuma Ave., P.O. Box 707, North Hollywood, Calif.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
 Pickard & Burns, Inc., Needham, Mass.
 PICKERING & CO., 309 Woods Ave., Oceanside, N. Y. ADV. PG. 679.
 Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
 Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
 Pulse Techniques, Inc., 1411 Palisade Ave., West Englewood, N. J.
 Q.R.K. Electronic Products, 445 N. Circle Drive, Fresno, Calif.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Remler Co., 2101 Bryant St., San Francisco 10, Calif.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 SONEK, INC., 245 Sansom St., Upper Darby, Pa. ADV. PG. 546.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlsson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. ADV. PG. 685.
 VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
 Weingarten Electronic Labs, Inc., 7556 Melrose Ave., Los Angeles 46, Calif.
 WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.

AMPLIFIERS—Audio Subminiature

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 Allegany Instrument Co., Inc., Cumberland, Md.
 ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Amplifier Corp. of America, 396 Broadway, New York 13, N. Y.
 Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
 Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
 BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
 Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
 BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Califone Corp., 1041 N. Sycamore Ave., Hollywood 38, Calif.
 Capehart-Farnsworth Corp., 3700 E. Pontiac, Fort Wayne 1, Ind.
 CENTRALAB DIV. GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Electro-Mechanical Research Inc., Ridgefield, Conn.
 Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.

Fortiphone Ltd., 247 Regent St., London W. 1, England.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Infra Electronic Corp., Roseland, N. J.
 INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 Jowill Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
 LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439.
 Lauehck Radio Mfg. Co., 3931 S. Wayne Rd., Wayne, Mich.
 Lee Laboratories, Inc., Genessee, Pa.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 McIntosh Laboratory, Inc., 320 Water St., Binghamton, N. Y.
 National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Philco Corp., Government & Industrial Div., 4700 Wisconsin Ave., Philadelphia 44, Pa.
 PHOTOCIRCUITS CORP., Glen Cove, N. Y. ADV. PG. 442.
 Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
 Precision Electronics, 7518 Melrose Ave., Los Angeles 46, Calif.
 Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
 PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
 R & D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.
 RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Remler Co., 2101 Bryant St., San Francisco 10, Calif.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash.
 SONECX, INC., 245 Sansom St., Upper Darby, Pa. ADV. PG. 546.
 SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.
 Stencil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Televox Mfg. Co., 1307 Sansom St., Philadelphia 7, Pa.
 TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. ADV. PG. 685.
 Transistor Components Co., 301 Oakwood Ave., East Aurora, N. Y.
 TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
 Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.
 WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
 WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.

AMPLIFIERS—d-c

Acme Teletronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146.
 Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
 Allegany Instrument Co., Inc., Cumberland, Md.
 AMERAC, INC., 116 Toppsfield Rd., Wenham, Mass. ADV. PG. 503.
 American Electronic Labs, Inc., 641 Arch St., Philadelphia 6, Pa.
 Arnoux Corp., Box 34628, Los Angeles, Calif.
 ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway 17, Paramus, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bristol Co., The, Waterbury 20, Conn.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 COMMUNICATIONS ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
 Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 CURTISS-WRIGHT CORP., ELECTRONICS DIV., 631 Central Ave., Carlstadt, N. J. ADV. PG. 583-585.
 Delaware Products Co., 300 Broadway, Camden 3, N. J.
 DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
 DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
 EDIN CO., INC., 207 Main St., Worcester, Mass. ADV. PG. 280.
 EECO Production Co., 506 E. 1st St., Santa Ana, Calif.
 Electro-Mechanical Research, Inc., Ridgefield, Conn.
 ELECTRONIC ASSOCIATES, INC., Long Branch, N. J. ADV. PG. 472.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Electronic Engineering Co. of California, 180 S. Alvarado St., Los Angeles 57, Calif.
 ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
 Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
 ELECTRONIC TUBE CORP., 1200 E. Mermald Ave., Philadelphia 18, Pa. ADV. PG. 63.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Ellis Associates, Box 77, Pelham, N. Y.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. F. 272, 273.
 Fielden Instrument Div. or Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
 Hanover Developments, 401 E. 74th St., New York 21, N. Y.
 HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Jordan Electronics, Inc., 3025 Mission Rd., Alhambra, Calif.
 KAY LAB, 5725 Kearney Villa Rd., San Diego 12, Calif. ADV. PG. 407.
 KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.
 Kistler Instrument Co., 15 Webster St., Tonawanda, N. Y.
 Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Magnasyn Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Mid-Century Instrument Co., 611 Broadway, New York 12, N. Y.
 Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.

Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Parsons Co., Ralph M., The, 617 S. Olive St., Los Angeles 14, Calif.
 Philbrick Researches, Inc., George A., 290 Congress St., Boston 10, Mass.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
 Remler Co., 2101 Bryant St., San Francisco 10, Calif.
 Rutico, Inc., 490 S. Fair Oaks Ave., Box 1157M, Pasadena 1, Calif.
 SANBORN CO., 39 Osborn St., Cambridge 39, Mass. ADV. PG. 205.
 Southern Instruments Ltd., Special Products Div., Frimley Rd., Camberly, Surrey, England.
 SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Transistor Components Co., 301 Oakwood Ave., East Aurora, N. Y.
 TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
 United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.
 Vic-Dar Division 828, Victor Adding Machine Co., 3900 N. Rockwell St., Chicago 18, Ill.
 Volkers & Schaffer Mfg. Corp., P. O. Box 996 Schenectady, N. Y.

AMPLIFIERS—Decade

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
 BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 23.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Cossor (Canada) Ltd. 301-303 Windsor St., Halifax, N. S., Canada.
 Daystrom Instrument, Archbald, Pa.
 Decade Instrument Co., Box 153, Caldwell, N. J.
 Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
 Endevo Corp., 161 E. California St., Pasadena, Calif.
 FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.
 Guided Missiles Div. of Fairchild Engine & Airplane Corp., Wyandanch, N. Y.
 GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 KAY LAB, 5725 Kearney Villa Rd., San Diego 12, Calif. ADV. PG. 407.
 KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.
 Magnasyn Mfg. Co., Ltd., 5546 Stasuma Ave., P. O. Box 707, North Hollywood, Calif.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.

AMPLIFIERS—Differential

ADVANCE ELECTRONICS CO., 451 Highland Ave., Pasadena, N. J. ADV. PG. 600.

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Allegany Instrument Co., Inc., Cumberland, Md.
 American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
 Boehme, Inc., H. O., 915 Broadway, New York 10, N. Y.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Devtron Engineering, 1 Winslow St., Redwood City, Calif.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
ELECTRONIC ASSOCIATES, INC., Long Branch, N. J. ADV. PG. 472.
 Electronic Control Systems Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
 Otis Elevator Co., Electronics Div., 35 Ryerson St., Brooklyn, N. Y.
 Performance Measurements Co., 15301 W. McNichols, Detroit 35, Mich.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 Rosen Engineering Products Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
 Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
 Vic-Dar Division 823, Victor Adding Machine Co., 3900 N. Rockwell St., Chicago 18, Ill.
 Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.

AMPLIFIERS—f-m & a-m Antenna

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Jerrold Electronics Corp., 26th & Dickinson Sts., Philadelphia 46, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.

AMPLIFIERS—Facsimile

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.

AMPLIFIERS—i-f

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.

Aircraft Armaments, Inc., Cockeysville, Md.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Collins Audio Products Co., P. O. Box 368, Westfield, N. J.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Denson Electronics Corp., Ellington, Conn.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INSTRUMENTS FOR INDUSTRY, INC., 149 Glen Cove Rd., Mineola, N. Y. ADV. PG. 410.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Jovil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 624.
 McGregor Electronics Industries, McGregor, Iowa
MAXSON INSTRUMENTS A DIV. OF THE W. L. MAXSON CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 438.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Remler Co., 2101 Bryant St., San Francisco 10, Calif.
 Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Telefoto Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 Westbury Electronics, Inc., 40 Urban Ave., Westbury, N. Y.

AMPLIFIERS—Keying

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Boehme, Inc., H. O., 915 Broadway, New York 10, N. Y.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Telephonics Corp., Park Ave., Huntington, N. Y.

AMPLIFIERS—Klystron AFC

Browning Laboratories, Inc., Main St., Winchester, Mass.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

AMPLIFIERS—Logarithmic

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Audio Instrument Co., Inc., 133A W. 14th St., New York 11, N. Y.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Color Television, Inc., 973 E. San Carlos Ave., San Carlos, Calif.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Daystrom Instrument, Archbald, Pa.

Deltron, Inc., P. O. Box 192, Glenside, Pa.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
 Electromec, Inc., 5121 San Fernando Rd. Los Angeles 39, Calif.
ELECTRONIC ASSOCIATES, INC., Long Branch, N. J. ADV. PG. 472.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521
 Jordan Electronics, Inc., 3025 Mission Rd., Alhambra, Calif.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Pickard & Burns, Inc., Needham, Mass.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
SANBORN CO., 39 Osborn St., Cambridge 39, Mass. ADV. PG. 205.
 Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

AMPLIFIERS—Magnetic

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Ahrendt Instrument Co., The, 4910 Calvert Rd., College Park, Md.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146.
 Aladdin Radio Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
 American Research & Mfg. Corp., 4914 Delray Ave., Bethesda, Md.
 Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. ADV. PG. 696, 697.
 Arnoux Corp., Box 34628, Los Angeles, Calif.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Coast Coil Co., 5333 W. Washington Blvd., Los Angeles 16, Calif.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
 Daystrom Instrument, Archbald, Pa.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
 De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
 Dresden-Barnes Corp., 250 N. Vinedo Ave., Pasadena 8, Calif.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Electric Machinery & Equipment Div. of American Electronics, Inc., 2112 N. Chico Ave., El Monte, Calif.
 Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Engineered Magnetics Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif.
 Feedback Controls, Inc., 1332-34 N. Henry St., Alexandria, Va.
 Fidelity Instrument Corp., 1320 W. Market St., York, Pa.
 Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind.
 Fortiphone Ltd., 247 Regent St., London W. 1, England.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. ADV. PG. 246.
 General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y.
 Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.

Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif.
 Hall Mfg. Co., 3901 Wesley Terrace, Schiller Park, Ill.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
 Infra Electronic Corp., Roseland, N. J.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif.
 Jobbins Electronic Enterprises, 771 Hamilton Ave., Menlo Park, Calif.
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
 Keystone Products Co., 904-6 23rd St., Union City, N. J.
 Kollsman Instrument Corp., Sub. of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.
LEACH CORP., 5915 Avalon Blvd., Los Angeles 3, Calif. ADV. PG. 247.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.
MACARR, INC., 2458 Arthur Ave., Bronx 58, N. Y. ADV. PG. 620.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.
MAGNETIC AMPLIFIERS, INC., 632 Tinton St., New York 55, N. Y. ADV. PG. 401
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 54, 55.
 Magnetics Research Co., 255 Grove St., White Plains, N. Y.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgeway Rd., Minneapolis 13, Minn.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 PermoFlux Corp., 4900 W. Grand Ave., Chicago 39, Ill.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 Regulator Equipment Corp., 52 Iowa Ave., Paterson 3, N. J.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash.
SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
 Specialties, Inc., Skunks Misery Rd., Syosset, N. Y.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Timely Instruments & Controls Corp., 1645 W. 135th St., Gardena, Calif.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.
TRESCO, INC., 3824 Terrace St., Philadelphia 28, Pa. ADV. PG. 635.
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
UNIVERSAL ELECTRONICS CO., 2012 S. Sepulveda Blvd., Los Angeles 25, Calif. ADV. PG. 566.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
VARI-L CO., INC., P. O. Box 1433, Stamford, Conn. ADV. PG. 500.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.

Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
 Wallson Associates Ltd., 963 Freylinghuysen Ave., Newark 5, N. J.
 Warren Mfg. Co., Inc., The Littleton, Mass.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

AMPLIFIERS—Medical Instrument

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Allegany Instrument Co., Inc., Cumberland, Md.
 American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Control Components Co., 1 Holden St., Brookline 46, Mass.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.
 Hanover Developments, 401 E. 71st St., New York 21, N. Y.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Melody Master Mfg. Co., 2842 N. Cicero Ave., Chicago 41, Ill.
 Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
 Photon Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
SANBORN CO., 39 Osborn St., Cambridge 39, Mass. ADV. PG. 205.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
 Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
 Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
 Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.

**AMPLIFIERS—Microwave
 AMPLIFIERS—Microwave Radar
 See MICROWAVE ACCESSORIES**

AMPLIFIERS—Musical Instrument

Autocrat Electronics Co., 5024 Elm St., Skokie, Ill.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Dukane Corp., St. Charles, Ill.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Melody Master Mfg. Co., 2842 N. Cicero Ave., Chicago 41, Ill.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. ADV. PG. 685.
 Valco Mfg. Co., 4700 W. Walton St., Chicago 51, Ill.

AMPLIFIERS—Narrow Band Audio

Antlab, 4950 N. High St., Columbus 14, Ohio.

AMPLIFIERS—Narrow-Band i-f

APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Collins Audio Products Co., P. O. Box 368, Westfield, N. J.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
 Hoffman Laboratories, Inc., Sub. of Hoffmann Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
INSTRUMENTS FOR INDUSTRY, INC., 149 Glen Cove Rd., Mineola, N. Y. ADV. PG. 410.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 624.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.

AMPLIFIERS—Null

Allegany Instrument Co., Inc., Cumberland, Md.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Basler Electronics, Inc., 13th & Broadway, Highland, Ill.
 Bristol Co., The Waterbury 20, Conn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Control Components Co., 1 Holden St., Brookline 46, Mass.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada
 Deltron, Inc., P. O. Box 192, Glenside, Pa.
DOELCAM, DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
ELECTRO-MEASUREMENTS, INC., 4312 S. E. Stark St., Portland 15, Ore. ADV. PG. 579.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.

AMPLIFIERS—Operational

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Allegany Instrument Co., Inc., Cumberland, Md.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
 Dyanalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
ELECTRONIC ASSOCIATES, INC., Long Branch, N. J. ADV. PG. 472.

Electronic Products Corp., 322 State St., Santa Barbara, Calif.
 Feedback Controls, Inc., 1332-34 N. Henry St., Alexandria, Va.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.
REVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.

AMPLIFIERS—Peak Limiting

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Collins Radio Co., Cedar Rapids, Iowa.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INSTRUMENTS FOR INDUSTRY, INC., 149 Glen Cove Rd., Mineola, N. Y. ADV. PG. 410.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Paer, Inc., Benton Harbor, Mich.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.

AMPLIFIERS—Photocell

Acme Telectronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Autotron Co., P. O. Box 722-H, Danville, Ill.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.
 Electrical Service Co., 1271 Mission St., San Francisco, Calif.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Endevo Corp., 161 E. California St., Pasadena, Calif.
 Fidelity Amplifier Co., 703 Willow St., Chicago 14, Ill.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Instrument Development Laboratories, Inc., 163 Highland Ave., Needham Heights, Mass.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
 National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Photon Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
 Robotron Corp., 21300 W. Eight Mile Rd., P. O. Box 4885, Detroit 19, Mich.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Simpson Mfg. Co., Inc., Mark, 32-38 49th St., Long Island City 3, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
 Worner Electronic Devices, Rankin, Illinois.

AMPLIFIERS—Power

Acme Telectronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BEHLMAN ENGINEERING CO., 114 S. Hollywood Way, Burbank, Calif. ADV. PG. 368.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
 Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Daystrom Electric Corp., 807 Main St., Poughkeepsie, N. Y.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
EL MEC LABORATORIES, INC., 730 Boulevard, Keilworth, N. J. ADV. PG. 516.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Fidelity Amplifier Co., 703 Willow St., Chicago 14, Ill.
 Fluke Mfg. Co., Inc., John, 111 W. Nickerson St., Seattle 99, Wash.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 General Photo Products Co., Inc., General Photo Bldg., 15 Summit Ave., Chatham, N. J.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y.
 Holl Audio Inc., 5014 N. Encinta Ave., Temple City, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Johnson Co., E. F., Waseca, Minn.
 Jovill Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
KAY-LAB, 5725 Kearney Villa Rd., San Diego 12, Calif. ADV. PG. 407.

Liberty Industries, 107-37 71 Ave., Forest Hills, N. Y.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 McIntosh Laboratory, Inc., 320 Water St., Binghamton, N. Y.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
 Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.
 Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
 Precision Electronics, 7518 Melrose Ave., Los Angeles 46, Calif.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
 Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.
 Sargent-Raymont Co., The, 4926-28 E. 12th St., Oakland 1, Calif.
 Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Stephens Mfg. Corp., 8538 Warner Drive, Culver City, Calif.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. ADV. PG. 685.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Webster Electric Co., 1900 Clark St., Racine, Wis.
 Western Electro-Acoustic Lab., 11789 San Vincente Blvd., Los Angeles 49, Calif.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.

AMPLIFIERS—Printed Circuit

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Cedar Engineering, Inc., 5806 W. 36th St., Minneapolis 16, Minn.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
 Digital Products, Inc., 7643 Fay Ave., La Jolla, Calif.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Endevo Corp., 161 E. California St., Pasadena, Calif.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

- General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 Hoover Electronics Co., 364Q Woodland Ave., Baltimore 15, Md.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Insulated Circuits, Inc., 115 Roosevelt Ave., Belleville, N. J.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N.W., Grand Rapids 2, Mich.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Phen-O-Tron, Inc., 455 Main St., New Rochelle, N. Y.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
PHOTOCIRCUITS CORP., Glen Cove, N. Y. ADV. PG. 442.
 Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
 Printed Circuit Div., LaPointe Electronics Inc., Rockville, Conn.
 R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.
RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.
REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Techniques, Inc., 178-184 Central Ave., Hackensack, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Transistor Components Co., 301 Oakwood Ave., East Aurora, N. Y.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
 United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
 Webster Electric Co., 1900 Clark St., Racine, Wis.
- AMPLIFIERS—Pulse**
 Aircraft Armaments, Inc., Cockeysville, Md.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
 Devtron Engineering, 1 Winslow St., Redwood City, Calif.
EBERLINE INSTRUMENT DIVISION, P. O. Box 279, Santa Fe, N. M. ADV. PG. 654.
ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 Hammer Electronics Co., Inc., Box 531, Princeton, N. J.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INSTRUMENTS FOR INDUSTRY, INC., 149 Glen Cove Rd., Mineola, N. Y. ADV. PG. 410.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.
NORRMAN LABORATORIES, ERNST, Williams Bay, Wis. ADV. PG. 552.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Nuclear Measurements Corp., 2460 N. Arlington Ave., Indianapolis 5, Ind.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
 Pacific Electro-Nuclear Div. of Western Devices, Inc., 8930 Lindblade Ave., Culver City, Calif.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 Reflectone Corp., Post Rd. & Myano Lane, Stamford, Conn.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.
 Rese Engineering Corp., 731 Arch St., Philadelphia 6, Pa.
 Rutherford Electronics Co., 3707 S. Robertson Blvd., Culver City, Calif.
SPENCER-KENNEDY LABS, INC., 1320 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 396.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
 Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Telephonics Corp., Park Ave., Huntington, N. Y.
- AMPLIFIERS—Recording**
 A-V Mfg. Corp., 730 Fifth Ave., New York 19, N. Y.
 Acme Teletronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Allegany Instrument Co. Inc., Cumberland Md.,
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
 British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
BRUSH ELECTRONICS CO., 405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 3, 315.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
DAVIES LABORATORIES, INC., 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
EDIN CO., INC., 207 Main St., Worcester, Mass. ADV. PG. 280.
 Epsilon Research & Development Co., Ltd., The Barons, St. Margarets, Middlesex, England.
 Fairchild Recording Co., 154th St. & Seventh Ave., Whitestone, N. Y.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y.
 Hartley Products Co., 521 E. 162nd St., New York 51, N. Y.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Holl Audio Inc., 5014 N. Encinta Ave., Temple City, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
MAGNECORD, INC., 1101 S. Kilbourn Ave., Chicago 24, Ill. ADV. PG. 397.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Maurer, Inc., J. A., 37-01 31st St., Long Island City 1, N. Y.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Parsons Co., Ralph M., The, 617 S. Olive St., Los Angeles 14, Calif.
 Photon Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.
 R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.
- RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV.**, Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Rangertone, Inc., 73 Winthrop St., Newark 4, N. J.
 Rek-O-Kut Co., 38-01 Queens Blvd., Long Island City 1, N. Y.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
- AMPLIFIERS—r-f**
 Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
 Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
 Collins Audio Products Co., P. O. Box 368, Westfield, N. J.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada
 Crosby Labs, Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 624.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.
 Mohawk Electronic Research Labs, Inc., Box 126-A, RD 4, Amsterdam, N. Y.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 National Electronics Laboratories, Inc., 1713 Kalorama Rd., N. W., Washington 9, D. C.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.
RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO ENGINEERING LABS, INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Telephonics Corp., Park Ave., Huntington, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 Westlabs Inc., Dept. E, P. O. Box 1111, Palo Alto, Calif.

AMPLIFIERS—Servo

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Ahrendt Instrument Co., The, 4910 Calvert Rd., College Park, Md.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Aircraft Armaments, Inc., Cockeysville, Md.
 American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
 American Research & Mfg. Corp., 4914 Delray Ave., Bethesda, Md.
 Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
 Basler Electronics, Inc., 13th & Broadway, Highland 111.
BEHLMAN ENGINEERING CO., 114 S. Hollywood Way, Burbank, Calif. ADV. PG. 368.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
BULOVA WATCH CO., Quartz Crystal Div., Valley Stream, N. Y. ADV. PG. 378, 379.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Computing Devices of Canada Ltd., P. O. Box 508, Ottawa, Ontario.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Control Components Co., 1 Holden St., Brookline 46, Mass.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Datron Engineering Corp., 3613 Aviation Blvd., Manhattan Beach, Calif.
 Daystrom Instrument, Archbald, Pa.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Electro-Mechanical Div. of General Riveters, Inc., 735 Hertel Ave., Buffalo 7, N. Y.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Engineered Magnetics Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif.
 Feedback Controls, Inc., 1332-34 N. Henry St., Alexandria, Va.
 Fortiphone Ltd., 247 Regent St., London W. 1, England.
GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. ADV. PG. 246.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 Hammer Electronics Co., Inc., Box 531, Princeton, N. J.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 Infra Electronic Corp., Roseland, N. J.
 Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Jordan Electronics, Inc., 3025 Mission Rd., Alhambra, Calif.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
 L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.

L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
 Lear, Inc., Grand Rapids Div., 110 Ionla Ave., N.W., Grand Rapids 2, Mich.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.
 Link Aviation, Inc., Binghamton, N. Y.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Magnasynic Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Magnetics Research Co., 255 Grove St., White Plains, N. Y.
 Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
MAXSON INSTRUMENTS, A DIV. OF THE W. L. MAXSON CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 438.
 Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
 Multhead & Co., Ltd., Beckenham, Kent, England.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkeley, Mich.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
 Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
 R&D Laboratories, Rheem Mfg. Co., 9236 E. Hill Rd., Downey, Calif.
REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
 Robinette Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
 Rockwell Engineering Co., 4061 N. New Jersey St., Indianapolis 5, Ind.
 Scully Machine Co., 62 Walter St., Bridgeport, Conn.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.
 Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson N. J.
 Servo-Tek Products Co., Inc., 1036 Goffe Rd., Hawthorne, N. J.
 Simmonds Aerossories, Inc., Tarrytown, N. Y.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
TRANSICOIL CORP., Worcester, Penna. ADV. PG. 187.
 Transistor Components Co., 301 Oakwood Ave., East Aurora, N. Y.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
 Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
 Warren Mfg. Co., Inc., The, Littleton, Mass.
 White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.
 Winder Aircraft Corp., P. O. Box 2397, Lakeland, Fla.

AMPLIFIERS—Strain Gage

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Allegany Instrument Co., Inc., Cumberland, Md.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Century Electronics & Instruments Inc., P. O. Box 6216, Pine Station, Tulsa 10, Okla.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.

Control Components Co., 1 Holden St., Brookline 46, Mass.
 Control Devices, Inc., 8299 E. Nine Mile Rd., Van Dyke, Mich.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
EDIN CO., INC., 207 Main St., Worcester, Mass. ADV. PG. 280.
 EECO Production Co., 506 E. 1st St., Santa Ana, Calif.
 Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electro-Mechanical Research Inc., Ridgefield, Conn.
 Electronic Engineering Co. of California, 180 S. Alhambra St., Los Angeles 57, Calif.
 Elitt Associates, Box 77, Pelham, N. Y.
 Endevo Corp., 161 E. California St., Pasadena, Calif.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 272, 273.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GREENLEAF MFG. CO., THE, 7814 Maplewood Industrial Court, St. Louis 17, Mo. ADV. PG. 867.
 Hanover Developments, 401 E. 74th St., New York 21, N. Y.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
HELLAND DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 5200 E. Evans Ave., Denver 22, Colo. ADV. PG. 376.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
KAY-LAB, 5725 Kearney Villa Rd., San Diego 12, Calif. ADV. PG. 407.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
 Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
 Photon Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
 R&D Laboratories, Rheem Mfg. Co., 9236 E. Hill Rd., Downey, Calif.
 Radiation, Inc., Melbourne, Fla.
SANBORN CO., 39 Osborn St., Cambridge 39, Mass. ADV. PG. 205.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Transistor Components Co., 301 Oakwood Ave., East Aurora, N. Y.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.

AMPLIFIERS—Sweep

Adler Electronics, Inc., 1 Le Fave Lane, Near Rochelle, N. Y.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Decade Instrument Co., Box 159, Cambridge, N. J.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. ADV. PG. 689.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. Y. ADV. PGS. 88, 89, Third & Fourth Covers & Preceding Insert.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

AMPLIFIERS—Television

Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.

American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.

Ampli-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.

APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.

Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.

Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.

Entron, Inc., 4902 Lawrence St., Bladensburg, Md.

Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.

Foto-Audio Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.

Gates Radio Co., Quincy, Ill.

General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.

GENERAL PRECISION LABORATORY, INC., 63 Bedford Rd., Pleasantville, N. Y. ADV. PG. 189.

HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. ADV. PG. 689.

Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.

Holland Electronics, 2133 Central Drive S., East Meadow, N. Y.

I. D. E. A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.

International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.

Jerrold Electronics Corp., 26th & Dickinson Sts., Philadelphia 46, Pa.

Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.

North Hills Electric Co., Inc., 203-18 35th Ave., Bayside 61, N. Y.

POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.

RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.

RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.

Service Instruments Co., 422 S. Dearborn St., Chicago 5, Ill.

SPENCER-KENNEDY LABS., INC., 1320 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 396.

STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.

Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.

Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.

Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.

TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

Television Utilities Corp., 1315 Jericho Turnpike, New Hyde Park, N. Y.

Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.

WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.

AMPLIFIERS—Transistor

A.R.F. Products, Inc., 7627 Lake St., River Forest, Ill.

Aircraft Armaments, Inc., Cockeysville, Md.

American Research & Mfg. Corp., 4914 Delray Ave., Bethesda, Md.

Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.

Avion Instrument Corp., a Sub of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.

Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.

CENTRALAB DIV., GLOBE-UNION, INC., 914Y E Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.

Computing Devices of Canada, Ltd., P. O. Box 508, Ottawa, Ontario.

Daystrom Instrument, Archbald, Pa.

DUBROW DEVELOPMENT CO., 235 B Penn St., Burlington, N. J. ADV. PG. 380.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.

ECCO Production Co., 506 E. 1st St., Santa Ana, Calif.

Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.

Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.

Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.

Ellis Associates, Box 77, Pelham, N. Y.

Fidelity Amplifier Co., 703 Willow St., Chicago 14, Ill.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.

Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.

Gyro Electronics Co., 325 Canal St., New York, N. Y.

HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. ADV. PG. 689.

Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.

Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 153-155.

Infra Electronic Corp., Roseland, N. J.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.

International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.

Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.

LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.

Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.

MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.

Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.

MAXSON INSTRUMENTS A DIV. OF THE W. L. MAXSON CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 438.

Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

National Aircraft Corp., 3411 Tulare St., Burbank, Calif.

Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.

Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill.

Philco Corp., Government & Industrial Div., 4700 Wisconsin Ave., Philadelphia 44, Pa.

Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.

Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.

PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.

R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.

RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers, & Preceding Insert.

Remler Co., 2101 Bryant St., San Francisco 10, Calif.

Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.

Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash.

SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.

Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.

STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.

Stator Electric Corp., 46-25 5th St., Woodside, N. Y.

Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Telephonics Corp., Park Ave., Huntington, N. Y.

Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.

Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

Transistor Components Co., 301 Oakwood Ave., East Aurora, N. Y.

United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.

Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.

Webster Electric Co., 1900 Clark St., Racine, Wis.

WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.

AMPLIFIERS—Ultrasonic

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.

AEROPROJECTS INCORPORATED, 310 E. Rosedale Ave., West Chester, Pa. ADV. PG. 674.

ARENBERG ULTRASONIC LABORATORY, 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 570.

Bludworth Marine Div., National-Simplex Bludworth, Inc., 92 Gold St., New York 38, N. Y.

Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.

Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.

Decade Instrument Co., Box 153, Caldwell, N. J.

Edo Corp., College Point, N. Y.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.

FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y.

Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.

International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.

L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.

Mack Electronics Division, Inc., Plainfield, N. J.

Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.

Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.

Piezo Products Co., Whitney St., Sherborn, Mass.

Power Supplies, Inc., 1007 Olive St., Highland, Ill.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Telephonics Corp., Park Ave., Huntington, N. Y.

TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. ADV. PG. 685.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

AMPLIFIERS—Vibration Pickup

ACF Electronics, 800 N. Pitt St., Alexandria, Va.

Advanced Electronics, Inc., 95 Silas Deane Highway, Rocky Hill, Conn.

Allegany Instrument Co., Inc., Cumberland, Md.

Audio Products Corp., 2265 Westwood Blvd., Los Angeles 64, Calif.

Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.

Century Electronics & Instruments, Inc., P. O. Box 6216, Pine Station, Tulsa 10, Okla.

Consolidated Electro-dynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.

Control Components Co., 1 Holden St., Brookline 46, Mass.

Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.

Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.

Daytronic Corp., 216 S. Main St., Dayton, Ohio.

DUBROW DEVELOPMENT CO., 235-B Penn St., Burlington, N. J. ADV. PG. 380.

Electro-Mechanical Research, Inc., Ridgefield, Conn.

Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.

Endevco Corp., 161 E. California St., Pasadena, Calif.

Erwood, Inc., 1770 Berteau Ave., Chicago 13, Ill.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.

HEILAND DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 5200 E. Evans Ave., Denver 22, Colo. ADV. PG. 376.

Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.

International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Cleveland 16, Ohio.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

Kybernetes Co., 9 E. 40th St., New York 16, N. Y.

MB MFG. CO., A DIV. OF TETRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 496.

MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.

Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.

Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.

Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.

Performance Measurements Co., 15301 W. McNichols, Detroit 35, Mich.

R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

Technical Instrument Co., 3732 Westheimer Rd., Houston 6, Texas.

AMPLIFIERS—Wideband

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.

Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

Airmec Ltd., High Wycombe, Buckinghamshire, England.

Alfred Electronics, 897 Commercial St., Palo Alto, Calif.

Allegany Instrument Co., Inc., Cumberland, Md.

ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.

American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.

Ampli-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.

Applegate & Co., C. J., 1816 Grove St., Boulder, Colo.

APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.

ARENBERG ULTRASONIC LABORATORY, 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 570.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.

Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.

Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.

Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada

DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.

DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.

ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.

ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 522.

El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.

Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.

FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.

General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.

Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio

Hanover Developments, 401 E. 71st St., New York 21, N. Y.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. ADV. PG. 689.

HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.

Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.

I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.

INSTRUMENTS FOR INDUSTRY, INC., 149 Glen Cove Rd., Mineola, N. Y. ADV. PG. 410.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York, 58, N. Y. ADV. PG. 521.

Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.

International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.

Jowit Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 48, 49.

LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 624.

McIntosh Laboratory, Inc., 320 Water St., Binghamton, N. Y.

Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.

Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.

NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.

Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.

Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.

Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.

POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.

R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.

RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.

Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.

Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.

RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.

SHASTA DIV. OF BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.

Solartron Electronic Group Ltd., The Thames Ditton, Surrey, England.

SPENCER-KENNEDY LABS., INC., 1320 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 396.

STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.

Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.

Tarc Electronics, OInc., 48 Urban Ave., Westbury, N. Y.

Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.

Tektronix, Inc., P. O. Box 831, Portland 7, Ore.

TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

Telephonics Corp., Park Ave., Huntington, N. Y.

Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

Westlabs Inc., Dept. E, P. O. Box 1111, Palo Alto, Calif.

WICKENG ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.

ANALOGS

See COMPUTERS—Analog

ANALYZERS—Audio Amplifier

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

HEATH CO., A SUB OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.

ANALYZERS—Capacitor

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

Bristol Co., The Waterbury 20, Conn.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.

DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.

GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.

Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.

Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.

King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

PYRAMID ELECTRIC CO., 1445 Hudson Blvd., North Bergen, N. J. ADV. PG. 281.

SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

ANALYZERS—Circuit

Allegany Instrument Co., Inc., Cumberland, Md.

Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.

Bristol Co., The Waterbury 20, Conn.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Color Television, Inc., 973 E. San Carlos Ave., San Carlos, Calif.

Dit-Mco Inc., Electronics Div., 505 W. 9th St., Kansas City 5, Mo.

HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio ADV. PG. 152.

Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.

I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.

Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.

King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.

L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.

OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.

Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.

PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.

Seco Mfg. Co., 5015 Penn Ave., S., Minneapolis, Minn.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

ANALYZERS—Coincidence

ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.

Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.

Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.

Devtron Engineering, 1 Winslow St., Redwood City, Calif.

Nuclear Specialty Co., Center Moriches, N. Y.

Pacific Electro-Nuclear Div. of Western Devices, Inc., 8930 Lindblade Ave., Culver City, Calif.

Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.

Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Tracerlab, Inc., 130 High St., Boston 10, Mass.

ANALYZERS—Digital

BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.

Consolidated Avionics, Inc., Stamford, Conn.

Devtron Engineering, 1 Winslow St., Redwood City, Calif.

ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.

Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

Litton Industries, Components Div., Beverly Hills, Calif.

Magnetics Research Co., 255 Grove St., White Plains, N. Y.

Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.

Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

United Electro-dynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.

ANALYZERS—Frequency

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.

DAVIES LABORATORIES, INC., 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.

DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

G & M Equipment Co., Inc., 7309-7327 Varma Ave., North Hollywood, Calif.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

Muirhead & Co., Ltd., Beckenham, Kent, England.

PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.

PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.

Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.

WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.

Western Electro-Acoustic Lab., 11789 San Vicente Blvd., Los Angeles 49, Calif.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

ANALYZERS—Gas

Applied Physics Corp., 362 W. Colorado St., Pasadena 1, Calif.

Axler Associates, 102-42 43rd Ave., Corona, N. Y.

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.

Beckman Inc., Arnold O., 1020 Mission St., South Pasadena, Calif.

Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.

Baker & Co., Inc., 113 Astor St., Newark 5, N. J.

Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.

Consolidated Electro-dynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

Foxboro Co., The, Foxboro, Mass.

Gow-Mac Instrument Co., 100 Kings Rd., Madison, N. J.

Johnson-Williams, Inc., 2526 Park Blvd., Palo Alto, Calif.

King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.

Kruger Instruments, Harold, Box 164, San Gabriel, Calif.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Manufacturers Engineering & Equipment Corp., York & Sunset Lane, Hatboro, Pa.

NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.

Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.

Reeder & Co., Charles M., 173 Victor Ave., Detroit 3, Mich.

Rubicon Co., Ridge Ave., at 35th St., Philadelphia 29, Pa.

Spinco Division, Beckman Instruments Inc., 535 O'Neil Ave., Belmont, Calif.

Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.

Victory Engineering Corp., 101 Springfield Rd., Union, N. J.

Warren Electronics, Inc., Bound Brook, N. J.

ANALYZERS—Harmonic

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.

DAVIES LABORATORIES, INC., 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.

DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.

PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.
 PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.
 SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.

ANALYZERS—Intermodulation

Audio Instrument Co., Inc., 133A W. 14th St., New York 11, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 424.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 422.
 PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.
 PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.
 RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.
 TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

ANALYZERS—Magnetic

DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 574.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Rese Engineering Corp., 731 Arch St., Philadelphia 6, Pa.
 SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
 SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.

ANALYZERS—Microwave Radar

See MICROWAVE ACCESSORIES

ANALYZERS—Noise

ACTION LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.
 PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.
 Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

ANALYZERS—Servo

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Infra Electronic Corp., Roseland, N. J.
 Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Union Switch & Signal Div., of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.

ANALYZERS—Spectrum

Airborne Electronics Co., 6813 Troost Ave., North Hollywood, Calif.
 Aircraft Armaments, Inc., Cockeysville, Md.
 Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
 ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
 DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
 F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.

GENERAL PRECISION LABORATORY INC., 63 Bedford Rd., Pleasantville, N. Y. ADV. PG. 189.
 J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Mack Electronics Division, Inc., Plainfield, N. J.
 Northeastern Engineering, Inc., Manchester, N. H.
 Pacific Electro-Nuclear Div. of Western Devices, Inc., 8930 Lindblade Ave., Culver City, Calif.
 PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.
 POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.
 POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Tracerlab, Inc., 130 High St., Boston 10, Mass.
 Transitor, Inc., 186 Granite St., Manchester, N. H.
 VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.

ANALYZERS—Surface Analyzers & Comparators

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Epsylon Research & Development Co., Ltd., The Barons, St. Margarets, Middlesex, England.
 Menlo Research Laboratory, Menlo Park, Calif.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

ANALYZERS—Thyratron or Phantotron

Alectric Mfg. Co., 7842 39th Ave., Kenosha, Wis.
 CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.

ANALYZERS—Ultrasonic

AEROPROJECTS INCORPORATED, 310 E. Rosedale Ave., West Chester, Pa. ADV. PG. 674.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 Mack Electronics Division, Inc., Plainfield, N. J.
 PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.
 PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.
 Vibro Ceramics Corp., Ruchten, N. J.

ANALYZERS—Vibration

Advanced Electronics, Inc., 95 Silas Deane Highway, Rocky Hill, Conn.
 Allegany Instrument Co., Inc., Cumberland, Md.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 DAVIES LABORATORIES, INC., 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.
 DUBROW DEVELOPMENT CO., 235 B Penn St., Burlington, N. J. ADV. PG. 380.
 Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Endeveco Corp., 161 E. California St., Pasadena, Calif.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Erwood, Inc., 1770 Berceau Ave., Chicago 13, Ill.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 International Research & Development Corp., 769 Thomas Lane, P. O. Box 1707, Cleveland 16, Ohio.
 KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Pacific Electro-Nuclear Div. of Western Devices, Inc., 8930 Lindblade Ave., Culver City, Calif.
 PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.
 PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Technical Instrument Co., 3732 Westheimer Rd., Houston 6, Texas.
 Westberg Mfg. Co., 144 S. Coombs St., Napa, Calif.

ANALYZERS—Video

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
 TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
 WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

ANALYZERS—Wave

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.
 DAVIES LABORATORIES, INC., 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.
 DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 GENERAL RADIO CORP., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
 KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Mack Electronics Division, Inc., Plainfield, N. J.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.
 Railway Communications, Inc., P. O. Box 67, Raytown, Mo.
 SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.
 STODDART AIRCRAFT RADIO CO., 6644 Santa Monica Blvd., Hollywood 38, Calif. ADV. PG. 509.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

ANNEALERS—Glass

Forter-Teichmann Co., Clark Bldg., Pittsburgh, Pa.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
 SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 STEINER-IVES CO., Springfield Rd., Union, N. J. ADV. PG. 514.

ANTENNA FAIRLEADS

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.

ANTENNA FEED SYSTEMS

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.
 AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
 ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
 Communication Products Co., Inc., Marlboro, N. J.
 COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
 DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
 DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 GABRIEL ELECTRONICS DIV. OF THE GABRIEL CO., Needham Heights, Mass. ADV. PG. 414.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Javex, P. O. Box 646, Redlands, Calif.
 KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.
 L.M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
 Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
 MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Meridian Metalcraft, Inc., 8739 Miller Grove Drive, Whittier, Calif.
 NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.

Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Sanders Associates, Inc., Nashua, N. H.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing, N. Y. ADV. PG. 199.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Wheeler Laboratories, Inc., Great Neck, N. Y.
 Wind Turbine Co., E. Market St. & Penna. R.R., West Chester, Pa.

ANTENNA PEDESTALS—Gear Driven Radar

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
ATLAS PRECISION PRODUCTS CO., Castor & Kensington Aves., Philadelphia 24, Pa. ADV. PG. 543.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.

DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
ECLIPSE PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
GABRIEL ELECTRONICS DIV. OF THE GABRIEL CO., Needham Heights, Mass. ADV. PG. 414.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.

I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Johnson Co., E. F. Waseca, Minn.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.
 Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
 Maryland Electronic Mfg. Corp., College Park, Md.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 P. M. Industries, Inc., Stamford, Conn.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing 54, N. Y. ADV. PG. 199.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

ANTENNA REFLECTORS—Radar Parabolic

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Blaw Knox Co., Farmers Bank Bldg., Pittsburgh 22, Pa.
 Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
GABRIEL ELECTRONICS DIV. OF THE GABRIEL CO., Needham Heights, Mass. ADV. PG. 414.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.

I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Keller Products Inc., 41 Union St., Manchester, N. H.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.
 Photo Crystals Inc., 15 S. First St., Geneva, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Sanders Associates, Inc., Nashua, N. H.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.

Teiner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.
TEINER ENGINEERING CORP., 116 Madison St., Malden, Mass. ADV. PG. 524.
 Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
 Torrington Co., Inc., C. W., 236 Pearl St., Somerville 45, Mass.
 Tower Construction Corp., 2700 Hawkeye Drive, Sioux City, Iowa.
 Zenith Aircraft Div. of Zenith Plastics Co., P. O. Box 91, Gardena, Calif.

ANTENNA ROTATORS

Alliance Mfg. Co., Lake Park Blvd., Alliance, Ohio.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
 Antlab, 4950 N. High St., Columbus 14, Ohio.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Channel Master Co., Ellenville, N. Y.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronic Mechanisms, Inc., P.O. Box 1156, Greenwich, Conn.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.

JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Johnson Co., E. F., Waseca, Minn.
 Maryland Electronic Mfg. Corp., College Park, Md.
 P. M. Industries, Inc., Stamford, Conn.
 Radiart Corp., The, 3455 Vega Ave., Cleveland 13, Ohio.
 Radio Merchandise Sales, Inc., 2016 Bronxdale Ave., New York 62, N. Y.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Sanders Associates, Inc., Nashua, N. H.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing 54, N. Y. ADV. PG. 199.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
TELREX, INC., Asbury Park, N. J. ADV. PG. 573.
 Thompson Products, Inc., Electronics Div., 2196 Clarkwood Ave., Cleveland 3, Ohio.
 Trio Mfg. Co., Griggsville, Ill.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
 Wind Turbine Co., E. Market St. & Penna. R.R., West Chester, Pa.

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.
 Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
 Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
 Blaw-Knox Co., Farmers Bldg., Pittsburgh 22, Pa.
 Channel Master Co., Ellenville, N. Y.
 Communication Products Co., Inc., Marlboro, N. J.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 Dresser-Ideco Co., 875 Michigan Ave., Columbus 8, Ohio.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
 Kenwood Engineering Co., Inc., 265 Colfax Ave., Kenilworth, N. J.
 Lehigh Structural Steel Co., 17 Battery Place, New York 4, N. Y.
 Prodelin, Inc., 307 Bergen Ave., Kearney, N. J.
ROHN MFG. CO., 116 Limestone, Bellevue, Peoria, Ill. ADV. PG. 58.

ANTENNA TOWERS & SUPPORTS

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.
 Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
 Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
 Blaw-Knox Co., Farmers Bldg., Pittsburgh 22, Pa.
 Channel Master Co., Ellenville, N. Y.
 Communication Products Co., Inc., Marlboro, N. J.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 Dresser-Ideco Co., 875 Michigan Ave., Columbus 8, Ohio.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
 Kenwood Engineering Co., Inc., 265 Colfax Ave., Kenilworth, N. J.
 Lehigh Structural Steel Co., 17 Battery Place, New York 4, N. Y.
 Prodelin, Inc., 307 Bergen Ave., Kearney, N. J.
ROHN MFG. CO., 116 Limestone, Bellevue, Peoria, Ill. ADV. PG. 58.

Rostan Corp., 5660 59th St., Maspeth 78, N. Y.
 Stainless, Inc., Third St., North Wales, Pa.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Thomas Mold & Die Co., Wooster, Ohio.
 Tower Construction Corp., 2700 Hawkeye Drive, Sioux City, Iowa.
 Truscon Steel Division of Republic Steel Corp., Youngstown, Ohio.
 Vesto Co., Inc., 20th & Clay, North Kansas City, Mo.
 Walnut Machine Co., 1529 S. Walnut St., South Bend 14, Ind.
WICKES ENGINEERING & CONSTRUCTION CO., P.O. Box 590, Camden 1, N. J. ADV. PG. 682.
 Wincharger Corp., E. 7th & Division Sts., Sioux City, Iowa.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

ANTENNA TUNING UNITS

Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Collins Radio Co., Cedar Rapids, Iowa.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Gates Radio Co., Quincy, Ill.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Infra Electronic Corp., Roseland, N. J.
 Lettine Radio Mfg. Co., 62 Berkley St., Valley Stream, N. Y.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.
SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.

ANTENNAS—Airborne Radar Spinner

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.
 Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.
 Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
GABRIEL ELECTRONICS DIV. OF THE GABRIEL CO., Needham Heights, Mass. ADV. PG. 414.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing 54, N. Y. ADV. PG. 199.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
Teiner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.
Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
Torgren Co., Inc., C. W., 236 Pearl St., Somerville 45, Mass.

ANTENNAS—Aircraft Type

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.
Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
Collins Radio Co., Cedar Rapids, Iowa.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
Dorne & Margolin, Inc., 30 Sylvester St., Westbury, N. Y.
ECLIPSE PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
Electro Craft Industries Inc., 68 Jackson St., Stamford, Conn.
Electro Precision Products Inc., 139-30 34th Rd., Flushing 54, N. Y.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
GABRIEL ELECTRONICS DIV. OF THE GABRIEL CO., Needham Heights, Mass. ADV. PG. 414.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N.W., Grand Rapids 2, Mich.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.
Mitchell Industries, Inc., P.O. Box 17, Mineral Wells, Texas.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
Nevada Air Products Co., P.O. Box 2472, Reno, Nev.
Phaoston Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.
Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
Springer Aircraft Radio Co., Earl W., Rte 11, Box 330, Sky Harbor Airport, Indianapolis, Ind.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing, N. Y. ADV. PG. 199.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
TRANSKO PRODUCTS, INC., 12210 Nebraska Ave., Los Angeles 25, Calif. ADV. PG. 226.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
Z & W Machine Products, Inc., Electronics Div., 30240 Lakeland Blvd., Wickliffe, Ohio.

BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
Browning Laboratories, Inc., Main St., Winchester, Mass.
Clear Beam Antenna Corp., 21341 Roscoe Blvd., Canoga Park, Calif.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
Miller Electronics, 2840 Naomi St., Burbank, Calif.
Radion Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
TELREX, INC., Asbury Park, N. J. ADV. PG. 573.
Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

ANTENNAS—Auto

American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
Basset, Inc., Rex, 1314 N.E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
Bright Radio Labs, Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
Buggie, Inc., H. H., P. O. Box 817, Toledo 1, Ohio.
Communication Products Co., Inc., Marlboro, N. J.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.
Master Mobile Mounts, Inc., 1306 Bond St., Los Angeles 15, Calif.
Miller Electronics, 2840 Naomi St., Burbank, Calif.
Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.
Radiart Corp., The, 3455 Vega Ave., Cleveland 13, Ohio.
Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio.
Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.
Ward Products Corp., C. of The Gabriel Co., 1148 Euclid Ave., Cleveland, Ohio.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.

ANTENNAS—Broadcast Station Radiators

Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
Blaw Knox Co., Farmers Bank Bldg., Pittsburgh 22, Pa.
General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
Hy-Lite Antennae, Inc., 242 E. 137th St., New York 51, N. Y.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Tower Construction Corp., 2700 Hawkeye Drive, Sioux City, Iowa.
Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

ANTENNAS—Directional Antenna Coupling & Phasing Units

Adler Electronics, Inc., 1 Le Favre Lane, New Rochelle, N. Y.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
Gates Radio Co., Quincy, Ill.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
Johnson Co., E. F., Waseca, Minn.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.
Maryland Electronic Mfg. Corp., College Park, Md.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
Q.R.K. Electronic Products, 445 N. Circle Drive, Fresno, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.
TRANSKO PRODUCTS, INC., 12210 Nebraska Ave., Los Angeles 25, Calif. ADV. PG. 226.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.

ANTENNAS—Dummy Loads

A.R.F. Products, Inc., 7627 Lake St., River Forest, Ill.
Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 216.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
Bright Radio Labs, Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 519.
Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
Emerson & Cuming, Inc., 869 Washington S., Canton, Mass.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
Federal Telecommunications Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Gates Radio Co., Quincy, Ill.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
JONES ELECTRONICS CO., INC., M. C., 185 N. Main St., Bristol, Conn. ADV. PG. 323.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LAPP INSULATOR CO., INC., Radio Specialties Div., 31 Gilbert St., Le Roy, N. Y. ADV. PG. 228, 229.
Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
Meridian Metalcraft, Inc., 8739 Millergrrove Drive, Whittier, Calif.

MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass. Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Roßan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Standard Electronics Corp., 287 Emmet S., Newark 5, N. J.
 States Co., 19 New Park Ave., Hartford 6, Conn.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
WACLINE, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Waveline, Inc., Box 470, Caldwell, N. J.
 Wind Turbine Co., E. Market S. & Penna. R. R., West Chester, Pa.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

ANTENNAS—Fixed Station Antenna Systems

Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
 Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
 Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Pa.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
 Dielectric Products Engineering Co., Inc., Raymond, Maine.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GABRIEL ELECTRONICS DIV. OF THE GABRIEL CO., Needham Heights, Mass. ADV. PG. 414.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 Hy-Lite Antennae, Inc., 242 E. 137th St., New York 51, N. Y.
 Javex, P. O. Box 646, Redlands, Calif.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23-25 Beaver St., New York 4, N. Y. ADV. PG. 557.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.
 Master Mobile Mounts, Inc., 1306 Bond St., Los Angeles 15, Calif.
 Prodefin Inc., 307 Bergen Ave., Kearny, N. J.
 Pruyun-Moore, Inc., 1338 Cota Ave., Long Beach 13, Calif.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.
 Ward Products Corp., Div. of The Gabriel Co., 1148 Euclid Ave., Cleveland, Ohio.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

ANTENNAS—f-m Receiver

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
 American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
 CBC Electronics Co., Inc., 2601 N. Howard St., Philadelphia, Pa.
 Clear Beam Antenna Corp., 21341 Roscoe Blvd., Canoga Park, Calif.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.

Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Hy-Lite Antennae, Inc., 242 E. 137th St., New York 51, N. Y.
 I.D.E.A. Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.
 Medal Mfg. Co., Inc., 194 E. Silver St., Sharon, Pa.
 Miller Electronics, 2840 Naomi St., Burbank, Calif.
 Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
 Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
 Pruyun-Moore, Inc., 1338 Cota Ave., Long Beach 13, Calif.
 Radion Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
 Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
 Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
 Skysweeper Inc., McHenry, Ill.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.
TELREX, INC., Asbury Park, N. J. ADV. PG. 573.
 Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio.
 Tennialab, Quincy, Ill.
 Ward Products Corp., Div. of The Gabriel Co., 1148 Euclid Ave., Cleveland, Ohio.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

ANTENNAS—f-m Transmitter

American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
 Hy-Lite Antennae, Inc., 242 E. 137th St., New York 51, N. Y.
 Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.
 Kreckman, Herb, 124 Greenwood Drive, Massapequa, N. Y.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.
 Medal Mfg. Co., Inc., 194 E. Silver St., Sharon, Pa.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
 Pruyun-Moore, Inc., 1338 Cota Ave., Long Beach 13, Calif.
RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.
TELREX, INC., Asbury Park, N. J. ADV. PG. 573.

ANTENNAS—Ground Plane

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
 Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
 Communication Products Co., Inc., Marlboro, N. J.
DANBURY-KNUDSEN, INC., P. O. Box 170, Danbury, Conn. ADV. PG. 647.
 Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
 Dielectric Products Engineering Co., Inc., Raymond, Maine.
 Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Kreckman, Herb, 124 Greenwood Drive, Massapequa, N. Y.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.
 Master Mobile Mounts, Inc., 1306 Bond St., Los Angeles 15, Calif.
 Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.
 Ward Products Corp., Div. of The Gabriel Co., 1148 Euclid Ave., Cleveland, Ohio.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
 Z & W Machine Products, Inc., Electronics Div., 30240 Lakeland Blvd., Wickliffe, Ohio.

ANTENNAS—Indoor

American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Cass Machine Co., 691 Antoinette St., Detroit 2, Mich.
 Channel Master Co., Ellenville, N. Y.
 Clear Beam Antenna Corp., 21341 Roscoe Blvd., Canoga Park, Calif.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GENERAL CEMENT MFG. CO., Electronic Div., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Medal Mfg. Co., Inc., 194 E. Silver St., Sharon, Pa.
 Miller Electronics, 2840 Naomi St., Burbank, Calif.
 Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
 Radio Merchandise Sales, Inc., 2016 Bronxdale Ave., New York 62, N. Y.
 Radion Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
 Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
TELREX, INC., Asbury Park, N. J. ADV. PG. 573.
 Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio.
 Tricraft Products Corp., 1535 N. Ashland Ave., Chicago 22, Ill.
 Uniform Tubes, Level Rd., Collegetown 2, Pa.

ANTENNAS—Loop

ACE COIL & ELECTRONICS CO., 912 Lincoln Highway, Metuchen, N. J. ADV. PG. 600.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
 Barker & Williamson 235 Fairfield Ave., Upper Darby, Pa.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
 Caddell-Burns Mfg. Co., 40 E. Second St., Mineola, N. Y.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.
HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau St., Brooklyn 22, N. Y. ADV. PG. 697.
KEARFOTT CO., INC., ENGINEERING SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
MARCONI'S WIRELESS TELEGRAPH CO., Ltd., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Oaktron Electric Co., Tinley Park, Ill.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
 Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose, Park, Ill. ADV. PG. 95.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Union Electric & Mfg. Corp 1057 Summit Ave., Jersey City, N. J.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

ANTENNAS—Marine

Applied Electronics Co., Inc., 1246 Folsom St., San Francisco 3, Calif.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
 Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Hudson American Corp., 25 W. 43rd St., New York 36, N. Y.

Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Jefferson Inc., Ray, 40 E. Merrick Rd., Freeport, N. Y.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Pearce-Simpson, Inc., 3023 Coral Way, Miami 34, Fla.
 Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Ave., Niagara Falls 2, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.

ANTENNAS—Microwave
 See **MICROWAVE ACCESSORIES**

ANTENNAS—Radar Receiving & Transmitting

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
 American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
 Avion Instrument Corp., A Sub. of A. C. F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GABRIEL ELECTRONICS DIV. OF THE GABRIEL CO., Needham Heights, Mass. ADV. PG. 414.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KEARFOOT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.
KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 556.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Sanders Associates, Inc., Nashua, N. H.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing 54, N. Y. ADV. PG. 199.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Waveline, Inc., Box 470, Caldwell, N. J.
 Wheeler Laboratories, Inc., Great Neck, N. Y.

ANTENNAS—Railroad

ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
 Dielectric Products Engineering Co., Inc., Raymond, Maine.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
GABRIEL ELECTRONICS DIV. OF THE GABRIEL CO., Needham Heights, Mass. ADV. PG. 414.
MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.

ANTENNAS—Rotary Beam

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Johnson Co., E. F., Waseca, Minn.
 Mosley Electronics, Inc., 8622 S. Charles Rock Rd., St. Louis 14, Mo.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
TELREX INC., Asbury Park, N. J. ADV. PG. 573.
 Tennialab, Quincy, Ill.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

ANTENNAS—Telescopic

Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.
 Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 General Apparatus Co., 1344-6 E. 32nd St., New York 16, N. Y.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 K-W Engineering Works, 3145-A N. 48th St., Milwaukee 16, Wis.
 Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
 Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.
 Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.
 Radiart Corp., The, 3455 Vega Ave., Cleveland 13, Ohio.
 Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio.
 Tennialab, Quincy, Ill.
 Ward Products Corp., Div. of The Gabriel Co., 1148 Euclid Ave., Cleveland, Ohio.

ANTENNAS—Television

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
 Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.
ALFORD MFG. CO., INC., 299 Atlantic Ave., Boston, Mass. ADV. PG. 650.
 American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
 Antennex Co., 4060 Ocean Park Ave., Venice, Calif.
 Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
 Cass Machine Co., 691 Antoinette St., Detroit 2, Mich.
 Channel Master Co., Ellenville, N. Y.
 Clear Beam Antenna Co., 21341 Roscoe Blvd., Canoga Park, Calif.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
 Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Hy-Lite Antennae, Inc., 242 E. 137th St., New York 51, N. Y.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Liberty Industries, 107-37 71 Ave., Forest Hills, N. Y.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Medal Mfg. Co., Inc., 194 E. Silver St., Sharon, Pa.
 Miller Electronics, 2840 Naomi St., Burbank, Calif.
 National Electric Products Co., 140 Stanwix St., Pittsburgh 22, Pa.

Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
 Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
 Radiart Corp., The, 3455 Vega Ave., Cleveland 13, Ohio.
RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Radio Merchandise Sales, Inc., 2016 Bronxdale Ave., New York 62, N. Y.
 Radion Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
 Simplicity Tool Co., 2850 N. Mississippi Ave., P. O. Box 3723, Portland 8, Ore.
 Skysweeper Inc., McHenry, Ill.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.
TELREX, INC., Asbury Park, N. J. ADV. PG. 573.
 Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio.
 Tennialab, Quincy, Ill.
 Tricraft Products Corp., 1535 N. Ashland Ave., Chicago 22, Ill.
 Trio Mfg. Co., Griggsville, Ill.
 Uniform Tubes, Level Rd., Colleagueville 2, Pa.
 Walnut Machine Co., 1529 S. Walnut St., South Bend 14, Ind.
 Walco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
 Ward Products Corp., Div. of The Gabriel Corp., 1148 Euclid Ave., Cleveland, Ohio.
 Wells & Winegard, 3000 Scotten Blvd., Burlington, Iowa.

ANTENNAS—Television Built-in

Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
 Television Laboratories, Inc., Mill St., Wauconda, Ill.

ANTENNAS—Television Multiple Set

Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Jerrold Electronics Corp., 26th & Dickinson Sts., Philadelphia 46, Pa.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.

ANTENNAS—uhf & vhf

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
 Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.
 Aero Instrument Co., 11423 Vanover St., North Hollywood, Calif.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.
 American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
 American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
 Antennex Co., 4060 Ocean Park Ave., Venice, Calif.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Buggie, Inc., H. H., P. O. Box 817, Toledo 1, Ohio.
 Cass Machine Co., 691 Antoinette St., Detroit 2, Mich.
 Channel Master Co., Ellenville, N. Y.
 Clear Beam Antenna Co., 21341 Roscoe Blvd., Canoga Park, Calif.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
 Communication Products Co., Inc., Marlboro, N. J.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 Dielectric Products Engineering Co., Inc., Raymond, Maine.

Dorne and Margolin, Inc., 30 Sylvester St., Westbury, N. Y.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.

Federal Telecommunication Labs., A Div. of IT&T, Washington Ave., Nutley 10, N. J.

FEDERAL TELEPHONE & RADIO CO., A DIV OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

Finney Co., 4612 St. Clair Ave., Cleveland 3, Ohio.

Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.

GABRIEL ELECTRONICS DIV. OF THE GABRIEL CO., Needham Heights, Mass. ADV. PG. 414.

General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.

GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.

General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.

Hy-Lite Antennae, Inc., 242 E. 137th St., New York 51, N. Y.

I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.

Insuline Corp. of America, 186 Granite St., Manchester, N. H.

JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.

Jreckman, Herb, 124 Greenwood Drive, Massapequa, N. Y.

Kear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.

Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.

MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.

Maryland Electronic Mfg. Corp., College Park, Md.

Medal Mfg. Co., Inc., 194 E. Silver St., Sharon, Pa.

Miller Electronics, 2840 Naomi St., Burbank, Calif.

Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.

Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.

Prodelin, Inc., 307 Bergen Ave., Kearney, N. J.

PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.

Pruyn-Moore, Inc., 1338 Cota Ave., Long Beach 13, Calif.

Radiart Corp., 3455 Vega Ave., Cleveland 13, Ohio.

RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Radio Merchandise Sales, Inc., 2016 Bronxdale Ave., New York 62, N. Y.

Radion Corp., 1130 Wisconsin Ave., Chicago 14, Ill.

Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.

Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.

Scala Radio Co., 2814 19th St., San Francisco 10, Calif.

Simplicity Tool Co., 2850 N. Mississippi Ave., P. O. Box 3723, Portland 8, Ore.

Skysweeper Inc., McHenry, Ill.

Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W.C. 2, England.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

TELREX INC., Asbury Park, N. J. ADV. PG. 573.

Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio.

Tennalab, Quincy, Ill.

TRANSCO PRODUCTS, INC., 12210 Nebraska Ave., Los Angeles 25, Calif. ADV. PG. 226.

Tricraft Products Corp., 1535 N. Ashland Ave., Chicago 22, Ill.

Uniform Tubes, Level Rd., Colledgeville 2, Pa.

Walnut Machine Co., 1529 S. Walnut St., South Bend 14, Ind.

Walco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

Ward Products Corp., Div. of The Gabriel Corp., 1148 Euclid Ave., Cleveland, Ohio.

Warsaw Coil Co., Warsaw, Ind.

Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.

Wheeler Laboratories, Inc., Great Neck, N. Y.

Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

ANTENNAS—vhf Omnidirectional Radio Range

AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.

ALFORD MFG. CO., INC., 299 Atlantic Ave., Boston, Mass. ADV. PG. 650.

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.

Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.

Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.

COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.

Communication Products Co., Inc., Marlboro, N. J.

CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.

Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.

Dorne & Margolin, Inc., 30 Sylvester St., Westbury, N. Y.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GABRIEL ELECTRONICS DIV. OF THE GABRIEL CO., Needham Heights, Mass. ADV. PG. 414.

LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.

Maryland Electronic Mfg. Corp., College Park, Md.

Measurement Engineering, Ltd., Arnprior, Ontario, Canada.

Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.

National Aeronautical Corp., 180 S. Main St., Ambler, Pa.

Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

TELREX, INC., Asbury Park, N. J. ADV. PG. 573.

Ward Products Corp., Div. of the Gabriel Corp., 1148 Euclid Ave., Cleveland, Ohio.

ATTENUATORS—Audio

Anlab, 4950 N. High St., Columbus 14, Ohio.

CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.

ATTENUATORS—Microwave, Adjusted & Calibrated

ATTENUATORS—Microwave Coaxial Fixed

ATTENUATORS—Microwave Step

See MICROWAVE ACCESSORIES

AUDIOMETERS

See INSTRUMENTS—Electrical Measuring

AUTO RADIO CONTROLS

See CONTROLS—Radio Remote

AUTOMATIC ASSEMBLY EQUIPMENT

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.

Berg Mfg. Corp., 142 Reno Ave., New Cumberland, Pa.

Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.

BULOVA WATCH CO., QUARTZ CRYSTAL DIV., Valley Stream, N. Y. ADV. PG. 378, 379.

ConRay Corp., 29 W. Apple St., Dayton 2, Ohio.

Design Tool Corp., 80 Washington St., New York 6, N. Y.

ELCO CORP., "MM" St. below Erie Ave., Philadelphia 24, Pa. ADV. PG. 569.

Electro Craft Industries Inc., 68 Jackson St., Stamford, Conn.

Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

Hoover Electronics Co., 3640 Woodland Ave., Baltimore, Md.

Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.

Magnasyn Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.

Manning, Maxwell, & Moore Inc., Aircraft Products Div., Danbury, Conn.

Mechanical Div. of General Mills, Inc., 1620 Central Ave., Minneapolis 13, Minn.

Microtronics, Inc., Porete Ave., North Arlington, N. J.

REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.

STANDARD TOOL & MFG. CO., Arlington, N. J. ADV. PG. 632.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

UNITED SHOE MACHINERY CORP., 140 Federal St., Boston 7, Mass. ADV. PG. 250, 251.

BAFFLES—Speaker

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.

American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.

Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.

Bozak Mfg. Co., R. T., The, Box 966, Darien, Conn.

British Industries Corp., 80 Shore Rd., Port Washington, N. Y.

Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.

Butler Mfg. Co., Inc., B. B., 3150 Randolph St., Bellwood, Ill.

Capehart-Farnsworth Corp., 3700 E. Pontiac, Fort Wayne 1, Ind.

Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.

Dukane Corp., St. Charles, Ill.

Duotone Co., Inc., Keyport, N. J.

Electro Voice Mfg. Co., Inc., Buchanan, Mich.

GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.

Hartley Products Co., 521 E. 162nd St., New York 51, N. Y.

Hawley Products Co., St. Charles, Ill.

Lansing Sound, Inc., James B., 2439 Fletcher Drive, Los Angeles 26, Calif.

Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.

Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.

Oleson Co., Otto K., 1534 Cahuenga, Hollywood 28, Calif.

Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.

Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill.

Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.

PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 687.

R-J Audio Products, Inc., 80 Shore Rd., Port Washington, N. Y.

RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

River Edge Sales Corp., 80 Shore Rd., Port Washington, N. Y.

Rogers Corp., Goodyear, Conn.

Sieler Design Products, 10460 San Pablo Ave., El Cerrito, Calif.

Stephens Mfg. Corp., 8538 Warner Drive, Culver City, Calif.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

Webster Electric Co., 1900 Clark St., Racine, Wis.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.

BARRETTERS

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 422.

MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.

BASES—Relay

See also MOUNTINGS

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.

General Electric Co., Plastics Dept., Pittsfield, Mass.

Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.

Rogers Corp., Goodyear, Conn.

BATTERIES—Dry

Acme Battery Co., 200 Henry St., Stamford, Conn.

Bright Star Industries, 600 Getty Ave., Clifton, N. J.

BURGESS BATTERY CO., Freeport, Ill. ADV. PG. 622.

General Dry Batteries, Inc., 13000 Athens Ave., Cleveland 7, Ohio.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.

Marathon Battery Co., P. O. Box 298, Wausau, Wis.

National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42 St., New York 17, N. Y.

Olin Mathieson Chemical Corp., Electrical Div., New Haven 4, Conn.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Ray-O-Vac Co., 212 E. Washington Ave., Madison, Wis.

Willard Storage Battery Div., The Electric Storage Battery Co., 246-286 E. 131st St., Cleveland 1, Ohio.

BATTERIES—Mercury

General Dry Batteries, Inc., 13000 Athens Ave., Cleveland 7, Ohio.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.

Magnavox Co., Fort Wayne 4, Ind.

Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.

Mallory Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

BATTERIES—Standard Cell

BURGESS BATTERY CO., Freeport, Ill. ADV. PG. 622.

General Dry Batteries, Inc., 13000 Athens Ave., Cleveland 7, Ohio.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

BATTERIES—Storage

Bowers Battery & Spark Plug Co., Box 1262, Reading, Pa.

General Dry Batteries, Inc., 13000 Athens Ave., Cleveland 7, Ohio.

General Tire & Rubber Co., Akron, Ohio.

Gould-National Batteries, Inc., 35 Neoga St., Depew, N. Y.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.

Nickel Cadmium Battery Corp., Easthampton, Mass.

SAFT CORP. OF AMERICA, 2 Gregg St., Lodi, N. J. ADV. PG. 575.

SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
Willard Storage Battery Div., The Electric Storage Battery Co., 246-286 E. 131st St., Cleveland 1, Ohio.
YARDNEY ELECTRIC CORP., 40 Leonard St., New York 13, N. Y. ADV. PG. 277.

BATTERIES—Storage Nonspill

Bowers Battery & Spark Plug Co., Box 1262, Reading, Pa.
Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass.
Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
Electronic Batteries, Inc., Bush Terminal Bldg., No. 4, 28-34 35th St., Brooklyn 32, N. Y.
General Dry Batteries, Inc., 13000 Athens Ave., Cleveland 7, Ohio.
Gould-National Batteries, Inc., 35 Neoga St., Depew, N. Y.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
Nickel Cadmium Battery Corp., Easthampton, Mass.
SAFT CORP. OF AMERICA, 2 Gregg St., Lodi, N. J. ADV. PG. 575.
SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.
Willard Storage Battery Div., The Electric Storage Battery Co., 246-286 E. 131st St., Cleveland 1, Ohio.
YARDNEY ELECTRIC CORP., 40 Leonard St., New York 13, N. Y. ADV. PG. 277.

BATTERY CHARGERS

1. **Electron Tube**
2. **Engine Driven**
3. **Metallic Oxide**
4. **Motor Generator**
5. **Portable**
6. **Selenium**

ACME ELECTRIC CORP., 21 Water St., Cuba, N. Y. 5-6. ADV. PG. 388.
American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa. 6.
AMERICAN TELEVISION & RADIO CO., 300 E. Fourth St., St. Paul 1, Minn. 5-6. ADV. PG. 176.
Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif. 1-2-3-4-5-6.
Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va. 3-6.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. 6. ADV. PG. 278, 279.
Control Corp., 718 Central Ave., Minneapolis 14, Minn. 3-6.
Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass. 3-5-6.
Dresser Electric Co., 942 E. Larned St., Detroit 7, Mich. 1-5-7.
Ecor, Inc., 1501 W. Congress St., Chicago 7, Ill. 4.
ELECTRA MFG. CO., RESISTOR DIV., 4051 Broadway, Kansas City, Mo. 6. ADV. PG. 459.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y. 6.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. 1. ADV. PG. 562.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. 1-3-6. ADV. PG. 516.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 609.
Fansteel Metallurgical Corp., 2200 Sheridan Road, North Chicago, Ill. 6.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. 6. ADV. PG. 355-360.
FOX PRODUCTS CO., 4720 N. 18th St., Philadelphia 41, Pa. 1-3-5-6. ADV. PG. 602.
GATES ELECTRONIC CO., 611 Morris Park Ave., Bronx, N. Y. 6. ADV. PG. 536.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 1-3-4-6. ADV. PG. 1-12.
General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y. 3-5-6.
Georator Corp., Manassas, Va. 2-4-5.
Green Rectifier Co., 83-3 Murray St., New York 7, N. Y. 6.
Gyro Electronics Co., 325 Canal St., New York, N. Y. 6.
Hertner Electric Co., 12690 Elmwood Ave., Cleveland 11, Ohio. 4.
Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif. 3-5-6.
INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. 6. ADV. PG. 236.
KEPCO LABS., 131-38 Sanford Ave., Flushing 55, N. Y. 1-3-6. ADV. PG. 51-53.
King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio. 3-5.
Knopp Inc., 4224 Holden St., Oakland 8, Calif. 6.
LEACH CORP., 5915 Avalon Blvd., Los Angeles 3, Calif. 6. ADV. PG. 247.
Lee Electric & Mfg. Co., 2806 Clearwater St., Los Angeles 39, Calif. 3.
MACARR, INC., 2458 Arthur Ave., Bronx 58, N. Y. 6. ADV. PG. 620.
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. 2-3-5-6.
Mallory & Co., Inc., P. R. 3029 E. Washington St., Indianapolis 6, Ind. 3-5-6.

McColpin-Christie Corp., 3410 W. 67th St., Los Angeles 43, Calif. 1-5-6.
MODEL RECTIFIER CORP., 1065 Utica Ave., Brooklyn 3, N. Y. 3-5-6. ADV. PG. 576, 577.
Motoresearch Co., 1600 Junction Ave., Racine, Wis. 4-6.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. 1-6. ADV. PG. 111-122.
North Electric Co., 553 S. Market St., Galion, Ohio. 6.
Onan & Sons, Inc., D. W., University Ave. at 25th St., S.E., Minneapolis 14, Minn. 2.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. 1-3-5-6. ADV. PG. 524.
PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. 6. ADV. PG. 309.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. 3-6. ADV. PG. 543.
Power Equipment Co., 5740 Nevada East, Detroit 34, Mich. 1-6.
Power Supplies, Inc., 1007 Olive St., Highland, Ill. 1-3-5-6.
Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J. 1-2-3-4-5-6.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y. 1-3-6.
Rapid Electric Co., 2881 Middletown Rd., Bronx 61, N. Y. 6.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. 6. ADV. PG. 364, 365.
Sanford Miller Co., 691 Bedford Ave., Brooklyn 6, N. Y. 6.
Schauer Mfg. Corp., 4521 Alpine Ave., Cincinnati 36, Ohio. 3-5-6.
Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J. 4.
SORENSEN & CO., INC., 375 Fairfield Ave., Stamford, Conn. 1-6. ADV. PG. 177-180.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych London, W. C. 2, England. 6.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J. 1-3-5.
Syntron Co., 243 Lexington, Homer City, Pa. 6.
Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y. 1-3-5-6.
Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill. 1-3-6.
TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. 6. ADV. PG. 685.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. 1. ADV. PG. 528.
Wallson Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J. 3-5-6.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. 1-2-4-5-6. ADV. PG. 325-336.
Willard Storage Battery Div., The Electric Storage Battery Co., 246-286 E. 131st St., Cleveland 1, Ohio. 1-5-6.

BEACONS—Radar

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
Aircraft Armaments, Inc., Cockeysville, Md.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
American Machine & Foundry Co., Electronics Div., 1085 Commonwealth Ave., Boston 15, Mass.
Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 16, Md.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
Melpar, Inc., 452 Swann Ave., Alexandria, Va.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Telephonics Corp., Park Ave., Huntington, N. Y.
Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

BEACONS—Radio Navigation

Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N.S., Canada.
Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Gates Radio Co., Quincy, Ill.
Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23-25 Beaver St., New York 4, N. Y. ADV. PG. 557.
Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Telephonics Corp., Park Ave., Huntington, N. Y.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

BEARINGS

1. **Jewel**
 2. **Miniature Ball**
 3. **Miniature Needle**
BIRD CO., RICHARD H., 1 Spruce St., Waltham, Mass. 1. ADV. PG. 487.
Duotone Co., Inc., Keyport, N. J. 1.
Landis & Gyr, Inc., 45 W. 45th St., New York 36, N. Y. 2.
LINDE AIR PRODUCTS CO., DIV. OF UNION CARBIDE & CARBON CORP., 30 E. 42nd St., New York 17, N. Y. 1. ADV. PG. 580.
Marlin-Rockwell Corp., Jamestown, N. Y. 2.
MINIATURE PRECISION BEARINGS, INC., Precision Park, Keene, N. H. 2. ADV. PG. 463.
Moser Jewel Co., Perth Amboy, N. J. 1.
New Departure Div., General Motors Corp., Bristol, Conn. 2.
NEW HAMPSHIRE BALL BEARINGS, INC., Peterborough, New Hampshire. 2. ADV. PG. 393.
Swiss Jewel Co., Lafayette Bldg., Philadelphia 6, Pa. 1.
Torrington Co., Specialties Div., 37 Field St., Torrington, Conn. 2.

BEARINGS—Ball or Roller, Radar Antenna

Ace Plastic Co., 91-54 VanWyck Expressway, Jamaica 35, N. Y.
Fafnir Bearing Co., New Britain, Conn.
Kaydon Engineering Corp., The, Muskegon, Mich.
SKF Industries, Front St. & Erie Ave., Philadelphia 32, Pa.
Timken Roller Bearing Co., Canton 6, Ohio.

BELLOWS

ATLAS PRECISION PRODUCTS CO., Castor & Kensington Aves., Philadelphia 24, Pa. ADV. PG. 543.
Bristol Co., The, Waterbury 20, Conn.
Clifford Mfg. Co., Grove St., Waltham, Mass.
Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
Emerson Plastics Corp., 564 Third Ave., New York 16.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Flexonics Corp., 1315 S. Third Ave., Maywood, Ill.
Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville 1, Tenn.
Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
Teiner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.
Titeflex, Inc., Aviation Products Div., Hendee St., Springfield 4, Mass.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.

BELTS—Dial Drive

GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

BENCH TEST SET-UPS

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Allegany Instrument Co., Inc., Cumberland, Md.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BRISTOL ENGINEERING CORP., Beaver Dam Rd. & Oak Lane, Bristol, Pa. ADV. PG. 300.
Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
ConRay Corp., 29 W. Apple St., Dayton 2, Ohio.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Kahn and Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Omega Laboratories Inc., P.O. Box 264, Rowley, Mass.
 OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.
 VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.

BENDS—Microwave See MICROWAVE ACCESSORIES

BI-METALS—Thermostatic

American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Baker & Co., Inc., 113 Astor St., Newark 5, N. J.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London, S.E. 10, England.

BLOCKS—Fuse Blocks & Holders

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ATLAS E-E CORP., Bedford Airport Terminal Bldg., Bedford, Mass. ADV. PG. 571.
 Bel Fuse Inc., 311 Mountain Road, Union City, N. J.
 Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
BUSSMANN MFG. CO., St. Louis 7, Mo. ADV. PG. 167.
 Curtis Development & Mfg. Co., 3226 N. 33rd St., Milwaukee 16, Wis.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
JONES DIV., HOWARD B. CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Kolton Electric Mfg Co., 123 New Jersey Railroad Ave., Newark 5, N. J.
 Morse Co., Frank W., 1300 Soldiers Field Rd., Boston 35, Mass.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.
 Radio Essentials Inc., 152 S. MacQuestion Parkway, Mt. Vernon, N. Y.
 Rogers Corp., Goodyear, Conn.
 Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.

BLOWERS—Small

Air Control Installation, Ltd., Ruslip, Middlesex, England.
AIR-MARINE MOTORS, INC., 369 Bay View Ave., Amityville, N. Y. ADV. PG. 402.
 American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Borg-Warner Corp., Pesco Products Div., 24700 N. Miles Rd., Bedford, Ohio.
 Dynamic Air Engineering Inc., 7412 Maie Ave., Los Angeles 1, Calif.
EASTERN AIR DEVICES, INC., 385 Central Ave., Dover, N. H. ADV. PG. 480.
 Eicor, Inc., 1501 W. Congress St., Chicago 7, Ill.
 Electric Trading Co., 313 Canal St., New York, N. Y.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Fairchild Industries Div., Burlington, Vt.
 Fasco Industries, Inc., Rochester 2, N. Y.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
HEINZE ELECTRIC CO., 685 Lawrence St., Lowell, Mass. ADV. PG. 452.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 Ilg Electric Ventilating Co., 2850 N. Crawford Ave., Chicago 41, Ill.
INDUCTION MOTORS CORP., 570 Main St., Westbury, N. Y. ADV. PG. 258.
 Infra Electronic Corp., Roseland, N. J.
 Joy Mfg. Co., Dept. 39, Oliver Bldg., Pittsburgh 22, Pa.
 McLean Engineering, Box 228, Princeton, N. J.
 Master Appliance Mfg. Co., Fourth & Ontario Sts., Ontario, Wis.
OSTER MFG. CO., JOHN, Avionics Div., 1 N Main St., Racine, Wis. ADV. PG. 38.
 Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif.
 Redmond Co., Inc., Owosso, Mich.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
 Rosen Engineering Products, Inc., Raymond, 32nd & Walnut St., Philadelphia 4, Pa.
 Rotating Components, Inc., 267 Green St., Brooklyn 22, N. Y.
ROTRON MFG. CO., INC., 7-9 Schoonmaker Lane, Woodstock, N. Y. ADV. PG. 398.
 Sanders Associates, Inc., Nashua, N. H.
 Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.
 Small Motors, Inc., 2076 Elston Ave., Chicago 14, Ill.
 Stanat Manufacturing Co., 47-22 37th St., Long Island City 1, N. Y.

Torit Mfg. Co., Walnut & Exchange Sts., St. Paul 2, Minn.
 Ventrak Corp., 11 W. 42nd St., New York, N. Y.

BOARDS—Capacitor or Resistor

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 Bright Radio Labs, Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Exceller Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
FISHER & CROME, 109 E. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
JONES DIV., HOWARD B. CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 685.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
 Radio Essentials Inc., 152 S. MacQuestion Parkway, Mt. Vernon, N. Y.
 Sheffco Mfg. Corp., Grand & Ruby Aves., Palisades Park, N. J.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Techniques, Inc., 178-184 Central Ave., Hackensack, N. J.
 Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
 Warren Plastics Corp., Warren, Pa.
 West Virginia Pulp & Paper Co., 230 Park Ave., New York 17, N. Y.

BOARDS—Plotting

Ahrendt Instrument Co., The, 4910 Calvert Rd., College Park, Md.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Century Electronics & Instruments, Inc., P. O. Box 6216, Pine Station, Tulsa 10, Okla.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Waldorf Instrument Corp., Park Ave., Huntington Station, N. Y.

BOARDS—Plug

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 685.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.
 Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
 Pfefer Products, 3901 W. 54th St., Los Angeles 43, Calif.
 Pomona Electronics Co., Inc., 1126 W. Fifth Ave., Pomona, Calif.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.

BOARDS—Strip Type

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 685.
 Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Molding Corp. of America, 40 Church St., Pawtucket, R. I.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
 Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
 Pfefer Products, 3901 W. 54th St., Los Angeles 43, Calif.
 P I C Design Corp., 160 A. Atlantic Ave., Lynbrook, N. Y.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.

BOBBINS—Coil Winding

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 596.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Buckeye Bobbin Co., 12200 Sprecher Ave., Cleveland 11, Ohio.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 604.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Fortiphone Ltd., 247 Regent St., London W.1, England.
GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 General Electric Co., Plastics Dept., Pittsfield, Mass.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
HYDRO MOLDING CO., INC., Plattsburgh, N. Y. ADV. PG. 489.
 Isolantite Manufacturing Corp., Stirling, N. J.
LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Milman Engineering Co., 957 Lillian Way, Hollywood, Calif.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
 Oaktron Electric Co., Tinley Park, Ill.
PRECISION PAPER TUBE CO., 2041 W. Charleston St., Chicago 47, Ill. ADV. PG. 659.
 Quality Components, Inc., St. Marys, Pa.
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
 Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.
 Rogers Corp., Goodyear, Conn.
 Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. ADV. PG. 577.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.
 Warsaw Coil Co., Warsaw, Ind.

BOBBINS—Transformer Winding

ACCURATE PAPER TUBE CO., 801 N. Peoria St., Chicago 22, Ill. ADV. PG. 591.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.

AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 596.
 ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Buckeye Bobbin Co., 12200 Sprecher Ave., Cleveland 11, Ohio.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J. Fortiphone Ltd., 247 Regent St., London W.1, England.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549.
 GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 HYDRO MOLDING CO., INC., Plattsburgh, N. Y. ADV. PG. 489.
 LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Mica Insulator Co., Schenectady 1, N. Y.
 Oaktron Electric Co., Tinley Park, Ill.
 PRECISION PAPER TUBE CO., 2041 W. Charleston St., Chicago 47, Ill. ADV. PG. 659.
 Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.
 Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
 SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
 STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. ADV. PG. 577.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
 THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

BOLOMETER MOUNTS

See MICROWAVE ACCESSORIES
 Crystal Mounts & Mixers

BOLOMETERS

See TUBES—Bolometer

BOLTS—Spade

Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
 Atlas Screw & Specialty Co., Inc., 450 Broome St., New York 13, N. Y.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 26, Mass.
 FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
 National Screw & Mfg. Co., Cleveland 4, Ohio.
 Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
 WENCO MFG. CO., 1133 W. Hubbard St., Chicago 22, Ill. ADV. PG. 598.

BOLTS—Toggle or Expansion

E-Expansion. T-Toggle

Ackerman-Johnson Co., 625 W. Jackson Blvd., Chicago 6, Ill. T.
 Arre Expansion Bolt Co., 1522 Boone Ave., Marion, Ohio. E-T.
 Atlas Screw & Specialty Co., Inc., 450 Broome St., New York 13, N. Y. E-T.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y. E-T.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn. E.
 Chicago Expansion Bolt Co., 1338 W. Concord Place, Chicago 22, Ill. E-T.
 Harper Co., H. M., The, 8200 Lehigh Ave., Morton Grove, Ill. E.
 Holub Industries, Inc., 414 DeKalb Ave., Sycamore, Ill. T.
 JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. E. ADV. PG. 227.
 KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. E-T. ADV. PG. 567.
 Modern-Aire Mfg. Corp., 4436 W. Roosevelt Rd., Chicago 24, Ill. E.
 National Lead Co., 111 Broadway, New York 6, N. Y. E.
 National Screw & Mfg. Co., The, Cleveland 4, Ohio. T.
 Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill. E-T.

BOOKS

See TECHNICAL BOOKS—Publishers

BOOMS—Microphone

Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
 Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.

Olesen Co., Otto K., 1534 Cahuenga, Hollywood 28, Calif.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Sears Co., M. J., Delaware County, Roxbury, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.

BOOSTERS—Television

Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.
 Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.
 C B C Electronics Co., Inc., 2601 Howard St., Philadelphia 33, Pa.
 I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Jerrold Electronics Corp., 26th & Dickinson Sts., Philadelphia 46, Pa.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
 Radiart Corp., The, 3455 Vega Ave., Cleveland 13, Ohio.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 SPENCER-KENNEDY LABS., INC., 1320 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 396.
 Suprex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 Videon Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind.

BOXES—Metal, Plastic or Waterproof

A A Metal Products, Inc., 154 Elliot St., Box 716, Brattleboro, Vt.
 ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
 Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
 ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 476.
 AMERICAN ALUMINUM CO., Sheffield St., C, Mountainside, N. J. ADV. PG. 226.
 American Brass Co., 414 Meadow St., Waterbury 20, Conn.
 American Mica Insulation Co., Manasquan, N. J.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Atlas Screw & Specialty Co., Inc., 450 Broome St., New York 13, N. Y.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
 Bradley Industries, 1650-58 N. Damen Ave., Chicago 47, Ill.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 Calresin Corp., 4543 Brazil St., Los Angeles 39, Calif.
 CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.
 Columbia Metal Box Co., 260 E. 143rd St., New York, N. Y.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
 CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 Cronax, Inc., 3701 Ravenswood Ave., Chicago, Ill.
 CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills, Pa. ADV. PG. 634.
 Cutler Metal Products Co., 1025 Line St., Camden, N. J.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Doepke Mfg. Co., Inc., Chas. Wm., 1956 Emerald Ave., Rossmoyn, Ohio.
 Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 26, Mass.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
 Falstrom Co., 44 Falstrom Court, Passaic, N. J.
 GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Hoffman Engineering Corp., Anoka, Minn.
 HUGHEY & PHILLIPS, INC., 3300 N. San Fernando Blvd., Burbank, Calif. ADV. PG. 552.
 Industrial Systems Co., Matawan, N. J.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Karp Metal Products Co., Div. of H & B Machine Co., 215 63rd St., Brooklyn 20, N. Y.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
 Metaplast Corp., 7931 Oxford Ave., Philadelphia 11, Pa.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Mobil Electronics Mfg. Co., 1111 State Rd., 67 E. Anderson, Ind.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Muckle Mfg. Co., Owatonna 55, Minn.

Pyle-National Co., 1334 N. Kostner Ave., Chicago 51, Ill.
 REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
 SKYDYNE, INC., River Rd., Port Jervis, N. Y. ADV. PG. 547.
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
 Stevens-Walden, Inc., 475 Shrewsbury St., Worcester 4, Mass.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Warren Plastics Corp., Warren, Pa.
 Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.
 ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 688.

BRACKETS—f-m & Television Antenna

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
 Atlas Screw & Specialty Co., Inc., 450 Broome St., New York 13, N. Y.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Kenwood Engineering Co., Inc., 265 Colfax Ave., Kenilworth, N. J.
 Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Modern-Aire Mfg. Corp., 4436 W. Roosevelt Rd., Chicago 24, Ill.
 Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.
 Rada Products Co., 2911 W. Carroll Ave., Chicago 12, Ill.
 South River Metal Products Co., 377-379 Turnpike, South River, N. J.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 7th St., Bedford, Ind.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

BREADBOARD KITS—Electronic

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.
 ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 361.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.
 Feedback Controls, Inc., 1332-34 N. Henry St., Alexandria, Va.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Liberty Industries, 107-37 71 Ave., Forest Hills, N. Y.
 Micro-Circuits Co., New Buffalo, Mich.
 PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
 P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
 Pomona Electronics Co., Inc., 1126 W. Fifth Ave., Pomona, Calif.
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.
 Specific Products, 14515 Dickens St., Sherman Oaks 13, Calif.
 STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing 54, N. Y. ADV. PG. 199.
 Techniques, Inc., 178-184 Central Ave., Hackensack, N. J.
 VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

BREAKERS—Circuit

AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146.
 Allard Instrument Corp., 146 E. Second St., Mineola, N. Y.
 Allis-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis.

Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Fasco Industries, Inc., Rochester 2, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Heinemann Electric Co., 150 Plum St., Trenton 2, N. J.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Jack & Heintz, Inc., Cleveland 1, Ohio.
 Murray Mfg. Corp., 1250 Atlantic Ave., Brooklyn 16, N. Y.
 Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
 Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

BRIDGES—Capacitance

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 American Mica Insulation Co., Manasquan, N. J.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.
 Bristol Co., The, Waterbury 20, Conn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S.E. 26, England.
 Clough-Brengle Co., 6014 N. Broadway, Chicago, Ill.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
 Dayton Instrument, Archbald, Pa.
 Deltron, Inc., P. O. Box 192, Glenside, Pa.
ELECTRO-MEASUREMENTS, INC., 4312 S.E. Stark St., Portland 15, Ore. ADV. PG. 579.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Erdco Engineering Corp., Addison, Ill.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
FRED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

BRIDGES—Cathode Interface Impedance

CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
WATERS MANUFACTURING INC., Boston Post Rd., Wayland, Mass. ADV. PG. 138, 139.

BRIDGES—Electrical BRIDGES—Impedance BRIDGES—Inductance

See INSTRUMENTS—Electrical Measuring

BRIDGES—Megohm

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Kuljian Corp., The, Electronics Div., 1200 N. Broad St., Philadelphia 21, Pa.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

BRIDGES—Temperature

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Arnoux Corp., Box 34628, Los Angeles, Calif.
 Bristol Co., The, Waterbury 20, Conn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Eppley Lab., Inc., The, Newport, R. I.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
 Gray Instrument Co., 200 E. Church Lane, Philadelphia 44, Pa.
 Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.
 Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

BRIDGES—Thermistor

Aircorn Inc., 354 Main St., Winthrop 52, Mass.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Arnoux Corp., Box 34628, Los Angeles, Calif.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 34, N. Y. ADV. PG. 418.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Photo Crystals Inc., 15 S. First St., Geneva, Ill.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.
WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 28.
 Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

BRIDGES—vhf

See INSTRUMENTS—Electrical Measuring

BRIDGES—Wheatstone

Allegany Instrument Co., Inc., Cumberland, Md.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.
 Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., 39 E. Hanover Ave., Morris Plains, N. J.
 Bristol Co., The, Waterbury 20, Conn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
ELECTRO-MEASUREMENTS, INC., 4312 S. E. Stark St., Portland 15, Ore. ADV. PG. 579.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Eppley Lab., Inc., The, Newport, R. I.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Gray Instrument Co., 200 E. Church Lane, Philadelphia 44, Pa.
 Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Pimex, Inc., 2 E. 82nd St., New York 28, N. Y.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.

Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.
 Tel-Labs, Inc., 1050 Second St., Manchester, N. H.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

BROADCAST INPUT CONTROL EQUIPMENT

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Collins Radio Co., Cedar Rapids, Iowa.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 DuMont Laboratories, Inc., Allen B., Technical Products, Div., 760 Bloomfield Ave., Clifton, N. J.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23-25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.

BRUSHES—Carbon & Graphite

Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S., Long Island City, N. Y.
 Electro Development Co., 14701 Keswick St., Van Nuys, Calif.
GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
 Helwig Co., 2544 N. 30th St., Milwaukee 10, Wis.
 Keystone Carbon Co., Inc., Saint Marys, Pa.
 National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
 St. Marys Carbon Company, State Rd., St. Marys, Pa.
STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
 Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
 U. S. Graphite Co., Div. of The Wickes Corp., 1621 Holland Ave., Saginaw, Mich.

BRUSHES—Metal-Graphite

BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 Electro Development Co., 14701 Keswick St., Van Nuys, Calif.
GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
 Helwig Co., 2544 N. 30th St., Milwaukee 10, Wis.
 Keystone Carbon Co., Inc., Saint Marys, Pa.
 National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
 St. Marys Carbon Company, State Rd., St. Marys, Pa.
STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
 Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
 U. S. Graphite Co., Div. of The Wickes Corp., 1621 Holland Ave., Saginaw, Mich.

BULBS—Miniature Lamp

See LIGHTS—Dial, Panel & Pilot

BURNERS—Gas Fired

American Gas Furnace Co., 130 Spring St., Elizabeth, N. J.
 Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.

BUS BAR SYSTEMS

Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 General Electric Co., Distribution Assemblies Dept., 41 Woodford Ave., Plainville, Conn.
HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 304.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Kaiser Aluminum & Chemical Sales, Inc., 1924 Broadway, Oakland 12, Calif.
WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

BUSHINGS—Hermetically Sealed

ADVANCED VACUUM PRODUCTS, INC., DIV. OF GENERAL CERAMICS CORP., 122 Liberty St., Stamford, Conn. ADV. PG. 235.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
 Ceramaseal Co., The, Box 25, New Lebanon Center, N. Y.
ELECTRICAL INDUSTRIES, 44 Summer Ave., Newark 4, N. J. ADV. PG. 455.

GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
GENERAL HERMETIC SEALING CORP., 99 E Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
HELDOR MFG. CORP., 238 Lewis St., Paterson, N. J. ADV. PG. 482.
 Hermaseal Co., Inc., 1101 Lafayette St., Elkhart, Ind.
 Kleiner Metal Specialties, Inc., P.O. Box 185, Dunellen, N. J.
 Locke Dept. of General Electric Co, P.O. Box 57, Baltimore 3, Md.
LUNDEY ASSOCIATES, 694 Main St., Waltham 54, Mass. ADV. PG. 238.
 Mitronics, Inc., 232 Thirteenth Ave., Newark, N. J.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
U. S. GASKET CO., P.O. Box 93, Camden, N. J. ADV. PG. 477.

BUSHINGS—Nonmetallic

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
 Atlantic India Rubber Works, Inc., Dept. EL, 571 W. Polk St., Chicago 7, Ill.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CENTRALAB DIV., GLOBE-UNION, INC., 914 Y. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Connecticut Hard Rubber Co., 407 East St., New Haven, Conn.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Garlock Packing Co., Palmyra, N. Y.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 General Electric Co., Plastics Dept., Pittsfield, Mass.
 Graef Engineering Co., P. O. Box 416, Paramount, Calif.
GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., Le Roy, N. Y. ADV. PG. 228, 229.
 Lavelle Rubber Co., 424 N. Wood St., Chicago 2, Ill.
 Locke Dept. of General Electric Co., P. O. Box 57, Baltimore 3, Md.
 Luzerne Rubber Co., Muirhead Ave., Trenton, N. J.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 National Carbon Co., Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 National Vulcanized Fibre Co., Wilmington, Del.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
ROGAN BROS., 8031 N. Monticello Ave., Skokie, Ill. ADV. PG. 564.
 St. Marys Carbon Company, State Rd., St. Marys, Pa.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Sinclair Mfg. Co., Chartley, Mass.
 Solar Rfg. Corp., E 46th & Seville Ave., Los Angeles 58, Calif.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Taylor Fibre Co., Norristown, Pa.
 Thomas & Betts Co., 36 Butler St., Elizabeth 1, N. J.
 Thomson Industries, Inc., Manhasset, N. Y.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 Wilmington Fibre Specialty Co., New Castle, Del.

CABINETS

See Also **HOUSINGS**

CABINETS—Metal

A A Metal Products, Inc., 154 Elliot St., Box 716, Brattleboro, Vt.
ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
 Acme Teletronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 476.
 Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.
AMERICAN ALUMINUM CO., Sheffield St., Mountain-side, N. J. ADV. PG. 226.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
BENNETT MFG. CO., Alden, N. Y. ADV. PG. 635.
 Bingham Mfg. Co., J. F., 69 Bay State Rd., Lawrence, Mass.
 Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.
 Boyle Metalcraft Corp., 150 Sullivan St., Brooklyn 31, N. Y.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 Bud Radio Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 Burken Lamination Corp., 811 Whittier St., Bronx 59, N. Y.
 Butler Mfg. Co., Inc., B. B., 3150 Randolph St., Bellwood, Ill.
 Calresin Corp., 4543 Brazil St., Los Angeles 39, Calif.
 Carroll Pressed Metal Co., 133 Dewey St., Worcester, Mass.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.
 Columbia Metal Box Co., 260 E. 143rd St., New York, N. Y.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
 Corry-Jamestown Mfg. Co., Corry, Pa.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 Croname, Inc., 3701 Ravenswood Ave., Chicago 13, Ill.
 Cutler Metal Products Co., 1025 Line St., Camden, N. J.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Daystrom Instrument, Archbald, Pa.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
 Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.
 Donnelly Mfg. Co., Div. of The Indian Co., 3050 Washington St., Boston 19, Mass.
 Elgin Metalformer Corp., 901 N. Liberty St., Elgin, Ill.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
 Falstrom Co., 44 Falstrom Court, Passaic, N. J.
FORMICA METAL PRODUCTS CO., Corporation Way, Medford 55, Mass. ADV. PG. 606.
 Gates Radio Co., Quincy, Ill.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 622.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
 Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
 Hamilton Mfg. Co., Two Rivers, Wis.
HELDOR MFG. CORP., 238 Lewis St., Paterson, N. J. ADV. PG. 482.
 Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
 Hoffman Engineering Corp., Anoka, Minn.
 I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Karp Metal Products Co., Div. of H & B Machine Co., 215 63rd St., Brooklyn 20, N. Y.
 Koltan Electric Mfg. Co., 123 New Jersey Railroad Ave., Newark 5, N. J.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
 Longren Aircraft Co., 2576 W. Carson St., Torrance, Calif.
 Machinery Electrification, Inc., Northboro, Mass.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Majestic Aircraft Co., Moosup, Conn.
 Measurement Engineering, Ltd., Annprior, Ontario, Canada.
 Metalcraft, Inc., 65-33 Austin St., Rego Park 74, N. Y.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Muckle Mfg. Co., Owatonna 55, Minn.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.

Northeastern Engineering Inc., Manchester, N. H.
 O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
 Olympic Metal Products Co., Inc., Third Ave., Alpha, N. J.
 Par-Metal Products Corp., 32-62 49th St., Long Island City 3, N. Y.
 Pneumafil Corp., Charlotte, N. C.
PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 687.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y.
 Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Riestar & Thesmacher Co., 1510 W. 25th St., Cleveland 13, Ohio.
 Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
SUFFOLK PRODUCTS CORP., Wobodine & Scudder, Northport, N. Y. ADV. PG. 676.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tally & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Trimn Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
 Ventrak Corp., 11 W. 42nd St., New York, N. Y.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
 Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.
 Wayne Engineering Corp., 26 Essex St., Hackensack, N. J.
 Wells Co., Gary, 149 Broadway, New York 6, N. Y.
WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.
 Wyco Metal Products, 6918 Beck Ave., North Hollywood, Calif.
ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 688.

CABINETS—Plastic

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
 Capehart-Farnsworth Corp., 3700 E. Pontiac, Fort Wayne 1, Ind.
 Chicago Die Mold Div. of U. S. Rubber Co., 4300 New Haven Ave., Fort Wayne 4, Ind.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills, Pa. ADV. PG. 634.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
 Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
 Metaplast Corp., 7931 Oxford Ave., Philadelphia 11, Pa.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.
 REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.

CABINETS—Wood

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
 Aitec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Bozak Mfg. Co., R. T., Box 966, Darien, Conn.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
 Butler Mfg. Co., Inc., B. B., 3150 Randolph St., Bellwood, Ill.
 Cambridge Pattern Works, Inc., 55 First St., Cambridge 41, Mass.
 Capehart-Farnsworth Corp., 3700 E. Pontiac, Fort Wayne 1, Ind.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Hamilton Mfg. Co., Two Rivers, Wis.
 Hartley Products Co., 521 E. 162nd St., New York 51, N. Y.
 Jensen Mfg. Co., 6601 S. Laramie Ave., Chicago 38, Ill.
 Lansing Sound, Inc., James B., 2439 Fletcher Drive, Los Angeles 26, Calif.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill.
 River Edge Sales Corp., 80 Shore Rd., Port Washington, N. Y.
 Scientific Wood Cabinet Co., 88 Holmes St., Belleville, N. J.
 Sieler Design Products, 10460 San Pablo Ave., El Cerrito, Calif.
 Steger Furniture Mfg. Co., Steger, Ill.
 Stephens Mfg. Corp., 8538 Warner Drive, Culver City, Calif.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago 39, Ill.
Woodcraft Corp., 501 Salzburg Ave., Bay City, Mich.

CABLE

See Also WIRE

CABLE ASSEMBLIES

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
Aerolite Electronics Corp., 507 26th St., Union City, N. J.
Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
Allegany Instrument Co., Inc., Cumberland, Md.
Allied Electronic Equipment Co., 425 Brannan St., San Francisco 7, Calif.
ALLIED INDUSTRIES, INC., 2500 Woodland Ave., Louisville 10, Ky. ADV. PG. 570.
Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
Applegate & Co., C. J., 1816 Grove St., Boulder, Colo.
Audio Products Corp., 2265 Westwood Blvd., Los Angeles 64, Calif.
AUTOMATIC METAL PRODUCTS CORP., 315 Berry St., Brooklyn 11, N. Y. ADV. PG. 541.
Automatic Processing Corp., 121 S. Cowan St., Garrett, Ind.
Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bergen Wire Rope Co., 456 Gregg St., Lodj, N. J.
Bernco Engineering Corp., P. O. Box 8238, Indianapolis 24, Ind.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Bliss Electronic Corp., Box 366, Sussex, N. J.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
BRISTOL ENGINEERING CORP., Beaver Dam Road & Oak Lane, Bristol, Pa. ADV. PG. 300.
Buffalo Electronics Corp., 37 Franklin St., Buffalo 2, N. Y.
Buggie, Inc., H. H., P. O. Box 817, Toledo 1, Ohio.
C B C Electronics Co., Inc., 2601 Howard St., Philadelphia 33, Pa.
Cable Specialist of Conn., 474 Prospect Ave., Hartford, Conn.
Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
Co-Operative Industries, Inc., 100 Oakdale Rd., Chester, N. J.
Cords Ltd., Div. of The Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
Daystrom Electric Corp., 807 Main St., Poughkeepsie, N. Y.
Decatur Electronics Industries Corp., 203 Orinco Drive, Brightwater, N. Y.
Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
EBERLINE INSTRUMENT DIVISION, P. O. Box 279, Santa Fe, N. M. ADV. PG. 654.
Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.
Electronic Products Corp., 322 State St., Santa Barbara, Calif.
Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

Eltran Corp., St. Anne, Ill.
Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Gerlyng Engineering Co., 2151 N. Damen Ave., Chicago 47, Ill.
Hallamore Electronics Co., A Div. of The Siegler Corp., 2001 E. Artesia, Long Beach 5, Calif.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
Inland Electronics Corp., 500 Rathbone Ave., Aurora, Ill.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
Kreutzer Industries, 1835 N. Hoyne Ave., Chicago 47, Ill.
KUPFRIAN MFG. CORP., 398 State St., Binghamton, N. Y. ADV. PG. 667.
Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
Machinery Electrification, Inc., Northboro, Mass.
Mack Electronics Division, Inc., Plainfield, N. J.
McGregor Electronic Industries, McGregor, Iowa.
Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
MENDELSONH SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.
Microdot, Inc., 1826 Fremont Ave., South Pasadena, Calif.
Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
Modelite Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
New Products Co., Box 66101, Los Angeles 66, Calif.
PACIFIC AUTOMATION PRODUCTS, INC., 1000 Air Way, Glendale 1, Calif. ADV. PG. 450.
Pacific Electric Cord Co., P. O. Box 8805, Crenshaw Sta., Los Angeles 8, Calif.
PARAPLEGIS MFG. CO., INC., 10068 Franklin Ave., Franklin Park, Ill. ADV. PG. 528.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
Prodelin, Inc., 307 Bergen Ave., Kearney, N. J.
Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N. Long Island City 1, N. Y.
Roesch, Inc., Douglas, 2200 S. Figueroa St., Los Angeles 7, Calif.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsheld, Mass.
Rosenau, Harris & Co., Ontario & "I" Sts., Philadelphia 34, Pa.
Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
Sears Co., M. J., Delaware County, Roxbury, N. Y.
Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
Sheltered Workshop, 2521 5th St., Santa Monica, Calif.
Sittler Corp., 18 N. Ada St., Chicago 7, Ill.
Sorensen Industrial Electronic Co., Route 10, Dover, N. J.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
Superey Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 668.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.
Times, Wire & Cable Co., Wallingford, Conn.
Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
TRIMM, INC., 400 W. Lake St., Libertyville, Ill. ADV. PG. 529.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
United Manufacturing & Service Co., 405 S. Sixth St., Milwaukee 4, Wis.
U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.

UNIVOX-EASTERN CORP., 102 Warren St., New York 7, N. Y. ADV. PG. 226.
Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Vidaire Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.
Wallson Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.
Whitaker Cable Corp., Kansas City 16, Mo.
Winder Aircraft Corp., P.O. Box 2397, Lakeland, Fla.

CABLE CLAMPS & CLIPS

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
ATLAS E-E CORP., Bedford Airport Terminal Bldg., Bedford, Mass. ADV. PG. 571.
BARWOOD MFG. CO., INC., L.J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Burndy Engineering Co., Inc., Norwalk, Conn.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
Holub Industries, Inc., 414 DeKalb Ave., Sycamore, Ill.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.
Laughlin, Thomas, 199 Fore, Portland, Me.
NATIONAL TEL-TRONICS CORP., 35 Casmlrs Ave., Yonkers, N. Y. ADV. PG. 681.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
SCINTILLA DIVISION, BENDIX AVIATION CORP., Sidney, N. Y. ADV. PG. 133.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Stone City Machine & Tool Co., Inc., P.O. Box 351, 1206 7th St., Bedford, Ind.
Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.
Thomas Associates, 4613 Alger St., Los Angeles 39, Calif.
Thomas & Betts Co., Inc., 36 Butler St., Elizabeth 1, N. J.
Tinnerman Products, Inc., P. O. Box 6688, Dept. No. 16, Cleveland 1, Ohio.
Trico Fuse Mfg. Co., 2948 N. Fifth, Milwaukee 12, Wis.
Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
Weckesser Co., 5261 Avondale Ave., Chicago 30, Ill.

CABLE-Coaxial Flexible
Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
Aero Specialties, Pleasant Valley Rd., Sutton, Mass.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
Ansonia Wire & Cable Co., The, 63 Main St., Ansonia, Conn.
Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
Birnbach Radjo Co., Inc., 145 Hudson St., New York 13, N. Y.
BOSTON INSULATED WIRE & CABLE CO., 65 Bay St., Boston 25, Mass. ADV. PG. 271.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
COLUMBIA TECHNICAL CORP., 61-02 31 Ave., Woodside 77, N. Y. ADV. PG. 609.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Communication Products Co., Inc., Marlboro, N. J.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
Continental Wire Sales Corp., Wallingford, Conn.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.

Dielectric Products Engineering Co., Inc., Raymond, Maine.
ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.
 Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
INTERSTATE ELECTRONICS, INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 618.
 Kistler Instrument Co., 15 Webster St., Tonawanda, N. Y.
 Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
 Microdot, Inc., 1826 Fremont Ave., South Pasadena, Calif.
 Okonite Co., The Canal St., Passaic, N. J.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., 4400 New Haven Ave., Fort Wayne, Ind. ADV. PG. 60, 61.
 Plastic Wire & Cable Corp., Jewett City, Conn.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
ROME CABLE CORP., 330 Ridge St., Rome, N. Y. ADV. PG. 98.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
SEQUOIA PROCESS CORP., 871 Willow St., P. O. Box 1007, Redwood City, Calif. ADV. PG. 553.
 Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
SURPRENANT MFG. CO., 199 Washington St., Boston 8, Mass. ADV. PG. 296.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
TENSOLITE INSULATED WIRE CO., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.
 Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif. Times, Wire & Cable Co., Wallingford, Conn.
 Transradio, Ltd., 138-A Cromwell Rd., London SW 7, England.
 Tru-Connector Corp., 416 Union St., Lynn, Mass.
 Uniform Tubes, Level Rd., Collegeville 2, Pa.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 U. S. Wire & Cable Corp., Progress & Monroe St., Union, N. J.
UNIVOX-EASTERN CORP., 102 Warren St., New York 7, N. Y. ADV. PG. 226.
 Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
 Warren Wire Co., Pownal, Vt.

CABLE-Coaxial Rigid

ALFORD MFG. CO., INC., 299 Atlantic Ave., Boston, Mass. ADV. PG. 650.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
 Communication Products Co., Inc., Marlboro, N. J.
 Dielectric Products Engineering Co., Inc., Raymond, Me.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mount Vernon, N. Y. ADV. PG. 636.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., 4400 New Haven Ave., Fort Wayne, Ind. ADV. PG. 60, 61.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Precision Tube Co., Inc., North Wales, Pa.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London, S. E. 10, England.
 Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif. Times, Wire & Cable Co., Wallingford, Conn.
 Uniform Tubes, Level Rd., Collegeville 2, Pa.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.

U. S. Wire & Cable Corp., Progress & Monroe St., Union, N. J.
 Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.

CABLE-Insulated

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
 Aero Specialties, Pleasant Valley Rd., Sutton, Mass.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
 American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
 Ansonia Wire & Cable Co., The, 63 Main St., Ansonia, Conn.
 Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
 Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
BOSTON INSULATED WIRE & CABLE CO., 65 Bay St., Boston 25, Mass. ADV. PG. 271.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
 Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Continental Wire Sales Corp., Wallingford, Conn.
 Copperweld Steel Co., Wire & Cable Div., Frick Bldg., Pittsburgh 19, Pa.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
 Diamond Wire & Cable Co., Sycamore, Ill.
 Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J.—ADV. PG. 355-360.
 Fortiphone Ltd., 247 Regent St., London W.1, England.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.
 General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
 Goodline Corp., 309 Date Ave., Alhambra, Calif.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.
 Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Koiled Kords, Inc., Box K, New Haven 14, Conn.
 Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.
 Okonite Co., The Canal St., Passaic, N. J.
PACIFIC AUTOMATION PRODUCTS, INC., 1000 Air Way, Glendale 1, Calif. ADV. PG. 450.
 Pacific Electric Cord Co., P. O. Box 8805, Crenshaw Sta., Los Angeles 8, Calif.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., 4400 New Haven Ave., Fort Wayne, Ind. ADV. PG. 60, 61.
 Plastic Wire & Cable Corp., Jewett City, Conn.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.
 Revere Corp. of America, Sub. of Neptunes Meter Co., Wallingford 2, Conn.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.
 Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Roebbling's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.
 Roesch, Inc., Douglas, 2200 S. Figueroa St., Los Angeles 7, Calif.
ROME CABLE CORP., 330 Ridge St., Rome, N. Y. ADV. PG. 98.
 Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
SEQUOIA PROCESS CORP., 871 Willow St., P. O. Box 1007, Redwood City, Calif. ADV. PG. 553.

Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SURPRENANT MFG. CO., 199 Washington St., Boston 8, Mass. ADV. PG. 296.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London, S. E. 10, England.
TENSOLITE INSULATED WIRE CO., INC., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.
 Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif. Times, Wire & Cable Co., Wallingford, Conn.
 Transradio Ltd., 138A Cromwell Rd., London, S.W. 7, England.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 U. S. Wire & Cable Corp., Progress & Monroe St., Union, N. J.
 Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
 Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.
 Whitaker Cable Corp., Kansas City 16, Mo.
 Whitney Blake Co., New Haven 14, Conn.

CABLES-Low Capacitance

Aero Specialties, Pleasant Valley Rd., Sutton, Mass.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
 Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 271.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Continental Wire Sales Corp., Wallingford, Conn.
 Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
 Kistler Instrument Co., 15 Webster St., Tonawanda, N. Y.
 Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
 Microdot, Inc., 1826 Fremont Ave., South Pasadena, Calif.
 Okonite Co., The Canal St., Passaic, N. J.
PACIFIC AUTOMATION PRODUCTS, INC., 1000 Air Way, Glendale 1, Calif. ADV. PG. 450.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.
 Phelps Dodge Copper Products Co., 300 Park Ave., New York 22, N. Y.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
SEQUOIA PROCESS CORP., 871 Willow St., Redwood City, Calif. ADV. PG. 553.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
SURPRENANT MFG. CO., 199 Washington St., Boston 8, Mass. ADV. PG. 296.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
TENSOLITE INSULATED WIRE CO., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.
 Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif. Times, Wire & Cable Co., Wallingford, Conn.
 Transradio, Ltd., 138A Cromwell Rd., London, S.W. 7, England.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
 Whitney Blake Co., New Haven 14, Conn.

CABLE-Microphone

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
 Aero Specialties, Pleasant Valley Rd., Sutton, Mass.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.

Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
 Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
BOSTON INSULATED WIRE & CABLE CO., 65 Bay St., Boston 25, Mass. ADV. PG. 271.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Continental Wire Sales Corp., Wallingford, Conn.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
 Dielectric Materials Co., 5317-17 N. Ravenswood Ave., Chicago 40, Ill.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
 Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
 Koiled Kords, Inc., Box K, New Haven 14, Conn.
 Lenze Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
 Okonite Co., The Canal St., Passaic, N. J.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.
 Plastic Wire & Cable Corp., Jewett City, Conn.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
SEQUOIA PROCESS CORP., 871 Willow St., P. O. Box 1007, Redwood City, Calif. ADV. PG. 553.
 Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London, S.E. 10, England.
 Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.
 Times, Wire & Cable Co., Wallingford, Conn.
 Transradio, Ltd., 138A Cromwell Rd., London, S.W. 7, England.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
 Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
 Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.
 Whitaker Cable Corp., Kansas City 16, Mo.
 Whitney Blake Co., New Haven 14, Conn.

CABLE—Shielded

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
 Aero Specialties, Pleasant Valley Rd., Sutton, Mass.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
 American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
 Ansonia Wire & Cable Co., The, 63 Main St., Ansonia, Conn.
 Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
 Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
BOSTON INSULATED WIRE & CABLE CO., 65 Bay St., Boston 25, Mass. ADV. PG. 271.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
 Breeze Corps., Inc., 700 Liberty Ave., Union, N. J.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Continental Wire Sales Corp., Wallingford, Conn.
 Co-Operative Industries, Inc., 100 Oakdale Rd., Chester, N. J.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
 Diamond Wire & Cable Co., Sycamore, Ill.
 Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.

GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.
 General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Goodline Corp., 309 Date Ave., Alhambra, Calif.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.
 Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
INTERSTATE ELECTRONICS, INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 618.
 Koiled Kords, Inc., Box K, New Haven 14, Conn.
 Lenze Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.
 Marco Industries, Inc., 207 S. Helena St., Anaheim, Calif.
 Microdot, Inc., 1826 Fremont Ave., South Pasadena, Calif.
 Okonite Co., The Canal St., Passaic, N. J.
PACIFIC AUTOMATION PRODUCTS, INC., 1000 Air Way, Glendale 1, Calif. ADV. PG. 450.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., 4400 New Haven Ave., Fort Wayne, Ind. ADV. PG. 60, 61.
 Plastic Wire & Cable Corp., Jewett City, Conn.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Precision Tube Co., Inc., North Wales, Pa.
 Revere Corp. of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Roesch, Inc., Douglas, 2200 S. Figueroa St., Los Angeles 7, Calif.
ROME CABLE CORP., 330 Ridge St., Rome, N. Y. ADV. PG. 98.
 Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
SEQUOIA PROCESS CORP., 871 Willow St., P. O. Box 1007, Redwood City, Calif. ADV. PG. 553.
 Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W.C. 2, England.
SURPRENANT MFG. CO., 199 Washington St., Boston 8, Mass. ADV. PG. 296.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London, S.E. 10, England.
TENSOLITE INSULATED WIRE CO., INC., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.
 Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.
 Times, Wire & Cable Co., Wallingford, Conn.
 Transradio, Ltd., 138A Cromwell Rd., London SW 7, England.
 Uniform Tubes, Level Rd., Collegeville 2, Pa.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
 Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
 Warren Wire Co., Pownal, Vt.
 Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.
 Whitaker Cable Corp., Kansas City 16, Mo.
 Whitney Blake Co., New Haven 14, Conn.

CABLE—Transmission Line

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
 Aero Specialties, Pleasant Valley Rd., Sutton, Mass.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
 Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
 Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
 Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Birnbach Radio Co., Inc., 145 Hudson St., New York, N. Y.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Copperweld Steel Co., Wire & Cable Div., Frick Bldg., Pittsburgh 19, Pa.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
 Dielectric Materials Co., 5317-17 N. Ravenswood Ave., Chicago 40, Ill.
 Dielectric Products Engineering Co., Inc., Raymond, Me.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
 Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
INTERSTATE ELECTRONICS, INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 618.
 Jersey Specialty Co., Inc., Mountainview, N. J.
 Kaiser Aluminum & Chemical Sales, Inc., 1924 Broadway, Oakland 12, Calif.
 Lenze Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
 Microdot, Inc., 1826 Fremont Ave., South Pasadena, Calif.
 Okonite Co., The Canal St., Passaic, N. J.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., 4400 New Haven Ave., Fort Wayne, Ind. ADV. PG. 60, 61.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
 Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Roesch, Inc., Douglas, 2200 S. Figueroa St., Los Angeles 7, Calif.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London, S. E. 10, England.
 Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.
 Times, Wire & Cable Co., Wallingford, Conn.
 Transradio Ltd., 138A Cromwell Rd., London S. W. 7, England.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
 Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
 Whitney Blake Co., New Haven 14, Conn.

CABLE—uhf

AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
 Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
 Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
BOSTON INSULATED WIRE & CABLE CO., 65 Bay St., Boston 25, Mass. ADV. PG. 271.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Communication Products Co., Inc., Marlboro, N. J.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
INTERSTATE ELECTRONICS, INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 618.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Jersey Specialty Co., Inc., Mountainview, N. J.
 Okonite Co., The Canal St., Passaic, N. J.
 Phelps Dodge Copper Products Co., 300 Park Ave., New York 22, N. Y.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Prodelin Inc., 307 Bergen Ave., Kearny, N. J.
 Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London, S. E. 10, England.
 Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.
 Times, Wire & Cable Co., Wallingford, Conn.
 Transradio, Ltd., 138A Cromwell Rd., London S. W. 7, England.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 U. S. Wire Cable Corp., Progress & Monroe Sts., Union, N. J.
 Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
 Whitney Blake Co., New Haven 14, Conn.

CALIBRATORS—Crystal

Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Eidson Electronic Co., 1902 N. Third St., Temple, Texas.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
 Ferris Instrument Co., 110 Cornelia St., Boonton, N. J.
 Furzehill Laboratories, Ltd., 57 Clarendon Rd., Watford, Herts., England.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
 Harvey-Wellis Electronics, Inc., North St., Southbridge, Mass.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 Johnson Co., E. F., Waseca, Minn.
 Measurement Engineering Ltd., Arnprior, Ontario, Canada.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 422.
 Metronix, Inc., P. O. Box 549, New London, Conn.
 Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
NORRMAN LABORATORIES, ERNST, Williams Bay, Wis. ADV. PG. 552.
 Pye Limited, Telecommunications Div., Newmarket Rd., Cambridge, England.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.
 Rutherford Electronics Co., 3707 S. Robertson Blvd., Culver City, Calif.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Standard Crystal Co., 1714 Locust St., Kansas City 8, Mo.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.

CALIBRATORS—Frequency

Aircorn Inc., 354 Main St., Winthrop 52, Mass.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
 Decade Instrument Co., Box 153, Caldwell, N. J.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 574.
 Electro-Mechanical Research Inc., Ridgefield, Conn.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
 Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Metronix, Inc., P. O. Box 549, New London, Conn.
NORRMAN LABORATORIES, ERNST, Williams Bay, Wis. ADV. PG. 552.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.
PHILAMON LABORATORIES, INC., 90 Hopper St., Westbury, N. Y. ADV. PG. 389.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.

CALIBRATORS—Radar Range

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
BRISTOL ENGINEERING CORP., Beaver Dam Rd. & Oak Lane, Bristol, Pa. ADV. PG. 300.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Rutherford Electronics Co., 3707 S. Robertson Blvd., Culver City, Calif.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.

CALIBRATORS—Sweep

CALIBRATORS—uhf
See INSTRUMENTS—Electrical Measuring

CALIBRATORS—Voltage

Allegany Instrument Co., Inc., Cumberland, Md.
BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 23.
BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 481.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
 Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 13, N. Y.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 272, 273.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 G. W. Associates, 108 Standard St., El Segundo, Calif.
HEATH CO., A SUB. OF RAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 388.
 Northeast Electronics Corp., Municipal Airport Bldg., Concord, N. H.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
 Service Instruments Co., 422 S. Dearborn St., Chicago 5, Ill.
 Signalite, Inc., 37-41 Neptune Highway, Neptune, N. J.
 Solartron Electronic Group, Ltd., Thames Ditton, Surrey, England.
SORENSEN & CO., INC., 375 Fairfield Ave., Stamford, Conn. ADV. PG. 177-180.
 Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.

CALIBRATORS—vswwr

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Color Television, Inc., 973 E. San Carlos Ave., San Carlos, Calif.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.

CALORIMETERS—Microwave
See MICROWAVE ACCESSORIES

CAMERAS—Oscilloscope

Airmec, Ltd., High Wycombe, Buckinghamshire, England.
 Allegany Instrument Co., Inc., Cumberland, Md.
 Aremac Associates, 50 S. San Gabriel, Pasadena 10, Calif.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 Beckman & Whitley, Inc., 913 San Carlos Ave., San Carlos, Calif.

Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Dumont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.
 Fairchild Camera & Instrument Corp., Industrial Camera Div., 88-06 Van Wyck Expressway, Jamaica 1, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
 Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Maurer, Inc., J. A., 37-01 31st St., Long Island City 1, N. Y.
MULLARD OVERSEAS, LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London W.C. 2, England. ADV. PG. 181.
 Photographic Products, Inc., 1000 N. Olive St., Anaheim, Calif.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

CAMERAS—Radar Recording

Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing, Mich.
 Aremac Associates, 50 S. San Gabriel, Pasadena 10, Calif.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Flight Research, Inc., P. O. Box 1-F, Richmond 1, Va.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
 Maurer, Inc., J. A., 37-01 31st St., Long Island City 1, N. Y.
 Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.
 Photographic Products, Inc., 1000 N. Olive St., Anaheim, Calif.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

CAMERAS—Television

Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 68th St., New York 38, N. Y.
 Dage Television Div. of Thompson Products, Inc., W. 10th St., Michigan City, Ind.
 Dumont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Federal Telecommunication Labs., a Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Kirk-Michaels Labs., Inc., 215 Bergen Turnpike, Little Ferry, N. J.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
 Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Television Utilities Corp., 1315 Jericho Turnpike, New Hyde Park, N. Y.

CAMERAS—X-Ray

Fairchild Camera & Instrument Corp., Industrial Camera Div., 88-06 Van Wyck Expressway, Jamaica 1, N. Y.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 North American Philips Co., Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
 Photographic Products, Inc., 1000 N. Olive St., Anaheim, Calif.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

CANS

NOTE:

(h) indicates hermetically sealed types

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 476. (h)

AMERICAN ALUMINUM CO., Sheffield St.,-C, Mountain-side, N. J. ADV. PG. 226. (h)
 BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 Bridgeport Metal Goods Mfg. Co., The, 360 Cherry St., Bridgeport 5, Conn.
 Burken Lamination Corp., 811 Whittier St., Bronx 59, N. Y. (h)
 CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532. (h)
 Continental Can Co., Inc., 100 E. 42nd St., New York 17, N. Y.
 CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47. (h)
 Donnelly Mfg. Co., Div. of The Indian Co., 3050 Washington St., Boston 19, Mass.
 ELECTRICAL INDUSTRIES, 44 Summer Ave., Newark 4, N. J. ADV. PG. 455.
 Ellis & Sons Inc., George D., 4002 N. American St., Philadelphia 40, Pa. (h)
 Etzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
 Fortiphone Ltd, 247 Regent St., London W. 1, England.
 GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677. (h)
 HELDOR MFG. CORP., 238 Lewis St., Paterson, N. J. ADV. PG. 482. (h)
 HUDSON TOOL & DIE CO., INC., 118 S. 14th St., Newark, N. J. ADV. PG. 419.
 JOHNSON & HOFFMAN MFG. CORP., 31 W. Second St., Mineola, N. Y. ADV. PG. 42, 43.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J. (h)
 Kaupp & Sons, C. B., 32 Newark Way, Maplewood, N. J.
 Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J. (h)
 Kling Metal Spinning Co., 247 Centre St., New York 13, N. Y.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Northern Metal Products Co., 9597 W. Grand Ave., Franklin Park, Ill.
 Olympic Metal Products Co., Inc., Third Ave., Alpha, N. J.
 Paul & Beekman, Inc., 1801 Courtland St., Philadelphia 40, Pa.
 Repath Inc., Paul R., 641 E. 61st St., Los Angeles 1, Calif. (h)
 Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill. (h)
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
 Staver Co., Inc., Box 431, Bay Shore, N. Y.
 Strat-O-Seal, 3039 W. Fullerton Ave., Chicago 47, Ill. (h)
 SUN TUBE CORP., Washington, N. J. ADV. PG. 528.
 Thordarson Melssner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y. (h)
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif. (h)
 Tru-tone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.
 Worcester Pressed Aluminum Corp., 13-15 Hope Ave., Worcester, Mass. (h)
 Zell Products Corp., 276-280 Main St., Norwalk, Conn. (h)
 ZERO MFG. Co., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 688.

CAPACITORS

NOTE:

Throughout all capacitor listings

(h) indicates hermetically sealed types

(p) indicates pressure types

(v) indicates vacuum types

Capacitors, Fixed

1. Ceramic
2. Decade
3. Electrolytic
4. Energy Storage
5. Feed Through
6. Fixed Composition
7. Gas Filled
8. Glass
9. High Voltage
10. Metallized
11. Mica
12. Paper
13. Plastic Dielectric
14. Power Factor
15. Precision Air
16. Pulse Forming Network
17. Silvered Mica
18. Tantalum
19. Vacuum

Capacitors, Variable

20. Trimmer-Air
 21. Trimmer-Ceramic
 22. Trimmer-Mica
 23. Trimmer-Vacuum
 24. Tuning-Receiving
 25. Tuning-Transmitter
- ACF Electronics, 800 N. Pitt St., Alexandria, Va. 1-9-13.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. 1-2-3-4-5-6-9-10-11-12-13-14-16-17-21. (h)
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif. 1-3-4-5-9-10-11-12-13-14-16-17-21. (h)
 Airborne Accessories Corp., 1414 Chestnut Ave., Hillside, N. J. 10-13-14. (h)
 AIRCRAFT-MARINE PRODUCTS, INC., CHEMICALS & DIELECTRICS DIV., 155 Park Ave., Elizabethtown, Pa. 2-4-9-13-16. ADV. PG. 209. (h)
 AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. 6-16. ADV. PG. 353.
 Ajax Condenser Corp., 10905 Chandler Blvd., North Hollywood, Calif. 3-5-12-16. (h)
 All Star Products, Inc., Defiance, Ohio. 20-24.
 ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. 1-5-9. ADV. PG. 497.
 American Condenser Co., 4410 Ravenswood Ave., Chicago 40, Ill. 1-3-5-12. (h)
 American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y. 1-3-7-10-11-12-17-19-20-21-24.
 American Mica Insulation Co., Manassquan, N. J. 22.
 AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. 9-19. ADV. PG. 426, 427. (v)
 ARCO ELECTRONICS, INC., 64 White St., New York 13, N. Y. 1-5-9-11-12-17-21-22. ADV. PG. 162.
 Arnhold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y. 1-5-9-10-11-17. (h)
 ASTRON CORP., 255 Grant Ave., East Newark, N. J. 1-3-10-12-13. ADV. PG. 305. (h)
 AXEL BROS., ELECTRONICS DIV., 134-20 Jamaica Ave., Jamaica, N. Y. 4-5-9-12-13-14-16. ADV. PG. 447. (h)
 Balco Research Laboratories, 49-53 Edison Place, Newark 2, N. J. 13. (h)
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. 25.
 Basic Tool Industries, Inc., Electronic Div., 1621 S. Maple Ave., Los Angeles 15, Calif. 1. (h)
 Bright Radio Labs, Inc., Div. of Howell Mfg. Corp., Denton Ave & 4th St., New Hyde Park, N. Y. 20-21-23-24-25. (v)
 British Radio Electronics Ltd., 1833 Jefferson Place, N.W., Washington 6, D. C. 17.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio. 20-25.
 CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. 1-21. ADV. PG. 310.
 Capcon, Inc., 25 Willett St., New York 2, N. Y. 1-3-5-9-10-12-13-16-19. (h)(p)(v)
 Cardwell Mfg. Corp., Allen D., 97 Whiting St., Plainville, Conn. 20-24-25.
 CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. 1-4-5-9-16-21. ADV. PG. 37. (h)
 CHICAGO CONDENSER CORP., 3255 W. Armitage Ave., Chicago 47, Ill. 4-5-9-12-13-14-16. ADV. PG. 564. (h)
 COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. 9. ADV. PG. 645.
 Condenser Manufacturers, Inc., 1018 Pearl St., Box 1234, Nashville, Tenn. 3-4-14. (h)
 CONDENSER PRODUCTS CO., 140 Hamilton St., New Haven, Conn. 13-16. ADV. PG. 693.
 CORNELL-DUBILLIER ELECTRIC CORP., South Plainfield, N. J. 1-2-3-4-5-6-9-10-11-12-13-14-16-17-18. ADV. PG. 445.
 CORNING GLASS WORKS, Corning, N. Y. 8. ADV. PG. 523. (h)
 Corson Electric Mfg. Corp., 540 39th St., Union City, N. J. 4-9-12-13-16. (h)
 COSMIC RADIO CORP., 853 Whittier St., New York 59, N. Y. 3-12. ADV. PG. 641.
 Dearborn Electronic Laboratories, Inc., 231 S. LaSalle St., Chicago 4, Ill. 4-5-9-10-12-13. (h)
 Dielectron Div. of The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif. 1-9-16.
 DOLINKO & WILKENS, INC., 1901-7 Summit Ave., Union City, N. J. 9-19. ADV. PG. 541. (v)
 Double "E" Products Co., 216 Standard St., El Segundo, Calif. 10-11-12-13. (h)
 Dumont-Airplane & Marine Instruments, Inc., 15 William St., New York 5, N. Y. 3-4-9-12-13-14-18. (h)
 Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H. 1.
 ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. 16. ADV. PG. 417.
 EITEL-McCULLOUGH, INC., San Bruno, Calif. 19-25. ADV. PG. 174, 175.
 ELECTRO-MEASUREMENTS, INC., 4312 S.E. Stark St., Portland 15, Ore. 11. ADV. PG. 579. (h) (p) (v)
 ELECTRO MOTIVE MFG. CO., S. Park & John St., Willimantic, Conn. 1-5-11-12-17-20-22. ADV. PG. 345.
 Electron Products, Inc., 430 N. Halstead St., Pasadena, Calif. 2-5-10-12-13-14. (h)(v)
 ELECTRONIC FABRICATORS, INC., 682 Broadway, New York 12, N. Y. 13-17. ADV. PG. 324. (h)
 ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. 1-5-9-11-17-21-22. ADV. PG. 274, 275. (h)
 Fansteel Metallurgical Corp., 2200 Sheridan Road, North Chicago, Ill. 18.

Fast & Co., John E., 3179 N. Pufaski Rd., Chicago 41, Ill. 1-9-12-13-14. (h)
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. 2-15. ADV. PG. 355-360.
 FILM CAPACITORS, INC., 3400 Park Ave., New York 56, N. Y. 2-4-9-13. ADV. PG. 563. (h)
 FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. 5-9-10-12-13-16. ADV. PG. 391. (h)
 FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. 2-16. ADV. PG. 645.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 4-6-9-12-13-14-16-18. ADV. PG. 1-12. (h)
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J. 15-16-17-20-21-24-25. (h)
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 2-13-13-15. ADV. PG. 109, 110.
 Girard-Hopkins, 1000 40th Ave., Oakland 1, Calif. 4-5-9-12-14-16. (h)
 Glenco Corp., Metuchen, N. J. 1.
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J. 24-25.
 GOOD-ALL ELECTRIC MFG. CO., 112 W. First St., Ogallala, Neb. 1-5-9-12-13. ADV. PG. 107. (h)
 GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. 1-2-3-5-9-10-12-13-14. ADV. PG. 307. (h)
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif. 5.
 HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. 20-24-25. ADV. PG. 67.
 Hansen Electronics Co., 7117 1/2 Santa Monica Blvd., Los Angeles 46, Calif. 6.
 High Fidelity Products, Box 131, Owensboro, Ky. 2.
 Hopkins Engineering Co., 2082 Lincoln Ave., Altadena, Calif. 5-10-12-13. (h)
 ILLINOIS CONDENSOR CO., 1616 N. Throop St., Chicago 22, Ill. 1-3-4-9-12-13-14. ADV. PG. 441. (h)
 Industrial Condenser Corp., 3243 N. California Ave., Chicago 18, Ill. 3-4-9-10-12-13-14. (h)
 Industron Corp., 50 Brook Rd., Needham Heights, Mass. 25.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y. 5.
 JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. 21. ADV. PG. 227.
 Jeffers Electronics Div. of Speer Carbon Co., DuBois, Pa. 6.
 JENNINGS RADIO MFG. CORP., 970 McLaughlin Ave., P. O. Box 1278, San Jose 8, Calif. 5-9-19-23-25. ADV. PG. 256, 257. (v)
 Johnson Mfg. Co., Box 329, Boonton, N. J. 15-20-24-25.
 Johnson Co., E. F., Waseca, Minn. 20-24-25.
 K-C-K Corp., 922 S. 75th St., Houston, Texas. 12-13.
 LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. 7-9-25. ADV. PG. 228, 229. (p)
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa. 2-6-11-15-17.
 LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. 17. ADV. PG. 526.
 Luther Electronic Mfg. Co., 5728 W. Washington Blvd., Los Angeles 16, Calif. 9-12-16. (h)
 Magnavox Co., Fort Wayne 4, Ind. 3.
 Magnavox Research Labs., 2252 S. Carmelina Ave., Los Angeles, Calif. 3-18.
 Maida Development Co., 214 Academy St., Hampton, Va. 1-5-9-21.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind. 3-4-18.
 MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617.
 MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md. 1-13.
 MCCOY ELECTRONICS CO., Mount Holly Springs, Pa. 24-25. ADV. PG. 560.
 MICAMOLD ELECTRONICS MFG. CORP., 1087 Flushing Ave., Brooklyn 6, N. Y. 3-4-5-9-11-12-13-16-17. ADV. PG. 406. (h)
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass. 20-24-25.
 Mitronics Inc., 232 Thirteenth Ave., Newark, N. J. 1-8-17-21.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa. 24.
 MUCON CORP., 9 St. Francis St., Newark 5, N. J. 1. ADV. PG. 619.
 Muirhead & Co., Ltd., Beckenham, Kent, England. 11-12. (h)
 Muter Company, The, 1255 S. Michigan Ave., Chicago 5, Ill. 1-5-21.
 MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. 1. ADV. PG. 465.
 National Capacitor Co., 18 Webster St., Brookline, Mass. 4-5-9-10-12-13-14-16.
 National Co., Inc., 61 Sherman St., Malden 48, Mass. 20-24-25.
 Nilsen Mfg. Co., Addison, Ill. 15.
 OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. 18. ADV. PG. 44, 45.
 ONONDAGO POTTERY WORKS, Electronics Div., 1858 W. Lafayette St., Syracuse, N. Y. 1. ADV. PG. 508.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa. 19.
 Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y. 24.
 Planet Mfg. Corp., 225 Belleville Ave., Bloomfield, N. J. 3.
 Plastic Capacitors, Inc., 2511 W. Moffat St., Chicago 47, Ill. 2-4-9-12-13-14-16. (h)

Potter Co., The, 1950 Sheridan Rd., North Chicago, Ill. 9-10-12-13-14. (h)
 PYRAMID ELECTRIC CO., 1445 Hudson Blvd., North Bergen, N. J. 3-9-10-12. ADV. PG. 281. (h)
 Quality Components, Inc., St. Mary's, Pa. 6.
 RADIO CONDENSER CO., Camden, N. J. 24-25. ADV. PG. 255. (h)
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill. 1-5-17.
 Radio Materials Corp., 3325 N. California Ave., Chicago 18, Ill. 1.
 RELIANCE MICA CO., 341 39th St., Brooklyn, N. Y. 11-17. ADV. PG. 460.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif. 19.
 Sanders Associates, Inc., Nashua, N. H. 13.
 San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif. 5-10-13. (h)
 Sangamo Electric Co., Capacitor Div., Marion, Ill. 3-4-11-12-14-17. (h)
 SARKES TARZIAN INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. 20-21-25. ADV. PG. 488.
 Skottie Electronics, Inc., 204 Bridge St., Peckville, Pa. 1-5-9-21.
 Solar Mfg. Corp., E. 46th & Seville Ave., Los Angeles 58, Calif. 1-21.
 SOUTHERN ELECTRONICS CORP., 239 W. Orange Grove Ave., Burbank, Calif. 2-9-13. ADV. PG. 435. (h)
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y. 13.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass. 1-3-4-5-9-10-11-12-13-14-16-17-18. (h)
 Sprague Electric Co. of Wisconsin, Inc., Sixth & Beech St., Grafton, Wis. 1-21. (h)
 STACKPOLE CARBON CO., St. Marys, Pa. 6. ADV. PG. 80, 81.
 Standard Condenser Co., 3749 N. Clark St., Chicago 13, Ill. 3-12-13.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England. 4-5-9-10-11-12-13-14-16-17-18-19. (v)
 Stewart Mfg. Co., D. M., 3600 Jerrrome Ave., Chattanooga 1, Tenn. 21.
 STUPAKOFF, DIV. OF THE CARBORUNDUM CO., Latrobe; Pa. 5-21. ADV. PG. 150, 151.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. 15.
 Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England. 1-2-3-4-5-6-9-11-12-13-14-16-17-18-21. (h)
 TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. 8-16. ADV. PG. 403. (h)
 Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass. 4-5-6-9-10-12-13-14-16. (h)
 United Condenser Corp., 3400 Park Ave., New York 56, N. Y. 9-12. (h)
 Unltd Electronic Mfg. Corp., 542 39th St., Union City, N. J. 3. (h)
 UNITED ELECTRONICS CO., 42 Spring St., Newark, N. J. 19. ADV. PG. 126, 127.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y. 1-5.
 UNIVERSAL CAN & CONDENSER CO., DIV. OF McNAUGHT METAL PRODUCTS CO., INC., 3435 N. Kimball Ave., Chicago 18, Ill. 12-13. ADV. PG. 554. (h)
 VACAP CORP., 1905 Summit Ave., Union City, N. J. 23. ADV. PG. 572. (v)
 VITRAMON INC., Box 544, Bridgeport, Conn. 8. ADV. PG. 570.
 Wells Co., Gary, 149 Broadway, New York 6, N. Y. 3.
 WELWYN INTERNATIONAL INC., 3355 Edgecliff Terrace, Cleveland 11, Ohio. 1-8. ADV. PG. 514.
 Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo. 25.

CARTONS—for Shipping
 See PACKAGING MATERIALS

CARTRIDGES
 See CRYSTAL CARTRIDGES

CASES—Diode & Transistor

BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 CONSTANTIN & CO., L. L., Route # 46, Lodi, N. J. ADV. PG. 411.
 CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
 ELECTRICAL INDUSTRIES, 44 Summer Ave., Newark 4, N. J. ADV. PG. 455.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
 GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 GENERAL ELECTRIC CO., LAMP DIV., LAMP LEADS & BASES DEPT., 17825 St. Clair Ave., Cleveland 12, Ohio. ADV. PG. 22.
 Hermetite Corp., 702 Beacon St., Boston, Mass.
 HUDSON TOOL & DIE CO., INC., 118 S. 14th St., Newark, N. J. ADV. PG. 419.
 JOHNSON & HOFFMAN MFG. CORP., 31 W. Second St., Mineola, N. Y. ADV. PG. 42, 43.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617.
 Mitronics, Inc., 232 Thirteenth Ave., Newark, N. J.
 NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.
 Warren Plastics Corp., Warren, Pa.

CASES—Instrument & Meter

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
 Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
 ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 476.
 AMERICAN ALUMINUM CO., Sheffield St.-C, Mountain-side, N. J. ADV. PG. 226.
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
 ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
 BENNETT MFG. CO., Alden, N. Y. ADV. PG. 635.
 Bridgeport Metal Goods Mfg. Co., The, 360 Cherry St., Bridgeport 5, Conn.
 Bristol Co., The, Waterbury 20, Conn.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.
 CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Daniels, Inc., C. R., Daniels, Md.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Davies Molding Co., Harry, 1428 N. Wells St., Chicago 10, Ill.
 Ellis & Sons, Inc., George D., 4002 N. American St., Philadelphia 40, Pa.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
 Falstrom Co., 44 Falstrom Court, Passaic, N. J.
 FORMICA METAL PRODUCTS CO., Corporation Way, Medford 55, Mass. ADV. PG. 606.
 GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.
 General Electric Co., Plastics Dept., Pittsfield, Mass.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
 Guided Missiles Div. of Fairchild Engine & Airplane Corp., Wyandanch, N. Y.
 HELDOR MFG. CORP., 238 Lewis St., Paterson, N. J. ADV. PG. 482.
 HUDSON TOOL & DIE CO., 118 S. 14th St., Newark, N. J. ADV. PG. 419.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Karp Metal Products Co., Div. of H & B Machine Co., 215 63rd St., Brooklyn 20, N. Y.
 Keller Products, Inc., 41 Union St., Manchester, N. H.
 Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J.
 KOCH & SONS, H., Corte Madera, Calif. ADV. PG. 581.
 Majestic Aircraft Co., Moosup, Conn.
 Metalcraft, Inc., 65-33 Austin St., Rego Park 74, N. Y.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 National Vulcanized Fibre Co., Wilmington, Del.
 Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.
 Pneumafil Corp., Charlotte, N. C.
 REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y.
 Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
 RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
 SKYDYNE, INC., River Rd., Port Jervis, N. Y. ADV. PG. 547.
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
 Teiner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Thomas Associates, 4613 Alger St., Los Angeles 39, Calif.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Triad Portable Case Corp., 310-314 W. Lincoln Ave., Mt. Vernon, N. Y.
 Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
 Wells Co., Gary, 149 Broadway, New York 6, N. Y.
 Winder Aircraft Corp., P.O. Box 2397, Lakeland, Fla.
 ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 688.

CASES—Portable

(for Radios, Phonographs, Amplifiers, etc.)
 Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
 ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 476.
 BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
 Berlant Concertone-Audio Div. of American Electronics Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.

Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.
 CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 Electron Enterprises, 6917-19-21 Stanley Ave., Berwyn, Ill.
 General Electric Co., Plastics Dept., Pittsfield, Mass.
 Guided Missiles Div. of Fairchild Engine & Airplane Corp., Wyandanch, N. Y.
 Hawley Products Co., St. Charles, Ill.
 Karp Metal Products Co., Div. of H & B Machine Co., 215 63rd St., Brooklyn 20, N. Y.
 Mohawk Business Machines Corp., 944 Halsey St., Brooklyn 33, N. Y.
 Molded Fiberglass Co., Ashtabula, Ohio.
 REF Mfg. Corp., Jericho Turnpike, Mineola, N. Y.
 RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
 River Edge Sales Corp., 80 Shore Rd., Port Washington, N. Y.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
 Triad Portable Case Corp., 310-314 W. Lincoln Ave., Mount Vernon, N. Y.
 ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 688.

CASES—Transit

Cargo Packers, 37-20 14th Ave., Brooklyn, N. Y.
 Halliburton, Inc., 4724 S. Boyle, Vernon, Calif.
 KOCH & SONS, H., Corte Madera, Calif. ADV. PG. 581.
 Kollman Show Case Corp., Fort Wayne 1, Ind.
 Majestic Aircraft Co., Moosup, Conn.
 SKYDYNE, INC., River Rd., Port Jervis, N. Y. ADV. PG. 547.

CASTINGS—Precision

Alloy Precision Casting Co., E. 45th & Hamilton Ave., Cleveland 14, Ohio.
 Austenal Laboratories, Inc., Microcast Div., 224 E. 39th St., New York 16, N. Y.
 Bean & Co., Morris, Hyde Road, Yellow Springs, Ohio.
 ECLIPSE-PIONEER DIV. OF BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Engineered Precision Casting Co., Matawan Rd., Morganville, N. J.
 Gorham Mfg. Co., 333 Adelaide Ave., Providence, R. I.
 Hitchiner Manufacturing Co., Inc., P.O. Box 232, Milford, N. H.
 Precision Cast Parts Co., 5001 S. E. Johnson Creek Blvd., Portland 6, Ore.
 Precision Metalmiths, Inc., 1081 E. 200th St., Cleveland 17, Ohio.
 SIMS CASTING CO., 2174 E. Erie Blvd., Syracuse 3, N. Y. ADV. PG. 517.

CAVITIES—Microwave

See MICROWAVE ACCESSORIES

CELLS—Photoelectric

BRADLEY LABS, INC., 170 G Columbus Ave., New Haven 11, Conn. ADV. PG. 210.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Clairex Corp., 50 W. 26th St., New York 10, N. Y.
 Clevite Transistor Products, A Div. of Clevite Corp., 241-257 Crescent St., Waltham 54, Mass.
 Continental Electric Co., Geneva, Ill.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 EASTMAN KODAK CO., 343 State St., Rochester 4, N. Y. ADV. PG. 659.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. ADV. PG. 236.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.
 Photo Crystals Inc., 15 S. First St., Geneva, Ill.
 RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa.
 TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
 WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

CELLS—Photovoltaic

Clevite Transistor Products, A Div. of Clevite Corp., 241-257 Crescent St., Waltham 54, Mass.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. ADV. PG. 236.
 NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.

Photo Crystals Inc., 15 S. First St., Geneva, Ill.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave.,
 Dallas 9, Texas. ADV. PG. 403.

CELLS—Standard

DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATORY CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
ELECTRONICS MEASUREMENTS CO., Lewis St. & Maple Ave., Easton, N. J. ADV. PG. 562.
 Eppley Lab., Inc., The, Newport, R. I.
 Hastings Instrument Co., Inc., Hampton 9, Va.
 Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

CEMENTS—Radio

Ambrold Co., Weymouth 88, Mass.
 Barrett Varnish Co., 1532 S. 50th Court, Chicago 50, Ill.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 Emerson & Cuming, Inc., 864 Washington St., Canton, Mass.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Maas & Waldstein Co., 2121 McCarter Highway, Newark 4, N. J.
 Micro-Circuits Co., New Buffalo, Mich.
 Moyn Co., C. P., 8157 Monticello Ave., Skokie, Ill.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Paisley Products, Inc., 630 W. 51st St., New York 19, N. Y.
 Walco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

CERAMICS

See INSULATION MATERIALS

CHAINS—Small Drive

BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 954.

CHAMBERS—Altitude

CHAMBERS—Fungus Test

See TEST EQUIPMENT—Environmental

CHAMBERS—Ionization

ANTON ELECTRONIC LABS, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
 Applied Physics Corp., 362 W. Colorado St., Pasadena 1, Calif.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. ML Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
 Daystrom Instrument, Archibald, Pa.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
EBERLINE INSTRUMENT DIVISION, P. O. Box 279, Santa Fe, N. M. ADV. PG. 654.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Jordan Electronics, Inc., 3025 Mission Rd., Alhambra, Calif.
 Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif.
 Manufacturers Engineering & Equipment Corp., York & Sunset Lane, Hatboro, Pa.
 NRJ Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Nuclear Instrument & Chemical Corp., 223 W. Erie St., Chicago 10, Ill.
 Nuclear Measurements Corp., 2460 N. Arlington Ave., Indianapolis 5, Ind.
 Pick Laboratories, P. O. Box 1849, Grand Junction, Colo.
 Radiation Counter Laboratories, Inc., 5122 W. Grov St., Skokie, Ill.
 Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.
 Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.
 Southwest Products, Inc., Alamo Downs, Box 85-D, Rt. 4, San Antonio, Texas.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England
 Universal Atomic Corp., 19 E. 48th St., New York 17, N. Y.
VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.

CHAMBERS—Pressure

CHAMBERS—Rain and Sunshine

CHAMBERS—Sand and Dust

See TEST EQUIPMENT—Environmental

CHAMBERS—Shielded Screen

Ace Engineering & Machine Co., Inc., 3644 N. Lawrence St., Philadelphia 40, Pa.
 Lindgren & Associates, Erik A., 4515 N. Ravenwood Ave., Chicago 40, Ill.
SHIELDING, INC., Dept. LB, Riverside, N. J. ADV. PG. 263.

CHAMBERS—Temperature & Humidity

Air Control Installations Ltd., Rutlip, Middlesex, England.
 Aireco, Inc., 2318-10 Second Ave., Carmen, Schenectady, N. Y.
 American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
AMERICAN RESEARCH CORP., 11 Brook St., Bristol, Conn. ADV. PG. 669.
 Atmosphere Control Co., Inc., 5315 Chester Ave., Philadelphia 43, Pa.
 Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
 Bowser Technical Refrigeration Div. of Bowser, Inc., Eagle St., Terryville, Conn.
CONRAD, INC., 141 Jefferson St., Holland, Mich. ADV. PG. 58.
 Despatch Oven Co., Minneapolis, Minn.
DEVELOPMENT ENGINEERING CO., 9 Cross St., Norwalk, Conn. ADV. PG. 524.
 Environmental Equipment Co., 371 Linden St., Brooklyn 27, N. Y.
 Hudson Bay Co., Div. of Labline Inc., 3070 W. Grand Ave., Chicago 22, Ill.
 International Radiant Corp., 4 Manhasset Ave., Port Washington, N. Y.
 Leonard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
MURPHY & MILLER, INC., 1322 S. Michigan Ave., Chicago 5, Ill. ADV. PG. 649.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
 Precision Scientific Co., 3737 W. Cortland St., Chicago 47, Ill.
STANDARD CABINET CO., 57 Washington Ave., Carlstadt, N. J. ADV. PG. 518.
STEINER-IVES CO., Springfield Rd., Union, N. J. ADV. PG. 514.
TENNEY ENGINEERING INC., 1090 Springfield Rd., Union, N. J. ADV. PG. 434.
WEBBER MFG. CO., INC., 2745 Madison Ave., Indianapolis 3, Ind. ADV. PG. 604.

CHAMBERS—Test

Air Control Installations Ltd., Rutlip, Middlesex, England
 Aireco, Inc., 2318-10 Second Ave., Carmen, Schenectady, N. Y.
 American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
AMERICAN RESEARCH CORP., 11 Brook St., Bristol, Conn. ADV. PG. 669.
 Atmosphere Control Co., Inc., 5315 Chester Ave., Philadelphia 43, Pa.
 Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
 Bowser Technical Refrigeration Div. of Bowser, Inc., Eagle St., Terryville, Conn.
BRISTOL ENGINEERING CORP., Beaver Dam Rd. & Oak Lane, Bristol, Pa. ADV. PG. 300.
CONRAD, INC., 141 Jefferson St., Holland, Mich. ADV. PG. 58.
DEVELOPMENT ENGINEERING CO., 9 Cross St., Norwalk, Conn. ADV. PG. 524.
 Environmental Equipment Co., 371 Linden St., Brooklyn 27, N. Y.
 Hudson Bay Co., Div. of Labline Inc., 3070 W. Grand Ave., Chicago 22, Ill.
 Infra Electronic Corp., Roseland, N. J.
 International Radiant Corp., 4 Manhasset Ave., Port Washington, N. Y.
 Leonard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
MURPHY & MILLER, INC., 1322 S. Michigan Ave., Chicago 5, Ill. ADV. PG. 649.
PHYSICS RESEARCH LABS, INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
SHIELDING, INC., Dept. LB, Riverside, N. J. ADV. PG. 263.
STANDARD CABINET CO., 57 Washington Ave., Carlstadt, N. J. ADV. PG. 518.
STANDARD TOOL & MFG. CO., Arlington, N. J. ADV. PG. 632.
TENNEY ENGINEERING INC., 1090 Springfield Rd., Union, N. J. ADV. PG. 434.
 United Electrodynamics Div. of United Geophysical Corp., 1200 S. Maryland, Pasadena, Calif.
WEBBER MFG. CO., INC., 2745 Madison Ave., Indianapolis 3, Ind. ADV. PG. 604.

CHANGERS—Automatic Record

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
 Coltaro Ltd. (Rockbar Corp.), 215 E. 37th St., New York 16, N. Y.
 Garrard Sales Corp., 80 Shore Rd., Port Washington, N. Y.
 International Electronics Corp. (Mullard Equipment), 61 Spring St., New York 12, N. Y.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.

CHARGERS—Battery

See BATTERY CHARGERS

CHASSIS SLIDES

See SLIDES—Chassis

CHASSIS—Metal

A A Metal Products, Inc., 154 Elliot St., Box 716, Brattleboro, Vt.
ABALON PRECISION MFG. CORP., 840 Casanova St., Bronx 59, N. Y. ADV. PG. 590.

Aerostat Corp., 740 Belleville Ave., New Bedford, Mass.
ALDER PRODUCTS CO., 112 N. Main St., Brandon, Mass. ADV. PG. 361.
ALGO, INC., 291 West St., South Hackensack, N. J. ADV. PG. 476.
 America, Inc., 2040 Colorado Ave., Santa Monica, Calif.
AMERICAN ALUMINUM CO., Sheffield St., C. Mount Pleasant, N. J. ADV. PG. 226.
 Art-Lloyd Metal Products Corp., 2973 Cressy Ave., Brooklyn 14, N. Y.
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 364.
BENNETT MFG. CO., Alcoa, N. Y. ADV. PG. 635.
 Bingham Mfg. Co., J. F., 69 Bay State Rd., Lawrence, Mass.
 Boyle Metalcraft Corp., 150 Sullivan St., Brooklyn 31, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 59th St., Cleveland 3, Ohio.
CHURCHILL LIGHTING CORP., 344 Franklin St., Woburn 78, Mass. ADV. PG. 932.
 Columbia Metal Box Co., 240 E. 149th St., New York, N. Y.
 Conrad & Hubner, 2 Borden Ave., Long Island City 1, N. Y.
 Cosser (Canada) Ltd., 301-303 Waverley St., Halifax, N. S. Canada.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 283.
 Dahlstrom Metallic Box Co., Jamestown, N. Y.
 Daystrom Instrument, Archibald, Pa.
 Decca Radio Div., General Motors Corp., Kalamazoo, Ind.
 Ellis & Sons, Inc., George F., 4002 N. American St., Philadelphia 69, Pa.
 Eagan Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 26, Mass.
Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
 Fahlstrom Co., 84 Falstrom Court, Franklin, N. J.
FISHER & CREEDIE, 109 N. Canal St., Philadelphia 7, Pa. ADV. PG. 691.
FORMICA METAL PRODUCTS CO., Corporation Way, Westford 95, Mass. ADV. PG. 409.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 176 Bryner St., Mont-Ridge, N. J. ADV. PG. 622.
 General Metal Products Co., 1010-14 Centre St., Canton, Pa.
 Hammer Electronics Co., Inc., Box 521, Princeton, N. J.
 Henry and Miller Industries, Inc., 675 Garden Ave., Jersey City 9, N. J.
 Ingham Engineering Corp., Anoka, Minn.
 Ingham Engineering Co., 2982 Lincoln Ave., Annapolis, Calif.
 Insuline Corp. of America, 188 Granite St., Manchester, N. H.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Karp Metal Products Co., Div. of H & B Machine Co., 215 43rd St., Brooklyn 28, N. Y.
 Magna Electronics Co., 9210 Arroyo Ave., Inglewood, Calif.
 Magnesium Mfg. Co., Ltd., 5546 Salsburg Ave., P. O. Box 707, North Hollywood, Calif.
 Measurement Engineering, Ltd., Amptree, Ontario, Canada.
 Metallcraft, Inc., 65-33 Austin St., Rego Park 74, N. Y.
 Minde Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Mopet Electronics Mfg. Co., 1113 Sibley Rd. 67 E., Anderson, Ind.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Northern Metal Products Co., 9597 W. Grand Ave., Franklin Park, Ill.
 Olympic Metal Products Co., Inc., Third Ave., Alhambra, N. J.
 Par-Metal Products Corp., 32-42 49th St., Long Island City 3, N. Y.
 Paul & Weinbold, Inc., 1801 Cortland St., Philadelphia 48, Pa.
 Precision Corp., Charlotte, N. C.
PREMIER METAL PRODUCTS CO., 337 Upton St., Bronx 59, N. Y. ADV. PG. 687.
R & R Tool & Die Corp., 12995 Sherman Way, North Hollywood, Calif.
 Radio Products Co., 2911 W. Carroll Ave., Chicago 12, Ill.
 REF Mfg. Corp., Arthur Terrace, Mass. N. Y.
 Reiner Electronics Co., Inc., Centre & Glenview Sts., Easton, Pa.
 Republic Inc., Paul R., 641 E. 61st St., Los Angeles 1, Calif.
 Rexner & Theomacher Co., 3319 W. 25th St., Cleveland 13, Ohio.
SUFFOLK PRODUCTS CORP., Wrentham & Scudder, Northport, N. Y. ADV. PG. 676.
 Sorenson Electronics, Inc., 7 Industrial Plaza, Summit, N. J.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Trium Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
 U M & P Mfg. Corp., 10929 Vanpool St., North Hollywood, Calif.
 Uni-Products Div. of Uni-Science, Inc., P. O. Box 460, Frederick, Md.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brighton 16, N. Y.
 Watson Mfg. Co., Inc., 4760 Taylor St., Jamestown, N. Y.
 Worcester Process Aluminum Corp., 13-15 High Ave., Worcester, Mass.
 Wyko Metal Products, 6918 Beck Ave., North Hollywood, Calif.

CHECKERS

See Also ANALYZERS

CHECKERS—Cable

Color Television, Inc., 973 E. San Carlos Ave., San Carlos, Calif.
 Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
 GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Link Aviation Inc., Binghamton, N. Y.
 OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Radar Engineers, 403 E. 45th St., Seattle 5, Wash.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Transiron, Inc., 186 Granite St., Manchester, N. H.
 Wallison Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.

CHECKERS—Cathode Ray Tube

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
 HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor, 14, Mich. ADV. PG. 588.
 HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Research Electronics Laboratories, Roslyn, Pa.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 Vidair Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.

CHECKERS—Crystal Rectifier

AIRBORNE INSTRUMENTS LAB, INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.

CHECKERS—Klystron Tube

POLARAD ELECTRONIC CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.

CHEMICALS—Electronic

Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV. OF ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. ADV. PG. 245.
 Barco Chemical Products Co., 701-703 S. La Salle, Chicago 5, Ill.
 Barium & Chemicals, Inc., Willoughby, Ohio.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Caig Cosmopolitan, 200 W. 34th St., New York 1, N. Y.
 Carborundum Metals Co., Inc., The, P. O. Box 32, Akron, N. Y.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Waisco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
 Workman TV, Inc., 309 Queen Anne Road, Teaneck, N. J.

CHEMICALS—Electroplating

Allied Research & Engineering Div., Allied Record Mfg. Co., 6916 Santa Monica Blvd., Hollywood 38, Calif.

BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV. OF ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. ADV. PG. 245.
 Barco-Chemical Products Co., 701-703 S. La Salle, Chicago 5, Ill.

du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Enthone, Inc., 442 Elm St., New Haven 2, Conn.
 Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
 Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
 Special Chemicals Corp., 100 S. Water St., Ossining, N. Y.
 TECHNIG, INC., P. O. Box 965, Providence 1, R. I. ADV. PG. 572.

CHEMICALS—Luminescent

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Mallinckrodt Chemical Works, Second and Mallinckrodt Sts., St. Louis 7, Mo.
 SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 U. S. RADIIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

CHEMICALS—Tube

BAKER & ADAMSON PRODUCTS, GENERAL CHEMICAL DIV. OF ALLIED CHEMICAL & DYE CORP., 40 Rector St., New York, N. Y. ADV. PG. 245.
 Barium & Chemicals, Inc., Willoughby, Ohio.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Carborundum Metals Co., Inc., The, P. O. Box 32, Akron, N. Y.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Mallinckrodt Chemical Works, Second and Mallinckrodt Sts., St. Louis 7, Mo.
 Philadelphia Quartz Co., 1146 Public Ledger Bldg., Philadelphia 6, Pa.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington 4, Pa.

CHOKES—Audio

See COILS—a-f Choke

CHOKES—Filter

CHOKES—Power

See COILS—Filter Choke

CHOKES—r-f (heavy wire low voltage)

See COILS—r-f choke, heavy wire low voltage

CHOKES—r-f & if

See COILS—r-f Choke

CHOPPERS—DC-AC

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146.
 Avion Instrument Corp., A Sub. of A. C. F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bristol Co., The, Waterbury 20, Conn.
 Brunswick Instruments, P. O. Box 813, New Brunswick, N. J.
 Collins Electronics Mfg. Corp., Stevensville, Md.
 DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
 DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
 ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.
 GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
 INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 James Vibrapowr Co., 4050 N. Rockwell St., Chicago 18, Ill.
 Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Oak Mfg. Co., 1260 Clybourn Ave., Chicago 10, Ill.
 PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Rumple, Inc., 2308 Beloit Ave., West Los Angeles 64, Calif.
 STEVENS-ARNOLD INC., 22 Elkins St., South Boston 27, Mass. ADV. PG. 644.
 VIBRATION RESEARCH LABS, INC., 97 Lake Ave., Tuckahoe, N. Y. ADV. PG. 569.

CHRONAXIMETERS

Electro-Medical Lab., Inc., South Woodstock 8, Vt.

CHRONOGRAPHS—Inertialless

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
 ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.

CHRONOSCOPES

American Chronoscope Corp., 316 W. First St., Mount Vernon, N. Y.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
 Gotham Television Corp., 123 W. 64th St., New York 23, N. Y.
 STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.

CIRCUITS—Computer, Packaged

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 361.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
 BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
 Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia 23, Pa.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
 CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
 Eaton Associates, Inc., Moodus, Conn.
 Electronic Products Corp., 322 State St., Santa Barbara, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fortiphone Ltd., 247 Regent St., London W. 1, England.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.
 Philco Corp., Government & Industrial Div., 4700 Wisconsin Ave., Philadelphia 44, Pa.
 Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
 Reflectone Corp., Post Rd. & Myano Lane, Stamford, Conn.
 REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
 WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
 WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 675.

CIRCUITS—Plug-In

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
 ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
 Audio Products Corp., 2265 Westwood Blvd., Los Angeles 64, Calif.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.

Avion Instrument Corp., A Sub. of A. C. F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
 Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia 23, Pa.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Digital Products, Inc., 7643 Fay Ave., La Jolla, Calif.
EEO Production Co., 506 E. 1st St., Santa Ana, Calif.
 Eaton Associates, Inc., Moodus, Conn.
ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.
 Electronic Products Corp., 322 State St., Santa Barbara, Calif.
ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. ADV. PG. 571.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.
FEDERAL TELEPHONE & RADIO CO., A Div. of IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fortiphone Ltd., 247 Regent St., London W.1, England.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
 Gudeman Co. of California Inc., 9200 Exposition Blvd., Los Angeles 34, Calif.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Insulated Circuits, Inc., 115 Roosevelt Ave., Belleville, N. J.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Magnovox Co., Fort Wayne 4, Ind.
METHODE MFG. CORP., 2021 W. Churchill St., Chicago 27, Ill. ADV. PG. 666.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 North Electric Co., 553 S. Market St., Galion, Ohio.
 Nucleonic Company of America, 196 De Graw St., Brooklyn 31, N. Y.
ONONDAGA POTTERY WORKS, Electronics Div., 1858 W. Lafayette St., Syracuse, N. Y. ADV. PG. 508.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 524.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
 PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
 Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
 Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
 Printed Circuit Div., LaPointe Electronics Inc., Rockville, Conn.
RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.
 Radiation, Inc., Melbourne, Fla.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 675.

CIRCUITS—Potted
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
 Audio Products Corp., 2265 Westwood Blvd., Los Angeles 64, Calif.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Beck's, Inc., 298-300 E. Fifth St., Saint Paul 1, Minn.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 64, Calif.
 Cedar Engineering Inc., 5906 W. 36th St., Minneapolis 16, Minn.

CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
 Digital Products, Inc., 7643 Fay Ave., La Jolla, Calif.
 Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.
ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.
 Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. ADV. PG. 571.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 Fortiphone Ltd., 247 Regent St., London, W. 1, England.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 Gudeman Co. of California Inc., 9200 Exposition Blvd., Los Angeles 34, Calif.
 Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
 Houghton Laboratories, Inc., 322 Bush St., Olean, N. Y.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Industrial Development & Mfg. Corp., P. O. Box 48, Needham, Mass.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 524.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
 PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44.
RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.
 Sanders Associates, Inc., Nashua, N. H.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.

CIRCUITS—Printed, Stamped or Etched
 ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.
 American Printed Circuits Co., Forrest St., Metuchen, N. J.
 Anslay Mfg. Corp., Arthur, New Hope, Pa.
ATLAS E-E CORP., Bedford Airport, Terminal Bldg., Bedford, Mass. ADV. PG. 571.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Automatic Processing Corp., 121 S. Cowan St., Garrett, Ind.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Beck's, Inc., 298-300 E. Fifth St., Saint Paul 1, Minn.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solano Beach, Calif.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
 California Bent Glass Corp., Torrance, Calif.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
CENTRALAB DIV. OF GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.

Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
 Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
 Digital Products, Inc., 7643 Fay Ave., La Jolla, Calif.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
 Dunlap Electronics, 764 9th St., Des Moines, Iowa.
 Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.
 Eaton Associates, Inc., Moodus, Conn.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
EEO Production Co., 506 E. 1st St., Santa Ana, Calif.
 Electralab, Inc., Sub. of Farrington Mfg. Co., Needham Heights 94, Mass.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 675.
 Electrochemical Industries, Inc., 35 Armory St., Worcester, Mass.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Electronic Engineering Co. of California, 180 S. Alvarado St., Los Angeles 57, Calif.
ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 604.
 Electronic Products Corp., 322 State St., Santa Barbara, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 665.
ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.
 Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
GENERAL ELECTRIC CO., ELECTRONIC COMPONENTS DEPT., W. Genesee St., Auburn, N. Y. ADV. PG. 19.
 Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
 Graphire Corp., 190 W. 237th St., New York 63, N. Y.
 Graphic Circuits Div. of Cinch Mfg. Corp., 221 S. Arroya Parkway, Pasadena, Calif.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
 Hansen Electronics Co., 7117 1/2 Santa Monica Blvd., Los Angeles, Calif.
 Hopp Press, Inc., 460 W. 34th St., New York, N. Y.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Insulated Circuits, Inc., 115 Roosevelt Ave., Belleville, N. J.
 International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard St., Oak Park, Ill. ADV. PG. 610.
LIBRASCOP, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.
 Litton Industries, Components Div., Beverly Hills, Calif.
 Magnavox Co., Fort Wayne 4, Ind.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.
 Maryland Electronic Mfg. Corp., College Park, Md.
METHODE MFG. CORP., 2021 W. Churchill St., Chicago 47, Ill. ADV. PG. 666.
 Micro-Circuits Co., New Buffalo, Mich.
 Molded Fiberglass Sheet Co., Ashtabula, Ohio.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 465.
ONONDAGA POTTERY WORKS, Electronics Div., 1858 W. Lafayette St., Syracuse, N. Y. ADV. PG. 508.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
 Pantek Co., Box 212, El Segundo, Calif.
PARK NAMEPLATE CO., INC., 61-01 32nd Ave., Woodside 77, N. Y. ADV. PG. 629.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
PHOTOCIRCUITS CORP., Glen Cove, N. Y. ADV. PG. 442.
 Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 586.
 Printed Circuit Div., LaPointe Electronics Inc., Rockville, Conn.
 Printed Electronics Corp., 7 North Ave., Natick, Mass.
RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
 Rowe Engravers, 492 E. 39th St., Paterson 4, N. J.
 Sanders Associates, Inc., Nashua, N. H.
 Sheffco Mfg. Corp., Grand & Ruby Aves., Palisades Park, N. J.

Sibley Co., The, Haddam, Conn.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 Sprague Electric Co. of Wisconsin, Inc., Sixth & Beech St., Grafton, Wis.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
STUPAKOFF, DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Techniques, Inc., 178-184 Central Ave., Hackensack, N. J.
 Technograph Printed Electronics, Inc., 185 Valley St., Tarrytown, N. Y.
 Techron Corp., 254-256 Friend St., Boston 14, Mass.
 Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thermyte Inc., 414 Armory St., Boston 30, Mass.
 Tingstol Co., 1461 W. Grand Ave., Chicago 22, Ill.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.
 Zephyr Products Co., 129 E. 124th St., New York 35, N. Y.

CLAMPS for TUBES

AUGAT BROS., INC., 33 Perry Ave., Attleboro, Mass. ADV. PG. 645.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
BIRTCHEER CORP., 4371 Valley Blvd., Los Angeles 32, Calif. ADV. PG. 552.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
COMMERCIAL PLASTICS CO., 2814 W. North Ave., Chicago 47, Ill. ADV. PG. 530.
 Exacto Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 Ippolito & Co., Inc., James, 401 Concord Ave., Bronx 54, N. Y.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.
METAL TEXTILE CORP., 647 E. First Ave., Roselle, N. J. ADV. PG. 443.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Paul & Beekman, Inc., 1801 Cortland St., Philadelphia 40, Pa.
 Peerless Machine Co., 5338 Alhambra Ave., Los Angeles, Calif.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
 Sinclair Mfg. Co., Chartley, Mass.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 392.
 Tinnerman Products, Inc., P. O. Box 6688, Dept. No. 16, Cleveland 1, Ohio.

CLEANERS—Ultrasonic

Acoustia Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 655.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Mack Electronics Division, Inc., Plainfield, N. J.
 Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
 McKenna Laboratories, Santa Monica 6, Calif.
 Phillips Mfg. Co., 3406 W. Touhy Ave., Chicago 45, Ill.
 Piezo Products Co., Whitney St., Sherborn, Mass.
 Pioneer-Central Division, Bendix Aviation Corp., Davenport, Iowa.
SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 372, 373.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Vibro Ceramics Corp., Metuchen, N. J.

CLIPS—Fuse

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ATLAS E-E CORP., Bedford Airport, Terminal Bldg., Bedford, Mass. ADV. PG. 571.

BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 Bel-Fuse, Inc., 311 Mountain Rd., Union City, N. J.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
BUSSMANN MFG. CO., St. Louis 7, Mo. ADV. PG. 167.
 Dante Electric Mfg. Co., Bantam, Conn.
 Exacto Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Koltan Electric Mfg. Co., 123 New Jersey Railroad Ave., Newark 5, N. J.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.
LITTELFUSE, INC., Des Plaines, Ill. ADV. PG. 201.
NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonkers, N. Y. ADV. PG. 681.
 R & R Tool & Die Corp., 12955 Sherman Way, North Hollywood, Calif.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Reliable Spring & Wire Forms Co., Fulton Rd. & Paris Ave., Cleveland 9, Ohio.
 Rohden Manufacturing Co., Inc., 4739 Montrose Ave., Chicago 41, Ill.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Trico Fuse Mfg. Co., 2948 N. Fifth, Milwaukee 12, Wis.
 Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.
 Zierick Mfg. Corp., Beechwood & Rockdale Aves., New Rochelle, N. Y.

CLIPS—Grid

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 361.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
 Exacto Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.
 Hobson Bros., 4940 W. Lawrence Ave., Chicago 30, Ill.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mt. Vernon, N. Y. ADV. PG. 531.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Radio Essentials Inc., 152 S. MacQuestion Parkway, Mt. Vernon, N. Y.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
 Warren Plastics Corp., Warren, Pa.
 Zierick Mfg. Corp., Beechwood & Rockdale Aves., New Rochelle, N. Y.

CLIPS—Test

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Exacto Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.
 Frankel Connector Co., 27 Vestry St., New York, N. Y.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GRAYHILL, 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 224.
HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 82.
INDUSTRIAL DEVICES, INC., 982 River Rd., Edgewater, N. J. ADV. PG. 546.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Keystone Electronic Corp., 423 Broome St., New York 12, N. Y.
 Mueller Electric Co., 1582H E. 31st St., Cleveland 14, Ohio.
 Radio Essentials Inc., 152 S. MacQuestion Parkway, Mt. Vernon, N. Y.
RAPID SPECIALTIES CO., 327 W. Huron St., Chicago 10, Ill. ADV. PG. 663.
SEALÉTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 467.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Trico Fuse Mfg. Co., 2948 N. Fifth, Milwaukee 12, Wis.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.

CLOTHS—Speaker Grille

Flock Process Co., Inc., 373 Main Ave., Norwalk, Conn.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.

GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

CLOTHS—Woven Wire

Cellusuede Products, Inc., 540 N. Madison St., Rockford, Ill.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.

CLUTCHES—Magnetic

AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
 American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Belock Instrument Corp., 111-01 14th Ave., College Point 56, N. Y.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.

Dial Products Co., 9 Avenue E., Bayonne, N. J.
 Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.
 Electronic Mechanisms, Inc., P. O. Box 1156, Greenwich, Conn.

HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.

Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
 Lear, Inc., Grand Rapids Div., 110 Iona Ave., N. W., Grand Rapids 2, Mich.

Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.

Raymond Engineering Laboratory, Inc., Smith St., Middletown, Conn.
REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.

STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing 54, N. Y. ADV. PG. 199.
 Thompson Co., A. J., The Route # 1, Box 812, Florissant, Mo.

COATINGS—Conductive**See Also GRAPHITE—Colloidal**

Acheson Colloids Co., 1950 Washington Ave., Port Huron, Mich.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 Borden Co., Chemical Div., 350 Madison Ave., New York 17, N. Y.
 California Bent Glass Corp., Torrance, Calif.
 Chemical Products Corp., King Philip Rd., East Providence, R. I.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.

Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
 Hansen Electronics Co., 7117½ Santa Monica Blvd., Los Angeles 46, Calif.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Metaplast Co., Inc., 34-51 56th St., Woodside, N. Y.
METAVAC, INC., 45-68 162nd St., Flushing 58, N. Y. ADV. PG. 510.

METZ REFINING CO., 369 Mulberry St., Newark 2, N. J. ADV. PG. 543.
 Micro-Circuits Co., New Buffalo, Mich.

Mitronics, Inc., 232 Thirteenth Ave., Newark, N. J.
PHOTO CHEMICAL PRODUCTS, INC., 479 Walton Ave., New York 51, N. Y. ADV. PG. 530.
 Sauerisen Cements Co., Sauerisen Bldg., Pittsburgh 15, Pa.

Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Vorac Co., The, 147 Meadow Rd., Rutherford, N. J.
 Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.

COATINGS—CONDUCTIVE—Tube Interior

Acheson Colloids Co., 1950 Washington Ave., Port Huron, Mich.

California Bent Glass Corp., Torrance, Calif.
 duPont de Nemours & Co., Inc., E. I., Wilmington 98, Del.

Micro-Circuits Co., New Buffalo, Mich.
 Mitronics, Inc., 232 Thirteenth Ave., Newark, N. J.
 Philadelphia Quartz Co., 1146 Public Ledger Bldg., Philadelphia 6, Pa.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

COATINGS—Protective

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.

Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
 Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Barrett Varnish Co., 1532 S. 50th Court, Cicero 50, Ill.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
BODNAR INDUSTRIES, INC., 19 Railroad Ave., New Rochelle, N. Y. ADV. PG. 691.
 Borden Co., Chemical Div., 350 Madison Ave., New York 17, N. Y.
BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 681.
 Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif.
 Cellusuede Products, Inc., 540 N. Madison St., Rockford, Ill.
 Chemical Products Corp., King Philip Rd., East Providence, R. I.
 Crown Industrial Products Co., 713 Amsterdam Ave., Woodstock, Ill.
 Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.
 Dow Chemical Co., Midland, Mich.
 Dow Corning Corp., Midland, Mich.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. ADV. PG. 571.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Enthone, Inc., 442 Elm St., New Haven 2, Conn.
 Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.
 Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
 Flexrock Co., 3608 Filbert St., Philadelphia 1, Pa.
 George Co., P. D., 5200 N. Second St., St. Louis, Mo.
 Javex, P. O. Box 646, Redlands, Calif.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
 London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Marlette Corp., 37-21 30th St., Long Island City 1, N. Y.
 Markal Co., 3052 W. Carroll Ave., Chicago 12, Ill.
 Metal & Thermit Corp., Rahway, N. J.
 Micro-Circuits Co., New Buffalo, Mich.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Paisley Products, Inc., 630 W. 51st St., New York 19, N. Y.
 Philadelphia Quartz Co., 1146 Public Ledger Bldg., Philadelphia 6, Pa.
PHOTO CHEMICAL PRODUCTS, INC., 479 Walton Ave., New York 51, N. Y. ADV. PG. 530.
 Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
 Polyken Products Dept. of Kendall Co., 222 W. Adams St., Chicago 6, Ill.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
 Protective Coatings Corp., 596 River Rd., Clifton, N. J.
 Reilly Tar & Chemical Corp., 1615 Merchants Bank Bldg., 11 S. Meridian St., Indianapolis 4, Ind.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Sibley Co., The, Haddam, Conn.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
 Stevenson Bro. & Co., 110 Race St., Philadelphia 6, Pa.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.
 Terrell Corp., 19 Lane St., Waltham 54, Mass.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Union Bay State Chemical Co., Inc., 491 Main St., Cambridge 42, Mass.
 U. S. Stoneware Co., The, Akron 9, Ohio.
 Vorac Co., The, 147 Meadow Rd., Rutherford, N. J.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Westline Products Div. of Western Lithograph Co., 600 E. Second St., Los Angeles 54, Calif.
 Wright Metalcoaters Inc., 255 West St., South Hackensack, N. J.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
BODNAR INDUSTRIES, INC., 19 Railroad Ave., New Rochelle, N. Y. ADV. PG. 691.
 Borden Co., Chemical Div., 350 Madison Ave., New York 17, N. Y.
 Chemical Products Corp., King Phillip Rd., East Providence, R. I.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. ADV. PG. 571.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Enthone, Inc., 442 Elm St., New Haven 2, Conn.
 Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.
 Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
 Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Marlette Corp., 37-21 30th St., Long Island City 1, N. Y.
 Markal Co., 3052 W. Carroll Ave., Chicago 12, Ill.
 Micro-Circuits Co., New Buffalo, Mich.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Sibley Co., The, Haddam, Conn.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Vorac Co., The, 147 Meadow Rd., Rutherford, N. J.
 Westline Products Div. of Western Lithograph Co., 600 E. Second St., Los Angeles 54, Calif.
 Wright Metalcoaters Inc., 255 West St., South Hackensack, N. J.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

CODE & TAB MARKERS

Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
 Apex Machine Co., 14-13 118th St., College Point 56, N. Y.
 Brady Co., W. H., 727 W. Glendale Ave., Milwaukee 12, Wis.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
 Canadian Radium & Uranium Corp., 630 Fifth Ave., New York 20, N. Y.
 Labelon Tape Co., 450 Atlantic Ave., Rochester 9, N. Y.
 Printed Cellophane Tape Co., 521 N. La Brea Ave., Los Angeles 36, Calif.
 Tablet & Ticket Co., 1021 W. Adams St., Chicago 7, Ill.
 Westline Products Div. of Western Lithograph Co., 600 E. Second St., Los Angeles 54, Calif.

COIL BOBBINS See BOBBINS

COIL FORMS See FORMS—Coil

COIL WINDING MACHINES See MACHINES—Coil Winding

COILS—a-f Choke

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388.
 Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146.
 Aladdin Radio Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind.
ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. ADV. PG. 696, 697.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Barwood Electronics Inc., 546 W. Garfield Ave., Glendale 4, Calif.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 551.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.

CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663.
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170.
 Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
COLCRAFT, INC., Cary, Ill. ADV. PG. 628.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
 Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill.
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
 De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
 Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill.
 Electro Engineering Works, 401 Preda St., San Leandro, Calif.
ELECTRONIC COILS, INC., P.O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 515.
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 609.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
 Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind.
 Fortiphone Ltd., 247 Regent St., London W. 1, England.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
 General Transformer Corp., 18240 Harwood Ave., Homewood, Ill.
GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank, Calif. ADV. PG. 460.
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
GRAND TRANSFORMERS, INC., Hey St., Grand Haven, Mich. ADV. PG. 617.
 Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif.
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 530.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371.
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y.
 K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
 Keystone Products Co., Inc., 904-6 23rd St., Union City, N. J.
 Laboratory For Electronics, Inc., 75 Pitts St., Boston 14, Mass.
LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439.
 McGregor Electronic Industries, McGregor, Iowa.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNATRAN, INC., P.O. Box 211, Kearny, N. J. ADV. PG. 39.
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa.
 Mectronics, P.O. Box 807, Ridgecrest, Calif.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
 Microtran Co., Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y.
MID-WEST COIL & TRANSFORMER CO., 1642 N. Halstead St., Chicago 14, Ill. ADV. PG. 286.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Mystic Transformers Inc., 63 Swanton St., Winchester, Mass.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 New York Transformer Co., Inc., Third Ave., Alpha, N. J.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
OSBORNE ELECTRIC CO., 712 S. E. Hawthorne Blvd., Portland 14, Ore. ADV. PG. 624.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.

COATINGS—Salt Spray Resistance

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
 Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
 Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Barrett Varnish Co., 1532 S. 50th Court, Cicero 50, Ill.

Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn.
 Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
 S. N. C. Mfg. Co., Inc., Box 277, Oshkosh, Wis.
 Sag Harbor Industries, Inc., Bay St., Sag Harbor, N. Y.
 Sangamo Electric Co., Capacitor Div., Marion, Ill.
SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654.
 Skysweeper Inc., McHenry, Ill.
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 7, N. Y. ADV. PG. 577.
 Super Ear Products Co., 675 Merrick Rd., Lynbrook, N. Y.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Todd Products, 156 Gramatan Ave., Mt. Vernon, N. Y.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.
 Transformer Engineers, 161 E. California, Pasadena 1, Calif.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. ADV. PG. 685.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.
TRESCO, INC., 3824 Terrace St., Philadelphia 28, Pa. ADV. PG. 635.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Westbury 91, Conn. ADV. PG. 531.

COILS—Choke

ACE COIL & ELECTRONICS CO., 912 Lincoln Highway, Metuchen, N. J. ADV. PG. 600.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Aladdin Radio Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.
 Caddell-Burns Mfg. Co., 40 E. Second St., Mineola, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
 Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
 Chem-Etched Circuits, Inc., 121 S. Cowan St., Garrett, Ind.
 Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Condor Radio Mfg. Co., 4068 E. Paseo Grande, Tucson 12, Ariz.
 Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 10, Texas.
 Coto-Coil Co., Inc., 65 Pavilion Ave., Providence 5, R. I.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
 Electromatic, Inc., P. O. Box 107, Woodstock, Ill.
ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 515.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 272, 273.
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 391.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
FUGLE-MILLER LABORATORIES, INC., 398 Main St., Metuchen, N. J. ADV. PG. 634, 635.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.

Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N. Y. ADV. PG. 697.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
 Industron Corp., 50 Brook Rd., Needham Heights, Mass.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186.
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y.
 Johnson Co., E. F., Waseca, Minn.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty-fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
 Lewis Spring & Mfg. Co., 2646 W. North Ave., Chicago 47, Ill.
MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 553.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 National Coil Co., P. O. Box 1237, Sheridan, Wyo.
 North Hills Electric Co., Inc., 203-18 35th Ave., Bay-side 61, N. Y.
 Oaktron Electric Co., Tinley Park, Ill.
PULSE ENGINEERING, 2431 Spring St., Redwood City, Calif. ADV. PG. 621.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 614.
 Standard Winding Corp., 44-62 Johns St., Newburgh, N. Y.
 Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
 Summit Coil Co., 4 Claremont Rd., Bernardville, N. J.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 Tele-Coil Co., Inc., 275 Saunders St., Camden 5, N. J.
 Teleradio Engineering Corp., 99 Wall St., New York 5, N. Y.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 Vokar Corp., 7300 Huron River Drive, Dexter, Mich.
 Warsaw Coil Co., Warsaw, Ind.
 Western Coil Products Co., 2789 Middlefield Rd., Palo Alto, Calif.
 Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.
 Wirt Co., 5221 Greene St., Philadelphia 44, Pa.

COILS—DeflectionSee **YOKES—Deflection****COILS—Filter Choke**

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 A. C. Transformer Corp., 89 Madison St., Newark, N. J.
 A.P.W. Co., 72 W. Main St., Rockaway, N. J.
ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388.
 Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
 Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146.
 Aladdin Radio Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Barwood Electronics Inc., 546 W. Garfield Ave., Glendale 4, Calif.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 551.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.

CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663.
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
 Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
 Crest Transformer Corp., 1834-36 W. North Ave., Chicago 27, Ill.
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
 Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass.
 Double "E" Products Co., 216 Standard St., El Segundo, Calif.
 Electron Mfg. Co., 1901 N. Clybourn, Chicago, Ill.
 Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill.
 Electro Engineering Works, 401 Preda St., San Leandro, Calif.
ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 515.
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 609.
FEDERAL TELEPHONE & RADIO CO., A Div. of IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FERRANTI ELECTRIC INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
 Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
 General Transformer Co., 18240 Harwood Ave., Home-wood, Ill.
GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank, Calif. ADV. PG. 460.
 Grand-Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
GRAND TRANSFORMERS, INC., Hey St., Grand Haven, Mich. ADV. PG. 617.
 Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif.
HIGHLAND ENGINEERING CO., 91 Magnolia St., West-bury, N. Y. ADV. PG. 530.
 Hindle Transformer Co., Inc., Woods Church Rd., Flem-ington, N. J.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y.
 K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn.
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
 Keystone Products Co., 904-6 23rd St., Union City, N. J.
 Laboratory For Electronics, Inc., 75 Pitts St., Boston 14, Mass.
LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439.
MACARR, INC., 2458 Arthur Ave., Bronx 58, N. Y. ADV. PG. 620.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Haw-thorne, Calif.
MAGNATRAN, INC., P. O. Box 211, Kearny, N. J. ADV. PG. 39.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.
 Magnetic Windings Div., Essex Wire Corp., Freemans-burg Ave. at Hobson Blvd., Easton, Pa.
 McGregor Electronic Industries, McGregor, Iowa.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
 Microtran Co., Div. of Crest Labs., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y.
MID-WEST COIL & TRANSFORMER CO., 1642 N. Halsted St., Chicago 14, Ill. ADV. PG. 286.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Mil-waukee 9, Wis.
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 486.
 Moran Electronic Components, Inc., 7660 Woodbury Drive, Silver Spring, Md.
 Muter Company, The, 1255 S. Michigan Ave., Chicago 5, Ill.
 Mystic Transformers Inc., 63 Swanton St., Winchester, Mass.

NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 111-122.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 National Coil Co., P. O. Box 1237, Sheridan, Wyo.
 New York Transformer Co., Inc., Third Ave., Alpha, N. J.
 Nothelfer Winding Labs., Inc., P. O. Box 455, Trenton 3, N. J.
 Oaktron Electric Co., Tinley Park, Ill.
 OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 524.
 ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
 OSBORNE ELECTRIC CO., 712 S. E. Hawthorne Blvd., Portland 14, Ore. ADV. PG. 624.
 Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England.
 PermoRux Corp., 4900 W. Grand Ave., Chicago 3, Ill.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Raypar Inc., 7800 W. Addison St., Chicago Ill.
 RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn.
 Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
 S. N. C. Mfg. Co., Inc., Box 277, Oshkosh, Wis.
 Sag Harbor Industries, Inc., Bay St., Sag Harbor, N. Y.
 Sanford Miller Co., 691 Bedford Ave., Brooklyn 6, N. Y.
 Sangamo Electric Co., Capacitor Div., Marion, Ill.
 SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654.
 Skysweeper Inc., McHenry, Ill.
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
 SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
 STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W.C. 2, England.
 STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 7, N. Y. ADV. PG. 577.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Todd Products, 156 Gramatan Ave., Mt. Vernon, N. Y.
 TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.
 Transformer Engineers, 161 E. California, Pasadena 1, Calif.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. ADV. PG. 685.
 TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.
 TRESKO, INC., 3824 Terrace St., Philadelphia 28, Pa. ADV. PG. 635.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
 U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.
 UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
 WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Westbury 91, Conn. ADV. PG. 531.

COILS—Magnet

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 ALLIED CONTROL CO., INC., 2 East End Ave., New York 21, N. Y. ADV. PG. 92, 93.
 ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
 CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
 Coil Co. of America, Inc., 207 Washington St., Northvale, N. J.
 COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
 COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
 Coto-Coil Co., Inc., 65 Pavilion Ave., Providence 5, R. I.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 DANO ELECTRIC CO., Main St., Winsted, Conn. ADV. PG. 518.
 DeLux Coils, Inc., Wabash, Ind.

Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill.
 Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill.
 ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 515.
 ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 665.
 FIVE STAR CO., 10 W. Main St., Plantsville, Conn. ADV. PG. 204.
 Glaser-Steers Corp., 2 Main St., Belleville 9, N. J.
 GRAND TRANSFORMERS, INC., Hey St., Grand Haven, Mich. ADV. PG. 617.
 GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.
 HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
 Jeffers Electronics Div. of Speer Carbon Co., DuBois, Pa.
 Jobbins Electronic Enterprises, 771 Hamilton Ave., Menlo Park, Calif.
 Keystone Products Co., 904-6 23rd St., Union City, N. J.
 LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439.
 Master Appliance Mfg. Co., Fourth & Ontario Sts., Racine, Wis.
 Oaktron Electric Co., Tinley Park, Ill.
 OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
 POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 586.
 REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 615.
 STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. ADV. PG. 577.
 Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
 Tronic Coil Winding Co., Inc., 161 Fairfield Ave., Waterbury, Conn.
 U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.

COILS—Metalized Glass

ANDERSON ASSOCIATES, H. V., 239 Park Ave., Berkeley Heights, N. J. ADV. PG. 560.
 Bel Fuse, Inc., 311 Mountain Rd., Union City, N. J.
 CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
 Mitronics, Inc., 232 Thirteenth Ave., Newark, N. J.
 SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 571.

COILS—Motor & Generator Field

CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
 Coto-Coil Co., Inc., 65 Pavilion Ave., Providence 5, R. I.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 DeLux Coils, Inc., Wabash, Ind.
 ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 665.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
 HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
 MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.
 National Electric Coil Co., Columbus 16, Ohio.
 POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 586.
 Rotating Components, Inc., 267 Green St., Brooklyn 22, N. Y.
 U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.

COILS—Relay

ALLIED CONTROL CO., INC., 2 East End Ave., New York 21, N. Y. ADV. PG. 92, 93.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
 CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
 Coil Co. of America, Inc., 207 Washington St., Northvale, N. J.
 COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
 COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Coto-Coil Co., Inc., 65 Pavilion Ave., Providence 5, R. I.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 DANO ELECTRIC CO., Main St., Winsted, Conn. ADV. PG. 518.
 DeLux Coils, Inc., Wabash, Ind.
 Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill.
 ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 515.
 ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 665.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 391.

First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
 FIVE STAR CO., 10 W. Main St., Plantsville, Conn. ADV. PG. 204.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
 HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
 Jobbins Electronic Enterprises, 771 Hamilton Ave., Menlo Park, Calif.
 May Engineering Co., 6055 Lankershim Blvd., North Hollywood, Calif.
 Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
 OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
 POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 586.
 Randall, Inc., Douglas, 6 Pawcatuck Ave., Westerly, R. I.
 SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
 Television Laboratories, Inc., Mill St., Wauconda, Ill.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
 Tronic Coil Winding Co., Inc., 161 Fairfield Ave., Waterbury, Conn.
 Tur-Bo Jet Products, Inc., 424 S. San Gabriel Blvd., San Gabriel, Calif.
 U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.
 Warsaw Coil Co., Warsaw, Ind.

COILS—r-f Choke

ACE COIL & ELECTRONICS CO., 912 Lincoln Highway, Metuchen, N. J. ADV. PG. 600.
 ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Aladdin Radio Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
 ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.
 Bradford Components, Inc., Bradford, Pa.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
 CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
 CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
 COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
 COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Condor Radio Mfg. Co., 4068 E. Paseo Grande, Tucson 12, Ariz.
 Coto-Coil Co., Inc., 65 Pavilion Ave., Providence 5, R. I.
 DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 515.
 ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460.
 FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 391.
 FUGLE-MILLER LABORATORIES, INC., 398 Main St., Metuchen, N. J. ADV. PG. 634, 635.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
 GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank, Calif. ADV. PG. 460.
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
 Harnett Electric Corp., Lincoln & Hallett Aves., Rutherford, N. Y.
 Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
 HERMETIC SEAL TRANSFORMER CO., 555 W. 5th St., Garland, Texas. ADV. PG. 687.
 HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N. Y. ADV. PG. 697.
 HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371.
 Insuline Corp. of America, 184 Granite St., Manchester, N. H.

INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186.
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y.
 Johnson Co., E. F., Waseca, Minn.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
 Lewis Spring & Mfg. Corp., 2646 W. North Ave., Chicago 47, Ill.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 McGregor Electronic Industries, McGregor, Iowa.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
 Moran Electronic Components, Inc., 7660 Woodbury Drive, Silver Spring, Md.
 Muter Company, The, 1255 S. Michigan Ave., Chicago 5, Ill.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 National Coil Co., P. O. Box 1237, Sheridan, Wyo.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 North Hills Electric Co., Inc., 203-18 35th Ave., Bay-side 61, N. Y.
 Oaktron Electric Co., Tinley Park, Ill.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
 Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.
 Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 614.
 Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Standard Winding Corp., 44-62 Johns St., Newburgh, N. Y.
 Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 Teleto Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 Warsaw Coil Co., Warsaw, Ind.
 Western Coil Products Co., 2989 Middlefield Rd., Palo Alto, Calif.
 Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.
 Wirt Co., 5221 Greene St., Philadelphia 44, Pa.

COILS—r-f Choke (Heavywire Low Voltage)

ACE COIL & ELECTRONICS CO., 912 Lincoln Highway, Metuchen, N. J. ADV. PG. 600.
ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663.
 Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Connecticut Telephones & Electric Corp., 70 Britannia St., Meriden, Conn.
 Coto-Coil Co., Inc., 65 Pavilion Ave., Providence 5, R. I.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.

Double "E" Products Co., 216 Standard St., El Segundo, Calif.
ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 515.
 Fast & Co., John E., 3179 N. Pulaski Rd., Chicago 41, Ill.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
FUGLE-MILLER LABORATORIES, INC., 398 Main St., Metuchen, N. J. ADV. PG. 634, 635.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank, Calif. ADV. PG. 460.
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
 Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
INDUSTRIAL TRANSFORMER CORP., Goulsboro, Pa. ADV. PG. 370, 371.
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y.
 Jeffers Electronics Div. of Speer Carbon Co., DuBois, Pa.
 Johnson Co., E. F., Waseca, Minn.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Mag-Electric Products Inc., 12822 Yukon Ave., Hawthorne, Calif.
 McGregor Electronic Industries, McGregor, Iowa.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
 Moran Electronic Components, Inc., 10506 Wheatley St., Kensington, Md.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 National Coil Co., P. O. Box 1237, Sheridan, Wyo.
 Oaktron Electric Co., Tinley Park, Ill.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
OSBORNE ELECTRIC CO., 712 S. E. Hawthorne Blvd., Portland 14, Ore. ADV. PG. 624.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
 Sag Harbor Industries, Inc., Bay St., Sag Harbor, N. Y.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London W.C. 2, England.
 Standard Winding Corp., 44-62 Johns St., Newburgh, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.
 Warsaw Coil Co., Warsaw, Ind.
WATERS MANUFACTURING INC., Boston Post Rd., Wayland, Mass. ADV. PG. 138, 139.
 Wirt Co., 5221 Greene St., Philadelphia 44, Pa.

COILS—Solenoid
 See **COILS—Magnet SOLENOIDS**

COILS—Speaker (Voice Coil)

Best Manufacturing Co., Inc., 1200 Grove St., Irvington 11, N. J.
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
DANO ELECTRIC CO., Main St., Winsted, Conn. ADV. PG. 518.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
 Microtran Co., Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y.
 Television Laboratories, Inc., Mill St., Wauconda, Ill.
 Tronic Coil Winding Co., Inc., 161 Fairfield Ave., Waterbury, Conn.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.
 Warsaw Coil Co., Warsaw, Ind.

COILS—Television Focusing

CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 551.
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.

CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S.E. 26, England.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
 Coto-Coil Co., Inc., 65 Pavilion Ave., Providence 5, R. I.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 665.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
 Glaser-Steers Corp., 2 Main St., Belleville 9, N. J.
 Heppner Mfg. Co., P. O. Box 612, Round Lake, Ill.
 Jobbins Electronic Enterprises, 771 Hamilton Ave., Menlo Park, Calif.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 586.
SYNTRONIC INSTRUMENTS, INC., 100 Industrial Rd., Addison, Ill. ADV. PG. 619.
 Tele-Coil Co., Inc., 275 Saunders St., Camden 5, N. J.
 Television Laboratories, Inc., Mill St., Wauconda, Ill.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
 Tronic Coil Winding Co., Inc., 161 Fairfield Ave., Waterbury, Conn.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.
 Warsaw Coil Co., Warsaw, Ind.

COILS—Toroidal
 See **TOROIDS**

COILS—Variable
 See **INDUCTANCES—Variable**

COILS—Width Control

Caddell-Burns Mfg. Co., 40 E. Second St., Mineola, N. Y.
CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. Y. ADV. PG. 136, 137.
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170.
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Electrometric, Inc., P. O. Box 107, Woodstock, Ill.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 391.
FUGLE-MILLER LABORATORIES, INC., 398 Main St., Metuchen, N. J. ADV. PG. 634, 635.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N. Y. ADV. PG. 697.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty-Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 615.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
 Summit Coil Co., 4 Claremont Rd., Bernardville, N. J.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 Warsaw Coil Co., Warsaw, Ind.
 Wirt Co., 5221 Greene St., Philadelphia 44, Pa.

COLORIMETERS—Photoelectric

American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
 Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
 Coleman Instruments, Inc., 318 Madison St., Maywood, Ill.
 Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Manufacturers Engineering & Equipment Corp., York & Sunset Lane, Hatboro, Pa.
NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.

Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y.
ADV. PG. 149.
Warren Electronics Inc., Bound Brook, N. J.

COLUMBIAN See METALS

COMMUNICATION SYSTEMS

1. Aircraft
2. Airport Traffic Control
3. Carrier Current
4. Facsimile
5. Induction
6. Marine Radio-Telephone
7. Microwave
8. Portable Installation
9. Railroad
10. Teleprinter
11. Twinplex
12. Vehicular

ACF Electronics, 800 N. Pitt St., Alexandria, Va. 7.
Acme Teletronix Div. of NEA Service Inc., West Third & Lakeside, Cleveland 13, Ohio. 4.
Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla. 1.
Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C. 1-2-8-12.
Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J. 1-2-3-4-6-7-8-12.
AIRCRAFT RADIO CORP., Boonton, N. J. 1-8. ADV. PG. 212.

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. 4. ADV. PG. 673.

ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. 1. ADV. PG. 669.

American Machine & Foundry Co., Electronics Div., 1085 Commonwealth Ave., Boston 15, Mass. 10.
Applied Electronics Co., Inc., 1246 Folsom St., San Francisco 3, Calif. 6-12.

Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif. 12.
Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif. 1-2-6-8.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. 8-10-12.
Bassett, Inc., Rex, 1314 N.E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla. 2-6.

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif. 6.
Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md. 1-2-8-9-12.

Bliss Electronic Corp., Box 366, Sussex, N. J. 8.
Bludworth Marine Div., National Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y. 6.
Boehme, Inc., H.O., 915 Broadway, New York 10, N. Y. 10.

Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass. 7.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. 3-7. ADV. PG. 554.

C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn. 10.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec. 1-6-7-12.

Cardwell Mfg. Corp., Allen D., 97 Whiting St., Plainville, Conn. 4.
Collins Radio Co., Cedar Rapids, Iowa. 1-2-7.
Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla. 2-12.

Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn. 12.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N.S., Canada. 2-6-12.

CRAIG SYSTEMS, INC., Danvers, Mass. 2-4-7-8. ADV. PG. 223.
Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y. 4-9-10.

Dalmotron Co., 534 Laurel St., San Carlos, Calif. 8.
Davis Electronics, P.O. Box 1247, 4002 Burbank Blvd., Burbank, Calif. 2-6-8-9-12.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J. 9-12.
Electrical Toner Service, Inc., 325 S. Washington St., Peoria, Ill. 7.

Electro Craft Industries, Inc., 68 Jackson Ave., Stamford, Conn. 8-12.
Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif. 8.

El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa. 2-3-6-8.
Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y. 1-2-3-6-10-12.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. 1-3-7-10-12. ADV. PG. 355-360.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J. 7.

Feiler Engineering & Mfg. Co., 8026 N. Monticello Ave., Skokie, Ill. 8.
G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif. 6-12.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 8-9. ADV. PG. 1-12.
General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y. 4.

General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y. 2-7-12.

Godfrey Mfg. Co., 2642 S. Michigan Ave., Chicago 16, Ill. 8.
Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill. 8-9-10-12.

Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif. 1-2-3-6-7-8-10-12.
Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif. 1-6-7-8-10-12.

Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y. 4.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md. 1-3.

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif. 1-2-3-4-5-6-7-8-9-10-11-12.
Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill. 8-12.

INSTANT CIRCUITS DIV. OF ALFRED W. BARBER LABS., 32-44 Francis Lewis Blvd., Flushing, N. Y. 11. ADV. PG. 631.
I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa. 7.

Kaar Engineering Co., 2995 Middlefield Road, P. O. Box 1320, Palo Alto, Calif. 2-6-12.
Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y. 1-2-6-10.

Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill. 3.
Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif. 1-2.

Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich. 1.
Lenkurt Electric Co., Inc., 1105 County Road, San Carlos, Calif. 7.

Lynch Carrier Systems, Inc., 695 Bryant St., San Francisco 7, Calif. 3.
Magnavox Co., Fort Wayne 4, Ind. 1.

Magnovox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif. 1.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. 1-2-6-7-11-12. ADV. PG. 557.

Measurement Engineering, Ltd., Arnprior, Ontario, Canada. 2-6.
Meridian, Inc., 7 Mitchell Place, New York 17, N. Y. 7.

Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass. 7.
Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas. 1.

Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore. 8-12.
Motorola Communications and Electronics Inc., 4501 Augusta Blvd., Chicago 51, Ill. 3-6-7-8-9-12.

Muirhead & Co., Ltd., Beckenham, Kent, England. 4.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W.C. 2, England. 6-8. ADV. PG. 181.

National Aeronautical Corp., 180 S. Main St., Ambler, Pa. 1-12.
National Co., Inc., 61 Sherman St., Malden 48, Mass. 2-4-7-10.

National Electronics Laboratories, Inc., 1713 Kalorama Rd., N.W., Washington 9, D. C. 2-12.
National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill. 2.

Neill Co., Inc., R.W., 4320 Montrose Ave., Chicago 41, Ill. 9.
Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y. 1.

NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. 4-10-11. ADV. PG. 64-66.
Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa. 6.

Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash. 3-5-6-7-10.
Peirce Wire Recorder Corp., 5900 Northwest Highway, Chicago 31, Ill. 1.

Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill. 1.
Philco Corp., Government & Industrial Div., 4700 Wisconsin Ave., Philadelphia 44, Pa. 1-7-8.

Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass. 4-10.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. 1-7-8-12. ADV. PG. 576.

Pye Limited, Telecommunications Div., Newmarket Rd., Cambridge, England. 2-6-7-8-9-12.
RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. 1-2-4-6-7-12. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. 7. ADV. PG. 123.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. 10. ADV. PG. 297.

RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. 2. ADV. PG. 318, 319.
Radio Specialty Mfg. Co., 2023 S. E. Sixth Ave., Portland 14, Ore. 8.

Railway Communications, Inc., P. O. Box 67, Raytown, Mo. 3-9-10.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. 6-7-8. ADV. PG. 364, 365.

Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa. 6.
Remler Co., 2101 Bryant St., San Francisco 10, Calif. 1-6.

Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa. 7.
Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y. 8.

SPIVEY, INC., JAMES S., 4908 Hampden Lane, Washington 4, D. C. 2. ADV. PG. 569.
Springer Aircraft Radio Co., Earl W., Rte. 11, Box 330, Sky Harbor Airport, Indianapolis, Ind. 1.

Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England. 2-3-7-9-10.
Stelma, Inc., 389 Ludlow St., Stamford, Conn. 3-10.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill. 1-2-7-9.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y. 3-8.
Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y. 2-8-10-12.

Tel Autograph Corp., 1128 Crenshaw Blvd., Los Angeles 19, Calif. 4.
Telephonics Corp., Park Ave., Huntington, N. Y. 1-7-12.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. 1. ADV. PG. 403.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. 4. ADV. PG. 392.

Transitron, Inc., 186 Granite St., Manchester, N. H. 12.
Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa. 2-5-8-9.

VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. 2-12. ADV. PG. 605.
Vocaline Co. of America, Inc., Old Saybrook, Conn. 3.

Vocatron Mfg. Div. of Vocaline Co. of America, Inc., Old Saybrook, Conn. 3.
Webster Electric Co., 1900 Clark St., Racine, Wis. 1.

Western Union Telegraph Co., 60 Hudson St., New York 13, N. Y. 4-10.
WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. 2. ADV. PG. 682.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo. 1-2-6.

COMMUTATORS—Switching

Cleveland Commutator Div. of Borg-Warner Corp., Old Mansfield, Wooster, Ohio.
Dayton Precision Mfg. Co., 213 N. Beckel St., Dayton 3, Ohio.

ELECTRO-TEC CORP., South Hackensack, N. J. ADV. PG. 301.
Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.

GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
Kirkwood Commutator Co., 4855 W. 130th St., Cleveland 11, Ohio.

Midwest Molding & Mfg. Co., Gurnee, Ill.
Neer Mfg. Co., 1640 Fairwood, Columbus, Ohio.

POLY-SCIENTIFIC CORP., Blacksburg, Va. ADV. PG. 311.
Toledo Commutator Co., 1101 Chestnut, Owosso, Mich.

COMPARATORS—Automatic Resistance

See **INSTRUMENTS—Electrical Measuring**

COMPARATORS—Capacitance

BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.

CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.

Decade Instrument Co., Box 153, Caldwell, N. J.
ELECTRO-MEASUREMENTS, INC., 4312 S. E. Stark St., Portland 15, Ore. ADV. PG. 579.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
Pennsylvania Testing Laboratory, Doylestown, Pa.

SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
Technical Development Corp., 4060 Ince Blvd., Culver City, Calif.

COMPARATORS—Circuit Linearity

See **INSTRUMENTS—Electrical Measuring**

COMPARATORS—Dielectric

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
Foxboro Co., The, Foxboro, Mass.

COMPARATORS—Inductance

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
Carlson & Nicholson, Inc., 497 Maynard Drive, Buffalo 21, N. Y.

COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
ELECTRO-MEASUREMENTS, INC., 4312 S. E. Stark St., Portland 15, Ore. ADV. PG. 579.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
SOUTHWESTERN INDUSTRIAL ELECTRONIC CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.

COMPARATORS—Iron Core

Pennsylvania Testing Laboratory, Doylestown, Pa.

COMPARATORS—Q

BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 481.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Pennsylvania Testing Laboratory, Doylestown, Pa.

COMPARATORS—Surface

See **ANALYZERS—Surface**

COMPARATORS—Voltage

See **INSTRUMENTS—Electrical Measuring**

COMPASSES—Electronic Gyro

Arma Div. of American Bosch Arma Corp., Old Country Rd., Garden City, N. Y.
DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
 Infra Electronic Corp., Roseland, N. J.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.

COMPOUNDS—Cleaning

Barco Chemical Products Co., 701-703 S. La Salle, Chicago 5, Ill.
 Caig Cosmopolitan, 200 W. 34th St., New York 1, N. Y.
 Cobehn, Inc., 100 Passaic Ave., Caldwell, N. J.
 Enthone, Inc., 442 Elm St., New Haven 2, Conn.
 L & R Mfg. Co., 580 Elm St., Arlington, N. J.
 London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.
 Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

COMPOUNDS—Potting

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
BIWAX CORP., 3445 Howard St., Skokie, Ill. ADV. PG. 520.
 Dow Corning Corp., Midland, Mich.
ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. ADV. PG. 571.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Hardman Co., Inc., H. V., 571 Cortlandt St., Belleville 9, N. J.
 Hi-Test Chemical Corp., 722 64th St., Brooklyn 20, N. Y.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 National Engineering Products, Inc., 435 Washington Bldg., Washington 5, D. C.
 Nopco Chemical Co., Plastics Div., Harrison, N. J.
 Reichhold Chemicals, Inc., 525 N. Broadway, White Plains, N. Y.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Stevenson Bro. & Co., 110 Race St., Philadelphia 6, Pa.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

COMPUTERS—Analog

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Aircraft Armaments, Inc., Cockeysville, Md.
 Allegany Instrument Co., Inc., Cumberland, Md.
 Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
 Arma Div. of American Bosch Arma Corp., Old Country Rd., Garden City, N. Y.
 Austin Co., The, Special Devices Div., 76 Ninth Ave., New York 11, N. Y.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
 Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.

CURTISS-WRIGHT CORP., ELECTRONICS DIV., 631 Central Ave., Carlstadt, N. J. ADV. PG. 583-585.
DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
 Dynalys Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
ELECTRONIC ASSOCIATES, INC., Long Branch, N. J. ADV. PG. 472.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Electronic Engineering Co. of California, 180 S. Alvarado St., Los Angeles 57, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FORD INSTRUMENT CO., DIV. OF THE SPERRY CORP., 31-10 Thomson Ave., Long Island City 1, N. Y. ADV. PG. 667.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 Gerber Scientific Instrument Co., 89 Spruce St., Hartford 1, Conn.
 Goodyear Aircraft Corp., 1210 Massillon Road, Akron 15, Ohio.
 Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Link Aviation, Inc., Binghamton, N. Y.
 Loral Electronics Corp., 794 E. 140th St., New York 54, N. Y.
 Magnavox Co., Fort Wayne 4, Ind.
 Mid-Century Instrument Corp., 611 Broadway, New York 12, N. Y.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
 Reflectone Corp., Post Rd. & Myano Lane, Stamford, Conn.
 Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.
 Southern Instruments Ltd., Special Products Div., Frimley Rd., Camberly, Surrey, England.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
 Waldorf Instrument Corp., Park Ave., Huntington Station, N. Y.

COMPUTERS—Analog (Parts & Associated Equipment)

Refer to the following:

- Amplifiers—D-C**
- Amplifiers—Differential**
- Amplifiers—Logarithmic**
- Amplifiers—Operational**
- Amplifiers—Servo**
- Boards—Plotting**
- Boards—Plug**
- Demodulators**
- Generators—Function**
- Multipliers—Diode**
- Multipliers—Electronic**
- Multipliers—Servo**
- Potentiometers—Initial Condition**
- Power Supplies—Initial Condition**
- Power Supplies—Regulated**
- Resolvers—Coordinate Transform**
- Resolvers—Product**
- Resolvers—Sine-Cosine**
- Tachometers**

COMPUTERS—Digital

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Aircraft Armaments, Inc., Cockeysville, Md.
 Allegany Instrument Co., Inc., Cumberland, Md.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
 Austin Co., The, Special Devices Div., 76 Ninth Ave., New York 11, N. Y.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
 Bendix Computer Division, Bendix Aviation Corp., 5630 Arbor Vitae St., Los Angeles 45, Calif.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Burroughs Corp., Computer Section, 1616 Walnut St., Philadelphia 3, Pa.
 Business Machines Division, Electronic Corp. of America, 10 Potter St., Cambridge 42, Mass.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.
 Concord Control Inc., 205 Broadway, Cambridge 39, Mass.
 Consolidated Avionics, Inc., Stamford, Conn.
 Electro Data Corp., 460 Sierra Madre Villa, Pasadena, Calif.
 Electronic Computer Div., Underwood Corp., 35-10 36th Ave., Long Island City 6, N. Y.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
FORD INSTRUMENT CO., DIV. OF THE SPERRY CORP., 31-10 Thomson Ave., Long Island City 1, N. Y. ADV. PG. 667.
 General Cybernetics Corp., 1751 N. Coronado St., Los Angeles 26, Calif.
 Giannini & Co., Inc., G.M., 918 E. Green St., Pasadena 1, Calif.
 Haller-Raymond & Brown, Inc., State College, Pa.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
LIBRASCOP, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.
 Litton Industries, Components Div., Beverly Hills, Calif.
 Logistics Research Inc., 141 S. Pacific Ave., Redonda Beach, Calif.
 Loral Electronics Corp., 794 E. 140th St., New York 54, N. Y.
 Magnavox Co., Fort Wayne 4, Ind.
 Magnetics Research Co., 255 Grove St., White Plains, N. Y.
 Marchant Research, Inc., Sub. Marchant Calculators, Inc., 1475 Powell St., Oakland, Calif.
 Mega Research, P.O. Box 371, Dover, N. J.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Mountain Systems, Inc., 864 Franklin Ave., Thornwood, N. Y.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 National Cash Register Co., Dayton 9, Ohio.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.
 Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.
 Southern Instruments Ltd., Special Products Div., Frimley Rd., Camberly, Surrey, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1500 N. Kostner Ave., Chicago 51, Ill.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlsson Rd., Rochester 3, N. Y.
 Tally Register Co., 5300 14th, N.W., Seattle, Wash.
TECHNITROL ENGINEERING CO., 2751 N. 4th St., Philadelphia 33, Pa. ADV. PG. 83, 491.
 Teleregister Corp., The, 445 Fairfield Ave., Stamford, Conn.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
WANG LABORATORIES, INC., 37 Hurlay St., Cambridge 41, Ill. ADV. PG. 675.
 Warren Electronics, Inc., Bound Brook, N. J.

COMPUTERS—Digital, General Purpose
 See **DATA RECORDING EQUIPMENT**
INVENTORYING SYSTEMS

COMPUTERS—Digital (Parts & Associated Equipment)

Refer to the following:

- Accumulators**
- Amplifiers—Pulse**
- Circuits—Computer, Packaged**
- Converters—Analog to Digital**
- Converters—Card to Tape**
- Converters—Tape to Card**
- Cores—Ferrite**
- Counters—Electronic**
- Diagnostic Equipment—Computer**
- Drums—Memory**
- Heads—Recording**

Printers—High Speed
Printers—Keyboard
Printers—Line
Tape Mechanisms

COMPUTING SERVICES

A...Analog
D...Digital

Armour Research Foundation, 10 W. 35th St., Chicago 16, Ill. A-D
Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill. A
Burroughs Corp., Electronic Instrument Div., 1209 Vine St., Philadelphia, Pa. D
Datamatic Corp., 100 River Road, Waltham, Mass. D
Dian Laboratories, Inc., 611 Broadway, New York, N. Y. A
Dynalysis Development Labs, Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif. A
ElectroData Corp., 460 Sierra Madre Villa, Pasadena, Calif. D
ELECTRONIC ASSOCIATES, INC., Princeton, N. J. ADV. PG. 472. A-D
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12. A
International Business Machines Corp., 590 Madison Ave., New York, N. Y. D
Machine Statistics Co., 27 Thames St., New York 6, N. Y. A
Mid Century Instrumatic Corp., 611 Broadway, New York 12, N. Y. A
National Cash Register Co., Electronics Div., 3348 W. El Segundo Blvd., Hawthorne, Calif. D
Northrop Aircraft Co., Hawthorne, Calif. A-D
Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass. A
Rea Co., Inc., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif. A-D
REEVES INSTRUMENT CORP., 215 E. 91st St., New York 28, N. Y. ADV. PG. 385. A
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662. A
Telecomputing Corp., 133 E. Santa Anita Ave., Burbank, Calif. A-D
Westinghouse Electric Corp., Industry Engineering Dept., East Pittsburgh, Pa. A-D

CONDENSERS

See CAPACITORS

CONES—Metal Television

Henry & Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
Teiner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.

CONES—Speaker

Best Manufacturing Co., Inc., 1200 Grove St., Irvington 11, N. J.
Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
Hawley Products Co., St. Charles, Ill.
Stevens Products Inc., 86-88 Main St., East Orange, N. J.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.

CONNECTORS

1. Anode
2. Audio
3. Antennae
4. Coaxial Cable
5. Diode
6. Electrical, AN or MIL-C-5015
7. Hermetically Sealed
8. Interlock
9. Miniature
10. Phono
11. Power
12. Printed Circuit
13. R-F
14. Subminiature
15. Waterproof

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio. 1-2-3-5-8-10-11.
Aerolite Electronics Corp., 507 26th St., Union City, N. J. 8-10.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. 2.
AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. 1-2-3-4-5-6-9-10-11-12-13-14-15. ADV. PG. 353.
AIRCRAFT RADIO CORP., Boonton, N. J. 11. ADV. PG. 212.
ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. 3-9-12. ADV. PG. 610.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. 1-2-3-5-8-9-10-11-12. ADV. PG. 361.
ALLIED INDUSTRIES, INC., 2500 Woodland Ave., Louisville 10, Ky. 4-7-9-13. ADV. PG. 570.
American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y. 2-10.

AMERICAN LAVA CORP., Chattanooga 5, Tenn. 4. ADV. PG. 87.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. 4-15. ADV. PG. 440.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. 2-3-4-6-7-8-9-11-12-13-14-15. ADV. PG. 254.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. 4. ADV. PG. 348.
ANTON ELECTRONIC LABORATORIES, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. 4-6-7-8-9-11-12-13-14-15. ADV. PG. 629.
Armel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y. 9-12.
Astatic Corp., The, Conneaut, Ohio. 2.
ATLAS E-E CORP., Bedford Airport Terminal Bldg., Bedford, Mass. 14. ADV. PG. 571.
AUTOMATIC METAL PRODUCTS CORP., 315 Berry St., Brooklyn 11, N. Y. 3-4-5-9-12-13-14-15. ADV. PG. 541.
AUTOMATIC & PRECISION MFG. CO., 252 Hawthorne Ave., Yonkers 5, N. Y. 9-11. ADV. PG. 508.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. 3.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. 6-12. ADV. PG. 608.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. 12-14. ADV. PG. 554.
Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn. 12.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y. 1-2-3-4-8-9-10-11.
Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J. 4-9.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. 13. ADV. PG. 511.
BUCHANAN ELECTRICAL PRODUCTS CORP., 223 U. S. Route 22, Hillside, N. J. 9-11. ADV. PG. 461.
Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn. 12.
Buggie, Inc., H. H., P. O. Box 817, Toledo 1, Ohio. 4-6-7-9-11-12-13-14-15.
Burndy Engineering Co., Inc., Norwalk, Conn. 7-9-11-15. Cal-Connector Co., 7414 Varna Ave., North Hollywood, Calif. 6-12.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. 9-12. ADV. PG. 310.
CANNON ELECTRIC CO., 3209 Humboldt St., Los Angeles 31, Calif. 2-4-6-7-9-11-12-13-14-15. ADV. PG. 213.
Carol Electronics Corp., 315 W. Stephens St., Martinsburg, W. Va. 2-6-7-11-15.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. 3-7-9-10-12-14. ADV. PG. 99-101.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. 1-2-3-5-6-7-9-10-11-12-13-14-15. ADV. PG. 606.
COAXIAL CONNECTOR CO., 37 North 2nd Ave., Mt. Vernon, N. Y. 3-4-7-8-9-13-14-15. ADV. PG. 671.
Communication Products Co., Inc., Marlboro, N. J. 3-4.
Connector Corp. of America, 3223 Burton Ave., Burbank, Calif. 4.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn. 8-11-15.
CONSTANTIN & CO., L. L., Route #46, Lodi, N. J. 7. ADV. PG. 411.
Continental Connector Corp., 30-30 Northern Blvd., Long Island City, N. Y. 6-7-8-9-11-12-14-15.
Dage Electric Co., 67 N. Second St., Beech Grove, Ind. 4-7-9-12-13-14-15.
DANBURY-KNUDSEN, INC., P. O. Box 170, Danbury, Conn. 12. ADV. PG. 647.
Dante Electric Mfg. Co., Bantam, Conn. 11.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. 4. ADV. PG. 558.
DEJUR-AMSCO CORP., Northern Blvd., at 45th St., Long Island City 1, N. Y. 6-7-9-11-12-14. ADV. PG. 194-197.
DIALIGHT CORPORATION, 60 Stewart Ave., Brooklyn 37, N. Y. 2-10-11. ADV. PG. 108.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. 4-13. ADV. PG. 453.
Dielectric Products Engineering Co., Inc., Raymond, Me. 4.
Eby Co., Hugh H., 4700 Stanton Ave., Philadelphia 44, Pa. 9-10-12.
ELCO CORP., "M" St. below Erie Ave., Philadelphia 24, Pa. 2-3-9-10-11-12-14. ADV. PG. 569.
ELECTRICAL INDUSTRIES, 44 Summer Ave., Newark 4, N. J. 7. ADV. PG. 455.
Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y. 3-4-9-14.
Electrocraft Div. of Hamilton-Pax, Inc., 2743 N. Kedzie Ave., Chicago 18, Ill. 9.
Enron Inc., 4902 Lawrence St., Bladenburg, Md. 4-13.
ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. 7. ADV. PG. 571.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J. 7-8-9-11-13-14-15.
Equipment & Service Co., 6815 Oriole Drive, Dallas 9, Texas. 11-15.
Fortiphone Ltd., 247 Regent St., London W-1, London, England. 7-9-14-15.
Frankel Connector Co., 27 Vestry St., New York, N. Y. 11.
Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa. 3.
GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. 7-9-12-13-14-15. ADV. PG. 549.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. 1-3-4-10. ADV. PG. 620.

Gemex Corp., The, Industrial Products Div., 1200 Commerce Ave., Union, N. J. 4-14.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. 3. ADV. PG. 86.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. 5-9-12. ADV. PG. 550.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. 7. ADV. PG. 677.
General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill. 1-3-5-8-10.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston Mass. 4-7-9-13-14-15. ADV. PG. 444.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 2-4-13. ADV. PG. 109, 110.
Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J. 13.
Gorn Electric Co., Inc., Stamford, Conn. 7-9-11-12-15.
Graphic Circuits Div. of Cinch Mfg. Corp., 221 S. Arroya Parkway, Pasadena, Calif. 12-14.
GULTON MFG. CORP., Metuchen, N. J. 9-14. ADV. PG. 433.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood Calif. 4-15.
HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. 8-9-12-14-15. ADV. PG. 82.
Harwood Co., Div. of Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif. 6-9-14.
HELDOR MFG. CORP., 238 Lewis St., Paterson, N. J. 7. ADV. PG. 482.
Hermaseal Co., Inc., 1101 Lafayette St., Elkhart, Ind. 7.
Hermetic Connector Corp., 176 Walnut St., Bloomfield, N. J. 7.
HERMETIC SEAL PRODUCTS CO., 29-37 South 6th St., Newark 7, N. J. 6. ADV. PG. 233.
Hobson Bros., 4940 W. Lawrence Ave., Chicago 30, Ill. 1.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. 1-3-8-12. ADV. PG. 678.
Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn. 4-9-12-13.
Insuline Corp. of America, 186 Granite St., Manchester, N. H. 2-3-10.
Javex, P. O. Box 646, Redlands, Calif. 2-3-4-6-9-11-14-15.
Jerrold Electronics Corp., 26th & Dickinson Sts. Philadelphia 46, Pa.
Johnson Co., E. F., Waseca, Minn. 1-3.
JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. 2-3-9-10-12. ADV. PG. 99-101.
Joy Mfg. Co., Dept. 39, Oliver Bldg., Pittsburgh 22, Pa. 8-15.
Kennedy Industries, 6808 Vista Del Mar, Playa Del Rey, Calif. 12.
Keystone Electronics Corp., 423 Broome St., New York 12, N. Y. 5.
Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J. 7.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tucka-hoe, N. Y. 2-3-4-7-9-10-11-13-14-15. ADV. PG. 592.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. 11. ADV. PG. 531.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. 12. ADV. PG. 610.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. 5-9-12-14. ADV. PG. 685.
Livingston Electronic Corp., Livingston, N. J. 7.
Magnavox Co., Fort Wayne 4, Ind. 12.
Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn. 9.
MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. 12. ADV. PG. 609.
Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill. 1-8-10.
MANSOL CERAMICS, 140 Little St., Belleville, N. J. 6-7. ADV. PG. 617.
Marco Industries, Inc., 207 S. Helena St., Anaheim, Calif. 6.
MENDELSONN SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. 3-4-9-14. ADV. PG. 568.
METHODE MFG. CORP., 2021 W. Churchill St., Chicago 47, Ill. 6-9-12. ADV. PG. 666.
Microdot, Inc., 1826 Fremont Ave., South Pasadena, Calif. 4-7-9-12-13-14-15.
Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla. 15.
Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn. 9-14-15.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa. 3-4-6-7-9.
Molding Corp. of America, 40 Church St., Pawtucket, R. I. 7-9.
Morse Co., Frank W., 1300 Soldiers Field Rd., Boston 35, Mass. 9.
Mosley Electronics, Inc., 8622 St. Charles Rock Rd., St. Louis 14, Mo. 3.
Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y. 4-5-7-8-9-13-14.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. 6. ADV. PG. 465.
NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. 2-3-5-8-10-12. ADV. PG. 24, 25.
NATIONAL TEL-TRONICS CORP., 35 St. Casparys Ave., Yonkers, N. Y. 1-8-10. ADV. PG. 681.
Nems-Clarke, Inc., Silver Spring, Md. 4.
Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y. 6-7-15.
Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass. 6.

Pacific Electric Co., P. O. Box 8805, Crenshaw Sta., Los Angeles 8, Calif. 9.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill. 1-8-9-10.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa. 7-11.
PHOTO CHEMICAL PRODUCTS, INC., 479 Walton Ave., New York 51, N. Y. 12. ADV. PG. 530.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. 12. ADV. PG. 394.
PLASTIC MOLD & ENGINEERING CO., INC., 157 Clifford St., Providence 3, R. I. 9-14. ADV. PG. 462.
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass. 12-14.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J. 3-4.
 Pyle-National Co., 1334 N. Kostner Ave., Chicago 51, Ill. 2-4-7-8-11-15.
 Ram Manufacturing Co., 7266 Beverly Blvd., Los Angeles 36, Calif. 9-14.
 Remler Co., 2101 Bryant St., San Francisco 10, Calif. 2.
 Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N. Long Island City 1, N. Y. 7.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass. 2-3-9.
 Royal Electric Co., Inc., Pawtucket, R. I. 8.
 Russell & Stoll Co., Inc., 125-6 Barclay St., New York 7, N. Y. 8-9-11-15.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. 7. ADV. PG. 542.
SCINTILLA DIVISION, BENDIX AVIATION CORP., Sidney, N. Y. 4-6-9-11-15. ADV. PG. 133.
SEALLECTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. 8-9-14. ADV. PG. 467.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y. 1-2-3-4-8-10.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill. 7-15.
 Superior Insulated Wire Co., Route 9W, Haverstraw, N. Y. 1.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. 2-9-10. ADV. PG. 668.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. 1-3-5-8-10. ADV. PG. 727-733.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y. 4-13-15.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England 4.
 Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio 4.
 Thomas & Betts Co., Inc., 36 Butler St., Elizabeth 1, N. J. 6-11.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. 7. ADV. PG. 464.
 Titeflex, Inc., Aviation Products Div., Hendee St., Springfield 4, Mass. 9.
 Torrington Co., Specialties Div., 37 Field St., Torrington, Conn. 4-6.
 Transradio, Ltd., 138A Cromwell Rd., London, S.W. 7, England. 9-13-14.
 Tru-Connector Corp., 416 Union St., Lynn, Mass. 4-7-9-13-15.
UCINITE CO. DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. 1-3-4-10-12. ADV. PG. 161.
U. S. COMPONENTS, INC., 454 E. 148th St., New York 55, N. Y. 1-2-5-7-8-9-10-11-12-14-15. ADV. PG. 141.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. 7-9-10. ADV. PG. 477.
 United Technical Laboratories, Box 425V, Morristown, N. J. 9.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass. 3.
 Vidair Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y. 1.
 Viking Industries, Inc., 21343 Roscoe Blvd., Canoga Park, Calif. 7-9-11-12-13-14-15.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill. 1-5-8-10.
 Waltham Horological Corp., 395 Lynnway, Lynn, Mass. 2-3-4-7-9-10-13-14-15.
 Warren Plastics Corp., Warren, Pa. 7.
 Wheaton Co., T. C., Millville, N. J. 7.
 Whitney Blake Co., New Haven 14, Conn. 6-7-9-10-11-12-14-15.
WINCHESTER ELECTRONICS, INC., Willard Rd., Norwalk, Conn. 4-6-9-11-12-14-15. ADV. PG. 62.
 Zell Products Corp., 276-280 Main St., Norwalk, Conn.

CONSULTANTS—Electronic

Consultants featuring advertisements in the **DISPLAY ADVERTISING SECTION** appear in the following list:
BRIGGS, THOMAS A., Box 185, R. D. 2, Norristown, Pa. ADV. PG. 626.

CONTACTORS

ALLEN-BRADLEY CO., 136 W Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
ALLIED CONTROL CO., INC., 2 East End Ave., New York 21, N. Y. ADV. PG. 92, 93.
 Automatic Switch Co., 391 Lakeside Ave., Orange, N. J. Clark Controller Co., The, 1146 E. 152nd St., Cleveland 10, Ohio.
 Ebert Electronics Corp., 212-26 Jamaica Ave., Queens Village 28, N. Y.
ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.

Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
 Haledy Electronics Co., 57 William St., New York 5, N. Y.
 Johnson Co., E. F., Waseca, Minn.
LEACH CORP., 5915 Avalon Blvd., Los Angeles 3, Calif. ADV. PG. 247.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 McQuay-Norris Mfg. Co., 2320 Marconi Ave., St. Louis 10, Mo.
MAKEPEACE CO., D.E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 R.B.M. Div., Essex Wire Corp., Logansport, Ind.
 Synchro Start Products, Inc., 8151 Ridgeway Ave., Skokie, Ill.
 Vickers Electric Division, Vickers, Inc., 1825 Lobust St., St. Louis 3, Mo.
WARD LEONARD ELECTRIC CO., 31 South St., Mt. Vernon, N. Y. ADV. PG. 502.
 Weitronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

CONTACTS—Electrical

ALDEN PRODUCTS CO., 112 N Main St., Brockton, Mass. ADV. PG. 361.
ANDERSON ASSOCIATES, H.V., 239 Park Ave., Berkeley Heights, N. J. ADV. PG. 560.
 Baker & Co., Inc., 113 Astor St., Newark 5, N. J.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 554.
 Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
BRAININ CO., C. S., 320 Washington St., Mt. Vernon, N. Y. ADV. PG. 490.
 Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Continental Connector Corp., 30-30 Northern Blvd., Long Island City, N. Y.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
 Fansteel Metallurgical Corp., 200 Sheridan Rd., North Chicago, Ill.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
 General Findings & Supply Co., Industrial Div., Attleboro, Mass.
 Gibson Electric Co., 8361 Frankstown Ave., Pittsburgh 21, Pa.
GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 678.
 Keystone Carbon Co., Inc., Saint Marys, Pa.
 Leach & Garner Co., Attleboro, Mass.
MAKEPEACE CO., D.E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
 Mallory & Co., Inc., P.R., 3029 E. Washington St., Indianapolis 6, Ind.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
 National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
 P M Industries, Inc., Stamford, Conn.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
 Sinclair Mfg. Co., Chartley, Mass.
STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
 Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
 Torrington Co., Specialties Div., 37 Field St., Torrington, Conn.
 Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
 Tubular Rivet & Stud Co., Weston Ave., Wollaston (Quincy) 70, Mass.
 U. S. Graphite Co., Div. of The Wickes Corp., 1621 Holland Ave., Saginaw, Mich.
 Viking Industries, Inc., 21343 Roscoe Blvd., Canoga Park, Calif.
 Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.
 Wilson Co., H. A., 2655 U. S. Hwy 22, Union, N. J.

CONTAINERS—for Shipping

See **PACKAGING MATERIALS**

CONTROLS—Alarm System

Airmec Ltd., High Wycombe, Buckinghamshire, England.
ASSEMBLY PRODUCTS CO., Chesterland 6, Ohio. ADV. PG. 368, 369.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The, Waterbury 20, Conn.
 Combustion Control Div., Electronics Corp. of America, 718 Beacon St., Boston 8, Mass.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Delco Radio Div., General Motors Corp., Kokomo, Ind.
 Deltron, Inc., P.O. Box 192, Glenside, Pa.
 Dondar Devices, 321 E. 6th St., Medford, Ore.
EDISON INC., THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Fenwal, Inc., 60 Pleasant St., Ashland, Mass.
 Fireye Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HAMMARLUND MFG. CO., INC., 460 W 34th St., New York 1, N. Y. ADV. PG. 67.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
HUGHEY & PHILLIPS, INC., 3300 N. San Fernando Blvd., Burbank, Calif. ADV. PG. 552.
 Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
 Industrial Electronics Co., Inc., Hanover, Mass.
 Kidde & Co. Inc., Walter, 477 Main St., Belleville 9, N. J.
 Kirkland Co., H.R., 8 King St., Morristown, N. J.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Marlee Associates, Inc., Route 46, Parsippany, N. J.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves. Philadelphia 44, Pa. ADV. PG. 377.
 Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 North Electric Co., 553 S. Market St., Galion, Ohio.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Piezo Products Co., Whitney St., Sherborn, Mass.
 Recora Co., Inc., 6100 S. Archer Rd., Summit, Ill.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.
 Special Products Co., P.O. Box 188, Rockville 3, Md.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W.C. 2, England.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Tech Laboratories, Inc., Bergen & Edsall Bldgs., Palisades Park, N. J.
ULANET CO., GEORGE, 413 Market St., Newark 5, N. J. ADV. PG. 617.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
 Wallson Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.
 Worner Electronic Devices, Roxbury, Ill.

CONTROLS—Automatic Tuning

DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Ram Meter, Inc., 1102 Hilton Rd., Ferndale, Detroit 20, Mich.

CONTROLS—Automatic Voltage Regulating

Airmec Ltd., High Wycombe, Buckinghamshire, England.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.

Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif.
 Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England.
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
 Consolidated Diesel Electric Corp., Stamford, Conn.
CURTISS-WRIGHT CORP., ELECTRONICS DIV., 631 Central Ave., Carlstadt, N. J. ADV. PG. 583-585.
 Deltron, Inc., P. O. Box 192, Glenside, Pa.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Engineered Magnetics Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif.
GATES ELECTRONIC CO., 611 Morris Park Ave., Bronx, N. Y. ADV. PG. 536.
 Gates Radio Co., Quincy, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. ADV. PG. 246.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Lawn Electronics Co., East Freehold Rd., Freehold, N. J.
MAGNETIC AMPLIFIERS, INC., 632 Tinton St., New York 55, N. Y. ADV. PG. 401.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
MAXSON INSTRUMENTS, A DIV. OF THE W. L. MAXSON CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 438.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
POWER DESIGNS, INC., 89-25 130th St., Richmond Hill 18, N. Y. ADV. PG. 533.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Ram Meter, Inc., 1102 Hilton Rd., Ferndale, Detroit 20, Mich.
RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.
 Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J.
SORENSEN & CO., INC., 375 Fairfield Ave., Stamford, Conn. ADV. PG. 177-180.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
SUPERIOR ELECTRIC CO., THE, 4000 Middle St., Bristol, Conn. ADV. PG. 470, 471.
 Timely Instruments & Controls Corp., 1645 W. 135th St., Gardena, Calif.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
 Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
WAC LINE, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Wallison Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.
 Warren Mfg. Co., Inc., The Littleton, Mass.
 Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

CONTROLS—Counting & Sorting

Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing, Mich.
 Airmec Ltd., High Wycombe, Buckinghamshire, England.
ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Autotron Co., P. O. Box 722-H, Danville, Ill.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.
BOWMAR INSTRUMENT CORP., 2400 Pennsylvania Ave., Fort Wayne, Ind. ADV. PG. 204.
 Bristol Co., The Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
 Eagle Signal Corp., Moline, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Haledy Electronics Co., 57 William St., New York 5, N. Y.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnysdale, Calif.
 Industrial Electronic Controls Co., 2271 E. 14th St., Brooklyn 29, N. Y.
 Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Machinery Electrification, Inc., Northboro, Mass.
 Marlee Associates, Inc., Route 46, Parsippany, N. J.
 Moore Electronic Labs., Inc., 98 Front St., Worcester 8, Mass.
NAGOG ASSOCIATES, INC., Littleton, Mass. ADV. PG. 571.
 North Electric Co., 553 S. Market St., Galion, Ohio.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Nuclear Research Corp., Southampton, Pa.
 Pantek Co., Box 212, El Segundo, Calif.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Ram Meter, Inc., 1102 Hilton Rd., Ferndale, Detroit 20, Mich.
RIPLY CO., INC., Middletown, Conn. ADV. PG. 451.
 Solartron Electronic Group, Ltd., Thames Ditton, Surrey, England.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Taller & Cooper Co., 75 Front St., Brooklyn, N. Y.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
 Worner Electronic Devices, Rankin, Ill.

CONTROLS—Density

See **CONTROLS—Specific Gravity**

CONTROLS—Dimension

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Bristol Co., The Waterbury 20, Conn.
 Control Components Co., 1 Holden St., Brookline 46, Mass.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
 Foxboro Co., The Foxboro, Mass.
 Hillyer Instrument Co., Inc., 54 Lafayette St., New York 13, N. Y.
 Marlee Associates, Inc., Route 46, Parsippany, N. J.
 Nuclear Research Corp., Southampton, Pa.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Robinette Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
 Rockwell Engineering Co., 4061 N. New Jersey St., Indianapolis 5, Ind.

CONTROLS—Door

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Calbest Engineering & Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Recora Co. Inc., 6100 S. Archer Rd., Summit, Ill.
 Telectron Co., 4019 Prospect Ave., Cleveland 3, Ohio.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.

CONTROLS—Electric DC Motor

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
 Aills-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis.
 American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
 Arrow-Hart & Hegeman Electric Co., 103 Hawthorne St., Hartford 6, Conn.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The Waterbury 20, Conn.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
 Consolidated Diesel Electric Corp., Stamford, Conn.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 522.
 Engineered Magnetics Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif.
 Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N.W., Grand Rapids 2, Mich.
 Machinery Electrification, Inc., Northboro, Mass.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S. Minneapolis 8, Minn.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
MODEL RECTIFIER CORP., 1065 Utica Ave., Brooklyn 3, N. Y. ADV. PG. 567, 577.
 Moore Electronic Labs., Inc., 98 Front St., Worcester 8, Mass.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 524.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 555.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.
 Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J.
 Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
 Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill.
 Trumbull Components Div., General Electric Co., 41 Woodford Ave., Plainville, Conn.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

CONTROLS—Electronic AC Motor Speed

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 American Research & Mfg. Corp., 4914 Delray Ave., Bethesda, Md.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The, Waterbury 20, Conn.
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y.
 Green Rectifier Co., 83-3 Murray St., New York 7, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N.W., Grand Rapids 2, Mich.
 Machinery Electrification, Inc., Northboro, Mass.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
 Moore Electronic Labs., Inc., 98 Front St., Worcester 8, Mass.
OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Robinette Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
 Robotron Corp., 21300 W. Eight Mile Rd., P. O. Box 4885, Detroit 19, Mich.
 Rockwell Engineering Co., 4061 N. New Jersey St., Indianapolis 5, Ind.
 Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J.
 Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J.
 Square D Co., 4041 N. Richards, Wilwaukee 12, Wis.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing, N. Y. ADV. PG. 199.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
VEC TROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.

CONTROLS—Elevator Leveling

Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.

CONTROLS—Film Thickness

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
 Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Consolidated Vacuum, Rochester 3, N. Y.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
CURTIS-WRIGHT CORP., ELECTRONICS DIV., 631 Central Ave., Carlstadt, N. J. ADV. PG. 583-585.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Research Electronics Laboratories, Roslyn, Pa.

Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.

CONTROLS—Flame Failure

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bristol Co., The, Waterbury 20, Conn.
 Combustion Control Div., Electronics Corp. of America, 718 Beacon St., Boston 8, Mass.
 Electrical Service Co., 1271 Mission St., San Francisco, Calif.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.
 General Controls Co., Glendale 1, Calif.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Marlee Associates, Inc., Route 46, Parsippany, N. J.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Worner Electronic Devices, Rankin, Ill.

CONTROLS—Flexible Mechanical Push-Pull

American Chain & Cable Co., Inc., 601 Stephenson Blvd., Detroit 2, Mich.
 Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
KUPFRIAN MFG. CORP., 398 State St., Binghamton, N. Y. ADV. PG. 667.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.
STEWART CORP., F. W., A SUB. OF S. S. WHITE DENTAL MFG. CO., 4311 Ravenswood Ave., Chicago 13, Ill. ADV. PG. 522.

CONTROLS—Fluid Conductivity

Bristol Co., The, Waterbury 20, Conn.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Piezo Products Co., Whitney St., Sherborn, Mass.

CONTROLS—Fluid Flow

Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
 Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.
 Bristol Co., The, Waterbury 20, Conn.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville 1, Tenn.
 General Controls Co., Glendale 1, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gorn Electric Co., Inc., Stamford, Conn.
HAMMERLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
MAXSON INSTRUMENTS, A DIV. OF THE W. L. MAXSON CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 438.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Moog Valve Co., Inc., Prorer Airport, East Aurora, N. Y.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear Research Corp., Southampton, Pa.
 Potter Aeronautical Co., Route #22, Union, N. J.
 Revere Corp. of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.

Tracerlab, Inc., 130 High St., Boston 10, Mass.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

CONTROLS—Food Processing

Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville 1, Tenn.
 Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.
 Machinery Electrification, Inc., Northboro, Mass.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
NAGOG ASSOCIATES, INC., Littleton, Mass. ADV. PG. 571.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Pantek Co., Box 212, El Segundo, Calif.
 Southwest Products, Inc., Alamo Downs, Box 85-D, Rt. 4, San Antonio, Texas.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.

CONTROLS—Frequency

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. 69-76.
 Consolidated Diesel Electric Corp., Stamford, Conn.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y.
 Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
NORRMAN LABORATORIES, ERNST, Williams Bay, Wis. ADV. PG. 552.
 Pantek Co., Box 212, El Segundo, Calif.
PHILAMON LABORATORIES, INC., 90 Hopper St., Westbury, N. Y. ADV. PG. 389.
 Piezo Products Co., Whitney St., Sherborn, Mass.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
 Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.
 Robinette Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
 Warren Mfg. Co., Inc., The, Littleton, Mass.

CONTROLS—Gain See ATTENUATORS

CONTROLS—Heat Treating

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The, Waterbury 20, Conn.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

CONTROLS—Humidity

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
BARBER-COLMAN CO., Dept 766, Rockford, Ill. ADV. PG. 68.
 Bristol Co., The, Waterbury 20, Conn.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Friez Instrument Div., Bendix Aviation Corp., Baltimore 4, Md.
 General Controls Co., Glendale 1, Calif.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S. Minneapolis 8, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Serdex, Inc., 91 Cambridge St., Boston, Mass.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Worner Electronic Devices, Rankin, Ill.

CONTROLS—Illumination

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Autotron Co., P. O. Box 722-H, Danville, Ill.
 Bristol Co., The, Waterbury 20, Conn.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Fisher-Pierce Co., Inc., 170 Pearl St., South Braintree (Boston 85), Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Timely Instruments & Controls Corp., 1645 W. 135th St., Gardena, Calif.
WESTON ELECTRICAL INSTRUMENT CORP., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Worner Electronic Devices, Rankin, Ill.

CONTROLS—Inspection

Advanced Electronics, Inc., 95 Silas Deane Highway, Rocky Hill, Conn.
 Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Autotron Co., P. O. Box 722-H, Danville, Ill.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.
 Inland Electronics Corp., 500 Rathbone Ave., Aurora, Ill.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear Research Corp., Southampton, Pa.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Worner Electronic Devices, Rankin, Ill.

CONTROLS—Liquid Level

Airmec, Ltd., High Wycombe, Buckinghamshire, England.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
 Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.

Autotron Co., P. O. Box 722-H, Danville, Ill.
 Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The, Waterbury 20, Conn.
 Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Deltron, Inc., P. O. Box 192, Glenside, Pa.
 Electrical Service Co., 1271 Mission St., San Francisco, Calif.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 462.
 Fenwal, Inc., 60 Pleasant St., Ashland, Mass.
 Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 27, Mich.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Fulton Siphon Div., Robertshaw-Fulton Controls Co., Knoxville 1, Tenn.
 General Controls Co., Glendale 1, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gorn Electric Co., Inc., Stamford, Conn.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
 Haledy Electronics Co., 57 William St., New York 5, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Machinery Electrification, Inc., Northboro, Mass.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Marlee Associates, Inc., Route 46, Parisippany, N. J.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
NAGOG ASSOCIATES, INC., Littleton, Mass. ADV. PG. 571.
 Niagara Electron Laboratories, Andover, N. Y.
 Norwood Controls Unit, Detroit Controls Corp., 934 Washington St., Norwood, Mass.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Nuclear Research Corp., Southampton, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Piezo Products Co., Whitney St., Sherborn, Mass.
 Revere Corp. of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Tracerlab, Inc., 130 High St., Boston 10, Mass.
 Trimount Instrument Co., 3119 W. Lake St., Chicago 12, Ill.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
 United Electronic Controls Co., 85 School St., Watertown 72, Mass.
 Vapor Recovery Systems Co., 2820 N. Alameda, P. O. Box 231, Compton, Calif.
 Warrick Co., Charles F., 1964 W. Eleven Mile Rd., Berkley, Mich.
 Worner Electronic Devices, Rankin, Ill.

CONTROLS—Loop Regulation

CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.

CONTROLS—Machine Safety

Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Moore Electronic Labs, Inc., 98 Front St., Worcester 8, Mass.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.

Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Recora Co., Inc., 6100 S. Archer Rd., Summit, Ill.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
 Synchro Start Products, Inc., 8151 Ridgeway Ave., Skokie, Ill.
 Vemaline Products Co., P.O. Box 222E, Hawthorne, N. J.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

CONTROLS—Materials Thickness

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
 Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
BRANSON INSTRUMENTS, INC., 1 Brown House Rd., Stamford, Conn. ADV. PG. 654.
 Bristol Co., The, Waterbury 20, Conn.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
CURTISS-WRIGHT CORP., ELECTRONICS DIV., 631 Central Ave., Carlstadt, N. J. ADV. PG. 583-585.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Industrial Electronics Co., Inc., Hanover, Mass.
 Industrial Electronics, Inc., 3060 Wheeler St., Detroit 10, Mich.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear Research Corp., Southampton, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tracerlab, Inc., 130 High St., Boston 10, Mass.

CONTROLS—Mechanical Overload

Bristol Co., The, Waterbury 20, Conn.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
STANDARD TOOL & MFG. CO., Arlington, N. J. ADV. PG. 632.

CONTROLS—Mechanical Switch

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
 Bristol Co., The, Waterbury 20, Conn.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Moore Electronic Labs, Inc., 98 Front St., Worcester 8, Mass.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 555.
 Pyle-National Co., 1334 N. Kostner Ave., Chicago 51, Ill.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Synchro Start Products, Inc., 8151 Ridgeway Ave., Skokie, Ill.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.
ULANET CO., GEORGE, 413 Market St., Newark 5, N. J. ADV. PG. 617.

CONTROLS—Moisture

Axler Associates, 102-42 43rd Ave., Corona, N. Y.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bristol Co., The, Waterbury 20, Conn.
 Cavitron Electron Oscillator Co. Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.

CONTROLS—Oxygen

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bristol Co., The, Waterbury 20, Conn.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Mercoird Corp., 4201 Belmont Ave., Chicago 41, Ill.

CONTROLS—Package Wrapping

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.
 Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
 Pantek Co., Box 212, El Segundo, Calif.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.

CONTROLS—pH

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 La Motte Chemical Products Co., Towson 4, Baltimore, Md.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.

CONTROLS—Photoelectric

Airmec Ltd., High Wycombe, Buckinghamshire, England.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Autotron Co., P. O. Box 722-H, Danville, Ill.
 Avion Instruments Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bristol Co., The, Waterbury 20, Conn.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.
 Deltron, Inc., P. O. Box 192, Glenside, Pa.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Electrical Service Co., 1271 Mission St., San Francisco, Calif.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 462.
 Farrand Optical Co., Inc., Bronx Blvd. at 238 St., New York 70, N. Y.
 Fisher-Pierce Co., Inc., 170 Pearl St., South Braintree (Boston 85), Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Haledy Electronics Co., 57 William St., New York 5, N. Y.
HUGHEY & PHILLIPS, INC., 3300 N. San Fernando Blvd., Burbank, Calif. ADV. PG. 552.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
 Industrial Electronics Co., Inc., Hanover, Mass.
 Industrial Electronics Inc., 8060 Wheeler St., Detroit 10, Mich.

Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Machinery Electrification, Inc., Northboro, Mass.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Marlee Associates, Inc., Route 46, Parsippany, N. J.
 Micro Balancing, Inc., 191 Herricks Rd., Garden City Park, N. Y.
 Moore Electronic Labs, Inc., 98 Front St., Worcester 8, Mass.
NAGOG ASSOCIATES, INC., Littleton, Mass. ADV. PG. 571.
NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.
 Photo Crystals Inc., 115 S. First St., Geneva, Ill.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Post Machinery Co., Electronic Products Div., 140 Elliott St., Beverly, Mass.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
 Special Products Co., P. O. Box 188, Rockville 3, Md.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
UNIVOX-EASTERN CORP., 102 Warren St., New York 7, N. Y. ADV. PG. 226.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
 Vernaline Products Co., P. O. Box 222E, Hawthorne, N. J.
 Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.
 Wallson Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Worner Electronic Devices, Rankin, Ill.

CONTROLS—Photographic Exposure

Acme Telextronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Allegany Instrument Co., Inc., Cumberland, Md.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Cinema-Television, Ltd., Norsley Bridge Rd., London, S. E. 26, England.
 Eagle Singal Corp., Moline, Ill.
 Flight Research, Inc., P. O. Box I-F, Richmond 1, Va.
HEATH CO., A SUB. OF DAYSTRÖM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.
WESTON ELECTRICAL INSTRUMENT CORP., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Zoomar, Inc., Glen Cove, N. Y.

CONTROLS—Positioning

Ailis-Chalmers Mfg. Co., 735 S. 70th St., Milwaukee 1, Wis.
 Anatron Engineering Corp., 165 E. California St., Pasadena, Calif.
 Antrib, 4950 N. High St., Columbus 14, Ohio.
 Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Basler Electronics, Inc., 13th & Broadway, Highland, Ill.
 Belock Instrument Corp., 111-01 14th Ave., College Point 56, N. Y.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
BOWMAR INSTRUMENT CORP., 2400 Pennsylvania Ave., Fort Wayne, Ind. ADV. PG. 204.
 Bristol Co., The, Waterbury 20, Conn.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
 Datran Engineering Corp., 3613 Aviation Blvd., Manhattan Beach, Calif.
 Eislser Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.

Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.
 Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
 General Controls Co., Glendale 1, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
 Hillyear Instrument Co., Inc., 54 Lafayette St., New York 13, N. Y.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
 Kybernetics Co., 9 E. 40th St., New York 16, N. Y.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Machinery Electrification, Inc., Northboro, Mass.
 Magnasyn Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
MAGNETIC AMPLIFIERS, INC., 632 Tinton St., New York 55, N. Y. ADV. PG. 401.
 Marlee Associates, Inc., Route 46, Parsippany, N. J.
 Minatron Corp., 14 Cliveden Place, Belle Mead, N. J.
 Moog Valve Co., Inc., Proner Airport, East Aurora, N. Y.
 Moore Electronic Labs, Inc., 98 Front St., Worcester 8, Mass.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Nuclear Research Corp., Southampton, Pa.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Pantek Co., Box 12, El Segundo, Calif.
 Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkeley, Mich.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Robinette Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J.
 Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J.
 Simmonds Aeroceramics, Inc., Tarrytown, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
TRANSICOIL CORP., Worcester, Penna. ADV. PG. 187.
 Upted Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
WACLIN INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

CONTROLS—Power Level

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bristol Co., The, Waterbury 20, Conn.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264-265.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Moore Electronic Labs, Inc., 98 Front St., Worcester 8, Mass.
 Ram Meter, Inc., 1102 Hilton Rd., Ferndale, Detroit 20, Mich.

CONTROLS—Pressure

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
 Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
 Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.
 Avion Instrument Corp., A Sub. of A. C. F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bristol Co., The, Waterbury 20, Conn.
 Colvin Laboratories, Inc., 364 Glenwood Ave., East Orange, N. J.
 Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Datran Engineering Corp., 3613 Aviation Blvd., Manhattan Beach, Calif.
 Deltron, Inc., P. O. Box 192, Glenside, Pa.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
DOELCAM, DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
 Fischer & Porter Co., 476 Warminster Road, Harbor, Pa.
 Foxboro Co., The, Foxboro, Mass.

Fulton Sylphon Div., Robertshaw-Fulton Controls Co., Knoxville 4, Tenn.
 General Controls Co., Glendale 1, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gorn Electric Co., Inc., Stamford, Conn.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 3, Calif.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Moore Electronic Labs., Inc., 98 Front St., Worcester 8, Mass.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Norwood Controls Unit, Detroit Controls Corp., 934 Washington St., Norwood, Mass.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Ultradyne Engineering Labs., Inc., P. O. Box 8007, Albuquerque, N. M.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
 White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.

CONTROLS—Printing

Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
 Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 16, Md.

CONTROLS—Radio Remote

A. R. F. Products, Inc., 7627 Lake St., River Forest, Ill.
 Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 Antran Engineering Corp., 165 E. California St., Pasadena, Calif.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bristol Co., The, Waterbury 20, Conn.
 Calbest Engineering & Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electronic Protection, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Gates Radio Co., Quincy, Ill.
 Gyro Electronics Co., 325 Canal St., New York, N. Y.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320 Palo Alto, Calif.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Moore Electronic Labs., Inc., 98 Front St., Worcester 8, Mass.
 Multi-Products Co., 21470 Coolidge Highway, Oak Park 37, Mich.
 Peirce Wire Recorder Corp., 5900 Northwest Highway, Chicago 31, Ill.
 Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.
 Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Ta-Mar, Inc., 11571 W. Jefferson Blvd., Culver City, Calif.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Telebro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

CONTROLS—Register

Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Autotron Co., P. O. Box 722-H, Danville, Ill.
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
 Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Machinery Electrification, Inc., Northboro, Mass.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.

CONTROLS—Register Cutter

Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

CONTROLS—Servo

Ahrendt Instrument Co., The, 4910 Calvert Rd., College Park, Md.
 Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
 Arma Div. of American Bosch Arma Corp., Old Country Rd., Garden City, N. Y.
 Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Basler Electronics, Inc., 13th & Broadway, Highland, Ill.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
BOWMAR INSTRUMENT CORP., 2400 Pennsylvania Ave., Fort Wayne, Ind. ADV. PG. 204.
 Bristol Co., The, Waterbury 20, Conn.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
 Concord Control Inc., 205 Broadway, Cambridge 39, Mass.
 Control Components Co., 1 Holden St., Brookline 46, Mass.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
 Datron Engineering Corp., 3613 Aviation Blvd., Manhattan Beach, Calif.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
ECLIPSE PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Feedback Controls, Inc., 1332-34 N. Henry St., Alexandria, Va.

FORD INSTRUMENT CO., DIV. OF THE SPERRY CORP., 31-10 Thompson Ave., Long Island City 1, N. Y. ADV. PG. 667.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Inland Electronics Corp., 500 Rathbone Ave., Aurora, Ill.
 Instrument Components, Inc., Div. of Belock Instrument Corp., 14-34 112 St., College Point, N. Y.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Litton Industries, Components Div., Beverly Hills, Calif.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Magnasyn Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
MAGNETIC AMPLIFIERS, IIC, 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.
 Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
 Marlee Associates, Inc., Route 46, Parsippany, N. J.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.
 Moog Valve Co., Inc., Proner Airport, East Aurora, N. Y.
 Moore Electronic Labs., Inc., 98 Front St., Worcester 8, Mass.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 P M Industries, Inc., Stamford, Conn.
 Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkeley, Mich.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364-365.
REEVES INSTRUMENT CORP., 215 E 91st St., New York, N. Y. ADV. PG. 385.
 Robinette Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
 Rockwell Engineering Co., 4061 N. New Jersey St., Indianapolis 5, Ind.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.
 Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J.
 Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing 54, N. Y. ADV. PG. 199.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Timely Instruments & Controls Corp., 1645 W. 135th St., Gardena, Calif.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
 Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Warren Mfg. Co., Inc., The, Littleton, Mass.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

CONTROLS—Smoke & Combustion, Electronic

Autotron Co., P. O. Box 722-H, Danville, Ill.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.

Bristol Co., The, Waterbury 20, Conn.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Photo Crystals Inc., 15 S. First St., Geneva, Ill.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
 Worner Electronic Devices, Rankin, Ill.

CONTROLS—Sound System

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 AMPLEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 415.
 CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

CONTROLS—Specific Gravity

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio
 Bristol Co., The, Waterbury 20, Conn.
 Foxboro Co., The, Foxboro, Mass.
 GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Nuclear Research Corp., Southampton, Pa.
 Worner Electronic Devices, Rankin, Ill.

CONTROLS—Strain

Allegheny Instrument Co., Inc., Cumberland, Md.
 BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bristol Co., The, Waterbury 20, Conn.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Dayton Corp., 216 S. Main St., Dayton, Ohio.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Ellis Associates, Box 77, Pelham, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Kybernetes Co., 9 E. 40th St., New York 16, N.Y.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.

CONTROLS—Temperature, Electronic

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Allegheny Instrument Co., Inc., Cumberland, Md.
 ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bristol Co., The, Waterbury 20, Conn.

Business Machines Division, Electronic Corp. of America, 10 Potter St., Cambridge 42, Mass.
 Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
 Deitron, Inc., P. O. Box 192, Glenside, Pa.
 DOELCAM, DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
 EDISON, INC., THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fenwal, Inc., 60 Pleasant St., Ashland, Mass.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N.W., Grand Rapids 2, Mich.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Niagara Electron Laboratories, Andover, N. Y.
 Norwood Controls Unit, Detroit Controls Corp., 934 Washington St., Norwood, Mass.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
 STEVENS MFG. CO., INC., P. O. Annex 1007, Mansfield, Ohio. ADV. PG. 437.
 TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Timely Instruments & Controls Corp., 1645 W. 135th St., Gardena, Calif.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
 ULANET CO., GEORGE, 413 Market St., Newark 5, N. J. ADV. PG. 617.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 VECTOR ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Worner Electronic Devices, Rankin, Ill.
 Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

CONTROLS—Tentering

Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
 Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J.

CONTROLS—Timing

Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing 1, Mich.
 ADAMS & WESTLAKE CO., THE, Michigan St., Elkhart, Ind. ADV. PG. 158, 159.
 ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 673.
 ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
 Allied Products Div., Hamilton Co., Lancaster, Pa.
 Amglo Corp., 2037 W. Division St., Chicago 22, Ill.
 ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Autotron Co., P. O. Box 722-H, Danville, Ill.

Belljare Electronics, Inc., 62 White St., Red Bank, N. J.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solano Beach, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
 CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. ADV. PG. 387.
 DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
 Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
 Eagle Signal Corp., Moline, Ill.
 EDISON, INC., THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
 Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 462.
 GATES ELECTRONIC CO., 611 Morris Park Ave., Bronx, N. Y. ADV. PG. 536.
 Foxboro Co., The, Foxboro, Mass.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
 General Controls Co., Glendale 1, Calif.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Electric Co., Clock and Timer Dept., Ashland, Mass.
 HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 613.
 Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.
 Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
 International Register Co., 2620 Washington Blvd., Chicago 12, Ill.
 Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Machinery Electrification, Inc., Northboro, Mass.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Marlee Associates, Inc., Route 46, Parsippany, N. J.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Modelistic Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
 Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.
 Moore Electronic Labs, Inc., 98 Front St., Worcester 8, Mass.
 O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Pantek Co., Box 212, El Segundo, Calif.
 Paragon Electric Co., Two Rivers, Wis.
 PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Post Machinery Co., Electronic Products Div., 140 Elliott St., Beverly, Mass.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 Rhodes, Inc., M. H., 30 Bartholomew Ave., Hartford, Conn.
 RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.
 Vocaline Co. of America, Inc., Old Saybrook, Conn.
 Wallson Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.
 Weltron Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.
Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

CONTROLS—Torque, Electronic

Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
Bristol Co., The, Waterbury 20, Conn.
Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.
Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
Foxboro Co., The, Foxboro, Mass.
Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
Machinery Electrification, Inc., Northboro, Mass.
Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.
Moore Electronic Labs., Inc., 98 Front St., Worcester 8, Mass.
Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.
Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J.
Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.

CONTROLS—Turbidity

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
Bristol Co., The, Waterbury 20, Conn.
Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Marlee Associates, Inc., Route 46, Parsippany, N. J.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Worner Electronic Devices, Rankin, Ill.

CONTROLS—Ultrasonic

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
AEROPROJECTS INCORPORATED, 310 E. Rosedale Ave., West Chester, Pa. ADV. PG. 674.
Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 655.
Bristol Co., The, Waterbury 20, Conn.
Kidde & Co., Inc., Walter, 477 Main St., Belleville 9, N. J.
Mack Electronics Division, Inc., Plainfield, N. J.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
Piezo Products Co., Whitney St., Sherborn, Mass.
Vendo Co., 7400 E. 12th St., Kansas City 8, Mo.

CONTROLS—Vacuum

Alfred Electronics, 897 Commercial St., Palo Alto, Calif.
Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.
Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
Bristol Co., The, Waterbury 20, Conn.
Central Sales & Mfg. Co., 2 Richmond Place, Denville, N. J.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Consolidated Vacuum, Rochester 3, N. Y.
Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
Foxboro Co., The, Foxboro, Mass.
Fulton Siphon Div., Robertshaw-Fulton Controls Co., Knoxville 4, Tenn.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Gorn Electric Co., Inc., Stamford, Conn.
Green Rectifier Co., 83-3 Murray St., New York 7, N. Y.
Hastings Instrument Co., Inc., Hampton 9, Va.
High-Vacuum Equipment Corp., Hingham, Mass.
Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
Mercoird Corp., 4201 Belmont Ave., Chicago 41, Ill.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S. Minneapolis 8, Minn.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
Research Electronics Laboratories, Roslyn, Pa.
Ultradyn Engineering Labs., Inc., P. O. Box 8007, Albuquerque, N. M.
United Electric Controls Co., 85 School St., Watertown 72, Mass.
Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.
Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTRON, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

CONTROLS—Ventilating Control System

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
Bristol Co., The, Waterbury 20, Conn.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
Foxboro Co., The, Foxboro, Mass.
Fulton Siphon Div., Robertshaw-Fulton Controls Co., Knoxville 1, Tenn.
Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S. Minneapolis 8, Minn.
Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
Ventrac Corp., 11 W. 42nd St., New York, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
Worner Electronic Devices, Rankin, Ill.

CONTROLS—Volume & Tone

M . . . Indicates Miniature Type
Carter Parts Co., 213 Institute Place, Chicago 10, Ill.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CHICAGO TELEPHONE & SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. ADV. PG. 249.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
Dukane Corp., St. Charles, Ill.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Fortiphone Ltd., 247 Regent St., London, W. 1, England.

INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186.
Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
Wirt Co., 5221 Greene St., Philadelphia 44, Pa.

CONTROLS—Weight

Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
Bristol Co., The, Waterbury 20, Conn.
Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
Daytronic Corp., 216 S. Main St., Dayton, Ohio.
Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
Marlee Associates, Inc., Route 46, Parsippany, N. J.
Nuclear Research Corp., Southampton, Pa.
Pantek Co., Box 212, El Segundo, Calif.
Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.
Solartron Electronic Group, Ltd., Thames Ditton, Surrey, England.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
Worner Electronic Devices, Rankin, Ill.

CONTROLS—Welding

Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
Ewald Instruments, 99 Nassau St., New York 38, N. Y.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 462.

Federal Tool Engineering, Inc., 1386 Pompton Ave., Cedar Grove, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
Robotron Corp., 21300 W. Eight Mile Rd., P. O. Box 4885, Detroit 19, Mich.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.
Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

CONVERTERS

1. Analog to Digital
2. Card to Tape
3. Computing
4. Digital to Analog
5. Frequency Shift Keying
6. High Frequency
7. Low Frequency
8. Power Frequency, Electronic
9. Power Frequency, Rotary
10. Power Frequency, Vibrator
11. R-F
12. Tape to Card
13. Television (UHF to VHF)

ACF Electronics, 800 N. Pitt St., Alexandria, Va. 1-4.
Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y. 8.
Ahrendt Instrument Co., The, 4910 Calvert Rd., College Park, Md. 1.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. 1. ADV. PG. 317.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. 10. ADV. PG. 143-146.
Allegany Instrument Co., Inc., Cumberland, Md. 1-3-4-6-7.
AMERICAN TELEVISION & RADIO CO., 300 E. Fourth St., St. Paul 1, Minn. 9-10. ADV. PG. 176.
Anatron Engineering Corp., 165 E. California St., Pasadena, Calif. 1.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. 11-13. ADV. PG. 466.
ASSEMBLY PRODUCTS, INC., Chatterland 6, Ohio. 1. ADV. PG. 368, 369.
Astatic Corp., The, Conneaut, Ohio. 13.
Austin Co., The, Special Devices Div., 76 Ninth Ave., New York 11, N. Y. 1.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. 3. ADV. PG. 578.
Baldwin Piano Co., 1801 Gilbert St., Cincinnati 2, Ohio. 1.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. 5-6-7-8-11.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif. 1-4.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. 1-2-3-4-6-7-12. ADV. PG. 69-76.
Bill Jack Scientific Instrument Co., P. O. Box C-3, Solano Beach, Calif. 6-9.
Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J. 11-13.
Boehme, Inc., H. O., 915 Broadway, New York 10, N. Y. 5.
Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y. 13.
Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J. 6-8.
Bristol Co., The, Waterbury 20, Conn. 1.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. 1. ADV. PG. 314, 315.
Carter Motor Co., 2742 W. George St., Chicago 18, Ill. 9.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. 7-8. ADV. PG. 278, 279.
Clevite Transistor Products A Div. of Clevite Corp., 241-257 Crescent St., Waltham 54, Mass. 8.
Coleman Engineering Co., Inc., 6040 W. Jefferson Blvd., Los Angeles 16, Calif. 1.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. 3. ADV. PG. 536.
COMPUTER INSTRUMENTS CORP., 1964 Utica Ave., Brooklyn 34, N. Y. 1. ADV. PG. 576.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif. 1-2-12.
CONTINENTAL ELECTRIC CO., INC., 334 Ferry St., Newark 5, N. J. 6-7-9. ADV. PG. 312.
CORNEIL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. 10. ADV. PG. 445.
Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y. 11.
D & R, Ltd., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif. 9.
Datran Engineering Corp., 3613 Aviation Blvd., Manhattan Beach, Calif. 1-4.
Decade Instrument Co., Box 153, Caldwell, N. J. 6-7-13.
Delaware Products Co., 300 Broadway, Camden 3, N. J. 1.

Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass. 10.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif. 10.
 EECO Production Co., 506 E. 1st St., Santa Ana, Calif. 1-3-4.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. 1-4. ADV. PG. 129-132.
 Elcor, Inc., 1501 W. Congress St., Chicago 7, Ill. 9.
ELECTRIC SPECIALTY CO., 300 South St., Stamford, Conn. 9. ADV. PG. 475.
 Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif. 1.
ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. 1. ADV. PG. 520.
ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. 1. ADV. PG. 510.
ELECTRONIC ASSOCIATES, INC., Long Branch, N. J. 1-2-4. ADV. PG. 472.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif. 1-4.
 Electronic Engineering Co. of California, 180 S. Alvarado St., Los Angeles 57, Calif. 1-4.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. 5-8-10. ADV. PG. 562.
 Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J. 8.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. 8. ADV. PG. 516.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. 8. ADV. PG. 424.
 Entron, Inc., 4902 Lawrence St., Bladensburg, Md. 11-13.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. 1-3-4-12. ADV. PG. 272, 273.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y. 5.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. 1. ADV. PG. 355-360.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa. 1.
FORD INSTRUMENT CO., DIV. OF THE SPERRY CORP., 31-10 Thomson Ave., Long Island City 1, N. Y. 1-4. ADV. PG. 667.
 Fortiphone Ltd., 247 Regent St., London W.1, England. 8.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa. 1.
 General Cybernetics Corp., 1751 N. Coronado St., Los Angeles 26, Calif. 2-3.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 9. ADV. PG. 1-12.
GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. 7. ADV. PG. 246.
 Genisco, Inc., 2233 Federal Ave., Los Angeles 64, Calif. 1.
 Georator Corp., Manassas Va. 9.
 Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif. 1-4.
 Gosnet Co., 801 S. Main St., Burbank, Calif. 6-11.
 Hertner Electric Co., 12690 Elmwood Ave., Cleveland 11, Ohio. 9.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif. 1-2-3-4-5-6-7-8-9-11-12-13.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y. 5.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md. 1.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif. 1-2-3-4-5-6-7-8-9-10-11-12.
 I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind. 13.
 Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif. 1-3-4.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. 8. ADV. PG. 628.
 Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif. 3-9.
 Instrument Development Laboratories, Inc. 163 Highland Ave., Needham Heights, Mass. 1.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. 6-7-8-9-10. ADV. PG. 521.
 International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla. 6.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md. 1.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif. 11.
 Kato Engineering Co., 1415 First Ave., Mankato, Mich. 9.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. 13. ADV. PG. 262.
KEARFOTT CO., INC., ENGINEERING SALES DIV., 1378 Main Ave., Clifton, N. J. 1-4. ADV. PG. 191.
 Lawn Electronics Co., East Freehold Rd., Freehold, N. J. 8-10.
LEACH CORP., 5915 Avalon Blvd., Los Angeles 3, Calif. 8-9. ADV. PG. 247.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. 1-3. ADV. PG. 190.
 Mack Electronics Division, Inc., Plainfield, N. J. 8.
 MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass. 1.
 Magnetics Research Co., 255 Grove St., White Plains, N. Y. 1-3-4.
 Marlee Associates, Inc., Route 46, Parsippany, N. J. 1-4.
MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. 8-10. ADV. PG. 59.
 Mohawk Electronic Research Labs., Inc., Box 126-A, RD 4, Amsterdam, N. Y. 11.

Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore. 6.
 National Co., Inc., 61 Sherman St., Malden 48, Mass. 5-6-11.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y. 1-4.
NORMAN LABORATORIES, ERNST, Williams Bay, Wis. 8. ADV. PG. 552.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. 5. ADV. PG. 64-66.
 Nugent Electronics Co., New Albany, Ind. 4-9-12-13-14.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C. 1.
PHILAMON LABORATORIES, INC., 90 Hopper St., Westbury, N. Y. 8. ADV. PG. 389.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y. 1-4-9.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y. 1.
 Power Supplies, Inc., 1007 Olive St., Highland, Ill. 8.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass. 5.
 Radiart Corp., The, 3455 Vega Ave., Cleveland 13, Ohio. 10.
 Radiation, Inc., Melbourne, Fla. 1-4.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. 1-2-3-4-6-7-11-13. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. 13. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Radio Mfg. Engineers, Inc., 501 Walnut St., Washington, Ill. 11.
 Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif. 1-4.
REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. 1. ADV. PG. 385.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. 1-2-3-4-12. ADV. PG. 662.
 Robbins & Myers, Inc., 1345 Lagonda Ave., Springfield 99, Ohio. 6-7.
 Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif. 4.
 Sangamo Generators, Inc., 2110 Clear Lake Ave., Springfield, Ill. 9.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y. 8.
SORENSEN & CO., INC., 375 Fairfield Ave., Stamford, Conn. 8. ADV. PG. 177-180.
 Southern Instruments Ltd., Special Products Div., Frimley Rd., Camberly, Surrey, England 1.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif. 9.
 Stelma, Inc., 389 Ludlow St., Stamford, Conn. 5.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y. 1-4.
 Tally & Cooper Co., 75 Front St., Brooklyn 1, N. Y. 1.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y. 5.
 Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J. 8.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y. 13.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. 1-4. ADV. PG. 403.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. 5. ADV. PG. 392.
 Universal Atomic Corp., 19 E. 48th St., New York 17, N. Y. 8.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. 8-9. ADV. PG. 605.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. 8. ADV. PG. 395.
VIBRATION RESEARCH LABS, INC., 97 Lake Ave., Tuckahoe, N. Y. 10. ADV. PG. 569.
 Vic-Dar Division 823, Victor Adding Machine Co., 3900 N. Rockwell St., Chicago 18, Ill. 1.
 Videon Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind. 13.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. 9. ADV. PG. 550.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. 6-7. ADV. PG. 724.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. 1. ADV. PG. 675.
 Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich. 8.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y. 5.
 Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo. 10.

Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Birnbach Radio Corp., Inc., 145 Hudson St., New York 13, N. Y.
 Bliss Electronic Corp., Box 366, Sussex, N. J.
 Carol Cable Div. of Crescent Co., Inc., 20 Central, Pawtucket, R. I.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Cords Ltd., Div. of The Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
 Decatur Electronics Industries Corp., 203 Orinco Drive, Brightwater, N. Y.
 Diamond Wire & Cable Co., Sycamore, Ill.
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 Electronic Products Co., 322 State St., Santa Barbara, Calif.
 Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
 General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Koiled Kords, Inc., Box K, New Haven 14, Conn.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.
 Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
PACIFIC AUTOMATION PRODUCTS, INC., 1000 Air Way, Glendale 1, Calif. ADV. PG. 450.
 Pacific Electricord Co., P. O. Box 8805, Crenshaw Sta., Los Angeles 8, Calif.
PARAPLEGICS MFG. CO., INC., 10068 Franklin Ave., Franklin Park, Ill. ADV. PG. 528.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.
PLASTIC MOLD & ENGINEERING CO., INC., 157 Clifford St., Providence 3, R. I. ADV. PG. 462.
 Plastic Wire & Cable Corp., Jewett City, Conn.
 Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Royal Electric Co., Inc., Pawtucket, R. I.
 Sears Co., M. J. Delaware County, Roxbury, N. Y.
SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Superior Insulated Wire Co., Route 9W, Haverstraw, N. Y.
 U. S. Rubber Co., 1230 Avenue of Americas, New York 20, N. Y.
 U. S. Wire Cable Corp., Progress & Monroe St., Union, N. J.
 Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Whitaker Cable Corp., Kansas City 16, Mo.
 Witelrad Electrical Mfg., Inc., 76 Pulaski St., Stamford, Conn.

COOKERS—Electronic

General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Indutron Corp., 50 Brook Rd., Needham Heights, Mass.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.

CORD SETS

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
 Alden Systems, Inc., Alden Research Center, Westboro, Mass.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 Apex Wire & Cable Corp., 237 37th St., Brooklyn 32, N. Y.
 B & M Electric Co., 838 Fourth Ave., Brooklyn 32, N. Y.

CORDS—Dial Cords & Cables

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GUDEBROD BROS. SILK CO., INC., ELECTRONICS DIV., 225 W. 34th St., New York 1, N. Y. ADV. PG. 284.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 New England Electrical Works, Inc., Lisbon, N. H.
 Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London W. C. 2, England.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.

ELECTRONIC and ALLIED PRODUCTS

Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
Whitney Blake Co., New Haven 14, Conn.
Witelrad Electrical Mfg. Co., 76 Pulaski St., Stamford, Conn.

CORDS—Lacing

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, New York.
Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GUDEBROD BROS. SILK CO., INC., ELECTRONICS DIV., 225 W. 34th St., New York 1, N. Y. ADV. PG. 284.
Heminway & Bartlett Mfg. Co., 500 Fifth Ave., New York 36, N. Y.
Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
Narrow Fabric Co., The Reading, Pa.
Owens-Corning Fiberglas Corp., 598 Madison Ave., New York 22, N. Y.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.

CORDS—Line

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
Alden Systems, Inc., Alden Research Center, Westboro, Mass.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
Apex Wire & Cable Corp., 237 37th St., Brooklyn 32, N. Y.
ASSOCIATED ENGINEERING CORP., 65 Kent St., Brookline 46, Mass. ADV. PG. 590, 591.
B & M Electric Co., 838 Fourth Ave., Brooklyn 32, N. Y.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S., Long Island City, N. Y.
Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
Koiled Kords, Inc., Box K, New Haven 14, Conn.
Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.
Plastic Wire & Cable Corp., Jewett City, Conn.
Royal Electric Co., Inc., Pawtucket, R. I.
Superior Insulated Wire Co., Route 9W, Haverstraw, N. Y.
U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
Whitney Blake Co., New Haven 14, Conn.
Witelrad Electrical Mfg. Co., 76 Pulaski St., Stamford, Conn.

CORDS—Line Resistance

B & M Electric Co., 838 Fourth Ave., Brooklyn 32, N. Y.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
Witelrad Electrical Mfg. Co., 76 Pulaski St., Stamford, Conn.

CORDS—Patch

Aerolite Electronics Corp., 507 26th St., Union City, N. J.

AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. ADV. PG. 353.
ASSOCIATED ENGINEERING CORP., 65 Kent St., Brookline 46, Mass. ADV. PG. 590, 591.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
Buggie, Inc., H. H., P. O. Box 817, Toledo 1, Ohio.
CANNON ELECTRIC CO., 3209 Humboldt St., Los Angeles 31, Calif. ADV. PG. 213.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Decatur Electronics Industries Corp., 203 Orinco Drive, Brightwater, N. Y.
Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
First Electronics Corp., The 117 Blue Hill Ave., Boston 19, Mass.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
KUPFRIAN MFG. CORP., 398 State St., Binghamton, N. Y. ADV. PG. 667.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Nems-Clarke, Inc., Silver Spring, Md.
PACIFIC AUTOMATION PRODUCTS, INC., 1000 Air Way, Glendale 1, Calif. ADV. PG. 450.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Pomona Electronics Co., Inc., 1126 W. Fifth Ave., Pomona, Calif.
Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N. Long Island City 1, N. Y.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.
Vidaire Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.

CORDS—Retractile

Koiled Kords, Inc., Box K, New Haven 14, Conn.
Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.

CORES—C Type

ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 404, 405.
Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif.
Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 564.
Ferricore, Inc., 303 Railroad Place, Orange, N. J.
Ferroxcube Corp. of America, 125 E. Bridge St., Saugerties, N. Y.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 486.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
THOMAS & SKINNER INC., 1122 E. 23rd St., Indianapolis, Ind. ADV. PG. 672.
Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.

CORES—Ceramic

Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
CENTRALAB DIV., GLOBE UNION INC., 914Y E. Keefe Ave., Milwaukee, Wis. ADV. PG. 37.
Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 564.
Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.

Ferricore, Inc., 303 Railroad Place, Orange, N. J.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
Louthan Mfg. Co., East Liverpool, Ohio.
MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 515.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
Wisconsin Porcelain Co., Sun Prairie, Wis.
Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.

CORES—Cut

See CORES—C Type
CORES—E Type
CORES—U Type

CORES—E Type

ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 404, 405.
Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif.
Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 564.
Ferricore, Inc., 303 Railroad Place, Orange, N. J.
Ferroxcube Corp. of America, 125 E. Bridge St., Saugerties, N. Y.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

CORES—Ferrite

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 564.
Ferricore, Inc., 303 Railroad Place, Orange, N. J.
Ferroxcube Corp. of America, 125 E. Bridge St., Saugerties, N. Y.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.
STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
Suprex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.

CORES—High Permeability Magnetic

ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 404, 405.
Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif.
Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 564.
I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 515.
MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 54, 55.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
Pyroferic Co., Inc., 621 E. 216th St., New York 67, N. Y.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.
STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.
THOMAS & SKINNER INC., 1122 E. 23rd St., Indianapolis, Ind. ADV. PG. 672.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

CORES—Iron

ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 404, 405.
 CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 564.
 GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 515.
 NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
 RADIO CORES, INC., 9540 Tulley Ave., Oak Lawn, Ill. ADV. PG. 638.
 STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.

CORES—Powdered Iron

Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 404, 405.
 Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
 CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 564.
 Double "E" Products Co., 216 Standard St., El Segundo, Calif.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Laboratoire Industriel de Physique Applique, 67 Rue M.A.-Colombier, Bagnolet (Seine) France.
 MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 515.
 MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 54, 55.
 NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
 POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
 Quality Components, Inc., St. Marys, Pa.
 RADIO CORES, INC., 9540 Tulley Ave., Oak Lawn, Ill. ADV. PG. 638.
 Pyroferic Co., Inc., 621 E. 216th St., New York 67, N. Y.
 STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
 Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.

CORES—Slug Tuning Units

Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 404, 405.
 CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 564.
 Delco Radio Div., General Motors Corp., Kokomo, Ind.
 GENERAL CEMENT MFG. CO., ELECTRONICS DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
 MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 515.
 NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
 Pyroferic Co., Inc., 621 E. 216th St., New York 67, N. Y.
 Quality Components, Inc., St. Marys, Pa.
 RADIO CORES, INC., 9540 Tulley Ave., Oak Lawn, Ill. ADV. PG. 638.
 STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
 Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.

CORES—Tape Wound

ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 404, 405.
 Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia, Pa.
 Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 INDIANA STEEL PRODUCTS CO., Valparaiso, Ind. ADV. PG. 204.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 MAGNETICS, INC., P. O. Box 391, Butler Pa. ADV. PG. 54, 55.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
 THOMAS & SKINNER INC., 1122 E. 23rd St., Indianapolis, Ind. ADV. PG. 672.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

CORES—Toroidal

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
 ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 404, 405.
 Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif.
 Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
 CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 564.
 Double "E" Products Co., 216 Standard St., El Segundo, Calif.
 Electro Devices Co., Inc., 580 Main St., Wilmington, Mass.
 Ferroxcube Corp. of America, 125 E. Bridge St., Saugerties, N. Y.
 GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 MAGNETIC CORE CORP., 199 Main St., Ossining, N. Y. ADV. PG. 515.
 Magnetic Metals Co., Hayes Ave. at 21st St., Camden, N. J.
 MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 54, 55.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
 POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
 Pyroferic Co., Inc., 621 E. 216th St., New York 67, N. Y.
 RADIO CORES, INC., 9540 Tulley Ave., Oak Lawn, Ill. ADV. PG. 638.
 STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
 THOMAS & SKINNER INC., 1122 E. 23rd St., Indianapolis, Ind. ADV. PG. 672.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.

CORES—U Type

See CORES—C Type

COUNTERS, ELECTRON AND NUCLEAR

See COUNTERS—Geiger

COUNTERS—Electronic

Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing 1, Mich.
 ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
 Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Allegany Instrument Co., Inc., Cumberland, Md.
 ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.
 Audio Products Corp., 2265 Westwood Blvd., Los Angeles 64, Calif.
 Austin Co., The Special Devices Div., 76 Ninth Ave., New York 11, N. Y.
 BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
 BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 BOESCH MFG. CO., Danbury, Conn. ADV. PG. 542.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland, 14, Ohio. ADV. PG. 314, 315.
 Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia, Pa.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.
 COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
 Control Devices, Inc., 8299 E. Nine Mile Rd., Van Dyke, Mich.
 Cyclotron Specialties Co., Moraga 8, Calif.
 Daystrom Instrument, Archbold, Pa.
 Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
 Deytron Engineering, 1 Winslow St., Redwood City, Calif.
 DUBROW DEVELOPMENT CO., 235-B Penn St., Burlington, N. J. ADV. PG. 380.
 Durant Mfg. Co., 1912-A N. Buffum St., Milwaukee 1, Wis.
 EECO Production Co., 506 E. 1st St., Santa Ana, Calif.
 ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.
 Electrical Service Co., 1271 Mission St., San Francisco, Calif.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.

Electro Instruments, Inc., 3794 Rosecrans, San Diego 10, Calif.
 ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
 Electronic Control Corp., 1573 E. Forest Ave., Detroit 7, Mich.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Electronic Engineering Co. of California, 180 S. Alvarado St., Los Angeles 57, Calif.
 EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 Grason-Stadler Co., West Concord, Mass.
 Haledy Electronics Co., 57 William St., New York 5, N. Y.
 Hamner Electronics Co., Inc., Box 531, Princeton, N. J.
 HAYDU BROTHERS DIV. OF BURROUGHS CORP., P.O. Box 1226, Plainfield, N. J. ADV. PG. 409.
 HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
 Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
 Industrial Electronic Controls Co., 2271 E. 14th St., Brooklyn 29, N. Y.
 Laboratory For Electronics, Inc., 75 Pitts St., Boston 14, Mass.
 Machinery Electrification, Inc., Northboro, Mass.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P.O. Box 707, North Hollywood, Calif.
 Magnetics Research Co., 255 Grove St., White Plains, N. Y.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.
 NRD Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 National Union Electric Corp., 350 Scotland Rd., Orange, N. J.
 North Electric Co., 553 S. Market St., Galion, Ohio.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Nuclear Measurements Corp., 2460 N. Arlington Ave., Indianapolis 5, Ind.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Rangek Co., Box 212, El Segundo, Calif.
 Performance Measurements Co., 15301 W. McNichols, Detroit 35, Mich.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Post Machinery Co., Electronic Products Div., 140 Elliott St., Beverly, Mass.
 Potter Aeronautical Co., Route #22, Union, N. J.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Ransom Research, P. O. Box 382, San Pedro, Calif.
 Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.
 REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.
 RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
 Robotron Corp., 21300 W. Eight Mile Rd., P. O. Box 4885, Detroit 19, Mich.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 372, 373.
 Spencer Mfg. Co., 3253 N. Cicero Ave., Chicago 41, Ill.
 STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Technical Associates, 140 W. Providencia Ave., Burbank, Calif.
 Telecomputing Corp., 12838 Saticoy St., North Hollywood, Calif.
 TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.
 WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
 WANG LABORATORIES, INC., 37 Hurlay St., Cambridge 41, Ill. ADV. PG. 675.
 Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.

COUNTERS—Frequency

ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
 Airmec, Ltd., High Wycombe, Buckinghamshire, England.

ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.

BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.

Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.

Devtron Engineering, 1 Winslow St., Redwood City, Calif.

DUBROW DEVELOPMENT CO., 235-B Penn St., Burlington, N. J. ADV. PG. 380.

ECCO PRODUCTION CO., 506 E. 1st St., Santa Ana, Calif.

Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.

ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.

Electronic Engineering Co. of California, 180 S. Alvarado St., Los Angeles 57, Calif.

EL-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.

Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingston, Pa. ADV. PG. 466.

HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas. ADV. PG. 476.

Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.

Laboratory For Electronics, Inc., 75 Pitts St., Boston 14, Mass.

Magnetics Research Co., 255 Grove St., White Plains, N. Y.

National Aircraft Corp., 3411 Tulare St., Burbank, Calif.

Northeastern Engineering, Inc., Manchester, N. H.

Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.

Ransom Research, P. O. Box 382, San Pedro, Calif.

Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.

WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 675.

COUNTERS—Geiger

Airborne Electronics Co., 6813 Troost Ave., North Hollywood, Calif.

ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.

Atomic Research Corp., P. O. Box 205, Colorado Springs, Colo.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.

Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.

CURTISS-WRIGHT CORP., ELECTRONICS DIV., 631 Central Ave., Carlstadt, N. J. ADV. PG. 583-585.

Cyclotron Specialties Co., Moraga 8, Calif.

Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.

EBERLINE INSTRUMENT DIVISION, P. O. Box 279, Santa Fe, N. M. ADV. PG. 654.

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.

Electronic Products Co., 111 E. Third St., Mt. Vernon, N. Y.

EL-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.

Fisher Research Lab., Inc., 1961 University Ave., Palo Alto, Calif.

Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.

Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.

Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.

International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.

Jordan Electronics, Inc., 3025 Mission Rd., Alhambra, Calif.

Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif.

Leighton Labs., H. W., Sunset Lane & York Rd., Hatboro, Pa.

Measurement Engineering, Ltd., Armprior, Ontario, Canada.

Menlo Research Laboratory, Menlo Park, Calif.

Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.

NRD Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.

North American Phillips Co., Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.

Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

Nuclear Development Lab., Box 7034, Kansas City, Mo.

Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.

Nuclear Instrument & Chemical Corp., 223 W. Erie St., Chicago 10, Ill.

Nuclear Measurements Corp., 2460 N. Arlington Ave., Indianapolis 5, Ind.

Nucleonic Company of America, 196 De Graw St., Brooklyn 31, N. Y.

Omco, U. S. 93 & Las Palomas St., Kingman, Ariz.

Pacific Transducer EBG Corp., 11921 W. Pico Blvd., Los Angeles 64, Calif.

Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.

Precision Radiation Instruments, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif.

Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.

Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.

Radioactive Products, Inc., 2421 Wolcott, Ferndale, Mich.

Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.

Research Mfg. Co., 2115 W. 17th St., Long Beach, Calif.

Scientific Radio Products Co., Inc., 215 S. 11th St., Omaha, Neb.

SERVO-RECORDING INSTRUMENTS, INC., 917 Grand Ave., Phoenix, Ariz. ADV. PG. 587.

Technical Associates, 140 W. Providencia Ave., Burbank, Calif.

Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.

Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.

Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.

Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.

Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.

Wood Counter Laboratory, N., 5491 Blackstone, Chicago 37, Ill.

COUNTERS—Mechanical

Anatran Engineering Corp., 165 E. California St., Pasadena, Calif.

ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.

BOWMAR INSTRUMENT CORP., 2400 Pennsylvania Ave., Fort Wayne, Ind. ADV. PG. 204.

Camera Mart Inc., 1845 Broadway, New York 23, N. Y.

Cyclotron Specialties Co., Moraga 8, Calif.

Durant Mfg. Co., 1912-A N. Buffum St., Milwaukee 1, Wis.

Haledy Electronics Co., 57 William St., New York 5, N. Y.

KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.

Marlee Associates, Inc., Route 46, Parsippany, N. J.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Mueller Laboratory, 1052 N. Allen, Pasadena, Calif.

NAGOG ASSOCIATES, INC., Littleton, Mass. ADV. PG. 571.

Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.

Production Instrument Co., 710 W. Jackson Blvd., Chicago 6, Ill.

Streeter-Amet Corp., 4101 N. Ravenswood Ave., Chicago 13, Ill.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.

Veeder-Root, Inc., Hartford 2, Conn.

COUNTERS—Photoelectric

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.

Airmec, Ltd., High Wycombe, Buckinghamshire, England.

ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.

Autotron Co., P. O. Box 722-H, Danville, Ill.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.

Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.

Durant Mfg. Co., 1912-A N. Buffum St., Milwaukee 1, Wis.

Electrical Service Co., 1271 Mission St., San Francisco, Calif.

Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.

EL-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.

Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Haledy Electronics Co., 57 William St., New York 5, N. Y.

Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.

I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.

Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Machinery Electrification, Inc., Northboro, Mass.

Marlee Associates, Inc., Route 46, Parsippany, N. J.

NAGOG ASSOCIATES, INC., Littleton, Mass. ADV. PG. 571.

NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.

Pantek Co., Box 212, El Segundo, Calif.

Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.

Post Machinery Co., Electronic Products Div., 140 Elliott St., Beverly, Mass.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Production Instrument Co., 710 W. Jackson Blvd., Chicago 6, Ill.

Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.

RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.

SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 372, 373.

Veeder-Root, Inc., Hartford 2, Conn.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

COUNTERS—Proportional

ATLAS PRECISION PRODUCTS CO., Castor & Kensington Aves., Philadelphia 24, Pa. ADV. PG. 543.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

BOWMAR INSTRUMENT CORP., 2400 Pennsylvania Ave., Fort Wayne, Ind. ADV. PG. 204.

Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.

ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.

EL-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.

NRD Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.

North American Phillips Co., Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.

Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.

Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

Nuclear Measurements Corp., 2460 N. Arlington Ave., Indianapolis 5, Ind.

Nucleonic Company of America, 196 DeGraw St., Brooklyn 31, N. Y.

Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.

Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.

Radioactive Products, Inc., 2421 Wolcott, Ferndale, Mich.

Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.

Technical Associates, 140 W. Providencia Ave., Burbank, Calif.

Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.

Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.

Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

Wood Counter Laboratory, N., 5491 Blackstone, Chicago 37, Ill.

X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

COUNTERS—Revolution

AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.

Anatran Engineering Corp., 165 E. California St., Pasadena, Calif.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

BOWMAR INSTRUMENT CORP., 2400 Pennsylvania Ave., Fort Wayne, Ind. ADV. PG. 204.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.

Durant Mfg. Co., 1912-A N. Buffum St., Milwaukee 1, Wis.

Eagle Signal Corp., Moline, Ill.

ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.

Epic, Inc., 154 Nassau St., New York 38, N. Y.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.

Marlee Associates, Inc., Route 46, Parsippany, N. J.

Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Production Instrument Co., 710 W. Jackson Blvd., Chicago 6, Ill.

Ransom Research, P. O. Box 382, San Pedro, Calif.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.

Streeter-Amet Corp., 4101 N. Ravenswood Ave., Chicago 13, Ill.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
 Telecomputing Corp., 12838 Saticoy St., North Hollywood, Calif.
 Veeder-Root, Inc., Hartford 2, Conn.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.

COUNTING AND SORTING
 See **CONTROLS—Counting & Sorting**

COUPLERS—Directional COUPLINGS—Microwave
 See **MICROWAVE ACCESSORIES**

COUPLINGS, SHAFT—Reducers & Extensions

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
 Exceller Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Johnson Co., E. F., Waseca, Minn.
 Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 8, Calif.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 P. I. C. Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
 Radio Essentials Inc., 152 S. MacQuestion Parkway, Mt. Vernon, N. Y.
 Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.

COUPLINGS, SHAFT—Rigid & Flexible

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
 Belock Instrument Corp., 111-01 14th Ave., College Point 56, N. Y.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 Cardwell Mfg. Corp., Allen D., 97 Whiting St., Plainville, Conn.
 Clifford Mfg. Co., Grove St., Waltham, Mass.
 Exceller Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Johnson Co., E. F., Waseca, Minn.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa.
KUPFRIAN MFG. CORP., 398 State St., Binghamton, N. Y. ADV. PG. 667.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 8, Calif.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
 Reflectone Corp., Post Rd. & Myano Lane, Stamford, Conn.
RENBRANDT, INC., 98 Kirkland St., Cambridge 38, Mass. ADV. PG. 544.
 Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.
 Simmonds Aerossories, Inc., Tarrytown, N. Y.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.

STEWART CORP., F. W., A SUB. OF S. S. WHITE DENTAL MFG. CO., 4311 Ravenswood Ave., Chicago 13, Ill. ADV. PG. 522.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.

CROSSES—Microwave
 See **MICROWAVE ACCESSORIES**
Hybrid Junctions—Microwave

CRYSTAL ANALYSIS EQUIPMENT

APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
 Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
 Hupp Electronics Co., A. Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
SEMIMETALS, INC., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 568.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa.

CRYSTAL CARTRIDGES

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
 American Microphone Co., 270 S. Fair Oaks Ave., Pasadena 1, Calif.
 Astatic Corporation, The, Conneaut, Ohio.
BODNAR INDUSTRIES, INC., 19 Railroad Ave., New Rochelle, N. Y. ADV. PG. 691.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
 Hupp Electronics Co., A. Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
 Webster Electric Co., 1900 Clark St., Racine, Wis.

CRYSTAL DETECTORS
 See **DETECTORS—Crystal**

CRYSTAL DIODES
 See **CRYSTALS—Germanium-Crystals, Silicon**

CRYSTAL MOUNTS & MIXERS
 See **MICROWAVE ACCESSORIES**

CRYSTALS—Barium Titanate-Transducer

Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 655.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 574.
 Edo Corp., College Point, N. Y.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
 Northern Electronic & Vacuum Industries, St. Sauveur des Monts P. Q., P. O. Box 105, Canada.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.

CRYSTALS—Color TV Frequency Control
 See **PARTS for COLOR TV TUBES**

CRYSTALS—Germanium-Rectifying & Amplifying

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. ADV. PG. 18.
GENERAL TRANSISTOR CORP., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 448.
HARMON, LICHTENSTEIN & CO., 25 Beaver St., New York 4, N. Y. ADV. PG. 667.
HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 153-155.
 Kemtron Electron Products, Inc., 5 Prince Place, Newburyport, Mass.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 Pacific Semiconductors, Inc., 10451 W. Jefferson Blvd., Culver City, Calif.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
SEMIMETALS, INC., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 568.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 U. S. Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

CRYSTALS—Quartz-Frequency Control

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Anasae Corp., 80 Wall St., New York 5, N. Y.
 Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 284, 285.
BODNAR INDUSTRIES, INC., 19 Railroad Ave., New Rochelle, N. Y. ADV. PG. 691.
 Breon Laboratories, 1520 Evergreen Rd., Williamsport, Pa.
BULOVA WATCH CO., QUARTZ CRYSTAL DIVISION, Valley Stream, N. Y. ADV. PG. 378, 379.
 C-W Mfg. Co., Box 2065, El Monte, Calif.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
CLARK CRYSTAL CO., Farm Rd., Marlboro, Mass. ADV. PG. 294.
 Cryco, Inc., 1138 Mission St., South Pasadena, Calif.
 Crystal Laboratories, 640 N. Main St., Wichita, Kansas.
DX RADIO PRODUCTS CO., INC., 2300 Armitage Ave., Chicago 47, Ill.
 Dallons Laboratories, Inc., 5066 Santa Monica Blvd., Los Angeles 29, Calif.
 Eidson Electronic Co., 1902 N. Third St., Temple, Texas.
GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. ADV. PG. 18.
HANMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
 Hudson American Corp., 25 W. 43rd St., New York 36, N. Y.
HUNT CORP., THE, 453 Lincoln St., Carlisle, Pa. ADV. PG. 224.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Kaar Engineering Co., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
KEYSTONE ELECTRONICS CO., 114 Manhattan St., Stamford, Conn. ADV. PG. 520.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 568.
 Lewis Co., E. B., 11 Bragg St., East Hartford 8, Conn.
MCCOY ELECTRONICS CO., Mount Holly Springs, Pa. ADV. PG. 560.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
MIDLAND MFG. CO., INC., 3155 Fiberglas Rd., Kansas City 15, Kansas. ADV. PG. 215.
 Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
 Monitor Products Co., 815 Fremont Ave., South Pasadena, Calif.
 Nebel Laboratory, R. E., 1634 E. 12th St., Brooklyn 29, N. Y.
 Northern Engineering Laboratories, Inc., 434 Wilmot Ave., Burlington, Wis.
 Pan-Electronics Corp., Box 404, Griffin, Ga.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
 Precision Piezo Service, 427 Mayflower St., Baton Rouge, La.
 Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Radio Specialty Mfg. Co., 2023 S.E. 6th Ave., Portland 14, Ore.
 Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
 Scientific Radio Service, 4301 Sheridan St., University Park, Md.
 Sherold Crystals, Inc., 1510 McGee St., Kansas City, Mo.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Standard Crystal Co., 1714 Locust St., Kansas City 8, Mo.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London W.C. 2, England.
VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 612.
 Wright Electronics, Inc., 1519 McGee St., Kansas City 7, Mo.
CRYSTALS—Quartz-Transducer
BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 284, 285.
BULOVA WATCH CO., QUARTZ DIV., Valley Stream, N. Y. ADV. PG. 378, 379.
CLARK CRYSTAL CO., Farm Rd., Marlboro, Mass. ADV. PG. 294.
DX RADIO PRODUCTS CO., INC., 2300 Armitage Ave., Chicago 47, Ill.
 Dallons Laboratories, Inc., 5066 Santa Monica Blvd., Los Angeles 29, Calif.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
 Hoffman Co., P. R., Carlisle, Pa.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
KEYSTONE ELECTRONICS CO., 114 Manhattan St., Stamford, Conn. ADV. PG. 520.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 568.
 Lewis Co., E. B., 11 Bragg St., East Hartford 8, Conn.

McCOY ELECTRONICS CO., Mount Holly Springs, Pa. ADV. PG. 560.
 Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
 Monitor Products Co., 815 Fremont Ave., South Pasadena, Calif.
 Nebel Laboratory, R. E., 1634 E. 12th St., Brooklyn 29, N. Y.
 Northern Engineering Laboratories, Inc., 434 Wilmot Ave., Burlington, Wis.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
 Premier Research Laboratories, Inc., 83 Seventh Ave., New York 11, N. Y.
 Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Standard Crystal Co., 1714 Locust St., Kansas City 8, Mo.
 United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.
VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 612.
 Wright Electronics Inc., 1519 McGee St., Kansas City 8, Mo.

CRYSTALS—Raw

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Breon Laboratories, 1520 Evergreen Rd., Williamsport, Pa.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Diamond Drill Carbon Co., The, 244 Madison Ave., New York 16, N. Y.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
KEYSTONE ELECTRONICS CO., 114 Manhattan St., Stamford, Conn. ADV. PG. 520.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
MIDLAND MFG. CO., INC., 3155 Fiberglass Rd., Kansas City 15, Kansas. ADV. PG. 215.
 Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
 Nebel Laboratory, R. E., 1624 E. 12th St., Brooklyn 29, N. Y.
PAN AMERICAN TRADE DEVELOPMENT CORP., 2 Park Ave., New York 16, N. Y. ADV. PG. 610.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.

CRYSTALS—Rochelle Salts, Transducer

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Edo Corp., College Point, N. Y.
 Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.

CRYSTALS—Scintillation Counter

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 National Radiac, Inc., 475 Washington St., Newark, N. J.
 Northern Electronic & Vacuum Industries, St. Sauveur des Monts, P. Q., P. O. Box 105M, Canada.
 Nuclear Research Corp., Southampton, Pa.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
 Tracerlab, Inc., 130 High St., Boston 10, Mass.
 Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.

CRYSTALS—Silicon—Rectifying & Amplifying

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Flight Research, Inc., P. O. Box 1-F, Richmond 1, Va.
GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. ADV. PG. 18.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
GENERAL TRANSISTOR CORP., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 448.
HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 153-155.
 Kemtron Electron Products, Inc., 5 Prince Place, Newburyport, Mass.
MICROWAVE ASSOCIATES, INC., 22 Cunningham St., Boston 15, Mass. ADV. PG. 163-166.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Bekden Ave., Chicago 47, Ill. ADV. PG. 24, 25.
 Pacific Semiconductors, Inc., 10451 W. Jefferson Blvd., Culver City, Calif.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 9, N. Y. ADV. PG. 727-733.
SEMIMETALS, INC., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 568.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 U. S. Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

CRYSTALS—Tourmaline-Frequency Control

CLARK CRYSTAL CO., Farm Rd., Marlboro, Mass. ADV. PG. 294.
 Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
 Scientific Radio Products Co., Inc., 215 S. 11th St., Omaha, Neb.
VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 612.

CRYSTALS—Unfinished

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Anasac Corp., 80 Wall St., New York 5, N. Y.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Breon Laboratories, Inc., 1520 Evergreen Rd., Williamsport, Pa.
CLARK CRYSTAL CO., Farm Rd., Marlboro, Mass. ADV. PG. 294.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Eidson Electronic Co., 1902 N. Third St., Temple, Texas.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
 Hoffman Co., P. R., Carlisle, Pa.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
KEYSTONE ELECTRONICS CO., 114 Manhattan St., Stamford, Conn. ADV. PG. 520.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 568.
 Lewis Co., E. B., 11 Bragg St., East Hartford 8, Conn.
MIDLAND MFG. CO., INC., 3155 Fiberglass Rd., Kansas City 15, Kansas. ADV. PG. 215.
 Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
 Monitor Products Co., 815 Fremont Ave., South Pasadena, Calif.
 Nebel Laboratory, R. E., 1634 E. 12th St., Brooklyn 29, N. Y.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
 Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
 Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
 Scientific Radio Products Co., Inc., 215 S. 11th St., Omaha, Neb.
 Standard Crystal Co., 1714 Locust St., Kansas City 8, Mo.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa.
VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 612.
 Wright Electronics Inc., 1519 McGee St., Kansas City 7, Mo.

CYLINDERS—Air

Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
 Hydraulic Press Mfg. Co., Mt. Gilead, Ohio.

DATA RECORDING EQUIPMENT

A-V Mfg. Corp., 730 Fifth Ave., New York 19, N. Y.
 Acme Telechron Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 673.
 Allegany Instrument Co., Inc., Cumberland, Md.
 American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 415.
APPLIED SCIENCE CORP. OF PRINCETON, 45 Wallace Rd., Princeton, N. J. ADV. PG. 412, 413.
 Austin Co., The, Special Devices Div., 76 Ninth Ave., New York 11, N. Y.
 Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.
 Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Benson-Lehner Corp., 11930 W. Olympic Blvd., Los Angeles 64, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Berlant Concertone-Audio Div. of American Electronics Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 Century Electronics & Instruments, Inc., P. O. Box 6216, Pine Station, Tulsa 10, Okla.
 Coleman Engineering Co., Inc., 6040 W. Jefferson Blvd., Los Angeles 16, Calif.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
DAVIES LABORATORIES, INC., 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.
 Delaware Products Co., 300 Broadway, Camden 3, N. J.
 Electro Data Corp., 460 Sierra Madre Villa, Pasadena, Calif.

Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Electronic Engineering Co. of California, 180 S. Alvarado St., Los Angeles 57, Calif.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 272, 273.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Feedback Controls, Inc., 1332-34 N. Henry St., Alexandria, Va.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Friden Calculating Machine Co., Inc., 2350 Washington Ave., San Leandro, Calif.
 Genisco, Inc., 2233 Federal Ave., Los Angeles 64, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
HEILAND DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 5200 E. Evans Ave., Denver 22, Colo. ADV. PG. 376.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Infra Electronic Corp., Roseland, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.
 Logistics Research, Inc., 141 S. Pacific Ave., Redondo Beach, Calif.
 Magnasyn Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Magne-Pulse Corp., 11 Godwin Ave., Fair Lawn, N. J.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
MOSELEY CO., F. L., 409 Fair Oaks Ave., Pasadena 3, Calif. ADV. PG. 684.
 National Cash Register Co., Dayton 9, Ohio.
 North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Radiation, Inc., Melbourne, Fla.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Reflectone Corp., Post Rd. & Myron Lane, Stamford, Conn.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.
SANBORN CO., 39 Osborn St., Cambridge 39, Mass. ADV. PG. 205.
 Streeter-Amet Corp., 4101 N. Ravenswood Ave., Chicago 13, Ill.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Teller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
 Telecomputing Corp., 12838 Saticoy St., North Hollywood, Calif.
 Teletro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Teleregister Co., The, 445 Fairfield Ave., Stamford, Conn.
 United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 282, 283.
 Vic-Dar Division 823, Victor Adding Machine Co., 3900 N. Rockwell St., Chicago 18, Ill.
WANG LABORATORIES, INC., 37 Hurlay St., Cambridge 41, Mass. ADV. PG. 675.

DECADE BOXES—Capacitance

Alco Electronics Mfg. Corp., 3 Wolcott Ave., Lawrence, Mass.
 Consolidated Resistance Co. of America Inc., 44 Prospect St., Yonkers, N. Y.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
 Decade Instrument Co., Box 153, Caldwell, N. J.
ELECTRO-MEASUREMENTS, INC., 4312 S. E. Stark St., Portland 15, Ore. ADV. PG. 579.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
 Endevco Corp., 161 E. California St., Pasadena, Calif.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

High Fidelity Products, Box 131, Owensboro, Ky.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.
SOUTHERN ELECTRONICS CORP., 239 W. Orange Grove Ave., Burbank, Calif. ADV. PG. 435.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

DECADE BOXES—Inductance

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
 Coast Coil Co., 5333 W. Washington Blvd., Los Angeles 16, Calif.
 Consolidated Resistance Co. of America Inc., 44 Prospect St., Yonkers, N. Y.
 Decade Instrument Co., Box 153, Caldwell, N. J.
 Endecco Corp., 161 E. California St., Pasadena, Calif.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 New York Transformer Co., Inc., Third Ave., Alpha, N. J.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
SHASTA DIV. OF BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.
 Torocoil Co., 2615 Bristol Rd., Columbus 21, Ohio.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

DECADE BOXES—Resistance

Alco Electronics Mfg. Corp., 3 Wolcott Ave., Lawrence, Mass.
 Allegany Instrument Co., Inc., Cumberland, Md.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
 Consolidated Resistance Co. of America Inc., 44 Prospect St., Yonkers, N. Y.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Decade Instrument Co., Box 153, Caldwell, N. J.
DUBROW DEVELOPMENT CO., 235-B Penn St., Burlington, N. J. ADV. PG. 380.
EASTERN PRECISION RESISTOR CORP., 675 Barbey St., Brooklyn, N. Y. ADV. PG. 456.
ELECTRO-MEASUREMENTS, INC., 4312 S.E. Stark St., Portland 15, Ore. ADV. PG. 579.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
 Endecco Corp., 161 E. California St., Pasadena, Calif.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Furzehill Laboratories, Ltd., 57 Clarendon Rd., Watford, Herts., England.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Gray Instrument Co, 200 E. Church Lane, Philadelphia 44, Pa.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Marma Electronic Co., 703 Willow St., Chicago 14, Ill.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
PHYSICS RESEARCH LABS, INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Rochester Electronics Co., Inc., Box 275, Penfield, N. Y.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
TELEX, INC., Telex Park, St. Paul 1, Minn. ADV. PG. 686.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

DELALCOMANIAS

Meyercord Co., 5323 W. Lake St., Chicago 44, Ill.
PARK NAMEPLATE CO., INC., 61-07 32nd Ave., Woodside 77, N. Y. ADV. PG. 629.
 Topflight Corp., 160 E. Ninth Ave., York, Pa.
 Walasco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

DEFLECTION YOKES

See **YOKES—Deflection**

DEHYDRATORS—Automatic

ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
 Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
 Communication Products Co., Inc., Marlboro, N. J.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
 Dielectric Products Engineering Co., Inc., Raymond, Maine.
 Kahn and Co., Inc., 541 Windsor St., Hartford 1, Conn.
NRG EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
 Pittsburgh Electrodryer Co., 300 32nd St., Pittsburgh 30, Pa.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.

DELAY LINES—Color TV

See **PARTS for COLOR TV TUBES**

DELAY LINES—Distributed-Constant Fixed

ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
 Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
 Aladdin Radio Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bel-Fuse, Inc., 311 Mountain Rd., Union City, N. J.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BREW & CO., INC., RICHARD, Concord, N. H. ADV. PG. 661.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
COLUMBIA TECHNICAL CORP., 61-02 31 Ave., Woodside 77, N. Y. ADV. PG. 609.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.
CONTROL ELECTRONIC CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
 Dilectron Div., The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.
ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.
 Electrometric, Inc., P. O. Box 107, Woodstock, Ill.
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 391.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307.
 Gudeman Co. of California Inc., 9200 Exposition Blvd., Los Angeles 34, Calif.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
 Helipot Corp., 916 Meridian Ave., South Pasadena, Calif.
 Interference* Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Litton Industries, Components Div., Beverly Hills, Calif.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
PULSE ENGINEERING, 2431 Spring St., Redwood City, Calif. ADV. PG. 621.
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 Shallite, Inc., 10 Mill St., Paterson 1, N. J.

TECHNITROL ENGINEERING CO., 2751 N. 4th St., Philadelphia 33, Pa. ADV. PG. 83, 491.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.

DELAY LINES—Distributed-Constant Variable

ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BREW & CO., INC., RICHARD D., Concord, N. H. ADV. PG. 661.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
COLUMBIA TECHNICAL CORP., 61-02 31 Ave., Woodside 77, N. Y. ADV. PG. 609.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
 Dilectron Div., The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.
 Electrometric, Inc., P. O. Box 107, Woodstock, Ill.
ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307.
 Gudeman Co. of California Inc., 9200 Exposition Blvd., Los Angeles 34, Calif.
 Helipot Corp., 916 Meridian Ave., South Pasadena, Calif.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 Litton Industries, Components Div., Beverly Hills, Calif.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
TECHNITROL ENGINEERING CO., 2751 N. Fourth St., Philadelphia 33, Pa. ADV. PG. 83, 491.

DELAY LINES—Lumped-Constant Fixed

ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
 Aerocox, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Aladdin Radio Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
AXEL BROS. ELECTRONICS DIV., 134-20 Jamaica Ave., Jamaica, N. Y. ADV. PG. 447.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BREW & CO., INC., RICHARD, Concord, N. H. ADV. PG. 661.
 Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
 Dilectron Div., The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif.
 Double "E" Products Co., 216 Standard St., El Segundo, Calif.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.
 Electrometric, Inc., P. O. Box 107, Woodstock, Ill.
 Electronic Computer Div., Underwood Corp., 35-10 36th Ave., Long Island City 6, N. Y.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 272, 273.
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 391.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307.
 Gudeman Co. of California Inc., 9200 Exposition Blvd., Los Angeles 34, Calif.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.

GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. ADV. PG. 689.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Broadway Ave., Sylmar, Calif. ADV. PG. 601.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty-Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Litton Industries, Components Div., Beverley Hills, Calif.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MLSE ENGINEERING, P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
 Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.
RSE ENGINEERING, 2431 Spring St., Redwood City, Calif. ADV. PG. 621.
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 615.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
TECHNITROL ENGINEERING CO., 2751 N. 4th St., Philadelphia 33, Pa. ADV. PG. 83, 491.
 Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 Warsaw Coil Co., Warsaw, Ind.
 Western Coil Products Co., 2989 Middlefield Rd., Palo Alto, Calif.

DELAY LINES—Lumped-Constant Variable

ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
AXEL BROS., ELECTRONICS DIV., 134-20 Jamaica Ave., Jamaica, N. Y. ADV. PG. 447.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BREW & CO., INC., RICHARD, Concord, N. H. ADV. PG. 661.
 Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
 Carad Corp., 2850 Ray Rd., Redwood City, Calif.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
 Dilectron Div., The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif.
 Electrometric Inc., P. O. Box 107, Woodstock, Ill.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.
 Electronic Computer Div., Underwood Corp., 35-10 36th Ave., Long Island City 6, N. Y.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307.
 Gudeman Co. of California Inc., 9200 Exposition Blvd., Los Angeles 34, Calif.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 Litton Industries, Components Div., Beverley Hills, Calif.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
TECHNITROL ENGINEERING CO., 2751 N. Fourth St., Philadelphia 33, Pa. ADV. PG. 82, 491.
 Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.

DELAY LINES—Ultrasonic, Liquid or Solid

ANDERSEN LABORATORIES, INC., 39 Talcott Rd., West Hartford 10, Conn. ADV. PG. 553.
ARENBERG ULTRASONIC LABORATORY, 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 570.
BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 284, 285.
BREW & CO., INC., RICHARD, Concord, N. H. ADV. PG. 661.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 Sturup, Inc., 1 Factory St., Middletown, Conn.
SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 571.
 Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.

DEMINEALIZERS & STILLS—Water

Barnstead Still & Sterilizer Co., Inc., 2 Lanesville Terrace, Boston 31, Mass.
 Graver Water Conditioner Co., 216 W. 14th St., New York, N. Y.
 La Motte Chemical Products Co., Towson 4, Baltimore, Md.
 Penfield Mfg. Co., 19 High School Ave., Meriden, Conn.
 Permutit Co., The, 330 W. 42nd St., New York 36, N. Y.
 Precision Scientific Co., 3737 W. Cortland St., Chicago 47, Ill.

DEMODULATORS

Allegany Instrument Co., Inc., Cumberland, Md.
 American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
 Collins Radio Co., Cedar Rapids, Iowa.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 16, Md.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 64-66.
RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 392.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.
 Transiron, Inc., 186 Granite St., Manchester, N. H.
 Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.

DEMODULATORS—Electronic

Allegany Instrument Co., Inc., Cumberland, Md.
 American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Commercial Products Div., Aircraft Armaments, Inc., 4003 Seven Mile Lane, Pikesville 8, Md.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Technical Materiel Corp., P.O. Box 142, Mamaroneck, N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.
 Transiron, Inc., 186 Granite St., Manchester, N. H.

DENSITOMETERS—Electronic

Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
EBERLINE INSTRUMENT DIVISION, P.O. Box 279, Santa Fe, N. M. ADV. PG. 654.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Hernfeld Engineering Corp., Frank, 5716 Camille Ave., Culver City, Calif.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
 Spincor Division, Beckman Instruments, Inc., 535 O'Neil Ave., Belmont, Calif.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB-OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

DEPTH SOUNDERS

Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
 Edo Corp., College Point, N. Y.
 Kaar Engineering Co., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

DETECTORS—Crystal

ADMITTANCE, INC., 9 Alan Court, Farmingdale, N. Y. ADV. PG. 508.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
 Frequency Standards, Inc., P.O. Box 504, Asbury Park, N. J.
GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. ADV. PG. 18.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 153-155.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Menlo Research Laboratory, Menlo Park, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
MICROPHASE CORP., P.O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
 Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
 Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.
SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.
 Sperry Gyroscopic Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London W.C. 2, England.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Ta-Mar, Inc., 11571 W. Jefferson Blvd., Culver City, Calif.
TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 602.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

DETECTORS—Crystal Germanium
See **CRYSTALS—Germanium****DETECTORS—Crystal Silicon**
See **CRYSTALS—Silicon****DETECTORS—Explosive Gas**

BRISTOL ENGINEERING CORP., Beaver Dam Rd. & Oak Lane, Bristol, Pa. ADV. PG. 300.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., Schenectady 5, N. Y. ADV. PG. 1-12.
 Instrument Development Labs., Inc., 163 Highland Ave., Needham Heights, Mass.
Johnson-Williams, Inc., 2526 Park Blvd., Palo Alto, Calif.
PERKIN-ELMER CORP., THE, Main Ave., Norwalk, Conn. ADV. PG. 306.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DIV., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.

DETECTORS—Fire, Electronic

ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
Arnoux Corp., Box 34628, Los Angeles, Calif.
Browning Laboratories, Inc., Main St., Winchester, Mass.
EDISON INC., THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.
Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.
Fenwal, Inc., 60 Pleasant St., Ashland, Mass.
I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
ULANET CO., GEORGE, 413 Market St., Newark 5, N. J. ADV. PG. 617.
VEC TROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.

DETECTORS—Flaw & Defect, Electronic

ARENBERG ULTRASONIC LABORATORY, 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 570.
BRANSON INSTRUMENTS, INC., 1 Brown House Rd., Stamford, Conn. ADV. PG. 654.
Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
Dice Co., J. W., Englewood, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., Schenectady 5, N. Y. ADV. PG. 1-12.
I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
Kidde & Co., Inc., Walter, 477 Main St., Belleville 9, N. J.
Magnetic Analysis Corp., 42-44 12th St., Long Island City 1, N. Y.
Nuclear Research Corp., Southampton, Pa.
Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
Radar Engineers, 403 E. 45th St., Seattle 5, Wash.
Special Products Co., P. O. Box 188, Rockville 3, Md.
Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
Vibro Ceramics Corp., Metuchen, N. J.

DETECTORS—Flaw, Ultrasonic

Dice Co., J. W., Englewood, N. J.
Electro Circuits, Inc., 401 E. Green St., Pasadena, Calif.
Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.

DETECTORS—Galena

Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.

DETECTORS—Impedance

ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1, Information Dept., Great Neck, N. Y.

DETECTORS—Leak

Advanced Electronics, Inc., 95 Silas Deane Highway, Rocky Hill, Conn.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.

Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.

Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Consolidated Vacuum, Rochester 3, N. Y.
Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
Johnson-Williams, Inc., 2526 Park Blvd., Palo Alto, Calif.

Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
Menlo Research Laboratory, Menlo Park, Calif.

NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.

Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.

Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.

DETECTORS—Metal, Electronic

ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
Bludworth, Inc., Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
Dice Co., J. W., Englewood, N. J.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 522.
Fisher Research Lab., Inc., 1961 University Ave., Palo Alto, Calif.
Gardiner Electronics, 2545 E. Indian School Rd., Phoenix, Ariz.
Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
Harworth Mfg. Co., 409 El Camino Real, Menlo Park, Calif.
Menlo Research Laboratory, Menlo Park, Calif.
Nuclear Research Corp., Southampton, Pa.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

DETECTORS—Null

Airmec Ltd., High Wycombe, Buckinghamshire, England.
Allegany Instrument Co., Inc., Cumberland, Md.
Avion Instrument Corp., A Sub., of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.
Crescent Equipment & Research Co., 11632 McBean St., El Monte, Calif.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
Deltron, Inc., P. O. Box 192, Glenside, Pa.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
ELECTRO-MEASUREMENTS, INC., 4312 S.E. Stark St., Portland 15, Ore. ADV. PG. 579.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
FREED TRANSFORMER CO., INC., 1736 Wierfield St., Brooklyn 27, N. Y. ADV. PG. 645.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
Infra Electronic Corp., Roseland, N. J.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.
Pennsylvania Testing Laboratory, Doylestown, Pa.
Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

DETECTORS—Null—r-f

Aircorn Inc., 354 Main St., Winthrop 52, Mass.
Airmec Ltd., High Wycombe, Buckinghamshire, England.
Allegany Instrument Co., Inc., Cumberland, Md.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 481.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

DETECTORS—Null—VTVM

Allegany Instrument Co., Inc., Cumberland, Md.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 481.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.
DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FREED TRANSFORMER CO., INC., 1736 Wierfield St., Brooklyn 27, N. Y. ADV. PG. 645.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.
Pennsylvania Testing Laboratory, Doylestown, Pa.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.

DETECTORS—RadiationSee **COUNTERS—Geiger****DETECTORS—Smoke, Electronic**

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
Beridix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Bristol Co., The, Waterbury 20, Conn.
Combustion Control Div., Electronics Corp. of America, 718 Beacon St., Boston 8, Mass.
Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
Kidde & Co., Inc., Walter, 477 Main St., Belleville 9, N. J.
Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
Luminate Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
Simmonds Aerocessories, Inc., Tarrytown, N. Y.

DETECTORS—Standing Wave

Aircorn Inc., 354 Main St., Winthrop 52, Mass.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 216.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
Browning Laboratories, Inc., Main St., Winchester, Mass.
Color Television, Inc., 973 E. San Carlos Ave., San Carlos, Calif.
DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Graham Mfg. Co., Inc., 47 Bridge St., East Greenwich, R. I.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
WAC LINE, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.

DETECTORS—Vibration

Advanced Electronics, Inc., 95 Silas Deane Highway, Rocky Hill, Conn.
Beta Corp., P. O. Box 8625, Richmond, Va.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
Erwood, Inc., 1770 Berteau Ave., Chicago 13, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
THAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
MB MFG. CO., A DIV. OF TEXTRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 496.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
Technical Instrument Co., 3732 Westheimer Rd., Houston 6, Texas.
Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.
Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.

DETECTORS—Water Leak

Advanced Electronics, Inc., 95 Silas Deane Highway, Rocky Hill, Conn.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
Delmhorst Instrument Co., 601 Cedar St., Boonton, N. J.
Fisher Research Lab., Inc., 1961 University Ave., Palo Alto, Calif.
Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

DIAGNOSTIC EQUIPMENT—Computer

American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia 23, Pa.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.
Menlo Research Laboratory, Menlo Park, Calif.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.

DIAL CRYSTALS

Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
Parisian Novelty Co., 3510 South Western Ave., Chicago 9, Ill.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
Sillicocks-Miller Co., Maplewood, N. J.

DIAL LIGHTS

See LIGHTS—Dial, Panel and Pilot

DIALS—Instrument

ACKERMAN ENGRAVERS, 458 Broadway, New York, N. Y. ADV. PG. 641.
Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
ATLAS PRECISION PRODUCTS CO., Castor & Kensington Aves., Philadelphia 24, Pa. ADV. PG. 543.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Belock Instrument Corp., 111-01 14th Ave., College Point 56, N. Y.
BODNAR INDUSTRIES, INC., 19 Railroad Ave., New Rochelle, N. Y. ADV. PG. 691.
BORG EQUIPMENT DIVISION, THE GEORGE W. BORG CORP., Janesville, Wis. ADV. PG. 142.
Bristol Co., The, Waterbury 20, Conn.
Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
Canadium Radium & Uranium Corp., 630 Fifth Ave., New York 20, N. Y.

Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
Etched Products Corp., 3901 Queens Blvd., Long Island City 4, N. Y.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.

FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
Ford Engineering Co., Inc., 129 E. "A" St., Upland, Calif.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Helipot Corp., 916 Meridian Ave., South Pasadena, Calif.
Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
Industrial Engravers, Inc., 4103 Tenth Ave., Brooklyn 19, N. Y.
Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.

Johnson Co., E. F., Waseca, Minn.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.
Laminated Sheet Products Corp., 449 Neponset St., P.O. Box 390, Norwood, Mass.
Master Etching Corp., 50 Honeck St., Englewood, N. J.
Mica Insulator Co., Schenectady 1, N. Y.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.

Muirhead & Co., Ltd., Beckenham, Kent, England.
Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
New England Etching & Plating Co., 25 Spring St., Holyoke, Mass.
North Shore Nameplate Inc., 214-27 Northern Blvd., Bayside 61, N. Y.
Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.

PARK NAMEPLATE CO., INC., 61-07 32nd Ave., Woodside 77, N. Y. ADV. PG. 629.
Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHOTO CHEMICAL PRODUCTS, INC., 479 Walton Ave., New York 51, N. Y. ADV. PG. 530.
Plasteck, Inc., Poteau, Okla.
PRINTLOID, INC., 93 Mercer St., New York 12, N. Y. ADV. PG. 580.
ROGAN BROS., 8031 N. Monticello Ave., Skokie, Ill. ADV. PG. 564.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.

SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing, N. Y. ADV. PG. 199.
Sun Dial Corp., E. Passaic Ave., Caldwell, N. J.
Tablet & Ticket Co., 1021 W. Adams St., Chicago 7, Ill.
Technicraft Co., 1156 Commonwealth Ave., Boston 34, Mass.
Techniques, Inc., 178-184 Central Ave., Hackensack, N. J.
U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

DIALS—Precision

ACKERMAN ENGRAVERS, 458 Broadway, New York, N. Y. ADV. PG. 641.
Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
ATLAS PRECISION PRODUCTS CO., Castor & Kensington Aves., Philadelphia 24, Pa. ADV. PG. 543.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Belock Instrument Corp., 111-01 14th Ave., College Point 56, N. Y.
BORG EQUIPMENT DIVISION, THE GEORGE W. BORG CORP., Janesville, Wis. ADV. PG. 142.
Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
Canadian Radium & Uranium Corp., 630 Fifth Ave., New York 20, N. Y.
Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
Etched Products Corp., 3901 Queens Blvd., Long Island City 4, N. J.

Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
Ford Engineering Co., Inc., 129 E. "A" St., Upland, Calif.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Helipot Corp., 916 Meridian Ave., South Pasadena, Calif.
Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.

Industrial Engravers, Inc., 4103 Tenth Ave., Brooklyn 19, N. Y.
Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.
Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
North Shore Nameplate, Inc., 214-27 Northern Blvd., Bayside 61, N. Y.
PARK NAMEPLATE CO., INC., 61-07 32nd Ave., Woodside 77, N. Y. ADV. PG. 629.
Pfleger Products, 3901 W. 54th St., Los Angeles 43, Calif.

Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHOTO CHEMICAL PRODUCTS, INC., 479 Walton Ave., New York 51, N. Y. ADV. PG. 530.
Plasteck, Inc., Poteau, Okla.
PRINTLOID, INC., 93 Mercer St., New York 12, N. Y. ADV. PG. 580.
Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
Sun Dial Corp., E. Passaic Ave., Caldwell, N. J.
Transradio, Ltd., 138A Cromwell Rd., London S.W. 7, England.
U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 23, Ill.

DIAPHRAGMS

BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 225.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 225.
Braun Tool & Instrument Co., Inc., 140 Fifth Ave., Hawthorne, N. J.
Bristol Co., The, Waterbury 20, Conn.
Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
Colvin Laboratories, Inc., 364 Glenwood Ave., East Orange, N. J.
Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Friez Instrument Division, Bendix Aviation Corp., Baltimore 4, Md.
Garlock Packing Co., Palmyra, N. Y.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 225.
Hawley Products Co., St. Charles, Ill.
Mica Insulator Co., Schenectady 1, N. Y.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 225.
Molding Corp. of America, 40 Church St., Pawtucket, R. I.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 225.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 225.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 692.
Rutico, Inc., 490 S. Fair Oaks Ave., Box 1151M, Pasadena 1, Calif.
SEABOARD COIL SPRING DIVISION, 15011 S. Broadway, Gardena, Calif. ADV. PG. 225.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W.C. 2, England.
Stevens Products Inc., 86-88 Main St., East Orange, N. J.
Teiner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.
Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.

DIATHERMY & DIATHERMY ACCESSORIES

American Diathermy Products, Inc., 11858 Mississippi Ave., Los Angeles 25, Calif.
Birnbach Radio Co., Inc., 145 Hudson St., New York 19, N. Y.
BIRTCHER CORP., 4371 Valley Blvd., Los Angeles 32, Calif. ADV. PG. 552.
Fischer & Co., R. A., 517 Commercial St., Glendale 3, Calif.

Merit Short Wave Diathermy Co., 2758 Whittier Blvd., Los Angeles 23, Calif.
Mooradian High Frequency Labs., 13 E. Fort Lee Rd., Botoga, N. J.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Wappler, Inc., 27-10 Astoria Blvd., Long Island City 2, N. Y.
X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

DIELECTRIC HEATING

See HEATING—Dielectric

DIELECTRICS—Gas

GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 667.

DIELECTRICS—Liquid

Dow Chemical Co., Midland, Mich.
Dow Corning Corp., Midland, Mich.
Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

DIELECTRIC—Solid

AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. ADV. PG. 353.
Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
Brand Dielectrics, Inc., 57 North St., Williamst, Conn.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
Dow Chemical Co., Midland, Mich.
Dow Corning Corp., Midland, Mich.
EASTMAN KODAK CO., 343 State St., Rochester 4, N. Y. ADV. PG. 659.
Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.
Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.
Halogen Insulator & Seal Corp., 10121 Franklin Ave., Franklin Park, Ill.
Integrated Mica Corp., 202 Franklin Place, Woodmere, N. Y.
Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
McMILLAN INDUSTRIAL CORP., Brownville Avenue Plant, Ipswich, Mass. ADV. PG. 484, 485.
Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
Schweitzer, Inc., Peter J., 261 Madison Ave., New York 16, N. Y.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. ADV. PG. 634.

DIES

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
Beryllium Corp., Reading, Pa.
Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
Burken Lamination Corp., 811 Whittier St., Bronx 59, N. Y.
CARBOLOY DEPT. OF GENERAL ELECTRIC CO., Box 237, Roosevelt Park Annex, Detroit 32, Mich. ADV. PG. 20, 21.
Eltran Corp., St. Anne, Ill.
Erca Tool Die & Stamping Co., 19 Ash St., Brooklyn 22, N. Y.
Erwood, Inc., 1770 Berteau Ave., Chicago 13, Ill.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 622.
Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
Hovis Screwlock Co., 8100 E. Nine Mile Rd., Van Dyke, Mich.
Metro Engineering Associates, Easthampton, Mass.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
R & R Tool & Die Corp., 12955 Sherman Way, North Hollywood, Calif.
Repath Inc., Paul R., 641 E. 61st St., Los Angeles 1, Calif.

Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
Sinclair Mfg. Co., Chartley, Mass.
Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
Thomas & Betts Co., Inc., 36 Butler St., Elizabeth 1, N. J.
THOMAS & SONS, INC., WILLIAM, Slocum Ave., Ridgefield, N. J. ADV. PG. 626.
Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
UNITED SHOE MACHINERY CORP., 140 Federal St., Boston 7, Mass. ADV. PG. 250, 251.
WENCO MFG. CO., 1133 W. Hubbard St., Chicago 22, Ill. ADV. PG. 598.
Whistler & Sons, Inc., S. B., 752 Military Rd., Buffalo 23, N. Y.
Wiedemann Machine Co., 4272 Wissahickon Ave., Philadelphia 32, Pa.

DIODES—Germanium

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.
CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
Clevite Transistor Products, A Div. of Clevite Corp., 241-257 Crescent St., Waltham 54, Mass.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Gahagan, Inc., 11 W. Fourth St., Bethlehem, Pa.
GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. ADV. PG. 18.
HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 153-155.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. ADV. PG. 236.
Kemtron Electron Products, Inc., 5 Prince Place, Newburyport, Mass.
Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.
Motorola, Inc., Semiconductor Products Div., 5005 E. McDowell Rd., Phoenix, Ariz.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
National Union Electric Corp., 350 Scotland Rd., Orange, N. J.
Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif.
Pacific Semiconductors, Inc., 10451 W. Jefferson, Culver City, Calif.
Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
Standard Telephones & Cable Ltd., Connaught House, Aldwych, London, W.C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
TRANSITRON ELECTRONIC CORP., 403-407 Main St., Melrose 76, Mass. ADV. PG. 156, 157.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 5, N. J. ADV. PG. 429.
U. S. Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
Wells Co., Gary, 149 Broadway, New York 6, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

DIODES—Microwave Mixer

See MICROWAVE ACCESSORIES

DIODES—Selenium

See RECTIFIERS—Metallic Stack

DIODES—Silicon

Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
CBS-Hytron, A Div. of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
Clevite Transistor Products, A Div. of Clevite Corp., 241-257 Crescent St., Waltham 54, Mass.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. ADV. PG. 18.
General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
Germanium Products Corp., 26 Cornillon Ave., Jersey City 4, N. J.
HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 153-155.
INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. ADV. PG. 236.
Kemtron Electron Products, Inc., 5 Prince Place, Newburyport, Mass.

MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
Motorola, Inc., Semiconductor Products Div., 5005 E. McDowell Rd., Phoenix, Ariz.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
NATIONAL SEMICONDUCTOR PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 930 Pitner Ave., Evanston, Ill. ADV. PG. 26, 27.
Pacific Semiconductors, Inc., 10451 W. Jefferson, Culver City, Calif.
Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
TRANSITRON ELECTRONIC CORP., 403-407 Main St., Melrose 76, Mass. ADV. PG. 156, 157.
U. S. Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

DIRECTION FINDERS

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
Applied Electronics Co., Inc., 1246 Folsom St., San Francisco 3, Calif.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
Kaar Engineering Co., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
Magnavox Co., Fort Wayne 4, Ind.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23-25 Beaver St., New York 4, N. Y. ADV. PG. 557.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.

DISCS—Blank Recording

Allied Recording Products Co., 32-32 Greenpoint Ave., Long Island City 1, N. Y.
AUDIO DEVICES, INC., 444 Madison Ave., New York 22, N. Y. ADV. PG. 499.
Caltron Products Co., 1310-12 S. Hobart Blvd., Los Angeles 6, Calif.
Duotone Co., Inc., Keyport, N. J.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.
Reeves Soundcraft Corp., 10 E. 52nd St., New York 22, N. Y.
SoundScriber Corp., The, 146 Munson St., New Haven 9, Conn.
Zephyr Products Co., 129 E. 124th St., New York 55, N. Y.

DISPLAY DEVICES—Electrostatic

See TUBES—Cathode Ray

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ARROW ELECTRONICS, INC., 82 Cortland St., New York 1, N. Y. ADV. PG. 573.
AVNET ELECTRONICS SUPPLY CO., 34-36 N. Moore St., New York 13, N. Y. ADV. PG. 633.
GRAYBAR ELECTRIC CO., INC., 420 Lexington Ave., New York 17, N. Y. (Offices in more than 130 principle cities in the United States). ADV. PG. 734.
HUDSON RADIO & TELEVISION CORP., INDUSTRIAL DIV., 48 W. 48th St., New York, N. Y. ADV. PG. 534.
STATE LABS., INC., 649 Broadway, New York 12, N. Y. ADV. PG. 641.
WESTERN INTERNATIONAL CO., 45 Vesey St., New York, N. Y. ADV. PG. 689.

DIVIDERS—Voltage

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
Allegany Instrument Co., Inc., Cumberland, Md.
Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
CENTRALAB DIV. OF GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CLAROSTAT MFG CO., INC., Dover, N. H. ADV. PG. 264, 265.

Consolidated Resistance Co. of America Inc., 44 Prospect St., Yonkers, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Gertsch Products, Inc., 11846 Mississippi Ave., P. O. Box 25856, Los Angeles 25, Calif.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
JENNINGS RADIO MFG. CORP., 970 McLaughlin Ave., P. O. Box 1278, San Jose 8, Calif. ADV. PG. 256, 257.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.
WACLINE, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.

DOLLIES—Laboratory & Oscilloscope

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Technical Service Corp., 1404 W. Market St., Louisville 5, Ky.
 Tektronix, Inc., P. O. Box 831, Portland 7, Ore.

DOSIMETERS

ANTON ELECTRONIC LABS, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif.
 Menlo Research Laboratory, Menlo Park, Calif.
NRD Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
 Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.
SERVO-RECORDING INSTRUMENTS, INC., 917 Grand Ave., Phoenix, Ariz. ADV. PG. 587.
 Technical Associates, 140 W. Providencia Ave., Burbank, Calif.
 Tracerlab, Inc., 130 High St., Boston 10, Mass.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

DRAFTING EQUIPMENT

Dietzen Co., Eugene, 2425 Sheffield Ave., Chicago, Ill.
 E-Z Templates, 1321 19th St., Santa Monica, Calif.
 Eagle Pencil Co., 703 E. 13th St., New York, N. Y.
 Eberhard Faber Pencil Co., 37 Greenpoint Ave., Brooklyn 22, N. Y.
 Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
FISHER & CRÖME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
 Griffin Co., John, 2157 James Ave., St. Paul 5, Minn.
 Hamilton Mfg. Co., Two Rivers, Wis.
 Johnson Research Corp., Bethpage, N. Y.
 Joyro Associates, 488 Latham Rd., Mineola, N. Y.
 Keuffel & Esser Co., Hoboken, N. J.
 Koh-I-Noor Pencil Co., Bloomsbury, N. J.
 Pease Co., C. F., 2601 W. Irving Park Rd., Chicago, Ill.
 Post Co., Frederick, 3650 N. Avondale Ave., P. O. Box 803, Chicago 90, Ill.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Stacor Equipment Co., 732 E. New York Ave., Brooklyn 5, N. Y.
 Staedtler Inc., J. S., 25 Dicarolis Court, Hackensack, N. J.
 Stanpat, 150-42 12th Rd., Whitestone 57, N. Y.
 Universal Drafting Machine Corp., 7960 Lorain Ave., Cleveland 2, Ohio.

DRILL PRESSES—Precision

High Speed Hammer Co., Rochester, N. Y.
 Levin & Son, Inc., Louis, 3610 S. Broadway, Los Angeles 7, Calif.
MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 553.

DRIVERS—Recording

Allegheny Instrument Co., Inc., Cumberland, Md.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

DRIVES—Small Electric Drive Mechanisms

Ahrendt Instrument Co., The, 4910 Calvert Rd., College Park, Md.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
ATLAS PRECISION PRODUCTS CO., Castor & Kensington Aves., Philadelphia 24, Pa. ADV. PG. 543.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 554.
BOWMAR INSTRUMENT CORP., 2400 Pennsylvania Ave., Fort Wayne, Ind. ADV. PG. 204.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Breeze Corps, Inc., 700 Liberty Ave., Union, N. J.
 Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
 Daystrom Instrument, Archbald, Pa.
EASTERN AIR DEVICES, INC., 385 Central Ave., Dover, N. H. ADV. PG. 480.
 Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Exact Engineering & Mfg. Co., P. O. Box 668, Ocean-side, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 11-12.
 General Electric Co., Clock and Timer Dept., Ashland, Mass.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
KEARFOTT CO., INC., ENGINEERING SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing 54, N. Y. ADV. PG. 199.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
TRANSCO PRODUCTS, INC., 12210 Nebraska Ave., Los Angeles 25, Calif. ADV. PG. 226.
WAC LINE, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

DRIVES VARIABLE SPEED

See CONTROLS—Electronic AC Motor Speed

DRUMS—Memory

Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
DAVIES LABORATORIES, INC., 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.
ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.
 Epsilon Research & Development Co., Ltd., The Barons, St. Margarets, Middlesex, England.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.
 Radioactive Products, Inc., 2421 Wolcott, Ferndale, Mich.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.

DRYERS, ELECTRONIC—Dehydration & Drying

Air Control Installations, Ltd., Ruislip, Middlesex, England.
 Blaw Knox Co., Farmers Bank Bldg., Pittsburgh 22, Pa.
 Cavitron Electron Oscillator Co. Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
 Fostoria Pressed Steel Corp., Fostoria, Ohio.
 Gridler Company, The, Thermex Div., A Div. of National Cylinder Gas Co., 224 E. Broadway, Louisville 1, Ky.
 Grieve-Hendry Co., Inc., 1401-17 W. Carroll Ave., Chicago 7, Ill.
NEW ENGLAND OVEN & FURNACE CO., INC., Orange, Conn. ADV. PG. 542.

Pittsburgh Lectrodryer Co., 300 32nd St., Pittsburgh 30, Pa.
STEINER-IVES CO., Springfield Rd., Unlon, N. J. ADV. PG. 514.

DUPLIXERS—Microwave

See MICROWAVE ACCESSORIES

DYNAMOMETERS

Aerolab Development Co., 330 W. Holly St., Pasadena, Calif.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Bischof Die & Engraving, 1405 16th St., Racine, Wis.
 Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
 Dalmator Co., 1375 Clay St., Santa Clara, Calif.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
 Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 L. A. B. Corporation, Skaneateles, N. Y.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N.W., Grand Rapids 2, Mich.
 Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.
 Radiation, Inc., Melbourne, Fla.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.

DYNAMOTORS

Bennett Co., Inc., R.P., Frederick, Md.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Carter Motor Co., 2742 W. George St., Chicago 18, Ill.
CONTINENTAL ELECTRIC CO., INC., 334 Ferry St., Newark 5, N. J. ADV. PG. 312.
 Dalmator Co., 1375 Clay St., Santa Clara, Calif.
 Eicor, Inc., 1501 W. Congress St., Chicago 7, Ill.
ELECTRIC SPECIALTY CO., 300 South St., Stamford, Conn. ADV. PG. 475.
 Electro Engineering Products Co., 609 W. Lake St., Chicago, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.
 Redmond Co., Inc., Owosso, Mich.
 Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.
 Sangamo Generators, Inc., 2110 Clear Lake Ave., Springfield, Ill.
 Small Motors, Inc., 2076 Elston Ave., Chicago 14, Ill.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
 Wincharger Corp., E. 7th & Division Sts., Sioux City, Iowa.

ELBOWS

See MICROWAVE ACCESSORIES
 BENDS—Microwave

ELECTROCARDIOGRAPHS

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
EDIN CO., INC., 207 Main St., Worcester, Mass. ADV. PG. 280.
 Electrodyne Co., Endicott St., Norwood, Mass.
ELECTRONIC TUBE CORP., 1200 E. Mermald Ave., Philadelphia 18, Pa. ADV. PG. 63.
 Holland Electronics, 2133 Central Drive, S., East Meadow, N. Y.
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
 North American Philips Co., Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Precise Development Corp., 2 Nell Court, Oceanside, N. Y.
SANBORN CO., 39 Osborn St., Cambridge 39, Mass. ADV. PG. 205.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.
ELECTRODES—High Frequency
CRUCIBLE STEEL CO. OF AMERICA, Henry W. Olliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.
 Electronic Processes Corp., 2190 Folsom St., San Francisco 10, Calif.
 Instron Corp., 50 Brook Rd., Needham Heights, Mass.
 New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
 Wappler, Inc., 27-10 Astoria Blvd., Long Island City 2, N. Y.

ELECTROENCEPHALOGRAPHS

EDIN CO., INC., 207 Main St., Worcester, Mass. ADV. PG. 280.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.

ELECTRO MAGNETS
See **MAGNETS****ELECTROMETERS**

Applied Physics Corp., 362 W. Colorado St., Pasadena 1, Calif.
 Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 CURTISS-WRIGHT CORP., ELECTRONICS DIV., 631 Central Ave., Carlstadt, N. J. ADV. PG. 583-585.
 KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.
 Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
 SERVO-RECORDING INSTRUMENTS, INC., 917 Grand Ave., Phoenix, Ariz. ADV. PG. 587.

ELECTROMYOGRAPHS

Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.
 Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.
 LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

ELECTROPLETHYSMOGRAPHS

Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.
 Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
 Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

ELECTRO-SHOCK THERAPY APPARATUS

Corbett Science Laboratories, F. W., 3115 Venice Blvd., Los Angeles 19, Calif.
 Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
 Measurement Engineering Ltd., Arnprior, Ontario, Canada.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
 Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.

ELECTRO-SURGICAL APPARATUS

BIRTCHEP CORP., 4371 Valley Blvd., Los Angeles 32, Calif. ADV. PG. 552.
 Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
 Corbett Science Laboratories, F. W., 3115 Venice Blvd., Los Angeles 19, Calif.
 Dallons Laboratories, Inc., 5066 Santa Monica Blvd., Los Angeles 29, Calif.
 Fischer & Co., R. A., 517 Commercial St., Glendale 3, Calif.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Mooradian High Frequency Labs., 13 E. Fort Lee Rd., Bogata, N. J.
 North American Philips Co., Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
 Phen-O-Tron, Inc., 455 Main St., New Rochelle, N. Y.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
 Wappler, Inc., 27-10 Astoria Blvd., Long Island City 2, N. Y.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

ELEMENTS—Heating

Acme Electric Heating Co., 1217 Washington St., Boston, Mass.
 American Mica Insulation Co., Manasquan, N. J.

Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
 Connecticut Hard Rubber Co., 407 East St., New Haven 9, Conn.
 Cox & Co., Inc., 115 E. 23rd St., New York 10, N. Y.
 DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
 Electro Flex Heat, Inc., 516 Asylum St., Hartford, Conn.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Forter-Teichmann Co., Clark Bldg., Pittsburgh, Pa.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Mica Insulator Co., Schenectady 1, N. Y.
 Safeway Heat Element Inc., 680 Newfield St., Middletown, Conn.
 Syntro Co., 243 Lexington, Homer City, Pa.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
 Vulcan Electric Co., Danvers, Mass.
 Waage Electric, Inc., 720 Colfax Ave., Kenilworth, N. J.
 WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 Wiegand Co., Edwin L., 7606 Thomas Blvd., Pittsburgh 8, Pa.

ELEMENTS, HEATING—Crystal Oven

Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
 Cox & Co., Inc., 115 E. 23rd St., New York 10, N. Y.
 Electro Flex Heat, Inc., 516 Asylum St., Hartford, Conn.
 PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.

EMBEDDED ASSEMBLIES

Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
 Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
 ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 54, Calif.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
 Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
 CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
 CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
 DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 DeLuxe Coils, Inc., Wabash, Ind.
 Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.

ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.
 ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.
 Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
 ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. ADV. PG. 571.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 FILM CAPACITORS, INC., 3400 Park Ave., New York 36, N. Y. ADV. PG. 563.
 Fortiphone Ltd., 247 Regent St., London W. 1, England.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 GENERAL RESISTANCE PRODUCTS CORP., 42-11 192nd St., Flushing 58, N. Y. ADV. PG. 653.
 General Tire & Rubber Co., Akron, Ohio.
 Gudeman Co. of California Inc., 9200 Exposition Blvd., Los Angeles 34, Calif.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Industrial Development & Mfg. Corp., P.O. Box 48, Needham, Mass.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 National Coil Co., P.O. Box 1237, Sheridan, Wyo.
 OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.
 ORTHO FILTER CORP., 198 Albion Ave., Paterson 1, N. J. ADV. PG. 546, 547.

PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
 Whitney Blake Co., New Haven 14, Conn.
 Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.

EMBEDDED COMPONENTS

Aerovox Corp., Pacific Coast Div., 2724 Peck Blvd., Monrovia, Calif.
 AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
 Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
 ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 54, Calif.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
 Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
 CELCO CONSTANTINE ENGINEERING LABS CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
 CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
 COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
 DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 DeLuxe Coils, Inc., Wabash, Ind.
 Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.
 ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.
 ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.
 ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. ADV. PG. 571.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis, Mo.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 FILM CAPACITORS, INC., 3400 Park Ave., New York 36, N. Y. ADV. PG. 563.
 Fortiphone Ltd., 247 Regent St., London W. 1, England.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 GENERAL RESISTANCE PRODUCTS CORP., 42-11 192nd St., Flushing 58, N. Y. ADV. PG. 653.
 Gudeman Co. of California Inc., 9200 Exposition Blvd., Los Angeles 34, Calif.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Industrial Development & Mfg. Corp., P. O. Box 48, Needham, Mass.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 National Coil Co., P. O. Box 1237, Sheridan, Wyo.
 OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.
 ORTHO FILTER CORP., 198 Albion Ave., Paterson 1, N. J. ADV. PG. 546, 547.
 PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
 Whitney Blake Co., New Haven 14, Conn.

ENCAPSULATION SERVICES

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Aircraft Products, 8 Sagamore Hill Drive, Port
 Washington, N. Y.
 AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A",
 Bayonne, N. J. ADV. PG. 677.
 Alcor Electronics Corp., 180 Lafayette St., New York 13,
 N. Y.
 Applied Resins Corp., 304 Oraton St., Newark 4, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby,
 Pa.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles
 64, Calif.
 BIWAX CORP., 3445 Howard St., Skokie, Ill. ADV. PG.
 520.
 BOONTON MOLDING CO., Boonton, N. J. ADV. PG.
 562.
 Bright Radio Labs, Inc., Div. of Howell Mfg. Corp.,
 Denton Ave. & 4th St., New Hyde Park, N. Y.
 California Magnetic Control Corp., 11922 Valerio St.,
 North Hollywood, Calif.
 Carstedt Research, Inc., 2501 E. 68th St., Long Beach
 5, Calif.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis
 16, Minn.
 DALE PRODUCTS, INC., Box 136, Columbus, Neb.
 ADV. PG. 168, 169.
 DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 DeLuxe Coils, Inc., Wabash, Ind.
 ESC CORP., 534 Bergen Blvd., Palisades Park, N. J.
 ADV. PG. 417.
 ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridge-
 field, N. J. ADV. PG. 510.
 Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39,
 Calif.
 ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak
 Park, Ill. ADV. PG. 571.
 Electronic Specialty Co., 5121 San Fernando Rd., Los
 Angeles 39, Calif.
 Electronics & Avionics Div. of the Emerson Electric Mfg.
 Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Ellanar Chemical Co., 2308 Oakton St., Evanston, Ill.
 Emerson & Cuming, Inc., 869 Washington St., Can-
 ton, Mass.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T,
 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 FILM CAPACITORS, INC., 3400 Park Ave., New York
 36, N. Y. ADV. PG. 563.
 Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box
 327, Huntington, Ind.
 Fortiphone Ltd., 247 Regent St., London W. 1, Eng-
 land.
 General Coil Products Corp., 43 Roselle St., Mineola,
 N. Y.
 GENERAL RESISTANCE PRODUCTS CORP., 42-11 192nd
 St., Flushing 58, N. Y. ADV. PG. 653.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean,
 N. Y.
 Industrial Development & Mfg. Corp., P. O. Box 48,
 Needham, Mass.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda,
 Md.
 KAHLE ENGINEERING CO., 1307 Seventh St., North
 Bergen, N. J. ADV. PG. 321.
 Louis Laboratories, 1947 Broadway, New York 23,
 N. Y.
 MacLeod & Hanopol, Inc., 10 Roland St., Charlestown
 29, Mass.
 National Coil Co., P. O. Box 1237, Sheridan, Wyo.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 OPAD ELECTRIC CO., 69-5 Warren St., New York 7,
 N. Y. ADV. PG. 524.
 Pantek Co., Box 212, El Segundo, Calif.
 Phen-O-Tron, Inc., 455 Main St., New Rochelle, N. Y.
 Philco Corp., Government & Industrial Div., 4700
 Wissahickon Ave., Philadelphia 44, Pa.
 Photographic Products Inc., 1000 N. Olive St., Anaheim,
 Calif.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
 Rho Engineering Co., 2240-42 Sepulveda Blvd., Los
 Angeles 64, Calif.
 SILICONE INSULATION, INC., 564 Third Ave., New
 York 16, N. Y. ADV. PG. 531.
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South
 Pasadena, Calif.
 Summit Electronics, Inc., 7 Industrial Place, Summit,
 N. J.
 Technon Corp., 254-256 Friend St., Boston 14, Mass.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Universal Atomics Corp., 19 E. 48th St., New York
 17, N. Y.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles
 34, Calif.
 WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif.
 ADV. PG. 724.
 WHEELER INSULATED WIRE CO., INC., THE DIV. OF
 THE SPERRY CORP., 150 E. Aurora St., Water-
 bury 91, Conn. ADV. PG. 531.

ENCAPSULATORS OF PLASTIC MATERIALS

See ENCAPSULATION SERVICES

ENGRAVING & PROFILING—Services

Acme Telectronix Div. of NEA Service, Inc., W. Third
 & Lakeside, Cleveland 13, Ohio.
 ACKERMAN ENGRAVERS, 458 Broadway, New York,
 N. Y. ADV. PG. 641.
 Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
 Airborne Electronics Co., 6813 Troost Ave., North Holly-
 wood, Calif.
 American Mica Insulation Co., Manasquan, N. J.

ATLAS E-E CORP., Bedford Airport Terminal Bldg.,
 Bedford, Mass. ADV. PG. 571.
 Cortland Industries, Inc., 4545 Cortland St., Chicago
 39, Ill.
 CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills, Pa.
 ADV. PG. 634.
 ELECTRICAL INSULATION CO., INC., 1245 Marconi
 Blvd., Copiague, N. Y. ADV. PG. 675.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave.,
 Hyde Park 36, Mass.
 FISHER & CROME, 109 N. Camac St., Philadelphia 7,
 Pa. ADV. PG. 691.
 Globe Electrical Mfg Co., Dept. J, 1729 W. 134th St.,
 Gardena, Calif.
 Hermes Plastics, Inc., 13-19 University Place, New
 York 3, N. Y.
 Industrial Engravers, Inc., 4103 Tenth Ave., Brooklyn
 19, N. Y.
 Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven
 21, N. Y.
 LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard,
 Oak Park, Ill. ADV. PG. 610.
 Laminated Sheet Products Corp., 449 Neponset St.,
 P. O. Box 390, Norwood, Mass.
 MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge
 38, Mass. ADV. PG. 553.
 Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
 NEW HERMES ENGRAVING MACHINE CORP., 13-19
 University Place, New York 3, N. Y. ADV. PG. 695.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St.,
 Philadelphia 32, Pa.
 P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
 Pfeeger Products, 3901 W. 54th St., Los Angeles 43,
 Calif.
 Plasteck, Inc., Poteau, Okla.
 Precision Metal Products Co. of Malden, 41 Elm St.,
 Stoneham 80, Mass.

ENVIRONMENTAL TEST EQUIPMENT

See TEST EQUIPMENT—Environmental

ESCUTCHEONS

Acme Tool & Specialties Co., 224 N. Loomis St.,
 Chicago 7, Ill.
 American Mica Insulation Co., Manasquan, N. J.
 Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
 Chicago Die Mold Div. of U. S. Rubber Co., 4300 New
 Haven Ave., Fort Wayne 4, Ind.
 Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
 Etched Products Corp., 39-01 Queens Blvd., Long Island
 City 4, N. Y.
 GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919
 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Harper Co., H. M., 8200 Lehigh Ave., Morton Grove,
 Ill.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn
 11, N. Y.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St.,
 Chicago 3, Ill.
 LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard,
 Oak Park, Ill. ADV. PG. 610.
 Matthews & Co., James H., 3942 Forbes St., Pitts-
 burgh, Pa.
 North Shore Nameplate Inc., 214-27 Northern Blvd.,
 Bayside 61, N. Y.
 PARK NAMEPLATE CO., INC., 61-07 32nd Ave., Wood-
 side 77, N. Y. ADV. PG. 629.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles,
 Ill.
 Sillocks-Miller Co., Maplewood, N. J.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda,
 N. Y.
 Stromberg-Carlson Co., Div. of General Dynamics Corp.,
 100 Carlson Rd., Rochester 3, N. Y.
 SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway,
 New York 19, N. Y. ADV. PG. 727-733.

ETCHED CIRCUITS

See CIRCUITS—Printed, Stamped or Etched

EXTRUDERS OF PLASTIC MATERIALS

See INSULATION PARTS
 Plastic Insulation Parts—Extruded

FABRICATORS OF PLASTIC MATERIALS

See INSULATION PARTS
 Plastic Insulation Parts—Extruded

EYELETS

American Brass Co., 414 Meadow St., Waterbury 20,
 Conn.
 BARWOOD MFG. CO., INC., L. J., 22 Williams St.,
 Everett 49, Mass. ADV. PG. 521.
 Chase Brass & Copper Co., Inc., 236 Grand St., Water-
 bury 20, Conn.
 CIRCON COMPONENT CO., 17544 Raymer St., North-
 ridge, Calif. ADV. PG. 606.
 FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie
 Ave., Chicago 18, Ill. ADV. PG. 586.
 GENERAL CEMENT MFG. CO., ELECTRONICS DIV., 919
 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 GENERAL COMPONENTS CO., 233 E. 146th St., New
 York 51, N. Y. ADV. PG. 550.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle,
 N. Y.
 HARVEY HUBBELL, INC., State St. & Bostwick Ave.,
 Bridgeport 2, Conn. ADV. PG. 82.
 HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O.
 Box 1226, Plainfield, N. J. ADV. PG. 409.

Insuline Corp. of America, 186 Granite St., Manchester,
 N. H.
 JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St.,
 Mineola, N. Y. ADV. PG. 42, 43.
 Kleiner Metal Specialties, Inc., P. O. Box 185, Dunellen,
 N. J.
 LERCO ELECTRONICS, INC., 501 S. Varney St., Bur-
 bank, Calif. ADV. PG. 685.
 Metpro, Inc., R. 1., 230 Toronto Ave., Providence, R. I.
 PIX MFG. CO., INC., 81A Hudson St., Newark, N. J.
 ADV. PG. 394.
 Radio Essentials Inc., 152 S. MacQueston Parkway, Mt.
 Vernon, N. Y.
 Revere Cooper & Brass, Inc., 230 Park Ave., New York
 17, N. Y.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brook-
 lyn 5, N. Y.
 UNITED SHOE MACHINERY CORP., 140 Federal St.,
 Boston 7, Mass. ADV. PG. 250, 251.
 VECTOR ELECTRONIC CO., 3352 San Fernando Rd.,
 Los Angeles 65, Calif. ADV. PG. 696.
 Waterbury Pressed Metal Co., P-M Nut Div., 300 Chase
 Ave., Waterbury 14, Conn.

FABRIC

See INSULATION MATERIALS

FACSIMILE

See RECORDERS—Facsimile

FACSIMILE RECORDING PAPERS

See RECORDERS—Facsimile

FANS—Electronic Cooling

See BLOWERS—Small

FASTENERS & FASTENING DEVICES

Ackerman-Johnson Co., 625 W. Jackson Blvd., Chicago 6,
 Ill.
 Aerotron Supply Co., 8504 S. Normandie Ave., Los
 Angeles 44, Calif.
 AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St.,
 Harrisburg 10, Pa. ADV. PG. 353.
 AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64,
 Mass. ADV. PG. 361.
 Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh
 19, Pa.
 Allmetal Screw Products Co., Inc., 821 Stewart Ave.,
 Garden City, N. Y.
 AUTOMATIC & PRECISION MFG. CO., 252 Hawthorne
 Ave., Yonkers 5, N. Y. ADV. PG. 508.
 American Brass Co., 414 Meadow St., Waterbury 20,
 Conn.
 AMERICAN MACHINE & FOUNDRY CO., DEFENSE
 PRODUCTS GROUP, 1101 N. Royal St., Alexandria,
 Va. ADV. PG. 440.
 American Screw Co., Willimantic, Conn.
 Anti-Corrosive Metal Products Co., Castleton-on-Hudson,
 N. Y.
 Atlas Screw & Specialty Co., Inc., 450 Broome St.,
 New York 13, N. Y.
 Blake & Johnson Co., 1495 Thomaston Ave., Waterville
 48, Conn.
 Boots Aircraft Nut Corp., Newton Ave., Norwalk, Conn.
 Bristol Co., The, Waterbury 20, Conn.
 Camcar Screw & Mfg. Corp., 600 10th Ave., Rockford,
 Ill.
 CAMLOC FASTENER CORP., 22 Sprig Valley Rd., Para-
 mus, N. J. ADV. PG. 423.
 Central Screw Co., 1501 Shields Ave., Chicago 9, Ill.
 Chase Brass & Copper Co., Inc., 236 Grand St., Water-
 bury 20, Conn.
 Chicago Screw Co., Bellwood, Ill.
 CINCH MFG. CO., 1026 S. Homan Ave., Chicago 24,
 Ill. ADV. PG. 99-101.
 CIRCON COMPONENT CO., 17544 Raymer St., North-
 ridge, Calif. ADV. PG. 606.
 DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. ADV.
 PG. 312.
 Dzus Fastener Co., Inc., Box 185, Babylon, N. Y.
 Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S.E.,
 Massillon, Ohio.
 Elastic Stop Nut Corp., 2330 Vauxhall Rd., Union,
 N. J.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd.,
 Des Plaines, Ill.
 FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie
 Ave., Chicago 18, Ill. ADV. PG. 586.
 FINN & CO., INC., T. R., 200 Central Ave., Hawthorne,
 N. J. ADV. PG. 681.
 General Tire & Rubber Co., Akron, Ohio.
 Greer Stop Nut Co., 2620 W. Fluornoy St., Chicago 12,
 Ill.
 Gries Reproducer Corp., 151 Beechwood St., New
 Rochelle, N. Y.
 Groov-Plin Corp., 1125 Hendricks Causeway, Ridgefield,
 N. J.
 Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
 Hassell, Inc., John, P. O. Box 2242, Westbury, N. Y.
 Hell-Coil Corp., Shelter Rock Rd., Danbury, Conn.
 High Speed Hammer Co., Rochester, N. Y.
 Huck Mfg. Co., 2480 Bellevue Ave., Detroit 7, Mich.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Klincher Locknut Corp., 2153 Hillside Ave., Indianapolis,
 Ind.
 Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2,
 Ohio.
 Lemel Engineering Co., Inc., 185 E. Jefferson St.,
 Plymouth, Ind.

Lion Fastener, Inc., c/o Southco, Lester, Pa.
 Metpro, Inc., R. I., 230 Toronto Ave., Providence, R. I.
 National Screw & Mfg. Co., The, Cleveland 4, Ohio.
NIELSEN HARDWARE CORP., 770 Wethersfield Ave.,
 Hartford 14, Conn. ADV. PG. 569.
 Nylok Corp., Box 341, Elmira, N. Y.
 P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
 Palnut Co., Inc., 77 Cordier St., Irvington 11, N. J.
 Parker-Kalon Division of General American Transporta-
 tion Corp., Clifton, N. J.
 Penn Engineering & Mfg. Corp., Box 311, Doylestown,
 Pa.
 Pheoil Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J.
 ADV. PG. 394.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Set Screw Mfg. Co., 470 Main St., Bartlett, Ill.
 Shakeproof, Div. of Illinois Tool Works, St. Charles Rd.,
 Elgin, Ill.
SIMMONS FASTENER CORP., 1752 N. Broadway, Al-
 bany 1, N. Y. ADV. PG. 90, 91.
 Southco Division, South Chester Corp., 233 Industrial
 Highway, Lester, Pa.
 Standard Pressed Steel Co., Box 775, Jenkintown 10,
 Pa.
STAR EXPANSION PRODUCTS CO., 147 Cedar St., New
 York 6, N. Y. ADV. PG. 562.
 Star Stainless Screw Co., 655 Union Blvd., Totowa, N. J.
 Stone City Machine & Tool Co., Inc., P. O. Box 351,
 1206 7th St., Bedford, Ind.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago
 47, Ill.
 Thomas Associates, 4613 Alger St., Los Angeles 39,
 Calif.
 Tinnerman Products, Inc., P. O. Box 6688, Dept. No. 16,
 Cleveland 1, Ohio.
 Tubular Rivet & Stud Co., Weston Ave., Wollaston
 (Quincy) 70, Mass.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP.,
 459 Watertown St., Newtonville, Mass. ADV. PG. 161.
UNITED-CARR FASTENER CORP., Cambridge 42, Mass.
 ADV. PG. 160.
 United Screw & Bolt Corp., 2513 W. Cullerton St.,
 Chicago 8, Ill.
UNITED SHOE MACHINERY CORP., 140 Federal St.,
 Boston 7, Mass. ADV. PG. 250, 251.
 Vibrex Fastener Corp., Mount Kisco, N. Y.
 Waldes Kohinor Inc., 47-16 Austel Place, Long Island
 City 1, N. Y.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32,
 Ill.
 Waltham Screw Co., Waltham, Mass.
 Waterbury Pressed Metal Co., P-M Nut Div., 300 Chase
 Ave., Waterbury 14, Conn.
WENCO MFG. CO., 1133 W. Hubbard St., Chicago 22,
 Ill. ADV. PG. 598.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

FELT & FELT PARTS

Armstrong Cork Co., Lancaster, Pa.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown,
 Conn.
 Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago
 7, Ill.
 Felters Co., 210 South St., Boston, Mass.
 Flock Process Co., Inc., 373 Main Ave., Norwalk, Conn.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St.,
 Philadelphia 44, Pa.
 Western Felt Works, 4029 Ogden Ave., Chicago, Ill.

FILMS—Plastic for Wound Insulation

Celanese Corp. of America, 180 Madison Ave., New York
 16, N. Y.
 Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98,
 Del.
ELECTRONIC MECHANICS, INC., 101 Clifton Blvd.,
 Clifton, N. J. ADV. PG. 604.
 Enfo Corp., Route 38 at Airport Circle, Pensauken,
 N. J.
 Garlock Packing Co., Palmyra, N. Y.
 General Electric Co., Plastics Dept., Pittsfield, Mass.
 Insulation Manufacturers Corp., 565 W. Washington
 Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining
 & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
 Polyken Products Dept. of Kendall Co., 222 W. Adams
 St., Chicago 6, Ill.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG.
 243.
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver
 City, Calif.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV.
 PG. 477.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni,
 Pa. ADV. PG. 634.

FILTERS—Antenna

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Mon-
 rovia, Calif.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country
 Rd., Mineola, N. Y. ADV. PG. 317.
 Aircorn Inc., 354 Main St., Winthrop 52, Mass.
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg,
 N. J.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.

American Electronic Labs., Inc., 641 Arch St., Phila-
 delphia 6, Pa.
 American Electronics Co., 1203-05 Bryant Ave., New
 York 59, N. Y.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing,
 N. Y. ADV. PG. 466.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby,
 Pa.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland
 14, Ohio. ADV. PG. 216.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y.
 ADV. PG. 511.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los
 Angeles 54, Calif.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave.,
 Cambridge 38, Mass. ADV. PG. 310.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe
 Ave., Milwaukee 1, Wis. ADV. PG. 37.
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Phila-
 delphia 33, Pa. ADV. PG. 602.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield,
 N. J. ADV. PG. 445.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos,
 Calif. ADV. PG. 561.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81
 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield,
 Mass. ADV. PG. 453.
 Dielectric Products Engineering Co., Inc., Raymond,
 Maine.
 DuMont Laboratories, Inc., Allen B., Technical Products
 Div., 760 Bloomfield Ave., Clifton, N. J.
 Electronic Specialty Co., 5121 San Fernando Rd., Los
 Angeles 39, Calif.
 Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T,
 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y.
 ADV. PG. 391.
 General Coil Products Corp., 43 Roselle St., Mineola,
 N. Y.
 General Electric Co., Broadcast Equipment Dept., Elec-
 tronics Park, Syracuse, N. Y.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop
 St., Chicago 7, Ill. ADV. PG. 590.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles
 7, Calif.
 Interference Measurement Lab., Inc., 907 E. 51st St.,
 Brooklyn 3, N. Y.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brook-
 field, Ill. ADV. PG. 540.
 Johnson Co., E. F., Waseca, Minn.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O.
 Box 1320, Palo Alto, Calif.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty
 Fourth St., Brooklyn 5, N. Y. ADV. PG. 526.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Haw-
 thorne, Calif.
MENDELSONN SPEEDGUN CO., INC., Fourth Ave.,
 Haskell, N. J. ADV. PG. 568.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV.
 PG. 629.
MICROPHASE CORP., P. O. Box 1166X, Greenwich,
 Conn. ADV. PG. 462.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2,
 N. J. ADV. PG. 546, 547.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave.,
 Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St.,
 New York 12, N. Y. ADV. PG. 555.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
**RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS
 DIV.**, Camden, N. J. ADV. PG. 88, 89, Third &
 Fourth Covers & Preceding Insert.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers,
 N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y.
 ADV. PG. 149.
 Telecro Industries Corp., 35-16 37th St., Long Island
 City 1, N. Y.
 Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton,
 London W. 3, England.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21,
 N. Y.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave.,
 Mt. Carmel, Ill.
 Tobe Deutschmann Corp., 921 Providence Highway, Nor-
 wood, Mass.
 Vidair Electronics Mfg. Corp., 576 W. Merrick Rd., Lyn-
 brook, N. Y.

FILTERS—Band Elimination

Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria
 2, N. Y.
ADVANCE ELECTRONICS CO., 451 Highland Ave.,
 Passaic, N. J. ADV. PG. 600.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd.,
 Monrovia, Calif.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country
 Rd., Mineola, N. Y. ADV. PG. 317.
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg,
 N. J.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
 American Electronics Co., 1203-05 Bryant Ave., New
 York 59, N. Y.

APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing,
 N. Y. ADV. PG. 466.
ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver
 City, Calif. ADV. PG. 696, 697.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby,
 Pa.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y.
 ADV. PG. 511.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2,
 N. Y. ADV. PG. 366, 367.
CALEDONIA ELECTRONICS & TRANSFORMER CO.,
 Caledonia, N. Y. ADV. PG. 551.
 California Magnetic Control Corp., 11922 Valerio St.,
 North Hollywood, Calif.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CELCO CONSTANTINE ENGINEERING LABS. CO., Island
 Ave., Mahwah, N. J. ADV. PG. 136, 137.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe
 Ave., Milwaukee 1, Wis. ADV. PG. 37.
CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd.,
 Chicago, Ill. ADV. PG. 663.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W.
 Armitage Ave., Chicago 47, Ill. ADV. PG. 573.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave.,
 Chicago, Ill. ADV. PG. 572.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Phila-
 delphia 33, Pa. ADV. PG. 602.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd.,
 Hickman Mills, Mo. ADV. PG. 219-222.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield,
 N. J. ADV. PG. 445.
 Cycle Transformer Corp., 354 Glenwood Ave., East
 Orange, N. J.
 D & R, Ltd., 402 E. Gutierrez St., P. O. Box 1500,
 Santa Barbara, Calif.
 DeCoursey Engineering Lab., 11828 W. Jefferson Blvd.,
 Culver City, Calif.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV.
 PG. 566.
DUBROW DEVELOPMENT CO., 235B Penn St., Burling-
 ton, N. J. ADV. PG. 380.
 DuMont Laboratories, Inc., Allen B., Technical Products
 Div., 760 Bloomfield Ave., Clifton, N. J.
 Electronic Specialty Co., 5121 San Fernando Rd., Los
 Angeles 39, Calif.
 Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn
 17, N. Y. ADV. PG. 609.
FREED TRANSFORMER CO., INC., 1736 Weirfield St.,
 Brooklyn 27, N. Y. ADV. PG. 645.
FUGLE-MILLER LABORATORIES, INC., 398 Main St.,
 Metuchen, N. J. ADV. PG. 634, 635.
 General Coil Products Corp., 43 Roselle St., Mineola,
 N. Y.
 General Instrument Corp., 65 Gouverneur St., Newark 4,
 N. J.
 Gertsch Products, Inc., 11846 Mississippi Ave., P. O.
 Box 25856, Los Angeles 25, Calif.
 Harder Co., Donald C., 3710 Midway Drive, San Diego
 10, Calif.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St.,
 Garland, Texas. ADV. PG. 233.
HIGHLAND ENGINEERING CO., 91 Magnolia St.,
 Westbury, N. Y. ADV. PG. 530.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC.,
 New Kingstown, Pa. ADV. PG. 466.
 Hoffman Electronics Corp., 3761 S. Hill St., Los
 Angeles 7, Calif.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO.,
 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
HYCON EASTERN, INC., 1360 Soldiers Field Rd.,
 Boston 35, Mass. ADV. PG. 290, 291.
 Interference Measurement Lab., Inc., 907 E. 51st St.,
 Brooklyn 3, N. Y.
 Kenyon Transformer Co., Inc., 840 Barry St., New
 York 59, N. Y.
KROHN-HITE INSTRUMENT CO., 580 Massachusetts
 Ave., Cambridge 39, Mass. ADV. PG. 48, 49.
 L. M. Electronics, Inc., 5017 Exposition Blvd., Los
 Angeles 16, Calif.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty
 Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Mack Electronics Division, Inc., Plainfield, N. J.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Haw-
 thorne, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV.
 PG. 629.
MICROPHASE CORP., P. O. Box 1166X, Greenwich,
 Conn. ADV. PG. 462.
 Miller Co., J. W. 5917 S. Main St., Los Angeles 3,
 Calif.
NAGOG ASSOCIATES, INC., Littleton, Mass. ADV.
 PG. 571.
 National Capacitor Co., 18 Webster St., Brookline, Mass.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2,
 N. J. ADV. PG. 546, 547.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los
 Angeles 64, Calif. ADV. PG. 322.
 Peerless Electrical Products Div. of Altac Lansing Corp.,
 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Polyphase Instrument Co., 705 Haverford Rd., Bryn
 Mawr, Pa.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave.,
 Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St.,
 New York 12, N. Y. ADV. PG. 555.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
**RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS
 DIV.**, Camden, N. J. ADV. PG. 88, 89, Third &
 Fourth Covers & Preceding Insert.

STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Televiso Corp., 1415 Golf Rd., Des Plaines, Ill.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.
 Transformer-Engineers, 161 E. California, Pasadena 1, Calif.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 Warsaw Coil Co., Warsaw, Ind.
WHITE INSTRUMENT LABORATORIES, 203 Riverside Drive, Austin 4, Texas. ADV. PG. 653.

FILTERS—Band Pass

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y.
ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
 Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
 Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.
 American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. ADV. PG. 696, 697.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
 Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
 Boehme, Inc., H. O., 915 Broadway, New York 10, N. Y.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 551.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
CENTRALAB DIV. GLOBE-UNION, INC., 914 Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170.
 Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
CORNELL-DUBLIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.

Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
 D & R Ltd., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif.
 De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
 Dielectric Products Engineering Co., Inc., Raymond, Maine.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
DUBROW DEVELOPMENT CO., 235 B Penn St., Burlington, N. J. ADV. PG. 380.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.
 Electro-Mechanical Research, Inc., Ridgefield, N. J.
 Electron Products, Inc., 430 N. Halstead St., Pasadena, Calif.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn, 17, N. Y. ADV. PG. 609.
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
FUGLE-MILLER LABORATORIES, INC., 398 Main St., Metuchen, N. J. ADV. PG. 634, 635.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y. ADV. PG. 634, 635.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.
 Harder Co., Donald C., 3710 Midway Drive, San Diego 10, Calif.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 233.
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 530.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
HYCON EASTERN, INC., 1360 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 290, 291.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371.
 Interference Measurement Lab, Inc., 907 E. 51st St., Brooklyn 3, N. Y.
KAY-LAB, 5725 Kearney Villa Rd., San Diego 12, Calif. ADV. PG. 407.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 48, 49.
 L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
MCCOY ELECTRONICS CO., Mount Holly Springs, Pa. ADV. PG. 560.
 Mack Electronics Division, Inc., Plainfield, N. J.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
MID-WEST COIL & TRANSFORMER CO., 1642 N. Halstead St., Chicago 14, Ill. ADV. PG. 286.
 Miller Co., J. W. 5917 S. Main St., Los Angeles 3, Calif.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 National Capacitor Co., 18 Webster St., Brookline, Mass.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Peerless Electrical Products Div. of Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.

Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
 Pulse Techniques, Inc., 1411 Palisades Ave., West Englewood, N. J.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
SPECTRUM INSTRUMENTS, INC., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 587.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London, W. E., England.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Televiso Corp., 1415 Golf Rd., Des Plaines, Ill.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.
 Transformer Engineers, 161 E. California, Pasadena 1, Calif.
TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. ADV. PG. 685.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
 United Technical Laboratories, Box 425V, Morristown, N. J.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Warsaw Coil Co., Warsaw, Ind.
 Western Electro-Acoustic Lab., 11789 San Vicente Blvd., Los Angeles 49, Calif.
WHITE INSTRUMENT LABORATORIES, 203 Riverside Drive, Austin 4, Texas. ADV. PG. 653.

FILTERS—Continuously Variable

Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CENTRALAB DIV. GLOBE-UNION, INC., 914 Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Electro-Mechanical Research Inc., Ridgefield, Conn.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 General Apparatus Co., 1344-6 E. 32nd St., New York 16, N. Y.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 48, 49.
 L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
SPECTRUM INSTRUMENTS, INC., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 587.
SPENCER-KENNEDY LABS., INC., 1320 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 396.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

FILTERS—Crystal

Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 284, 285.

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. ADV. PG. 18.
 Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
HYCON EASTERN, INC., 1360 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 290, 291.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 568.
 Lewis Co., E. B., 11 Bragg St., East Hartford 8, Conn.
MCCOY ELECTRONICS CO., Mount Holly Springs, Pa. ADV. PG. 560.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Standard Crystal Co., 1714 Locust St., Kansas City 8, Mo.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 612.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.

FILTERS—Detonation

All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

FILTERS—Electric Wave Section

Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307.
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 530.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
 Interference Measurement Lab., Inc., 907 E. 51st St., Brooklyn 3, N. Y.
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

FILTERS—Equalizer

Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
 Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CENTRAL TRANSFORMER CO., 910 W. Jackson Ave., Chicago, Ill. ADV. PG. 663.
CENTRALAB DIV., GLOBE-UNION, INC., 914 Y. E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CHICAGO STANDARD TRANSFORMER CORP., 3850 Elston Ave., Chicago 18, Ill. ADV. PG. 170.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
 De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
 Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 609.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 Gray Research & Development Co., Inc., 685 Hilliard St., Manchester, Conn.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687.
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 530.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
 L. M. Electronics, Inc., 3017 Exposition Blvd., Los Angeles 16, Calif.
 Mack Electronics Division, Inc., Plainfield, N. J.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
 Peerless Electrical Products Div. of Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Potter Co., The, 1950 Sheridan Rd., North Chicago, Ill.
 Pulse Techniques, Inc., 1411 Palisade Ave., West Englewood, N. J.
SOUTHERN ELECTRONICS CORP., 239 W. Orange Grove Ave., Burbank, Calif. ADV. PG. 435.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

FILTERS—High Pass

Acro Transformer Mfg. Corp., 2602 Fourth St., Long Island City 2, N. Y.
ADVANCE ELECTRONICS CO., 451 Highland Ave., Pas-saic, N. J. ADV. PG. 600.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
 Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
 Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.
 American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.

APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. ADV. PG. 696, 697.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn.
AXEL BROS., ELECTRONICS DIV., 134-20 Jamaica Ave., Jamaica, N. Y. ADV. PG. 447.
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
 Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.
 Boehme, Inc., H. O., 915 Broadway, New York 10, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, New York. ADV. PG. 366, 367.
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 551.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
CENTRALAB DIV., GLOBE-UNION, INC., 914 Y. E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.
 Coll Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
 D & R, Ltd., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif.
 De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.
 Electron Products, Inc., 430 N. Halstead St., Pasadena, Calif.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
 Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 609.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 391.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 Gertsch Products, Inc., 11846 Mississippi Ave., P. O. Box 25856, Los Angeles 25, Calif.
GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
 Harder Co., Donald C., 3710 Midway Drive, San Diego 10, Calif.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687.
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 530.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
HYCON EASTERN, INC., 1360 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 290, 291.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
 I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
INDUSTRIAL TRANSFORMER CORP., Gouldboro, Pa. ADV. PG. 370, 371.
 Interference Measurement Lab., Inc., 907 E. 51st St., Brooklyn 3, N. Y.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.

Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.

KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 48, 49.

LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.

Mack Electronics Division, Inc., Plainfield, N. J.

Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.

Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.

MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.

MICROPHASE CORP., P.O. Box 1166X, Greenwich, Conn. ADV. PG. 462.

Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.

MULLARD OVERSEAS LTD., Equipment Div., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 181.

NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.

National Capacitor Co., 18 Webster St., Brookline, Mass.

Neill Co., Inc., R.W., 4320 Montrose Ave., Chicago 41, Ill.

ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.

PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.

Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.

Peerless Electrical Products Div. of Altec Lansing Corp., 9256 Santa Monica Blvd., Beverly Hills, Calif.

Phen-O-Tron, Inc., 455 Main St., New Rochelle, N. Y.

Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.

PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.

Potter Co., The, 1950 Sheridan Rd., North Chicago, Ill.

PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.

Pulse Technique, Inc., 1411 Palisade Ave., West Englewood, N. J.

RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Raypar, Inc., 7800 W. Addison St., Chicago, Ill.

Service Instruments Co., 422 S. Dearborn St., Chicago 5, Ill.

STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.

Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.

SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P.O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.

SPECTRUM INSTRUMENTS, INC., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 587.

Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Superelex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.

Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.

TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England.

Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.

Teleso Corp., 1415 Golf Rd., Des Plaines, Ill.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.

Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.

TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.

Transformer Engineers, 161 E. California, Pasadena 1, Calif.

TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.

Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.

Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.

Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.

UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.

Vidaire Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.

Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

FILTERS—Low Pass

Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y.

ADMITTANCE, INC., 9 Alan Court, Farmingdale, N. Y. ADV. PG. 508.

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.

All-Tronics, Inc., 45 Bond St., Westbury, N. Y.

Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.

American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.

American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.

APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.

ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. ADV. PG. 696, 697.

ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.

Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.

AXEL BROS., ELECTRONICS DIV., 134-20 Jamaica Ave., Jamaica, N. Y. ADV. PG. 447.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

Basler Electric Co., 605 Fifth St., Highland, Ill.

Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.

Boehme, Inc., H.O., 915 Broadway, New York 10, N. Y.

Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.

BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.

CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 557.

California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.

CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.

Carad Corp., 2850 Bay Rd., Redwood City, Calif.

CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.

CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663.

CENTRALAB DIV., GLOBE-UNION, INC., 914 Y. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.

CHICAGO ELECTRIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573.

CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.

CHICAGO STANDARD TRANSFORMER CORP., 3850 Elston Ave., Chicago 18, Ill. ADV. PG. 170.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.

Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.

COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.

COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.

CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.

CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.

Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.

D & R, Ltd., 402 E. Gutierrez St., P.O. Box 1500, Santa Barbara, Calif.

De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.

DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.

Double "E" Products Co., 216 Standard St., El Segundo, Calif.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.

DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

Electro-Mechanical Research Inc., Ridgefield, Conn.

Electron Products, Inc., 430 N. Halstead St., Pasadena, Calif.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.

EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 609.

EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 272, 273.

ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.

General Coil Products Corp., 43 Roselle St., Mineola, N. Y.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307.

GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.

Harder Co., Donald C., 3710 Midway Drive, San Diego 10, Calif.

HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 530.

Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.

Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.

HYCON EASTERN, INC., 1360 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 290, 291.

HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.

INDUSTRIAL TRANSFORMER CORP., Goulsboro, Pa. ADV. PG. 370, 371.

Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.

Johnson Co., E. F., Waseca, Minn.

Kaar Engineering Corp., 2995 Middlefield Rd., P.O. Box 1320, Palo Alto, Calif.

KAY-LAB., 5725 Kearney Villa Rd., San Diego 12, Calif. ADV. PG. 407.

Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.

Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.

KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 48, 49.

L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.

LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.

Mack Electronics Division, Inc., Plainfield, N. J.

MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.

MICROPHASE CORP., P.O. Box 1166X, Greenwich, Conn. ADV. PG. 462.

MID-WEST COIL & TRANSFORMER CO., 1642 N. Halstead St., Chicago 14, Ill. ADV. PG. 286.

MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W.C. 2, England. ADV. PG. 181.

NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.

National Capacitor Co., 18 Webster St., Brookline, Mass.

Neill Co., Inc., R.W., 4320 Montrose Ave., Chicago 41, Ill.

ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.

Palmer, Inc., M.V., 4002 Fruit Valley Rd., Vancouver, Wash.

Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.

Pulse Techniques, Inc., 1411 Palisades Ave., West Englewood, N. J.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Raypar, Inc., 7800 W. Addison St., Chicago, Ill.

San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif.

SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.

SOUTHWESTERN INDUSTRIAL ELECTRONIC CO., 2831 Post Oak Rd., P.O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.

SPECTRUM INSTRUMENTS, INC., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 587.

Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.

Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.

TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W.E., England.

Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.

Teleso Corp., 1415 Golf Rd., Des Plaines, Ill.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.

Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.

TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.

TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.

Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.

Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.

Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.

UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

Vidaire Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.

FILTERS—Microwave

See MICROWAVE ACCESSORIES

FILTERS—Needle Scratch

Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

FILTERS—Radio Interference

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Airborne Accessories Corp., 1414 Chestnut Ave., Hillside, N. J.
 Ajax Condenser Corp., 10905 Chandler Blvd., North Hollywood, Calif.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. ADV. PG. 696, 697.
ASTRON CORP., 255 Grant Ave., East Newark, N. J. ADV. PG. 305.
AXEL BROS., ELECTRONICS DIV., 134-20 Jamaica Ave., Jamaica, N. Y. ADV. PG. 447.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
 C. G. S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
 Double "E" Products Co., 216 Standard St., El Segundo, Calif.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electron Products, Inc., 430 N. Halstead St., Pasadena, Calif.
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 391.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 Hallett Mfg. Co., 1601 W. Florence Ave., Ingewood, Calif.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hopkins Engineering Co., 2082 Lincoln Ave., Altadena, Calif.
 Interference Measurement Lab., Inc., 907 E. 51st St., Brooklyn 3, N. Y.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 National Capacitor Co., 18 Webster St., Brookline, Mass.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
 Potter Co., The, 1950 Sheridan Rd., North Chicago, Ill.
PYRAMID ELECTRIC CO., 1445 Hudson Blvd., North Bergen, N. J. ADV. PG. 281.
 San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Standard Telephone & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Televiso Corp., 1415 Golf Rd., Des Plaines, Ill.

Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.
 United Technical Laboratories, Box 425V, Morristown, N. J.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Vidair Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.
 Yonkers Industries, Inc., 28 School St., Yonkers, N. Y.

FILTERS—Radio Range

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
 Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Yonkers Industries, Inc., 28 School St., Yonkers, N. Y.

FILTERS—Television

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Ajax Condenser Corp., 10905 Chandler Blvd., North Hollywood, Calif.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Entron Inc., 4902 Lawrence St., Bladensburg, Md.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Holland Electronics, 2133 Central Drive, S., East Meadow, N. Y.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
 Phen-O-Tron, Inc., 455 Main St., New Rochelle, N. Y.
 Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Superex Electronics Corp., 46 Radford Place, Yonkers, N. Y.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.
 United Technical Laboratories, Box 425V, Morristown, N. J.
WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.
 Yonkers Industries, Inc., 28 School St., Yonkers, N. Y.

FILTERS—uhf & vhf

Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 216.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Collins Radio Co., Cedar Rapids, Iowa.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.
 Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 391.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Interference Measurement Lab., Inc., 907 E. 51st St., Brooklyn 3, N. Y.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.
 Willmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.

FILTERS—Variable Electronic

Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Centralab Div., Globe-Union, Inc., 914Y E. Keefe Ave., Milwaukee 1, Wis.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Electro-Mechanical Research Inc., Ridgefield, Conn.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.

HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Interstate Electronics Div. of Interstate Engineering Corp., 875 S. East St., Anaheim, Calif.
 KAY-LAB, 5725 Kearney Villa Rd., San Diego 12, Calif. ADV. PG. 407.
 KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 48, 49.
 L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
 MAGNATRAN, INC., P. O. Box 211, Kearny, N. J. ADV. PG. 39.
 MENDELSON SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.
 MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 181.
 PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
 PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
 SPECTRUM INSTRUMENTS, INC., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 587.
 SPENCER-KENNEDY LABS., INC., 1320 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 396.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.
 VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.

FINISHES—Crystal
 GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.

FINISHES—Luminous Materials
 Cellusuede Products, Inc., 540 N. Madison St., Rockford, Ill.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 PHOTO CHEMICAL PRODUCTS, INC., 479 Walton Ave., New York 51, N. Y. ADV. PG. 530.
 U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

FINISHES—Ripple
 GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.

FIRE
 See DETECTORS

FLANGES—Microwave
 See MICROWAVE ACCESSORIES

FLOCK & FLOCKED PAPER
 Cellusuede Products, Inc., 540 N. Madison St., Rockford, Ill.
 Flock Process Co., Inc., 373 Main Ave., Norwalk, Conn.

FLOWMETERS
 See CONTROLS

FLUID FLOW
 See INDICATORS

FLUORESCENT COMPOUNDS—Phosphors
 Associated Engineering & Mfg. Co., Glen Ridge, N. J.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
 Canadian Radium & Uranium Corp., 630 Fifth Ave., New York 20, N. Y.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 PHOTO CHEMICAL PRODUCTS, INC., 479 Walton Ave., New York 51, N. Y. ADV. PG. 530.
 Pilot Chemicals, Inc., 47 Felton St., Waltham 54, Mass.
 SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

FLUOROMETERS
 Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Coleman Instruments, Inc., 318 Madison St., Maywood, Ill.
 Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
 Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.

Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.

FLUX—Brazing or Soldering
 All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.
 Allen Co., Inc., L. B., 6751 Bryn Mawr Ave., Chicago 31, Ill.
 ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
 Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
 AMERICAN PLATINUM WORKS, N. J., R. R. Ave. at Oliver St., Newark 5, N. J. ADV. PG. 654.
 American Solder & Flux Co., 19th & Willard Sts., Philadelphia 40, Pa.
 ANDERSON ASSOCIATES, H. V., 239 Park Ave., Berkeley Heights, N. J. ADV. PG. 560.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 BOW SOLDER PRODUCTS CO., INC., 251 Freeman St., Brooklyn 22, N. Y. ADV. PG. 50.
 Burnley Battery & Mfg. Co., Clay St., North East, Pa.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Dunton Co., M. W., 7 Goff St., Providence 3, R. I.
 Electro-Lab Processes, Inc., 1116 Carmen St., Tampa, Fla.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Ellanar Chemical Co., 2308 Oakton St., Evanston, Ill.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
 HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 206.
 International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.
 Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
 KESTER SOLDER COMPANY, 4212 Wrightwood Ave., Chicago 39, Ill. ADV. PG. 77.
 Lake Chemical Co., 3052 W. Carroll St., Chicago 12, Ill.
 Leach & Garner Co., Attleboro, Mass.
 LINDE AIR PRODUCTS CO., DIV. OF UNION CARBIDE & CARBON CORP., 30 E. 42nd St., New York 17, N. Y. ADV. PG. 580.
 London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.
 MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
 MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 553.
 MULTICORE SALES CORP., 80 Shore Rd., Port Washington, N. Y. ADV. PG. 270.
 MULTICORE SOLDERS, LTD., Multicore Works, Maylands Ave., Hemel Hempstead, Hertfordshire, England. ADV. PG. 270.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 Osborn Products, Glen Ely, Ill.
 Ruby Chemical Co., 68 McDowell St., Columbus, Ohio.
 Soldering Specialties Co., 18 Chattham Rd., Summit, N. J.
 Superior Flux & Mfg. Co., 1302 Ontario St., Cleveland 13, Ohio.
 Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
 Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

FLUXMETERS
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 574.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Howe International, 431 Danfort, Dept. E-7, Jersey City 5, N. J.
 MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
 SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

FOCUS COILS
 See COILS—Television Focusing

FORKS—Electrically Driven Tuning
 Acme Teletronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 AMERICAN TIME PRODUCTS, INC., 580 Fifth Ave., New York 36, N. Y. ADV. PG. 232.
 Daystrom Instrument, Archbald, Pa.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 PHILAMON LABORATORIES, INC., 90 Hopper St., Westbury, N. Y. ADV. PG. 389.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
 Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 392.
 VARO MFG. CO., INC., 2201 Walnut St., Garland, Tex. ADV. PG. 605.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

FORMS—Antenna
 BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
 Isolantite Mfg. Corp., Stirling, N. J.
 Rogers Corp., Goodyear, Conn.

FORMS—Coil
 See Also BOBBINS

ACCURATE PAPER TUBE CO., 801 N. Peoria St., Chicago 22, Ill. ADV. PG. 591.
 ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610.
 ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
 ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
 AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 596.
 Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
 BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 Buckeye Bobbin Co., 12200 Sprecher Ave., Cleveland 11 Ohio.
 Caddell-Burns Mfg. Co., 40 E. Second St., Mineola, N. Y.
 CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 CENTRALAB DIV., GLOBE-UNION, INC., 914 Y. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 CLEVELAND CONTAINER CO., THE, 6201 Barberton Ave., Cleveland 2, Ohio. ADV. PG. 458.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
 Colber Corp., The, 26 Buffington St., Irvington, N. J.
 CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
 CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
 EPM Corp., 570 Van Siclen Ave., Brooklyn, N. Y.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
 Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.
 ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 604.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
 Ferricore, Inc., 303 Railroad Place, Orange, N. J.
 Ferroxcube Corp. of America, 125 E. Bridge St., Saugerties, N. Y.
 FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
 GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549.
 GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 General Electric Co., Plastics Dept., Pittsfield, Mass.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
 Graef Engineering Co., P. O. Box 416, Paramount, Calif.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Isolantite Mfg. Corp., Stirling, N. J.
 Micarta Fabricators Inc., 5324 Ravenswood Ave., Chicago 40, Ill.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Milman Engineering Co., 957 Lillian Way, Hollywood, Calif.
 National Coil Co., P. O. Box 1237, Sheridan, Wyo.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
 National Vulcanized Fibre Co., Wilmington, Del.
 North Hills Electric Co., Inc., 203-18 35th Ave., Bay-side 61, N. Y.
 Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.

Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
 Pfeiffer Products, 3901 W. 54th St., Los Angeles 43, Calif.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
PRECISION PAPER TUBE CO., 2041 W. Charleston St., Chicago 47, Ill. ADV. PG. 659.
 Quality Components, Inc., St. Marys, Pa.
 Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.
 Rogers Corp., Goodyear, Conn.
 Romar Plastics, Inc., 1309 E. Main St., Charles, Ill.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Sinclair Mfg. Co., Chartley, Mass.
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
 Special Products Co., P. O. Box 188, Rockville 3, Md.
 Speer Resistor Division, Speer Carbon Co., St. Marys, Pa.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
STUPAKOFF, DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. ADV. PG. 634.

FORMS—Resistor

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
CENTRAL LAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 EPM Corp., 570 Van Siclen Ave., Brooklyn, N. Y.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 Isolantite Mfg. Corp., Stirling, N. J.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
PRECISION PAPER TUBE CO., 2041 W. Charleston St., Chicago 47, Ill. ADV. PG. 659.
 Speer Resistor Division, Speer Carbon Co., St. Marys, Pa.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. ADV. PG. 634.

FORMS—Wire

ALLOY METAL WIRE DIV. OF H. K. PORTER CO., INC., Prospect Park, Pa. ADV. PG. 148.
ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 400.
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Dudek & Bock Spring & Mfg. Co., 4018 W. Grand Ave., Chicago 51, Ill.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Judd Co., H. L., 87 Chambers St., New York 7, N. Y.
 Newcomb Spring Corp., 77 E. Hawthorne Ave., Valley Stream, N. Y.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
 Reliable Spring & Wire Forms Co., Fulton Rd. & Paris Ave., Cleveland 9, Ohio.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Sheffco Mfg. Co., Grand & Ruby Aves., Palisades Park, N. J.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
WENCO MFG. CO., 1133 W. Hubbard St., Chicago 22, Ill. ADV. PG. 598.

FRAMES—Grid

See PARTS for COLOR TV TUBES

FREQUENCY CALIBRATION SERVICES

Aircorn Inc., 354 Main St., Winthrop 52, Mass.
AMERAC, INC., 116 Topfield Rd., Wenham, Mass. ADV. PG. 503.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
 Eidson Electronic Co., 1902 N. Third St., Temple, Tex.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Frequency Standards, Inc., P. O. Box 504, Asbury Park, N. J.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
 Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.

TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
 United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.

FREQUENCY INDICATORS

See INDICATORS

FREQUENCY STANDARDS

See STANDARDS—Frequency

FURNACES—Electric (for Electronic Component Production)

Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 Despatch Oven Co., Minneapolis, Minn.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Electric Furnace Co., Salem, Ohio.
 Forter-Teichmann Co., Clark Bldg., Pittsburgh, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Grieve-Hendry Co., Inc., 1401-17 W. Carroll Ave., Chicago 7, Ill.
 Harper Electric Furnace Corp., 48 River St., Buffalo 2, N. Y.
 Huppert Co., K. H., 6864 Cottage Grove Ave., Chicago 37, Ill.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
 Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.
STEINER-IVES CO., Springfield Rd., Union, N. J. ADV. PG. 514.
 Stewart Engineering Corp., Soquel, Calif.
 Vulcan Electric Co., Danvers, Mass.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

FURNACES—Gas Fired

American Gas Furnace Co., 130 Spring St., Elizabeth, N. J.
 California Bent Glass Corp., Torrance, Calif.
 Despatch Oven Co., Minneapolis, Minn.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Electric Furnace Co., Salem, Ohio.
 Forter-Teichmann Co., Clark Bldg., Pittsburgh, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Grieve-Hendry Co., Inc., 1401-17 W. Carroll Ave., Chicago 7, Ill.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Bain Ave., Clifton, N. J. ADV. PG. 191.
 Leeds & Northrup Co., 4970 Stanton Ave., Philadelphia 44, Pa.
 Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill.
 Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

FURNACES—High Frequency

Consolidated Vacuum, Rochester 3, N. Y.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 High-Vacuum Equipment Corp., Hingham, Mass.
 Industron Corp., 50 Brook Rd., Needham Heights, Mass.
 Lepel High Frequency Labs., Inc., 55th & 37th Ave., Woodside 77, N. Y.
 Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill.
 Mytron Mfg. Co., 4528 Brazil St., Los Angeles 39, Calif.
 New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
 Ohio Crankshaft Co., Tocco Div., 3800 Harvard Ave., Cleveland 1, Ohio.
 Scientific Electric Corp., 105-109 Monroe St., Garfield, N. J.
 Sherman Industrial Electronics Co., Inc., 505 Washington Ave., Belleville 9, N. J.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

FURNITURE—Electronic, Laboratory

See STOOLS & BENCHES for Work Assembly

FUSE HOLDERS

See BLOCKS

FUSES

Bel-Fuse, Inc., 311 Mountain Road, Union City, N. J.
 Bradford Components, Inc., Bradford, Pa.
BUSSMANN MFG. CO., St. Louis 7, Mo. ADV. PG. 167.

Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S, Long Island City, N. Y.
 Economy Fuse & Mfg. Co., 2717 Greenview Ave., Chicago 14, Ill.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
LITTELFUSE INC., Des Plaines, Ill. ADV. PG. 201.
 O K Electronics Corp., 7 Hunt Place, Nutley, N. J.
 Royal Electric Co., Inc., Pawtucket, R. I.
 Trico Fuse Mfg. Co., 2948 N. Fifth, Milwaukee 12, Wis.

GAGES—Beta

American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
CURTISS-WRIGHT CORP., ELECTRONICS DIV., 631 Central Ave., Carlstadt, N. J. ADV. PG. 583-585.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Pratt & Whitney, Charter Oak Blvd., West Hartford 1, Conn.
 Tracerlab, Inc., 130 High St., Boston 10, Mass.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

GAGES—Comparator

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Bristol Co., The, Waterbury 20, Conn.
 Daytron Corp., 216 S. Main St., Dayton, Ohio.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Link Aviation, Inc., Binghamton, N. Y.
 Metron Instrument Co., 432 Lincoln St., Denver 3, Colo.
 Pratt & Whitney, Charter Oak Blvd., West Hartford 1, Conn.
 Sheffield Corp., The, Dayton 1, Ohio.

GAGES—Displacement Measuring

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Allegany Instrument Co., Inc., Cumberland, Md.
 Bristol Co., The, Waterbury 20, Conn.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Colvin Laboratories, Inc., 364 Glenwood Ave., East Orange, N. J.
 Control Components Co., 1 Holden St., Brookline 46, Mass.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Daytron Corp., 216 E. Main St., Dayton, Ohio.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATORY CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Foxboro Co., The, Foxboro, Mass.
 General Cybernetics Corp., 1751 N. Coronado St., Los Angeles 26, Calif.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
 Minatron Corp., 14 Cliveden Place, Belle Mead, N. J.
 North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Rutico, Inc., 490 S. Fair Oaks Ave., Box 1151M, Pasadena 1, Calif.
 Statham Laboratories, Inc., 12401 W. Olympic Blvd., Los Angeles 64, Calif.

GAGES—Electronic Fuel Indicator

Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The, Waterbury 20, Conn.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
LIQUIDOMETER CORP., THE, Dept. U, Skillman Ave. at 36th St., Long Island City 1, N. Y. ADV. PG. 284.
MAXSON INSTRUMENTS, A DIV. OF THE W. L. MAXSON CORP., 47-37 Austed Place, Long Island City 1, N. Y. ADV. PG. 438.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.

GAGES—Electronic Inspection

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
BRISTOL ENGINEERING CORP., Beaver Dam Rd. & Oak Lane, Bristol, Pa. ADV. PG. 300.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Dice Co., J. W. Englewood, N. J.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Link Aviation, Inc., Binghamton, N. Y.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
 Performance Measurements Co., 15301 W. McNichols, Detroit 35, Mich.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Pratt & Whitney, Charter Oak Blvd., West Hartford 1, Conn.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
WESTON ELECTRICAL INSTRUMENT CORP., A Sub. of Daystrom, Inc., 614 Frelinghuysen Av., Newark 5, N. J. ADV. PG. 483.

GAGES—Electronic Spring Checking

Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dice Co., J. W. Englewood, N. J.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Rockwell Engineering Co., 4061 N. New Jersey St., Indianapolis 5, Ind.

GAGES—Ionization

Alfred Electronics, 897 Commercial St., Palo Alto, Calif.
 Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.
 Consolidated Vacuum, Rochester 3, N. Y.
EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 174, 175.
 Electronic Research Labs., 85 Surrey St., Brighton 35, Mass.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Hamlin, Inc., 1316 Sherman Ave., Evanston, Ill.
 High-Vacuum Equipment Corp., Hingham, Mass.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Pratt & Whitney, Charter Oak Blvd., West Hartford 1, Conn.

RADIO CORP. OF AMERICA, Tube Div., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.
 Research Electronics Laboratories, Roslyn, Pa.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.
 Stokes Machine Co., F. J., 5500 Tabor Rd., Philadelphia 20, Pa.
 Tracerlab, Inc., 130 High St., Boston 10, Mass.
 Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 White Electron Devices Inc., Roger, Fourth Ave., Haskell, N. J.

GAGES—Paint Depth

BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 481.
BRANSON INSTRUMENTS, INC., 1 Brown House Rd., Stamford, Conn. ADV. PG. 654.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

GAGES—Photoelectric Dimension

Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.

GAGES—Pirani

Consolidated Vacuum, Rochester 3, N. Y.
 Continental Electric Co., Geneva, Ill.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

GAGES—Pressure, Electronic

Allegany Instrument Co., Inc., Cumberland, Md.

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bristol Co., The, Waterbury 20, Conn.
 Chesapeake Instrument Corp., Shadyside, Md.
 Colvin Laboratories, Inc., 364 Glenwood Ave., East Orange, N. J.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Consolidated Vacuum, Rochester 3, N. Y.
 Control Components Co., 1 Holden St., Brookline 46, Mass.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Datran Engineering Corp., 3613 Aviation Blvd., Manhattan Beach, Calif.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATORY CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 575.
EDISON, INC., THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 522.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Endevco Corp., 161 E. California St., Pasadena, Calif.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The Foxboro, Pa.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
 Hastings Instrument Co., Inc., Hampton 9, Va.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Kistler Instrument Co., 15 Webster St., Tonawanda, N. Y.
 Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 8, Calif.
 North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
 Norwood Controls Unit, Detroit Controls Corp., 934 Washington St., Norwood, Mass.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.
 Rutico, Inc., 490 S. Fair Oaks Ave., Box 1151M, Pasadena 1, Calif.
 Statham Laboratories, Inc., 12401 W. Olympic Blvd., Los Angeles 64, Calif.
TRANS-SONICS, INC., P. O. Box 328, Lexington 73, Mass. ADV. PG. 218.
 Ultradyne Engineering Labs., Inc., P. O. Box 8007, Albuquerque, N. M.

GAGES—Spring Tension

Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Rockwell Engineering Co., 4061 N. New Jersey St., Indianapolis 5, Ind.

GAGES—Strain

ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
 Allegany Instrument Co., Inc., Cumberland, Md.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Consolidated Avionics, Inc., Stamford, Conn.
 Control Components Co., 1 Holden St., Brookline 46, Mass.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
GREENLEAF MFG. CO., THE, 7814 Maplewood Industrial Court, St. Louis 17, Mo. ADV. PG. 287.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Revere Corp. of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
TRANS-SONICS, INC., P. O. Box 328, Lexington 73, Mass. ADV. PG. 218.

GAGES—Thickness, Electronic

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Applied Research Labs., 3717 Park Place, Glendale 8, Calif.

BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 481.
BRANSON INSTRUMENTS, INC., 1 Brown House Rd., Stamford, Conn. ADV. PG. 654.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
CURTISS-WRIGHT CORP., ELECTRONICS DIV., 631 Central Ave., Carlstadt, N. J. ADV. PG. 583-585.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dice Co., J. W., Englewood, N. J.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 Industrial Electronics Co., Inc., Hanover, Mass.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Link Aviation, Inc., Binghamton, N. Y.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear Research Corp., Southampton, Pa.
 Performance Measurements Co., 15301 W. McNichols, Detroit 35, Mich.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Pratt & Whitney, Charter Oak Blvd., West Hartford 1, Conn.
 Research Electronics Laboratories, Roslyn, Pa.
 Sheffield Corp., The, Dayton 1, Ohio.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

GAGES—Ultrasonic Thickness

AEROPROJECTS INCORPORATED, 310 E. Rosedale Ave., West Chester, Pa. ADV. PG. 674.
ARENBERG ULTRASONIC LABORATORY, 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 570.
BRANSON INSTRUMENTS, INC., 1 Brown House Rd., Stamford, Conn. ADV. PG. 654.
 Dice Co., J. W., Englewood, N. J.
 Kahn and Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Vibro Ceramics Corp., Metuchen, N. J.

GAGES—Vacuum

Bristol Co., The, Waterbury 20, Conn.
 Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.
 Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Consolidated Vacuum, Rochester 3, N. Y.
 Continental Electric Co., Geneva, Ill.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electronic Research Labs., 85 Surrey St., Brighton 35, Mass.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
 Green Rectifier Co., 83-3 Murray St., New York 7, N. Y.
 Hastings Instrument Co., Inc., Hampton 9, Va.
 High-Vacuum Equipment Corp., Hingham, Mass.
 International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.
 King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
 Kistler Instrument Co., 15 Webster St., Tonawanda, N. Y.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
 Norwood Controls Unit, Detroit Controls Corp., 934 Washington St., Norwood, Mass.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
RADIO CORP. OF AMERICA, Tube Div., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Research Electronics Laboratories, Roslyn, Pa.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Stokes Machine Co., F. J., 5500 Tabor Rd., Philadelphia 20, Pa.

Ultradyne Engineering Labs., Inc., P. O. Box 8007, Albuquerque, N. M.
 U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.
 Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

GALVANOMETERS

See INSTRUMENTS—Electrical Measuring

GASES—Nitrogen

Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
LINDE AIR PRODUCTS CO., DIVISION OF UNION CARBIDE AND CARBON CORP., 30 E. 42nd St., New York 17, N. Y. ADV. PG. 580.

GASES—Rare

GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
LINDE AIR PRODUCTS CO., DIVISION OF UNION CARBIDE AND CARBON CORP., 30 E. 42nd St., New York 17, N. Y. ADV. PG. 580.

GASKETS

Armstrong Cork Co., Lancaster, Pa.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
AUTOMATIC & PRECISION MFG. CO., 252 Hawthorne Ave., Yonkers 5, N. Y. ADV. PG. 508.
 Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorn, N. J.
 Connecticut Hard Rubber Co., 407 East St., New Haven, Conn.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
 Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Garlock Packing Co., Palmyra, N. Y.
 General Electric Co., Plastics Dept., Pittsfield, Mass.
 General Tire & Rubber Co., Akron, Ohio.
 Graef Engineering Co., P.O. Box 416, Paramount, Calif.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Laminated Sheet Products Corp., 449 Neponset St., P.O. Box 390, Norwood, Mass.
 Livingston Electronic Corp., Livingston, N. J.
METAL TEXTILE CORP., 647 E. First Ave., Roselle, N. J. ADV. PG. 443.
 Mica Insulator Co., Schenectady 1, N. Y.
 Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 National Vulcanized Fibre Co., Wilmington, Del.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
 Raybestos-Manhattan, Inc., 61 Willett St., Passaic, N. J.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
 Rogers Corp., Goodyear, Conn.
 Schuyler Mfg. Corp., 84 Porete Ave., North Arlington, N. J.
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Taylor Fibre Co., Norristown, Pa.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Thomas & Betts Co., Inc., 36 Butler St., Elizabeth 1, N. J.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 U. S. Stoneware Co., The, Akron 9, Ohio.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.
 Western Felt Works, 4029 Ogden Ave., Chicago, Ill.
 Wilmington Fibre Specialty Co., New Castle, Del.

GAUSSMETERS—Rotating Coil

See FLUXMETERS

GEARS—Precision

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
 Arch Gear Works, Inc., 97 Holmes St., North Quincy (71), Mass.
ATLAS PRECISION PRODUCTS CO., Castor & Kensington Aves., Philadelphia 24, Pa. ADV. PG. 543.
 Beaver Gear Works, Inc., 1034 Parmele St., Rockford, Ill.
 Blaw Knox Co., Farmers Bank Bldg., Pittsburgh 22, Pa.
 Boehme, Inc., H.O., 915 Broadway, New York 10, N. Y.
BOWMAR INSTRUMENT CORP., 2400 Pennsylvania Ave., Fort Wayne, Ind. ADV. PG. 204.
 Custom Gear Co., 648 College St., South Bend 28, Ind.
 Daco Machine Tool Co., 202 Tillary St., Brooklyn 1, N. Y.
 Daystrom Instrument, Archbald, Pa.
 Dynamic Gear Co., 20 Merrick Rd., Amityville, N. Y.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis, Mo.
 Exact Engineering & Mfg. Co., P. O. Box 668, Ocean-side, Calif.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
 Feedback Controls, Inc., 1332-34 N. Henry St., Alexandria, Va.
 Foote Brothers Gear & Machine Corp., 4545 S. Western Blvd., Chicago 9, Ill.
 Franke Gear Works, Inc., 1932 W. Columbia Ave., Chicago 26, Ill.
 Gear Specialties, Inc., 2635 W. Medill Ave., Chicago 47, Ill.
 Globe Industries, Inc., P.O. Box 101, North Dayton Station, Dayton 4, Ohio.
GRANT GEAR WORKS, INC., 154 W. Second St., South Boston, Mass. ADV. PG. 558.
 Gries Reproductor Corp., 151 Beechwood St., New Rochelle, N. Y.
 Howard Industries, Inc., Divisions: Cyclohm Motor Corp., Electric Motor Corp., Racine, Wis.
INDUCTION MOTORS CORP., 570 Main St., Westbury, N. Y. ADV. PG. 258.
 Infra Electronic Corp., Roseland, N. J.
 Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Laminated Sheet Products Corp., 449 Neponset St., P.O. Box 390, Norwood, Mass.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N.W., Grand Rapids 2 Mich.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.
 Massachusetts Gear & Tool Co., 30 Nashua St., Woburn, Mass.
 Mechanical Div. of General Mills, Inc., 1620 Central Ave., Minneapolis 13, Minn.
 Missouri Research Labs., I., 2109 Locust St., St. Louis 3, Mo.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
 Quaker City Gear Works, Red Lion & Philmont Rd., Pethavres, Pa.
REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
 Steel Co., Herman D., Lafayette Bldg., Philadelphia 6, Pa.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing 54, N. Y. ADV. PG. 199.
U. S. GEAR CORP., 71 Broadway, Wakefield, Mass. ADV. PG. 685.
 Washington Machine & Tool Works, 1001 Washington Ave., S., Minneapolis 15, Minn.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
 Winzler Mfg. & Tool Co., 1716 W. Arcade Place, Chicago 12, Ill.
ZAGORA GEARS, INC., 1327 S. Mint St., Charlotte 3, N. C. ADV. PG. 560.

GENERATORS, ELECTRONIC

1. AM-FM
2. Harmonic Frequency
3. Microwave
4. Pulse
5. Random Noise
6. Variable Frequency
7. Ultrasonic
8. Waveform
9. Picture Signal
10. Square Wave
11. Signal, a-f
12. Signal, f-m
13. Signal, r-f
14. Signal, shf
15. Signal, Sweeping
16. Signal, Television Synchronizing
17. Signal, uhf or vhf

Acme Teletronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio. 9.
 Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y. 6-7.
AEROPROJECTS INCORPORATED, 310 E. Rosedale Ave., West Chester, Pa. 7. ADV. PG. 674.

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. 5. ADV. PG. 317.
 Aircorn Inc., 354 Main St., Winthrop 52, Mass. 3.
AIRCRAFT RADIO CORP., Boonton, N. J. 3-13-17. ADV. PG. 212.
 Airmec Ltd., High Wycombe, Buckinghamshire, England. 11-13.
 Alfred Electronics, 897 Commercial St., Palo Alto, Calif. 4.
ALTO SCIENTIFIC CO., 855 Commercial St., Palo Alto, Calif. 4. ADV. PG. 171.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. 3. ADV. PG. 503.
 American Diathermy Products, Inc., 11858 Mississippi Ave., Los Angeles 25, Calif. 7.
 American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa. 4-10.
 American Matrix Corp., 15 Exchange Place, Jersey City 2, N. J. 1-4-5-6-9-10-11-13-15-16-17.
ANDERSEN LABORATORIES, INC., 39 Talcott Rd., West Hartford 10, Conn. 7. ADV. PG. 553.
 Antlab, 4950 N. High St., Columbus 14, Ohio. 10.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. 15. ADV. PG. 466.
ARENBERG ULTRASONIC LABORATORY, 94 Green St., Jamaica Plain 30, Mass. 7. ADV. PG. 570.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J. 12-15.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. 1-12-13-15-17. ADV. PG. 578.
 Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass. 4.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. 2-4-5-6-10-11-13.
 Basler Electric Co., 605 Fifth St., Highland, Ill. 7.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. 4. ADV. PG. 69-76.
BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. 4. ADV. PG. 649.
 Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J. 4.
BIRTCHEER CORP., 4371 Valley Blvd., Los Angeles 32, Calif. 7. ADV. PG. 552.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J. 2-3-6-7-8.
BOONTON RADIO CORP., Boonton, N. J. 1-6-12-13-15-17. ADV. PG. 481.
BRANSON ULTRASONIC CO., 1 Brown House Rd., Stamford, Conn. 7. ADV. PG. 655.
BRISTOL ENGINEERING CORP., Beaver Dam Rd. & Oak Lane, Bristol, Pa. 4. ADV. PG. 300.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif. 4.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. 1-3-4-6-11-12-13-14-17. ADV. PG. 418.
 Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia, Pa. 4.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif. 15.
 Carlson & Nicholson, Inc., 497 Maynard Drive, Buffalo 21, N. Y. 4.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va. 6-11.
 Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif. 6-7.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. 4. ADV. PG. 278, 279.
 Chemalloy Electronics Corp., Gillespie Field, Santee, Calif. 3-13.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England. 4-6-10-11-15.
CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. 3-4-15. ADV. PG. 566.
 Clough-Brengle Co., 6014 N. Broadway, Chicago, Ill. 11-13-15-17.
 Color Television, Inc., 973 E. San Carlos Ave., San Carlos, Calif. 3.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. 2-6. ADV. PG. 645.
COMMUNICATION MEASUREMENTS LAB., INC., 350 Leland Ave., Plainfield, N. J. 6. ADV. PG. 541.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. 4. ADV. PG. 536.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn. 17.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. 2. ADV. PG. 591.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada. 4-7.
 Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y. 1-6-12-13.
 Decade Instrument Co., Box 153, Caldwell, N. J. 1-3-4-5-7-9-11-12-13-14-15-16-17.
DEMORNAY-BONARDI, INC., 780 S. Arroya Parkway, Pasadena, Calif. 5. ADV. PG. 207.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill. 4.
DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. 10-11. ADV. PG. 239-242.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. 10-12. ADV. PG. 380.
 Dukane Corp., St. Charles, Ill. 2-6-11.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J. 4-16-17.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. 5. ADV. PG. 574.
ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. 4. ADV. PG. 514.

- ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. 4-8-10. ADV. PG. 512, 513.
- Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y. 10-11-12-13-15.
- ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. 6. ADV. PG. 562.
- Electronic Measurements Corp., 280 Lafayette St., New York 12, N. Y. 1-10-13-17.
- Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo. 3-4-10.
- El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa. 4-6-10-11.
- EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. 3-4. ADV. PG. 424.
- Entron, Inc., 4902 Lawrence St., Blandensburg, Md. 13.
- F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. 3-4. ADV. PG. 266, 267.
- Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J. 16.
- FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. 1-3-6-7-11-12-13-14-17. ADV. PG. 355-360.
- Ferris Instrument Co., 110 Cornelia St., Boonton, N. J. 1-11-12-17.
- Fisher Radio Corp., 21-21 44th Drive, Long Island City 1, N. Y. 11-13.
- Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J. 4-6-8-9-10-15-16.
- FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. 4. ADV. PG. 645.
- Furzehill Laboratories, Ltd., 57 Clarendon Rd., Watford, Herts, England. 10.
- GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. 3-4. ADV. PG. 690.
- GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 7. ADV. PG. 1-12.
- General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y. 15-16.
- GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 4-5-6-7-10-11-13-17. ADV. PG. 109, 110.
- Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich. 7.
- Grason-Stadler Co., West Concord, Mass. 5.
- Hammer Electronics Co., Inc., Box 531, Princeton, N. J. 4.
- Harris Transducer Corp., Woodbury, Conn. 7.
- Harvey-Wells Electronics, Inc., North St., Southbridge, Mass. 4-13.
- HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. 10-11-13-15-17. ADV. PG. 588.
- HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. 3-4-6-7-10-11-13-14-15-17. ADV. PG. 29-36.
- HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. 1-6-8-9-10-11-12-13-15-16-17. ADV. PG. 152.
- Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif. 11-12-13-14-15-16.
- Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass. 2.
- Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y. 8.
- INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. 11. ADV. PG. 628.
- INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. 1-2-7-11. ADV. PG. 521.
- International Electronics Corp., (Mullard Equipment) 81 Spring St., New York 12, N. Y. 7.
- Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio. 1-11-13-15-16.
- Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa. 3-11-12.
- KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. 1-3-4-5-6-7-9-11-12-13-14-15-17. ADV. PG. 262.
- KAY LAB., 5725 Kearney Villa Rd., San Diego 12, Calif. 4-8-16. ADV. PG. 407.
- KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. 3. ADV. PG. 192.
- KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. 3-4-13-14-17. ADV. PG. 592.
- KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. 8-10-11. ADV. PG. 48, 49.
- Laboratory For Electronics, Inc., 75 Pitts St., Boston 14, Mass. 3.
- LAVOIE LABORATORIES, INC., Morganville, N. J. 2-4-17. ADV. PG. 625.
- LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. 6. ADV. PG. 190.
- Loral Electronics Corp., 794 E. 140th St., New York 54, N. Y. 3-4.
- McKenna Laboratories, Santa Monica 6, Calif. 7.
- Mack Electronics Division, Inc., Plainfield, N. J. 6-7.
- Magnetic Research Corp., 200 Center St., El Segundo, Calif. 4.
- MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617.
- MANSON LABORATORIES, 207 Greenwich Ave., Stamford, Conn. 3-4. ADV. PG. 550.
- Manufacturers Engineering & Equipment Corp., York & Sunset Lane, Hatboro, Pa. 15.
- Marconi Instruments, 44 New St., New York 4, N. Y. 1-3-4-5-6-10-12-13-14.
- Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass. 7.
- MAXSON INSTRUMENTS, A DIV. OF THE W. L. MAXSON CORP., 47-37 Austel Place, Long Island City 1, N. Y. 3-17. ADV. PG. 438.
- Measurement Engineering, Ltd., Arnprior, Ontario, Canada. 1-5-10.
- MEASUREMENTS CORP., Boonton, N. J. 1-4-6-10-11-12-13-17. ADV. PG. 422.
- Meridian, Inc., 7 Mitchell Place, New York 17, N. Y. 11-12-13-14.
- Metronix, Inc., P. O. Box 549, New London, Conn. 13-17.
- MICROLAB, 71 Okner Parkway, Livingston, N. J. 2. ADV. PG. 629.
- MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. 3. ADV. PG. 163-166.
- Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass. 3.
- Mobil Electronics Mfg. Co., 1111 State Rd. 67 E., Anderson, Ind. 11.
- Muirhead & Co., Ltd., Beckenham, Kent, England. 11.
- MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W.C. 2, England. 4-7. ADV. PG. 181.
- NAGOG ASSOCIATES, INC., Littleton, Mass. 4-8-10. ADV. PG. 571.
- NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. 1-3-5-6-10-12-13-15-17. ADV. PG. 302.
- New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y. 7.
- NORTHEAST SCIENTIFIC CORP., 617 Concord Ave., Cambridge 38, Mass. 13-14. ADV. PG. 567.
- Northeastern Engineering, Inc., Manchester, N. H. 13.
- Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa. 6.
- Ohio Crankshaft Co., Tocco Div., 3800 Harvard Ave., Cleveland 1, Ohio. 7.
- Omega Laboratories Inc., P. O. Box 264, Rowley, Mass. 3.
- PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif. 4.
- Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 34, Calif. 15.
- PANORAMIC RADIO PRODUCTS, INC., 10 S. Second St., Mt. Vernon, N. Y. 15. ADV. PG. 627.
- PHILAMON LABORATORIES, INC., 90 Hopper St., Westbury, N. Y. 2. ADV. PG. 389.
- Piezo Products Co., Whitney St., Sherborn, Mass. 7.
- Pioneer-Central Division, Bendix Aviation Corp., Davenport, Iowa. 7.
- Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y. 13-17.
- POLARAD ELECTRONIC CORP., 43-20 34th St., Long Island City 1, N. Y. 3-9-16. ADV. PG. 203.
- POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. 3-5-12. ADV. PG. 507.
- Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y. 4.
- Power Supplies, Inc., 1007 Olive St., Highland, Ill. 7.
- Precise Development Corp., 2 Neil Court, Oceanside, N. Y. 1-10-11-12-13-15-17.
- Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y. 1-10-11-12-13-15-17.
- PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. 3. ADV. PG. 457.
- RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. 5. ADV. PG. 631.
- Radar Engineers, 403 E. 45th St., Seattle 5, Wash. 10.
- Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill. 4.
- Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa. 1-10-11-12-13-15-16.
- RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. 1-3-4-6-13-17. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
- RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. 9-10-11-12-13-15-16-17. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
- Rese Engineering Corp., 731 Arch St., Philadelphia 6, Pa. 4.
- Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif. 1-4-6-12-13-15-17.
- Rutherford Electronic Co., 3707 S. Robertson Blvd., Culver City, Calif. 4-8-10.
- Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass. 5.
- Service Instruments Co., 422 S. Dearborn St., Chicago 5, Ill. 16-17.
- Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y. 2-10.
- SHASTA DIV. OF BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. 6. ADV. PG. 78, 79.
- Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash. 15.
- SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. 1-10. ADV. PG. 214.
- Solartron Electronic Group Ltd., The, Thames Ditton, Surrey, England. 4-10.
- SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. 11. ADV. PG. 430, 431.
- Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y. 4-6-13.
- SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. 7. ADV. PG. 372, 373.
- SPENCER-KENNEDY LABS., INC., 1320 Soldiers Field Rd., Boston 35, Mass. 4-10. ADV. PG. 396.
- Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y. 3.
- Springer Aircraft Radio Co., Earl W., Rte. 11, Box 330, Sky Harbor Airport, Indianapolis, Ind. 17.
- STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. 13-14-15. ADV. PG. 95.
- Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y. 11-12-13.
- SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. 12-15. ADV. PG. 727-733.
- Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y. 8-9-15-16.
- Technical Measurement Corp., 140-142 State St., New Haven 11, Conn. 4.
- TECHNITROL ENGINEERING CO., 2751 N. 4th St., Philadelphia 33, Pa. ADV. PG. 83, 491.
- Technomatic Instrument Co., 1733 Flower St., Glendale, Calif. 15.
- Tektronix, Inc., P. O. Box 831, Portland 7, Ore. 4-8-10.
- TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. 1-4-8-9-10-12-16. ADV. PG. 149.
- Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. 6-12.
- Telephonics Corp., Park Ave., Huntington, N. Y. 7.
- Telegrip Radio Co., 2559 W. 21st St., Chicago 8, Ill. 16.
- Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y. 3.
- TELETRONICS LABORATORY, INC., Kinkel St., Westbury, N. Y. 4. ADV. PG. 545.
- Tevisco Corp., 1415 Golf Rd., Des Plaines, Ill. 7.
- TELONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. 2-3-6-8-9-12-13-14-15-17. ADV. PG. 602.
- Tel-instrument Electronics Corp., 728 Garden St., Carlstadt, N. J. 1-9-12-13-15-16-17.
- TRAD ELECTRONICS CORP., 1001 First Ave., Asbury Park, N. J. 13-17. ADV. PG. 680.
- Transitron, Inc., 186 Granite St., Manchester, N. H. 1-3-12-13-14-17.
- TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. 11-12-13-15-16-17. ADV. PG. 244.
- Ultrasonic Engineering Co., 2402 Second St., Peru, Ill. 6-7.
- Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y. 5.
- VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. 11. ADV. PG. 605.
- VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. 3-6. ADV. PG. 395.
- WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. 4-10. ADV. PG. 724.
- WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. 4-6. ADV. PG. 675.
- Waveline, Inc., Box 470, Caldwell, N. J. 3.
- Wheeler Laboratories, Inc., Great Neck, N. Y. 15.
- White Electron Devices Inc., Roger, Fourth Ave., Haskell, N. J. 3.
- WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. 10-16. ADV. PG. 682.
- Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa. 2.

GENERATORS—Engine Driven

- Allis-Chalmers Mfg. Co., 735 S. 70th St., Milwaukee 1, Wis.
- American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
- AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
- Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
- Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif.
- Buda Div., Allis-Chalmers Mfg. Co., Milwaukee 1, Wis.
- Columbia Electric Mfg. Co., 4519 Hamilton Ave., N. E., Cleveland 14, Ohio.
- Consolidated Diesel Electric Corp., Stamford, Conn.
- CONTINENTAL ELECTRIC CO., INC., 334 Ferry St., Newark 5, N. J. ADV. PG. 312.
- Detroit Diesel Engine Div. of General Motors Corp., 13400 W. Outer Drive, Detroit 28, Mich.
- Gaston Power Tools, Inc., P. O. Box 312, Harvey, Ill.
- Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
- HOMELITE, A DIV. OF TEXTRON AMERICAN, INC., Port Chester, N. Y. ADV. PG. 683.
- Howard Industries, Inc., Divisions: Cyclohm Motor Corp.; Electric Motor Corp., Racine, Wis.
- Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif.
- Jack & Heintz, Inc., Cleveland 1, Ohio.
- Kato Engineering Co., 1415 First Ave., Mankato, Minn.
- Katolight Corp., First Ave. at Chestnut, Mankato, Minn.
- LEACH CORP., 5915 Avalon Blvd., Los Angeles 3, Calif. ADV. PG. 247.
- Motoresearch Co., 1600 Junction Ave., Racine, Wis.
- Onan & Sons Inc., P. O. W., University Ave. at 25th St., S. E., Minneapolis 14, Minn.
- Pioneer Gen-E-Motor Corp., 5841 W. Dickens, Chicago 39, Ill.
- Ready Power Co., The Power Plant Div., 11231 Freud Ave., Detroit 14, Mich.
- RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.
- Sangamo Generators, Inc., 2110 Clear Lake Ave., Springfield, Ill.
- TKM Electric Corp., 11600 University Ave., Rochester 7, N. Y.
- U. S. Motors Corp., Oshkosh, Wis.
- WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
- Wincharger Corp., E. 7th & Division Sts., Sioux City, Iowa.

GENERATORS—Function

Control Components Co., 1 Holden St., Brookline 46, Mass.
 Dalmator Co., 1375 Clay St., Santa Barbara, Calif.
DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
EASTERN AIR DEVICES, INC., 385 Central Ave., Dover, N. H. ADV. PG. 480.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Mid-Century Instrumental Corp., 611 Broadway, New York 12, N. Y.

GENERATORS—Hand Driven

Electro Engineering Products Co., 609 W. Lake St., Chicago, Ill.
 Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
 Howard Industries, Inc., Divisions: Cyclohm Motor Corp., Electric Motor Corp., Racine, Wis.
 Redmond Co., Inc., Owosso, Mich.
 Sangamo Generators, Inc., 2110 Clear Lake Ave., Springfield, Ill.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

GENERATORS—Motor

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Allis-Chalmers Mfg. Co., 735 S. 70th St., Milwaukee 1, Wis.
 American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
 Bogue Electric Mfg. Co., Iowa Ave., Paterson 3, N. J.
 Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif.
 Carter Motor Co., 2742 W. George St., Chicago 18, Ill.
 Century Electric Co., 1806 Pine St., St. Louis 3, Mo.
CLIFTON PRECISION PRODUCTS CO., INC., Broadway at Marple Ave., Clifton Heights, Pa. ADV. PG. 230, 231.
 Columbia Electric Mfg. Co., 4519 Hamilton Ave., N.E., Cleveland 14, Ohio.
CONTINENTAL ELECTRIC CO., INC., 334 Ferry St., Newark 5, N. J. ADV. PG. 312.
 D & R, Ltd., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif.
 Dalmator Co., 1375 Clay St., Santa Clara, Calif.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Eicor, Inc., 1501 W. Congress St., Chicago 7, Ill.
ELECTRIC INDICATOR CO., INC., Camp Avenue, Springdale, Conn. ADV. PG. 598.
ELECTRIC SPECIALTY CO., 300 South St., Stamford, Conn. ADV. PG. 475.
 Electro Engineering Products Co., 609 W. Lake St., Chicago, Ill.
G-M LABORATORIES, INC., 4336 N. Knox Ave., Chicago, Ill. ADV. PG. 575.
 Gaston Power Tools, Inc., P.O. Box 312, Harvey, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
 Great Lakes Electric Mfg. Co., 17 S. Desplaines St., Chicago 6, Ill.
 Hertner Electric Co., 12690 Elmwood Ave., Cleveland 11, Ohio.
 Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
 Hoover Electric Co., 2100 S. Stoner Ave., Los Angeles 25, Calif.
 Howard Industries, Inc., Divisions: Cyclohm Motor Corp.; Electric Motor Corp., Racine, Wis.
INDUCTION MOTORS CORP., 570 Main St., Westbury, N. Y. ADV. PG. 258.
 Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif.
 Infra Electronic Corp., Roseland, N. J.
 Jack & Heintz, Inc., Cleveland 1, Ohio.
 Kato Engineering Co., 1415 First Ave., Mankato, Minn.
 Katolight Corp., First Ave. at Chestnut, Mankato, Minn.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
KUPFRIAN MFG. CORP., 398 State St., Binghamton, N. Y. ADV. PG. 667.
LEACH CORP., 5915 Avalon Blvd., Los Angeles 3, Calif. ADV. PG. 247.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N.W., Grand Rapids 2, Mich.
 Leland Electric Co., The, Div. of The American Machine & Foundry Co., 1501 Webster St., Davton 1, Ohio.
 Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill.
 Motoresearch Co., 1600 Junction Ave., Racine, Wis.
 New Rochelle Tool Corp., 320 Main St., New Rochelle N. Y.
 Ohio Crankshaft Co., Tocco Div., 3800 Harvard Ave., Cleveland 1, Ohio.

OSTER MFG. CO., JOHN, AVIONICS DIV., 1 Main St., Racine, Wis. ADV. PG. 38.
 Pioneer Gen-E Motor Co., 5841 W. Dickens, Chicago 39, Ill.
RED BANK DIVISION, BENDIX AVIATION CORP., Eaton-town, N. J. ADV. PG. 128.
 Rotating Components, Inc., 267 Green St., Brooklyn 22, N. Y.
 Sangamo Generators, Inc., 2110 Clear Lake Ave., Springfield, Ill.
 Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.
 Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J.
 Small Motors, Inc., 2076 Elston Ave., Chicago 14, Ill.
WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

GENERATORS—Rate
 See **Tachometers**

GENERATORS—Winddriven Generating Equipment

Wincharger Corp., E. 7th & Division Sts., Sioux City, Iowa.

GEOPHYSICAL APPARATUS

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., 39 E. Hanover Ave., Morris Plains, N. J.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Century Electronics & Instruments, Inc., P.O. Box 6216, Pine Station, Tulsa 10, Okla.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Harris Transducer Corp., Woodbury, Conn.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Menlo Research Laboratory, Menlo Park, Calif.
 Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.
 Nucleonic Company of America, 196 De Graw St., Brooklyn 31, N. Y.
 Pick Laboratories, P.O. Box 1849, Grand Junction, Colo.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Stokio, Ill.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P.O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
 Technical Instrument Co., 3732 Westheimer Rd., Houston 6, Texas.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Universal Atomic Corp., 19 E. 48th St., New York 17, N. Y.

GERMANIUM CRYSTALS

See **CRYSTALS**

GERMANIUM DIODES

See **DIODES—Germanium**

GERMANIUM RECTIFIERS

See **RECTIFIERS—Germanium**

GETTERS

See **TUBE PARTS**

GLASS

See **INSULATION MATERIALS**

GLASS BONDED MICA

See **INSULATION MATERIALS**

GLASS FIBRE

See **INSULATION MATERIALS**

GLASS—Metal-to-Glass Seals

See **SEALS—Metal-to-Glass**

GRAPHIC RECORDING INSTRUMENTS

See **INSTRUMENTS—Graphic Recording**

GRAPHITE—Colloidal

Acheson Colloids Co., 1950 Washington Ave., Port Huron, Mich.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Grafo Colloids Corp., Sharon, Pa.
 Superior Graphite Co., 33 S. Clark St., Chicago 3, Ill.

GRIDS AND GRID SUPPORTS

See **TUBE PARTS**

GRILLES—Metal

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
 Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 Butler Mfg. Co., Inc., B.B., 3150 Randolph St., Bellwood, Ill.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.

Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Flock Process Co., Inc., 373 Main Ave., Norwalk, Conn.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
 Stone City Machine & Tool Co., Inc., P.O. Box 351, 1206 Seventh St., Bedford, Ind.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

GRILLES—Molded Plastic

Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
 General Electric Co., Plastics Dept., Pittsfield, Mass.
 Molding Corp. of America, 40 Church St., Pawtucket, R. I.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
 Remler Co., 2101 Bryant St., San Francisco 10, Calif.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

GRILLES—Speaker

British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
 Eltran Corp., St. Anne, Ill.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
 Flock Process Co., Inc., 373 Main Ave., Norwalk, Conn.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.
 Gosnet Co., 801 S. Main St., Burbank, Calif.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
 Remler Co., 2101 Bryant St., San Francisco 10, Calif.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

GROMMETS

Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 American Brass Co., 414 Meadow St., Waterbury 20, Conn.
 Atlantic India Rubber Works, Inc., Dept. EL., 571 W. Polk St., Chicago 7, Ill.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
 Dzus Fastener Co., Inc., Box 185, Babylon, N. Y.
 Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
GENERAL CEMENT MFG. CO., Electronic Div., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 General Findings & Supply Co., Industrial Div., Attleboro, Mass.
 General Tire & Rubber Co., Akron, Ohio.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Lavelle Rubber Co., 424 N. Wood St., Chicago 22, Ill.

Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Parisian Novelty Co., 3510 South Western Ave., Chicago 9, Ill.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
 Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
ROHN MFG. CO., 116 Limestone, Bellevue, Peoria, Ill. ADV. PG. 58.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y.
 Taylor Fibre Co., Norristown, Pa.
UNITED SHOE MACHINERY CORP., 140 Federal St., Boston 7, Mass. ADV. PG. 250, 251.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Walco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

GROMMETS—Fibre

American Mica Insulation Co., Manasquan, N. J.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
GENERAL CEMENT MFG. CO., Electronic Div., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 National Vulcanized Fibre Co., Wilmington, Del.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
 Rogers Corp., Goodyear, Conn.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Taylor Fibre Co., Norristown, Pa.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Wilmington Fibre Specialty Co., New Castle, Del.

GUN MOUNTS—Television

Griffiths Electronics, Inc., 155 Summit St., Newark 3, N. J.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.
MANSOL CERAMICS, 140 Little St., Bellevue, N. J. ADV. PG. 617.
 Restron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.
SUPERIOR ELECTRONICS CORP., 208 Piaget Ave., Clifton, N. J. ADV. PG. 653.
U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

GUNS—Soldering

ELECTRIC SOLDERING IRON CO., W. Elm St., Deep River, Conn. ADV. PG. 648.
 Wall Mfg. Co., Grove City, Pa.
 Weller Electric Corp., Box 345, Easton, Pa.
 Wen Products, Inc., 5808 Northwest Highway, Chicago 31, Ill.

GYROSCOPES

Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
 Darco Industries, Inc., Gyro Dynamics Div., 2151 E. Rosencrans Ave., El Segundo, Calif.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
ECLIPSE PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
GREENLEAF MFG. CO., THE, 7814 Maplewood Industrial Court, St. Louis 17, Mo. ADV. PG. 287.
 Gyromechanisms Div. of Norden-Ketay Corp., Halesite, N. Y.

Infra Electronic Corp., Roseland, N. J.
 Iron Firearm Mfg. Co., Electronics Div., 2838 S. E. 9th Ave., Portland 2, Ore.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N.W., Grand Rapids 2, Mich.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.
 Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif.
REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
 Sanders Associates, Inc., Nashua, N. H.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing, N. Y. ADV. PG. 199.
 Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.
 Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.
 U. S. Time Corp., 500 Fifth Ave., New York 36, N. Y.

HAND TOOLS

See **TOOLS—Hand or Mechanical**

HARDWARE—Electronic

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
 Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610.
 American Mica Insulation Co., Manasquan, N. J.
 Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
ATLAS E-E CORP., Bedford Airport Terminal Bldg., Bedford, Mass. ADV. PG. 571.
AUTOMATIC & PRECISION MFG. CO., 252 Hawthorne Ave., Yonkers 5, N. Y. ADV. PG. 508.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Bellevue, N. J. ADV. PG. 608.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Chassis Trak Corp., 6250 E. Iona Rd., Indianapolis, Ind.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
EELDEMA CORP., 9844 Remer St., El Monte, Calif. ADV. PG. 694.
 Electrocraft Div. of Hamilton-Pax, Inc., 3743 N. Kedzie Ave., Chicago 18, Ill.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Exceller Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
 Hopkins Engineering Co., 2082 Lincoln Ave., Altadena, Calif.
 I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Javex, P. O. Box 646, Redlands, Calif.
 Judd Co., J. L., 87 Chambers St., New York 7, N. Y.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 685.
 Litton Industries, Components Div., Beverly Hills, Calif.
MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 609.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Modern-Aire Mfg. Corp., 4436 W. Roosevelt Rd., Chicago 24, Ill.
NIELSEN HARDWARE CORP., 770 Wethersfield Ave., Hartford 14, Conn. ADV. PG. 569.
 Pfeiffer Products, 3901 W. 54th St., Los Angeles 43, Calif.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.

Pressed Metal Div., The Stanley Works, New Britain, Conn.
 Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Scovill Manufacturing Co., Waterbury 20, Conn.
SEALLECTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 467.
 Sheffco Mfg. Corp., Grand & Ruby Aves., Palisades Park, N. J.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Southco Division, South Chester Corp., 233 Industrial Highway, Lester, Pa.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
 Thomas Associates, 4613 Alger St., Los Angeles 39, Calif.
 Tricraft Products Corp., 1535 N. Ashland Ave., Chicago 22, Ill.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 161.
UNITED-CARR FASTENER CORP., Cambridge 42, Mass. ADV. PG. 160.
U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.
VECTOR ELECTRONIC CO., 3252 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.
 Ventrak Corp., 11 W. 42nd St., New York, N. Y.
 Vibrex Fastener Corp., Mount Kisco, N. Y.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Walco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

HARNESSES—Wire

See **Also Cable Assemblies**

Acme Telectronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Actioncraft Products, 8 Sagamore Hill Drive, Port Washington 4, D. C.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Aeronautical Electronics Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 Allied Electronics Equipment Co., 425 Brannan St., San Francisco 7, Calif.
 Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
 Automatic Processing Corp., 121 S. Cowan St., Garrett, Ind.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bernco Engineering Corp., P. O. Box 8238, Indianapolis 24, Ind.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Bliss Electronic Corp., Box 366, Sussex, N. J.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
BRISTOL ENGINEERING CORP., Beaver Dam Road & Oak Lane, Bristol, Pa. ADV. PG. 300.
C B C Electronics Co., Inc., 2601 Howard St., Philadelphia 33, Pa.
 Cable Specialist of Conn., 474 Prospect Ave., Hartford, Conn.
 Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 ConRay Corp., 29 W. Apple St., Dayton 2, Ohio.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Decatur Electronics Industries Corp., 203 Orinco Drive, Brightwater, N. Y.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 Electronic Products Corp., 322 State St., Santa Barbara, Calif.
 Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.

First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
 General Laminated Products, Inc., 2857 S. Halsted St., Chicago 8, Ill.
 Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Harvey-Wellis Electronics, Inc., North St., Southbridge, Mass.
 Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
 Industrial Wiring & Cable Co., 103 Foundry St., Wakefield, Mass.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
KUPFRAN MFG. CORP., 398 State St., Binghamton, N. Y. ADV. PG. 667.
 Jowll Electronics, Inc., Belfield & Wlster, Philadelphia 44, Pa.
 MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.
 Microdot, Inc., 1826 Fremont Ave., South Pasadena, Calif.
 Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
 PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
PACIFIC AUTOMATION PRODUCTS, INC., 1000 Air Way, Glendale 1, Calif. ADV. PG. 450.
 Pacific Electrorcord Co., P. O. Box 8805, Crenshaw Sta., Los Angeles 8, Calif.
PARAPLEGICS MFG. CO., INC., 10068 Franklin Ave., Franklin Park, Ill. ADV. PG. 528.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
 Revere Corp. of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
 Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N., Long Island City 1, N. Y.
 Poesch Inc., Douglas, 2200 S. Figueroa St., Los Angeles 7, Calif.
 Rosenau, Harris & Co., Ontario & "I" Sts., Philadelphia 34, Pa.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
SCINTILLA DIVISION, BENDIX AVIATION CORP., Sidney, N. Y. ADV. PG. 133.
 Sheltered Workshop, 2521 5th St., Santa Monica, Calif.
 Sittler Corp., 18 N. Ada St., Chicago 7, Ill.
 Special Products Co., P. O. Box 188, Rockville 3, Md.
SPIVEY INC., JAMES S., 4908 Hampden Lane, Washington 4, D. C. ADV. PG. 569.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.
 Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
 Tronic Coil Winding Co., Inc., 161 Fairfield Ave., Waterbury, Conn.
 United Manufacturing & Service Co., 405 S. Sixth St., Milwaukee 4, Wis.
 U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
 Vidair Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.
 Wallson Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.
 Whitaker Cable Corp., Kansas City 16, Mo.
 Winder Aircraft Corp., P. O. Box 2397, Lakeland, Fla.

HEADPHONES & HEADSETS

Allied Electronic Equipment Co., 425 Brannan St., San Francisco, Calif.
 British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Canon Co., C. F., Springwater, N. Y.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 574.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
 Fortiphone Ltd., 247 Regent St., London W. 1, England.
 Grason-Stadler Co., West Concord, Mass.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Melody Master Mfg. Co., 2842 N. Cicero Ave., Chicago 41, Ill.
 Permoflux Corp., 4900 W. Grant Ave., Chicago 39, Ill.

Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
 Sears Co., M. J. Delaware County, Roxbury, N. Y.
SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.
 Stromberg-Carlson Co. Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Super Ear Products Co., 675 Merrick Rd., Lynbrook, N. Y.
 Supertex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
TELEX, INC., Telex Park, St. Paul 1, Minn. ADV. PG. 686.
TRIMM, INC., 400 W. Lake St., Libertyville, Ill. ADV. PG. 529.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

HEADS—Recording

A. P. W. Co., 72 W. Main St., Rockaway, N. J.
 Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Audak Co., 500 Fifth Ave., New York, N. Y.
 Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Carron Mfg. Co., 415 S. Aberdeen St., Chicago, Ill.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.
 Lipps Engineering, Edwin A., 5485 W. Washington Blvd., Los Angeles 16, Calif.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Norton Associates, Inc., P. O. Box 96, Garden City, N. Y.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.
SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 United Pressco Products Co., 741 W. Harrison St., Chicago 7, Ill.

HEADS—Wire or Tape Recording

A-V Mfg. Corp., 730 Fifth Ave., New York 19, N. Y.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Carron Mfg. Co., 415 S. Aberdeen St., Chicago, Ill.
DAVIES LABORATORIES, INC., 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.
 Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
 Epsylon Research & Development Co., Ltd., The Barons, St. Margarets, Middlesex, England.
 Lipps Engineering, Edwin A., 5485 W. Washington Blvd., Los Angeles 16, Calif.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Norton Associates, Inc., P. O. Box 96, Garden City, N. Y.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.
 Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif.
SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 United Pressco Products Co., 741 W. Harrison St., Chicago 7, Ill.
 Webster Electric Co., 1900 Clark St., Racine, Wis.

HEARING AID TUBES

See TUBES—Hearing Aid

HEARING AIDS

Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
 Beltone Hearing Aid Co., 2900 W. 36th St., Chicago 32, Ill.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Fortiphone Ltd., 247 Regent St., London W. 1, England.
 Gem Ear Phone Co., Inc., 50 W. 29th St., New York 1, N. Y.
 Grason-Stadler Co., West Concord, Mass.

International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Lauehik Radio Mfg. Co., 3931 S. Wayne Rd., Wayne, Mich.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Melody Master Mfg. Co., 2842 N. Cicero Ave., Chicago 41, Ill.
 Microtone Corp., The, 758 Mississippi River Blvd., St. Paul 1, Minn.
 Myers & Sons, Inc., E. A., 306 Beverly Road, Radioear Building, Pittsburgh 16, Pa.
 Paravox, Inc., 2056 E. Fourth St., Cleveland 15, Ohio.
SONOTONE CORP., Saw Mill River Road, P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.
 Super Ear Products Co., 675 Merrick Rd., Lynbrook, N. Y.
 Telex Mfg. Co., 1307 Sansom St., Philadelphia 7, Pa.
TELEX, INC., Telex Park, St. Paul 1, Minn. ADV. PG. 686.
 Zenith Radio Corp., 6001 Dickens Ave., Chicago 39, Ill.

HEAT TREATING SERVICE

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 American Gas Furnace Co., 130 Spring St., Elizabeth, N. J.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
 Repath Inc., Paul R., 641 E. 61st St., Los Angeles 1, Calif.
 Sargeant & Wilbur Heat Treating Corp., 170 York Ave., Pawtucket, R. I.
SCIENTIFIC ELECTRONIC LABS, INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
SUPERIOR ELECTRONICS CORP., 208 Piaget Ave., Clifton, N. J. ADV. PG. 653.
 Teiner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 Wiedemann Machine Co., 4272 Wissahickon Ave., Philadelphia 32, Pa.

HEATING, ELECTRONIC—Accessories and Associated Equipment

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
 Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.
 Combustion Control Div., Electronics Corp. of America, 718 Beason St., Boston 8, Mass.
 Cox & Co., Inc., 115 E. 23rd St., New York 10, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Induction Heating Corp., 181 Wythe Ave., Brooklyn 11, N. Y.
 Industron Corp., 50 Brook Rd., Needham Heights, Mass.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 3, Calif.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Mytron Mfg. Co., 4528 Brazil St., Los Angeles 39, Calif.
 New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
 Ohio Crankshaft Co., Tocco Div., 3800 Harvard Ave., Cleveland 1, Ohio.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
 Reeve Electronics, Inc., 609 W. Lake St., Chicago 6, Ill.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 Scientific Electric Corp., 105-109 Monroe St., K. Garfield, N. J.
 Sherman Industrial Electronics Co., Inc., 505 Washington Ave., Belleville 9, N. J.
STEINER-IVES CO., Springfield Rd., Union, N. J. ADV. PG. 514.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
 Watlow Electric Mfg. Co., 1376 Ferguson Ave., St. Louis 14, Mo.
 Wells Co., Gary, 149 Broadway, New York 6, N. Y.
 West Instrument Corp., 4363 W. ontrose Ave., Chicago 41, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.

HEATING, ELECTRONIC—Dielectric

Allis-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis.
 Cavitron Electron Oscillator Co. Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.

Electronic Processes Corp., 2190 Folsom St., San Francisco 10, Calif.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Girdler Company, The, Thermex Div., A Div. of National Cylinder Gas Co., 224 E. Broadway, Louisville 1, Ky.
 Induction Heating Corp., 181 Wythe Ave., Brooklyn 11, N. Y.
 Mytron Mfg. Co., 50 Brook Rd., Needham Heights, Mass.
 Mytron Mfg. Co., 4528 Brazil St., Los Angeles 39, Calif.
 New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
 Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
 Peeco Corp., 2760 Whittier Blvd., Los Angeles 23, Calif.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
 Radio Frequency Co., 44 Park St., Medfield, Mass.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
 Reeve Electronics, Inc., 609 W. Lake St., Chicago 6, Ill.
 Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasadena, Calif.
 Scientific Electric Corp., 105-109 Monroe St., Garfield, N. J.
 Sherman Industrial Electronics Co., Inc., 505 Washington Ave., Belleville 9, N. J.
 Wells Co., Gary, 149 Broadway, New York 6, N. Y.
 Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.

HEATING, ELECTRONIC—Induction

Allis-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Cavitron Electron Oscillator Co. Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Induction Heating Corp., 181 Wythe Ave., Brooklyn 11, N. Y.
 Industron Corp., 50 Brook Rd., Needham Heights, Mass.
 Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill.
MCDOWELL ELECTRONICS, INC., P. O. Box 342, Metuchen, N. J. ADV. PG. 697.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 8, Calif.
 Mytron Mfg. Co., 4528 Brazil St., Los Angeles 39, Calif.
 New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
 Ohio Crankshaft Co., Tocco Div., 3800 Harvard Ave., Cleveland 1, Ohio.
 Radio Frequency Co., 44 Park St., Medfield, Mass.
 Reeve Electronics, Inc., 609 W. Lake St., Chicago 6, Ill.
 Scientific Electric Corp., 105-109 Monroe St., Garfield, N. J.
 Sherman Industrial Electronics Co., Inc., 505 Washington Ave., Belleville 9, N. J.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

HEATING ELEMENTS

See **ELEMENTS—Heating**

HEMOGLOBINOMETERS—Electronic

Jarell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.

HOLDERS—Crystal

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
ALLIED INDUSTRIES, INC., 2500 Woodland Ave., Louisville 10, Ky. ADV. PG. 570.
 Antlab, 4950 N. High St., Columbus 14, Ohio.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
ELECTRICAL INDUSTRIES, 44 Summer Ave., Newark 4, N. J. ADV. PG. 455.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266-267.
 Frequency Standards Inc., P. O. Box 504, Asbury Park, N. J.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 444.
GRAYHILL, 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 224.
 Hermetite Corp., 702 Beacon St., Boston 15, Mass.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 678.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
JONES DIV. HOWARD B. CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
 Kleiner Metal Specialties, Inc., P. O. Box 185, Dunellen, N. J.
 Meridian Metalcraft, Inc., 8739 Millergrove Drive, Whittier, Calif.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.

Nebel Laboratory, R. E., 1624 E. 12th St., Brooklyn 29, N. Y.
 Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.
 Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
SCIENTIFIC ELECTRONIC LABS, INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 612.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
 Warren Plastics Corp., Warren, Pa.

HOLDERS—Fuse

See **BLOCKS, FUSE BLOCKS & HOLDERS**

HORNS—Microwave

See **MICROWAVE ACCESSORIES**

HORNS—Speaker Projector

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 Hawley Products Co., St. Charles, Ill.
 Jensen Mfg. Co., 6601 S. Laramie Ave., Chicago 38, Ill.
RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Cover & Preceding Insert.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Sieler Design Products, 10460 San Pablo Ave., El Cerrito, Calif.
 Stephens Mfg. Corp., 8538 Warner Drive, Culver City, Calif.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

HOUSINGS—Antenna

Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
 Keller Products Inc., 41 Union St., Manchester, N. H.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Kling Metal Spinning Co., 247 Centre St., New York 13, N. Y.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.

HOUSINGS—Automobile Radio

Delco Radio Div., General Motors Corp., Kokomo, Ind.
 Ellis & Sons Inc., George D., 4002 N. American St., Philadelphia 40, Pa.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.

HOUSINGS—Instrument

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 476.
AMERICAN ALUMINUM CO., Sheffield St., C, Mountain-side, N. J. ADV. PG. 226.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
 Bristol Co., The, Waterbury 20, Conn.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 Bud Radio, Inc., Dept BG, 2118 E. 55th St., Cleveland 3, Ohio.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.
 Columbia Metal Box Co., 260 E. 143rd St., New York, N. Y.
 Cory-Jamestown Mfg. Co., Cory, Pa.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Ellis & Sons Inc., George D., 4002 N. American St., Philadelphia 40, Pa.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.

Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
 Falstrom Co., 44 Falstrom Court, Passaic, N. J.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
FORMICA METAL PRODUCTS CO., Corporation Way, Medford 55, Mass. ADV. PG. 606.
 General Electric Co., Plastics Dept., Pittsfield, Mass.
 Hoffman Engineering Corp., Anoka, Minn.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Karp Metal Products Co., Div. of H & B Machine Co., 215 63rd St., Brooklyn 20, N. Y.
 Kaupp & Sons, C. B., 32 Newark Way, Maplewood, N. J.
 Keller Products Inc., 41 Union St., Manchester, Conn.
 Metalcraft, Inc., 65-33 Austin St., Rego Park 74, N. Y.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Olympic Metal Products Co., Inc., Third Ave., Alpha, N. J.
 P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
 Par-Metal Products Corp., 32-62 49th St., Long Island City 3, N. Y.
 Pneumafil Corp., Charlotte, N. C.
PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 687.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
 Riestler & Thesmacher Co., 1510 W. 25th St., Cleveland 13, Ohio.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
SUN TUBE CORP., Washington, N. J. ADV. PG. 528.
 Telecro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
 Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.
ZERO MFG. CO., 1211 Chestnut St., Burbank 71, Calif. ADV. PG. 688.

HOUSINGS—Plug-In

ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
AMERICAN ALUMINUM CO., Sheffield St., C, Mountain-side, N. J. ADV. PG. 226.
BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

HOUSINGS—Public Address System

Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
 Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Dukane Corp., St. Charles, Ill.
 Kling Metal Spinning Co., 247 Centre St., New York 13, N. Y.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 Par-Metal Products Corp., 32-62 49th St., Long Island City 3, N. Y.
PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 687.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Sieler Design Products, 10460 San Pablo Ave., El Cerrito, Calif.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Telecro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.

HOUSINGS—Speaker

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
 Bud Radio Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Dukane Corp., St. Charles, Ill.

Electro Voice Mfg. Co., Inc., Buchanan, Mich.
Hawley Products Co., St. Charles, Ill.
Karp Metal Products Co., Div. of H & B Machine Co.,
215 63rd St., Brooklyn 20, N. Y.
Kling Metal Spinning Co., 247 Centre St., New York
13, N. Y.
Lansing Sound, Inc., James B., 2439 Fletcher Drive,
Los Angeles 26, Calif.
Magna Electronics Co., 9810 Anza Ave., Inglewood,
Calif.
Molded Fiberglass Co., Ashtabula, Ohio.
PREMIER METAL PRODUCTS CO., 337 Manida St.,
Bronx 59, N. Y. ADV. PG. 687.
R-J Audio Products, Inc., 80 Shore Rd., Port Washing-
ton, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS
DIV., Camden, N. J. ADV. PG. 88, 89. Third & Fourth
Covers & Preceding Insert.
Sieler Design Products, 10460 San Pablo Ave., El
Cerrito, Calif.
Stromberg-Carlson Co., Div. of General Dynamics Corp.,
100 Carlson Rd., Rochester 3, N. Y.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave.,
White Plains, N. Y. ADV. PG. 446.
Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16,
N. Y.

HUMIDITY

See INDICATORS

HYBRID JUNCTIONS—Microwave
See MICROWAVE ACCESSORIES**IGNITION SYSTEMS—Electronic**

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood,
Calif.
Industrial Control Co., Straight Path & Arlington Ave.,
Wyandanch, N. Y.
Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38,
Ill.
SCINTILLA DIVISION, BENDIX AVIATION CORP.,
Sidney, N. Y. ADV. PG. 542.
Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South
Pasadena, Calif.

IGNITRON

See TUBES

ILLUMINATION CONTROLS

See CONTROLS—Illumination

IMPEDANCE

See DETECTORS

IMPREGNATING COMPOUNDS

See INSULATING COMPOUNDS

IMPREGNATING MACHINES

See MACHINES

INDICATORS—Antenna Position

AIRBORNE INSTRUMENT LAB., INC., 160 Old Country
Rd., Mineola, N. Y. ADV. PG. 317.
Antlab, 4950 N. High St., Columbus 14, Ohio.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE
PRODUCTS GROUP, 1101 N. Royal St., Alexandria,
Va. ADV. PG. 440.
Electronic Specialty Co., 5121 San Fernando Rd., Los
Angeles 39, Calif.
Electronics & Avionics Div. of the Emerson Electric
Mfg. Co., 8100 Florissant Ave., St. Louis, Mo.
Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles
7, Calif.
Johnson Co., E. F., Waseca, Minn.
KEARFOTT CO., INC., ENGINEERING & SALES DIV.,
1378 Main Ave., Clifton, N. J. ADV. PG. 191
Pitometer Log Corp., 237 Lafayette St., New York 12,
N. Y.
Sterling Mfg. Co., 7201 Wentworth, Cleveland 2, Ohio.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-
17 Lawrence St., Flushing, N. Y. ADV. PG. 199.
TELREX, INC., Asbury Park, N. J. ADV. PG. 573.

INDICATORS—Arc Back

WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif.
ADV. PG. 724.

INDICATORS—Broadcast Volume

DAVEN CO., Route 10, Livingston, N. J. ADV. PG.
47.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF
DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5,
N. J. ADV. PG. 483.

INDICATORS—Capacitor Leakage

Clough-Bregle Co., 6014 N. Broadway, Chicago, Ill.
King Electric Equipment Co., 9123 Inman Ave., Cleveland
5, Ohio.
Lee Electronic Labs., Inc., 88 Evans St., Watertown,
Mass.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
44, Pa.
Photographic Products Inc., 1000 N. Olive St., Anaheim,
Calif.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF
DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5,
N. J. ADV. PG. 483.

INDICATORS—Density

See INDICATORS—Specific Gravity

INDICATORS—Detonation Indicators & Meters

ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave.,
Chicago 40, Ill. ADV. PG. 522.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section
E-1 Information Dept., Great Neck, N. Y.

INDICATORS—Dew Point

Bristol Co., The, Waterbury 20, Conn.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
Fischer & Porter Co., 476 Warminster Rd., Hatboro,
Pa.
Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

INDICATORS—Dielectric Constant

Fielden Instrument Div. of Robertshaw-Fulton Controls
Co., 2920 N. Fourth St., Philadelphia 33, Pa.
FREED TRANSFORMER CO., INC., 1736 Weirfield St.,
Brooklyn 27, N. Y. ADV. PG. 645.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
44, Pa.
Yellow Springs Instrument Co., Inc., P. O. Box 106,
Yellow Springs, Ohio.

INDICATORS—Film Thickness

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
American Instrument Co., Inc., 8030 Georgia Ave., Silver
Spring, Md.
Applied Research Labs., 3717 Park Place, Glendale 8,
Calif.
BRANSON INSTRUMENTS, INC., 1 Brown House Rd.,
Stamford, Conn. ADV. PG. 654.
CURTISS-WRIGHT CORP., ELECTRONICS DIV., 631
Central Ave., Carlstadt, N. J. ADV. PG. 583-585.
Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26,
Ill.
Electric Eye Equipment Co., 16 W. Fairchild St., Dan-
ville, Ill.
Electronic Control Corp., 1573 E. Forest St., Detroit 7,
Mich.
Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.
GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New
York 1, N. Y.
Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
Standard Electronics Research Corp., 2 East End Ave.,
New York 21, N. Y.

INDICATORS—Fluid Conductivity

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
Bristol Co., The, Waterbury 20, Conn.
Fielden Instrument Div. of Robertshaw-Fulton Controls
Co., 2920 N. Fourth St., Philadelphia 33, Pa.
Foxboro Co., The, Foxboro, Mass.
Industrial Instruments, Inc., 89 Commerce Rd., Cedar
Grove, N. J.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
44, Pa.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century
House, Shaftesbury Ave., London W. C. 2, England.
ADV. PG. 181.
Perfection Mica Co., Inc., 1320 N. Elston Ave., Chicago
22, Ill.

INDICATORS—Fluid Flow, Electronic

Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10,
Ohio.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC.,
Dept. G-13, 2200 Wright Ave., Richmond, Calif.
ADV. PG. 69-76.
Bristol Co., The, Waterbury 20, Conn.
Crescent Engineering & Research Co., 11632 McBean
St., El Monte, Calif.
Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
Foxboro Co., The, Foxboro, Mass.
Franklin Electronics, Inc., E. Fourth St., Bridgeport,
Pa.
Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles
25, Calif.
Industrial Development Labs., Inc., 17 Pollock Ave.,
Jersey City 5, N. J.
Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
Leupold & Stevens Instruments, Inc., P. O. Box 5082,
Portland 13, Ore.
Manning, Maxwell & Moore, Inc., 250 E. Main St.,
Stratford, Conn.
MAXSON INSTRUMENTS A DIV. OF THE W. L. MAX-
SON CORP., 47-37 Austel Place, Long Island City 1,
N. Y. ADV. PG. 438.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-
TRIAL DIV., Wayne & Windrim Aves., Philadelphia
44, Pa. ADV. PG. 377.
Norwood Controls Unit, Detroit Controls Corp., 934
Washington St., Norwood, Mass.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New
York 1, N. Y.
Nuclear Research Corp., Southampton, Pa.
Potter Aeronautical Co., Route #22, Union, N. J.
Simmonds Accessories, Inc., Tarrytown, N. Y.
Victory Engineering Corp., 101 Springfield Rd., Union,
N. J.

INDICATORS—Frequency

Acme Telectronix Div. of NEA Service, Inc., W. Third
& Lakeside, Cleveland 13, Ohio.

ADVANCE ELECTRONICS CO., 451 Highland Ave., Pas-
saic, N. J. ADV. PG. 600.

Aero Instrument Co., 11423 Vanowen St., North Holly-
wood, Calif.

AIRPAX PRODUCTS CO., Middle River, Baltimore 20,
Md. ADV. PG. 143-146.

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIP-
MENT CO., Box 125, Westboro, Mass. ADV. PG. 673.

Arga Div., Beckman Instruments, Inc., 220 Pasadena
Ave., South Pasadena, Calif.

Barker & Williamson, 235 Fairfield Ave., Upper
Darby, Pa.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC.,
Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV.
PG. 69-76.

BOONTON ELECTRONICS CORP., 738 Speedwell Ave.,
Morris Plains, N. J. ADV. PG. 248.

Cinema-Television, Ltd., Worsley Bridge Rd., London,
S. E. 26, England.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave.,
North Hollywood, Calif. ADV. PG. 589.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.

Decade Instrument Co., Box 153, Caldwell, N. J.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB,
Culver City, Calif. ADV. PG. 512, 513.

Eim Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Epic, Inc., 154 Nassau St., New York 38, N. Y.

FEDERAL TELEPHONE & RADIO CO., A DIV OF IT&T,
88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

GENERAL RADIO CO., 275 Massachusetts Ave., Cam-
bridge 39, Mass. ADV. PG. 109, 110.

HEWLETT-PACKARD CO., Page Mill Rd., Palo Alto,
Calif. ADV. PG. 29-36.

HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont
Ave., Cleveland 8, Ohio. ADV. PG. 152.

HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth
7, Texas. ADV. PG. 476.

Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles
25, Calif.

J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven
8, Conn. ADV. PG. 607.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J.
ADV. PG. 262.

Laboratory for Electronics, Inc., 75 Pitts St., Boston 14,
Mass.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
44, Pa.

Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-
TRIAL DIV., Wayne & Windrim Aves., Philadelphia
44, Pa. ADV. PG. 377.

PANORAMIC RADIO PRODUCTS, INC., 10 S. Second
Ave., Mt. Vernon, N. Y. ADV. PG. 627.

Pennsylvania Testing Laboratory, Doylestown, Pa.

Potter Instrument Co., Inc., 115 Cutter Mill Rd.,
Great Neck, N. Y.

Ransom Research, P. O. Box 382, San Pedro, Calif.
Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main
St., New Rochelle, N. Y. ADV. PG. 312.

SHASTA DIV. OF BECKMAN INSTRUMENTS, INC.,
P. O. Box 296, Station A, Richmond, Calif. ADV. PG.
78, 79.

Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood
38, Calif.

STICHT CO., INC., HERMAN H., 27 Park Place, New
York 7, N. Y. ADV. PG. 696.

TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y.
ADV. PG. 149.

Universal Atomics Corp., 19 E. 48th St., New York 17,
N. Y.

VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas.
ADV. PG. 605.

VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass.
ADV. PG. 395.

WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif.
ADV. PG. 724.

WANG LABORATORIES, INC., 37 Hurley St., Cambridge
41, Mass. ADV. PG. 675.

Westberg Mfg. Co., 144 S. Coombs St., Napa, Calif.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868,
Pittsburgh 30, Pa. ADV. PG. 325-336.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB.
OF DAYSTROM, INC., 614 Frelinghuysen Ave., New-
ark 5, N. J. ADV. PG. 483.

Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

INDICATORS—Hardness

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country
Rd., Mineola, N. Y. ADV. PG. 317.

Summit Electronics, Inc., 7 Industrial Place, Summit,
N. J.

INDICATORS—Humidity, Electronic

Bristol Co., The, Waterbury 20, Conn.

Burton Mfg. Co., 2520 Colorado Ave., Santa Monica,
Calif.

Cambridge Instrument Co., Inc., 3035 Grand Central
Terminal, New York 17, N. Y.

Electric Eye Equipment Co., 16 W. Fairchild St., Dan-
ville, Ill.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
Foxboro Co., The, Foxboro, Mass.

Franklin Electronics, Inc., E. Fourth St., Bridgeport,
Pa.

Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave.,
S., Minneapolis 8, Minn.

Serdex, Inc., 91 Cambridge St., Boston, Mass.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

INDICATORS—Illumination

CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Electric Co., Lamp Div., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio.
I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
INDUSTRIAL DEVICES, INC., 982 River Rd., Edgewater, N. J. ADV. PG. 546.
 Kirkland Co., H. R., 8 King St., Morristown, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Signalite, Inc., 37-41 Neptune Highway, Neptune, N. J.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

INDICATORS—Liquid Level, Electronic

Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The, Waterbury 20, Conn.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 462.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 Gorn Electric Co., Inc., Stamford, Conn.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Leupold & Stevens Instruments, Inc., P. O. Box 5082, Portland 13, Ore.
LIQUIDOMETER CORP., THE, Dept U, Skillman Ave. at 36th St., Long Island City 1, N. Y. ADV. PG. 284.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Norwood Controls Unit, Detroit Controls Corp., 934 Washington St., Norwood, Mass.
 Nuclear Research Corp., Southampton, Pa.
 Performance Measurements Co., 15301 W. McNichols, Detroit 35, Mich.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Radioactive Products, Inc., 2421 Wolcott, Ferndale, Mich.
 Simmonds Aerossories, Inc., Tarrytown, N. Y.
 Vapor Recovery Systems Co., 2820 N. Alameda, P. O. Box 231 Compton, Calif.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

INDICATORS—Materials Thickness

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 481.
BRANSON INSTRUMENTS, INC., 1 Brown House Rd., Stamford, Conn. ADV. PG. 654.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
CURTISS-WRIGHT CORP., ELECTRONICS DIV., 631 Central Ave., Carlstadt, N. J. ADV. PG. 583-585.
 Dayton Corp., 216 S. Main St., Dayton, Ohio.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
 Dice Co., J. W., Englewood, N. J.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Nuclear Corp of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear Research Corp., Southampton, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

INDICATORS—Moisture, Electronic

Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 69-76.
 Bristol Co., The, Waterbury 20, Conn.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Cavtron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.
 Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
 Delmhorst Instrument Co., 601 Cedar St., Boonton, N. J.
 Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 Precision Scientific Co., 3737 W. Cortland St., Chicago 47, Ill.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

INDICATORS—Null

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
 Allegany Instrument Co., Inc., Cumberland, Md.
ASSEMBY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 23.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.
 Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., 39 E. Hanover Ave., Morris Plains, N. J.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Deltcon, Inc., P. O. Box 192, Glenside, Pa.
DEMORNAY-BONARDI, INC., 780 S. Arroya Parkway, Pasadena, Calif. ADV. PG. 207.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandach, N. Y.
 Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
J-B-T INSTRUMENTS INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
 Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.
INDICATORS—Null-Balance, Potentiometer Type
 Allegany Instrument Co., Inc., Cumberland, Md.

Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
 Arnoux Corp., Box 34628, Los Angeles, Calif.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Britsol Co., The, Waterbury 20, Conn.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
 Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Gray Instrument Co., 200 E. Church Lane, Philadelphia 44, Pa.
HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas. ADV. PG. 476.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandach, N. Y.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 Leeds & Northrup, 4970 Stenton Ave., Philadelphia 44, Pa.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
 Performance Measurements Co., 15301 W. McNichols, Detroit 35, Mich.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 Radiation, Inc., Melbourne, Fla.
 Simmonds Aerossories, Inc., Tarrytown, N. Y.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

INDICATORS—Ocean Depth

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
 Edo Corp., College Point, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 120, Palo Alto, Calif.
 Telephonics Corp., Park Ave., Huntington, N. Y.

INDICATORS—Oxygen

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Baker & Co., Inc., 113 Astor St., Newark 5, N. J.
 Beckman Inc., Arnold O., 1020 Mission St., South Pasadena, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

INDICATORS—pH

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 La Motte Chemical Products Co., Towson 4, Baltimore, Md.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

INDICATORS—Photographic Exposure

Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

INDICATORS—Positioning

Allard Instrument Corp., 146 E. Second St., Mineola, N. Y.
 Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Control Components Co., 1 Holden St., Brookline 46, Mass.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 522.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
 Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
LIQUIDOMETER CORP., THE, Dept. U, Skillman Ave. at 36th St., Long Island City 1, N. Y. ADV. PG. 284.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 Nuclear Research Corp., Southampton, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
 Simmonds Aerocessories, Inc., Tarrytown, N. Y.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Waldorf Instrument Corp., Park Ave., Huntington Station, N. Y.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 675.

INDICATORS—Power Level, Electronic

AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bristol Co., The, Waterbury 20, Conn.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Infra Electronic Corp., Roseland, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Machinery Electrification, Inc., Northboro, Mass.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.

INDICATORS—Pressure

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Avion Instrument Corp., a Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
 Colvin Laboratories, Inc., 364 Glenwood Ave. East Orange, N. J.
 Consolidated Vacuum, Rochester 3, N. Y.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Datran Engineering Corp., 3613 Aviation Blvd., Manhattan Beach, Calif.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.

Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
EDISON, INC., THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 General Controls Co., Glendale 1, Calif.
 Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.
 Gorn Electric Co., Inc., Stamford, Conn.
 Hastings Instrument Co., Inc., Hampton 9, Va.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Kistler Instrument Co., 15 Webster St., Tonawanda, N. Y.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 3, Calif.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.
 Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.
 Rutico, Inc., 490 S. Fair Oaks Ave., Box 1151M, Pasadena 1, Calif.
 U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.
 Wallace & Tiernan Inc., 25 Main St., Belleville 9, N. J.

INDICATORS—Pulse Time Riser

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.
 Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
 Rutherford Electronics Co., 3707 S. Robertson Blvd., Culver City, Calif.

INDICATORS—Radiation

See **COUNTERS—Geiger**

INDICATORS—Recording Engine

Allegany Instrument Co., Inc., Cumberland, Md.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.

INDICATORS—rf Probe

BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Javex, P. O. Box 646, Redlands, Calif.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
STODDART AIRCRAFT RADIO CO., 6644 Santa Monica Blvd., Hollywood 38, Calif. ADV. PG. 509.
WACLIN, INC., 35 S. St., Claire St., Dayton 2, Ohio. ADV. PG. 550.

INDICATORS—Shorted Turn

Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
KARTRON, INC., Box 472, Huntington Beach, Calif. ADV. PG. 683.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.

INDICATORS—Smoke & Combustion, Electronic

Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bristol Co., The, Waterbury 20, Conn.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.

Combustion Control Div., Electronics Corp. of America, 718 Beacon St., Boston 8, Mass.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.

Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.

INDICATORS—Sound Level

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 574.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Kistler Instrument Co., 15 Webster St., Tonawanda, N. Y.
 Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London W. C. 2, England.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
WESTON ELECTRICAL INSTRUMENT CORP., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

INDICATORS—Specific Gravity

Bristol Co., The, Waterbury 20, Conn.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
LIQUIDOMETER CORP., THE, Dept. U, Skillman Ave. at 36th St., Long Island City 1, N. Y. ADV. PG. 284.
 Nuclear Research Corp., Southampton, Pa.

INDICATORS—Strain

Allegany Instrument Co., Inc., Cumberland, Md.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Bristol Co., The, Waterbury 20, Conn.
 Consolidated Electro-dynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Daytronic Corp., 216 S. Main St., Dayton, Ohio.
 Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Ellis Associates, Box 77, Pelham, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Ohio. ADV. PG. 599.
HEILAND DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 5200 E. Evans Ave., Denver 22, Colo. ADV. PG. 376.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.
SANBORN CO., 39 Osborn St., Cambridge 39, Mass. ADV. PG. 205.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.

INDICATORS—Temperature

Allegany Instrument Co., Inc., Cumberland, Md.
 Arnoux Corp., Box 34628, Los Angeles, Calif.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.

BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.

Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.

Bristol Co., The, Waterbury 20, Conn.

Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.

Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.

ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.

EDISON, INC., THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.

Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

Epic, Inc., 154 Nassau St., New York 38, N. Y.

Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.

FORD INSTRUMENT CO., DIV. OF THE SPERRY CORP., 31-10 Thomson Ave., Long Island City 1, N. Y. ADV. PG. 667.

Foxboro Co., The, Foxboro, Mass.

Friez Instrument Division, Bendix Aviation Corp., Baltimore 4, Md.

General Controls Co., Glendal 1, Calif.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas, ADV. PG. 476.

Industrial Control Co., Straight Path & Arlington Ave., Wyandach, N. Y.

Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.

J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.

Kybernetes Co., 9 E. 40th St., New York 16, N. Y.

Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.

LIQUIDOMETER CORP., THE, Dept. U, Skillman Ave. at 36th St., Long Island City 1, N. Y. ADV. PG. 284.

Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.

Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S. Minneapolis 8, Minn.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.

Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington 4, Pa.

R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.

Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.

Tempil Corp., 132 W. 22nd St., New York 11, N. Y.

Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.

U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.

United Electric Controls Co., 85 School St., Watertown 72, Mass.

VEC TROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.

Victory Engineering Corp., 101 Springfield Rd., Union, N. J.

West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

INDICATORS—Timing

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.

Allegany Instrument Co., Inc., Cumberland, Md.

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.

American Chronoscope Corp., 316 W. First St., Mount Vernon, N. Y.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

Bristol Co., The, Waterbury 20, Conn.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.

ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.

Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.

First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 613.

Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.

Hupp Instrumentation, 2219 Sepulveda Blvd., Los Angeles 25, Calif.

J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.

Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Ransom Research, P. O. Box 382, San Pedro, Calif.

Rhodes, Inc., M. H., 30 Bartholomew Ave., Hartford, Conn.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.

Stelma, Inc., 389 Ludlow St., Stamford, Conn.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

INDICATORS—Torque

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.

Avion Instrument Corp., A Sub. of A. C. F. Industries, Inc., 299 State Highway #17, Paramus, N. J.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., DEPT. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

Bristol Co., The, Waterbury 20, Conn.

Chatillon & Sons, John, 85 Cliff St., New York, N. Y.

Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.

Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.

Foxboro Co., The, Foxboro, Mass.

Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.

Highland Engineering, 1732 Berkeley, Santa Monica, Calif.

Industrial Control Co., Straight Path & Arlington Ave., Wyandach, N. Y.

Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.

Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.

Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

Thompson Co., A. J., The, Route #1, Box 812, Florissant, Mo.

Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.

WATERS MANUFACTURING INC., Boston Post Rd., Wayland, Mass. ADV. PG. 138, 139.

INDICATORS—Turbidity

Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.

Bristol Co., The, Waterbury 20, Conn.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.

INDICATORS—Vacuum

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

Bristol Co., The, Waterbury 20, Conn.

Consolidated Electro-dynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.

Consolidated Vacuum, Rochester 3, N. Y.

Continental Electric Co., Geneva, Ill.

Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.

Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.

Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.

Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.

Foxboro Co., The, Foxboro, Mass.

Green Rectifier Co., 83-3 Murray St., New York 7, N. Y.

Hastings Instrument Co., Inc., Hampton 9, Va.

Kistler Instrument Co., 15 Webster St., Tonawanda, N. Y.

Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.

Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.

Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S. Minneapolis 8, Minn.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.

NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.

Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.

Research Electronics Laboratories, Roslyn, Pa.

Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.

U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.

Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.

Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.

Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

INDICATORS—Volume

Bristol Co., The, Waterbury 20, Conn.

Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.

Simmonds Aerocosmetics, Inc., Tarrytown, N. Y.

WESTON ELECTRICAL INSTRUMENT CORP., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

INDICATORS—Weight

Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.

Bristol Co., The, Waterbury 20, Conn.

Chatillon & Sons, John, 85 Cliff St., New York, N. Y.

Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.

Daytronic Corp., 216 S. Main St., Dayton, Ohio.

Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.

Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.

Foxboro Co., The, Foxboro, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.

Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.

Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.

Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.

Nuclear Research Corp., Southampton, Pa.

Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.

Streeter-Amet Corp., 4101 N. Ravenswood Ave., Chicago 13, Ill.

INDICATORS—Wind Direction—Electronic

Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.

Beckman & Whitley, Inc., 913 San Carlos Ave., San Carlos, Calif.

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.

Bristol Co., The, Waterbury 20, Conn.

Friez Instrument Division, Bendix Aviation Corp., Baltimore 4, Md.

Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.

Westberg Mfg. Co., 144 S. Coombs St., Napa, Calif.

INDICATORS—Wind Speed—Electronic

Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.

BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.

Beckman & Whitley, Inc., 913 San Carlos Ave., San Carlos, Calif.

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.

Bristol Co., The, Waterbury 20, Conn.

Friez Instrument Division, Bendix Aviation Corp., Baltimore 4, Md.

Hastings Instrument Co., Inc., Hampton 9, Va.

Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.

Westberg Mfg. Co., 144 S. Coombs St., Napa, Calif.

INDUCTANCES—Flyback

See TRANSFORMERS—Flyback

INDUCTANCES—Magnét

See COILS—Magnet

INDUCTANCES—Metalized Glass

See COILS—Metalized Glass

INDUCTANCES—Motor & Generator Field

See COILS—Motor & Generator Field

INDUCTANCES—Power & a-f Coil Windings

See TRANSFORMER WINDINGS

INDUCTANCES—Printed Circuit

See TRANSFORMERS—Printed Circuit

INDUCTANCES—r-f & i-f Receiving or Transmitting

See COILS—Choke

INDUCTANCES—Relay

See COILS—Relay

INDUCTANCES—Speaker Voice Coil

See COILS—Speaker Voice Coil

INDUCTANCES—Television Focusing

See COILS—Television Focusing

INDUCTANCES—Toroidal

See TOROIDS

INDUCTANCES—Variable

1. Saturable Reactors
2. Mechanical

Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y. 1.

Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif. 1-2.

Ballastran Corp., Fort Wayne, Ind. 1.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. 1.

Basler Electric Co., 605 Fifth St., Highland, Ill. 1.

Bergen Laboratories, 111 Godwin Ave., Fair Lawn, N. J. 2.

BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. 1-2. ADV. PG. 366, 367.

- C. G. S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn. 1.
- Caddell Burns Mfg. Co., 40 East Second St., Mineola, N. Y. 2.
- California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. 1-2.
- CAMBRIDGE THERMIONIC CORP.**, 445 Concord Ave., Cambridge 38, Mass. 2. ADV. PG. 310.
- Carad Corp., 2850 Bay Rd., Redwood City, Calif. 1.
- CELCO CONSTANTINE ENGINEERING LABORATORIES CO.**, Island Ave., Mahwah, N. J. 1-2. ADV. PG. 136, 137.
- Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
- CENTRAL TRANSFORMER CO.**, 910 W. Jackson Blvd., Chicago, Ill. 1-2. ADV. PG. 663.
- Coil Co. of America, Inc., 207 Washington St., Northvale, N. J.
- COILCRAFT INC.**, Cary, Ill. 1-2. ADV. PG. 628.
- COILS-ELECTRONICS CO.**, 2939-49 N. 2nd St., Philadelphia 33, Pa. 2. ADV. PG. 602.
- COMMUNICATION ACCESSORIES CO.**, Red Bridge Rd., Hickman Mills, Mo. 1. ADV. PG. 219-222.
- Control Components Co., 1 Holden St., Brookline 46, Mass. 1.
- Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J. 1.
- DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. 1.
- De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif. 1-2.
- Dresser Electric Co., 942 E. Larned St., Detroit 7, Mich. 1.
- Electran Mfg. Co., 1901 N. Clybourn, Chicago, Ill. 1.
- EPCO PRODUCTS, INC.**, 2500 Atlantic Ave., Brooklyn 17, N. Y. 1. ADV. PG. 609.
- Fortiphone Ltd., 247 Regent St., London W. 1, England. 1.
- FREED TRANSFORMER CO., INC.**, 1736 Weirfield St., Brooklyn 27, N. Y. 1. ADV. PG. 645.
- General Instrument Corp., 65 Gouverneur St., Newark 4, N. J. 1-2.
- GENERAL RADIO CO.**, 275 Massachusetts Ave., Cambridge 39, Mass. 2. ADV. PG. 109, 110.
- Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
- HOULIHAN CO., T. J.**, 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
- HYCOR DIV. OF INTERNATIONAL RESISTANCE CO.**, 12970 Bradley Ave., Sylmar, Calif. 1. ADV. PG. 601.
- INDUSTRIAL TRANSFORMER CORP.**, Gouldsboro, Pa. 1. ADV. PG. 370, 371.
- Jobbins Electronic Enterprises, 771 Hamilton Ave., Menlo Park, Calif. 1.
- Johnson Co., E. F., Waseca, Minn. 2.
- K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. 1.
- Keystone Products Co., 904-6 23rd St., Union City, N. J. 1.
- LANGEVIN MFG. CORP.**, 47-37 Austel Place, Long Island City 1, N. Y. 1. ADV. PG. 439.
- MACARR, INC.**, 2458 Arthur Ave., Bronx 58, N. Y. 1. ADV. PG. 620.
- MAGNETIC AMPLIFIERS, INC.**, 632 Tinton Ave., New York 55, N. Y. 1. ADV. PG. 401.
- Magnetic Research Corp., 200 Center St., El Segundo, Calif. 1.
- Magnetic Windings Div., Essex Wire Corp., Freemansburn Ave. at Hobson Blvd., Easton, Pa. 1.
- MAGNETICS, INC.**, P.O. Box 391, Butler, Pa. 1. ADV. PG. 54, 55.
- Microtran Co., Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y.
- NJE CORPORATION**, 345 Carnegie Ave., Kenilworth, N. J. 1. ADV. PG. 111-122.
- North Hills Electric Co., Inc., 203-18 35th Ave., Bay-side 61, N. Y. 2.
- Peerless Electrical Products Div. of Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif. 1.
- Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
- Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J. 1.
- RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT.**, 100 River St., Waltham 54, Mass. 1. ADV. PG. 364, 365.
- REDMAN ELECTRONICS CORP.**, P. O. Box 72, Thompsonville, Conn. 2. ADV. PG. 615.
- STANDARD COIL PRODUCTS CO.**, 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
- Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
- Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y. 2.
- STERLING TRANSFORMER CORP.**, 297 N. Seventh St., Brooklyn 11, N. Y. 1. ADV. PG. 577.
- Summit Coil Co., 4 Claremont Rd., Bernardsville, N. J. 2.
- Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y. 1.
- Tele-Coil Co., Inc., 275 Saunders St., Camden 5, N. J. 2.
- TEXAS INSTRUMENTS, INC.**, 6000 Lemmon Ave., Dallas 9, Texas. 1-2. ADV. PG. 403.
- Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. 1.
- Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. 1-2.
- TRANSFORMERS, INC.**, 200 Stage Rd., Vestal, N. Y. 1. ADV. PG. 337-344.
- Tranasonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif. 1.
- Tronic Coil Winding Co., Inc., 161 Fairfield Ave., Waterbury, Conn. 1-2.
- Ultradyn Engineering Labs., Inc., P.O. Box 8007, Albuquerque, N. M.
- U. S. ELECTRONICS CORP.**, 276 Warren St., Lyndhurst, N. Y. 1. ADV. PG. 548.
- United Technical Laboratories, Box 425-V, Morristown, N. J. 2.
- UNITED TRANSFORMER CO.**, 150 Varick St., New York 13, N. Y. 1-2. ADV. PG. Second Cover.
- VARI-L CO., INC.**, P. O. Box 1433, Stamford, Conn. 1. ADV. PG. 500.
- Warsaw Coil Co., Warsaw, Ind.
- INDUCTANCES—Width Control**
See COILS—Width Control
- INDUCTION HEATING**
See HEATING—Induction
- INFRA-RED DRYING OVENS**
See OVENS
- INKS—Marking**
- Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.
- Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.
- GENERAL ELECTRIC CO., APPARATUS SALES DIV.**, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
- Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
- Markem Machine Co., Keene, N. H.
- Marsh Stencil Machine Co., 46 Marsh Bldg., Belleville, Ill.
- Matthews & Co., James H., 3942 Forbes St., Pittsburgh, Pa.
- PHILLIPS PROCESS CO., INC.**, 192 Mill St., Rochester 14, N. Y. ADV. PG. 292.
- INSPECTION EQUIPMENT—Lighting**
- Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
- Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
- Fostoria Pressed Steel Corp., Fostoria, Ohio.
- Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
- Menlo Research Laboratory, Menlo Park, Calif.
- Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
- Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
- Wappler, Inc., 27-10 Astoria Blvd., Long Island City 2, N. Y.
- INSTRUMENT PARTS—Precision**
- Abrams Instrument Corp., 600-620 E. Shiawasse St., Lansing, Mich.
- Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
- Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
- Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
- Allegany Instrument Co., Inc., Cumberland, Md.
- Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
- American Laubscher Corp., 250 W. 57th St., New York 19, N. Y.
- AMERICAN LAVA CORP.**, Chattanooga 5, Tenn. ADV. PG. 87.
- Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
- BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP.**, Bristol, Conn. ADV. PG. 225.
- Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.
- BARNES-GIBSON-RAYMOND DIVISION**, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 225.
- Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
- Belock Instrument Corp., 111-01 14th Ave., College Point 56, N. Y.
- Boehme, Inc., H. O., 915 Broadway, New York 10, N. Y.
- BGWMAR INSTRUMENT CORP.**, 2400 Pennsylvania Ave., Fort Wayne, Ind. ADV. PG. 204.
- Bristol Co., The, Waterbury 20, Conn.
- Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
- CIRCON COMPONENT CO.**, 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
- Daco Machine Tool Co., 202 Tillary St., Brooklyn 1, N. Y.
- Daystrom Instrument, Archbald, Pa.
- Eastern Specialty Co., Philadelphia 40, Pa.
- Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
- Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
- Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
- Excellex Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
- Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
- Felsenthal & Sons Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
- GENERAL ELECTRIC CO., APPARATUS SALES DIV.**, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
- General Findings & Supply Co., Industrial Div., Attleboro, Mass.
- GIBSON CO., WILLIAM D., THE**, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 225.
- GRAPHITE METALLIZING CORP.**, 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
- Greer Stop Nut Co., 2620 W. Fluornoy St., Chicago 12, Ill.
- Gries Reproducer Corp., 151 Beechwood St., New Rochell, N. Y.
- H. & H. Products Co., 766 Ramsey Ave., Hillside, N. J.
- Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
- Infra Electronic Corp., Roseland, N. J.
- Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
- Insuline Corp. of America, 186 Granite St., Manchester, N. H.
- Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.
- J-V-M ENGINEERING CO.**, 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
- Kaiser Manufacturing Engineers, Inc., Summit, N. J.
- KENT CO., F. C.**, 64 Howard St., Irvington, N. J. ADV. PG. 556.
- Kerr-Lakeside Industries, Inc., 21858 St. Clair Ave., Cleveland 17, Ohio.
- Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
- LIBRASCOPE, INC.**, 808 Western Ave., Glendale, Calif. ADV. PG. 190.
- Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
- MENDELSONN SPEEDGUN CO., INC.**, Fourth Ave., Haskell, N. J. ADV. PG. 568.
- MILWAUKEE DIV. OF ASSOCIATED SPRING CORP.**, 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 225.
- Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
- Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
- Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
- OHIO DIV. OF ASSOCIATED SPRING CORP.**, 1825 E. First St., Dayton 3, Ohio. ADV. PG. 225.
- P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
- Phaostroon Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
- Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
- PIX MFG. CO., INC.**, 81A Hudson St., Newark, N. J. ADV. PG. 394.
- Precise Instrument Parts Co., 4520 San Fernando Rd., Glendale 4, Calif.
- Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.
- RAYMOND MANUFACTURING CO.**, Corry, Pa. ADV. PG. 225.
- Roller-Smith Corp., Instrument Div., 1825 Market St., Bethlehem, Pa.
- Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
- SEABOARD COIL SPRING DIVISION**, 15001 S. Broadway, Gardena, Calif. ADV. PG. 225.
- Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.
- SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO.**, 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
- Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
- STERLING PRECISION CORP., INSTRUMENT DIV.**, 34-17 Lawrence St., Flushing 54, N. Y. ADV. PG. 199.
- Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
- Torrington Co., Specialties Div., 37 Field St., Torrington, Conn.
- Tru-Connector Corp., 416 Union St., Lynn, Mass.
- Uniform Tubes, Level Rd., Collegeville 2, Pa.
- Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
- Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
- Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.
- ZAGORA GEARS, INC.**, 1327 S. Mint St., Charlotte 3, N. C. ADV. PG. 560.
- INSTRUMENTS—ELECTRICAL MEASURING**
Ammeters to Wattmeters inclusive
- AMMETERS**
See also Microammeters
Micro-Microammeters
Milliammeters
- Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
- ASSEMBLY PRODUCTS, INC.**, Chesterland 6, Ohio. ADV. PG. 368, 369.
- Beede Electrical Instrument Co., Inc., Penacook, N. H.
- Bristol Co., The, Waterbury 20, Conn.
- Columbia Electric Mfg. Co., 4519 Hamilton Ave., N. E., Cleveland 14, Ohio.
- DE JUR-AMSCO CORP.**, Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
- Electric Design & Mfg. Corp., Burlington, Iowa.
- ELECTRONIC MEASUREMENTS CO.**, Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
- Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
- Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.
- Gar Electrical Instrument Corp., 92-15 172nd St., Jamaica 33, N. Y.
- GENERAL ELECTRIC CO., APPARATUS SALES DIV.**, 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
- Greibach Instruments Corp., Metuchen, N. J.
- HOYT ELECTRICAL INSTRUMENT WORKS, INC.**, 42 Carleton St., Cambridge 42, Mass. ADV. PG. 452.

INTERNATIONAL INSTRUMENTS INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 188.

MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.

Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.

Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.

Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.

Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.

PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.

Pyramid Instrument Corp., 630 Merrick Rd., Lynbrook, N. Y.

Q.V.S., Inc., 20 N. 15th St., East Orange, N. J.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.

Roller-Smith Corp., Instrument Div., 1825 Market St., Bethlehem, Pa.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

SHURITE METERS, 35-B Hamilton St., New Haven 8, Conn. ADV. PG. 630.

SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.

Sterling Mfg. Co., 7201 Wentworth, Cleveland, Ohio.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.

TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.

Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

AMMETERS—r-f

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.

Beede Electrical Instrument Co., Inc., Penacook, N. H. Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.

PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.

Roller-Smith Corp., Instrument Div., 1825 Market St., Bethlehem, Pa.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

AUDIOMETERS

Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.

Beltone Hearing Aid Co., 2900 W. 36th St., Chicago 32, Ill.

Fortiphone Ltd., 247 Regent St., London W. 1, England.

Gration-Stadler Co., West Concord, Mass.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.

Maico Co., Inc., 21 North Third St., Minneapolis, Minn.

BRIDGES—Electrical

Allegany Instrument Co., Inc., Cumberland, Md.

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.

American Mica Insulation Co., Manassas, N. J.

B & F Instruments Inc., 4732 N. Broad St., Philadelphia 41, Pa.

Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.

Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., 39 E. Hanover Ave., Morris Plains, N. J.

Bristol Co., The Waterbury 20, Conn.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.

Deltron, Inc., P. O. Box 192, Glenside, Pa.

DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.

ELECTRO-MEASUREMENTS, INC., 4312 S. E. Stark St., Portland 15, Ore. ADV. PG. 579.

Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Muirhead & Co., Ltd., Beckenham, Kent, England.

Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.

SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.

BRIDGES—Impedance

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.

Barker & Williamson, 235 Fairfield Ave., Upper Derby, Pa.

BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 481.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Chesapeake Instrument Corp., Shadyside, Md.

CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.

Clough-Brengle Co., 6014 N. Broadway, Chicago, Ill.

Deltron, Inc., P. O. Box 192, Glenside, Pa.

DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATORY CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.

ELECTRO-MEASUREMENTS, INC., 4312 S.E. Stark St., Portland 15, Ore. ADV. PG. 579.

Epic, Inc., 154 Nassau St., New York 38, N. Y.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355, 360.

FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.

G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.

Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Marconi Instruments, 44 New St., New York 4, N. Y.

Metronix, Inc., P. O. Box 549, New London, Conn.

Muirhead & Co., Ltd., Beckenham, Kent, England.

Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.

Pennsylvania Testing Laboratory, Doylestown, Pa.

Radex Corp., 2076 N. Elston Ave., Chicago 14, Ill.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.

SHASTA DIV. OF BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

WATERS MANUFACTURING, INC., Boston Post Rd., Wayland, Mass. ADV. PG. 138, 139.

BRIDGES—Inductance

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.

Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.

Clough-Brengle Co., 6014 N. Broadway, Chicago, Ill.

DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATORY CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.

ELECTRO-MEASUREMENTS, INC., 4312 S.E. Stark St., Portland 15, Ore. ADV. PG. 579.

Erco Engineering Corp., Addison, Ill.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.

FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.

G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.

Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.

Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.

INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Marconi Instruments, 44 New St., New York 4, N. Y.

Muirhead & Co., Ltd., Beckenham, Kent, England.

Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.

Pennsylvania Testing Laboratory, Doylestown, Pa.

Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N., Long Island City 1, N. Y.

SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.

TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.

WATERS MANUFACTURING INC., Boston Post Rd., Wayland, Mass. ADV. PG. 138, 139.

BRIDGES—v-hf

ALFORD MFG. CO., INC., 299 Atlantic Ave., Boston, Mass. ADV. PG. 650.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

Marconi Instruments, 44 New St., New York 4, N. Y.

CALIBRATORS—Sweep

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.

Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.

Decade Instrument Co., Box 153, Caldwell, N. J.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

Owen Laboratories, 55 Beacon Place, Pasadena, Calif.

PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Tektronix, Inc., P. O. Box 831, Portland 7, Ore.

CALIBRATORS—uhf

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.

CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.

Decade Instrument Co., Box 153, Caldwell, N. J.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.

Metronix, Inc., P. O. Box 549, New London, Conn.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

COMPARATORS—Automatic Resistance

Allegany Instrument Co., Inc., Cumberland, Md.

Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.

Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.

Foxboro Co., The, Foxboro, Mass.

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.

Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.

Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.

Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.

SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.

Technical Development Corp., 4060 Ince Blvd., Culver City, Calif.

COMPARATORS—Circuit Linearity

Technical Development Corp., 4060 Ince Blvd., Culver City, Calif.

COMPARATORS—Voltage

ADVANCE ELECTRONICS CO., 451 Highland Ave., Pas-saic, N. J. ADV. PG. 600.
 DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
 ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 KEPCO LABS., 131-38 Sanford Ave., Flushing 55, N. Y. ADV. PG. 51-53.
 PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

GALVANOMETERS

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
 Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., 39 E. Hanover Ave., Morris Plains, N. J.
 Bristol Co., The, Waterbury 20, Conn.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Century Electronics & Instruments Inc., P. O. Box 6216, Pine Station, Tulsa 10, Okla.
 Coleman Instruments, Inc., 318 Madison St., Maywood, Ill.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 G-M LABORATORIES, INC., 4336 N. Knox Ave., Chicago, Ill. ADV. PG. 575.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gray Instrument Co., 200 E. Church Lane, Philadelphia 44, Pa.
 HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 HEILAND DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 5200 E. Evans Ave., Denver 22, Colo. ADV. PG. 376.
 HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas. ADV. PG. 476.
 J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Leeds & Northrop Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
 Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.
 Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
 MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Pimex, Inc., 2 E. 82nd St., New York 28, N. Y.
 Q.V.S., Inc., 20 N. 15th St., East Orange, N. J.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 SANBORN CO., 39 Osborn St., Cambridge 39, Mass. ADV. PG. 205.
 SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
 SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 SIMPSON ELECTRIC CO., DIV., AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Technical Instrument Co., 3732 Westheimer Rd., Houston 6, Texas.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
 WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

INSTRUMENTS—Panel

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
 American Matrix Corp., 15 Exchange Place, Jersey City 2, N. J.
 ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Automatic Temperature Control Co., Inc., 5212 Pulaski Ave., Philadelphia 44, Pa.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bristol Co., The, Waterbury 20, Conn.
 Consolidated Vacuum, Rochester 3, N. Y.
 Daystrom Instrument, Archbald, Pa.

DeJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
 DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
 EDISON, INC., THOMAS A. INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.
 Electric Design & Mfg. Co., Burlington, Iowa.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Gar Electrical Instrument Corp., 92-15 172nd St., Jamaica 33, N. Y.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
 HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
 HOYT ELECTRICAL INSTRUMENT WORKS, INC., 42 Carleton St., Cambridge 42, Mass. ADV. PG. 452.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 188.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 MENDELSON SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
 MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Phabstron Instrument & Electric Co., 151 Pasadena Ave., South Pasadena, Calif.
 Q. V. S. Inc., 20 N. 15th St., East Orange, N. J.
 RAYSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
 Roller-Smith Corp., Instrument Div., 1825 Market St., Bethlehem, Pa.
 SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
 SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
 TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
 TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 U. S. Gauge Div. of American Machine & Metals, Inc., Sellersville, Pa.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Winder Aircraft Corp., P. O. Box 2397, Lakeland, Fla.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

INSTRUMENTS—Ultrasonic

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 AEROPROJECTS INCORPORATED, 310 E. Rosedale Ave., West Chester, Pa. ADV. PG. 674.
 BIRTCHEM CORP., 4371 Valley Blvd., Los Angeles 32, Calif. ADV. PG. 552.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
 BRANSON INSTRUMENTS, INC., 1 Brown House Rd., Stamford, Conn. ADV. PG. 654.
 BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 655.
 Chesapeake Instrument Corp., Shadyside, Md.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Dice Co., J. W. Englewood, N. J.
 Edo Corp., College Point, N. Y.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 Harris Transducer Corp., Woodbury, Conn.
 HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Infra Electronic Corp., Roseland, N. J.

International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Mack Electronics Division, Inc., Plainfield, N. J.
 Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Televiso Corp., 1415 Golf Rd., Des Plaines, Ill.

MAGNETOMETERS

DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 54, 55.
 Menlo Research Laboratory, Menlo Park, Calif.
 Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

MEGOhmmeters

ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 588.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Dice Co., J. W., Englewood, N. J.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 STITCH CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

METERS—Electronic Capacitance

BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 23.
 Bristol Co., The, Waterbury 20, Conn.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Leeds & Northrop Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 LIQUIDMETER CORP., THE, Dept. U, Skillman Ave. at 36th St., Long Island City 1, N. Y. ADV. PG. 284.
 MacLeod & Hanopol Inc., 10 Roland St., Charlestown 29, Mass.
 Marconi Instruments, 44 New St., New York 4, N. Y.
 Metronix, Inc., P.O. Box 549, New London, Conn.
 Pennsylvania Testing Laboratory, Doylestown, Pa.

METERS—Field Strength

Airtec, Ltd., High Wycombe, Buckinghamshire, England.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.
 Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.
 EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 424.
 Erwood, Inc., 1770 Berneau Ave., Chicago 13, Ill.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Ferris Instrument Co., 110 Cornelia St., Boonton, N. J.
 Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
 HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
 Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.

Jerrold Electronics Corp., 26th & Dickinson Sts., Philadelphia 46, Pa.
 Jowit Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
 LEL, INC., 380 Oak St., Copiague, N. Y. ADV. PG. 624.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 422.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Nems-Clarke, Inc., Silver Spring, Md.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.
 Radion Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SIMPSON ELECTRIC CO., DIV. AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
STODDART AIRCRAFT RADIO CO., 6644 Santa Monica Blvd., Hollywood 38, Calif. ADV. PG. 509.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.

METERS—f-m Deviation See also Monitors

1 ELECTRONICS DIV. OF BORG-WARNER CORP., 1300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Gertsch Products, Inc., 11846 Mississippi Ave., P. O. Box 25856, Los Angeles 25, Calif.
LAMPKIN LABORATORIES, INC., Bradenton 1, Fla. ADV. PG. 547.
 Marconi Instruments, 44 New St., New York 4, N. Y.
NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.
 Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.

METERS—Frequency

ADVANCE ELECTRONICS CO., 451 Highland Ave., Pas-saic, N. J. ADV. PG. 600.
 Aero Instrument Co., 11423 Vanowen St., North Holly-wood, Calif.
 Aircorn Inc., 354 Main St., Winthrop 52, Mass.
 Airmec, Ltd., High Wycombe, Buckinghamshire, England.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
BOGART MFG. CORP., 315 Slegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stam-ford, Conn. ADV. PG. 554.
 Bristol Co., The, Waterbury 20, Conn.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicks-ville, N. Y. ADV. PG. 645.
COMPUTER-MEASUREMENTS CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
 Conn., Ltd., C. G., Elkhart, Ind.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Devtron Engineering, 1 Winslow St., Redwood City, Calif.
DUBROW DEVELOPMENT CO., 235B Penn St., Burling-ton, N. J. ADV. PG. 380.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Elm Laboratories, 18 South Broadway, Dobbs Ferry, N. Y.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 Piver Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cam-bridge 39, Mass. ADV. PG. 109, 110.
 Gertsch Products, Inc., 11846 Mississippi Ave., P. O. Box 25856, Los Angeles 25, Calif.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Har-bor 14, Mich. ADV. PG. 588.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.

HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas. ADV. PG. 476.
 Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Jowit Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tucka-hoe, N. Y. ADV. PG. 592.
 Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.
LAMPKIN LABORATORIES, INC., Bradenton 1, Fla. ADV. PG. 547.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Marconi Instruments, 44 New St., New York 4, N. Y.
 Metronix, Inc., P. O. Box 549, New London, Conn.
 Millan Mfg. Co., James, 150 Exchange St., Malden, Mass.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-TRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 North American Instruments, Inc., 2420 N. Lake Ave., Altaadena, Calif.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turn-pike, West Hempstead, N. Y. ADV. PG. 556.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.
 Ransom Research, P. O. Box 382, San Pedro, Calif.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SHASTA DIV. OF BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
STANDARD ELECTRIC TIME CO., 97 Logan St., Spring-field, Mass. ADV. PG. 276.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
WANG LABORATORIES, INC., 37 Hurley St., Cambridge 41, Mass. ADV. PG. 675.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

METERS—Impedance

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
ADVANCE ELECTRONICS CO., 451 Highland Ave., Pas-saic, N. J. ADV. PG. 600.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOGART MFG. CO., 315 Slegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 481.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
GENERAL RADIO CO., 275 Massachusetts Ave., Cam-bridge 39, Mass. ADV. PG. 109, 110.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Marconi Instruments, 44 New St., New York 4, N. Y.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
SHASTA DIV. OF BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
WAC LINE, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.

METERS—Modulation

See also Monitors—Modulation

GENERAL RADIO CO., 275 Massachusetts Ave., Cam-bridge 39, Mass. ADV. PG. 109, 110.

LAMPKIN LABORATORIES, INC., Bradenton 1, Fla. ADV. PG. 547.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 422.
NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.

METERS—Null

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Beede Electrical Instrument Co., Inc., Penacook, N. H.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.
 Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., 39 E. Hanover Ave., Morris Plains, N. J.
 Bristol Co., The, Waterbury 20, Conn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Computer Co. of America, Div. of Bruno-New York Indus-tries Corp., 460 W. 34th St., New York 1, N. Y.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Deltron, Inc., P. O. Box 192, Glenside, Pa.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
GENERAL RADIO CO., 275 Massachusetts Ave., Cam-bridge 39, Mass. ADV. PG. 109, 110.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-TRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Photographic Products Inc., 1000 N. Olive St., Ana-heim, Calif.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Sea-ford, N. Y. ADV. PG. 476.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., New-ark 5, N. J. ADV. PG. 483.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

METERS—Output

Beede Electrical Instrument Co., Inc., Penacook, N. H.
 Bristol Co., The, Waterbury 20, Conn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
DeJUR-AMSCO CORP., Northern Blvd., at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
 DuMont Laboratories, Inc., Allen B. Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fluke Mfg. Co., Inc., John, 111 W. Nickerson St., Seattle 99, Wash.
GENERAL RADIO CO., 275 Massachusetts Ave., Cam-bridge 39, Mass. ADV. PG. 109, 110.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Marconi Instruments, 44 New St., New York 4, N. Y.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
 Sciahy Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SIMPSON ELECTRIC CO., DIV. AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Sea-ford, N. Y. ADV. PG. 476.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., New-ark 5, N. J. ADV. PG. 483.

METERS—Panel

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
 Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Beede Electrical Instrument Co., Inc., Penacook, N. H. Bristol Co., The, Waterbury 20, Conn.
DE JUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
EDISON, INC., THOMAS A., INSTRUMENTS DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.
 Electric Design & Mfg. Corp., Burlington, Iowa.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Gar Electrical Instrument Corp., 92-15 172nd St., Jamaica 33, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Greibach Instruments Corp., Metuchen, N. J.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
HOYT ELECTRICAL INSTRUMENT WORKS, INC., 42 Carleton St., Cambridge 42, Mass. ADV. PG. 452.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 188.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Q. V. S. Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
 Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

METERS—Phase Angle
ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
 Aircraft Armaments, Inc., Cockeysville, Md.
 Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
 Deltron, Inc., P. O. Box 192, Glenside, Pa.
 Eastern Specialty Co., Philadelphia 40, Pa.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 Link Aviation, Inc., Binghamton, N. Y.
MAXSON INSTRUMENTS, A DIV. OF THE W. L. MAXSON CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 438.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
NAGOG ASSOCIATES, INC., Littleton, Mass. ADV. PG. 571.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.

METERS—Power Factor

ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
 Bristol Co., The, Waterbury 20, Conn.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.
 Fluke Mfg. Co., Inc., John, 1111 W. Nickerson St., Seattle 99, Wash.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

METERS—Q
BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 481.
 Clough-Bregle Co., 6014 N. Broadway, Chicago, Ill.
 Crescent Communications Corp., P. O. Box 709, New London, Conn.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Marconi Instruments, 44 New St., New York 4, N. Y.
 Metronix, Inc., P. O. Box 549, New London, Conn.
 Research Electronics Laboratories, Roslyn, Pa.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago, Ill. ADV. PG. 214.

METERS—RF Power

BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Beede Electrical Instrument Co., Inc., Penacook, N. H.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 216.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 519.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
 Fluke Mfg. Co., Inc., John, 1111 W. Nickerson St., Seattle 99, Wash.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
KINGS ELECTRONICS CO., 565 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Marconi Instruments, 44 New St., New York 4, N. Y.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.

METERS—Standing Wave Ratio
 Airmec Inc., 354 Main St., Winthrop 52, Mass.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 216.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
 Color Television Inc., 973 E. San Carlos Ave., San Carlos, Calif.
 Crescent Communications Corp., P. O. Box 709, New London, Conn.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 519.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Marconi Instruments, 44 New St., New York 4, N. Y.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Waveline, Inc., Box 470, Caldwell, N. J.

METERS—Wave

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinewood Ave., Pasadena 8, Calif. ADV. PG. 192.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Marconi Instruments, 44 New St., New York 4, N. Y.
MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 553.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Thompson Products, Inc., Electronics Div., 2196 Clarkwood Ave., Cleveland 3, Ohio.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Wheeler Laboratories, Inc., Great Neck, N. Y.

METERS—X-Ray Intensity

ANTON ELECTRONIC LABORATORIES, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Electronic Products Co., 111 E. Third St., Mt. Vernon, N. Y.
 Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif.
 Nuclear Instrument & Chemical Corp., 223 W. Erie St., Chicago 10, Ill.
 Nuclear Research Corp., Southampton, Pa.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
 Technical Associates, 140 W. Providencia Ave., Burbank, Calif.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
 X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

MICROAMMETERS

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 3, N. Y. ADV. PG. 629.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Beede Electrical Instrument Co., Inc., Penacook, N. H.
 Bristol Co., The, Waterbury 20, Conn.
 Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., 39 E. Hanover Ave., Morris Plains, N. J.
DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
 Electric Design & Mfg. Corp., Burlington, Iowa.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Gar Electrical Instrument Corp., 92-15 172nd St., Jamaica 33, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Greibach Instruments Corp., Metuchen, N. J.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
HOYT ELECTRICAL INSTRUMENT WORKS, 42 Carleton St., Cambridge 42, Mass. ADV. PG. 452.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 188.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SIMPSON ELECTRIC CO. DIV., AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Road, Bluffton, Ohio. ADV. PG. 244.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

MICROFARADMETERS

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

MICRO-MICROAMMETERS

Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
Bristol Co., The, Waterbury 20, Conn.
Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
Griebach Instruments Corp., Metuchen, N. J.
KAY-LAB, 5725 Kearney Villa Rd., San Diego 12, Calif. ADV. PG. 407.
KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.
Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.
Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
Omco, U. S. 93 & Las Palomas Sts., Kingman, Ariz.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

MILLIAMMETERS

American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 23.
Beebe Electrical Instrument Co., Inc., Penacook, N. H.
Bristol Co., The, Waterbury 20, Conn.
Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
DEJUR-AMSCO CORP., Northern Blvd., at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
Electric Design & Mfg. Corp., Burlington, Iowa.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
Esterline-Angus Co., Inc., P.O. Box 596, Indianapolis 6, Ind.
Gar Electrical Instrument Corp., 92-15 172nd St., Jamaica 33, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
HOYT ELECTRICAL INSTRUMENT WORKS, 42 Carlton St., Cambridge 42, Mass. ADV. PG. 452.
INTERNATIONAL INSTRUMENTS, INC., P.O. Box 2954, New Haven 15, Conn. ADV. PG. 188.
Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
Omco, U. S. 93 & Las Palomas Sts., Kingman, Ariz.
Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
Q. V. S. Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENTS CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SIMPSON ELECTRIC CO. DIV. AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Q. V. S. Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
SHURITE METERS, 35-B Hamilton St., New Haven 8, Conn. ADV. PG. 630.
SIMPSON ELECTRIC CO. DIV., AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
Sterling Mfg. Co., 7201 Wentworth, Cleveland 2, Ohio.
TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

MILLIVOLTMETERS

Airmec Ltd., High Wycombe, Buckinghamshire, England.
American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.
Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 23.
Beebe Electrical Instrument Co., Inc., Penacook, N. H.
Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
Bristol Co., The, Waterbury 20, Conn.
Burlington Instrument Co., Burlington, Iowa.
Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.
DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
Electric Design & Mfg. Corp., Burlington, Iowa.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
Foxboro Co., The, Foxboro, Mass.
Furzehill Laboratories Ltd., 57 Clarendon Rd., Watford, Herts., England.
Gar Electrical Instrument Corp., 92-15 172nd St., Jamaica 33, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
HOYT ELECTRICAL INSTRUMENT WORKS, 42 Carlton St., Cambridge 42, Mass. ADV. PG. 452.
Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 188.
KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.
Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London W.C. 2, England. ADV. PG. 181.
Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
Omco, U. S. 93 & Las Palomas Sts., Kingman, Ariz.
Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
Q. V. S. Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENTS CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SIMPSON ELECTRIC CO. DIV. AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

OHMMETERS

Airmec Ltd., High Wycombe, Buckinghamshire, England.
Allegany Instrument Co., Inc., Cumberland, Md.
American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.
ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 588.
Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., 39 E. Hanover Ave., Morris Plains, N. J.
Bristol Co., The, Waterbury 20, Conn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.
Epic, Inc., 154 Nassau St., New York 38, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Griebach Instruments Corp., Metuchen, N. J.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
Industrial Development Labs. Inc., 17 Pollock Ave., Jersey City 5, N. J.
Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
LEITCH ENGINEERING CORP., 326 Lincoln St., Manchester, N. H. ADV. PG. 518.
Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.
Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Q. V. S. Inc., 20 N. 15th St., East Orange, N. J.
Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
SHASTA DIV. OF BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.
SIMPSON ELECTRIC CO. DIV. AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
Sorensen Industrial Electronic Co., Route 10, Dover, N. J.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

RATIOMETERS

CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.
EDISON, INC., THOMAS A., INSTRUMENTS DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.
Feedback Controls, Inc., 1332-34 N. Henry St., Alexandria, Va.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.

RECORDERS—Frequency

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond 3, Calif. ADV. PG. 69-76.

BORG EQUIPMENT DIV., THE GEORGE W. BORG CORP., Janesville, Wis. ADV. PG. 142.

Bristol Co., The, Waterbury 20, Conn.

Decade Instrument Co., Box 153, Caldwell, N. J.

EDIN CO., INC., 207 Main St., Worcester, Mass. ADV. PG. 280.

Epic, Inc., 154 Nassau St., New York 38, N. Y.

Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.

SOUND APPARATUS CO., Stirling, N. J. ADV. PG. 536.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

Westronics, Inc., 3605 McCart St., Fort Worth, Texas.

RECORDERS—Power Level

Antlab, 4950 N. High St., Columbus 14, Ohio.

Audio Instrument Co., Inc., 133A W. 14th St., New York 11, N. Y.

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

Bristol Co., The, Waterbury 20, Conn.

Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

SOUND APPARATUS CO., Stirling, N. J. ADV. PG. 536.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

RECORDERS—Telemetering

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.

Allegany Instrument Co., Inc., Cumberland, Md.

American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.

AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 415.

Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.

Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.

Bristol Co., The, Waterbury 20, Conn.

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.

Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.

DAVIES LABORATORIES, INC., 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.

Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.

Foxboro Co., The, Foxboro, Mass.

GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 252.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.

Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Magnasync Manufacturing Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.

North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.

Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.

PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.

SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.

Vic-Dar Division 823, Victor Adding Machine Co., 3900 N. Rockwell St., Chicago 18, Ill.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

STANDARDS—Capacitance

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.

CORNLEIGH-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

STANDARDS—Frequency

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.

Aircorn Inc., 354 Main St., Winthrop 52, Mass.

Airmec Ltd., High Wycombe, Buckinghamshire, England.

AMERICAN TIME PRODUCTS, INC., 580 Fifth Ave., New York 36, N. Y. ADV. PG. 232.

BEHLMAN ENGINEERING CO., 114 S. Hollywood Way, Burbank, Calif. ADV. PG. 368.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

BORG EQUIPMENT DIVISION, THE GEORGE W. BORG CORP., Janesville, Wis. ADV. PG. 142.

COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.

CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.

D & R, Ltd., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

Furzehill Laboratories, Ltd., 57 Clarendon Rd., Watford, Herts., England.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

HILL ELECTRONIC & ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.

HOWELL INSTRUMENT CO., Fort Worth 7, Texas. ADV. PG. 476.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.

Johnson Co., E. F., Waseca, Minn.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.

Marconi Instruments, 44 New St., New York 4, N. Y.

Metronix, Inc., P. O. Box 349, New London, Conn.

National Co., Inc., 61 Sheehan St., Malden 48, Mass.

NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.

NORMAN LABORATORIES, ERNST, Williams Bay, Wis. ADV. PG. 552.

PANORAMIC RADIO PRODUCTS, INC., 10 South Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.

PHILAMON LABORATORIES, INC., 90 Hopper St., Westbury, N. Y. ADV. PG. 389.

Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.

Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.

Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. S. 2, England.

TELETRONICS LABORATORY, INC., Kinkel St., Westbury, N. Y. ADV. PG. 545.

TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 392.

WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.

STANDARDS—Inductance

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.

Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.

STANDARDS—Resistance

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

Gray Instrument Co., 200 E. Church Lane, Philadelphia 44, Pa.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.

Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.

SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.

TRACERS—Signal

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.

Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.

RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.

VOLTMETERS

American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.

ANTONY ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.

Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.

Beede Electrical Instrument Co., Inc., Penacook, N. H.

Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.

Epistol Co., The, Waterbury 20, Conn.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.

DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.

Electric Design & Mfg. Corp., Burlington, Iowa.

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.

Gar Electrical Instrument Corp., 92-15 172nd St., Jamaica 33, N. Y.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

Greibach Instruments Corp., Metuchen, N. J.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.

HOYT ELECTRICAL INSTRUMENT WORKS, 42 Carleton St., Cambridge 42, Mass. ADV. PG. 452.

INDUSTRIAL DEVICES INC., 982 River Rd., Edgewater, N. J. ADV. PG. 546.

INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 188.

JENNINGS RADIO MFG. CORP., 970 McLaughlin Ave., P. O. Box 12781, San Jose 6, Calif. ADV. PG. 256, 257.

LEITCH ENGINEERING CORP., 326 Lincoln St., Manchester, N. H. ADV. PG. 518.

MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 422.

Mega Research, P. O. Box 371, Dover, N. J.

Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.

Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.

NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.

Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.

Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.

Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.

PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

Pyramid Instrument Corp., 630 Merrick Rd., Lynbrook, N. Y.

Q. V. S. Inc., 20 North 15th St., East Orange, N. J.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.

SHASTA DIV., BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.

SHURITE METERS, 35-B Hamilton St., New Haven 6, Conn. ADV. PG. 630.

SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.

Sterling Mfg. Co., 7201 Wentworth, Cleveland 2, Ohio.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.

Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

VOLTMETERS—Electronic

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.

Airmec Ltd., High Wycombe, Buckinghamshire, England.

ALTO SCIENTIFIC CO., 855 Commercial St., Palo Alto, Calif. ADV. PG. 171.

American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.

Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.

BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 23.

Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.

BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.

Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.

Clough Brengle Co., 6014 North Broadway, Chicago, Ill.

COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.

COMMUNICATION MEASUREMENTS LAB., INC., 350 Leland Ave., Plainfield, N. J. ADV. PG. 541.

Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.

Control Devices, Inc., 8299 E. Nine Mile Rd., Van Dyke, Mich.

Crescent Communications Corp., P. O. Box 709, New London, Conn.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.

DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.

DUBROW DEVELOPMENT CO., 2358 Penn St., Burlington, N. J. ADV. PG. 380.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.

ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.

Electronic Measurements Corp., 280 Lafayette St., New York 12, N. Y.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

Endevco Corp., 161 E. California St., Pasadena, Calif.

Fluke Mfg. Co., Inc., John, 1111 W. Nickerson St., Seattle 99, Wash.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.

FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.

Furzehill Laboratories, Inc., 57 Clarendon Rd., Watford, Herts., England.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

Gertsch Products, Inc., 11846 Mississippi Ave., P. O. Box 25856, Los Angeles 25, Calif.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.

Hycan Mfg. Co., 2961 E. Colorado St., Pasadena 8, Calif.

Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.

Instrument Electronics Corp., 90 Main St., P. O. Box 830, Port Washington, N. Y.

Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.

Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.

LEITCH ENGINEERING CORP., 326 Lincoln St., Manchester, N. H. ADV. PG. 518.

Liberty Industries, 107-37 71 Ave., Forest Hills, N. Y.

MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 422.

Metronix, Inc., P. O. Box 549, New London, Conn.

Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.

MOSELEY CO., F. L., 409 Fair Oaks Ave., Pasadena 3, Calif. ADV. PG. 684.

NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.

Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.

Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, Calif.

Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

SHASTA DIV., BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.

SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.

SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.

SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.

Television Accessories Co., Box 368, Scottsdale, Ariz.

TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.

TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.

Waveforms, Inc., 333 Sixth Ave., New York 14, N. Y.

Western Electro-Acoustic Labs., 204 S. Beverly Drive, Beverly Hills, Calif.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

VOLT-OHM-MILLIAMMETERS

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.

American Chronoscope Corp., 316 W. First St., Mt. Vernon, N. Y.

American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.

Beede Electrical Instrument Co., Inc., Penacook, N. H.

Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.

Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.

Crescent Communications Corp., P. O. Box 709, New London, Conn.

Electro Instruments, Inc., 3794 Rosecrans, San Diego 10, Calif.

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.

Electronic Measurements Corp., 280 Lafayette St., New York 12, N. Y.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.

Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.

Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.

Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.

Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.

Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.

Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.

PHYSICS RESEARCH LABS, INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, Calif.

Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.

SHASTA DIV. OF BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.

SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.

Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

Yonkers Industries, Inc., 28 School St., Yonkers, N. Y.

WATTMETERS

BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.

BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 216.

Bristol Co., The, Waterbury 20, Conn.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Brunswick Instruments, P. O. Box 813, New Brunswick, N. J.

BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.

Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.

CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.

CUBIC CORP., 5575 Kearney Villa Rd., San Diego 11, Calif. ADV. PG. 691.

ELECTRO IMPULSE LABS, 208 River St., Red Bank, N. J. ADV. PG. 519.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

Epic, Inc., 154 Nassau St., New York 38, N. Y.

Fluke Mfg. Co., Inc., John, 1111 W. Nickerson St., Seattle 99, Wash.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.

JONES ELECTRONICS CO., INC., M. C., 185 N. Main St., Bristol, Conn. ADV. PG. 323.

PHYSICS RESEARCH LABS, INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.

RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

INSTRUMENTS—Electronic Musical

El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.

SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.

INSTRUMENTS—Graphic Recording

Acme Teletronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

Avion Instrument Corp., a Sub. of A. C. F. Industries, Inc., 299 State Highway #17, Paramus, N. J.

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.

Bristol Co., The, Waterbury 20, Conn.

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.

Electro Instruments, Inc., 3794 Rosecrans, San Diego 10, Calif.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.

Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.

Foxboro Co., The, Foxboro, Mass.

Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.

HELLAND DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 5200 E. Evans Ave., Denver 22, Colo. ADV. PG. 376.

Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.

L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Leupold & Stevens Instruments, Inc., P. O. Box 5082, Portland 13, Ore.

Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.

Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.

Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windram Aves., Philadelphia 44, Pa. ADV. PG. 377.

Pick Laboratories, P. O. Box 1849, Grand Junction, Colo.

SANBORN CO., 39 Osborn St., Cambridge 39, Mass. ADV. PG. 205.

SOUND APPARATUS CO., Stirling, N. J. ADV. PG. 536.

TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.

Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 282, 283.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

INSTRUMENTS—Panel INSTRUMENTS—Ultrasonic
See INSTRUMENTS—Electrical Measuring

INSULATING COMPOUNDS

Asphalts

Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.

BIWAX CORP., 3445 Howard St., Skokie, Ill. ADV. PG. 520.

BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 681.

Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.

Johns-Manville, 22 E. 40th St., New York 16, N. Y.

Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.

Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.

Schenectady Varnish Co., Inc., Schenectady, N. Y.

Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

Coil Dopes

Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 Chemical Products Corp., King Philip Rd., East Providence, R. I.
 Communication Products Co., Inc., Marlboro, N. J.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Insi-X Co., Inc., Water St., Ossining, N. Y.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

Enamel

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Ambroid Co., Weymouth 88, Mass.
BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 681.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Delaware
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 General Electric Co., Chemical Materials Dept., Pittsfield, Mass.
 Insi-X Co., Inc., Water St., Ossining, N. Y.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Midland Paint & Varnish Co., 9115 Reno Ave., Cleveland 5, Ohio.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.

Impregnating Compounds

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
ANTARA CHEMICALS DIV. OF GENERAL ANILINE & FILM CORP., 435 Hudson St., New York 14, N. Y. ADV. PG. 217.
 Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
BIWAX CORP., 3445 Howard St., Skokie, Ill. ADV. PG. 520.
BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 681.
 Ciba Co., Inc., 627 Greenwich St., New York 14, N. Y.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.
 General Electric Co., Chemical Materials Dept., Pittsfield, Mass.
 Hi-Test Chemical Corp., 722 64th St., Brooklyn 20, N. Y.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
 Insi-X Co., Inc., Water St., Ossining, N. Y.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Nopco Chemical Co., Plastics Div., Harrison, N. J.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Reichhold Chemicals, Inc., 525 N. Broadway, White Plains, N. Y.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
 Terrell Corp., 19 Lane St., Waltham 54, Mass.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

Insulating Varnish

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Barrett Varnish Co., 1532 S. 50th Court, Cicero 50, Ill.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 681.
 Dow Corning Corp., Midland, Mich.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Delaware.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 General Electric Co., Chemical Materials Dept., Pittsfield, Mass.
 Insi-X Co., Inc., Water St., Ossining, N. Y.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Midland Paint & Varnish Co., 9115 Reno Ave., Cleveland 5, Ohio.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

Lacquer

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Ambroid Co., Weymouth 88, Mass.
 American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Barrett Varnish Co., 1532 S. 50th Court, Cicero 50, Ill.
BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 681.
 Chemical Products Corp., King Philip Rd., East Providence, R. I.
 Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Micro-Circuits Co., New Buffalo, Mich.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

Phenolic Molding Compounds

Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Durez Plastics Div. of Hooker Electrochemical Co., 1921 Walck Rd., North Tonawanda, N. Y.
 General Electric Co., Chemical Materials Dept., Pittsfield, Mass.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Reilly Tar & Chemical Corp., 1615 Merchants Bank Bldg., 11 S. Meridian St., Indianapolis 4, Ind.
 Rogers Corp., Goodyear, Conn.

Pitch

Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
BIWAX CORP., 3445 Howard St., Skokie, Ill. ADV. PG. 520.
 Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Reilly Tar & Chemical Corp., 1615 Merchants Bank Bldg., 11 S. Meridian St., Indianapolis 4, Ind.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

Protective Sealers

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
BORTHIG CO., INC., GEORGE C., P. O. Box 11A, East Rutherford, N. J. ADV. PG. 681.

Chemical Products Corp., King Philip Rd., East Providence, R. I.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 George Co., P. D., 5200 N. Second St., St. Louis, Mo.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Midland Paint & Varnish Co., 9115 Reno Ave., Cleveland 5, Ohio.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
 Polyken Products Dept. of Kendall Co., 222 W. Adams St., Chicago 6, Ill.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
 Union Bay State Chemical Co., Inc., 491 Main St., Cambridge 42, Mass.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

Resins

Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Arrowhead Rubber Co., 2350 Curry St., Long Beach 35, Calif.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 Ciba Co., Inc., 627 Greenwich St., New York 14, N. Y.
 Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.
 Dow Chemical Co., Midland, Mich.
 Dow Corning Corp., Midland, Mich.
 Durez Plastics Div. of Hooker Electrochemical Co., 1921 Walck Rd., North Tonawanda, N. Y.
 Ellanar Chemical Co., 2308 Oakton St., Evanston, Ill.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 General Electric Co., Chemical Materials Dept., Pittsfield, Mass.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
 Insi-X Co., Inc., Water St., Ossining, N. Y.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Marlette Corp., 37-21 30th St., Long Island City 1, N. Y.
MINNESOTA MINING & MFG. CO., 900 Fauquier Ave., St. Paul 6, Minn. ADV. PG. 253.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Nopco Chemical Co., Plastics Div., Harrison, N. J.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Reichhold Chemicals, Inc., 525 N. Broadway, White Plains, N. Y.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Terrell Corp., 19 Lane St., Waltham 54, Mass.
 Thiokol Chemical Corp., 780 N. Clinton Ave., Trenton 7, N. J.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

Silicone Compounds

Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Arrowhead Rubber Co., 2350 Curry St., Long Beach 35, Calif.
 Dow Corning Corp., Midland, Mich.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.

Varnish Cambric Coatings

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.

Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 General Electric Co., Chemical Materials Dept., Pittsfield, Mass.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.

Waxes

BIWAX CORP., 3445 Howard St., Skokie, Ill. ADV. PG. 520.
BORTHIG CO., INC., GEORGE C., P.O. Box 11A, East Rutherford, N. J. ADV. PG. 681.
 Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.
 Glyco Products Co., Inc., Empire State Bldg., New York 17, N. Y.
 HI-Test Chemical Corp., 722 64th St., Brooklyn 20, N. Y.
 Insi-X Co., Inc., Water St., Ossining, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
 Stevenson, Bro. & Co., 110 Race St., Philadelphia 6, Pa.
 Terrell Corp., 19 Lane St., Waltham 54, Mass.
 Wax Corporation of America, 21-29 Dunham Place, Brooklyn 11, N. Y.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

INSULATION MATERIALS

Aluminum Oxide

Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Frenchtown Porcelain Co., Trenton 9, N. J.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 Kaiser Aluminum & Chemical Sales, Inc., 1924 Broadway, Oakland 12, Calif.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542
STUPAKOFF, DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
 U. S. Stoneware Co., The, Akron 9, Ohio.
 Western Gold & Platinum Works, 589 Bryant St., San Francisco, Calif.

Asbestos

American Printed Circuits Co., Inc., Forrest St., Metuchen, N. J.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiaque, N. Y. ADV. PG. 675.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 288.
 Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
 Taylor Fibre Co., Norristown, Pa.

Bead

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Isolantite Mfg. Corp., Stirling, N. J.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
 Star Porcelain Co., 161 Muirhead Ave., Trenton 9, N. J.
SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 555.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.

Ceramic

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.
ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 604.
 Frenchtown Porcelain Co., Trenton 9, N. J.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 Isolantite Mfg. Corp., Stirling, N. J.
 Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., Le Roy, N. Y. ADV. PG. 228, 229.
 Louthan Mfg. Co., East Liverpool, Ohio.

MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 465.
 Mykroy, Inc., Wheeling, Ill.
 National Ceramic Co., 400 Southard St., Trenton 2, N. J.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
RAYTHEON MFG. CO., CERAMIC SALES, Waltham 54, Mass. ADV. PG. 725.
 Rogers Corp., Goodyear, Conn.
 Star Porcelain Co., 61 Muirhead Ave., Trenton 9, N. J.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151
SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 555.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 Western Gold & Platinum Works, 589 Bryant St., San Francisco, Calif.
 Wisconsin Porcelain Co., Sun Prairie, Wis.

Fabric

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
APEX COATED FABRICS CO., 12 E. 22nd St., New York 10, N. Y. ADV. PG. 452.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiaque, N. Y. ADV. PG. 675.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 288.
 General Plastic Corp., P. O. Box 1236, Paterson, N. J.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.

Fibre

Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
 Cellulose Products, Inc., 540 N. Madison St., Rockford, Ill.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Daniels, Inc., C. R., Daniels, Md.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiaque, N. Y. ADV. PG. 675.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
NATIONAL TEL-TRONICS CORP., 35 St. Casimirs Ave., Yonkers, N. Y. ADV. PG. 681.
 National Vulcanized Fibre Co., Wilmington, Del.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
RELIANCE MICA CO., 341 39th St., Brooklyn, N. Y. ADV. PG. 460.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
 Rogers Corp., Goodyear, Conn.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Taylor Fibre Co., Norristown, Pa.
 Tri-Point Mfg. & Development Co., 401 Grand St., Brooklyn 11, N. Y.
 West Virginia Pulp & Paper Co., 230 Park Ave., New York 17, N. Y.
 Wilmington Fibre Specialty Co., New Castle, Del.

Glass

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 288.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington 4, Pa.
 Pittsburgh Plate Glass Co., Industrial Glass Sales, 1 Gateway Center, Pittsburgh 22, Pa.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
SYNROC PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 571.

Glass Bonded Mica

CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 604.
 General Electric Co., Laminated & Insulating Products Dept., Coshocton, Ohio.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
MYCALEX CORPORATION OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 465.
 Mykroy, Inc., Wheeling, Ill.
RELIANCE MICA CO., 341 39th St., Brooklyn, N. Y. ADV. PG. 460.

Glass Fibre

Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiaque, N. Y. ADV. PG. 675.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 288.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 L-O-F Glass Fibers Co., 1810 Madison Ave., Toledo 1, Ohio.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Molded Fiberglass Sheet Co., Ashtabula, Ohio.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
 Owens-Corning Fibreglass Corp., 598 Madison Ave., New York 22, N. Y.
 Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
 Rogers Corp., Goodyear, Conn.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
 Taylor Fibre Co., Norristown, Pa.
 Thompson Fiberglass Co., H. I., 1733 Cordova St., Los Angeles 7, Calif.
 Tri-Point Mfg. & Development Co., 401 Grand St., Brooklyn 11, N. Y.

Glass Mica—Woven or Laminated

American Mica Insulation Co., Manassas, N. J.
 Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
 General Electric Co., Laminated & Insulating Products Dept., Coshocton, Ohio.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 National Electric Coil Co., Columbus 16, Ohio.
 Tri-Point Mfg. & Development Co., 401 Grand St., Brooklyn 11, N. Y.

Laminates, Woven Glass

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
 American Printed Circuits Co., Forrest St., Metuchen, N. J.
 Arrowhead Rubber Co., 2350 Curry St., Long Beach 35, Calif.
 Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
 Continental Can Co., Inc., 100 E. 42nd St., New York 17, N. Y.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiaque, N. Y. ADV. PG. 675.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 288.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
FORMICA CO., THE, 4614 Spring Grove Ave., Cincinnati 32, Ohio. ADV. PG. 293.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 General Electric Co., Laminated & Insulating Products Dept., Coshocton, Ohio.
 General Plastics Corp., P. O. Box 1236, Paterson, N. J.
 General Tire & Rubber Co., Akron, Ohio.

Glastic Corp., The, 4321 Glenridge Rd., Cleveland 21, Ohio.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minneapolis Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
McMILLAN INDUSTRIAL CORP., Brownville Avenue Plant, Ipswich, Mass. ADV. PG. 484, 485.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
 National Electric Coil Co., Columbus 16, Ohio.
 National Vulcanized Fibre Co., Wilmington, Del.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
NEW ENGLAND LAMINATES CO., INC., 16 Dyke Lane, Stamford, Conn. ADV. PG. 556.
 Panelyte Div., St. Regis Paper Corp., 230 Park Ave., New York 17, N. Y.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.
 Tri-Point Mfg. & Development Co., 401 Grand St., Brooklyn 11, N. Y.

Mica

American Mica Insulation Co., Manasquan, N. J.
 Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
 Ford Radio & Mica Corp., 536 63rd St., Brooklyn, N. Y.
 General Electric Co., Laminated & Insulating Products Dept., Coshocton, Ohio.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Integrated Mica Corp., 202 Franklin Place, Woodmere, N. Y.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mica Craft Products, Inc., 703 McCarter Highway, Newark 5, N. J.
 Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 465.
 National Electric Coil Co., Columbus 16, Ohio.
NATIONAL TEL-TRONICS CORP., 35 St. Caspurs Ave., Yonkers, N. Y. ADV. PG. 681.
 Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.
RELIANCE MICA CO., INC., 341 39th St., Brooklyn 32, N. Y. ADV. PG. 460.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Nylon

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 American Mica Insulation Co., Manasquan, N. J.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
 Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
 Catalin Corp. of America, 1 Park Ave., New York 16, N. Y.
 Daniels, Inc., C. R., Daniels, Md.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 675.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 288.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
FORMICA CO., THE, 4616 Spring Grove Ave., Cincinnati 32, Ohio. ADV. PG. 293.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 General Plastics Corp., P. O. Box 1236, Paterson, N. J.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Mica Insulator Co., Schenectady 1, N. Y.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
NATIONAL TEL-TRONICS CORP., 35 St. Caspurs Ave., Yonkers, N. Y. ADV. PG. 681.
 National Vulcanized Fibre Co., Wilmington, Del.
 Panelyte Div., St. Regis Paper Corp., 230 Park Ave., New York 17, N. Y.

POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
 Rogers Corp., Goodyear, Conn.
 Taylor Fibre Co., Norristown, Pa.
 Tri-Point Mfg. & Development Co., 401 Grand St., Brooklyn 11, N. Y.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. ADV. PG. 634.

Paper

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 American Mica Insulation Co., Manasquan, N. J.
 American Printed Circuits Co., Forrest St., Metuchen, N. J.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 675.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 288.
 Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
FORMICA CO., THE, 4614 Spring Grove Ave., Cincinnati 32, Ohio. ADV. PG. 293.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Hartford City Paper Co., Hartford City, Ind.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Mica Insulator Co., Schenectady 1, N. Y.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
NATIONAL TEL-TRONICS CORP., 35 St. Caspurs Ave., Yonkers, N. Y. ADV. PG. 681.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
 Panelyte Div., St. Regis Paper Corp., 230 Park Ave., New York 17, N. Y.
 Schweitzer Inc., Peter J., 261 Madison Ave., New York 16, N. Y.
 Stevens Paper Mills, Inc., Windsor, Conn.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Taylor Fibre Co., Norristown, Pa.
 Tri-Point Mfg. & Development Co., 401 Grand St., Brooklyn 11, N. Y.
 Wilmington Fibre Specialty Co., New Castle, Del.

Plastic

See **PLASTIC MATERIALS**

Rubber

American Hard Rubber Co., 11 Mercer St., New York 13, N. Y.
 Arrowhead Rubber Co., 2350 Curry St., Long Beach 35, Calif.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Connecticut Hard Rubber Co., 407 East St., New Haven, Conn.
 Dow Corning Corp., Midland, Mich.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 675.
 Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
 General Tire & Rubber Co., Akron, Ohio.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Kellogg Co., M. W. P. O. Box 469, Jersey City 3, N. J.
 Lavelle Rubber Co., 424 N. Wood St., Chicago 22, Ill.
MAIGNE CO., O. J., 321 Pearl St., New York 38, N. Y. ADV. PG. 677.
 Mica Insulator Co., Schenectady 1, N. Y.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Thiokol Chemical Corp., 780 N. Clinton Ave., Trenton 7, N. J.
 Tri-Point Mfg. & Development Co., 401 Grand St., Brooklyn 11, N. Y.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.

Rubber-Conductive

American Hard Rubber Co., 11 Mercer St., New York 13, N. Y.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 General Tire & Rubber Co., The, Akron, Ohio.
 Micro-Circuits Co., New Buffalo, Mich.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.

Steatite

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Frenchtown Porcelain Co., Trenton 9, N. J.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 Kirchberger & Co., Inc., M., 250 Humphrey St. Englewood, N. J.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., Le Roy, N. Y. ADV. PG. 228, 229.
MANSOL CERAMICS, 140 Little St., Belleville, N. J., ADV. PG. 617.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Star Porcelain Co., 61 Muirhead Ave., Trenton 9, N. J.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 555.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 Wisconsin Porcelain Co., Sun Prairie, Wis.

INSULATION PARTS

Bead Insulation Parts

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 Isolantite Mfg. Corp., Stirling, N. J.
 Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 555.
SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 571.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
 Transradio, Ltd., 138A Cromwell Rd., London, S.W. 7, England.

Capacitor Boxes

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
 Rogers Corp., Goodyear, Conn.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.

Capacitor Films

American Mica Insulation Co., Manasquan, N. J.
 Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
 Associated Commodity Corp., Woolworth Bldg., New York 7, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
 Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.
 Polyken Products Dept. of Kendall Co., 222 W. Adams St., Chicago 6, Ill.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
RELIANCE MICA CO., INC., 341 39th St., Brooklyn 32, N. Y. ADV. PG. 460.

Ceramic Insulation Parts

Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Cook Ceramic Mfg. Co., 501 Prospect St., Trenton 1, N. J.
 Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.
ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 604.
ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.
 Frenchtown Porcelain Co., Trenton 9, N. J.

GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 Isolantite Mfg. Corp., Stirling, N. J.
 Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., Le Roy, N. Y. ADV. PG. 228, 229.
 Louthan Mfg. Co., East Liverpool, Ohio.
MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 465.
 Mykroy, Inc., Wheeling, Ill.
 National Ceramic Co., 400 Southard St., Trenton 2, N. J.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham, Mass. ADV. PG. 363.
 Star Porcelain Co., 61 Muirhead Ave., Trenton 9, N. J.
 Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 555.
SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 571.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 Western Gold & Platinum Works, 589 Bryant St., San Francisco, Calif.
 Wisconsin Porcelain Co., Sun Prairie, Wis.

Insulating Cord

Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
RESIN INDUSTRIES, P. O. Box 1589, Santa Barbara, Calif. ADV. PG. 641.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.

Insulating Sleeves

AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. ADV. PG. 353.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
 American Mica Insulation Co., Manasquan, N. J.
ANCHOR INDUSTRIAL CO., DIV. OF ANCHOR PLASTICS CO., INC., 36-36 36th St., Long Island City 6, N. Y. ADV. PG. 492.
BENTLEY-HARRIS MFG. CO., Conshohocken, Pa. ADV. PA. 316
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
BUCHANAN ELECTRICAL PRODUCTS CORP., 223 U. S. Route 22, Hillside, N. J. ADV. PG. 461.
CLEVELAND CONTAINER CO., THE, 6201 Barberton Ave., Cleveland 2, Ohio. ADV. PG. 458.
 Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Extruders, Inc., 3232 W. El Segundo Blvd., Hawthorne, Calif.
 Franklin-Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
MARKEL & SONS, L. FRANK, School House, Norristown, Pa. ADV. PG. 669.
 Mica Insulator Co., Schenectady 1, N. Y.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Mitchell Rand Insulation Co., 51 Murray St., New York 7, N. Y.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
 National Electric Coil Co., Columbus 16, Ohio.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
RESIN INDUSTRIES, P. O. Box 1589, Santa Barbara, Calif. ADV. PG. 641.
 Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
 Sinclair Mfg. Co., Chartley, Mass.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 571.
 Taylor Fibre Co., Norristown, Pa.

Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
 Thompson Fiberglass Co., H. I., 1733 Cordova St., Los Angeles 7, Calif.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 Varflex Corp., 506 W. Court St., Rome, N. Y.

Plastic Insulation Parts

1. Extruded
2. Fabricated
3. Laminated
4. Molded

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio. 2-3-4.
 Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y. 1-2-3.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J. 2-4.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. 4. ADV. PG. 677.
 American Mica Insulation Co., Manasquan, N. J. 1-2-3-4.
AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. 4. ADV. PG. 596.
 American Printed Circuits Co., Forrest St., Metuchen, N. J. 3.
ANCHOR INDUSTRIAL CO., DIV. OF ANCHOR PLASTICS CO., INC., 36-36 36th St., Long Island City 6, N. Y. 1-2. ADV. PG. 492.
 Arvey Corp., 3500 N. Kimball Ave., Chicago, Ill. 3.
 Auburn Button Works, Inc., Auburn, N. Y. 1-4.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn. 2-3.
 Baer Co., N. S., 9 Montgomery St., Hillside, N. J. 2-3.
 Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn. 3.
BENTLEY-HARRIS MFG. CO., Conshohocken, Pa. 1. ADV. PG. 316.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y. 1-2-4.
BIWAX CORP., 3445 Howard St., Skokie, Ill. 4. ADV. PG. 520.
BODNAR INDUSTRIES, INC., 19 Railroad Ave., New Rochelle, N. Y. 2. ADV. PG. 691.
BOONTON MOLDING CO., Boonton, N. J. 1-2-4. ADV. PG. 562.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. 1. ADV. PG. 386.
 Buggie, Inc., H. H., P. O. Box 817, Toledo 1, Ohio. 4.
 Calresin Corp., 4543 Brazil St., Los Angeles 39, Calif. 2-3-4.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. 2. ADV. PG. 310.
 Connector Corp. of America, 3223 Burton Ave., Burbank, Calif. 2.
 Consolidated Molded Products Corp., Scranton 2, Pa. 4.
 Continental Can Co., 100 E. 42nd St., New York 17, N. Y. 3.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. 1-2-3-4. ADV. PG. 349-352.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill. 2-3.
CRAIG SYSTEMS, INC., Danvers, Mass. 4. ADV. PG. 223.
 Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill. 1-2-4.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills, Pa. 2-4. ADV. PG. 634.
 Decatur Electronics Industries Corp., 203 Orinco Drive, Brightonwater, N. Y. 4.
 Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill. 1.
DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. 4. ADV. PG. 312.
 Dixon Corporation, Bristol, R. I. 1-2-4.
 Ebv Co., Huoh H., 4700 Stenton Ave., Philadelphia 44, Pa. 2-3-4.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif. 4.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Coonjania, N. Y. 2-3. ADV. PG. 675.
ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. 4. ADV. PG. 571.
 Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J. 2-3-4.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass. 2.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y. 2-3.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J. 1-2-3-4.
 Ethylene Chemical Corp., 245 Broad St., Summit, N. J. 1-4.
 Excellex Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y. 2-3.
 Farlev & Loetscher Mfg. Co., Plastics Div., Dubuque, Iowa. 3.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18 Ill. 2-4.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. 2. ADV. PG. 691.
 Flexrock Co., 3608 Filbert St., Philadelphia 1, Pa. 1-2-3-4.
FORMICA CO., THE, 4616 Spring Grove Ave., Cincinnati 32, Ohio. 2-3-4. ADV. PG. 293.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington Del. 2-3.

Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa. 4.
GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. 2-4. ADV. PG. 549.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. 2. ADV. PG. 550.
 General Electric Co., Laminated & Insulating Products Dept., Coshocton, Ohio. 2-3-4.
 General Electric Co., Plastics Dept., Pittsfield, Mass. 4.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill. 1-2-3.
 General Tire & Rubber Co., Akron, Ohio. 1-3.
 Graef Engineering Co., P.O. Box 416, Paramount, Calif. 1-2-3-4.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y. 4.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif. 2-4.
 Hobson Bros., 4940 W. Lawrence Ave., Chicago 30, Ill. 4.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y. 2-4.
INDUSTRIAL DEVICES, INC., 982 River Rd., Edgewater, N. J. 4. ADV. PG. 546.
 Industrial Engravers, Inc., 4103 Tenth Ave., Brooklyn 19, N. Y. 2.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. 2. ADV. PG. 678.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 9, Ill. 2-3-4.
 Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J. 1-2-3.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J. 1.
 Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y. 2-4.
KENNEDY & CO., D.S., Cohasset, Mass. 2-3-4. ADV. PG. 135.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y. 2.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass. 2.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y. 2-4.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. 4. ADV. PG. 685.
 Luzerne Rubber Co., Muirhead Ave., Trenton, N. J. 4.
MAIGNE CO., O. J., 321 Pearl St., New York 38, N. Y. 1-2-3-4. ADV. PG. 677.
 Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill. 2-3-4.
MANSOL CERAMICS, 140 Little St., Belleville, N. J. 4. ADV. PG. 617.
MARKEL & SONS, L. FRANK, School House, Norristown, Pa. 1. ADV. PG. 669.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md. 2.
 Massachusetts Gear & Tool Co., 30 Nashua St., Woburn, Mass. 4.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J. 1-2-3-4.
 Mica Insulator Co., Schenectady 1, N. Y. 1-2-3-4.
 Micacraft Products Inc., 703 McCarter Highway, Newark 5, N. J.
 Micarta Fabricators, Inc., 5324 Ravenswood Ave., Chicago 40, Ill. 2-3.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass. 4.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J. 1-2-3-4.
 Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y. 1-2-3-4.
 Molded Fiberglass Sheet Co., Ashtabula, Ohio. 4.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa. 2-4.
 Molding Corp. of America, 40 Church St., Pawtucket, R. I. 4.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y. 2-3-4.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. 3. ADV. PG. 681.
 National Vulcanized Fibre Co., Wilmington, Del. 2-3.
NATVAR CORP., Woodbridge, N. J. 1-2. ADV. PG. 637.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y. 2-4.
 Northern Plastics Corp., Second & Market Sts., La Crosse, Wis. 3.
 Olympic Plastics Co., Inc., 5741 W. Jefferson Blvd., Los Angeles 16, Calif. 3-4.
 Palo Alto Engineering Co., 440 Olive Ave., Palo Alto, Calif. 4.
 Panelyte Div., St. Regis Paper Co., 230 Park Ave., New York 17, N. Y. 2-3.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa. 2-3.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill. 2-3-4.
 Pfeiffer Products, 3901 W. 54th St., Los Angeles 43, Calif. 2.
 Phen-O-Tron, Inc., 455 Main St., New Rochelle, N. Y. 2-4.
 Plasteck, Inc., Poteau, Okla. 2-3-4.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass. 4.
POLYMER CORPORATION, THE, Reading, Pa. 1-2. ADV. PG. 243.
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 0, Mass. 2.
PRINTLOID, INC., 93 Mercer St., New York 12, N. Y. 2. ADV. PG. 580.
 Quality Components, Inc., St. Marys, Pa. 4.
RESIN INDUSTRIES, P. O. Box 1589, Santa Barbara, Calif. 1. ADV. PG. 641.

Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill. 1-2-3.
RESISTOFLEX CORP., Roseland, N. J. 1-2-4. ADV. PG. 692.
REX CORP., THE, Hayward Rd., West Acton, Mass. 1-2. ADV. PG. 479.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. 2-3-4. ADV. PG. 474.
ROGAN BROS., 8031 N. Monticello Ave., Skokie, Ill. 4. ADV. PG. 564.
 Rogers Corp., Goodyear, Conn. 3.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill. 4.
Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif. 1-2-3-4.
Sheffco Mfg. Corp., Grand & Ruby Aves., Palisades Park, N. J. 2-3.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. 1-2-3-4. ADV. PG. 531.
Sillicocks-Miller Co., Maplewood, N. J. 2-3-4.
Sinclair Mfg. Co., Chartley, Mass. 2-3.
Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif. 4.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y. 2-3.
Stevens Products Inc., 86-88 Main St., East Orange, N. J. 2-3.
Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif. 3-4.
Synthane Corp., Oaks, Pa. 2-3.
Taylor Fibre Co., Norristown, Pa. 2-3.
Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England. 4.
Thompson Fiberglass Co., H. I., 1733 Cardova St., Los Angeles 7, Calif. 3.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. 2. ADV. PG. 464.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y. 2-3-4.
Transradio Ltd., 138A Cromwell Rd., London, S.W. 7, England. 4.
Tri-Dex Co., P. O. Box 1207, Lindsay, Calif. 2.
Tri-Point Mfg. & Developing Co., 401 Grand St., Brooklyn 11, N. Y. 1-2.
UNITED-CARR FASTENER CORP., Cambridge 42, Mass. 4. ADV. PG. 160.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. 1-2-4. ADV. PG. 477.
U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J. 1-4.
Walter Lee Chemical Corp., 564 Thrd Ave., New York 16, N. Y. 1-2-4.
Warren Plastics Corp., Warren, Pa. 2-4.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. 1-4. ADV. PG. 634.
WHITSO, INC., 9328 Byron St., Schiller Park, Ill. 4. ADV. PG. 534.

Rods

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
American Mica Insulation Co., Manasquan, N. J.
ANCHOR INDUSTRIAL CO., DIV. OF ANCHOR PLASTICS CO., INC. 36-36 36th St., Long Island City 6, N. Y. ADV. PG. 492.
Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
Auburn Button Works, Inc., Auburn, N. Y.
Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
Dixon Corporation, Bristol, R. I.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 675.
Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Ethylene Chemical Corp., 245 Broad St., Summit, N. J.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
Flexrock Co., 3608 Filbert St., Philadelphia 1, Pa.
FORMICA CO., THE, 4616 Spring Grove Ave., Cincinnati 32, Ohio. ADV. PG. 293.
Franklin Fibre-Lamitex Corp., 411 E. Frost St., Wilmington, Del.
General Electric Co., Laminated & Insulating Products Dept., Coshocton, Ohio.
Graef Engineering Co., P. O. Box 416, Paramount, Calif.
Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.
Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 9, Ill.
Johns-Manville, 22 E. 40th St., New York 16, N. Y.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
MAIGNE CO., O. J., 321 Pearl St., New York 38, N. Y. ADV. PG. 677.
Marblette Corp., 37-21 30th St., Long Island City 1, N. Y.
Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
Mica Insulator Co., Schenectady 1, N. Y.

MAIGNE CO., O. J., 321 Pearl St., New York 38, N. Y. ADV. PG. 677.
Marblette Corp., 37-21 30th St., Long Island City 1, N. Y.
Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
Mica Insulator Co., Schenectady 1, N. Y.
Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
Molded Fiberglass Sheet Co., Ashtabula, Ohio.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
Mykroy, Inc., Wheeling, Ill.
National Vulcanized Fibre Co., Wilmington, Del.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
Panelyte Div., St. Regis Paper Co., 230 Park Ave., New York 17, N. Y.
Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
RESIN INDUSTRIES, P. O. Box 1589, Santa Barbara, Calif. ADV. PG. 641.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 692.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
Sheffco Mfg. Corp., Grand & Ruby Aves., Palisades Park, N. J.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
Synthane Corp., Oaks, Pa.
Taylor Fibre Co., Norristown, Pa.
Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
Tri-Point Mfg. & Developing Co., 401 Grand St., Brooklyn 11, N. Y.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.

Sheets

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
American Mica Insulation Co., Manasquan, N. J.
Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
Arvey Corp., 3500 M. Kimball Ave., Chicago, Ill.
Auburn Button Works, Inc., Auburn, N. Y.
Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Continental Can Co., 100 E. 42nd St., New York 17, N. Y.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
Dixon Corporation, Bristol, R. I.
EASTMAN KODAK CO., 343 State St., Rochester 4, N. Y. ADV. PG. 659.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 675.
Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Ethylene Chemical Corp., 245 Broad St., Summit, N. J.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. AD. PG. 691.
Flexrock Co., 3608 Filbert St., Philadelphia 1, Pa.
FORMICA CO., THE, 4616 Spring Grove Ave., Cincinnati 32, Ohio. ADV. PG. 293.
Franklin Fibre-Lamitex Corp., 411 E. Frost St., Wilmington, Del.
General Electric Co., Laminated & Insulating Products Dept., Coshocton, Ohio.
Graef Engineering Co., P. O. Box 416, Paramount, Calif.
Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.
Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 9, Ill.
Johns-Manville, 22 E. 40th St., New York 16, N. Y.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
MAIGNE CO., O. J., 321 Pearl St., New York 38, N. Y. ADV. PG. 677.
Marblette Corp., 37-21 30th St., Long Island City 1, N. Y.
Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
Mica Insulator Co., Schenectady 1, N. Y.

Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
Mitchell Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
Mykroy, Inc., Wheeling, Ill.
National Electric Coil Co., Columbus 16, Ohio.
National Vulcanized Fibre Co., Wilmington, Del.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
Northern Plastics Corp., Second & Market Sts., La Crosse, Wis.
Panelyte Div., St. Regis Paper Co., 230 Park Ave., New York 17, N. Y.
Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
RESIN INDUSTRIES, P. O. Box 1589, Santa Barbara, Calif. ADV. PG. 641.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 692.
REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
Sheffco Mfg. Corp., Grand & Ruby Aves., Palisades Park, N. J.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
Sillicocks-Miller Co., Maplewood, N. J.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
Synthane Corp., Oaks, Pa.
Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
Taylor Fibre Co., Norristown, Pa.
Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.
West Virginia Pulp & Paper Co., 230 Park Ave., New York 17, N. Y.
Western Felt Works, 4029 Ogden Ave., Chicago, Ill.

Silicone Rubber Insulation Parts

Dow Corning Corp., Midland, Mich.
General Electric Co., Plastics Dept., Pittsfield, Mass.
Glasic Corp., 4321 Glenridge Rd., Cleveland 21, Ohio.
Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
National Electric Coil Co., Columbus 16, Ohio.
Oliver Tire & Rubber Co., 4341 San Pablo Ave., Emeryville, California.
Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.
Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.

Stampings & Punchings—Ceramic

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
Cook Ceramic Mfg. Co., 501 Prospect St., Trenton 1, N. J.
Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
Diamonite Products Div. of U. S. Ceramic Tile Co., 221 Fourth St., N. E., Canton 2, Ohio.
Du-Co Ceramics Co., Box 587, Butler 8, Pa.
Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
Guastavino Co., R., 660 Main St., Woburn, Mass.
Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
Mica Fabricating Co., 53 Central Ave., New Rochelle Park, N. J.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham, Mass. ADV. PG. 363.
Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 555.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
Tri-Point Mfg. & Developing Co., 401 Grand St., Brooklyn 11, N. Y.
United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Stampings & Punchings—Paper—Mica

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
American Mica Insulation Co., Manasquan, N. J.

Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
BARWOOD MFG. CO., INC., L. J. 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 Burken Lamination Corp., 811 Whittier St., Bronx 59, N. Y.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Ford Radio & Mica Corp., 436 63rd St., Brooklyn, N. Y.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
 Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
 Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 42, 43.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
 Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
 Pfefer Products, 3901 W. 54th St., Los Angeles 43, Calif.
 Phen-O-Tron, Inc., 455 Main St., New Rochelle, N. Y.
RELIANCE MICA CO., INC., 341 39th St., Brooklyn 32, N. Y. ADV. PG. 460.
 Rogers Corp., Goodyear, Conn.
 Stevens Products, Inc., 86-88 Main St., East Orange, N. J.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Tri-Point Mfg. & Developing Co., 401 Grand St., Brooklyn 11, N. Y.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 Wrought Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.

Stampings & Punchings—Plastics or Laminates

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 American Mica Insulation Co., Manasquan, N. J.
ANCHOR INDUSTRIAL CO., DIV. OF ANCHOR PLASTICS CO., INC., 36-36 36th St., Long Island City 6, N. Y. ADV. PG. 492.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 Burken Lamination Corp., 811 Whittier St., Bronx 59, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Continental Can Co., 100 E. 42nd St., New York 17, N. Y.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
 Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 675.
 Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
FORMICA CO., THE, 4616 Spring Grove Ave., Cincinnati 32, Ohio. ADV. PG. 293.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
 Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 678.
 Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
MAIGNE CO., O. J., 321 Pearl St., New York 38, N. Y. ADV. PG. 677.
 Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
 National Vulcanized Fibre Co., Wilmington, Del.
 Northern Plastics Corp., Second & Market Sts., La Crosse, Wis.
 Panelyte Div., St. Regis Paper Co., 230 Park Ave., New York 17, N. Y.
 Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
 Pfefer Products, 3901 W. 54th St., Los Angeles 43, Calif.
 Phen-O-Tron, Inc., 455 Main St., New Rochelle, N. Y.
 Piasteck, Inc., Poteau, Okla.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.
 R & R Tool & Die Corp., 12955 Sherman Way, North Hollywood, Calif.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
ROGAN BROS., 8031 N. Monticello Ave., Skokie, Ill. ADV. PG. 564.
 Rogers Corp., Goodyear, Conn.
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
 Sheffco Mfg. Corp., Grand & Ruby Aves., Palisades Park, N. J.
 Sillicocks-Miller Co., Maplewood, N. J.
 Sinclair Mfg. Co., Chartley, Mass.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.
 Thompson Fiberglass Co., H. I., 1733 Cordova St., Los Angeles 7, Calif.
 Tri-Point Mfg. & Developing Co., 401 Grand St., Brooklyn 11, N. Y.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 Warren Plastics Corp., Warren, Pa.
 Weckesser Co., 6251 Avondale Ave., Chicago 30, Ill.

INSULATORS—Antenna Insulators & Spring Assemblies

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CENTRALAB DIV. GLOBE-UNION, INC., 914 Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Ceramaseal Co., The, Box 25, New Lebanon Center, N. Y.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Isolantite Mfg. Corp., Stirling, N. J.
 Johnson Co., E. F., Waseca, Minn.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 228, 229.
 Mykroy, Inc., Wheeling, Ill.
 Porcelain Products, Inc., Findlay, Ohio.
 Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden Mass. ADV. PG. 571.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
 Tri-Point Mfg. & Developing Co., 401 Grand St., Brooklyn 11, N. Y.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 Wind Turbine Co., E. Market St. & Penna R. R., West Chester, Pa.
INSULATORS—Can Liner
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
 Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.
 Rogers Corp., Goodyear, Conn.

Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 West Virginia Pulp & Paper Co., 230 Park Ave., New York 17, N. Y.

INSULATORS—Ceramic

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Bristol Co., The, Waterbury 20, Conn.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CENTRALAB DIV. GLOBE-UNION, INC., 914 Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Ceramaseal Co., The, Box 25, New Lebanon Center, N. Y.
 Cook Ceramic Mfg. Co., 501 Prospect St., Trenton 1, N. J.
 Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
 Du-Co Ceramics Co., Box 587, Butler 8, Pa.
 Frenchtown Porcelain Co., Trenton 9, N. J.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 Guastavino Co., R., 660 Main St., Woburn, Mass.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Isolantite Mfg. Co., Stirling, N. J.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
 Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 228, 229.
 Locke Dept. of General Electric Co., P. O. Box 57, Baltimore 3, Md.
 Louthan Mfg. Co., East Liverpool, Ohio.
 Maryland Lava Co., Ceramic Dept., Bel Air, Md.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 465.
 Mykroy, Inc., Wheeling, Ill.
 National Ceramic Co., 400 Southard St., Trenton 2, N. J.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
 Porcelain Products, Inc., Findlay, Ohio.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham, Mass. ADV. PG. 363.
 Star Porcelain Co., 61 Muirhead Ave., Trenton 9, N. J.
 Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 555.
SYNCOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 571.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 Western Gold & Platinum Works, 589 Bryant St., San Francisco, Calif.
 Wheaton Co., T. C., Millville, N. J.
 Wind Turbine Co., E. Market St. & Penna R. R., West Chester, Pa.
 Wisconsin Porcelain Co., Sun Prairie, Wis.
INSULATORS—Feeder Spreader
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
CENTRALAB DIV. GLOBE-UNION, INC., 914 Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 Isolantite Mfg. Corp., Stirling, N. J.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 228, 229.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 685.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Mosley Electronics, Inc., 8622 St. Charles Rock Rd., St. Louis 14, Mo.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
INSULATORS—Fused Quartz
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.

SYNCR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 571.
Thermal American Fused Quartz Co., Inc., 19-20 Salem St., Dover, N. J.

INSULATORS—High Dielectric Paper

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
American Mica Insulation Co., Manasquan, N. J.
Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CLEVELAND CONTAINER CO., THE, 6201 Barberton Ave., Cleveland 2, Ohio. ADV. PG. 458.
Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
Johns-Manville, 22 E. 40th St., New York 16, N. Y.
Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.
Sillcocks-Miller Co., Maplewood, N. J.
Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
Taylor Fibre Co., Norristown, Pa.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.

INSULATORS—Strain

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CENTRALAB DIV., GLOBE-UNION, INC., 914 E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
Du-Co Ceramics Co., Box 587, Butler 8, Pa.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
Isolantite Mfg. Corp., Stirling, N. J.
Johnson Co., E. F., Waseca, Minn.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 228, 229.
Locke Dept. of General Electric Co., P. O. Box 57, Baltimore 3, Md.
Mikroy, Inc., Wheeling, Ill.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
Porcelain Products, Inc., Findlay, Ohio.
Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

INSULATORS—Test Clip

Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
INDUSTRIAL DEVICES INC., 982 River Rd., Edgewater, N. J. ADV. PG. 546.
Mueller Electric Co., 1582H E. 31st. St., Cleveland 14, Ohio.
Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
SEALCTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 467.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.

INSULATORS—Thermocouple

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
Bristol Co., The, Waterbury 20, Conn.
Ceramaseal Co., The, Box 25, New Lebanon Center, N. Y.
Du-Co Ceramics Co., Box 587, Butler 8, Pa.
Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.
Isolantite Mfg. Corp., Stirling, N. J.
Norton Co., 1 New Bond St., Worcester 6, Mass.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham, Mass. ADV. PG. 363.
Richards Co., Inc., Arklay S., 38 Winchester St., Newton Highlands 61, Mass.
Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
STUPAKOFF, DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
Thompson Fiberglass Co., H. I., 1733 Cordova St., Los Angeles 7, Calif.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.

INSULATORS—Tower

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.

I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 228, 229.
Locke Dept. of General Electric Co., P. O. Box 57, Baltimore 3, Md.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

INSULATORS—Transmitting Antenna

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CENTRALAB DIV., GLOBE-UNION, INC., 914 E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
Isolantite Mfg. Corp., Stirling, N. J.
Johnson Co., E. F., Waseca, Minn.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 228, 229.
Locke Dept. of General Electric Co., P. O. Box 57, Baltimore 3, Md.
Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Mosley Electronics, Inc., 8622 S. Charles Rock Rd., St. Louis 14, Mo.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham, Mass. ADV. PG. 363.
STUPAKOFF, DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.

INTEGRATORS—Electronic

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
Avion Instrument Corp., a Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
Cedar Engineering Inc., 58 W. 36th St., Minneapolis 16, Minn.
Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.
Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Floniston Ave., St. Louis 21, Mo.
ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.
FEDERAL TELEPHONE & RADIO CO., DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Flush Wall Radio Co., 1012 Cleveland St., Clearwater, Fla.
FURST ELECTRONICS, INC., 3324-A, W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
Infra Electronic Corp., Roseland, N. J.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
Mega Research, P. O. Box 371, Dover, N. J.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.
REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
Reflectone Corp., Post Rd. & Myano Lane, Stamford, Conn.
Unitronics, Inc., 472 Paul Ave., Ferguson Station, St. Louis 21, Mo.
Warren Electronics, Inc., Bound Brook, N. J.

INTERCOMMUNICATION SYSTEMS

Bliss Electronic Corp., Box 366, Sussex, N. J.
Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
Bright Radio Labs, Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
Calbest Engineering & Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meridan, Conn.

Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
Dorphone Div. of Republic Electronic Industries Corp., 31 W. 27th St., New York 1, N. Y.
Dukane Corp., St. Charles, Ill.
DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Executone Inc., 415 Lexington Ave., New York 17, N. Y.
Feiler Engineering & Mfg. Co., 8026 N. Monticello Ave., Skokie, Ill.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
Godfrey Mfg. Co., 2642 S. Madison Ave., Chicago 16, Ill.
Hallamore Electronics Co., A Div. of The Siegler Corp., 2001 E. Artesia, Long Beach 5, Calif.
Lake Mfg. Co., 2323 Chestnut St., Oakland, Calif.
Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
Loge Sound Engineers, J. M., 2171 W. Washington Blvd., Los Angeles 18, Calif.
National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Radio Merchandise Sales, Inc., 2016 Bronxdale Ave., New York 62, N. Y.
Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash.
Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Talk-A-Phone Mfg. Co., 1512 S. Pulaski Rd., Chicago 23, Ill.
Talk-O-Products, Inc., 163 St. Paul St., Rochester 6, N. Y.
Teletro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
Warren Mfg. Co., Inc., The, Littleton, Mass.
Webster Electric Co., 1900 Clark St., Racine, Wis.
Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.
Worner Electronic Devices, Rankin, Ill.
Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

INTERCOMMUNICATION SYSTEMS—Sound Powered

COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
Dilks Co., The, Seymour, Conn.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Telephonics Corp., Park Ave., Huntington, N. Y.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.
WHEELER INSULATED WIRE CO., INC., THE., DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.

INTERVALOMETERS

See **TIMERS—Automatic Cycle**

INVENTORYING SYSTEMS

Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
Business Machines Division, Electronic Corp. of America, 10 Potter St., Cambridge 42, Mass.
Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.
International Business Machines, 590 Madison Ave., New York 22, N. Y.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
Tally Register Co., 5300 14th N. W., Seattle, Wash.

INVERTERS—(DC-AC)

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
Airborne, Inc., 1733 N. Milwaukee Ave., Chicago 47, Ill.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
AMERICAN TELEVISION & RADIO CO., 300 E. Fourth St., St. Paul 1, Minn. ADV. PG. 176.
Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 8, N. Y.
Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.

Bristol Co., The, Waterbury 20, Conn.
 Brunswick Instruments, P. O. Box 813, New Brunswick, N. J.
 Carter Motor Co., 2742 W. George St., Chicago 18, Ill.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
 Cleviste Transistor Products A Div. of Cleviste Corp., 241-257 Crescent St., Waltham 54, Mass.
CONTINENTAL ELECTRIC CO., INC., 334 Ferry St., Newark 5, N. J. ADV. PG. 312.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
 Eicor, Inc., 1501 W. Congress St., Chicago 7, Ill.
ELECTRIC SPECIALTY CO., 300 South St., Stamford, Conn. ADV. PG. 475.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 424.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Jack & Heintz, Inc., Cleveland 1, Ohio.
 James Vibrapow Co., 4050 N. Rockwell St., Chicago 18, Ill.
 Kato Engineering Co., 1415 First Ave., Mankato, Minn.
 Lawn Electronics Co., East Freehold Rd., Freehold, N. J.
 Leland Electric Co., The, Div. of The American Machine & Foundry Co., 1501 Webster St., Dayton 1, Ohio.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.
MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 59.
NORMAN LABORATORIES, ERNST, Williams Bay, Wis. ADV. PG. 552.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.
 Redmond Co., Inc., Owosso, Mich.
SORENSEN & CO., INC., 375 Fairfield Ave., Stamford, Conn. ADV. PG. 177-180.
 TKM Electric Corp., 11600 University Ave., Rochester 7, N. Y.
 Terado Co., Dept. 1, 1059 Raymond Ave., St. Paul 14, Minn.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. ADV. PG. 569.

ION TRAPS

CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Heppner Mfg. Co., P. O. Box 612, Round Lake, Ill.
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
 Perfection Electric Co., 2635 S. Wabash Ave., Chicago 16, Ill.
 Quam-Nichols Co., Marquette Rd. & Prairie Ave., Chicago 37, Ill.

IRON OXIDES for Ferrites

COLUMBIAN CARBON CO., MAPICO COLOR DIV., 380 Madison Ave., New York 17, N. Y. ADV. PG. 632.
WILLIAMS & CO., C. K., 640 N. 13th St., Easton, Pa. ADV. PG. 671.

IRONS—Soldering

AEROPROJECTS, INCORPORATED, 310 E. Rosedale Ave., West Chester, Pa. ADV. PG. 674.
AMERICAN ELECTRICAL HEATER CO., 6110 Cass Ave., Detroit 2, Mich. ADV. PG. 124.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Drake Electric Works, 3656 Lincoln Ave., Chicago 13, Ill.
 Elsler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
ELECTRIC SOLDERING IRON CO., W. Elm St., Deep River, Conn. ADV. PG. 648.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HEXAGON ELECTRIC COMPANY, 130 W. Clay Ave., Roselle Park, N. J. ADV. PG. 600.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
 Kelnor Mfg. Co., Inc., 1335 Market St., San Francisco 3, Calif.
 Kwikheat Mfg. Co., 3732 San Fernando Road, Glendale 4, Calif.
 Lenk Mfg. Co., 30 Cummington St., Boston 15, Mass.
 Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
 Stanley Tools, New Britain, Conn.

Ungar Electric Tools, Inc., 4101 Redwood Ave., Los Angeles 66, Calif.
 Vermaline Products Co., P. O. Box 222E, Hawthorne, N. J.
 Vulcan Electric Co., Danvers, Mass.
 Wall Mfg. Co., Grove City, Pa.

JACK PANEL ASSEMBLIES

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610.
 Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
COAXIAL CONNECTOR CO., 37 North 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Dukane Corp., St. Charles, Ill.
 Electronic Engineering Co. of California, 180 S. Alvarado St., Los Angeles 57, Calif.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 Nems-Clarke, Inc., Silver Spring, Md.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Pomona Electronics Co., Inc., 1126 W. Fifth Ave., Pomona, Calif.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
 Radio Essentials Inc., 152 S. MacQuestion Parkway, Mt. Vernon, N. Y.
 Remler Co., 2101 Bryant St., San Francisco 10, Calif.
 Roffan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 668.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TRIMM, INC., 400 W. Lake St., Libertyville, Ill. ADV. PG. 529.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 161.
 Waltham Horological Corp., 395 Lynnway, Lynn, Mass.
WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.

JACKS

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ALLIED INDUSTRIES, INC., 2500 Woodland Ave., Louisville 10, Ky. ADV. PG. 570.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
 Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 554.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CANNON ELECTRIC CO., 3209 Humboldt St., Los Angeles 31, Calif. ADV. PG. 213.
 Carter Parts Co., 213 Institute Place, Chicago 10, Ill.

CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
COAXIAL CONNECTOR CO., 37 North 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
 Electrocraft Div. of Hamilton-Pax, Inc., 3743 N. Kedzie Ave., Chicago 18, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
FEDERAL TELEPHONE & RADIO CO., DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 82.
 Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
INTERSTATE ELECTRONICS, INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 618.
 Javex, P. O. Box 646, Redlands, Calif.
 Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
 Johnson Co., E. F., Waseca, Minn.
JONES DIV. HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Lee Electronic Labs, Inc., 88 Evans St., Watertown, Mass.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 685.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
 Nems-Clarke, Inc., Silver Spring, Md.
 North Electric Co., 553 S. Market St., Gallon, Ohio.
 Pacific Electricord Co., P. O. Box 8805, Crenshaw Sta., Los Angeles 8, Calif.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Radio Essentials Inc., 152 S. MacQuestion Parkway, Mt. Vernon, N. Y.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 43, Pa.
 Roffan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
SEAELECTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 467.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 668.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
TELEX, INC., Telex Park, St. Paul 1, Minn. ADV. PG. 686.
TRIMM, INC., 400 W. Lake St., Libertyville, Ill. ADV. PG. 529.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 161.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
 Waltham Horological Corp., 395 Lynnway, Lynn, Mass.
WHITSO, INC., 9328 Byron St., Schiller Park, Ill. ADV. PG. 534.

JEWELS—Glass

BJRD CO., RICHARD H., 1 Spruce St., Waltham, Mass. ADV. PG. 487.
DIALIGHT CORPORATION, 60 Stewart Ave., Brooklyn 37, N. Y. ADV. PG. 108.
 Drake Mfg. Co., 1713 Hubbard St., Chicago 22, Ill.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

JOINTS—Rotary, Microwave

See MICROWAVE ACCESSORIES

JUMPERS—Bonding

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 Entron, Inc., 4902 Lawrence St., Bladensburg, Md.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 82.
 Janco Corp., 3111 Winona Ave., Burbank, Calif.
KULKA ELECTRIC MFG. CO., INC., 633 S. Falton Ave., Mount Vernon, N. Y. ADV. PG. 531.
 Thomas & Betts Co., Inc., 36 Butler St., Elizabeth 1, N. J.
 Whitaker Cable Corp., Kansas City 16, Mo.

KEYERS & COUPLERS

Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
 Boehme, Inc., H. O., 915 Broadway, New York 10, N. Y.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
 Maryland Electronic Mfg. Corp., College Park, Md.
 Nems-Clark, Inc., Silver Spring, Md.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Telecro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

KEYS & CODING EQUIPMENT

Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 Boehme Inc., H. O., 915 Broadway, New York 10, N. Y.
 Clary Multiplier Corp., Electronics Div., San Gabriel, Calif.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
FEDERAL TELEPHONE & RADIO CO., DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
 Johnson Co., E. F., Waseca, Minn.
 Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Vibroplex Co., Inc., 833 Broadway, New York, N. Y.
 Warren Mfg. Co., Inc., The Littleton, Mass.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

KILOVOLT METERS

American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
BETA ELECTRIC CORP., 333 E. 103rd St., New York 29, N. Y. ADV. PG. 652.
 Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.
FEDERAL TELEPHONE & RADIO CO., DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
TRIO LABORATORIES, INC., 4025 Merrlck Rd., Seaford, N. Y. ADV. PG. 476.

TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

KLYSTRONS
 See TUBES

KNOBES

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
BODNAR INDUSTRIES, INC., 19 Railroad Ave., New Rochelle, N. Y. ADV. PG. 691.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Chicago Dje Mold Div. of U. S. Rubber Co., 4300 New Haven Ave., Fort Wayne 4, Ind.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
 Davies Molding Co., Harry, 1428 N. Wells St., Chicago 10, Ill.
DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. ADV. PG. 312.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
 Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
INDUSTRIAL DEVICES, INC., 982 River Rd., Edgewater, N. J. ADV. PG. 546.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
 Johnson Co., E. F., Waseca, Minn.
 Kurz-Kasch, Inc., 1421 S. Broadway, Dayton 1, Ohio.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.
 Olympic Plastics Co., Inc., 5741 W. Jefferson Blvd., Los Angeles 16, Calif.
 Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif.
 Pfleger Products, 3901 W. 54th St., Los Angeles 43, Calif.
 Plasteck Inc., Poteau, Okla.
 Radio Essent als Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
 Roffan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
ROGAN BROS., 8031 N. Monticello Ave., Skokie, Ill. ADV. PG. 564.
 Rohden Manufacturing Co., Inc., 4739 Montrose Ave., Chicago 41, Ill.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Tuttle & Kiff, 1823 N. Monitor St., Chicago 39, Ill.
U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.
U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
WHITSO, INC., 9328 Byron St., Schiller Park, Ill. ADV. PG. 534.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

LABORATORIES—Testing

American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.

American Spectrographic Laboratories, 557 Minna St., San Francisco, Calif.
 Armour Research Foundation, 35 W. 33rd St., Chicago, Ill.
 Cook Research Laboratories Div. of Cook Electric Co., 1457 Diversey Parkway, Chicago 14, Ill.
 Electrical Testing Laboratories, Inc., 2 East End Ave., New York 21, N. Y.
GENERAL TESTING LABORATORIES, INC., 59 Washington Ave., Carlstadt, N. J. ADV. PG. 538.
 Inland Testing Laboratories, 2745 N. Janssen Ave., Chicago 14, Ill.
 International Testing Laboratories, Inc., 580 Market St., Newark 5, N. J.
 New York Testing Laboratories, Inc., 47 West St., New York, N. Y.
 Rototest Laboratories Inc., 2803 Los Flores Blvd., Lynwood, Calif.
 Snell Inc., Foster D., 29 W. 15th St., New York, N. Y.
 United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.
 United States Testing Co., Inc., 1415 Park Ave., Hoboken, N. J.

LACQUER

See INSULATING COMPOUNDS

LAMINATIONS—Transformer

American Printed Circuits Co., Inc., Forrest St., Metuchen, N. J.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 Burken Lamination Corp., 811 Whittier St., Bronx 59, N. Y.
 Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Fortiphone Ltd., 247 Regent St., London W. 1, England.
 Irvington Varnish & Insulator Div. of Minnesota, Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
KOBZY TOOL CO., 1535 N. Dayton Ave., Chicago 22, Ill. ADV. PG. 597.
 Magnetic Metals Co., Hayes Ave., at 21st St., Camden, N. J.
MAGNETICS INC., P. O. Box 391, Butler, Pa. ADV. PG. 54, 55.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
 R & R Tool & Die Corp., 12955 Sherman Way, North Hollywood, Calif.
 Repath Inc., Paul R., 641 E. 61st St., Los Angeles 1, Calif.
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
 Tempel Mfg. Co., 1939 Bryn Mawr Ave., Chicago 26, Ill. ADV. PG. 44.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
THOMAS & SKINNER INC., 1122 E. 23rd St., Indianapolis, Ind. ADV. PG. 672.
 Topper Mfg. Co., 43 Roselle St., Mineola, N. Y.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Webster-Chicago Corp., 5610 Bloomingdale Ave., Chicago 39, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

LAMINATORS OF PLASTIC MATERIALS

See INSULATION PARTS
 Plastic Insulation Parts
 Laminated

LAMP LIGHTS—Miniature

See LIGHTS—Dial, Panel & Pilot

LEADS—Test

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ASSOCIATED ENGINEERING CORP., 65 Kent St., Brookline 46, Mass. ADV. PG. 590, 591.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 C B C Electronics Co., Inc., 2601 Howard St., Philadelphia 33, Pa.
 Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Decatur Electronics Industries Corp., 203 Orinco Drive, Brightwater, N. Y.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.

GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
Jowit Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Pacific Electricord Co., P. O. Box 8805, Crenshaw Sta., Los Angeles 8, Calif.
Pomona Electronics Co., Inc., 1126 W. Fifth Ave., Pomona, Calif.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Radio Essentials Inc., 152 S. MacQuestion Parkway, Mt. Vernon, N. Y.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.
Torrington Co., Specialties Div., 37 Field St., Torrington, Conn.
VECTOR ELECTRONICS CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.
Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.

LEAK
 See DETECTORS

LEATHERETTE
APEX COATED FABRICS CO., 12 E. 22nd St., New York 10, N. Y. ADV. PG. 452.
U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.

LENSES—Optical

American Optical Co., Instrument Div., Box A, Buffalo 15, N. Y.
Axler Associates, 102-42 43d Ave., Corona, N. Y.
Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
EASTMAN KODAK CO., 343 State St., Rochester 4, N. Y. ADV. PG. 659.
Farrand Optical Co., Inc., Bronx Blvd. at 238th St., Bronx 70, N. Y.
Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
Kollsman Instrument Corp., Sub. of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.
O & S RESEARCH INC., 1319 Admiral Wilson Blvd., Camden 1, N. J. ADV. PG. 624.
Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif.
Pacific Universal Products Corp., 168 Vista Ave., Pasadena 8, Calif.
Polan Industries Inc., P. O. Box 1720, Huntington, W. Va.
Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.
Zoomar, Inc., Glen Cove, N. Y.

LENSES—Television

Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
Burke & James, Inc., 321 S. Wabash Ave., Chicago 4, Ill.
Camera Mart, Inc., 1845 Broadway, New York 23, N. Y.
Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
GENERAL PRECISION LABORATORY, INC., 63 Bedford Rd., Pleasantville, N. Y. ADV. PG. 189.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
Television Zoomar Corp., 500 Fifth Ave., Room 2223, New York, N. Y.
Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.
Zoomar, Inc., Glen Cove, N. Y.

LENSES—Television Magnifying

Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.

Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
Willson Camera Co., Inc., 1395 Lawrence Rd., Havertown, Pa.
Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.

LENSES—Television Projection

Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
Bausch & Lomb Optical Co., 614 St. Paul St., Rochester, 2, N. Y.
Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
GENERAL PRECISION LABORATORY, INC., 63 Bedford Rd., Pleasantville, N. Y. ADV. PG. 189.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.

LIE DETECTORS—Electronic

ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 588.
Electro-Medical Lab., Inc., South Woodstock 8, Vt.
Nevada Air Products Co., P. O. Box 2472, Reno, Nev.

LIGHTING EQUIPMENT—Television

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 529.
Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
Dumont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.
Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
Mole-Richardson Co., 937 N. Sycamore Ave., Hollywood 38, Calif.
Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.
Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.

LIGHTS—Dial, Panel and Pilot

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
CHICAGO MINIATURE LAMP WORKS, 1500 N. Ogden Ave., Chicago 10, Ill. ADV. PG. 574.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
DIALIGHT CORPORATION, 60 Stewart Ave., Brooklyn 37, N. Y. ADV. PG. 108.
Drake Mfg. Co., 713 Hubbard St., Chicago 22, Ill.
ELEDMA CORP., 9844 Rener St., El Monte, Calif. ADV. PG. 694.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
General Electric Co., Lamp Div., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio.
General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
Herzog Miniature Lamp Works, Inc., 12-23 Jackson Ave., Long Island City 4, N. J.
Hetherington, Inc., Sharon Hill, Pa.
Hudson Lamp Co., 528 Elm St., Kearney, N. J.
INDUSTRIAL DEVICES, INC., 982 River Rd., Edgewater, N. J. ADV. PG. 546.
Johnson Co., E. F. Waseca, Minn.
Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
Kirkland Co., H. R., 8 King St., Morristown, N. J.
Marco Industries Co., 207 S. Helena St., Anaheim, Calif.
National Carbon Co., Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
OXFORD ELECTRIC CORP., 3911 S. Michigan Ave., Chicago 15, Ill. ADV. PG. 544.
Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
Radio Essentials Inc., 152 S. MacQuestion Parkway, Mt. Vernon, N. Y.
Signalight Inc., 37-41 Neptune Highway, Neptune, N. J.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.
UCINITE CO., DIV. OF UNITED CARR-FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 161.

LIGHTS—Photoelectric Source

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 529.
Airmec Ltd., High Wycombe, Buckinghamshire, England.
CHICAGO MINIATURE LAMP WORKS, 1500 N. Ogden Ave., Chicago 10, Ill. ADV. PG. 574.
Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
General Electric Co., Lamp Div., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio.

I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
Special Products Co., P. O. Box 188, Rockville 3, Md.

LIGHTS—Signal

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 529.
Anglo Corp., 2037 W. Division St., Chicago 22, Ill.
CHICAGO MINIATURE LAMP WORKS, 1500 N. Ogden Ave., Chicago 10, Ill. ADV. PG. 574.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
DIALIGHT CORPORATION, 60 Stewart Ave., Brooklyn 37, N. Y. ADV. PG. 108.
Drake Mfg. Corp., 1713 Hubbard St., Chicago 22, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
General Electric Co., Lamp Div., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio.
Haley Electronics Co., 57 William St., New York 5, N. Y.
Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.
Kirkland Co., H. R., 8 King St., Morristown, N. J.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.
Marco Industries Co., 207 S. Helena St., Anaheim, Calif.
North American Electric Lamp Co., 1014 Tyler St., St. Louis 6, Mo.
Radio Essentials Inc., 152 S. MacQuestion Parkway, Mt. Vernon, N. Y.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TUNG-SOL ELECTRIC, INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.
Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.

LIGHTS—Stroboscopic Source

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 529.
Anglo Corp., 2037 W. Division St., Chicago 22, Ill.
General Electric Co., Lamp Div., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

LINES—Slotted

ADMITTANCE, INC., 9 Alan Court, Farmingdale, N. Y. ADV. PG. 508.
ALFORD MFG. CO., INC., 299 Atlantic Ave., Boston, Mass. ADV. PG. 650.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
DeMORNAY-BONARDI, INC., 780 S. Arroya Parkway, Pasadena, Calif. ADV. PG. 207.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J.
HEWLETT-PACKARD CO., 275 Page Mill Road, Palo Alto, Calif. ADV. PG. 29-36.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

LINKS—Antenna

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.

LINKS—Television Microwave
 See MICROWAVE ACCESSORIES

LIQUID LEVEL
 See CONTROLS INDICATORS

LITHIUM COMPOUNDS
 See METALS

LOADS—DummySee **ANTENNAS—Dummy Load****LOCATORS—Cable & Line Fault**

Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., 39 E. Hanover Ave., Morris Plains, N. J.
 Fisher Research Lab., Inc., 1961 University Ave., Palo Alto, Calif.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
 Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Standard Telephone & Cable, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

LOCATORS—Pipe & Cable

Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., 39 E. Hanover Ave., Morris Plains, N. J.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
 Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
 Menlo Research Laboratory, Menlo Park, Calif.
 Nilsson Electrical Laboratory, Inc., 103 Lafayette St., New York 13, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

LOCKS—Dial

AUGAT BROS., INC., 33 Perry Ave., Attleboro, Mass. ADV. PG. 645.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
U S ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.

LOCKS—Shaft

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Precision Metal Products Co. of Malden, 41 Elm St., Stoughton 80, Mass.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.

LORAN SYSTEMS

ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
 Edo Corp., College Point, N. Y.

LOUVERS—Chassis Ventilating

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
 Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
 Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Falstrom Co., 44 Falstrom Court, Passaic, N. J.
FORMICA METAL PRODUCTS CO., Corporation Way, Medford 55, Mass. ADV. PG. 606.
 Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
MIDGET LOUVER CO., 6 Wall St., Norwalk, Conn. ADV. PG. 292.

Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.

LUGSSee **TERMINALS****MACHINES—Bending**

O'Neil-Irwin Mfg. Co., 316 Eighth Ave., Lake City, Minn.

MACHINES—Blueprint

Paragon-Revolute Corp., 71 South Ave., Rochester 4, N. Y.
 Pease Co., C. F., 2601 W. Irving Park Rd., Chicago, Ill.
 Peck & Harvey Mfg. Corp., 5650 N. Western Ave., Chicago 45, Ill.

MACHINES—Capacitor Manufacturing

Associated American Trading Division, 8010 Empire State Bldg., New York 1, N. Y.
 Condenser Machinery Co., Stamford, Conn.

MACHINES—Cleaning

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 655.
 Cobehn, Inc., 100 Passaic Ave., Caldwell, N. J.
 Cro-Plate Co., Inc., The, 747 Windsor St., Hartford 1, Conn.
 Eastern Specialty Co., Philadelphia 40, Pa.
 Industrial Systems Co., Matawan, N. J.
 Rush Wire Stripper Div., Eraser Co., Inc., The, 1068 S. Clinton St., Syracuse 4, N. Y.

MACHINES—Coil Winding

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
 Associated American Trading Division, 8010 Empire State Bldg., New York 1, N. Y.
BOESCH MFG. CO., Danbury, Conn. ADV. PG. 542.
COIL WINDING EQUIPMENT CO., 109 Audrey Ave., Oyster Bay, N. Y. ADV. PG. 640.
 Cosa Corp., 405 Lexington Ave., New York 17, N. Y.
 Crown Industrial Products Co., 713 Amsterdam Ave., Woodstock, Ill.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 553.
ROEHRIG INDUSTRIAL WINDING MACHINERY CO., HENRY W., 120 Wall St., New York 5, N. Y. ADV. PG. 521.
 Stanat Manufacturing Co., 422 37th St., Long Island City 1, N. Y.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
STEVENS MFG. CO., INC., GEORGE, 6022 N. Rogers Ave., Pulaski & Peterson, Chicago 30, Ill. ADV. PG. 634.
 Universal Winding Co., P. O. Box 1605, Providence 1, R. I.

MACHINES—Coil Winding, Toroidal

ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. ADV. PG. 696, 697.
 Associated American Trading Division, 8010 Empire State Bldg., New York 1, N. Y.
BOESCH MFG. CO., Danbury, Conn. ADV. PG. 542.
 Cosa Corp., 405 Lexington Ave., New York 17, N. Y.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Electro Devices Co., Inc., 580 Main St., Wilmington, Mass.
 Harder Co., Donald C., 3710 Midway Drive San Diego 10, Calif.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Rex Rheostat Co., 3 Foxhurst Rd., Baldwin, N. Y.
STEVENS MFG. CO., INC., GEORGE, 6022 N. Rogers Ave., Pulaski & Peterson, Chicago 30, Ill. ADV. PG. 634.
UNIVERSAL MFG. CO., INC., 410 Hillside Ave., Hillside, N. J. ADV. PG. 642.

MACHINES—Counting (Photoelectric)

Autotron Co., P. O. Box 722-H, Danville, Ill.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.

Pantek Co., Box 212, El Segundo, Calif.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Special Products Co., P. O. Box 188, Rockville 3, Md.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
 Walison Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.

MACHINES—Crystal Manufacturing & Finishing

BULOVA WATCH CO., Quartz Crystal Div., Valley Stream, N. Y. ADV. PG. 378, 379.
CLARK CRYSTAL CO., Farm Rd., Marlboro, Mass. ADV. PG. 294.
 Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 F & M Sales, Inc., 1054 Cahuenga Blvd., Hollywood 38, Calif.
 Hoffman Co., P. R., Carlisle, Pa.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa.
 Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.

MACHINES—Cutting

ACME WIRE MACHINE CO., 234 E. 3rd St., New York, N. Y. ADV. PG. 667.
 Design Tool Corp., 80 Washington St., New York 6, N. Y.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Hobbs Mfg. Co., 26 Salisbury St., Worcester, Mass.
 O'Neil-Irwin Mfg. Co., 316 Eighth Ave., Lake City, Minn.
 Radial Cutter Corp., 831 Bond St., Elizabeth, N. J.
 Sheffield Corp., The, Dayton 1, Ohio.
 Stanat Manufacturing Co., 47-22 37th St., Long Island City 1, N. Y.

MACHINES—Disc Recording

BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
 Epsylon Research & Development Co., Ltd., The Barons, St. Margarets, Middlesex, England.
 Infra Electronic Corp., Roseland, N. J.
 Miles Reproducer Co., Inc., 812 Broadway, New York 3, N. Y.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
 Westrax Corp., 111 Eight Ave., New York 11, N. Y.

MACHINES—Electric Soldering

ACME WIRE MACHINE CO., 234 E. 3rd St., New York, N. Y. ADV. PG. 667.
 Ark-less Switch Corp., 51 Water St., Watertown 72, Mass.
 Cole Radio Works, 86 Westville Ave., Caldwell, N. J.
 Condenser Machinery Co., Stamford, Conn.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Electronic Products Corp., 322 State St., Santa Barbara, Calif.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
 Lepel High Frequency Labs., Inc., 55th St. & 37th Ave., Woodside 77, N. Y.
 Luma Electric Equipment Co., P. O. Box 132, Toledo 1, Ohio.
 New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
PATTON-MAC GUYER CO., 17 Virginia Ave., Providence 5, R. I. ADV. PG. 304.
 Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.

MACHINES—Electronic Balancing

Annis Co., R. B., 1101 N. Delaware St., Indianapolis, Ind.
 Avion Instrument Corp., A Sub of A. C. F. Industries, Inc., 299 State Highway No. 17, Paramus, N. J.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Cleveland 16, Ohio.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Micro Balancing, Inc., 191 Herricks Rd., Garden City Park, N. Y.
 Ten Bosch Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.

MACHINES—Electronic Beverage Inspection

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Nuclear Research Corp., Southampton, Pa.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.

MACHINES—Electronic Dictating

Dictaphone Corp., 420 Lexington Ave., New York 17, N. Y.
 Infra Electronic Corp., Roseland, N. J.

Miles Reproducer Co., Inc., 812 Broadway, New York 3, N. Y.
 Peirce Wire Recorder Corp., 5900 Northwest Highway, Chicago 31, Ill.
 Sound Scriber Corp., The, 146 Munson St., New Haven 9, Conn.

MACHINES—Electronic Transcribing

Dictaphone Corp., 420 Lexington Ave., New York 17, N. Y.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Infra Electronic Corp., Roseland, N. J.
 Miles Reproducer Co., Inc., 812 Broadway, New York 3, N. Y.
 Peirce Wire Recorder Corp., 5900 Northwest Highway, Chicago 31, Ill.
 SoundScriber Corp., The, 146 Munson St., New Haven 9, Conn.

MACHINES—Engraving and Profiling

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Auto Engraver Co., Ridgefield, Conn.
 Cosa Corp., 405 Lexington Ave., New York 17, N. Y.
 GREEN INSTRUMENT CO., 363A Putnam Ave., Cambridge, Mass. ADV. PG. 540.
 Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.
 MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 553.
 NEW HERMES ENGRAVING MACHINE CORP., 13-19 University Place, New York 3, N. Y. ADV. PG. 695.
 Preis Engraving Machine Co., H. P., 651 U. S. Highway 22, Hillside, N. J.

MACHINES—Forming

Condenser Machinery Co., Stamford, Conn.
 Cosa Corp., 405 Lexington Ave., New York 17, N. Y.
 Design Tool Corp., 80 Washington St., New York 6, N. Y.
 Hydraulic Press Mfg. Co., Mt. Gilead, Ohio.
 O'Neil-Irwin Mfg. Co., 316 Eighth Ave., Lake City, Minn.
 Stueck, Inc., W. Whitney, Dept. E, Old Saybrook, Conn.

MACHINES—Glass Blowing

Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Forter-Teichmann Co., Clark Bldg., Pittsburgh, Pa.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
 Pioneer Machine Works, Inc., 6136 Adam St., West New York, N. J.

MACHINES—Glass Working

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Forter-Teichmann Co., Clark Bldg., Pittsburgh, Pa.
 HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
 SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 STANDARD TOOL & MFG CO., Arlington, N. J. ADV. PG. 632.

MACHINES—Impregnating

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Apex Machine Co., 14-13 118th St., College Point 56, N. Y.
 Barrett Co., Léon J., 1776 Grafton Rd., Worcester 1, Mass.
 High-Vacuum Equipment Corp., Hingham, Mass.
 Hull Corporation, Abington, Pa.
 NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
 Red Point Products, Inc., 1907 Riverside Drive, Glendale 1, Calif.
 Stokes Machine Co., F. J., 5500 Tabor Rd., Philadelphia 20, Pa.

MACHINES—Marking

Ackerman-Gould Co., 92 Bleecker St., New York, N. Y.
 Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
 Apex Machine Co., 14-13 118th St., College Point 56, N. Y.
 Auto Engraver Co., Ridgefield, Conn.
 Coxhead Co., Ralph C., Newark, N. J.
 High Speed Hammer Co., Rochester, N. Y.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
 Luma Electric Equipment Co., P. O. Box 132, Toledo 1, Ohio.
 Markem Machine Co., Keene, N. H.
 MARKWIK MFG. CO., INC., 31 Sexton Rd., Clearview Village, Hicksville, N. Y. ADV. PG. 505.
 Marsh Stencil Machine Co., 46 Marsh Bldg., Belleville, Ill.
 Matthews & Co., James H., 3942 Forbes St., Pittsburgh, Pa.
 Noble & Westbrook Mfg. Co., 27 Westbrook St., East Hartford 8, Conn.
 Numberall Stamp & Tool Co., Huguenot Park, Staten Island 12, N. Y.
 POPPER & SONS, INC., 300 Fourth Ave., New York 10, N. Y. ADV. PG. 673.
 Preis Engraving Machine Co., H. P., 651 U. S. Highway 22, Hillside, N. J.

MACHINES—Photocopy & Whiteprint

American Photocopy Equipment Co., 1920 W. Peterson, Chicago 26, Ill.
 Bruning & Co., Inc., Charles, 4700 Montrose Ave., Chicago 41, Ill.
 EASTMAN KODAK CO., 343 State St., Rochester 4, N. Y. ADV. PG. 659.
 General Photo Products Co., Inc., General Photo Bldg., 15 Summit Ave., Chatham, N. J.
 Haloid Co., The, 6 Haloid St., Rochester 3, N. Y.
 Ozalid Div. of General Aniline & Film Corp., 770 Anso Rd., Johnson City, N. Y.
 Paragon-Revolute Corp., 71 South Ave., Rochester 4, N. Y.
 Pease Co., C. F., 2601 W. Irving Park Rd., Chicago, Ill.
 Peck & Harvey Mfg. Corp., 5650 N. Western Ave., Chicago 45, Ill.
 Peerless Photo Products, Inc., Shoreham, N. Y.

MACHINES—Record Manufacturing

BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Polnsettia Co., Inc., 112 Cedar Ave., Pitman 6, N. J.

MACHINES—Shock Testing

Genisco, Inc., 2233 Federal Ave., Los Angeles 64, Calif.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 L. A. B. Corporation, Skaneateles, N. Y.
 Telecro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

MACHINES—Tube Manufacturing

Apex Machine Co., 14-13 118th St., College Point 56, N. Y.
 Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
 Pioneer Machine Works, Inc., 6136 Adam St., West New York, N. J.
 STANDARD TOOL & MFG. CO., Arlington, N. J. ADV. PG. 632.

MACHINES—Vibration Fatigue Testing

All American Tool & Mfg. Co., 8027 Lawndale, Skokie, Ill.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 L. A. B. Corporation, Skaneateles, N. Y.

MACHINES—Wire Stripping

ACME WIRE MACHINE CO., 234 E. 3rd St., New York, N. Y. ADV. PG. 667.
 Cosa Corp., 405 Lexington Ave., New York 17, N. Y.
 Cro-Plate Co., Inc., The, 747 Windsor St., Hartford 1, Conn.
 Electro Wire Service, 5 Beekman St., New York 7, N. Y.
 High Speed Hammer Co., Rochester, N. Y.
 Microdot, Inc., 1826 Fremont Ave., South Pasadena, Calif.
 Rush Wire Stripper Div., The Eraser Co., Inc., 1068 S. Clinton St., Syracuse 4, N. Y.
 STEVENS MFG. CO., INC., GEORGE, 6022 N. Rogers Ave., Pulaski & Peterson, Chicago 30, Ill. ADV. PG. 634.
 Technical Devices Co., 2346 Centinela Ave., Los Angeles 64, Calif.
 THOMAS INSTRUMENT CO., Phoenix, N. Y. ADV. PG. 673.

MAGNETIC ANALYSIS EQUIPMENT

BULOVA WATCH CO., Quartz Crystal Div., Valley Stream, N. Y. ADV. PGS. 378, 379.
 Cambridge Instrument Co., Inc., 3055 Grand Central Terminal, New York 17, N. Y.
 Dice Co., J. W., Englewood, N. J.
 DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 574.
 FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.
 FEDERAL TELEPHONE & RADIO CO., DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PGS. 355-360.
 KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Magnetic Analysis Corp., 42-44 12th St., Long Island City 1, N. Y.
 Magnetics Research Co., 255 Grove St., White Plains, N. Y.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

MAGNETIC FLUX METERS

See FLUXMETERS

MAGNETIZERS AND DEMAGNETIZERS

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 AMERICAN TIME PRODUCTS, INC., 580 Fifth Ave., New York 36, N. Y. ADV. PG. 232.
 AMPLEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 415.
 Amplifier Corp. of America, 396 Broadway, New York 13, N. Y.

Annis Co., R. B., 1101 N. Delaware St., Indianapolis, Ind.
 CARBOLOY DEPT. OF GENERAL ELECTRIC CO., Box 237, Roosevelt Park Annex, Detroit 32, Mich. ADV. PG. 20, 21.
 COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
 DUBROW DEVELOPMENT CO., 235 B Penn St., Burlington, N. J. ADV. PG. 380.
 Fisher Radio Corp., 21-21 44th Drive, Long Island City 1, N. Y.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
 King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
 Klein-Electronics, Leo, 2404 S. La Brea Ave., Los Angeles 16, Calif.
 Luma Electric Equipment Co., P. O. Box 132, Toledo 1, Ohio.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Magnetic Analysis Corp., 42-44 12th St., Long Island City 1, N. Y.
 Magnetics Research Co., 255 Grove St., White Plains, N. Y.
 Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.
 OPAD ELECTRIC CO., 69-5 Murray St., New York 7, N. Y. ADV. PG. 524.
 Power Supplies, Inc., 1007 Olive St., Highland, Ill.
 RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.

MAGNETOMETERS

See INSTRUMENTS—Electrical Measuring

MAGNETRONS

See TUBES

MAGNETS—Permanent

ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 404, 405.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 CARBOLOY, DEPT. OF GENERAL ELECTRIC CO., Box 237, Roosevelt Park Annex, Detroit 32, Mich. ADV. PG. 20, 21.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
 Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
 CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.
 Ferroxcube Corp. of America, 125 E. Bridge St., Saugerties, N. Y.
 GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 General Magnetic Corp., 10001 Erwin Ave., Detroit 34, Mich.
 INDIANA STEEL PRODUCTS CO., Valparaiso, Indiana. ADV. PG. 204.
 Murex, Ltd., Rainham, Essex, England.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 PERMAG CORP., 214 Taaffe Place, Brooklyn 5, N. Y. ADV. PG. 560.
 STACKPOLE CARBON CO., St. Mary's, Pa. ADV. PG. 80, 81.
 Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.
 THOMAS & SKINNER INC., 1122 E. 23rd St., Indianapolis, Ind. ADV. PG. 672.
 UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

MANUFACTURERS' REPRESENTATIVES

See Pages 699 to 707

MARKERS—Frequency, Microwave

See MICROWAVE ACCESSORIES

MARKERS—Wire

Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
 Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
 Apex Machine Co., 14-13 118th St., College Point 56, N. Y.
 Brady Co., W. H., 727 W. Glendale Ave., Milwaukee 12, Wis.
 BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
 Duramark, Inc., 2 Secatog Ave., Port Washington, N. Y.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
 Labelon Tape Co., 450 Atlantic Ave., Rochester 9, N. Y.
 Lake Chemical Co., 3052 W. Carroll Ave., Chicago 12, Ill.
 Matthews & Co., James H., 3942 Forbes Ave., Pittsburgh, Pa.
 NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
 North Shore Nameplate Inc., 214-27 Northern Blvd., Bayside 61, N. Y.
 Swift & Sons, Inc., M., 10 Love Lane, Hartford 1, Conn.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

Westline Products Div. of Western Lithograph Co., 600 E. Second St., Los Angeles 54, Calif.

MARKING STAMPS

See **STAMPS—Marking**

MASKS—Aperture

See **PARTS for COLOR TV TUBES**

MASKS—Television

Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
General Electric Co., Plastics Dept., Pittsfield, Mass.

MECHANICAL TOOLS

See **TOOLS—Hand or Mechanical**

MEGAPHONES—Electronic

Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

MEGOHMMETERS

See **INSTRUMENTS—Electrical Measuring**

MEGOHMMETERS—Vacuum Tube

ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 588.
Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
COMMUNICATION MEASUREMENTS LAB., INC., 350 Leland Ave., Plainfield, N. J. ADV. PG. 541.
El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.
Kuljian Corp., The, Electronics Div., 1200 N. Broad St., Philadelphia 21, Pa.
MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.
Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.

MEMORY DEVICES

See **DRUMS—Magnetic HEADS—Recording TAPE MECHANISMS**

MESH—Knitted Wire

See **TUBING—Woven or Knitted Wire**

METAL CONES—Television

See **CONES—Metal Television**

METAL CLAD SHEETS—(for Etched Circuits)

Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Mica Insulator Co., Schenectady 1, N. Y.
National Vulcanized Fibre Co., Wilmington, Del.
NEW ENGLAND LAMINATES CO., INC., 16 Dyke Lane, Stamford, Conn. ADV. PG. 556.
Panelite Div., St. Regis Paper Corp., 230 Park Ave., New York 17, N. Y.
Plastilight, Inc., Box 214, Stamford, Conn.
Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
Synthane Corp., Oaks, Pa.

METAL PARTS—Bushings

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
Aerolite Electronics Corp., 507 26th St., Union City, N. J.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
Anti-Corrosive Products Co., Castleton-on-Hudson, N. Y.
Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
Bud Radio, Inc., Dept. 5G, 2118 E. 55th St., Cleveland 3, Ohio.

CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.

Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
Eastern Specialty Co., Philadelphia 40, Pa.
Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.

Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
Excellex Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.

GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.

General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.

Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.

Insuline Corp. of America, 186 Granite St., Manchester, N. H.

Kaiser Manufacturing Engineers, Inc., Summit, N. J.
Kerr-Lakeside Industries, Inc., 21858 St. Clair Ave., Cleveland 17, Ohio.

Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.

MEINDELSONN SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.

P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.

Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.

Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.

St. Marys Carbon Company, State Rd., St. Marys, Pa.
Scovill Manufacturing Co., Waterbury 20, Conn.

Sinclair Mfg. Co., Chartley, Mass.
Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

Uniform Tubes, Level Rd., Collegeville 2, Pa.
U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.

Wall Mfg. Co., Grove City, Pa.
Wrought Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.

METAL PARTS—Castings

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
Alloy Precision Casting Co., E. 45th St. & Hamilton Ave., Cleveland 14, Ohio.

Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.

Arwood Precision Casting Corp., 75 Washington St., Brooklyn, N. Y.

Automatic Processing Corp., 121 S. Cowan St., Garrett, Ind.

Beryllium Corp., Reading, Pa.
Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.

Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.

Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.

CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.

Division Lead Co., 7742 W. 61st Place, Summit, Ill.
Dollin Corp., 600 S. 21st St., Irvington 11, N. J.

Engineered Precision Castings Co., Matawan Rd., Morganville, N. J.

Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.

Gries Reproducer Corp., 100 Willow Ave., 151 Beechwood St., New Rochelle, N. Y.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

Hitchiner Manufacturing Co., Inc., P. O. Box 232, Milford, N. H.

International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.

Investment Casting Co., 60 Brown Ave., Springfield, N. J.
Judd Co., H. L., 87 Chambers St., New York 7, N. Y.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

Misco Precision Casting Co., Gibbs & Larsen Sts., Whitehall, Mich.

Nilsen Mfg. Co., Addison, Ill.
Scovill Manufacturing Co., Waterbury 20, Conn.

Sorensen Industrial Electronic Co., Route 10, Dover, N. J.
Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
TEINER ENGINEERING CORP., 116 Madison St., Malden, Mass. ADV. PG. 524.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

METAL PARTS—Contacts

See **CONTACTS—Electrical**

METAL PARTS—Deep-Drawn

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
AMERICAN ALUMINUM CO., Sheffield St.,-C, Mountaintop, N. J. ADV. PG. 226.
American Brass Co., 414 Meadow St., Waterbury 20, Conn.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Cutler Metal Products Co., 1025 Line St., Camden, N. J.
Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.
Eastern Tool & Specialty Co., 1 Montgomery St., Belleville 9, N. J.
Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis, Mo.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 544, 545.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
Falstrom Co., 44 Falstrom Court, Passaic, N. J.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 622.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
GENERAL ELECTRIC CO., LAMP DIV., LAMP LEADS & BASES DEPT., 17825 St. Clair Ave., Cleveland 12, Ohio. ADV. PG. 22.
Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
HUDSON TOOL & DIE CO., 118 S. 14th St., Newark, N. J. ADV. PG. 419.
I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 42, 43.
Kaupp & Sons, C. B., 32 Newark Way, Maplewood, N. J.
Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., RIVERSIDE, N. J.
Kling Metal Spinning Co., 247 Centre St., New York 13, N. Y.
Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
Metpro, Inc., R. 1, 230 Toronto Ave., Providence, R. I.
Northern Metal Products Co., 9597 W. Grand Ave., Franklin Park, Ill.
Olympic Metal Products Co., Inc., Third Ave., Alpha, N. J.
Paul & Beekman, Inc., 1801 Cortland St., Philadelphia 40, Pa.
Pressed Metal Div., The Stanley Works, New Britain, Conn.
Repach Inc., Paul R., 641 E. 61st St., Los Angeles 1, Calif.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
Scovill Manufacturing Co., Waterbury 20, Conn.
Staver Co., Inc., Box 431, Bay Shore, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
Uniform Tubes, Level Rd., Collegeville 2, Pa.
UNITED-CARR FASTENER CORP., Cambridge 42, Mass. ADV. PG. 160.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 211.
Wall Mfg. Co., Grove City, Pa.
Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
Waterbury Pressed Metal Co., P-M Nut Div., 300 Chase Ave., Waterbury 14, Conn.
Worcester Pressed Aluminum Corp., 13-15 Hope Ave., Worcester, Mass.
Worcester Pressed Steel Co., 101 Barber Ave., Worcester 6, Mass.
ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 688.

METAL PARTS—Laminated
American Mica Insulation Co., Manasquan, N. J.
American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
General Findings & Supply Co., Industrial Div., Attleboro, Mass.
Henry & Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
Leach & Garner Co., Attleboro, Mass.

MAKEPEACE CO., D. E., DIV OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
 Sinclair Mfg. Co., Chartley, Mass.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.

METAL PARTS—Lead

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
GENERAL ELECTRIC CO., LAMP DIV., LAMP LEADS & BASES DEPT., 17825 St. Clair Ave., Cleveland 12, Ohio. ADV. PG. 22.
 Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
 Sinclair Mfg. Co., Chartley, Mass.

METAL PARTS—Powdered

Beryllium Corp., Reading, Pa.
 Keystone Carbon Co., Inc., Saint Marys, Pa.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
 St. Marys Carbon Company, State Rd., St. Marys, Pa.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
 U. S. Graphite Co., Div. of The Wickes Corp., 1621 Holland Ave., Saginaw, Mich.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.

METAL PARTS—Screw Machine

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
 Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
 Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
 Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
 American Hinge Corp., 206 Wallabout St., Brooklyn 6, N. Y.
 American Laubscher Corp., 250 W. 57th St., New York 19, N. Y.
 Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
 Art-Lloyd Metal Products Corp., 2973 Cropsy Ave., Brooklyn 14, N. Y.
ATLAS E-E CORP., Bedford Airport Terminal Bldg., Bedford, Mass. ADV. PG. 571.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Automatic Processing Corp., 121 S. Cowan St., Garrett, Ind.
 Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Eastern Specialty Co., Philadelphia 40, Pa.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Exceller Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 General Findings & Supply Co., Industrial Div., Attleboro, Mass.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
 Greer Stop Nut Co., 2620 W. Flournoy St., Chicago 12, Ill.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
 Hall-Scott, Inc., Electronic Div., 2950 N. Ontario, Burbank, Calif.

Hamilton-Pax, Inc., 3739 N. Kedzie Ave., Chicago 18, Ill.
 Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
 Hofmann Needle Works, Inc., Alfred, 3710 Hudson Ave., Union City, N. J.
 Hopkins Engineering Co., 2082 Lincoln Ave., Altadena, Calif.
 I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Judd Co., J. L., 87 Chambers St., New York 7, N. Y.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Kerr-Lakeside Industries, Inc., 21858 St. Clair Ave., Cleveland 17, Ohio.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
 Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Leach & Garner Co., Attleboro, Mass.
MENDELSON SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
O & S RESEARCH INC., 1319 Admiral Wilson Blvd., Camden 1, N. J. ADV. PG. 624.
 P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
 Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
 Pfeiffer Products, 3901 W. 54th St., Los Angeles 43, Calif.
 Pheoli Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
 Precise Instrument Parts Co., 4520 San Fernando Rd., Glendale 4, Calif.
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.
 Quaker City Gear Works, Red Lion & Philmont Rd., Bethayers, Pa.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
 Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N., Long Island City 1, N. Y.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Sinclair Mfg. Co., Chartley, Mass.
 Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Tallier & Cooper Co., 75 Front St., Brooklyn 1, N. Y.
 Torrington Co., Specialties Div., 37 Field St., Torrington, Conn.
 Tru-Connector Corp., 416 Union St., Lynn, Mass.
 United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.
U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.
 Viking Industries, Inc., 21343 Roscoe Blvd., Canoga Park, Calif.
 Wall Mfg. Co., Grove City, Pa.
 Waltham Screw Co., Waltham, Mass.
 Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.

METAL PARTS—Small Metal Stampings

A A Metal Products Inc., 154 Elliot St., Box 716, Brattleboro, Vt.
ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
 Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
 Accurate Spring Mfg. Co., 3811 W. Lake St., Chicago, Ill.
 Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
 Admiral Tool & Mfg. Co., 2354 N. Clybourn, Chicago, Ill.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610.
ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 476.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
AMERICAN ALUMINUM CO., Sheffield St.,-C, Mountaine, N. J. ADV. PG. 226.
 American Brass Co., 414 Meadow St., Waterbury 20, Conn.
 American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
 American Mica Insulation Co., Manasquan, N. J.
 Anti-Corrosive Products Co., Castleton-on-Hudson, N. Y.
 Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind.
ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 400.
ATLAS E-E CORP., Bedford Airport Terminal Bldg., Bedford, Mass. ADV. PG. 571.

Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
AUGAT BROS. INC., 33 Perry Ave., Attleboro, Mass. ADV. PG. 645.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Automatic Processing Corp., 121 S. Cowan St., Garrett, Ind.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol Conn. ADV. PG. 225.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 225.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 554.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.
 Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
 Bridgeport Metal Goods Mfg. Co., The, 360 Cherry St., Bridgeport 5, Conn.
 Bright Radio Labs, Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 Burken Lamination Corp., 811 Whittier St., Bronx 59, N. Y.
 Carroll Pressed Metal Co., 133 Dewey St., Worcester, Mass.
 Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
 Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
 Dante Electric Mfg. Co., Bantam, Conn.
 Doepke Mfg. Co., Inc., Chas. Wm., 1956 Emerald Ave., Rossmoyne, Ohio.
 Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.
 Dollin Corp., 600 S. 21st St., Irvington 11, N. J.
 Donnelly Mfg. Co., Div. of The Indian Co., 3050 Washington St., Boston 19, Mass.
 Eastern Specialty Co., Philadelphia 40, Pa.
 Eastern Tool & Mfg. Co., 1 Montgomery St., Belleville 9, N. J.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
ELCO CORP., "M" St. below Erie Ave., Philadelphia 24 Pa. ADV. PG. 569.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Ellis & Sons Inc., George D., 4002 N. American St., Philadelphia 40, Pa.
 Eltron Corp., St. Anne, Ill.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 544, 545.
 Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.
 Falstrom Co., 44 Falstrom Court, Passaic, N. J.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
 Federal Tool & Mfg. Co., 3600 Alabama Ave., Minneapolis 16, Minn.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
FORMICA METAL PRODUCTS CO., Corporation Way, Medford 55, Mass. ADV. PG. 606.
 Gemex Corp., The Industrial Products Div., 1200 Commerce Ave., Union, N. J.
GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 622.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
GENERAL ELECTRIC CO., LAMP DIV., LAMP LEADS & BASES DEPT., 17825 St. Clair Ave., Cleveland 12, Ohio. ADV. PG. 22.
 General Findings & Supply Co., Industrial Div., Attleboro, Mass.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
 General Tire & Rubber Co., Akron, Ohio.
GIBSON CO., WILLIAM D., THE, 1800 Claybourn Ave., Chicago 14, Ill. ADV. PG. 225.
GOAT CO., INC., FRED, 308 Dean St., Brooklyn 17, N. Y. ADV. PG. 506.
HELDOR MFG. CORP., 238 Lewis St., Paterson, N. J. ADV. PG. 482.

Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.

HEYMAN MFG. CO., Kenilworth 2, N. J. ADV. PG. 689.

Hobson Bros., 4940 W. Lawrence Ave., Chicago 30, Ill.

HUDSON TOOL & DIE CO., INC., 118 S. 14th St., Newark, N. J. ADV. PG. 419.

I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.

INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 678.

Insuline Corp. of America, 186 Granite St., Manchester, N. H.

JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 42, 43.

Judd Co., J. L., 87 Chambers St., New York 7, N. Y.

Kaiser Manufacturing Engineers, Inc., Summit, N. J.

Kaupp & Sons, C. B., 32 Newark Way, Maplewood, N. J.

Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.

Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J.

KING LABORATORIES, INC., 127 Solar St., Syracuse 3, N. Y. ADV. PG. 675.

Kling Metal Spinning Co., 247 Centre St., New York 13, N. Y.

Leach & Garner Co., Attleboro, Mass.

Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.

Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.

MENDELSONN SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.

Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.

Metpro, Inc., R. I., 230 Toronto Ave., Providence, R. I.

Microtronics, Inc., Porete Ave., North Arlington, N. J.

Mid-West Spring Mfg. Co., Mentone, Ind.

MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 225.

Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.

Mohawk Mfg. Co., Middletown, Conn.

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.

Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.

NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.

NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.

Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.

Northern Metal Products Co., 9597 W. Grand Ave., Franklin Park, Ill.

OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 225.

Olympic Metal Products Co., Inc., Third Ave., Alpha, N. J.

Paul & Beekman Inc., 1801 Cortland St., Philadelphia 40, Pa.

PATTON-MACGUYER CO., 17 Virginia Ave., Providence 5, R. I. ADV. PG. 304.

Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.

Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.

Permo, Inc., 6415 Ravenswood Ave., Chicago 26, Ill.

Pfeifer Products, 3901 W. 54th St., Los Angeles 43, Calif.

PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.

Pneumafil Corp., Charlotte, N. C.

Polan Industries Inc., P. O. Box 1720, Huntington, W. Va.

Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.

Pressed Metal Div., The Stanley Works, New Britain, Conn.

Quadruga Mfg. Co., 213 W. Grand Ave., Chicago 10, Ill.

R & R Tool & Die Corp., 12955 Sherman Way, North Hollywood, Calif.

Rada Products Co., 2911 W. Carroll Ave., Chicago 12, Ill.

Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.

RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 225.

Reliable Spring & Wire Forms Co., Fulton Rd. & Paris Ave., Cleveland 9, Ohio.

Repath Inc., Paul R., 641 E. 61st St., Los Angeles 1, Calif.

Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.

Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.

Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.

Schauer Mfg. Corp., 4521 Alpine Ave., Cincinnati 36, Ohio.

Scovill Manufacturing Co., Waterbury 20, Conn.

SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 225.

Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.

Sheffco Mfg. Corp., Grand & Ruby Aves, Palisades Park, N. J.

Sinclair Mfg. Co., Chertley, Mass.

Sorensen Industrial Electronic Co., Route 10, Dover, N. J.

South River Metal Products Co., 377-379 Turnpike, South River, N. J.

Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.

STAR EXPANSION PRODUCTS CO., 147 Cedar St., New York 6, N. Y. ADV. PG. 562.

Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.

Staver Co., Inc., Box 431, Bay Shore, N. Y.

Steinen Co., William, 43 Breun St., Newark 5, N. J.

Stewart Stamping Co., 630 Central Park Ave., Yonkers 4, N. Y.

Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.

Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.

THOMAS & SONS, INC., WILLIAM, Slocum Ave., Ridgefield, N. J. ADV. PG. 626.

Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.

Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.

UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 161.

Uniform Tubes, Level Rd., Collegeville 2, Pa.

UNITED-CARR FASTENER CORP., Cambridge 42, Mass. ADV. PG. 160.

United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.

UNITED SHOE MACHINERY CORP., 140 Federal St., Boston 7, Mass. ADV. PG. 250-251.

VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 211.

Wall Mfg. Co., Grove City, Pa.

Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.

Warren Plastics Corp., Warren, Pa.

Waterbury Pressed Metal Co., P-M Nut Div., 300 Chase Ave., Waterbury 14, Conn.

WENCO MFG. CO., 1133 W. Hubbard St., Chicago 22, Ill. ADV. PG. 598.

Winder Aircraft Corp., P. O. Box 2397, Lakeland, Fla.

Winzeler Mfg. & Tool Co., 1716 W. Arcade Place, Chicago 12, Ill.

Worcester Pressed Aluminum Corp., 13-15 Hope Ave., Worcester, Mass.

Worcester Pressed Steel Co., 101 Barber Ave., Worcester 6, Mass.

Wrought Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.

ZERO MFG. CO., 1121 Chestnut St., Burbank 71, Calif. ADV. PG. 688.

Zierick Mfg. Corp., Beechwood & Rockdale Aves., New Rochelle, N. Y.

METAL PARTS—Spinnings

Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.

AMERICAN ALUMINUM CO., Sheffield St.,-C, Mountain-side, N. J. ADV. PG. 226.

Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.

Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.

Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.

Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.

GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.

General Findings & Supply Co., Industrial Div., Attleboro, Mass.

Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.

Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.

I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.

I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.

Kaupp & Sons, C. B., 32 Newark Way, Maplewood, N. J.

Kling Metal Spinning Co., 247 Centre St., New York 13, N. Y.

Leach & Garner Co., Attleboro, Mass.

MENDELSONN SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.

Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.

Newark Spinning & Stamping Co., 472 Bloy St., Hillside, N. J.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

Teiner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.

TEINER ENGINEERING CORP., 116 Madison St., Malden, Mass. ADV. PG. 524.

Uniform Tubes, Level Rd., Collegeville 2, Pa.

METAL PARTS—Trimings

Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.

BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.

Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.

Bright Radio Labs, Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.

Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.

Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.

Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.

I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.

Minute Man Products, Inc., 430 E. 102nd St., New York, N. Y.

NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.

Winder Aircraft Corp., P. O. Box 2397, Lakeland, Fla.

METALLIC OXIDE
See RECTIFIERS**METALS, ALLOYS, METALLIC OXIDES & COMPOUNDS****Alnico**

ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 404, 405.

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.

INDIANA STEEL PRODUCTS CO., Valparaiso, Ind. ADV. PG. 204.

Somers Brass Co., 94 Baldwin St., Waterbury, Conn.

THOMAS & SKINNER INC., 1122 E. 23rd St., Indianapolis, Ind. ADV. PG. 672.

Aluminum

Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.

Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.

Federated Metals Div. American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.

General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.

Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.

Kaiser Aluminum & Chemical Sales, Inc., 1924 Broadway, Oakland 12, Calif.

Mallinckrodt Chemical Works, Second and Mallinckrodt Sts., St. Louis 7, Mo.

National Lead Co., 111 Broadway, New York 6, N. Y.

Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.

Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky.

Scovill Manufacturing Co., Waterbury 20, Conn.

UTILITY BRASS & COPPER CORP., 255 Conover St., Brooklyn 31, N. Y. ADV. PG. 693.

Antimony

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.

Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.

Barium & Chemicals, Inc., Willoughby, Ohio.

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

Division Lead Co., 7742 W. 61st Place, Summit, Ill.

Federated Metals Div. American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.

General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.

Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.

Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.

Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.

National Lead Co., 111 Broadway, New York 6, N. Y.

Barium Compounds

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.

Barium & Chemicals, Inc., Willoughby, Ohio.

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.

Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.

KING LABORATORIES, INC., 127 Solar St., Syracuse 3, N. Y. ADV. PG. 675.

Beryllium and Beryllium Alloys

American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.

Beryllium Corp., Reading, Pa.

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

Brush Beryllium Co., The, 4301 Perkins Ave., Cleveland 3, Ohio.

Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.

Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.

Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.

Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.

Boron

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.

Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.

Norton Co., 1 New Bond St., Worcester 6, Mass.

Brass and Bronze

American Brass Co., 414 Meadow St., Waterbury 20, Conn.

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
 Bristol Brass Co., 580 Broad St., Bristol, Conn.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J.
 Leach & Garner Co., Attleboro, Mass.
 New Jersey Zinc Co., 160 Front St., New York 38, N. Y.
 Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
 Phosphor Bronze Corp., 25 Franklin St., Seymour, Conn.
 Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.
 Titan Metal Mfg. Co., Bellefonte, Pa.
UTILITY BRASS & COPPER CORP., 255 Conover St., Brooklyn 31, N. Y. ADV. PG. 693.

Cadmium

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
 American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
 Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Gibson Electric Co., 8361 Frankstown Ave., Pittsburgh 21, Pa.
HARMON LICHTENSTEIN & CO., 25 Beaver St., New York 4, N. Y. ADV. PG. 667.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 New Jersey Zinc Co., 160 Front St., New York 38, N. Y.

Cesium Compounds

(For Photo-Tubes)

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Dow Chemical Co., Midland, Mich.
 Foote Mineral Co., 452-18 W. Chelton Ave., Philadelphia 44, Pa.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
KING LABORATORIES, INC., 127 Solar St., Syracuse 3, N. Y. ADV. PG. 675.

Chromium

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Electro Metallurgical Co., A Div. of Union Carbide and Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Metal & Thermit Corp., Rahway, N. J.

Cobalt

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Murex Ltd., Rainham, Essex, England.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

Coefficient Metals

ALLOY METAL WIRE DIV. OF H. K. PORTER CO., INC., Prospect Park, Pa. ADV. PG. 148.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Cannon-Muskegon Corp., 2885 Lincoln St., Muskegon, Mich.
 Carpenter Steel Co., 142 W. Bern St., Reading, Pa.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.
 Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.

Columbium

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Electro Metallurgical Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Murex Ltd., Rainham, Essex, England.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

Copper

American Brass Co., 414 Meadow St., Waterbury 20, Conn.

American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
 American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
 Attleboro Refining Co., Inc., Attleboro, Mass.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Beryllium Corp., Reading, Pa.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
 Bristol Brass Co., 580 Broad St., Bristol, Conn.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
GAR PRECISION PARTS, INC., 703 Pacific St., Stamford, Conn. ADV. PG. 420.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Leach & Garner Co., Attleboro, Mass.
 Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 New Jersey Zinc Co., 160 Front St., New York 38, N. Y.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., 4400 New Haven Ave., Fort Wayne, Ind. ADV. PG. 60, 61.
 Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Somers Brass Co., 94 Baldwin St., Waterbury, Conn.
UTILITY BRASS & COPPER CORP., 255 Conover St., Brooklyn 31, N. Y. ADV. PG. 693.

Electric Sheets—See Steel, Electric**Foil-Aluminum, Tin or Lead**

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
 Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
 Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Johnston Foil Mfg. Co., 6100 S. Broadway, St. Louis 11, Mo.
REPUBLIC FOIL & METAL MILLS, INC., 55 Triangle St., Danbury, Conn. ADV. PG. 200.
 Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
 Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky.

Germanium

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
 American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
HARMON LICHTENSTEIN & CO., 25 Beaver St., New York 4, N. Y. ADV. PG. 667.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Kemtron Electron Products, Inc., 5 Prince Place, Newbury Port, Mass.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
SEMIMETALS, INC., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 568.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Gold and Gold Alloys

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
 American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
AMERICAN PLATINUM WORKS, N. J. R. R. Ave. at Oliver St., Newark 5, N. J. ADV. PG. 654.
 American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
 Attleboro Refining Co., Inc., Attleboro, Mass.
 Baker & Co., Inc., 113 Astor St., Newark 5, N. J.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Bishop & Co., J., Platinum Works, Malvern, Pa.
BRAININ CO., C. S., 320 Washington St., Mt. Vernon, N. Y. ADV. PG. 490.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 620.
 Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
 Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
 Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 206.

IMPROVED SEAMLESS WIRE CO., 775 Eddy St., Providence 5, R. I. ADV. PG. 434.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Leach & Garner Co., Attleboro, Mass.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
METZ REFINING CO., 369 Mulberry St., Newark 2, N. J. ADV. PG. 543.
 Nesor Alloy Products Co., 282 Halsey St., Newark 2, N. J.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
 Secor Metals Corp., 7 Intervale St., White Plains, N. Y.
SEL-REX PRECIOUS METALS DIV. OF BART-MESSING CORP., 229 Main St., Belleville, N. J. ADV. PG. 461.
 Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
TECHNIC, INC., P. O. Box 965, Providence 1, R. I. ADV. PG. 572.
 Western Gold & Platinum Works, 589 Bryant St., San Francisco, Calif.
 Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

High Permeability Alloys

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
 American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Arco Steel Corp., 703 Curtis St., Middletown, Ohio.
ARNOLD ENGINEERING CO., Marengo, Ill. ADV. PG. 404, 405.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Cannon-Muskegon Corp., 2885 Lincoln St., Muskegon, Mich.
 Carpenter Steel Co., The, 142 W. Bern St., Reading, Pa.
CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.
 Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
 Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.
SEL-REX PRECIOUS METALS DIV. OF BART-MESSING CORP., 229 Main St., Belleville, N. J. ADV. PG. 461.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

Laminated Metals

ALLOY METAL WIRE DIV. OF H. K. PORTER CO., INC., Prospect Park, Pa. ADV. PG. 148.
 American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
IMPROVED SEAMLESS WIRE CO., 775 Eddy St., Providence 5, R. I. ADV. PG. 434.
 Leach & Garner Co., Attleboro, Mass.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
 Somers Brass Co., 94 Baldwin St., Waterbury, Conn.
 Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
UTILITY BRASS & COPPER CORP., 255 Conover St., Brooklyn 31, N. Y. ADV. PG. 693.

Lead

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
 American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
 Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
 Bar-Ray Products, Inc., 209-25th St., Brooklyn 32, N. Y.
BOW SOLDER PRODUCTS CO., INC., 251 Freeman St., Brooklyn 22, N. Y. ADV. PG. 50.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Dunton Co., M. W., 7 Goff St., Providence, R. I.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
 Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
HARMON LICHTENSTEIN & CO., 25 Beaver St., New York 4, N. Y. ADV. PG. 667.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 National Lead Co., 111 Broadway, New York 6, N. Y.

Lithium Compounds (for cathode tube screen setting)

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.

- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- Foot Mineral Co., 452-18 W. Chelton Ave., Philadelphia 44, Pa.
- Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
- Magnesium**
- BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- Dow Chemical Co., Midland, Mich.
- Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
- General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
- Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
- Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
- Magnetic Iron Oxide (for cores)**
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- CARBOLOY DEPT. OF GENERAL ELECTRIC CO., Box 237, Roosevelt Park Annex, Detroit 32, Mich. ADV. PG. 20, 21.
- Foot Mineral Co., 452-18 W. Chelton Ave., Philadelphia 44, Pa.
- GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
- General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
- Magnetic Powders, Inc., 1000 Fairview Ave., Johnsonburg, Pa.
- NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
- WILLIAMS & CO., C. K., 640 N. 13th St., Easton, Pa. ADV. PG. 671.
- Magnetic Powdered**
- ANTARA CHEMICALS DIV. OF GENERAL ANILINE & FILM CORP., 435 Hudson St., New York 14, N. Y. ADV. PG. 217.
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- Foot Mineral Co., 452-18 W. Chelton Ave., Philadelphia 44, Pa.
- Magnetic Powders, Inc., 1000 Fairview Ave., Johnsonburg, Pa.
- NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.
- WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
- WILLIAMS & CO., C. K., 640 N. 13th St., Easton, Pa. ADV. PG. 671.
- Magnetostriction**
- See Nickel & Nickel Alloys
- Manganese**
- BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- Electro Metallurgical Co., A Div. of Union Carbide and Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
- Foot Mineral Co., 452-18 W. Chelton Ave., Philadelphia 44, Pa.
- General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
- Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
- Mercury**
- BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
- General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
- Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
- Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
- Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
- Western Gold & Platinum Works, 589 Bryant St., San Francisco, Calif.
- Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.
- Molybdenum**
- Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
- BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- Electro Metallurgical Co., A Div. of Union Carbide and Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
- ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.
- Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
- General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
- General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
- Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
- Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
- METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
- Murex Ltd., Rainham, Essex, England.
- North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
- REMBAR CO., THE, 117 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.
- SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727, 733.
- Molybdenum Ribbon**
- Associated Engineering & Mfg. Co., Glen Ridge, N. J.
- CROSS CO., H., 15 Beekman St., New York 38, N. Y. ADV. PG. 538.
- Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
- General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
- Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
- METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
- Murex Ltd., Rainham, Essex, England.
- North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Me.
- REMBAR CO., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.
- Nickel and Nickel Alloys**
- ALLOY METAL WIRE DIV. OF H. K. PORTER CO., INC., Prospect Park, Pa. ADV. PG. 148.
- American Silver Co., Inc., 36-37 Prince St., Flushing 54, N. Y.
- Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
- BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
- BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
- Beryllium Corp., Reading, Pa.
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- Cannon-Muskegon Corp., 2885 Lincoln St., Muskegon, Mich.
- Carpenter Steel Co., The, 142 W. Bern St., Reading, Pa.
- Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
- CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.
- DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.
- DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.
- ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.
- GAR PRECISION PARTS, INC., 703 Pacific St., Stamford, Conn. ADV. PG. 420.
- General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
- Gibson Electric Co., 8361 Frankstown Ave., Pittsburgh 21, Pa.
- Haynes Stellite Co., A Div. of Union Carbide and Carbon Corp., 725 S. Lindsay St., Kokomo, Indiana.
- International Nickel Co., Inc., 57 Wall St., New York 5, N. Y.
- Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J.
- Leach & Garner Co., Attleboro, Mass.
- Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
- National Lead Co., 111 Broadway, New York 6, N. Y.
- New Jersey Zinc Co., 160 Front St., New York 38, N. Y.
- North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
- Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
- Phosphor Bronze Corp., 25 Franklin St., Seymour, Conn.
- Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
- Seccon Metals Corp., 7 Intervale St., White Plains, N. Y.
- SEL-REX PRECIOUS METALS DIV. OF BART-MESSING CORP., 229 Main St., Belleville, N. J. ADV. PG. 461.
- Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.
- Standard Telephone & Cable, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
- Telegraph Construction & Maintenance Co., Ltd., Telson Works, Greenwich, London S.E. 10, England.
- WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
- Nickel Ribbon**
- ALLOY METAL WIRE, DIV. OF H. K. PORTER CO., INC., Prospect Park, Pa., ADV. PG. 148.
- DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.
- DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.
- Seccon Metals Corp., 7 Intervale St., White Plains, N. Y.
- SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
- Palladium**
- American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
- AMERICAN PLATINUM WORKS, N. J. R. R. Ave. at Oliver St., Newark 5, N. J. ADV. PG. 654.
- Baker & Co., Inc., 113 Astor St., Newark 5, N. J.
- BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
- Bishop & Co., J., Platinum Works, Malvern, Pa.
- BRAININ CO., C. S., 320 Washington St., Mt. Vernon, N. Y. ADV. PG. 490.
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 620.
- Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
- Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
- Goldsmith Bros. Smelting & Refining, 111 N. Wabash Ave., Chicago 2, Ill.
- HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 206.
- Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
- Leach & Garner Co., Attleboro, Mass.
- Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
- METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro Mass. ADV. PG. 525.
- METZ REFINING CO., 369 Mulberry St., Newark 2, N. J. ADV. PG. 543.
- Nesor Alloy Products Co., 282 Halsey St., Newark 2, N. J.
- NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
- Seccon Metals Corp., 7 Intervale St., White Plains, N. Y.
- SEL-REX PRECIOUS METALS DIV. OF BART-MESSING CORP., 229 Main St., Belleville, N. J. ADV. PG. 461.
- TECHNIC INC., P. O. Box 965, Providence 1, R. I. ADV. PG. 572.
- Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
- Western Gold & Platinum Works, 589 Bryant St., San Francisco, Calif.
- Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.
- Platinum**
- American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
- AMERICAN PLATINUM WORKS, N. J. R. R. Ave. at Oliver St., Newark 5, N. J. ADV. PG. 654.
- Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
- Baker & Co., Inc., 113 Astor St., Newark 5, N. J.
- BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
- Bishop & Co., J., Platinum Works, Malvern, Pa.
- BRAININ CO., C. S., 320 Washington St., Mt. Vernon, N. Y. ADV. PG. 490.
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 620.
- Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
- Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
- Goldsmith Bros. Smelting & Refining, 111 N. Wabash Ave., Chicago 2, Ill.
- HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 206.
- Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
- Leach & Garner Co., Attleboro, Mass.
- Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
- METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro Mass. ADV. PG. 525.
- METZ REFINING CO., 369 Mulberry St., Newark 2, N. J. ADV. PG. 543.
- Nesor Alloy Products Co., 282 Halsey St., Newark 2, N. J.
- NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
- Seccon Metals Corp., 7 Intervale St., White Plains, N. Y.
- SEL-REX PRECIOUS METALS DIV. OF BART-MESSING CORP., 229 Main St., Belleville, N. J. ADV. PG. 461.
- TECHNIC INC., P. O. Box 965, Providence 1, R. I. ADV. PG. 572.
- Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
- Western Gold & Platinum Works, 589 Bryant St., San Francisco, Calif.
- Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.
- Polonium**
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- Canadian Radium & Uranium Corp., 630 Fifth Ave., New York 20, N. Y.
- Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

Powdered

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
 American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
 Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
 ANTARA CHEMICALS DIV. OF GENERAL ANILINE & FILM CORP., 435 Hudson St., New York 14, N. Y. ADV. PG. 217.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Carborundum Metals Co., Inc., The, P. O. Box 32, Akron, N. Y.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
 Gibson Electric Co., 8361 Frankstown Ave., Pittsburgh 21, Pa.
 Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
 HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 206.
 Magnetic Powders, Inc., 1000 Fairview Ave., Johnsonburg, Pa.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Metal Hydrides, Inc., Beverly, Mass.
 Murex Ltd., Rainham, Essex, England.
 New Jersey Zinc Co., 160 Front St., New York 38, N. Y.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W.C. 2, England.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

Powders, Nonmagnetic—Iron Oxide

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 COLUMBIAN CARBON CO., MAPICO COLOR DIV., 380 Madison Ave., New York 17, N. Y. ADV. PG. 632.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 WILLIAMS & CO., C. K., 640 N. 13th St., Easton, Pa. ADV. PG. 671.

Radium

Canadian Radium & Uranium Corp., 630 Fifth Ave., New York 20, N. Y.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

Silicon

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Dow Corning Corp., Midland, Mich.
 du Pont de Nemours & Co., Inc., E. 1, Wilmington 98, Del.
 Electro Metallurgical Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Kemtron Electron Products, Inc., 5 Prince Place, Newbury Port, Mass.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 SEMIMETALS, INC., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 568.
 SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Silver

American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
 AMERICAN PLATINUM WORKS, N. J. R. R. Ave. at Oliver St., Newark 5, N. J. ADV. PG. 654.
 American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
 Attleboro Refining Co., Inc., Attleboro, Mass.
 Baker & Co., Inc., 113 Astor St., Newark 5, N. Y.
 BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
 BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Bishop & Co., J., Platinum Works, Malvern, Pa.
 BRAININ CO., C. S., 320 Washington St., Mt. Vernon, N. Y. ADV. PG. 490.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
 Eastern Smelting & Refining Corp., 107-109 Brookline St., Boston 18, Mass.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
 HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 206.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Leach & Garner Co., Attleboro, Mass.
 MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
 MALLORY & CO., INC., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

METZ REFINING CO., 369 Mulberry St., Newark 2, N. J. ADV. PG. 543.
 North American Phillips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
 Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
 SEL-REX PRECIOUS METALS DIV. OF BART-MESSING CORP., 229 Main St., Belleville, N. J. ADV. PG. 461.
 Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
 Western Gold & Platinum Works, 589 Bryant St., San Francisco, Calif.
 Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

Silver Alloys and Compounds

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
 American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
 Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
 Baker & Co., Inc., 113 Astor St., Newark 5, N. J.
 BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 BRAININ CO., C. S., 320 Washington St., Mt. Vernon, N. Y. ADV. PG. 490.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
 Gibson Electric Co., 8361 Frankstown Ave., Pittsburgh 21, Pa.
 Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
 HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 206.
 Leach & Garner Co., Attleboro, Mass.
 MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
 Mallinckrodt Chemical Works, Second and Mallinckrodt Sts., St. Louis 7, Mo.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
 METZ REFINING CO., 369 Mulberry St., Newark 2, N. J. ADV. PG. 543.
 North American Phillips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
 Secon Metals Co., 7 Intervale St., White Plains, N. Y.
 SEL-REX PRECIOUS METALS DIV., OF BART-MESSING CORP., 229 Main St., Belleville, N. J. ADV. PG. 461.
 Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
 Western Gold & Platinum Works, 589 Bryant St., San Francisco, Calif.
 Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

Steel

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
 Armco Steel Corp., 703 Curtis St., Middletown, Ohio.
 Cannon-Muskegon Corp., 2885 Lincoln St., Muskegon, Mich.
 Carpenter Steel Co., 142 W. Bern St., Reading, Pa.
 CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.
 U. S. Steel Corp., 525 William Penn Place, Pittsburgh 30, Pa.

Steel, Electric

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
 Armco Steel Corp., 703 Curtis St., Middletown, Ohio.
 Carpenter Steel Co., 142 W. Bern St., Reading, Pa.
 CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 U. S. Steel Corp., 525 William Penn Place, Pittsburgh 30, Pa.

Steel, Stainless

Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
 ALLOY METAL WIRE, DIV. OF H. K. PORTER CO., INC., Prospect Park, Pa. ADV. PG. 148.
 American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Armco Steel Corp., 703 Curtis St., Middletown, Ohio.
 Cannon-Muskegon Corp., 2885 Lincoln St., Muskegon, Mich.
 Carpenter Steel Co., The, 142 W. Bern St., Reading, Pa.
 CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.
 DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.
 DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.
 Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.

Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.
 U. S. Steel Corp., 525 William Penn Place, Pittsburgh 30, Pa.

Strontium Compounds

BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
 Barium & Chemicals, Inc., Willoughby, Ohio.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Foote Mineral Co., 452-18 W. Chelton Ave., Philadelphia 44, Pa.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 KING LABORATORIES INC., 127 Solar St., Syracuse 3, N. Y. ADV. PG. 675.

Tantalum

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Electro Metallurgical Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Murex Ltd., Rainham, Essex, England.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

Thermoelectric Bi-Metals

See BI-METALS—Thermoelectric

Tin

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
 American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
 Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
 BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
 BOW SOLDER PRODUCTS CO., INC., 251 Freeman St., Brooklyn 22, N. Y. ADV. PG. 50.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Dunton Co., M. W., 7 Goff St., Providence, R. I.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Metal & Thermit Corp., Rahway, N. J.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 SEL-REX PRECIOUS METALS DIV., OF BART-MESSING CORP., 229 Main St., Belleville, N. J. ADV. PG. 461.
 Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.

Titanium

American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.
 du Pont de Nemours & Co., Inc., E. 1, Wilmington 98, Del.
 Electro Metallurgical Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Metal Hydrides, Inc., Beverly, Mass.
 METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 New Jersey Zinc Co., 160 Front St., New York 38, N. Y.
 Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
 Secon Metals Corp., 7 Intervale St., White Plains, N. Y.

Tungsten

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
 BAKER CHEMICAL CO., J. T., Phillipsburg, N. J. ADV. PG. 622.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Electro Metallurgical Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
 General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Murex Ltd., Rainham, Essex, England.
 North American Phillips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
 REMBAR CO., THE, 117 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.
 SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Tungsten Ribbon

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.

CROSS CO., H., 15 Beekman St., New York 38, N. Y. ADV. PG. 538.
General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
Micro-Wire Stranding Co., 252 Chestnut St., Passaic, N. J.
Murex Ltd., Rainham, Essex, England.
North American Phillips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
REMBAR CO., THE, 117 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Uranium
BAKER CHEMICAL CO., J. T., Philipsburg, N. J. ADV. PG. 622.
Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.

Vacuum Melted
Cannon-Muskegon Corp., 2885 Lincoln St., Muskegon, Mich.
CARBOLLOY DEPT. OF GENERAL ELECTRIC CO., Box 237, Roosevelt Park Annex, Detroit 32, Mich. ADV. PG. 20, 21.
CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.
Vacuum Metals Corp., P. O. Box 977, Syracuse 1, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

Zinc
American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
BAKER CHEMICAL CO., J. T., Philipsburgh, N. J. ADV. PG. 622.
Division Lead Co., 7742 W. 61st Place, Summit, Ill.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
HARMON LICHTENSTEIN & CO., 25 Beaver St., New York 4, N. Y. ADV. PG. 667.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
Mallinckrodt Chemical Works, Second & Mallinckrodt Sts., St. Louis 7, Mo.
National Lead Co., 111 Broadway, New York 6, N. Y.
New Jersey Zinc Co., 160 Front St., New York 38, N. Y.
SEL-REX PRECIOUS METALS DIV. OF BART-MESSING CORP., 229 Main St., Belleville, N. J. ADV. PG. 461.

Zirconium
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
Carborundum Metals Co., Inc., The, P. O. Box 32, Akron, N. Y.
Electro Metallurgical Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
Foote Mineral Co., 452-18 W. Chelton Ave., Philadelphia 44, Pa.
General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
Metal Hydrides, Inc., Beverly, Mass.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
Murex Ltd., Rainham, Essex, England.
National Lead Co., 111 Broadway, New York 6, N. Y.
Secor Metals Corp., 7 Intervale St., White Plains, N. Y.

METEOROLOGICAL EQUIPMENT—Electronic
Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 673.
Beckman & Whitley, Inc., 913 San Carlos Ave., San Carlos, Calif.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
Friez Instrument Division, Bendix Aviation Corp., Baltimore 4, Md.
Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W.C. 2, England. ADV. PG. 181.
Northeastern Engineering, Inc., Manchester, N. H.
Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
Victory Engineering Corp., 101 Springfield Rd., Union, N. J.

METERS—Acceleration
 See ACCELEROMETERS

METERS—Attenuation
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.

METERS—Cable Testing
Color Television, Inc., 973 E. San Carlos Ave., San Carlos, Calif.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge, Mass. ADV. PG. 109, 110.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
PHYSICS RESEARCH LABS, INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
Radar Engineers, 403 E. 45th St., Seattle 5, Wash.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

METERS—Conductance
BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 481.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
Marconi Instruments, 44 New St., New York 4, N. Y.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

METERS—Counting Rate
Bristol Co., The, Waterbury 20, Conn.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif., ADV. PG. 589.
Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
Douglas Radio Labs., 176 Norfolk Ave., Boston 19, Mass.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
Electronic Products Co., 111 E. Third St., Mt. Vernon, N. Y.
El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.
Leighton Labs., H. W., Sunset Lane & York Rd., Harbor, Pa.
National Radiac, Inc., 475 Washington St., Newark, N. J.
Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
Nucleonic Company of America, 196 DeGraw St., Brooklyn 31, N. Y.
Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.
Ransom Research, P. O. Box 382, San Pedro, Calif.
Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.
Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.
Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

METERS—d'Arsonval
 See Also Galvanometers
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
Beede Electrical Instrument Co., Inc., Penacook, N. H.
Bristol Co., The, Waterbury 20, Conn.
Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
Electric Design & Mfg. Corp., Burlington, Iowa.
Gar Electrical Instrument Corp., 92-15 172nd St., Jamaica 33, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
HOYT ELECTRICAL INSTRUMENT WORKS, INC., 42 Carleton St., Cambridge 42, Mass. ADV. PG. 452.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS, INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

METERS—Decibel
BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 23.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Beede Electrical Instrument Co., Inc., Penacook, N. H.
Clough-Bregle Co., 6014 N. Broadway, Chicago, Ill. ADV. PG. 23.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
DuMont Laboratories, Inc., Allen B., Technical Products Div. 760 Bloomfield Ave., Clifton, N. J.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.
Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

METERS—Distortion and Noise
Audio Instrument Co., Inc., 133A W. 14th St., New York 11, N. Y.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 574.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
EMPIRE DEVICES PRODUCTS CORP., 38-25 Bell Blvd., Bayside 61, N. Y. ADV. PG. 424.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 422.
Metronix, Inc., P. O. Box 549, New London, Conn.
Northeast Electronics Corp., Municipal Airport Bldg., Concord, N. H.

METERS—Elapsed Time
Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
Bristol Co., The, Waterbury 20, Conn.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. ADV. PG. 387.
DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind.
Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

HAYDON CO., A. W., 238 N. Elm St., Waterbury, Conn. ADV. PG. 613.
 Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.
 Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 565.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 Ransom Research, P. O. Box 382, San Pedro, Calif.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

METERS—Electronic Capacitance
METERS—Field Strength
 See INSTRUMENTS—Electrical Measuring

METERS—Flow, Electronic
 Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bristol Co., The, Waterbury 20, Conn.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Hastings Instrument Co., Inc., Hampton 9, Va.
 Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
 Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Norwood Controls Unit, Detroit Controls Corp., 934 Washington St., Norwood, Mass.
 Nuclear Research Corp., Southampton, Pa.
 Potter Aeronautical Co., Route #22, Union, N. J.

METERS—Flutter
 See METERS—Wow and Flutter

METERS—F-M Deviation
 See INSTRUMENTS—Electrical Measuring

METERS—Footcandle
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Zoomar, Inc., Glen Cove, N. Y.

METERS—Frequency
 See INSTRUMENTS—Electrical Measuring

METERS—Frequency, Microwave
 See MICROWAVE ACCESSORIES

METERS—Grid Dip
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 422.
 Metronix, Inc., P. O. Box 549, New London, Conn.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.

METERS—Impedance
 See INSTRUMENTS—Electrical Measuring

METERS—Light
DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Zoomar, Inc., Glen Cove, N. Y.

METERS—Microwave
FEDERAL TELEPHONE & RADIO CO., DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Greibach Instruments Corp., Metuchen, N. J.
 Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
STODDART AIRCRAFT RADIO CO., 6644 Santa Monica Blvd., Hollywood 38, Calif. ADV. PG. 509.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio, ADV. PG. 244.

METERS—Microwave
 See MICROWAVE ACCESSORIES

METERS—Modulation
 See INSTRUMENTS—Electrical Measuring

METERS—Moisture, Electronic
 Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bristol Co., The, Waterbury 20, Conn.
 Delmhorst Instrument Co., 601 Cedar St., Boonton, N. J.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Moisture Register Co., 1510 W. Chestnut St., Alhambra, Calif.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Precision Scientific Co., 3737 W. Cortland Ave., Chicago 47, Ill.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

METERS—Null
METERS—Output
METERS—Panel
 See INSTRUMENTS—Electrical Measuring

METERS—pH Meters, Recorders & Comparators
 Analytical Measurements, Inc., 585 Main St., Chatham, N. J.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill., ADV. PG. 68.
 Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
 Coleman Instruments, Inc., 318 Madison St., Maywood, Ill.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 La Motte Chemical Products Co., Towson 4, Baltimore, Md.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.

Precision Scientific Co., 3737 W. Cortland St., Chicago 47, Ill.
 Q.V.S. Inc., 20 N. 15th St., East Orange, N. J.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

METERS—Phase Angle
 See INSTRUMENTS—Electrical Measuring

METERS—Photoelectric Reflection
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

METERS—Power Factor
 See INSTRUMENTS—Electrical Measuring

METERS—Power, Microwave
 See MICROWAVE ACCESSORIES

METERS—Power Output
 Airmec, Ltd., High Wycombe, Buckinghamshire, England.
 Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bristol Co., The, Waterbury 20, Conn.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Fluke Mfg. Co., Inc., John, 1111 W. Nickerson St., Seattle 99, Wash.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Marconi Instruments, 44 New St., New York 4, N. Y.
 Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

METERS—Q
METERS—RF Power
 See INSTRUMENTS—Electrical Measuring

METERS—Sound Level
 Beede Electrical Instrument Co., Inc., Penacook, N. H.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
DYNA-EMPIRE, INC., 1075 Steuart Ave., Garden City, N. Y. ADV. PG. 574.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. ADV. PG. 476.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

METERS—Standing Wave Ratio
 See INSTRUMENTS—Electrical Measuring

METERS—Thermocouple
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Beede Electrical Instrument Co., Inc., Penacook, N. H.
 Bristol Co., The, Waterbury 20, Conn.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 519.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas. ADV. PG. 476.

J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.
 MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
 SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
 SIMPSON ELECTRIC CO. DIV., AMERICAN GAGE & MACHINE CO., 5218 Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 TRIPLET ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

METERS—Vibration

Advanced Electronics, Inc., 95 Silas Deane Highway, Rocky Hill, Conn.
 BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 CALIDYNE CO., THE, 120 Cross St., Winchester, Mass. ADV. PG. 593.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 DUBROW DEVELOPMENT CO., 235 B Penn St., Burlington, N. J. ADV. PG. 380.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Erwood, Inc., 1770 Berteau Ave., Chicago 13, Ill.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Cleveland 16, Ohio.
 Kybernetics Co., 9 E. 40th St., New York 16, N. Y.
 MB MFG. CO., A DIV. OF TETRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 496.
 Technical Instrument Co., 3732 Westheimer Rd., Houston 6, Texas.

METERS—Viscosity, Electronic

Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
 BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Bristol Co., The, Waterbury 20, Conn.
 DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
 FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
 INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 Precision Scientific Co., 3737 W. Cortland Ave., Chicago 47, Ill.

METERS—Wave

See INSTRUMENTS—Electrical Measuring

METERS—Wow and Flutter

Amplifier Corp. of America, 396 Broadway, New York 13, N. Y.
 BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 D & R Ltd., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif.
 DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
 FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

METERS—X-Ray Intensity

See INSTRUMENTS—Electrical Measuring

MICA

See INSULATION MATERIALS

MICROAMMETERS**MICROFARADIMETERS**

See INSTRUMENTS—Electrical Measuring

MICROMANOMETERS

Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

MICROMETERS—Electronic

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 KAY-LAB, 5725 Kearney Villa Rd., San Diego 12, Calif. ADV. PG. 407.
 Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.

MICRO-MICROAMMETERS

See INSTRUMENTS—Electrical Measuring

MICRO-OHMMETERS

Bristol Co., The, Waterbury 20, Conn.
 Dice Co., J. W., Englewood, N. J.
 Greibach Instruments Corp., Metuchen, N. J.
 Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
 WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTRON, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

MICROPHONES—Aircraft Type

American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Miles Reproducer Co., Inc., 812 Broadway, New York 3, N. Y.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Remler Co., 2101 Bryant St., San Francisco 10, Calif.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
 Sears Co., M. J., Delaware County, Roxbury, N. Y.
 Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
 Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Carbon

American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
 Astatic Corporation, The, Conneaut, Ohio.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Liberty Industries, 107-37 71 Ave., Forest Hills, N. Y.
 Miles Reproducer Co., Inc., 812 Broadway, New York 3, N. Y.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Sears Co., M. J., Delaware County, Roxbury, N. Y.
 SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Super Ear Products Co., 675 Merrick Rd., Lynbrook, N. Y.
 Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
 Universal Microphone Co., Box 55, Inglewood, Calif.
 UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

MICROPHONES—Condenser

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
 Arnhold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.

Audio Instrument Co., Inc., 133A W. 14th St., New York 11, N. Y.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
 Electrovert Inc., 489 Fifth Ave., New York 17, N. Y.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Stephens Mfg. Corp., 8538 Warner Drive, Culver City, Calif.
 Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Contact

American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 Miles Reproducer Co., Inc., 812 Broadway, New York 3, N. Y.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
 Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Crystal

American Microphone Co., 370 So. Fair Oaks Ave., Pasadena 1, Calif.
 Astatic Corporation, The, Conneaut, Ohio.
 BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
 Chesapeake Instrument Corp., Shadyside, Md.
 DYNA-EMPIRE, INC., 1975 Stewart Ave., Garden City, N. Y. ADV. PG. 574.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Mohawk Business Machines Corp., 944 Halsey St., Brooklyn 33, N. Y.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
 SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Tibbetts Industries, Inc., Camden, Maine.
 Turner Co., The, 990 17th St., N. E., Cedar Rapids, Iowa.
 Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Dynamic

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
 American Microphone Co., 370 So. Fair Oaks Ave., Pasadena 1, Calif.
 AMPERITE CO., INC., 561 Broadway, New York 12, N. Y. ADV. PG. 454.
 Astatic Corporation, The, Conneaut, Ohio.
 Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
 Electrovert Inc., 489 Fifth Ave., New York 17, N. Y.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Miles Reproducer Co., Inc., 812 Broadway, New York 3, N. Y.
 Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
 Sears Co., M. J., Delaware County, Roxbury, N. Y.
 SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 TELEX, INC., Telex Park, St. Paul 1, Minn. ADV. PG. 686.
 Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
 Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Magnetic

American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 574.
 ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
 Fortiphone Ltd., 247 Regent St., W1, London, England.
 KNOWLES ELECTRONICS INC., 9400 Belmont Ave., Franklin Park, Ill. ADV. PG. 574.
 Miles Reproducer Co., Inc., 812 Broadway, New York 3, N. Y.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Remler Co., 2101 Bryant St., San Francisco 10, Calif.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Sears Co., M. J., Delaware County, Roxbury, N. Y.
 SHURE BROTHERS INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
 SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 724.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Super Ear Products Co., 675 Merrick Rd., Lynbrook, N. Y.
 Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
 Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Noise Cancelling

American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Remler Co., 2101 Bryant St., San Francisco 10, Calif.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
 Sears Co., M. J., Delaware County, Roxbury, N. Y.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
 Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Velocity

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
 AMPERITE CO., INC., 561 Broadway, New York 12, N. Y. ADV. PG. 454.
 ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
 Standard Telephones & Cables Ltd., Connaught House, Aldwyck, London, W. C. 2, England.
 Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
 Universal Microphone Co., Box 55, Inglewood, Calif.

MICROPHONES—Electron

Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
 Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
 RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

MICROWAVE ACCESSORIES

Amplifiers, Microwave to Wavemeters inclusive

AMPLIFIERS—Microwave

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Aircom Inc., 354 Main St., Winthrop 52, Mass.
 ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
 APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
 BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
 CASCADE RESEARCH CORP., 53 Victory Lane, Los Gatos, Calif. ADV. PG. 623.

CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.

DEMORNAV-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.

Holland Electronics, 2133 Central Drive, S., East Meadow, N. Y.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.

National Co., Inc., 61 Sherman St., Malden 48, Mass.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.

Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.

POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.

PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.

Telephonics Corp., Park Ave., Huntington, N. Y.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Waveline, Inc., Box 470, Caldwell, N. J.

White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

AMPLIFIERS—Microwave Radar

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.

APPLIED RESEARCH, INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.

Browning Laboratories, Inc., Main St., Winchester, Mass.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.

Edo Corp., College Point, N. Y.

Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.

Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.

Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.

Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.

PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.

RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

ANALYZERS—Microwave Radar

Aircraft Armaments, Inc., Cockeysville, Md.

Chamallo Electronics Corp., Gillespie Field, Santee, Calif.

DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 191.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.

POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.

ANTENNAS—Microwave

ACF Electronics, 800 N. Pitt St., Alexandria, Va.

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

Aircraft Armaments, Inc., Cockeysville, Md.

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.

AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.

American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.

ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.

Antlab, 4950 N. High St., Columbus 14, Ohio.

BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.

Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.

Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.

BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.

Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.

Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.

BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.

Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.

COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.

Collins Radio Co., Cedar Rapids, Iowa.

DALMO VICTOR CO., 1414 E. Camino Real, San Carlos, Calif. ADV. PG. 561.

DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.

DE MORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.

DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.

Dorne and Margolin Inc., 30 Sylvester St., Westbury, N. Y.

DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.

Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.

Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.

Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.

Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.

GABRIEL ELECTRONICS DIV. OF THE GABRIEL CO., Needham Heights, Mass. ADV. PG. 414.

General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.

Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.

Haller-Raymond & Brown, Inc., State College, Pa.

I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.

Insuline Corp. of America, 186 Granite St., Manchester, N. H.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.

KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.

KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.

KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 556.

Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

MARK PRODUCTS CO., 6412 W. Lincoln Ave., Morton Grove, Ill. ADV. PG. 619.

Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.

N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.

Nevada Air Products Co., P. O. Box 2472, Reno, Nev.

Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.

Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.

Photo Crystals Inc., 15 S. First St., Geneva, Ill.

POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.

Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.

PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.

Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N., Long Island City 1, N. Y.
 Sanders Associates, Inc., Nashua, N. H.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
STERLING PRECISION CORP., INSTRUMENT DIV., 34-17 Lawrence St., Flushing 54, N. Y. ADV. PG. 199.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
TECHNICAL APPLIANCE CORP., Sherburne, N. Y. ADV. PG. 182.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
 Torngren Co., Inc., C. W., 236 Pearl St., Somerville 45, Mass.
 Tower Construction Corp., 2700 Hawkeye Drive, Sioux City, Iowa.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
 Waveline, Inc., Box 470, Caldwell, N. J.
 Westbury Electronics, Inc., 40 Urban Ave., Westbury, N. Y.
 Wheeler Laboratories, Inc., Great Neck, N. Y.

ATTENUATORS—Microwave, Adjustable & Calibrated

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aircraft Armaments, Inc., Cockeysville, Md.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 588.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 519.
 Electro Precision Products, Inc., 139-30 39th Rd., Flushing 54, N. Y.
 Electron-Radar Products, P. O. Box 50, Route # 30, North Aurora, Ill.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J.
 Graham Mfg. Co., Inc., 47 Bridge St., East Greenwich, R. I.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinado Ave., Pasadena 8, Calif. ADV. PG. 192.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Meridian Metalcraft, Inc., 8739 Millergrove Drive, Whittier, Calif.
METAVAC, INC., 45-68 162nd St., Flushing 58, N. Y. ADV. PG. 510.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
 Sanders Associates, Inc., Nashua, N. H.

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
 Transline Associates, 57 State St., Newark, N. J.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
 Waveline, Inc., Box 470, Caldwell, N. J.
WEINSCHEL ENGINEERING CO. INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 28.
 Wheeler Laboratories, Inc., Great Neck, N. Y.
 White Electron Devices Inc., Roger, Fourth Ave., Haskell, Inc.

ATTENUATORS—Microwave Coaxial Fixed

ADMITTANCE, INC., 9 Alan Court, Farmingdale, N. Y. ADV. PG. 50d.
 Aircraft Armaments Inc., Cockeysville, Md.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 588.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing, N. Y.
 Electron-Radar Products, P. O. Box 50, Route No. 30, North Aurora, Ill.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 424.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 444.
 Holland Electronics, 2133 Central Drive S., East Meadow, N. Y.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
MENDELSONN SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Meridian Metalcraft, Inc., 8739 Millergrove Drive, Whittier, Calif.
METAVAC, INC., 45-68 162nd St., Flushing 58, N. Y. ADV. PG. 510.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
 Photo Crystals Inc., 15 S. First St., Geneva, Ill.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. 88, 89 Third & Fourth Covers & Preceding Insert.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
 Schutter Co., Carl W., 80 E. Montauk Pkwy., Lindenhurst, N. Y.
STODDART AIRCRAFT RADIO CO., 6644 Santa Monica Blvd., Hollywood 38, Calif. ADV. PG. 509.
 Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Telwave Laboratories, Inc., 43-20 34th St., Long Island City, N. Y.

Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 28.

ATTENUATORS—Microwave Step

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Aircraft Armaments, Inc., Cockeysville, Md.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 588.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
 Electron Radar Products, P. O. Box 50, Route No. 30, North Aurora, Ill.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 424.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Meridian Metalcraft, Inc., 8739 Millergrove Drive, Whittier, Calif.
METAVAC, INC., 45-68 162nd St., Flushing 58, N. Y. ADV. PG. 510.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
 Photo Crystals Inc., 15 S. First St., Geneva, Ill.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
 Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.
 Schutter Co., Carl W., 80 E. Montauk Pkwy., Lindenhurst, N. Y.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
STODDART AIRCRAFT RADIO CO., 6644 Santa Monica Blvd., Hollywood 38, Calif. ADV. PG. 509.
 Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 28.
 Westbury Electronics, Inc., 40 Urban Ave., Westbury, N. Y.

BENDS—Microwave
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 588.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Epsilon Research & Development Co., Ltd., The Barons, St. Margarets, Middlesex, England.
GAR PRECISION PARTS, INC., 703 Pacific St., Stamford, Conn. ADV. PG. 420.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.

KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 556.
 Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
 Meridian Metalcraft, Inc., 8739 Millergrove Drive, Whittier, Calif.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
 Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
 Radair, Inc., 480 W. Broad St., Columbus, Ohio.
SPECIALTY AUTOMATIC MACHINE CORP., 88 Gerrish Ave., Chelsea, Mass. ADV. PG. 522.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Transline Associates, 57 State St., Newark, N. J.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Wavguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
 Waveline, Inc., Box 470, Caldwell, N. J.
 Wheeler Laboratories, Inc., Great Neck, N. Y.

CALORIMETERS—Microwave

Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 519.
 G. W. Associates, 108 Standard St., El Segundo, Calif.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 282, 283.

CAVITIES—Microwave

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Aircraft Armaments, Inc., Cockeysville, Md.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
 Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
 Frequency Standards, Inc., P.O. Box 504, Asbury Park, N. J.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J.
 Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
MENDELSONN SPEEDGUN CO., INC., Fourth Ave., Has-kell, N. J. ADV. PG. 568.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
 Transitron, Inc., 186 Granite St., Manchester, N. H.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 282, 283.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Warren Mfg. Co., Inc., The, Littleton, Mass.
 Wavguide, Inc., P. O., Box 486, 14845 Oxnard St., Van Nuys, Calif.

COUPLERS—Directional

ADMITTANCE, INC., 9 Alan Court, Farmingdale, N. Y. ADV. PG. 508.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Aircraft Armaments, Inc., Cockeysville, Md.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
 Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
JONES ELECTRONICS CO., INC., M. C., 185 N. Main St., Bristol, Conn. ADV. PG. 323.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Waveline, Inc., Box 470, Caldwell, N. J.
 Wheeler Laboratories, Inc., Great Neck, N. Y.

COUPLINGS—Microwave

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J.
GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Meridian Metalcraft, Inc., 8739 Millergrove Drive, Whittier, Calif.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
 Sanders Associates, Inc., Nashua, N. H.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Transline Associates, 57 State St., Newark, N. J.
 Tru-Connector Corp., 416 Union St., Lynn, Mass.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Waveline, Inc., Box 470, Caldwell, N. J.
 Wheeler Laboratories, Inc., Great Neck, N. Y.

CRYSTAL MOUNTS AND MIXERS

ADMITTANCE, INC., 9 Alan Court, Farmingdale, N. Y. ADV. PG. 508.
 American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
 Antlab, 4950 N. High St., Columbus 14, Ohio.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
BULOVA WATCH CO., Quartz Crystal Div., Valley Stream, N. Y. ADV. PG. 378, 379.
 Commercial Products Div., Aircraft Armaments, Inc., 4003 Seven Mile Lane, Pikesville 8, Md.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 424.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
 Frequency Standards, Inc., P. O. Box 504, Asbury Park, N. J.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 444.
 Graham Mfg. Co., Inc., 47 Bridge St., East Greenwich, R. I.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Javex, P. O. Box 646, Redlands, Calif.
KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.
MENDELSONN SPEEDGUN CO., INC., Fourth Ave., Has-kell, N. J. ADV. PG. 568.
 Meridian Metalcraft, Inc., 8739 Millergrove Drive, Whittier, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
 Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass.
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Tru-Connector Corp., 416 Union St., Lynn, Mass.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Warren Plastics Corp., Warren, Pa.
 Wavguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
 Waveline, Inc., Box 470, Caldwell, N. J.
 Wheeler Laboratories, Inc., Great Neck, N. Y.

DIODES—Microwave Mixer

BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
Clevite Transistor Products A Div. of Clevite Corp., 241-257 Crescent St., Waltham 54, Mass.
Gahagan, Inc., 11 W. Fourth St., Bethlehem, Pa.
Kemtron Electron Products, Inc., 5 Prince Place, Newbury Port, Mass.
Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.

DUPLEXERS—Microwave

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
Aircraft Armaments, Inc., Cockeysville, Md.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis, Mo.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Frequency Standards, Inc., P. O. Box 504, Asbury Park, N. J.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
Meridian Metalcraft, Inc., 8739 Millergrove Drive, Whittier, Calif.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass.
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
Prodelin Inc., 307 Bergen Ave., Kearny, N. J.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
Waveline, Inc., Box 470, Caldwell, N. J.
Wheeler Laboratories, Inc., Great Neck, N. Y.

FILTERS—Microwave

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
ADMITTANCE, INC., 9 Alan Court, Farmingdale, N. Y. ADV. PG. 508.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
Aircorn Inc., 354 Main St., Winthrop 52, Mass.
Allied Research & Engineering Div., Allied Record Mfg. Co., 6916 Santa Monica Blvd., Hollywood 38, Calif.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
Basler Electric Co., 605 Fifth St., Highland, Ill.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.

CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.
CENTRALAB DIV., GLOBE-UNION, INC., 914 E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
Frequency Standards, Inc., P. O. Box 504, Asbury Park, N. J.
Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687.
Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
Interference Measurement Lab., Inc., 907 E. 51st St., Brooklyn 3, N. Y.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.
Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
MENDELSONN SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.
Meridian Metalcraft, Inc., 8739 Millergrove Drive, Whittier, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
Prodelin Inc., 307 Bergen Ave., Kearny, N. J.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Sanders Associates, Inc., Nashua, N. H.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Waveline, Inc., Box 470, Caldwell, N. J.
Wheeler Laboratories, Inc., Great Neck, N. Y.

FLANGES—Microwave

American Radar Components, Inc., Route 10, Whippany, N. J.
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
Connector Corp. of America, 3223 Burton Ave., Burbank, Calif.
DANBURY-KNUDSEN, INC., P. O. Box 170, Danbury, Conn. ADV. PG. 647.
DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 444.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
Meridian Metalcraft, Inc., 8739 Millergrove Drive, Whittier, Calif.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
Waveline, Inc., Box 470, Caldwell, N. J.

HORNS—Microwave

AINSLIE CORP., 312 Quincy Ave., Quincy 69, Mass. ADV. PG. 492.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
Aircraft Armaments, Inc., Cockeysville, Md.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
Antlab, 4950 N. High St., Columbus 14, Ohio.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S. Canada.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
GAR PRECISION PARTS, INC., 703 Pacific St., Stamford, Conn. ADV. PG. 420.
Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.
KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 556.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
Meridian Metalcraft, Inc., 8739 Millergrove Drive, Whittier, Calif.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
Terpening Co., L. H., 16 W. 61st St., New York 23, N. Y.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
Waveline, Inc., Box 470, Caldwell, N. J.
Wheeler Laboratories, Inc., Great Neck, N. Y.

HYBRID JUNCTIONS—Microwave

BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.

DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.

DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.

Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.

KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.

Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.

MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.

Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.

Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.

PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.

PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.

Prodell, Inc., 307 Bergen Ave., Kearny, N. J.

Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.

TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.

Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.

Terpening Co., L. H., 16 W. 61st St., New York, N. Y.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Transline Associates, 57 State St., Newark, N. J.

Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.

Wheeler Laboratories, Inc., Great Neck, N. Y.

JOINTS—Rotary Microwave

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.

BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.

Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.

COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.

DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.

DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.

DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.

Dorne & Margolin, Inc., 30 Sylvester St., Westbury, N. Y.

DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.

Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.

GAR PRECISION PARTS, INC., 703 Pacific St., Stamford, Conn. ADV. PG. 420.

GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.

Litton Industries, Components Div., Beverly Hills, Calif.

MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.

Meridian Metalcraft, Inc., 8739 Millergrrove Drive, Whittier, Calif.

N. R. K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.

PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.

REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.

Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.

Terpening Co., L. H., 16 W. 61st St., New York, N. Y.

Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.

Waveline, Inc., Box 470, Caldwell, N. J.

Wheeler Laboratories, Inc., Great Neck, N. Y.

LINKS—Television Microwave

DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.

Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.

General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.

I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.

MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23-25 Beaver St., New York 4, N. Y. ADV. PG. 557.

Motorola Communications and Electronics, Inc., 4501 Augusta Blvd., Chicago 51, Ill.

Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.

PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.

RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W.C. 2, England.

MARKERS—Frequency, Microwave

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.

POLAROID ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.

METERS—Frequency, Microwave

ADMITTANCE, INC., 9 Alan Court, Farmingdale, N. Y. ADV. PG. 508.

Aircorn Inc., 354 Main St., Winthrop 52, Mass.

Aircraft Armaments, Inc., Cockeysville, Md.

AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.

Browning Laboratories, Inc., Main St., Winchester, Mass.

COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.

CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.

DE MORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.

DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.

DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

Frequency Standards, Inc., P. O. Box 504, Asbury Park, N. J.

GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.

Gertsch Products, Inc., 11846 Mississippi Ave., P. O. Box 25856, Los Angeles 25, Calif.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.

Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.

Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.

Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.

Marconi Instruments, 44 New St., New York 4, N. Y.

Meridian Metalcraft, Inc., 8739 Millergrrove Drive, Whittier, Calif.

MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.

POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.

Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.

Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.

Waveline Inc., Box 470, Caldwell, N. J.

METERS—Microwave

AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.

BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.

Color Television Inc., 973 E. San Carlos Ave., San Carlos, Calif.

CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.

DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.

DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.

DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.

Frequency Standards Inc., P. O. Box 504, Asbury Park, N. J.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.

POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

WACLIN INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.

Waveline, Inc., Box 470, Caldwell, N. J.

Wheeler Laboratories, Inc., Great Neck, N. Y.

METERS—Power, Microwave

Aircorn Inc., 354 Main St., Winthrop 52, Mass.

AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.

Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.

CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.

DOUGLAS MICROWAVE CO., INC., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.

GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

Marconi Instruments, 44 New St., New York 4, N. Y.

MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.

Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.

WAC LINE, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.

MICROWAVE TRANSMISSION LINES

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.

BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.

BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.

Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.

DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.

DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.

Fairchild Electrotechnics Division, 118 E. 16th St., Costa Mesa, Calif.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 444.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.

KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.

KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 556.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.

Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.

Meridian Metalcraft, Inc., 8739 Millergrrove Drive, Whittier, Calif.

MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.

N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.

Nevada Air Products Co., P. O. Box 2472, Reno, Nev.

Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.

PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Schutter Co., Carl W., 80 E. Montauk Pkwy., Lindenhurst, N. Y.

Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.

Terpening Co., L. H., 16 W. 61st St., New York 23, N. Y.

Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.

Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.

Waveline Inc., Box 470, Caldwell, N. J.

MIXERS—Microwave

ACF Electronics, 800 N. Pitt St., Alexandria, Va.

ADMITTANCE, INC., 9 Alan Court, Farmingdale, N. Y. ADV. PG. 508.

AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif. Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.
DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside, N. Y. ADV. PG. 424.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
 Frequency Standards Inc., P. O. Box 504, Asbury Park, N. J.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
MAKEPEACE CO., D. E. DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
MENDLESOHN SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Meridian Metalcraft, Inc., 8739 Millergrrove Drive, Whittier, Calif.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
 Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass.
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury St., Thomaston, Conn. ADV. PG. 259.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
 Waveline, Inc., Box 470, Caldwell, N. J.
 Wheeler Laboratories, Inc., Great Neck, N. Y.

OSCILLATORS—Microwave Power

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Aircorn Inc., 354 Main St., Winthrop 52, Mass.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
 Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
 Color Television Inc., 973 E. San Carlos Ave., San Carlos, Calif.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis, Mo.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Litton Industries, 1025 Brittan Ave., San Carlos, Calif.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
WEINSCHTEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 28.
 Wheeler Laboratories, Inc., Great Neck, N. Y.
 White Electron Devices Inc., Roger, Fourth Ave., Haskell, N. J.

PROBES—Microwave

Aircorn Inc., 354 Main St., Winthrop 52, Mass.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
COAXIAL CONNECTOR CO., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 671.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DE MORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 34, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
GENERAL RF FITTINGS, INC., 702 Beacon St., Boston 15, Mass. ADV. PG. 444.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Meridian Metalcraft, Inc., 8739 Millergrrove Drive, Whittier, Calif.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Tru-Connector Corp., 416 Union St., Lynn, Mass.
WACLINE, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Waveline, Inc., Box 470, Caldwell, N. J.

RECEIVERS—Microwave

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Aircraft Armaments, Inc., Cockeysville, Md.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Collins Radio Co., Cedar Rapids, Iowa.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
 Edo Corp., College Point, N. Y.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis, Mo.
 Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Leru Laboratories, Inc., Black Oak Ridge Rd., Pater-son, N. J.
 Loral Electronics Corp., 794 E. 140th St., New York 54, N. Y.
 Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.

Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Philco Corp., Government & Industrial Div., 4700 Wis-sahickon Ave., Philadelphia 44, Pa.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
RADIO ENGINEERING LABS, INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Sanders Associates, Inc., Nashua, N. H.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Telephonics Corp., Park Ave., Huntington, N. Y.

SHIFTERS—Phase, Microwave

Aircorn Inc., 354 Main St., Winthrop 52, Mass.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Meridian Metalcraft, Inc., 8739 Millergrrove Dr., Whittier, Calif.
 Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass.
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Terpening Co., L. H., 16 W. 61st St., New York, N. Y.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Waveline, Inc., Box 470, Caldwell, N. J.
 White Electron Devices Inc., Roger, Fourth Ave., Haskell, N. J.

STANDARDS—Frequency, Microwave

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicks-ville, N. Y. ADV. PG. 645.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Metronix, Inc., P. O. Box 549, New London, Conn.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.

SWITCHES—Microwave

AIRBORNE INSTRUMENTS LABS, INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y East Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
DANBURY-KNUDSON, INC., P. O. Box 170, Danbury, Conn. ADV. PG. 647.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 34, N. Y.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
 Industrial Products Co., Div. of Danbury-Knudson, Inc., Danbury, Conn.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.
 Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
 Meridian Metalcraft, Inc., 8739 Millergrrove Dr. Whittier, Calif.
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
 Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Thompson Products, Inc., Electronics Div., 2196 Clarkwood Ave., Cleveland 3, Ohio.
 Waveline, Inc., Box 470 Caldwell, N. J.
 White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TERMINATIONS—Microwave

ADMITTANCE, INC., 9 Alan Court, Farmingdale, N. Y. ADV. PG. 508.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
COAXIAL CONNECTOR CO., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
CUSTOM COMPONENTS, INC., Caldwell, N. J. ADV. PG. 564.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 34, N. Y.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 424.
F-R MACHINE WORKS INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington, N. J.
 Holland Electronics, 2133 Central Drive S., East Meadow, N. Y.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
MENDELSONN SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.
 Meridian Metalcraft, Inc., 8739 Millergrrove Dr., Whittier, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Waveline, Inc., Box 470, Caldwell, N. J.

TESTERS—Microwave Testing Equipment

Airborne Electronics Co., 6813 Troost Ave., North Hollywood, Calif.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Aircorn Inc., 354 Main St., Winthrop 52, Mass.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
 Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., 2200 Wright Ave., Dept. G-13, Richmond 3, Calif. ADV. PG. 69-76.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
 Color Television Inc., 973 E. San Carlos Ave., San Carlos, Calif.

CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
 Graham Mfg. Co., Inc., 47 Bridge St., East Greenwich, R. I.
HEVLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
MANSON LABORATORIES, 207 Greenwich Ave., Stamford, Conn. ADV. PG. 550.
 Marconi Instruments, 44 New St., New York 4, N. Y.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Meridian Metalcraft, Inc., 8739 Millergrrove Dr., Whittier, Calif.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
 Microtronics, Inc., Porete Ave., North Arlington, N. J.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 Sherron Electronics Co., 1201 Flushing Ave., Brooklyn 6, N. Y.
 Solartron Electronic Group, Ltd., Thames Ditton, Surrey, England.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Transiron, Inc., 186 Granite St., Manchester, N. H.
 Transline Associates, 57 State St., Newark, N. J.
 U. S. Electronics Corp. of America, 800 Slater Lane, Alexandria, Va.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Waveline, Inc., Box 470, Caldwell, N. J.
WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 28.
 Wheeler Laboratories, Inc., Great Neck, N. Y.
 White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TRANSFORMERS—Microwave
h—indicates hermetically sealed
ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388. (h)
 Aircorn Inc., 354 Main St., Winthrop 52, Mass.
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J. (h)
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
 American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
 Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn. (h)
 Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif. (h)
CENTRAL TRANSFORMER CO., 910 W. Jackson Ave., Chicago, Ill. ADV. PG. 663. (h)
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
 Dorne & Margolin, Inc., 30 Sylvester St., Westbury, N. Y.
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 Plover Rd., Schenectady 5, N. Y. ADV. PG. 1-12 (h)
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687. (h)
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371.
KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.

K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. (h)
LAOVOE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
 Meridian Metalcraft, Inc., 8739 Millersgrove Drive, Whittier, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 486. (h)
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
 Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif. (h)
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif. (h)
TRESCO, INC., 3824 Terrace St., Philadelphia 28, Pa. ADV. PG. 635.
 Waveline, Inc., Box 470, Caldwell, N. J.

TRANSMITTERS—Microwave

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRBORNE INSTRUMENTS LABS., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Aircraft Armaments, Inc., Cockeysville, Md.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
 Collins Radio Co., Cedar Rapids, Iowa.
 Color Television, Inc., 973 E. San Carlos Ave., San Carlos, Calif.
 Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
 Edo Corp., College Point, N. Y.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis, Mo.
FEDERAL TELEPHONE & RADIO CO., A SUB. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Philco Corp., Government & Industrial Div., 4700 Wisconsin Ave., Philadelphia 44, Pa.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.

PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO ENGINEERING LABORATORIES, INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W.C. 2, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.

TUBES—Microwave

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
CASCADE RESEARCH CORP., 53 Victory Lane, Los Gatos, Calif. ADV. PG. 623.
EITEL-MCCULLOUGH, INC., San Bruno, Calif. ADV. PG. 174, 175.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
HUGGINS LABORATORIES, 711 Hamilton Ave., Menlo Park, Calif. ADV. PG. 580.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Kemtron Electron Products, Inc., 5 Prince Place, Newbury Post, Mass.
 Litton Industries, 1025 Brittan Ave., San Carlos, Calif.
 Litton Industries, Components Div., Beverly Hills, Calif.
MACHLETT LABORATORIES, INC., Springdale, Conn. ADV. PG. 308.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89 Third & Fourth Covers & Preceding Insert.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham, Mass. ADV. PG. 363.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
RED BANK DIV., BENDIX AVIATION CORP., Red Bank, N. J. ADV. PG. 128.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stewart Engineering Corp., Soquel, Calif.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 282, 283.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.
 White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TUBES—Microwave Receiving

GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
HUGGINS LABORATORIES, 711 Hamilton Ave., Menlo Park, Calif. ADV. PG. 580.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUNERS—Microwave

ADMITTANCE, INC., 9 Alan Court, Farmingdale, N. Y. ADV. PG. 508.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Aircom Inc., 354 Main St., Winthrop 52, Mass.
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
BOGART MFG. CORP., 315 Seigel St., Brooklyn 6, N. Y. ADV. PG. 511.
BUDD-STANLEY, INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.

DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
DUNN ENGINEERING ASSOCIATES, INC., 186 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 586, 587.
 Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
 Frequency Standards Inc., P. O. Box 504, Asbury Park, N. J.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Meridian Metalcraft, Inc., 8739 Millergrrove Drive, Whittier, Calif.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
 Microtronics, Inc., Porete Ave., North Arlington, N. J.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Transline Associates, 57 State St., Newark, N. J.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Warren Mfg. Co., Inc., The Littleton, Mass.
 Waveline, Inc., Box 470, Caldwell, N. J.
 Wheeler Laboratories, Inc., Great Neck, N. Y.

WAVEGUIDE TEST EQUIPMENT

Airborne Electronics Co., 6813 Troost Ave., North Hollywood, Calif.
 Aircom Inc., 354 Main St., Winthrop 52, Mass.
BOGART MFG. CORP., 315 Seigel St., Brooklyn 6, N. Y. ADV. PG. 511.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
 Browning Laboratories Inc., Main St., Winchester, Mass.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
CASCADE RESEARCH CORP., 53 Victory Lane, Los Gatos, Calif. ADV. PG. 623.
 Chermalloy Electronics Corp., Gillespie Field, Santee, Calif.
 Color Television Inc., 973 E. San Carlos Ave., San Carlos, Calif.
 Decade Instrument Co., Box 153, Caldwell, N. J.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 519.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 Graham Mfg. Co., Inc., 47 Bridge St., East Greenwich, R. I.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Meridian Metalcraft, Inc., 8739 Millergrrove Dr., Whittier, Calif.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
 Microtronics, Inc., Porete Ave., North Arlington, N. J.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.

Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
 Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.
 Transline Associates, 57 State St., Newark, N. J.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
WACLINE, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Waveline, Inc., Box 470, Caldwell, N. J.

WAVEGUIDES

- C—Combination Rigid & Flexible Type**
- F—Flexible Type**
- R—Rigid Type**

ACF Electronics, 800 N. Pitt St., Alexandria, Va. R
 Airborne Electronics Co., 6813 Troost Ave., North Hollywood, Calif. R
AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. C-F-R
 ADV. PG. 504.
 Allied Research & Engineering Div., Allied Record Mfg. Co., 6916 Santa Monica Blvd., Hollywood 38, Calif. R
ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. C-F-R
 ADV. PG. 348.
BOGART MFG. CORP., 315 Seigel St., Brooklyn 6, N. Y. R
 ADV. PG. 511.
 Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J. C-F-R
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614. C-R
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec. C-F-R
 Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J. R
 Chermalloy Electronics Corp., Gillespie Field, Santee, Calif. F-R
 Communication Products Co., Inc., Marlboro, N. J. R
 Co-Operative Industries, Inc., 100 Oakdale Rd., Chester, N. J. F-R
DANBURY-KNUDSEN, INC., P. O. Box 170, Danbury, Conn. ADV. PG. 647. R
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207. R
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453. R
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636. R
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y. R
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267. R
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y. C-R
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y. C
 Graham Mfg. Co., Inc., 47 Bridge St., East Greenwich, R. I. R
 Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn. R
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540. C-R
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191. R
KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192. R
KENT CO., F. C., 64 Howard St., Irvington, N. J. R
 ADV. PG. 556.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592. C-R
 Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y. C-R
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303. R
MENDELSONN SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568. R
 Meridian, Inc., 7 Mitchell Pl., New York 17, N. Y. C-R
 Meridian Metalcraft, Inc., 8739 Millergrrove Dr., Whittier, Calif. R
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525. R
 Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass. R
 Model Engineering & Mfg., Inc., Huntington, Ind. R
N.R.K. MFG. & ENGINEERING CO., 4601 W. Addison St., Chicago 41, Ill. ADV. PG. 606. R
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. R
 ADV. PG. 616.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev. R
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y. R
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461. R
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555. C-R
 Prodelin Inc., 307 Bergen Ave., Kearny, N. J. R
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert. C-F-R
 Rofan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass. C-R
 Schutter Co., Carl W., 80 E. Montauk Pkwy., Lindenhurst, N. Y. C-R

SPECIALTY AUTOMATIC MACHINE CORP., 88 Gerrish Ave., Chelsea 50, Mass. ADV. PG. 522. R
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J. R
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259. C-F-R
Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y. C-F-R
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403. C-F-R
Titeflex, Inc., Aviation Products Div., Hende St., Springfield 4, Mass. F-R
Transline Associates, 57 State St., Newark, N. J. R
UNIVERSAL MFG. CO., INC., 410 Hillside Ave., Hillside, N. J. ADV. PG. 642. R
Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif. R
Wavefine, Inc., Box 470, Caldwell, N. J. C-R

WAVEMETERS—Microwave

ADMITTANCE, INC., 9 Alan Court, Farmingdale, N. Y. ADV. PG. 508.
Aircorn Inc., 354 Main St., Winthrop 52, Mass.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. ADV. PG. 691.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
ELECTRO IMPULSE LABS., 208 River St., Red Bank, N. J. ADV. PG. 519.
Electro Precision Products, Inc., 130-30 34th Rd., Flushing 34, N. Y.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Frequency Standards Inc., P. O. Box 504, Asbury Park, N. J.
General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
Gombos Co., Inc., John, 103 Montgomery Ave., Irvington, N. J.
HEWLETT-PACKARD CO., 275 Page Hill Rd., Palo Alto, Calif. ADV. PG. 29-36.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinado Ave., Pasadena 8, Calif. ADV. PG. 192.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.
Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
Meridian Metalcraft, Inc., 8739 Millergrove Dr., Whit-tier, Calif.
MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 553.
Microtronics, Inc., Parete Ave., North Arlington, N. J.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass.
NARDA CORP., 160 Herricks Rd., Mneola, N. Y. ADV. PG. 616.
Omega Laboratories, Inc., P. O. Box 264, Rowley, Mass.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Thompson Products, Inc., Electronics Div., 2196 Clarkwood Ave., Cleveland 3, Ohio.
Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
Wavefine, Inc., Box 470, Caldwell, N. J.

MICROWAVE TRANSMISSION LINES See MICROWAVE ACCESSORIES

MILLIAMMETERS

See INSTRUMENTS—Electrical Measuring

MILLIOHM METERS

American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.
Bristol Co. The, Waterbury 20, Conn.
Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Road, Bluffton, Ohio. ADV. PG. 244.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

MILLIVOLTMETERS

See INSTRUMENTS—Electrical Measuring

MIRRORS—Special Purpose

Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.
Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
Keim Precision Mirrors, 1346 E. Colorado St., Glendale 5, Calif.
O & S RESEARCH INC., 1319 Admiral Wilson Blvd., Camden 1, N. J. ADV. PG. 624.
Pacific Universal Products Corp., 168 Vista Ave., Pasadena 8, Calif.
Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
Zenith Optical Laboratories, 1940 Great Neck Rd., Copiague, N. Y.

MIRRORS—Television

Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.
Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
Keim Precision Mirrors, 1346 E. Colorado St., Glendale 5, Calif.
O & S RESEARCH INC., 1319 Admiral Wilson Blvd., Camden 1, N. J. ADV. PG. 624.
Pacific Universal Products Corp., 168 Vista Ave., Pasadena 8, Calif.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.

MIXERS—Portable

See AMPLIFIERS—Audio Frequency

MIXERS—Microwave

See MICROWAVE ACCESSORIES

MODULATORS—Magnetic

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146.
ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. ADV. PG. 696, 697.
Carad Corp., 2850 Bay Rd., Redwood City, Calif.
GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. ADV. PG. 246.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Timely Instruments & Controls Corp., 1645 W. 135th St., Gardena, Calif.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.

MODULATORS—Phase

BRADLEY LABS, INC., 170 G Columbus Ave., New Haven 11, Conn. ADV. PG. 210.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
MAGNATRAM, INC., P. O. Box 211, Kearny, N. J. ADV. PG. 39.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Rutherford Electronics Co., 3707 S. Robertson Blvd., Cuiver City, Calif.
Servomechanisms, Inc., Post & Stewart Ave., Westbury, N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.

MODULATORS—Pulse

AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. ADV. PG. 353.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Norristown, N. J. ADV. PG. 566.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass.
Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
Litton Industries, Components Div., Beverly Hills, Calif.
MANSON LABORATORIES, 207 Greenwich Ave., Stamford, Conn. ADV. PG. 550.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 111-122.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

MOISTURE

See INDICATORS

MOLDERS OF PLASTIC MATERIALS

See INSULATION PARTS
 Plastic Insulation Parts—Molded

MONITORS—AM-FM Transmitter

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
Electrovert Inc., 489 Fifth Ave., New York 17, N. Y.
G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
Gates Radio Co., Quincy, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Gonset Co., 801 S. Main St., Burbank, Calif.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.

MONITORS—Frequency

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Browning Laboratories, Inc., Main St., Winchester, Mass.
Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
Decade Instrument Co., Box 153, Caldwell, N. J.
Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Gates Radio Co., Quincy, Ill.
General Electric Co., Broadcast Equipment Dept. Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 568.
Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.
LAMPKIN LABORATORIES, INC., Bradenton 1, Fla. ADV. PG. 547.
Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.

MONITORS—Modulation

Browning Laboratories, Inc., Main St., Winchester, Mass.

Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 568.
LAMPKIN LABORATORIES, INC., Bradenton 1, Fla. ADV. PG. 547.
NEW LONDON INSTRUMENT CO., P.O. Box 189 New London, Conn. ADV. PG. 302.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.

MONITORS—Shift

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 64-66.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Stelma, Inc., 389 Ludlow St., Stamford, Conn.

MONITORS—Television, Transmitter

Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.
 Cinema-Television, Ltd., Worsley Bridge Rd., London SE 26, England.
 Conrac, Inc., Glendora, Calif.
 Dage Television Div., Thompson Products, Inc., W. 10th St., Michigan City, Ind.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. ADV. PG. 689.
 Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
SARKIS TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
 Television Utilities Corp., 1315 Jericho Turnpike, New Hyde Park, N. Y.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.

MOTOR CONTROLS ACSee **CONTROLS—Electronic AC Motor Speed****MOTORS**

1. Fractional hp
2. Gear
3. Phonograph
4. Remote Control
5. Servo
6. Speed Regulation
7. Synchronous
8. Timing

Adel Precision Products Div. of General Metals Corp., 10777 Vanowen St., Burbank, Calif. 1.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J. 1-2-5-7.
 Airborne Accessories Corp., 1414 Chestnut Ave., Hillside, N. J. 1-2.
 Airborne, Inc., 1733 N. Milwaukee Ave., Chicago 47, Ill. 1-2.
AIR-MARINE MOTORS, INC., 369 Bay View Ave., Amityville, N. Y. 1-2-4-5-7. ADV. PG. 402.

INDUCTION MOTORS CORP., 570 Main St., Westbury, N. Y. 1-2-5-7. ADV. PG. 258.
 Alliance Mfg. Co., Lake Park Blvd., Alliance, Ohio. 1-3.
 Allis-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis. 2-5.
 American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif. 1-2-5-7.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. 1-2-4-7. ADV. PG. 440.
 Anglo Corp., 2037 W. Division St., Chicago 22, Ill. 7-8.
 Arga Div., Beckman Instruments Inc., 220 Pasadena Ave., South Pasadena, Calif.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. 1-2-3-4-7. ADV. PG. 68.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J. 5.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif. 1-4-5.
 Bodine Electric Co., Ohio St. & Oakley Blvd., Chicago 12, Ill. 1-2-3-4-5-6-7-8.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J. 5-6-7.
BORG EQUIPMENT DIVISION, THE GEORGE W. BORG CORP., Janesville, Wis. 7-8. ADV. PG. 142.
 Borg-Warner Corp., Pesco Products Div., 24700 North Miles Rd., Bedford, Ohio. 1.
 Bristol Co., The Waterbury 20, Conn. 5.
 Bristol Motor Division, Vocaline Company of America, Inc., Old Saybrook, Conn. 7-8.
 Califone Corp., 1041 N. Sycamore Ave., Hollywood 38, Calif. 3.
 Carron Mfg. Co., 415 S. Aberdeen Ave., Chicago, Ill. 1-2-3.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn. 5.
CELCO CONSTANTINE ENGINEERING LABS., CO., Island Ave., Mahwah, N. J. 1-5. ADV. PG. 136, 137.
 Century Electric Co., 1806 Pine St., St. Louis 3, Mo. 1-2.
CLIFTON PRECISION PRODUCTS CO., INC., Broadway at Marple Ave., Clifton Heights, Pa. 5. ADV. PG. 230, 231.
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill. 1-4-7.
CONTINENTAL ELECTRIC CO., INC., 334 Ferry St., Newark 5, N. J. 1-7. ADV. PG. 312.
CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. 7-8. ADV. PG. 387.
 Daimler Co., 1375 Clay St., Santa Barbara, Calif. 1-5-6-7.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. 1-7. ADV. PG. 295.
DOLECAM, A DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field, Boston 35, Mass. 5-7. ADV. PG. 375.
EASTERN AIR DEVICES, INC., 385 Central Ave., Dover, N. H. 1-2-3-4-5-6-7-8. ADV. PG. 480.
ECLIPSE PIONEER DIV.'S BENDIX AVIATION CORP., Teterboro, N. J. 2-5. ADV. PG. 129-132.
 Eicor, Inc., 1501 W. Congress St., Chicago 7, Ill. 1.
ELECTRIC INDICATOR CO., INC., Camp Avenue, Springdale, Conn. 1-3-4-5-6-7. ADV. PG. 598.
 Electric Motor & Specialties, Inc., King & Hamscher Sts., Garrett, Ind. 1.
ELECTRIC SPECIALTY CO., 300 South St., Stamford, Conn. 1-5. ADV. PG. 475.
 Electomic Mechanisms, Inc., P.O. Box 1156, Greenwich, Conn. 2-4-5.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis, Mo. 1-3.
 Electymote Motor Products Corp., Genoa, Ill. 7-8.
 Exact Engineering & Mfg. Co., P. O. Box 668, Oceanside, Calif. 2.
 Fairchild Industries Division, Burlington, Vt. 1-7.
 Fasco Industries, Inc., Rochester 2, N. Y. 1.
 Foote Brothers Gear & Machine Corp., 4545 S. Western Blvd., Chicago 9, Ill. 2.
FORD INSTRUMENT CO. DIV. OF THE SPERRY CORP., 31-10 Thomson Ave., Long Island City 11, N. Y. 5-7. ADV. PG. 667.
G-M LABORATORIES, INC., 4336 N. Knox Ave., Chicago, Ill. 5-7. ADV. PG. 575.
 General Controls Co., Glendale 1, Calif. 1.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 1-2-4-6-7. ADV. PG. 1-12.
 General Electric Co., Clock and Timer Dept., Ashland, Mass. 8.
 General Industries Co., Taylor & Olive Sts., Elyria, Ohio. 1-2-3-4.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 6. ADV. PG. 109, 110.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio. 1-2-5-6-7-8.
 Hagen Mfg. Co., Inc., 202 20th St., Moline, Ill. 7-8.
 Hansen Mfg. Co., Inc., Princeton, Ind. 2-5-7-8.
HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. 7-8. ADV. PG. 613.
 Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn. 7-8.
HEINZE ELECTRIC CORP., 685 Lawrence St., Lowell, Mass. 1. ADV. PG. 452.
 Hertner Electric Co., 12690 Elmwood Ave., Cleveland 11, Ohio. 1-2-7.
 Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass. 1-2-3-4-5-6-7-8.
 Hoover Electric Co., 2100 S. Stoner Ave., Los Angeles 25, Calif. 1-2-5-6.
 Howard Industries, Inc., Divisions: Cyclohm Motor Corp.; Electric Motor Corp., Racine, Wis. 1-2-3-4-5-6-7-8.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill. 1.

International Register Co., 2620 Washington Blvd., Chicago 12, Ill. 7-8.
 Iron Fireman Mfg. Co., Electronics Div., 2838 S. E. 9th Ave., Portland 2 Ore. 1.
 Jack & Heintz, Inc., Cleveland 1, Ohio. 1.
 Janette Electric Mfg. Co., Morton Grove, Ill. 2.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. 2-4-5-7. ADV. PG. 191.
 Koflsman Instrument Corp., Sub of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y. 1-2-5-7.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich. 1-2-4-5-6-7.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif. 1-2-5.
 Leland Electric Co., Div. of The American Machine & Foundry Co., 1501 Webster St., Dayton 1, Ohio. 1.
 Magnavox Co., Fort Wayne 4, Ind., 7.
MANSON LABORATORIES, 207 Greenwich Ave., Stamford, Conn. 6. ADV. PG. 550.
 Marathon Electric Mfg. Corp., Randolph & Cherry Sts., Wausau, Wis. 1.
 Massachusetts Gear & Tool Co., 30 Nashua St., Woburn, Mass. 2.
 Master Appliance Mfg. Co., Fourth & Ontario Sts., Racine, Wis. 1.
 Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla. 5.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn. 4-5.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. 5. ADV. PG. 377.
 Motoresearch Co., 1600 Junction Ave., Racine, Wis. 1-2.
 Muirhead & Co., Ltd., Beckenham, Kent, England. 5-7.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y. 2-5.
OSTER MFG. CO., JOHN, AVIONICS DIV., 1 Main St., Racine, Wis. 1-2-5-7. ADV. PG. 38.
 Rae Motor Corp., P. O. Box 291, Racine, Wis. 1-2.
 Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif. 1-2-5-7.
RED BANK DIVISION, BENDIX AVIATION CORP., Eaton-town, N. J. 1. ADV. PG. 128.
 Redmond Co., Inc., Owosso, Mich. 1.
 Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa. 1.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill. 1-7.
 Rhodes, Inc., M. H., 30 Bartholomew Ave., Hartford, Conn. 8.
 Robbins & Myers, Inc., 1345 Lagonda Ave., Springfield 99, Ohio. 1.
 Rotating Components, Inc., 267 Green St., Brooklyn 22, N. Y. 1-2-5-6-7-8.
ROTRON MFG. CO., INC., 7-9 Schoonmaker Lane, Woodstock, N. Y. 1. ADV. PG. 398.
 Scruggs Co., Loyd, P. O. Drawer 232, Festus, Mo. 1-2.
 Servo-Tek Products Co., Inc., 1086 Goffie Rd., Hawthorne, N. J. 1-2-4-5-6-8.
 Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y. 1-2-4-5-7-8.
 Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J. 4-6.
 Sessions Clock Co., Industrial Products Div., Forestville, Conn. 7-8.
 Small Motors, Inc., 2076 Elston Ave., Chicago 14, Ill. 1-2-5-7-8.
 Speedway Mfg. Co., 1834 S. 52nd Ave., Cicero 50, Ill. 1-2.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif. 1-7.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. 1-4-5-7-8. ADV. PG. 95.
 Standard Winding Corp., 44-62 Johns St., Newburgh, N. Y. 1-5.
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y. 1-6.
 Technical Development Corp., 4060 Ince Blvd., Culver City, Calif. 3-7.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. 1-2-5.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. 7. ADV. PG. 392.
TRANSICOIL CORP., Worcester, Penna. 2-5. ADV. PG. 187.
 United Pressed Products Co., 741 W. Harrison St., Chicago 7, Ill. 1-2-3.
 Universal Electric Co., 300 E. Main St., Owosso, Mich. 1.
 Vocaline Co. of America, Inc., Old Saybrook, Conn. 7-8.
WACLINE, INC., 35 S. St. Claire St., Dayton 2, Ohio. 1-4-6. ADV. PG. 550.
 Waco, Inc., 2032 Broadwav, Santa Monica, Calif. 1-2-7.
 Wagner Electric Corp., 6400 Plymouth Ave., St. Louis 14, Mo. 1.
 Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif. 1-2-4-5-6-7-8.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. 1. ADV. PG. 325-336.
 Wincharger Corp., E Seventh & Division Sts., Sioux City, Iowa. 1.

MOUNTINGSSee also **BASES****MOUNTINGS—Vibration and Shock**

American Mica Insulation Co., Manasquan, N. J.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
BARRY CONTROLS, INC., 711 Pleasant St., Watertown 72, Mass. ADV. PG. 428.
 Chicago Die Mold Div. of U. S. Rubber Co., 4300 New Haven Ave., Fort Wayne 4, Ind.

CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.

Outler Metal Products Co., 1025 Line St., Camden, N. J. Federal Shock Mount Corp., 1060 Washington Ave., New York 56, N. Y.

FINN & CO., INC., T. R., 200 Central Ave., Hawthorne, N. J. ADV. PG. 681.

General Tire & Rubber Co., The, Akron, Ohio.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.

MB MFG. CO., A DIV. OF TEXTRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 496.

MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 59.

Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.

Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.

Pneumafil Corp., Charlotte, N. C.

ROBINSON AVIATION INC., Teterboro Air Terminal, Teterboro, N. J. ADV. PG. 421.

Schuyler Corp., 84 Porete Ave., North Arlington, N. J.

Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

WHITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 161.

United States Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.

Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.

MOUNTS—Antenna

Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.

ATLAS PRECISION PRODUCTS CO., Castor & Kensington Aves., Philadelphia 24, Pa. ADV. PG. 543.

Bassett, Inc., Rex, 1314 N. E. 17th Court, P. O. Box 7127, Fort Lauderdale, Fla.

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.

Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.

Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.

FINN & CO., INC., T. R., 200 Central Ave., Hawthorne, N. J. ADV. PG. 681.

GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.

GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.

I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.

I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.

KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.

Kenwood Engineering Co., Inc., 265 Colfax Ave., Kenilworth, N. J.

Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.

Master Mobile Mounts, Inc., 1306 Bond St., Los Angeles 15, Calif.

Modern-Aire Mfg. Co., 4436 W. Roosevelt Rd., Chicago 24, Ill.

National Electric Products Co., 140 Stanwix St., Pittsburgh 22, Pa.

PM Industries, Inc., Stamford, Conn.

Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.

Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls, N. Y.

Prodelin, Inc., 307 Bergen Ave., Kearney, N. J.

Roflan Co., Corner Route 1, & Camp Meeting Rd., Topsfield, Mass.

ROHN MFG. CO., 116 Limestone, Bellevue, Peoria, Ill. ADV. PG. 58.

Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.

Walnut Machine Co., 1529 S. Walnut St., South Bend 14, Ind.

Wind Turbine Co., E. Market St. & Penna. R.R., West Chester, Pa.

MOUNTS—Thermistor

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.

Kybernetics Co., 9 E. 40th St., New York 16, N. Y.

Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.

POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.

PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.

PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.

MULTIMETERS

American Matrix Corp., 15 Exchange Place, Jersey City 2, N. J.

BALLANTINE LABORATORIES, INC., Boonton, N. J. ADV. PG. 23.

Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.

Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.

DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.

Du Mont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.

HEATH & CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.

Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.

Northeastern Engineering, Inc., Manchester, N. H.

Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.

Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

MULTIPLIER SYSTEMS—Frequency Division

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.

Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.

Browning Laboratories, Inc., Main St., Winchester, Mass.

BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.

Collins Radio Co., Cedar Rapids, Iowa.

GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 252.

Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.

Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y.

Lenkurt Electric Co., Inc., 1105 County Rd., San Carlos, Calif.

Motorola Communications & Electronics, Inc., 4501 Augusta Blvd., Chicago 51, Ill.

NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 64-66.

Palmer, Inc., M.V., 4002 Fruit Valley Rd., Vancouver, Wash.

Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.

Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Philo Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.

Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

MULTIPLIERS—Crystal

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

Decade Instrument Co., Box 153, Caldwell, N. J.

DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.

DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

Decade Instrument Co., Box 153, Caldwell, N. J.

Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.

REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.

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MULTIPLIERS—Frequency

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

American Research & Mfg. Corp., 4914 Delray Ave., Bethesda, Md.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., 2200 Wright Ave., Dept. G-13, Richmond 3, Calif. ADV. PG. 69-76.

Decade Instrument Co., Box 153, Caldwell, N. J.

DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.

NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.

Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas, 605.

Decade Instrument Co., Box 153, Caldwell, N. J.

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DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.

Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Hassall, Inc., John, P. O. Box 2242, Westbury, N. Y.

NAME PLATES

See **PLATES, NAME—Metal or Plastic**

NEEDLES—Cutting

American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
Duotone Co., Inc., Keyport, N. J.
Electrovex Co., Inc., 60 Franklin St., East Orange, N. J.
Jensen Industries, Inc., 329 S. Wood St., Chicago, Ill.
Miller Mfg. Co., M. A., 4th & Church Sts., Libertyville, Ill.
Moser Jewel Co., Perth Amboy, N. J.
Permo, Inc., 6415 Ravenswood Ave., Chicago 26, Ill.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.
Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.

NEEDLES—Diamond

Audak Co., 500 Fifth Ave., New York, N. Y.
Duotone Co., Inc., Keyport, N. J.
Electrovex Co., Inc., 60 Franklin St., East Orange, N. J.
Jensen Industries, Inc., 329 S. Wood St., Chicago, Ill.
Liberty Industries, 107-37 71 Ave., Forest Hills, N. Y.
Miller Mfg. Co., M. A., Fourth & Church Sts., Libertyville, Ill.
Moser Jewel Co., Perth Amboy, N. J.
Permo, Inc., 6415 Ravenswood Ave., Chicago 26, Ill.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.
Pfanstiehl Chemical Corp., 104 Lake View Ave., Waukegan, Ill.
Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
Tetrad Co., Inc., The, 62 St. Mary St., Yonkers 2, N. Y.

NEEDLES—Playback

Astatic Corp., The, Conneaut, Ohio.
Audak Co., 500 Fifth Ave., New York, N. Y.
Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
Duotone Co., Inc., Keyport, N. J.
Electrovex Co., Inc., 60 Franklin St., East Orange, N. J.
Jensen Industries, Inc., 329 S. Wood St., Chicago, Ill.
Miller Mfg. Co., M. A., 4th & Church Sts., Libertyville, Ill.
Moser Jewel Co., Perth Amboy, N. J.
Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif.
Permo, Inc., 6415 Ravenswood Ave., Chicago 26, Ill.
Pfanstiehl Chemical Corp., 104 Lake View Ave., Waukegan, Ill.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.
Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.

NETWORKS—Crossover

Electro-Voice Mfg. Co., Inc., Buchanan, Mich.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 391.
Jensen Mfg. Co., 6601 S. Laramie Ave., Chicago 38, Ill.
Racon Electric Co., 1261 Broadway, New York 1, N. Y.
United Technical Laboratories, Box 425V, Morristown, N. J.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

NETWORKS—Directional Antenna Phasing

ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

NETWORKS—Matching

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
Johnson Co., E. F., Waseca, Minn.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
Microlab, 71 Okner Parkway, Livingston, N. J.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.

ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
Shallite, Inc., 10 Mill St., Paterson 1, N. J.
Stephens Mfg. Corp., 8538 Warner Drive, Culver City, Calif.
Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

NETWORKS—Pulse Forming

Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
AIRCRAFT-MARINE PRODUCTS, INC., CHEMICALS & DIELECTRICS DIV., 155 Park St., Elizabethtown, Pa. ADV. PG. 209.
Ajax Condenser Corp., 10905 Chandler Blvd., North Hollywood, Calif.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
Carad Corp., 2850 Bay Rd., Redwood City, Calif.
Corson Electric Mfg. Corp., 540 39th St., Union City, N. J.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.
Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
FILTRON CO., INC., 131-05 Fowler Ave., Flushing, N. Y. ADV. PG. 391.
Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
Gudeman Co. of California Inc., 9200 Exposition Blvd., Los Angeles 34, Calif.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
Luther Electronic Mfg. Co., 5728 W. Washington Blvd., Los Angeles 16, Calif.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
National Capacitor Co., 18 Webster St., Brookline, Mass.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
PACKARD-BELL CO., 3333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
PULSE ENGINEERING, 2431 Spring St., Redwood City, Calif. ADV. PG. 621.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
Shallite, Inc., 10 Mill St., Paterson 1, N. J.
Sprague Electric Co., 125 Marshall St., North Adams, Mass.
Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London W. 3, England.
TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.

NULL

See **DETECTORS**

NUTS

Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
American Screw Co., Willimantic, Conn.
Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
Atlas Screw & Specialty Co., 450 Broome St., New York 13, N. Y.
Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.

Boots Aircraft Nut Corp., Newton Ave., Norwalk, Conn.
Central Screw Co., 3501 Shields Ave., Chicago 9, Ill.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Chicago Screw Co., Bellwood, Ill.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
Greer Stop Nut Co., 2620 W. Fluornoy St., Chicago 12, Ill.
Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
Jacobson Nut Mfg. Corp., Market St., Kenilworth 2, N. J.
Kaiser Manufacturing Engineers, Inc., Summit, N. J.
Kerr-Lakeside Industries, Inc., 12858 St. Clair Ave., Cleveland 17, Ohio.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 567.
Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2, Ohio.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
Painot Co., Inc., 77 Cordier St., Irvington 11, N. J.
Pheoil Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
Progressive Mfg. Co., 50 Norwood St., Torrington, Conn.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Sinclair Mfg. Co., Chartley, Mass.
Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
Standard Locknut & Lockwasher, Inc., 501 N. Capitol Ave., Indianapolis 4, Ind.
Star Stainless Screw Co., 655 Union Blvd., Totowa, N. J.
Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
Tinnerman Products, Inc., P. O. Box 6688, Dept. No. 16, Cleveland 1, Ohio.
Tubular Rivet & Stud Co., Weston Ave., Wollaston (Quincy) 70, Mass.
UNITED-CARR FASTENER CORP., Cambridge 42, Mass. ADV. PG. 160.
United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
Walco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
Weckesser Co., 5261 Avondale Ave., Chicago 30, Ill.

NUTS—Self-Locking

Allen Mfg. Co., Hartford 2, Conn.
Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
American Screw Co., Willimantic, Conn.
Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
ATLAS E-E CORP., Bedford Airport Terminal Bldg., Bedford, Mass. ADV. PG. 571.
Boots Aircraft Nut Corp., Newton Ave., Norwalk, Conn.
Elastic Stop Nut Corp., 2330 Vauxhall Road, Union, N. J.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
Greer Stop Nut Co., 2620 W. Fluornoy St., Chicago 12, Ill.
Jacobson Nut Mfg. Corp., Market St., Kenilworth 2, N. J.
Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 567.
Klincher Locknut Corp., 2153 Hillside Ave., Indianapolis 18, Ind.
Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2, Ohio.
Nylok Corp., Box 341, Elmira, N. Y.
Painot Co., Inc., 77 Cordier St., Irvington 11, N. J.
Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
Shakeproof Div. of Illinois Tool Works, St. Charles Rd., Elgin, Ill.
Shearcut Tool Co., 7045 Darby Ave., Reseda, Calif.
Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
Star Stainless Screw Co., 655 Union Blvd., Totowa, N. J.
Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
Thompson-Bremer & Co., 520 N. Dearborn, Chicago 10, Ill.
Tinnerman Products, Inc., P. O. Box 6688, Dept. No. 16, Cleveland 1, Ohio.
UNITED-CARR FASTENER CORP., Cambridge 42, Mass. ADV. PG. 160.
Waterbury Pressed Metal Co., P-M Nut Div., 300 Chase Ave., Waterbury 14, Conn.

NYLON

See **INSULATING MATERIALS**

OHMMETERS

See INSTRUMENTS—Electrical Measuring

O RINGS

See GASKETS

WASHERS—Insulating

OPTICAL EQUIPMENT AND SPECIALTIES

Allegany Instrument Co., Inc., Cumberland, Md.
 American Optical Co., Instrument Div., Box A, Buffalo 15, N. Y.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
 Baird Associates, 33 University Rd., Cambridge 38, Mass.
 Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
 Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
 Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
 Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 EASTMAN KODAK CO., 343 State St., Rochester 4, N. Y. ADV. PG. 659.
 Eichner Instruments, L. C., 19 Sebago St., Clifton, N. J.
 Caertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
 Keim Precision Mirrors, 1346 E. Colorado St., Glendale 5, Calif.
 O & S RESEARCH INC., 1319 Admiral Wilson Blvd., Camden 1, N. J. ADV. PG. 624.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Pacific Universal Products Corp., 168 Vista Ave., Pasadena 8, Calif.
 Polan Industries Inc., P. O. Box 1720, Huntington, W. Va.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
 Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
 Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.

OSCILLATORS—Audio Fork Controlled

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
AMERICAN TIME PRODUCTS, INC., 580 Fifth Ave., New York 36, N. Y. ADV. PG. 232.
 Antlab, 4950 N. High St., Columbus 14, Ohio.
BEHLMAN ENGINEERING CO., 114 S. Hollywood Way, Burbank, Calif. ADV. PG. 368.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
PHILAMON LABORATORIES, INC., 90 Hopper St., Westbury, N. Y. ADV. PG. 389.
 Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 392.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.

OSCILLATORS—Audio Frequency

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Airmecc, Ltd., High Wycombe, Buckinghamshire, England.
 American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.
 American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BEHLMAN ENGINEERING CO., 114 S. Hollywood Way, Burbank, Calif. ADV. PG. 368.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
 Bidde Co., James G., 1316 Arch St., Philadelphia 7, Pa.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
CENTRALAB DIV., GLOBE-UNION, INC., 914 E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Clough Brengle Co., 6014 N. Broadway, Chicago, Ill.
 Control Corp., 718 Central Ave., Minneapolis 14, Minn.

Datran Engineering Corp., 3613 Aviation Blvd., Manhattan Beach, Calif.
DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.
 Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Furzehill Laboratories, Ltd., 57 Clarendon Rd., Watford, Herts., England.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 48, 49.
 L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
 Metronix, Inc., P. O. Box 549, New London, Conn.
 Muirhead & Co., Inc., Beckenham, Kent, England.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Pulse Techniques, Inc., 1411 Palisade Ave., West Englewood, N. J.
 Radexp Corp., 2076 N. Elston Ave., Chicago 14, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.
SHASTA DIV. OF BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.
 Solartron Electronic Group Ltd., The Thames Ditton, Surrey, England.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
SPECTRUM INSTRUMENTS, INC., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 587.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TELETRONICS LABORATORY, INC., Kinkel St., Westbury, N. Y. ADV. PG. 545.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
 Waveforms, Inc., 333 Sixth Ave., New York 14, N. Y.
WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 28.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
 Wright Electronics Inc., 1519 McGee St., Kansas City 8, Mo.

OSCILLATORS—Cavity

Aircorn Inc., 354 Main St., Winthrop 52, Mass.
AMERAC, INC., 116 Topsfield Rd., Wenham, Mass. ADV. PG. 503.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. ADV. PG. 614.
 C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
 Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.

Frequency Standards Inc., P. O. Box 504, Asbury Park, N. J.
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington, N. J.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
MAXSON INSTRUMENTS A DIV. OF THE W. L. MAXSON CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 438.
MENDELSONN SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Transitor, Inc., 186 Granite St., Manchester, N. H.
 Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.

OSCILLATORS—Crystal

Airmec, Ltd., High Wycombe, Buckinghamshire, England.
 Audio Products Corp., 2265 Westwood Blvd., Los Angeles 64, Calif.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 284, 285.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Cavitron Electron Oscillator Co. Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 Decade Instrument Co., Box 153, Caldwell, N. J.
 Eidson Electronic Co., 1902 N. Third St., Temple, Texas.
 Erco Engineering Corp., Addison, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
 International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.
 Jowil Electronics, Inc., Belfield & Wlster, Philadelphia 44, Pa.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 568.
MANSON LABORATORIES, 207 Greenwich Ave., Stamford, Conn. ADV. PG. 550.
 Marconi Instruments, 44 New St., New York 4, N. Y.
 Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
NORRMAN LABORATORIES, ERNST, Williams Bay, Wis. ADV. PG. 552.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 64-66.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
 Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
TELETRONICS LABORATORY, INC., Kinkel St., Westbury, N. J. ADV. PG. 545.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.
 Wright Electronics Inc., 1519 McGee St., Kansas City 8, Mo.

OSCILLATORS, GRIP DIP—High Frequency & vhf

ALTO SCIENTIFIC CO., 855 Commercial St., Palo Alto, Calif. ADV. PG. 171.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
HEATH CO. A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
MANSON LABORATORIES, 207 Greenwich Ave., Stamford, Conn. ADV. PG. 550.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 422.
 Metronix, Inc., P. O. Box 549, New London, Conn.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
United Technological Laboratories, Box 425V, Morristown, N. J.

OSCILLATORS—Microwave Power
 See MICROWAVE ACCESSORIES

OSCILLATORS—Oven Crystal Control

Airmec Ltd., High Wycombe, Buckinghamshire, England.
Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.

Eidson Electronic Co., 1902 N. Third St., Temple, Texas.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
HYCON EASTERN, INC., 1360 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 290, 291.

International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 568.

Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.

Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
Press Wireless Laboratories, Inc., 25 Prospect Pl., West Newton 65, Mass.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Standard Piezo Co., P. O. Box 513, Carlisle, Pa.

TELETRONICS LABORATORY, INC., Kinkel St., Westbury, N. Y. ADV. PG. 545.
Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.
Wright Electronics Inc., 1519 McGee St., Kansas City 8, Mo.

OSCILLATORS—Pushbutton
KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 48, 49.

Pulse Techniques, Inc., 1411 Palisades Ave., West Englewood, N. J.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

TELETRONICS LABORATORY, INC., Kinkel St., Westbury, N. Y. ADV. PG. 545.
Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.

Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
Video Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind.

OSCILLATORS—Radio Frequency
ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.

Airmec Ltd., High Wycombe, Buckinghamshire, England.
Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.

BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.

CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.

Cinema-Television Ltd., Worsley Bridge Rd., London SE 26, England.
Clough Bregle Co., 6014 N. Boardway, Chicago, Ill.

COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
Collins Radio Co., Cedar Rapids, Iowa.
Decade Instrument Co., Box 153, Caldwell, N. J.

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.

Ercco Engineering Corp., Addison, Ill.
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

Gerlyn Engineering Co., 2151 N. Damen Ave., Chicago 47, Ill.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.

HYCON EASTERN, INC., 1360 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 290, 291.
Industron Corp., 50 Brook Rd., Needham Heights, Mass.
International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.

Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
Lettine Radio Mfg. Co., 62 Berkley St., Valley Stream, N. Y.

MANSON LABORATORIES, 207 Greenwich Ave., Stamford, Conn. ADV. PG. 550.
Marconi Instruments, 44 New St., New York 4, N. Y.
Metronix, Inc., P. O. Box 549, New London, Conn.

MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London W. C. 2, England. ADV. PG. 181.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.

NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 64-66.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.

Press Wireless Laboratories, Inc., 25 Prospect Pl., West Newton 65, Mass.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.
SHASTA DIV. OF BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.
Standard Piezo Co., P. O. Box 513, Carlisle, Pa.
Standwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.

Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
Warsaw Coil Co., Warsaw, Ind.

WEINSCHEL ENGINEERING CO., INC., 10503 Metropolitan Ave., Kensington, Md. ADV. PG. 28.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
Woodwelling, Inc., 3000 West Olive, Burbank, Calif.
World Radio Laboratories, Inc., 3415 W. Broadway, Council Bluffs, Iowa.

OSCILLATORS—Sweeping
American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.
APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.

BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
CLEGG LABORATORIES, INC., Hanover & Rigidale Aves., Morristown, N. J. ADV. PG. 566.

Clough-Bregle Co., 6014 N. Broadway, Chicago, Ill.
Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
Decade Instrument Co., Box 153, Caldwell, N. J.

Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis, Mo.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.

Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.
Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

Transitron, Inc., 186 Granite St., Manchester, N. H.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.

United Technical Laboratories, Box 425V, Morristown, N. J.
VARI-L CO., INC., P. O. Box 1433, Stamford, Conn. ADV. PG. 500.
White Electron Devices Inc., Roger, Fourth Ave., Haskell, N. J.

OSCILLATORS—Ultra-Low Frequency
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Decade Instrument Co., Box 153, Caldwell, N. J.

DONNER SCIENTIFIC CO., 2829 Seventh St., Berkeley 10, Calif. ADV. PG. 239-242.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.

Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 48, 49.

Metronix, Inc., P. O. Box 549, New London, Conn.
Muirhead & Co., Ltd., Beckenham, Kent, England.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Solartron Electronic Group Ltd., The, Thames Ditton, Surrey, England.

SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
SPECTRUM INSTRUMENTS, INC., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 587.

Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
Waveforms, Inc., 333 Sixth Ave., New York 14, N. Y.

OSCILLATORS—Ultrasonic
Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
American Diathermy Products, Inc., 11858 Mississippi Ave., Los Angeles 25, Calif.

ARENBERG ULTRASONIC LABORATORY, 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 570.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

Blackstone Corp., 1111 Allen St., Jamestown, N. Y.
Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.

BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 655.
Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.

DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Decade Instrument Co., Box 153, Caldwell, N. J.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
Edo Corp., College Point, N. Y.

Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 48, 49.

McKenna Laboratories, Santa Monica 6, Calif.
Mack Electronics Division, Inc., Plainfield, N. J.
Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.

Power Supplies, Inc., 1007 Olive St., Highland, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.

SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 372, 373.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
Ultrasonic Engineering Co., 2402 Second St., Peru, Ill.
Waveforms, Inc., 333 Sixth Ave., New York 14, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

OSCILLOGRAPHES

See **OSCILLOSCOPES**

OSCILLOGRAPHES—Cathode Ray Camera

Allegany Instrument Co., Inc., Cumberland, Md.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S.E. 26, England.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
WATERMAN PRODUCTS CO., INC., 2445-63 Emerald St., Philadelphia 25, Pa. ADV. PG. 96, 97.

OSCILLOGRAPHES—Cathode Ray Recording, Multichannel

Allegany Instrument Co., Inc., Cumberland, Md.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
 Beva Laboratory, 1640 Olden Ave. Ext., Trenton 9, N. J.
 Central Research Laboratories, Inc., Red Wing, Minn.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 Maryland Electronic Mfg. Corp., College Park, Md.
 Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W.C. 2, England.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.

OSCILLOGRAPHES—Direct Writing

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Cinema-Television Ltd., Worsley Bridge Rd., London S.E. 26, England.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
EDIN CO., INC., 207 Main St., Worcester, Mass. ADV. PG. 280.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
 Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
SANBORN CO., 39 Osborn St., Cambridge 39, Mass. ADV. PG. 205.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
 United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.

OSCILLOGRAPHES—Multi-Element

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Century Electronics & Instruments, Inc., P. O. Box 6216, Pine Station, Tulsa 10, Okla.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
HEILAND DIV. OF MINNEAPOLIS-HONEYWELL REGULATORY CO., 5200 E. Evans Ave., Denver 22, Colo. ADV. PG. 376.
 Midwest Instruments, 41st & Sheridan Rd., Tulsa, Okla.
 Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
 Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430-431.
 Technical Instrument Co., 3732 Westheimer Rd., Houston 6, Texas.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.

OSCILLOGRAPHES—Recording

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Century Electronics & Instruments, Inc., P. O. Box 6216, Pine Station, Tulsa 10, Okla.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
EDIN CO., INC., 20 Main St., Worcester, Mass. ADV. PG. 280.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
HEILAND DIV. OF MINNEAPOLIS-HONEYWELL REGULATORY CO., 5200 E. Evans Ave., Denver 22, Colo. ADV. PG. 376.
 Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
 Mid-Century Instrument Co., 6117 Broadway, New York 12, N. Y.
 Midwest Instruments, 41st & Sheridan Rd., Tulsa, Okla.
 Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
 Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
 Technical Instrument Co., 3732 Westheimer Rd., Houston 6, Texas.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
 United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.

OSCILLOGRAPHES—Transient Study

See **OSCILLOSCOPES—Cathode Ray**

OSCILLOSCOPES

See **OSCILLOGRAPHES ACCESSORIES**
 See **TRACERS—Manual, for Oscilloscopes**

OSCILLOSCOPES—Cathode Ray

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Allegany Instrument Co., Inc., Cumberland, Md.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.
CASCADE RESEARCH CORP., 53 Victory Lane, Los Gatos, Calif. ADV. PG. 623.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S.E. 26, England.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
 Du Mont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
EBERLINE INSTRUMENT DIVISION, P. O. Box 279, Santa Fe, N. M. ADV. PG. 654.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
 Electronic Measurements Corp., 280 Lafayette St., New York 12, N. Y.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.
 Furzehill Laboratories, Ltd., 57 Clarendon Rd., Watford, Herts., England.

General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
 Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 181.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Precise Development Corp., 2 Neil Court Oceanside, N. Y.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Solartron Electronic Group Ltd., The, Thames Ditton, Surrey, England.
 Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
 Technomatic Instrument Co., 1733 Flower St., Glendale, Calif.
 Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
TRAD ELECTRONICS CORP., 1001 First Ave., Asbury Park, N. J. ADV. PG. 680.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
 Uni-Products Div. of Uni-Science, Inc., P. O. Box 460, Frederick, Md.
 Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.
WATERMAN PRODUCTS CO., INC., 2445-63 Emerald St., Philadelphia 25, Pa. ADV. PG. 96, 97.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

OSCILLOSCOPES, Cathode Ray—Multiple Channel

Allegany Instrument Co., Inc., Cumberland, Md.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.
 Cinema-Television Ltd., Worsley Bridge Rd., London, S.E. 26, England.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Du Mont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
 Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London W. C. 2, England. ADV. PG. 181.
 Photron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Railway Communications, Inc., P. O. Box 67, Raytown, Mo.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
 Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
TRIPLETT ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington Surrey, England.
WATERMAN PRODUCTS CO., INC., 2445-63 Emerald St., Philadelphia 25, Pa. ADV. PG. 96, 97.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

OSCILLOSCOPE—Portable

Allegany Instrument Co., Inc., Cumberland, Md.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax N. S., Canada.
 Du Mont Laboratories, Inc., Allen B. Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Furzehill Laboratories, Inc., 57 Clarendon Rd., Watford, Herts., England.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
HEATH CO., A SUB OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
 Hycon Mfg. Co., 2961 E. Colorado St., Pasadena 8, Calif.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.
 Solartron Electric Group Ltd., The, Thames Ditton, Surrey, England.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
 Tektronix, Inc., P. O. Box 831, Portland 7, Oregon.
 Uni-Products Div. of Uni-Science, Inc., P. O. Box 460, Frederick, Md.
WATERMAN PRODUCTS CO., INC., 2445-63 Emerald St., Philadelphia 25, Pa. ADV. PG. 96, 97.

OSCILLOSCOPES—Portable Projection

BETA ELECTRIC CORP., 333 E. 103rd St., New York 29, N. Y. ADV. PG. 652.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
WATERMAN PRODUCTS CO., INC., 2445-63 Emerald St., Philadelphia 25, Pa. ADV. PG. 96, 97.

OVENS—Crystal

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 284, 285.
 Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
CLARK CRYSTAL CO., Farm Rd., Marlboro, Mass. ADV. PG. 294.
 Cryco, Inc., 1139 Mission St., South Pasadena, Calif.
 Fretco, Inc., 406 N. Craig St., Pittsburgh 13, Pa.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
HUNT CORP., 453 Lincoln St., Carlisle, Pa. ADV. PG. 224.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
KEYSTONE ELECTRONICS CO., 114 Manhattan St., Stamford, Conn. ADV. PG. 520.
 L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
MCCOY ELECTRONICS CO., Mount Holly Springs, Pa. ADV. PG. 560.
 Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
 Monitor Products Co., 815 Fremont Ave., South Pasadena, Calif.
NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
 Precision Scientific Co., 3737 W. Cortland St., Chicago 47, Ill.
 Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
 Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
SEMIMETALS, INC., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 568.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W.C.2, England.
VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 612.

OVENS—Electric

Acme Electric Heating Co., 1217 Washington St., Boston, Mass.
 Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
 Despatch Oven Co., Minneapolis, Minn.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Forter-Teichmann Co., Clark Bldg., Pittsburgh, Pa.
 Fostoria Pressed Steel Corp., Fostoria, Ohio.
 Grieve-Hendry Co., Inc., 1401-17 W. Carroll Ave., Chicago 7, Ill.
 Huppert Co., K., H., 6824 S. Cottage Grove Ave., Chicago 37, Ill.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
 Miskella Infra-Red Co., The, 73rd & Grand Ave., Cleveland 4, Ohio.
NEW ENGLAND OVEN & FURNACE CO., INC., Orange, Conn. ADV. PG. 542.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Precision Scientific Co., 3737 W. Cortland St., Chicago 47, Ill.
 Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
STEINER-IVES CO., Springfield Rd., Union, N. J. ADV. PG. 514.
TENNEY ENGINEERING, INC., 1090 Springfield Rd., Union, N. J. ADV. PG. 436.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
 Waage Electric, Inc., 720 Colfax Ave., Kenilworth, N. J.
 Young Brothers Co., 1831 Columbus Rd., Cleveland 13, Ohio.

OVENS—Infra-Red Drying

Fostoria Pressed Steel Corp., Fostoria, Ohio.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
 Miskella Infra-Red Co., The, 73rd & Grand Ave., Cleveland 4, Ohio.
STEINER-IVES CO., Springfield Rd., Union, N. J. ADV. PG. 514.
 Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.

PACKAGING—Electronic Equipment, Service Only

Cargo Packers, 37-20 14th Ave., Brooklyn, N. Y.
 ConRay Corp., 29 W. Apple St., Dayton 2, Ohio.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 Deitz Co., S. J., 9 E. Wesley St., South Hackensack, N. J.
 Electronics Research Labs, 85 Surrey St., Brighton 35, Mass.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnysvale, Calif.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
PARAPLEGICS MFG. CO., INC., 10068 Franklin Ave., Franklin Park, Ill. ADV. PG. 528.
 Precision Line, Inc., 63 Main St., Maynard, Mass.
 San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif.
SPIVEY INC., JAMES S., 4908 Hampden Lane, Washington 4, D. C. ADV. PG. 569.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 United Electrodynamics Div., of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.
 Webhart Corp., 33 W. Union St., Pasadena 1, Calif.

PACKAGING MATERIALS

Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Blocksom & Co., Michigan City, Ind.
 Calresin Corp., 4543 Brazil St., Los Angeles 39, Calif.
 Connecticut Hard Rubber Co., 407 East St., New Haven, Conn.
 Continental Can Co., 100 E. 42nd St., New York 17, N. Y.
 Corrugated Paper Products, Inc., 2233 Utica Ave., Brooklyn 34, N. Y.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills, Pa. ADV. PG. 634.
 Daubert Chemical Co., 333 N. Michigan Ave., Chicago 1, Ill.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
EASTMAN KODAK CO., 343 State St., Rochester 4, N. Y. ADV. PG. 659.
 Gair Co., Inc., Robert, 155 E. 44th St., New York, N. Y.
 General Tire & Rubber Co., Akron, Ohio.
 General Tire & Rubber Co., Bolta Products Div., Lawrence, Mass.
 Hinde & Dauch, Sandusky, Ohio.

Kaiser Aluminum & Chemical Sales, Inc., 1924 Broadway, Oakland 12, Calif.
KOCH & SONS, H., Corte Madera, Calif. ADV. PG. 581.
 Lerner Plastics, Inc., 522 South Ave., Garwood, N. J.
 Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Cuckle Mfg. Co., Owatonna 55, Minn.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Nopco Chemical Co., Plastics Div., Harrison, N. J.
 Olympic Plastics Co., Inc., 5741 W. Jefferson Blvd., Los Angeles 16, Calif.
 Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.
PETER PARTITION CORP., 124 Boerum Place, Brooklyn 1, N. Y. ADV. PG. 490.
 Protective Coatings Corp., 596 River Rd., Clifton, N. J.
SKYDYNE, INC., River Rd., Port Jervis, N. Y. ADV. PG. 547.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

PAINTS—Conductive (for Printed Circuits)

Acheson Colloids Corp., 1950 Washington Ave., Port Huron, Mich.
 California Bent Glass Corp., Torrance, Calif.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Delaware.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 206.
 Metaplast Co., Inc., 34-51 56th St., Woodside, N. Y.
 Micro-Circuits Co., New Buffalo, Mich.
 Sauerisen Cements Co., Sauerisen Bldg., Pittsburgh 15, Pa.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

PAINTS—Resistive (for Printed Circuits)

Acheson Colloids Corp., 1950 Washington Ave., Port Huron, Mich.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 California Bent Glass Corp., Torrance, Calif.
 Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.
 General Research & Supply Co., 572 S. Division Ave., Grand Rapids 3, Mich.
 Micro-Circuits Co., New Buffalo, Mich.
 Naz-Dar Co., 465 Milwaukee Ave., Chicago 10, Ill.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

PANEL LIGHTS

See **LIGHTS—Dial, Panel and Pilot**

PANELS—Instrument

ABALON PRECISION MFG. CORP., 540 Cassanova St., Bronx 59, N. Y. ADV. PG. 590.
ACKERMAN ENGRAVERS, 458 Broadway, New York, N. Y. ADV. PG. 641.
 Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
BODNAR INDUSTRIES, INC., 19 Railroad Ave., New Rochelle, N. Y. ADV. PG. 691.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Bristol Co., The, Waterbury 20, Conn.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.
 Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
 Columbia Metal Box Co., 260 E. 143rd St., New York, N. Y.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
 Corry Jamestown Mfg. Corp., Corry, Pa.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
 Cutler Metal Products Co., 1025 Line St., Camden, N. J.
 Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.

Donnelly Mfg. Co., Div. of The Indian Co., 3050 Washington St., Boston 19, Mass.
 Dukane Corp., St. Charles, Ill.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
 Falstrom Co., 44 Falstrom Court, Passaic, N. J.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
 Foxboro Co., The, Foxboro, Mass.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
HELDOR MFG. CORP., 238 Lewis St., Paterson, N. J. ADV. PG. 482.
 Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City, N. J.
 Hoffman Engineering Corp., Anoka, Minn.
 Hopkins Engineering Co., 2082 Lincoln Ave., Altadena, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
 Industrial Engravers, Inc., 4103 Tenth Ave., Brooklyn 19, N. Y.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Karp Metal Products Co., Div. of H & B Machine Co., 215 63rd St., Brooklyn 20, N. Y.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Master Etching Corp., 50 Honeck St., Englewood, N. J.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Metalcraft, Inc., 65-33 Austin St., Rego Park 74, N. Y.
 Mica Insulator Co., Schenectady 1, N. Y.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 New England Etching & Plating Co., 25 Spring St., Holyoke, Mass.
PARK NAMEPLATE CO., INC., 61-07 32nd Ave., Woodside 77, N. Y. ADV. PG. 629.
 Pfefer Products, 3901 W. 54th St., Los Angeles, Calif.
PHOTO CHEMICAL PRODUCTS, INC., 479 Walton Ave., New York 51, N. Y. ADV. PG. 530.
 Plasteck, Inc., Poteau, Okla.
 Pneumafil Corp., Charlotte, N. C.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
 Roller-Smith Corp., Instrument Div., 1825 Market St., Bethlehem, Pa.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Sorensen Industrial Electronic Co., Route 10, Dover, N. J.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Sun Dial Corp., E. Passaic Ave., Caldwell, N. J.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
WATERMAN PRODUCTS CO., INC., 2445-63 Emerald St., Philadelphia 25, Pa. ADV. PG. 96, 97.
 Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.

PANELS—Jack

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.

Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Dukane Corp., St. Charles, Ill.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Hopkins Engineering Co., 2082 Lincoln Ave., Altadena, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Keystone Electronic Corp., 423 Broome St., New York 12, N. Y.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Nems-Clarke, Inc., Silver Spring, Md.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Pfefer Products 3901 W. 54th St., Los Angeles, Calif.
 Pomona Electronics Co., Inc., 1126 W. Fifth Ave., Pomona, Calif.
 Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
 Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
 Remler Co., 2101 Bryant St., San Francisco 10, Calif.
 Roffan Co., Corner Route 1 & Camp Meeting Rd., Topsheld, Mass.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 668.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.

PANELS—Receiver & Transmitter

Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
 Croname, Inc., 3701 N. Ravenswood Ave., Chicago 13, Ill.
 Cutler Metal Products Co., 1025 Line St., Camden, N. J.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City, N. J.
 Hopkins Engineering Co., 2082 Lincoln Ave., Altadena, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Karp Metal Products Co., Div. of H & B Machine Co., 215 63rd St., Brooklyn 20, N. Y.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Nems-Clarke, Inc., Silver Spring, Md.
 Pfefer Products, 3901 W. 54th St., Los Angeles, Calif.
 Pneumafil Corp., Charlotte, N. C.
PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx, N. Y. ADV. PG. 687.
SPIVEY INC., JAMES S., 4908 Hampden Lane, Washington 4, D. C. ADV. PG. 569.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.

PANELS—Relay Rack

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.
 Columbia Metal Box Co., 260 E. 143rd St., New York, N. Y.
 Conrad & Moser, 2 Borden Ave., Long Island City, 1, N. Y.
 Corry Jamestown Mfg. Co., Corry, Pa.
 Cutler Metal Products Co., 1025 Line St., Camden, N. J.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Donnelly Mfg. Co., Div. of The Indian Co., 3050 Washington St., Boston 19, Mass.
 Dukane Corp., St. Charles, Ill.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Falstrom Co., 44 Falstrom Court, Passaic, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
 Hopkins Engineering Co., 2082 Lincoln Ave., Altadena, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Karp Metal Products Co., Div. of H & B Machine Co., 215 63rd St., Brooklyn 20, N. Y.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Metalcraft, Inc., 65-33 Austin St., Rego Park 74, N. Y.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 Par-Metal Products Corp., 32-62 49th St., Long Island City, 3, N. Y.
 Pfefer Products, 3901 W. 54th St., Los Angeles, Calif.
 Pneumafil Corp., Charlotte, N. C.
PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 687.
 Standard Telephones & Cables, Ltd., Connaught House Aldwych, London, W. C. 2, England.
SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
 Union Switch & Signal Div., of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.
 Wyco Metal Products, 6918 Beck Ave., North Hollywood, Calif.

PAPER

See INSULATION MATERIALS

PAPER—Facsimile Recording

ALDEN ELECTRONIC & IMPULSE RECORDING CO., Box 125, Westboro, Mass. ADV. PG. 673.
ALFAX PAPER & ENGINEERING CO., Washington St., P. O. Box 125, Westboro, Mass. ADV. PG. 673.
 Bruning Co., Inc., Charles, 4700 Montrose Ave., Chicago 41, Ill.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Muirhead & Co. Ltd., Beckenham, Kent, England.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 392.
 Western Union Telegraph Co., 60 Hudson St., New York 13, N. Y.

PAPER—Recording

ALDEN ELECTRONIC & IMPULSE RECORDING CO., Box 125, Westboro, Mass. ADV. PG. 673

ALFAX PAPER & ENGINEERING CO., Washington St., P. O. Box 125, Westboro, Mass. ADV. PG. 673.
Bristol Co., The, Waterbury 20, Conn.
DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
Peerless Photo Products, Inc., Shoreham, N. Y.
Schweitzer, Inc., Peter J., 261 Madison Ave., New York 16, N. Y.
SOUND APPARATUS CO., Stirling, N. J. ADV. PG. 536.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 392.
Western Union Telegraph Co., 60 Hudson St., New York 13, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

PARTS FOR COLOR TV TUBES

Crystals—Color TV Frequency Control
to Spacers—Bar

CRYSTALS—Color TV Frequency Control

BLILEY ELECTRIC CO., Union Station Bldg., Erie, Pa. ADV. PG. 284, 285.
BULOVA WATCH CO., QUARTZ CRYSTAL DIVISION, Valley Stream, N. Y. ADV. PG. 378, 379.
C-W Mfg. Co., Box 2065, El Monte, Calif.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. ADV. PG. 18.
Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
HUNT CORP., The, 453 Lincoln St., Carlisle, Pa. ADV. PG. 224.
International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.
KEYSTONE ELECTRONICS CO., 114 Manhattan St., Stamford, Conn. ADV. PG. 520.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 568.
MCCOY ELECTRONICS CO., Mount Holly Springs, Pa. ADV. PG. 560.
MIDLAND MFG. CO., INC., 3155 Fiberglass Rd., Kansas City 15, Kansas. ADV. PG. 215.
Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
Monitor Products Co., 815 Fremont Ave., South Pasadena, Calif.
Nebel Laboratory, R. E., 1624 E. 12th St., Brooklyn 29, N. Y.
Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89 Third & Fourth Covers & Preceding Insert.
Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
Sherold Crystals, Inc., 1510 McGee St., Kansas City, Mo.
Standard Crystal Co., 1714 Locust St., Kansas City 8, Mo.
VALPEY CRYSTAL CORP., 1244 Highland St., Holliston, Mass. ADV. PG. 612.
Wright Electronics Inc., 1519 McGee St., Kansas City 8, Mo.

DELAY LINES—Color TV

ADVANCE ELECTRONICS CO., 451 Highland Ave., Passaic, N. J. ADV. PG. 600.
All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Bel-Fuse, Inc., 311 Mountain Rd., Union City, N. J.
BREW & CO., INC., RICHARD, Concord, N. H. ADV. PG. 661.
CENTRAL DIV., GLOBE-UNION, INC., 914 Y. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
Cinema-Television, Ltd., Worsley Bridge Rd., London S.E. 26, England.
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
COLUMBIA TECHNICAL CORP., 61-02 31 Ave., Woodside 77, N. Y. ADV. PG. 609.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
Dilectron Div., The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif.
DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417.
Electrometric, Inc., P. O. Box 107, Woodstock, Ill.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307.
Gudeman Co. of California Inc., 9200 Exposition Blvd., Los Angeles 34, Calif.

GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.
Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
Helipot Corp., 916 Meridian Ave., South Pasadena, Calif.
Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.
Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty-Fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.

FRAMES—Grid

Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.

MASKS—Aperture

LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.

PLATES—Phosphor

U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

SHIFTERS—Color Phase

Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TELECHROME INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

SPACERS—Bar

Greer Stop Nut Co., 2620 W. Fluornoy St., Chicago 12, Ill.
Louis Laboratories, 1947 Broadway, New York 23, N. Y.

PERFORATED MATERIALS FOR ELECTRONIC EQUIPMENT

Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Falstrom Co., 44 Falstrom Court, Passaic, N. J.
Ferguson Perforating & Wire Co., 130 Ernest St., Providence 5, R. I.
Harrington & King Perforating Co., 5653 Fillmore St., Chicago 44, Ill.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.
MUNDT & SONS, CHARLES, 53 Fairmount Ave., Jersey City 4, N. J. ADV. PG. 656.

PERMEAMETERS—High H

Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

PERMEAMETERS—R-F

National Electronics Laboratories, Inc., 1713 Kalorama Rd., N.W., Washington 9, D. C.

PH

See INDICATORS

PHENOLIC MOLDING COMPOUNDS

See INSULATING COMPOUNDS

PHONOGRAPHS—Electric Phonographs & Record Players

A.R.F. Products, Inc., 7627 Lake St., River Forest, Ill.
Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
Ansley Mfg. Co., Arthur, Doylestown, Pa.
Audio Industries Inc., Michigan City, Ind.
Audio-Master Corp., 17 E. 45th St., New York 17, N. Y.
Autocrat Electronics Co., 5024 Elm St., Skokie 8, Ill.
Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
British Radio Electronics Ltd., 1833 Jefferson Place, N.W., Washington 6, D. C.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
Califone Corp., 1041 N. Sycamore Ave., Hollywood 38, Calif.
Dukane Corp., St. Charles, Ill.
Electron Enterprise, 6917-19-21 Stanley Ave., Berwyn, Ill.
Fidelity Amplifier Co., 703 Willow St., Chicago 14, Ill.
Fisher Radio Corp., 21-21 44th Drive, Long Island City 1, N. Y.
General Industries Co., Taylor & Olive Sts., Elyria, Ohio.
Gotham Television Corp., 123 W. 64th St., New York 23, N. Y.
Guild Radio & Television Co., 460 N. Eucalyptus Ave., Inglewood, Calif.
MP Engineering Co., Fairfield 3, Conn.
Magnavox Co., Fort Wayne 4, Ind.
Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
Radio Corp. of America, Consumer Products Div., Camden 8, N. J.
Rek-O-Kut Co., 38-01 Queens Blvd., Long Island City 1, N. Y.
Seeburg Corp., 1500 N. Dayton St., Chicago 22, Ill.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Telequip Radio Co., 2559 W. 21st St., Chicago 8, Ill.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
V-M Corp., Benton Harbor, Mich.
Waters Conley Co., 501 First St. N. W., Rochester, Minn.
Webster-Chicago Corp., 5610 Bloomingdale Ave., Chicago 39, Ill.
Weingarten Electronics Labs, Inc., 7556 Melrose Ave., Los Angeles 46, Calif.
Zenith Radio Corp., 6001 Dickens Ave., Chicago 39, Ill.

PHOTO ETCHED COMPONENTS

Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
Ansley Mfg. Corp., Arthur, New Hope, Pa.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
Digital Products, Inc., 7643 Fay Ave., LaJolla, Calif.
Eaton Associates, Inc., Moodus, Conn.
ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 665.
Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
Insulated Circuits, Inc., 115 Roosevelt Ave., Belleville, N. J.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.
Master Etching Corp., 50 Honeck St., Englewood, N. J.
North Shore Nameplate Inc., 214-27 Northern Blvd., Bayside 61, N. Y.
Phen-O-Tron, Inc., 455 Main St., New Rochelle, N. Y.
Plastics & Electronics Co., Inc., P. O. Box 38, Station J, Buffalo 8, N. Y.
Polan Industries Inc., P. O. Box 1720, Huntington, W. Va.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 586.
Printed Circuit Div., LaPolite Electronics Inc., Rockville, Conn.
Technograph Printed Electronics, Inc., 185 Valley St., Tarrytown, N. Y.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
Videon Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind.

PHOTOFLASH EQUIPMENT—Electronic

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
American Speedlight Corp., 63-01 Metropolitan Ave., Middle Village 79, N. Y.
Amglo Corp., 2037 West Division St., Chicago 22, Ill.
Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass.
Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
Hauman Instrument Co., Inc., 70 Coolidge Hill Rd., Watertown 72, Mass.
HEILAND DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 5200 E. Evans Ave., Denver 22, Colo. ADV. PG. 376.
ILLINOIS CONDENSER CO., 1616 N. Throop St., Chicago 22, Ill. ADV. PG. 441.
Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.
MENDELSONH SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.
Nems-Clarke, Inc., Silver Spring, Md.
Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
Wilcox Research Co., 2506 N. Ontario St., Burbank, Calif.

PHOTOGRAPHIC MATERIALS—Films and Papers
For Recording Instruments

du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Delaware.
EASTMAN KODAK CO., 343 State St., Rochester 4, N. Y. ADV. PG. 659.
HUNT CO., PHILIP A., Palisades Park, N. J. ADV. PG. 646.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
Peerless Photo Products, Inc., Shoreham, N. Y.
Telecomputing Corp., 12838 Saticoy St., North Hollywood, Calif.

PHOTOGRAPHIC MATERIALS—Spectrographic Instruments

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
 Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
EASTMAN KODAK CO., 343 State St., Rochester 4, N. Y. ADV. PG. 659.
HUNT CO., PHILIP A., Palisades Park, N. J. ADV. PG. 646.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.

PHOTOGRAPHIC MATERIALS—X-Ray Films

du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Delaware.
EASTMAN KODAK CO., 343 State St., Rochester 4, N. Y. ADV. PG. 659.
HUNT CO., PHILIP A., Palisades Park, N. J. ADV. PG. 646.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 X-Ray Dept. of General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

PHOTOMETERS

Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
 Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
 Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
TELECHROME INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Ultrasonic Engineering Co., 2402 Second St., Peru, Ill.
 Warren Electronics, Inc., Bound Brook, N. J.
 Zoomar, Inc., Glen Cove, N. Y.

PHOTOTUBES AND PHOTOCELLS

See TUBES

PICKUP UNITS—Mobile Television

Dumont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.

PICKUPS—Crystal

See CRYSTAL CARTRIDGES

PICKUPS—Industrial

ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 522.
 International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Cleveland 16, Ohio
 Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.
 Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
 Sheffield Corp., The, Dayton 1, Ohio.

PICKUPS—Magnetic

A. P. W. Co., 72 W. Main St., Rockaway, N. J.
ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.
 Audak Co., 500 Fifth Ave., New York, N. Y.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 522.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Fairchild Recording Equipment Co., 154th St. & Seventh Ave., Whitestone, N. Y.
 International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Cleveland 16, Ohio.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn.
 Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif.
 Performance Measurements Co., 15301 W. McNichols, Detroit 35, Mich.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
PICKERING & CO., 309 Woods Ave., Oceanside, N. Y. ADV. PG. 679.
 Post Machinery Co., Electronic Products Div., 140 Eliot St., Beverly, Mass.
 Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.

PICKUPS—Photoelectric

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.

Electrical Service Co., 1271 Mission St., San Francisco, Calif.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Post Machinery Co., Electronic Products Div., 140 Eliot St., Beverly, Mass.

PICKUPS—Quartz Crystal

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
 Chesapeake Instrument Corp., Shadyside, Md.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
 Kistler Instrument Co., 15 Webster St., Tonawanda, N. Y.

PICKUPS—Transcription and Phonograph

American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.
 Astatic Corporation, The, Conneaut, Ohio.
 Audak Co., 500 Fifth Ave., New York, N. Y.
 British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
 Gray Research & Development Co., Inc., 685 Hillard St., Manchester, Conn.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
 Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif.
PICKERING & CO., 309 Woods Ave., Oceanside, N. Y. ADV. PG. 679.
 Rek-O-Kut Co., Inc., 38-01 Queens Blvd., Long Island City 1, N. Y.
SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
SONOTONE CORP., P. O. Box 200 Saw Mill River Rd., Elmsford, N. Y. ADV. PG. 515.
 Weathers Industries, 66 E. Gloucester Pike, Burlington, N. J.
 Webster Electric Co., 1900 Clark St., Racine, Wis.

PILOT LIGHTS

See LIGHTS—Dial, Panel and Pilot

PILOT LIGHT ASSEMBLIES

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 Brunswick Instruments, P. O. Box 813, New Brunswick, N. J.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
DIALIGHT CORPORATION, 60 Stewart Ave., Brooklyn 37, N. Y. ADV. PG. 108.
 Drake Mfg. Co., 1713 Hubbard St., Chicago 22, Ill.
ELDEMA CORP., 9844 Remer St., El Monte, Calif. ADV. PG. 694.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
 Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
INDUSTRIAL DEVICES, INC., 982 River Rd., Edgewater, N. J. ADV. PG. 546.
 Johnson Co., E. F., Waseca, Minn.
 Micarta Fabricators, Inc., 5324 Ravenswood Ave., Chicago 40, Ill.
 Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
 Signalite, Inc., 37-41 Neptune Highway, Neptune, N. J.
 Tingsol Co., 1461 W. Grand Ave., Chicago 22, Ill.
UCINTE CO. DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 161.
 Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.
 Witelrad Electrical Mfg. Inc., 76 Pulaski St., Stamford, Conn.

PILOTS—Automatic

Applied Electronics Co., Inc., 1246 Folsom St., San Francisco 3, Calif.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.
 Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

PINS—Tubular

American Brass Co., 414 Meadow St., Waterbury 20, Conn.

BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 554.
 Elastic Stop Nut Corp., 2300 Vauxhall Rd., Union, N. J.
 General Findings & Supply Co., Industrial Div., Attleboro, Mass.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
 Sinclair Mfg. Co., Chartley, Mass.
 Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
 Torrington Co., Specialties Div., 37 Field St., Torrington, Conn.

PITCH

See INSULATING COMPOUNDS

PLASTIC INSULATION PARTS

See INSULATION PARTS—Plastic Insulation Parts

PLASTIC MATERIALS

Allyls

American Cyanamid Co., 38 Rockefeller Plaza, New York 20, N. Y.
 Cast Optics Corp., 123-125 Newman St., Hackensack, N. J.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.

Cellulose Acetate

Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 596.
 American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
 American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
 Celanese Corp. of America, 180 Madison Ave., New York 16, N. Y.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Delaware.

EASTMAN KODAK CO., 343 State St., Rochester 4, N. Y. ADV. PG. 659.
 Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.

Gering Products, Inc., N. Seventh St., at Monroe Ave., Kenilworth, N. J.
 Hercules Powder Co., Inc., 900 Market St., Wilmington 99, Del.

Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.

SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. ADV. PG. 634.

Cellulose Acetate Butyrate

Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 596.
 American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
EASTMAN KODAK CO., State St., Rochester 4, N. Y. ADV. PG. 659.

Emeloid Co., Inc., 1329 Central Ave., Hillside 5, N. J.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.

Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.

Gering Products, Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
 Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.

SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Sillocks-Miller Co., Maplewood, N. J.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. ADV. PG. 634.

Cellulose Nitrate

American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Hercules Powder Co., Inc., 900 Market St., Wilmington 99, Delaware.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
 Sillocks-Miller Co., Maplewood, N. J.

Epoxy Resins

Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
 Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 Dow Chemical Co., Midland, Mich.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 675.
 Ellanor Chemical Co., 2308 Oakton St., Evanston, Ill.

Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Javex, P. O. Box 646, Redlands, Calif.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617.
 Marblette Corp., 37-21 30th St., Long Island City 1, N. Y.
MINNESOTA MINING & MFG. CO., 900 Fauquier Ave., St. Paul 6, Minn. ADV. PG. 253.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
 Shell Chemical Corp., 380 Madison Ave., New York 17, N. Y.
 Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
 Terrell Corp., 19 Lane St., Waltham 54, Mass.
THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 644.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

Ethyl Cellulose

AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 596.
 American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
 American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
 Gering Products, Inc., N. Seventh St., at Monroe Ave., Kenilworth, N. J.
 Hercules Powder Co., Inc., 900 Market St., Wilmington 99, Del.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. ADV. PG. 634.

Melamine Formaldehyde

American Cyanamid Co., 38 Rockefeller Plaza, New York 20, N. Y.
 Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 675.
 Franklin-Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
 Panelyte Div., St. Regis Paper Corp., 230 Park Ave., New York 17, N. Y.
 Reichhold Chemicals, Inc., 525 N. Broadway, White Plains, N. Y.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.

Methyl Methacrylate

Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
 American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
BODNAR INDUSTRIES, INC., 19 Railroad Ave., New Rochelle, N. Y. ADV. PG. 691.
 Cast Optics Corp., 123-125 Newman St., Hackensack, N. J.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 675.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Gering Products, Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
 Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
 United Technical Laboratories, Box 425V, Morristown, N. J.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. ADV. PG. 634.

Nylon

See **INSULATING MATERIALS**

Phenol Formaldehyde—(Phenolics)

Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
 Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.

Durez Plastics Div. of Hooker Electrochemical Co., 1921 Walck Rd., North Tonawanda, N. Y.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 465.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 General Electric Co., Chemical Materials Dept., Pittsfield, Mass.
 Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
 Marblette Corp., 37-21 30th St., Long Island City 1, N. Y.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
 Panelyte Div., St. Regis Paper Corp., 230 Park Ave., New York 17, N. Y.
 Reichhold Chemicals, Inc., 525 N. Broadway, White Plains, N. Y.
 Rogers Corp., Goodyear, Conn.
 Silcocks-Miller Co., Maplewood, N. J.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.
 Synthane Corp., Oaks, Pa.
 Taylor Fibre Co., Norristown, Pa.
 Wilmington Fibre Specialty Co., New Castle, Del.

Polyethylene

Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 596.
 American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
 Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 Catalin Corp. of America, 1 Park Ave., New York 16, N. Y.
 Celanese Corp. of America, 180 Madison Ave., New York 16, N. Y.
 Dow Chemical Co., Midland, Mich.
 du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
 Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 General Tire & Rubber Co., Akron, Ohio.
 Gering Products, Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
 Hercules Powder Co., Inc., 900 Market St., Wilmington 98, Del.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Polyken Products Dept. of Kendall Co., 222 W. Adams St., Chicago 6, Ill.
RESIN INDUSTRIES, P. O. Box 1589, Santa Barbara, Calif. ADV. PG. 641.
SEQUOIA PROCESS CORP., 871 Willow St., P. O. Box 1007, Redwood City, Calif. ADV. PG. 553.
SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Silcocks-Miller Co., Maplewood, N. J.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
WESTLAKE PLASTICS CO., 133 W. Lenni Rd., Lenni, Pa. ADV. PG. 634.

Polystyrene

AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 596.
 American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Catalin Corp. of America, 1 Park Ave., New York 16, N. Y.
 Dow Chemical Co., Midland, Mich.
 Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Gering Products, Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
 Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
POLYMER CORPORATION, THE, Reading, Pa. ADV. PG. 243.
 Silcocks-Miller Co., Maplewood, N. J.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 United States Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
WESTLAKE PLASTICS CO., 133 W. Lenni Mills, Pa. ADV. PG. 634.

Polytrifluoroethylene

Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 604.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pennsauken, N. J.
 Graef Engineering Co., P. O. Box 416, Paramount, Calif.
 Garlock Packing Co., Palmyra, N. Y.
 Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 692.
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.
WESTLAKE PLASTICS CO., 133 W. Lenni Mills, Pa. ADV. PG. 634.

Resins

Aries Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Celanese Corp. of America, 180 Madison Ave., New York 16, N. Y.
 Dow Chemical Co., Midland, Mich.
 Durez Plastics Div. of Hooker Electrochemical Co., 1921 Walck Rd., North Tonawanda, N. Y.
 Ellanor Chemical Co., 2308 Oakton St., Evanston, Ill.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 General Electric Co., Chemical Materials Dept., Pittsfield, Mass.
 Goodyear Tire & Rubber Co., Inc., Chemical Div., 1144 E. Market St., Akron 16, Ohio.
 Hercules Powder Co., Inc., 900 Market St., Wilmington 98, Del.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Louis Laboratories, 1947 Broadway, New York 23, N. Y.
 Marbon Chemical Div. of Borg-Warner Corp., 1926 W. Tenth Ave., Gary, Ind.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
 Nopco Chemical Co., Plastics Div., Harrison, N. J.
 Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
 Reichhold Chemicals, Inc., 525 N. Broadway, White Plains, N. Y.
 Thiokol Chemical Corp., 780 N. Clinton Ave., Trenton 7, N. J.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 United States Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.

Tetrafluoroethylene (Teflon) Rods—Sheets—Tubing

Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
 Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
 Dilectrix Corp., Allen Blvd. & Grant Ave., Farmingdale, N. Y.
 Dixon Corporation, Bristol, R. I.
ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 604.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pennsauken, N. J.
 Ethylene Chemical Corp., 245 Broad St., Summit, N. J.
 Flexrock Co., 3608 Filbert St., Philadelphia 1, Pa.
 Garlock Packing Co., Palmyra, N. Y.
 Graef Engineering Co., P. O. Box 416, Paramount, Calif.
 Halogen Insulator & Seal Corp., 10121 Franklin Ave., Franklin Park, Ill.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
MINNESOTA MINING & MFG. CO., 900 Fauquier Ave., St. Paul 6, Minn. ADV. PG. 253.
 Minor Rubber Co., 49 Ackerman St., Bloomfield, N. J.
POLYMER CORPORATION, THE, Reading Pa. ADV. PG. 243.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 692.
 Rogers Corp., Goodyear, Conn.
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
 Tri Point Mfg. & Development Co. 401 Grand St., Brooklyn, N. Y.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.
WESTLAKE PLASTICS CO., 133 W. Lenni Mills, Pa. ADV. PG. 634.

Tetrafluoroethylene Resin (Aqueous Dispersions, Molding Powders)

Dixon Corp., Bristol, R. I.
du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.
Flexrock Co., 3608 Filbert St., Philadelphia 1, Pa.
General Plastics Corp., P. O. Box 1236, Paterson, N. J.
Graef Engineering Co., P. O. Box 416, Paramount, Calif.

Urea Formaldehyde

American Cyanamid Co., 38 Rockefeller Plaza, New York 20, N. Y.
Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
Reichhold Chemicals, Inc., 525 N. Broadway, White Plains, N. Y.

Vinyl Compounds

AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 596.
American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
Applied Resins Corp., 304 Oration St., Newark 4, N. J.
Auburn Button Works, Inc., Auburn, N. Y.
Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.
Dow Chemical Co., Midland, Mich.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
General Tire & Rubber Co., The, Akron, Ohio.
General Tire & Rubber Co., Bolta Products Div., Lawrence, Mass.
Gering Products, Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
Goodyear Tire & Rubber Co., Chemical Div., 1144 E. Market St., Akron 16, Ohio.
Louis Laboratories, 1947 Broadway, New York 23, N. Y.
Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
Monsanto Chemical Co., Plastics Div., Springfield, Mass.
Nopco Chemical Co., Plastics Div., Harrison, N. J.
Plastronics, P. O. Box 96, Winter Hill 45, Mass.
Reichhold Chemicals, Inc., 525 N. Broadway, White Plains, N. Y.
RESIN INDUSTRIES, P. O. Box 1589, Santa Barbara, Calif. ADV. PG. 641.
Technicraft Co., 1156 Commonwealth Ave., Boston 34, Mass.

PLATES—Instruction

Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
Automatic Processing Corp., 121 S. Cowan St., Garrett, Ind.
Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Croname Inc., 3701 Ravenswood Ave., Chicago, Ill.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills, Pa. ADV. PG. 634.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
Industrial Engravers, Inc., 4103 Tenth Ave., Brooklyn 19, N. Y.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Master Etching Corp., 50 Honeck St., Englewood, N. J.
Matthews & Co., James H., 3942 Forbes St., Pittsburgh, Pa.
New England Etching & Plating Co., 25 Spring St., Holyoke, Mass.
PARK NAMEPLATE CO., INC., 61-07 32nd Ave., Woodside 77, N. Y. ADV. PG. 629.
PHOTO CHEMICAL PRODUCTS, INC., 479 Walton Ave., New York 51, N. Y. ADV. PG. 530.
Topflight Tape Co., 160 E. Ninth Ave., York, Pa.
Trutone Electronics, Inc., 812-13 N. Highland Ave., Los Angeles 38, Calif.
U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.
Willson Camera Co., Inc., 1395 Lawrence Rd., Haverston, Pa.

PLATES—Metal-Plastic

Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
Automatic Processing Corp., 112 S. Cowan St., Garrett, Ind.
Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills, Pa. ADV. PG. 634.

Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Ezee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
Hopp Press Inc., 460 W. 34th St., New York, N. Y.
Industrial Engravers, Inc., 4103 Tenth Ave., Brooklyn 19, N. Y.
Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
Master Etching Corp., 50 Honeck St., Englewood, N. J.
Matthews & Co., James H., 3942 Forbes St., Pittsburgh, Pa.
National Vulcanized Fibre Co., Wilmington, Del.
PARK NAMEPLATE CO., INC., 61-07 32nd Ave., Woodside 77, N. Y. ADV. PG. 629.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
Sheffco Mfg. Co., Grand & Ruby Aves., Palisades Park, N. J.
SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
Willson Camera Co., Inc., 1395 Lawrence Rd., Haverston, Pa.

PLATES—NAME—Metal or Plastic

Acromark Company, Inc., 323 Morrell St., Elizabeth 4, N. J.
Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
American Mica Insulation Co., Manasquan, N. J.
Automatic Processing Corp., 112 S. Cowan St., Garrett, Ind.
Canadian Radium & Uranium Corp., 630 Fifth Ave., New York 20, N. Y.
Cast Optics Corp., 123-125 Newman St., Hackensack, N. J.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills, Pa. ADV. PG. 634.
Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.
Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 675.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
General Electric Co., Plastics Dept., Pittsfield, Mass.
General Research & Supply Co., 572 S. Division Ave., Grand Rapids 3, Mich.
General Tire & Rubber Co., Bolta Products Div., Lawrence, Mass.
Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
Hopp Press, Inc., 460 W. 34th St., New York, N. Y.
Industrial Engravers, Inc., 4103 Tenth Ave., Brooklyn 19, N. Y.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Master Etching Corp., 50 Honeck St., Englewood, N. J.
Matthews & Co., James H., 3942 Forbes St., Pittsburgh, Pa.
Mica Insulator Co., Schenectady 1, N. Y.
MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 553.
Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
New England Etching & Plating Co., 25 Spring St., Holyoke, Mass.
North Shore Nameplate Inc., 214-27 Northern Blvd., Bayside 61, N. Y.
PARK NAMEPLATE CO., INC., 61-07 32nd Ave., Woodside 77, N. Y. ADV. PG. 629.

Parisian Novelty Co., 3510 S. Western Ave., Chicago 9, Ill.
Pfeffer Products, 3901 W. 54th St., Los Angeles, Calif.
PHOTO CHEMICAL PRODUCTS, INC., 479 Walton Ave., New York 51, N. Y. ADV. PG. 530.
Plasteck, Inc., Poteau, Okla.
Ports Mfg. Co., 3265 E. Belmont Ave., Fresno 2, Calif.
PRINTLOID, INC., 93 Mercer St., New York 12, N. Y. ADV. PG. 580.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
Sheffco Mfg. Co., Grand & Ruby Aves., Palisades Park, N. J.
SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
Sillcocks-Miller Co., Maplewood, N. J.
Sun Dial Corp., E. Passaic Ave., Caldwell, N. J.
Techniques, Inc., 178-184 Central Ave., Hackensack, N. J.
U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.
Waldom Electronics Inc., 4625 W. 53rd St., Chicago 32, Ill.
Westline Products Div. of Western Lithograph Co., 600 E. Second St., Los Angeles 54, Calif.
Willson Camera Co., Inc., 1395 Lawrence Rd., Haverston, Pa.

PLATES—Phosphor See PARTS for COLOR TV TUBES

PLATES—Plastic Lighting

ACKERMAN ENGRAVERS, 458 Broadway, New York, N. Y. ADV. PG. 641.
Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn. ADV. PG. 691.
BODNAR INDUSTRIES, INC., 19 Railroad Ave., New Rochelle, N. Y. ADV. PG. 691.
Cast Optics Corp., 123-125 Newman St., Hackensack, N. J.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Globe Electric Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
Hopp Press, Inc., 460 W. 34th St., New York, N. Y.
Javex, P. O. Box 646, Redlands, Calif.
Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Plasteck, Inc., Poteau, Okla.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

PLATING—Metal on Plastic

ANDERSON ASSOCIATES, H. V., 239 Park Ave., Berkeley Heights, N. J. ADV. PG. 560.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
COHAN-EPNER CO., INC., 142 W. 14th St., New York 11, N. Y. ADV. PG. 567.
Electro-Coatings, Inc., 1662 W. Fullerton Ave., Chicago 14, Ill.
Electrochemical Industries, Inc., 35 Armory St., Worcester, Mass.
ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.
ELECTRO-TEC CORP., South Hackensack, N. J. ADV. PG. 301.
GAR PRECISION PARTS, INC., 703 Pacific St., Stamford Conn. ADV. PG. 420.
Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
Metalplast Co., Inc., 34-51 56th St., Woodside, N. Y.
METZ REFINING CO., 369 Mulberry St., Newark 2, N. J. ADV. PG. 543.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
SERVO-RECORDING INSTRUMENTS, INC., 917 Grand Ave., Phoenix, Ariz. ADV. PG. 587.
Steel Protection & Chemical Co., Inc., Mooresville, Ind.

PLATING—Precision Metal

Baker & Co., Inc., 113 Astor St., Newark 5, N. J.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Beryllium Corp., Reading, Pa.
COHAN-EPNER CO., INC., 142 W. 14th St., New York 11, N. Y. ADV. PG. 567.
Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
DAVIS-K PRODUCTS CO., 135 W. 29th St., New York 1, N. Y. ADV. PG. 632.
Electrochemical Industries, Inc., 35 Armory St., Worcester, Mass.
Electro-Coatings, Inc., 1662 W. Fullerton Ave., Chicago 14, Ill.
ELECTRO-TEC CORP., South Hackensack, N. J. ADV. PG. 301.
GAR PRECISION PARTS, INC., 703 Pacific St., Stamford, Conn. ADV. PG. 420.
Garrey Platers, Inc., 17-19 Bartlett St., Worcester 8, Mass.

General Findings & Supply Co., Industrial Div., Attleboro, Mass.
 Harper-Leader, Inc., 1046 S. Main St., Waterbury 20, Conn.
 Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City, N. J.
 M-W Laboratories, 1824 N. Milwaukee Ave., Chicago 27, Ill.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
MERIT PLATING CO., 218 E. 141st St., New York 51, N. Y. ADV. PG. 591.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
METZ REFINING CO., 369 Mulberry St., Newark 2, N. J. ADV. PG. 543.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
 North American Research Labs., Inc., 725 Lexington Ave., Kenilworth, N. J.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
PRECISION ELECTROPLATING CO., 519 S. Oakley Blvd., Chicago 12, Ill. ADV. PG. 598.
 Precious Metal Platers, The, P. O. Box 228, Fairfield, Conn.
 Printed Circuit Div., LaPointe Electronics Inc., Rockville, Conn.
 Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
 Sibley Co., The, Haddam, Conn.
 Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
 Steel Protection & Chemical Co., Inc., Mooresville, Ind.
 Wright Metalcoaters Inc., 255 West St., South Hackensack, N. J.
 Zacharias Co., Robert, 519 S. Oakley Blvd., Chicago, Ill.

PLATING—Tin Zinc

BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
 Henry & Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
 Metal & Thermit Corp., Rahway, N. J.
 Wright Metalcoaters Inc., 255 West St., South Hackensack, N. J.

PLUG-IN HOUSINGS
 See **HOUSINGS—Plug-In**

PLUGS

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
 Aerolite Electronics Corp., 507 26th St., Union City, N. J.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ALLIED INDUSTRIES, INC., 2500 Woodland Ave., Louisville 10, Ky. ADV. PG. 570.
 American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
ASSOCIATED ENGINEERING CORP., 65 Kent St., Brookline 46, Mass. ADV. PG. 590, 591.
 Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
AUTOMATIC & PRECISION MFG. CO., 252 Hawthorne Ave., Yonkers 5, N. Y. ADV. PG. 508.
 B & M Electric Co., 838 Fourth Ave., Brooklyn 32, N. Y.
 Birnbach Radio Co., 145 Hudson St., New York 13, N. Y.
BUCHANAN ELECTRICAL PRODUCTS CORP., 223 U. S. Route 22, Hillside, N. J. ADV. PG. 461.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 Buggie, Inc., H. H., P. O. Box 817, Toledo 1, Ohio.
CANNON ELECTRIC CO., 3209 Humboldt St., Los Angeles 31, Calif. ADV. PG. 213.
 Carter Parts Co., 213 Institute Place, Chicago 10, Ill.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
COAXIAL CONNECTOR CO., 37 North 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
ELCO CORP., "M" St. below Erie Ave., Philadelphia 24, Pa. ADV. PG. 569.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 82.
 Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
INTERSTATE ELECTRONICS, INC., 227 Fulton St., New York 7, N. Y. ADV. PG. 618.
JFD MANUFACTURING CO., INC. 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Javex, P. O. Box 646, Redlands, Calif.
 Johnson Co., E. F., Waseca, Minn.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tucka-hoe, N. Y. ADV. PG. 592.

KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
 North Electric Mfg. Co., 553 S. Market St., Gallon, Ohio.
PACIFIC AUTOMATION PRODUCTS, INC., 1000 Air Way, Glendale 1, Calif. ADV. PG. 450.
 Pacific Electricord Co., P. O. Box 8805, Crenshaw Station, Los Angeles 8, Calif.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
 Pyle-National Co., 1334 N. Kostner Ave., Chicago 51, Ill.
 Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Royal Electric Co., Inc., Pawtucket, R. I.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 668.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
TELEX, INC., Telex Park, St. Paul 1, Minn. ADV. PG. 686.
TRIMM, INC., 400 W. Lake St., Libertyville, Ill. ADV. PG. 529.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 161.
U. S. COMPONENTS, INC., 454 E. 148th St., New York 55, N. Y. ADV. PG. 141.
U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.
 Viking Industries, Inc., 21343 Roscoe Blvd., Canoga Park, Calif.
 Whitney Blake Co., New Haven 14, Conn.

PLUGS—Telephone

ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
 Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 554.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
 Carter Parts Co., 213 Institute Place, Chicago 10, Ill.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Electrocraft Div. of Hamilton-Pax, Inc., 2743 N. Kedzie Ave., Chicago 18, Ill.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tucka-hoe, N. Y. ADV. PG. 592.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.
 Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Sinclair Mfg. Co., Chartley, Mass.
 Standard Telephone & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 668.
TRIMM, INC., 400 W. Lake St., Libertyville, Ill. ADV. PG. 529.
 U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
 Waltham Horological Corp., 395 Lynnway, Lynn, Mass.

PLUGS—Terminal

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
 American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 554.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. ADV. PG. 571.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 82.
 Javex, P. O. Box 646, Redlands, Calif.
 Johnson Co., E. F., Waseca, Minn.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tucka-hoe, N. Y. ADV. PG. 592.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 685.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Permonite Mfg. Corp., 4554 North Broadway, Chicago 40, Ill.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Russell & Stoll Co., Inc., 125-6 Barclay St., New York 7, N. Y.
SEALCTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 467.
 Sinclair Mfg. Co., Chartley, Mass.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
TRIMM, INC., 400 W. Lake St., Libertyville, Ill. ADV. PG. 529.
U. S. COMPONENTS, INC., 454 E. 148th St., New York 55, N. Y. ADV. PG. 141.
U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.

POINTERS—Dial
 Birnbach Radio Co., Inc. 145 Hudson St., New York 13, N. Y.
 Canadian Radium & Uranium Corp., 630 Fifth Ave., New York 20, N. Y.
 Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Johnson Co., E. F., Waseca, Minn.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PRINTLOID, INC., 93 Mercer St., New York 12, N. Y. ADV. PG. 580.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364-365.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Sillcocks-Miller Co., Maplewood, N. J.
U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

POSITIONING
 See **CONTROLS—INDICATORS**

POSTS—Binding

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CANNON ELECTRIC CO., 3209 Humboldt St., Los Angeles 31, Calif. ADV. PG. 213.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
COAXIAL CONNECTOR CO., 37 N. 2nd Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Eastern Specialty Co., Philadelphia 40, Pa.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.

ELCO CORP., "M" St. below Erie Ave., Philadelphia 24, Pa. ADV. PG. 569.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 61, N. Y. ADV. PG. 550.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
GRAYHILL, 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 224.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Johnson Co., E. F. Waseca, Minn.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tucka-hoe, N. Y. ADV. PG. 592.
MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 609.
 Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Mass.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Permonite Mfg. Corp., 4554 North Broadway, Chicago 40, Ill.
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.
 Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Sinclair Mfg. Co., Chartley, Mass.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
 States Co., 19 New Park Ave., Hartford 6, Conn.
SUPERIOR ELECTRIC CO., The, 4000 Middle St., Bristol, Conn. ADV. PG. 470, 471.
 Uniform Tubes, Level Rd., Colledgeville 2, Pa.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32.
 Winslow Co., Inc., 9 Liberty St., Newark, N. J.

Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 630.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Litton Industries, Components Div., Beverly Hills, Calif.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Markite Corp., 155 Waverly Place, New York 14, N. Y.
 Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Minco Engineering and Manufacturing, 801 8th St., S. E., Minneapolis 14, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Muter Company, The, 1255 S. Michigan Ave., Chicago 5.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
 Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Precision Line, Inc., 63 Main St., Maynard, Mass.
 Rattray & Co., Inc., George, 116-08 Myrtle Ave., Richmond Hill, N. Y.
 San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 Specialties, Inc., Skunks Miserv Rd., Syosset, N. Y.
SPECTROL DIV. OF CARRIER CORP., 1704 S. Del Mar, San Gabriel, Calif. ADV. PG. 679.
STACKPOLE CARBON CO., St. Mary's, Pa. ADV. PG. 80, 81.
TECHNOLOGY INSTRUMENT CORP., 533 Main St., Acton, Mass. ADV. PG. 172, 173.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
TRU-OHM PRODUCTS DIV., MODEL ENGINEERING & MFG. INC., 2800 Milwaukee Ave., Chicago 18, Ill. ADV. PG. 289.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.
WATERS MANUFACTURING INC., Boston Post Rd., Wayland Mass. ADV. PG. 138, 139.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Wirt Co., 5221 Greene St., Philadelphia 44, Pa.

POTENTIOMETERS—Absolute Pressure

ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
AEROVOX CORP., 740 Belleville Ave., New Bedford, Mass.
ALLEGANY INSTRUMENT CO., INC., Cumberland, Md.
AMERICAN ELECTRONICS, INC., 655 W. Washington Blvd., Los Angeles 15, Calif.
AMERICAN ELITE, INC., (Telefunken), 7 Park Ave., New York 16, N. Y.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
 Arma Div. of American Bosch Arma Corp., Old Country Rd., Garden City, N. Y.
 Bristol Co., The, Waterbury 20, Conn.
 Carter Mfg. Corp., 23 Washington St., Hudson, Mass.
 Carter Parts Co., 213 Institute Place, Chicago 10, Ill.
CENTRAL LAB DIV., GLOBE-UNION, INC., 914 E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. ADV. PG. 249.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
CIRCUIT INSTRUMENTS, INC., 1927 First Ave., S., P. O. Box 355, St. Petersburg 1, Fla. ADV. PG. 651.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
 Colvin Laboratories, Inc., 364 Glenwood Ave., East Orange, N. J.
 Corbett Science Laboratories, F. W., 3115 Venice Blvd., Los Angeles 19, Calif.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Daystrom Instrument, Archbald, Pa.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
DEJUR-AMSCO CORP., Northern Blvd., at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
 Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
 Electromath Corp., 190 Henry St., Stamford, Conn.
ELECTRO-MEASUREMENTS, INC., 4312 S. E. Stark St., Portland 15, Ore. ADV. PG. 579.
 Electro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
FAIRCHILD CONTROLS CORP., COMPONENTS DIV., 225 Park Ave., Hicksville, N. Y. ADV. PG. 498.
 Ford Engineering Co., Inc., 129 E. "A" St., Upland, Calif.
 Foxboro Co., The, Foxboro, Mass.
GAMEWELL CO., THE, 1238 Chestnut St., Newton Upper Falls 64, Mass. ADV. PG. 495.
 General Controls Co., Glendale 1, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.
 Gray Instrument Co., 200 E. Church Lane, Philadelphia 44, Pa.
 Gyromechanisms Div. of Norden-Ketay Corp., Halesite, N. Y.
 Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
 Helipot Corp., 916 Meridian Ave., South Pasadena, Calif.

POTENTIOMETERS—Differential Pressure

ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
BOURNS LABORATORIES, 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 134.
 Bristol Co., The, Waterbury 20, Conn.
 Colvin Laboratories, Inc., 364 Glenwood Ave., East Orange, N. J.
 Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
 Genisco, Inc., 2233 Federal Ave., Los Angeles 64, Calif.
 Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.
GREENLEAF MFG. CO., THE, 7814 Maplewood Industrial Court, St. Louis 17, Mo. ADV. PG. 287.
 Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif.
TRANS-SONICS, INC., P. O. Box 328, Lexington 73, Mass. ADV. PG. 218.

POTENTIOMETERS—Induction

American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 Arma Div. of American Bosch Arma Corp., Old Country Rd., Garden City, N. Y.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Control Components Co., 1 Holden St., Brookline 46, Mass.
 Electromath Corp., 190 Henry St., Stamford, Conn.
KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.

Muirhead & Co., Ltd., Beckenham, Kent, England.
 Norden Ketay Corp., 99 Park Ave., New York 16, N. Y.
REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.

POTENTIOMETERS—Initial Condition

CIRCUIT INSTRUMENTS, INC., 1927 First Ave., S., P. O. Box 355, St. Petersburg 1, Fla. ADV. PG. 651.
 Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.

POTENTIOMETERS—Linear & Non-Linear, Precision Carbon Film

ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
BOURNS LABORATORIES, 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 134.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
COMPUTER INSTRUMENTS CORP., 1964 Utica Ave., Brooklyn 34, N. Y. ADV. PG. 576.
 Electromath Corp., 190 Henry St., Stamford, Conn.
 Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
GAMEWELL CO., THE, 1238 Chestnut St., Newton Upper Falls 64, Mass. ADV. PG. 495.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.

POTENTIOMETERS—Linear & Non-Linear, Precision Wire Wound

ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Ahrend Instrument Co., The, 4910 Calvert Rd., College Park, Md.
 American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
 Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
BORG EQUIPMENT DIVISION, THE GEORGE W. BORG CORP., Janesville, Wis. ADV. PG. 142.
BOURNS LABORATORIES, 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 134.
 Bristol Co., The, Waterbury 20, Conn.
 Carter Mfg. Corp., 23 Washington St., Hudson, Mass.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
CIRCUIT INSTRUMENTS, INC., 1927 First Ave., S., P. O. Box 355, St. Petersburg 1, Fla. ADV. PG. 651.
CLAROSTAT MFG. CO. INC., Dover, N. H. ADV. PG. 264, 265.
 Colvin Laboratories, Inc., 364 Glenwood Ave., East Orange, N. J.
 Corbett Science Laboratories, F. W., 3115 Venice Blvd., Los Angeles 19, Calif.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Daystrom Instrument, Archbald, Pa.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
DE JUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
 Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
ELECTRO-MEASUREMENTS, INC., 4312 S. E. Stark St., Portland 15, Ore. ADV. PG. 579.
ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. ADV. PG. 520.
 Electromath Corp., 190 Henry St., Stamford, Conn.
FAIRCHILD CONTROLS CORP., COMPONENTS DIV., 225 Park Ave., Hicksville, N. Y. ADV. PG. 498.
 Ford Engineering Co., 129 East "A" St., Upland, Calif.
GAMEWELL CO., THE, 1238 Chestnut St., Newton Upper Falls 64, Mass. ADV. PG. 495.
 General Controls Co., Glendale 1, Calif.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Giannini & Co., G. M., 918 E. Green St., Pasadena 1, Calif.
 Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
 Gyromechanisms Div. of Norden-Ketay Corp., Halesite, N. Y.
 Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
 Helipot Corp., 916 Meridian Ave., South Pasadena, Calif.
HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas. ADV. PG. 476.
I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 630.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Litton Industries, Components Div., Beverly Hills, Calif.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.
 Minco Engineering and Manufacturing, 801 8th St., S.E., Minneapolis 14, Minn.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.

Osborne Electric Co., 712 S. E. Hawthorne Blvd., Portland 14, Ore.
 Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.
 Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Rattray & Co., Inc., George, 116-08 Myrtle Ave., Richmond Hill, N. Y.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
 San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 Specialties, Inc., Skunks Misery Rd., Syosset, N. Y.
SPECTROL DIV. OF CARRIER CORP., 1704 S. Del Mar, San Gabriel, Calif. ADV. PG. 679.
TECHNOLOGY INSTRUMENT CORP., 533 Main St., Acton, Mass. ADV. PG. 172, 173.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.
WATERS MANUFACTURING INC., Boston Post Rd., Wayland, Mass. ADV. PG. 138, 139.
 Wirt Co., 5221 Greene St., Philadelphia 44, Pa.

POTENTIOMETERS—Portable Instrument

Allegany Instrument Co., Inc., Cumberland, Md.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bristol Co., The, Waterbury 20, Conn.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.
ELECTRO-MEASUREMENTS, INC., 4312 S.E. Stark St., Portland 15, Ore. ADV. PG. 579.
 Foxboro Co., The, Foxboro, Mass.
 Georator Corp., Manassas, Va.
 Gray Instrument Co., 200 E. Church Lane, Philadelphia 44, Pa.
HOWELL INSTRUMENT CO., 3101 Trinity, Fort Worth 7, Texas. ADV. PG. 476.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark, 5, N. J. ADV. PG. 483.
 Westronics, Inc., 3605 McCart St., Fort Worth, Texas.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

POTENTIOMETERS—Precision

ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
 Arma Div. of American Bosch Arma Corp., Old Country Rd., Garden City, N. Y.
BORG EQUIPMENT DIVISION, THE GEORGE W. BORG CORP., Janesville, Wis. ADV. PG. 142.
BOURNS LABORATORIES, 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 134.
 Bristol Co., The, Waterbury 20, Conn.
 Carter Mfg. Corp., 23 Washington St., Hudson, Mass.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
CIRCUIT INSTRUMENTS, INC., 1927 First Ave., S., P. O. Box 355, St. Petersburg 1, Fla. ADV. PG. 651.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
COMPUTER INSTRUMENTS CORP., 1964 Utica Ave., Brooklyn 34, N. Y. ADV. PG. 576.
 Corbett Science Laboratories, F. W., 3115 Venice Blvd., Los Angeles 19, Calif.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Daystrom Instrument, Archbald, Pa.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
DE JUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.
 Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
ELECTRO-MEASUREMENTS, INC., 4312 S.E. Stark St., Portland 15, Ore. ADV. PG. 579.
ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. ADV. PG. 520.
 Electromath Corp., 190 Henry St., Stamford, Conn.
 Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
FAIRCHILD CONTROLS CORP., COMPONENTS DIV., 225 Park Ave., Hicksville, N. Y. ADV. PG. 498.
 Ford Engineering Co., 129 East "A" St., Upland, Calif.
GAMEWELL CO., THE, 1238 Chestnut St., Newton Upper Falls 64, Mass. ADV. PG. 495.
 General Controls Co., Glendale 1, Calif.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.
 Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
 Gray Instrument Co., 200 E. Church Lane, Philadelphia 44, Pa.
 Gyromechanisms Div. of Norden-Ketay Corp., Halesite, N. Y.
 Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
 Helipot Corp., 916 Meridian Ave., South Pasadena, Calif.
HOWELL INSTRUMENT CO., Fort Worth 7, Texas. ADV. PG. 476.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 630.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Link Aviation, Inc., Binghamton, N. Y.
 Littion Industries, Components Div., Beverly Hills, Calif.
 Markite Corp., 155 Waverly Place, New York 14, N. Y.
 Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.
 Minco Engineering and Manufacturing, 801 8th St., S.E., Minneapolis 14, Minn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
OSBORNE ELECTRIC CO., 712 S. E. Hawthorne Blvd., Portland 14, Ore. ADV. PG. 624.
 Pacific Scientific Co., P. O. Box No. 22019, Los Angeles 22, Calif.
 Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Precision Line, Inc., 63 Main St., Maynard, Mass.
 Rattray & Co., Inc., George, 116-08 Myrtle Ave., Richmond Hill, N. Y.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
SPECTROL DIV. OF CARRIER CORP., 1704 S. Del Mar, San Gabriel, Calif. ADV. PG. 679.
 Servotrol Co., 114 W. Illinois St., Chicago 10, Ill.
 Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.
TECHNOLOGY INSTRUMENT CORP., 533 Main St., Acton, Mass. ADV. PG. 172, 173.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.
WATERS MANUFACTURING INC., Boston Post Rd., Wayland, Mass. ADV. PG. 138, 139.

POTENTIOMETERS—Precision Auto-Transformer

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
PERKIN-ELMER CORP., THE, Main Ave., Norwalk, Conn. ADV. PG. 306.
POTENTIOMETERS—Rectilinear
ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
 American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
BOURNS LABORATORIES, 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 134.
 Bristol Co., The, Waterbury 20, Conn.
 Colvin Laboratories, Inc., 364 Glenwood Ave., East Orange, N. J.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.
 Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. ADV. PG. 520.
 Elektro-Serv. Co., 480 Johnson Ave., Brooklyn 37, N. Y.
FAIRCHILD CONTROLS CORP., COMPONENTS DIV., 225 Park Ave., Hicksville, N. Y. ADV. PG. 498.
 General Controls Co., Glendale 1, Calif.
 Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.
 Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 630.
 Markite Corp., 155 Waverly Place, New York 14, N. Y.
 Minco Engineering and Manufacturing, 801 8th St., S. E., Minneapolis 14, Minn.
 Pacific Scientific Co., P. O. Box #22019, Los Angeles 22, Calif.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Precision Line, Inc., 63 Main St., Maynard, Mass.

San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif.
 Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif.
TECHNOLOGY INSTRUMENT CORP., 533 Main St., Acton, Mass. ADV. PG. 172, 173.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
POTS—Soldering
 Acme Electric Heating Co., 1217 Washington St., Boston, Mass.
 Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Dee Electric Co., 1101 N. Paulina St., Chicago 22, Ill.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
ELECTRIC SOLDERING IRON CO., W. Elm St., Deep River, Conn. ADV. PG. 648.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Vulcan Electric Co., Danvers, Mass.
 Waage Electric, Inc., 720 Colfax Ave., Kenilworth, N. J.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

POTS AND TANKS—Heating

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Terrell Corp., 19 Lane St., Waltham 54, Mass.
 Thermal American Fused Quartz Co., Inc., 18-20 Salem St., Dover, N. J.

POWER LEVER

See INDICATORS

POWER SUPPLIES

1. A-C
 2. D-C
 3. High Voltage
 3a. Initial Condition
 4. Klystron
 5. Microwave
 6. Regulated
 7. Transistor
 8. Variable
 9. Voltage Regulated
 ACF Electronics, 800 N. Pitt St., Alexandria, Va. 2-6.
 A-V Mfg. Corp., 730 Fifth Ave., New York 19, N. Y. 2-6.
ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. 1-2-3-9. ADV. PG. 388.
 Acoustica Associates Inc., Shore Rd., Glenwood Landing 2, N. Y. 1.
 Acme Television Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio. 1-2.
 Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y. 2-6-8-9.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. 1-2-6-8.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif. 2-3-6-9.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J. 2-9.
 Aircrom Inc., 354 Main St., Winthrop 52, Mass. 4-5-6-8-9.
AIRCRAFT-MARINE PRODUCTS, INC., CHEMICALS & DIELECTRICS DIV., 155 Park Ave., Elizabethtown, Pa. 2-3-6-9. ADV. PG. 209.
AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. 1-2-3-9. ADV. PG. 353.
 Airmec, Ltd., High Wycombe, Buckinghamshire, England. 4-9.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. 1-2-3. ADV. PG. 143-146.
 Alco Electronics Mfg. Co., 3 Wolcott Ave., Lawrence, Mass. 2-6-8-9.
 Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y. 2-7.
 Alfred Electronics, 897 Commercial St., Palo Alto, Calif. 3-4-6.
 Allegany Instrument Co., Inc., Cumberland, Md. 2-9.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. 1-2-3. ADV. PG. 669.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa. 2.
 American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa. 2-6-9.
 American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif. 1-2-8-9.
 American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y. 6.
 American Rectifier Corp., 95 Lafayette St., New York 13, N. Y. 8-9.
AMERICAN TELEVISION & RADIO CO., 300 E. Fourth St., St. Paul 1, Minn. 1-2. ADV. PG. 176.
 Antlab, 4950 N. High St., Columbus 14, Ohio 4.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. 1-2-3-3a-4-5-6-7-8-9-10-11. ADV. PG. 629.
 Applegate & Co., C. J. 1816 Grove St., Boulder, Colo. 2-3-6-8-9.
APPLIED RADIATION CORP., 1210 Spring Brook Rd., Walnut Creek, Calif. 4. ADV. PG. 643.
ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. 9. ADV. PG. 696, 697.
 Arnoux Corp., Box 34628, Los Angeles, Calif. 2-6-9.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. 2. ADV. PG. 368, 369.
ASSOCIATED ENGINEERING CORP., 65 Kent St., Brookline 46, Mass. 2-6-9. ADV. PG. 590, 591.
ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. 3. ADV. PG. 588.
ASSOCIATED SPECIALTIES CO., 1751 Main St., Ore-field, Pa. 9. ADV. PG. 673.

ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. 2-3. ADV. PG. 611.

Audio Products Corp., 2265 Westwood Blvd., Los Angeles 64, Calif. 2.

Avion Instrument Corp. A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J. 1-2-6-9.

Avionex Electronic Corp., 2838 N. Naomi St., Burbank, Calif. 1-2.

Axler Associates, 102-42 43rd Ave., Corona, N. Y. 6-7-9.

Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass. 1-2-3.

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. 2-3-8-9.

Bart-Messing Corp., 229 Main St., Belleville, N. J. 2-3-6-8-9.

Barwood Electronics Inc., 546 W. Garfield Ave., Glendale 4, Calif. 1-2-9.

BEHLMAN ENGINEERING CO., 114 S. Hollywood Way, Burbank, Calif. 1-8-9. ADV. PG. 368.

Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J. 1-2-9.

BETA ELECTRIC CORP., 33 E. 103rd St., New York 29, N. Y. 1-2-3-6-8. ADV. PG. 652.

Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J. 2-3-6-8-9.

BODNAR INDUSTRIES, INC., 19 Railroad Ave., New Rochelle, N. Y. 1-2. ADV. PG. 691.

Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J. 1-2-3-5-6-7-8-9.

Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif. 1-2.

Booth Co., Arthur E., 265 S. Alexandria Ave., Los Angeles, Calif. 1-2-3-6-8.

BRACKE-SEIB X-RAY CO., INC., 16 Pelham Bay Parkway, Pelham Manor, N. Y. 3. ADV. PG. 632.

Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y. 2-8-9.

BRISTOL ENGINEERING CORP., Beaver Dam Road & Oak Lane, Bristol, Pa. 2-6-8. ADV. PG. 300.

Browning Laboratories, Inc., Main St., Winchester, Mass. 4-5.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. 1-2-6-8. ADV. PG. 418.

Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J. 1-3-6.

BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. 3. ADV. PG. 554.

Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia, Pa. 2-6-9.

CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. 2. ADV. PG. 551.

Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec. 1-2-3-4-5-6-7-8-9.

Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va. 1-2-3-6-8.

Carter Motor Co., 2742 W. George St., Chicago 18, Ill. 2.

Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn. 9.

CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. 1-2-3. ADV. PG. 663.

CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. 2-3-4-6-9. ADV. PG. 278, 279.

CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. 2. ADV. PG. 639.

Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England. 2-3-6-9.

Clark Electronic Labs., Box 165, Palm Springs, Calif. 2-8.

CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. 2-3-4-5-6-8-9. ADV. PG. 566.

Clevite Transistor Products, A Div. of Clevite Corp., 241-257 Crescent St., Waltham 54, Mass. 1-2-7.

Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill. 1.

Collins Radio Co., Cedar Rapids, Iowa. 5.

Color Television, Inc., 973 E. San Carlos Ave., San Carlos, Calif. 5.

COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. 1-2-3-6-8-9. ADV. PG. 645.

COMMUNICATIONS ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. 7. ADV. PG. 219-222.

COMMUNICATION MEASUREMENTS LAB., INC., 350 Leland Ave., Plainfield, N. J. 1-8-9. ADV. PG. 541.

Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y. 2-6.

CONDENSER PRODUCTS CO., 140 Hamilton St., New Haven, Conn. 2-3-6. ADV. PG. 693.

Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif. 6-9.

CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. 1-6. ADV. PG. 445.

Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada. 1-2-6-7-8-9.

CUBIC CORP., 5575 Kearny Villa Rd., San Diego 11, Calif. 4-7. ADV. PG. 691.

DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. 1-2-9. ADV. PG. 295.

Deltron, Inc., P. O. Box 192, Glenside, Pa. 2-3-6-8-9.

DeMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. 4-5. ADV. PG. 207.

Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill. 3.

Devtron Engineering, 1 Winslow St., Redwood City, Calif. 2-3-6-8-9.

Douglas Radio Labs., 176 Norfolk Ave., Boston 19, Mass. 6-8-9.

Dressen-Barnes Corp., 250 N. Vinedo Ave., Pasadena 8, Calif. 1-2-3-4-5-6-7-8-9.

Dresser Electric Co., 942 E. Larned St., Detroit 7, Mich. 2.

Dukane Corp., St. Charles, Ill. 1-2-3-6-8-9.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J. 1-2-3-4-6-9.

Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif. 1-2-6-9.

EBERLINE INSTRUMENT DIVISION, P. O. Box 279, Santa Fe, N. M. 6-9. ADV. PG. 654.

Eder Engineering Co., The, 219 E. Becher St., Milwaukee 2, Wis. 2-3-6-8-9.

Eicor, Inc., 1501 W. Congress St., Chicago 7, Ill. 1-2-8-9.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. 1-2-3-3a-6-7-8-9. ADV. PG. 516.

ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. 2-3-6. ADV. PG. 514.

ELECTRO PRODUCTS LAB., 5401 N. Ravenswood Ave., Chicago 40, Ill. 2-8. ADV. PG. 522.

ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. 6. ADV. PG. 512, 513.

Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif. 3.

Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass. 3-4-9.

ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. 1-2-3-3a-4-5-6-7-8-9. ADV. PG. 562.

Electronic Products Corp., 322 State St., Santa Barbara, Calif. 2-6.

Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J. 1-2-6-7-8-9.

Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo. 4-5-6-7-9.

El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa. 2-3-6-8.

Embassy Engineering Corp., 673 Elton Ave., New York 51, N. Y. 2-6-8-9.

EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. 8. ADV. PG. 424.

Endevco Corp., 161 E. California St., Pasadena, Calif. 2-6.

Engineered Magnetics Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif. 1-2-3-6-8-9.

Entron Inc., 4902 Lawrence St., Bladensburg, Md. 9.

F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. 3-4-5. ADV. PG. 266, 267.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. 5-9. ADV. PG. 355-360.

First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass. 1-2-6-8-9.

Fluke Mfg. Co., Inc., John, 111 W. Nickerson St., Seattle 99, Wash. 2-3-6-8-9.

Fortiphone Ltd., 247 Regent St., London W. 1, England. 7.

Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J. 2-3-6-9.

FOX PRODUCTS CO., 4720 N. 18th St., Philadelphia 41, Pa. 2-6-8. ADV. PG. 602.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. 1-2-6-8-9. ADV. PG. 645.

FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. 2-3-4-6-8-9. ADV. PG. 628.

G. W. Associates, 108 Standard St., El Segundo, Calif. 2-6.

GATES ELECTRONIC CO., 611 Morris Park Ave., Bronx, N. Y. 2-6-8-9. ADV. PG. 536.

Gates Radio Co., Quincy, Ill. 2.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 2-6. ADV. PG. 1-12.

General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y. 2-3-6-7-9.

General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y. 2-6-8-9.

General Photo Products Co., Inc., General Photo Bldg., 15 Summit Ave., Chatham, N. J. 2-3-8.

GENERAL PRECISION LABORATORY INC., 63 Bedford Rd., Pleasantville, N. Y. 6. ADV. PG. 189.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 1-2-4-6-8-9. ADV. PG. 109, 110.

Gonset Co., 801 S. Main St., Burbank, Calif. 1.

Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y. 2.

Green Rectifier Co., 83-3 Murray St., New York 7, N. Y. 1-2-3-6-8-9.

Gyro Electronics Co., 325 Canal St., New York, N. Y. 2-3.

Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif. 7.

Hallamere Electronics Co., A Div. of The Siegler Corp., 2001 E. Artesia, Long Beach 5, Calif. 1-2-3-6-7-8-9.

Hammer Electronics Co., Inc., Box 531, Princeton, N. J. 2-3-6-8-9.

Hanover Developments, 401 E. 71st St., New York 21, N. Y. 1-2-6-9.

HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. 2-6-8-9. ADV. PG. 689.

Harvey-Wells Electronics, Inc., North St., Southbridge, Conn. 1-2.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. 2-6-8-9. ADV. PG. 588.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. 4-6-9. ADV. PG. 29-36.

Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md. 1-2-3-5-6-7-9.

Industrial Electronics Co., Inc., Hanover, Mass. 2.

Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich. 1-2.

Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill. 1-2-6-8.

Industro Corp., 50 Brook Rd., Needham Heights, Mass. 3.

Industronics, Box 424, Arlington Heights, Ill. 1-8.

Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif. 1-2-6-7.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. 1-2-3-6-7-8-9. ADV. PG. 521.

International Research Associates, 2221 Warwick Ave., Santa Monica, Calif. 1-2-3-8-9.

Jack & Heintz, Inc., Cleveland 1, Ohio. 1-2.

Jobbins Electronic Enterprises, 771 Hamilton Ave., Menlo Park, Calif. 2-3-5-8-9.

Johnson Co., E. F., Waseca, Minn. 2-3.

Jordan Electronics, Inc., 3025 Mission Rd., Alhambra, Calif. 1-2-3-6-9.

Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa. 1-2-3-5-6-7-8-9.

K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. 2.

Kahn and Co., Inc., 541 Windsor St., Hartford 1, Conn. 2.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. 4. ADV. PG. 262.

KAY-LAB, 5725 Kearney Villa Rd., San Diego 12, Calif. 1-2-6-8. ADV. PG. 407.

KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. 5. ADV. PG. 192.

Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill. 9.

KEPCO LABS., 131-38 Sanford Ave., Flushing 55, N. Y. 1-2-3-4-5-6-7-8-9. ADV. PG. 51-53.

KROHN-HITE INSTRUMENT CO., 580 Massachusetts Ave., Cambridge 39, Mass. 2-4-6-7-8-9. ADV. PG. 48, 49.

L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif. 1-2-3-6-9.

LAMBDA ELECTRONICS CORP., 11-11 131st St., College Point 56, N. Y. 2-6-8-9. ADV. PG. 381-384.

LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. 1-2-3-6-9. ADV. PG. 439.

Lawn Electronics Co., East Freehold Rd., Freehold, N. J. 1-2-3-4-6-8-9.

LEACH CORPORATION, 5915 Avalon Blvd., Los Angeles 3, Calif. 1-2-8-9. ADV. PG. 247.

Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif. 1-2.

Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich. 1-2.

Lee Electric & Mfg. Co., 2806 Clearwater St., Los Angeles 39, Calif. 2-6-8-9.

Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass. 1-2.

LEL, INC., 380 Oak St., Copiague, N. Y. 7. ADV. PG. 624.

Leland Electric Co. Div. of The American Machine & Foundry Co., 1501 Webster St., Dayton 1, Ohio. 1-2.

Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif. 2-3-4-5-6-8-9.

Link Aviation, Inc., Binghamton, N. Y. 2.

Lynnmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa. 9.

McColpin-Christie Corp., 3410 W. 67th St., Los Angeles 43, Calif. 2-6-9.

MCDOWELL ELECTRONICS, INC., P. O. Box 342, Metuchen, N. J. 2-3-6-8-9. ADV. PG. 697.

MACARR, INC., 2458 Arthur Ave., Bronx 58, N. Y. 2-3-6-8-9. ADV. PG. 620.

Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. 1-2-3-4-6-8-9.

MAGNATRAN, INC., P. O. Box 211, Kearny, N. J. 1-2-3-4-5-6-9. ADV. PG. 39.

MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. 1-2-6. ADV. PG. 401.

MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. 2-6-7-8-9. ADV. PG. 582.

Magnetics Research Co., 255 Grove St., White Plains, N. Y. 1-2-6-9.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind. 2.

MANSON LABORATORIES, 207 Greenwich Ave., Stamford, Conn. 1-2-3-6-9. ADV. PG. 550.

MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. 1-2-3-6-7-8-9. ADV. PG. 59.

Meridian Metalcraft, Inc., 8739 Miller Grove Drive, Whittier, Calif. 5.

Mid-Century Instrument Corp., 611 Broadway, New York 12, N. Y. 2-9.

Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla. 1-2.

Milburn, Inc., Alexander, 1241 Ridgely St., Baltimore 30, Md. 2-3-6.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass. 2-6.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn. 6.

MODEL RECTIFIER CORP., 1065 Utica Ave., Brooklyn 3, N. Y. 2-3-6-7-8-9. ADV. PG. 576, 577.

Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J. 3.

Mohawk Electronic Research Labs., Inc., Box 126-A, Rd 4, Amsterdam, N. Y. 6-8-9.

Motoresearch Co., 1600 Junction Ave., Racine, Wis. 1-2-6-9.

Moulic Specialties Co., 1007 W. Washington St., Bloomington, Ill. 2-3-6-8-9.

Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo. 3.

MULLARD OVERSEAS LTD., EQUIPMENT DIV., CENTURY HOUSE, Shaftesbury Ave., London, W. C. 2, England. 9. ADV. PG. 181.

NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. 2-3-3a-4-6-8-9. ADV. PG. 111, 122.

National Aircraft Corp., 3411 Tulare St., Burbank, Calif. 1-2-3-6-7-9.

National Co., Inc., 61 Sherman St., Malden 48, Mass. 4.

National Radiac, Inc., 475 Washington St., Newark, N. J. 3-6.

National Spectrographic Labs., Inc., 6300 Euclid Ave., Cleveland 3, Ohio. 1-2-3-6-8.

Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill. 2.

NEUTRONIC ASSOCIATES, 87-16 116th St. Richmond Hill, N. Y. 2-3-6-8-9. ADV. PG. 558.

New England Transformer Co., 47 McGrath Highway, Somerville, Mass. 2.

New York Transformer Co., Inc., Third Ave., Alpha, N. J. 3.

Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y. 1-2.

Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass. 3-6-9.

North Hills Electric Co., Inc., 203-18 35th Ave., Bayside 61, N. Y. 2-7.

NORTHEAST SCIENTIFIC CORP., 617 Concord Ave., Cambridge 38, Mass. 3-4-5-6-9. ADV. PG. 567.

Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa. 2-3-6-8-9.

Nuclear Research Corp., Southampton, Pa. 3-6-9.

Orlikon Tool & Arms Corp. of America, Asheville, N. C. 1-2-9.

Omega Laboratories Inc., P. O. Box 264, Rowley, Mass. 4.

OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. 1-2-3-3a-6-7-8-9. ADV. PG. 524.

Oregon Electronic Mfg. Co., 2232 E. Burnside St., Portland 15, Ore. 2-3-6-8-9.

ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. 2-3-6-7-8-9. ADV. PG. 546, 547.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y. 1-2-3-6-8-9.

Owen Laboratories, 55 Beacon Place, Pasadena Calif. 6-9.

Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif. 2-6-9.

Peerless Electrical Products Div. of Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif. 2-3.

Performance Measurements Co., 15301 W. McNichols, Detroit 35, Mich. 2.

PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. 1-2-3-5-6-8-9. ADV. PG. 309.

Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill. 1-7-9.

PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. 1-2-3-4-5-6-7-8-9. ADV. PG. 543.

Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass. 6-9.

Philco Corp., Government & Industrial Div., 4700 Wilsahickon Ave., Philadelphia 44, Pa. 2-5-6-9.

Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y. 1-6-9.

Plastic Capacitors, Inc., 2511 W. Moffat St., Chicago 47, Ill. 1-2-3-6-8-9.

POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. 2-4-5. ADV. PG. 203.

POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. 2-3-5-9. ADV. PG. 507.

POWER DESIGNS, INC., 89-25 130th St., Richmond Hill 18, N. Y. 2-6-7-8-9. ADV. PG. 533.

Power Supplies Inc., 1007 Olive St., Highland, Ill. 1-2-3-4-6-7-8-9.

Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J. 1-2-3-3a-4-6-7-8-9.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y. 1-2-3-6-8-9.

PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. 1-2-3-6-8-9. ADV. PG. 147.

Press Wireless Laboratories Inc., 25 Prospect Pl., West Newton 65, Mass. 2-3.

Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y. 9.

PRODUCTION RESEARCH CORP., Thornwood, N. Y. 7-8-9. ADV. PG. 576.

R & D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif. 1-2-6-7-8.

RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. 2-6-8-9. ADV. PG. 631.

Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill. 3-6-9.

Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill. 3-6.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. 1-2-3. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif. 1-2-9.

Raypar, Inc., 7800 W. Addison St., Chicago, Ill. 2-3-8-9.

RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. 1-2-6-9. ADV. PG. 128.

Remler Co., 2101 Bryant St., San Francisco 10, Calif. 7.

Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasadena 1, Calif. 3-8.

Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif. 1-2.

Research Electronics Laboratories, Roslyn, Pa. 2-3-6.

Richardson-Allen Corp., 116-15 15th Ave., College Point, N. Y. 2-3-6-8-9.

Rowe Industries, 1702 Wayne St., Toledo 9, Ohio. 3.

SAFT CORP. OF AMERICA, 2 Gregg St., Lodi, N. J. 2. ADV. PG. 575.

Sanford Miller Co., 691 Bedford Ave., Brooklyn 6, N. Y. 2-8.

Sangamo Electric Co., Capacitor Div., Marion, Ill. 3.

Schauer Mfg. Corp., 4521 Alpine Ave., Cincinnati 36, Ohio. 1-2-6.

Scientific Electric Corp., 105-109 Monroe St., Garfield, N. J. 1-2-3-6-8-9.

Senn Corp., New Augusta, Ind. 2.

Service Instruments Co., 422 S. Dearborn St., Chicago 5, Ill. 1.

Servo Corp. of America, 20-20 Jerico Turnpike, New Hyde Park, N. Y. 3.

SERVO-RECORDING INSTRUMENTS, INC., 917 Grand Ave., Phoenix, Ariz. 3-7. ADV. PG. 587.

Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J. 2-8-9.

Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y. 1-2.

SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. 2-3-9. ADV. PG. 493.

SHASTA DIV. OF BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. 2-8-9. ADV. PG. 78, 79.

Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash. 6.

SOLA ELECTRIC CO., 4633 W. 16th St., Chicago 50, Ill. 6-9. ADV. PG. 224.

Solartron Electronic Group Ltd., The, Thames Ditton, Surrey, England. 2-4-6.

SORENSEN & CO., INC., 375 Fairfield Ave., Stamford, Conn. 1-2-3-6-7-8-9. ADV. PG. 177-180.

Southern Instruments Ltd., Special Products Div., Frimley Rd., Camberly, Surrey, England. 1.

SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. 1-2-3-6. ADV. PG. 372, 373.

Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y. 4-5.

Spinco Division, Beckman Instruments, Inc., 601 O'Neil Ave., Belmont, Calif. 2-6-9.

Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. 1-2-3-6-7-8-9.

Stator Electric Corp., 46-25 58th St., Woodside, N. Y. 2-6-7-8-9.

SUPERIOR ELECTRIC CO., THE, 4000 Middle St., Bristol, Conn. 1-2-8-9. ADV. PG. 470, 471.

Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y. 2-3-6-9.

Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y. 1-2-3-4-5-6-7-8-9.

Technical Measurement Corp., 140-142 State St., New Haven 11, Conn. 2-3-6-8-9.

TELECHROME INC., 84 Merrick Rd., Amityville, N. Y. 2-3-6-8-9. ADV. PG. 149.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. 1-2-3-6-9.

TELETRONICS LABORATORY, INC., Kinkel St., Westbury, N. Y. 2-6-7-9. ADV. PG. 545.

Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J. 9.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. 2-3-7. ADV. PG. 403.

Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill. 2-8-9.

Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. 2-6-8-9.

Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. 1-2-3-3a-4-5-6-7-8-9.

Timely Instruments & Controls Corp., 1645 W. 135th St., Gardena, Calif. 1-2-6-7-9.

Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif. 7.

Trans Electronics Co., 7243 Eton Ave., Canoga Park, Calif. 2-6-7-8-9.

TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. 1-2-3. ADV. PG. 685.

TRIO LABORATORIES, INC., 4025 Merrick Rd., Seaford, N. Y. 1-2. ADV. PG. 476.

U. S. Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y. 2-3-6-7-8-9.

UNIVERSAL ELECTRONICS CO., 2012 S. Sepulveda Blvd., Los Angeles 25, Calif. 2-3-6-7-8-9. ADV. PG. 566.

Valley Engineering Co. P.O. Box 2, Los Angeles, N. W. 3-5.

VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. 6. ADV. PG. 282, 283.

VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. 1-2-6-7-9. ADV. PG. 605.

VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. 2-3-6-9. ADV. PG. 528.

VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. 4. ADV. PG. 395.

VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. 1-2-3-6-7-9. ADV. PG. 569.

Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo. 2-6-9.

VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. 3-9. ADV. PG. 416.

Wallson Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J. 1-2-6-8-9.

Warren Mfg. Co., Inc., The, Littleton, Mass. 2.

Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif. 1-2-3-6-8-9.

White Electron Devices Inc., Roger, Fourth Ave., Haskell, N. J. 5.

WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. 6. ADV. PG. 682.

Winder Aircraft Corp., P. O. Box 2397, Lakeland, Fla. 1-2-3.

PRE-AMPLIFIERS for COMMUNICATION RECEIVERS

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.

Bone Engineering Corp., 701 W. Broadway, Glendale 4 Calif.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.

Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S. Canada.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.

Electro Voice Mfg. Co., Inc., Buchanan, Mich.

El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.

Gonset Co., 801 S. Main St., Burbank, Calif.

International Research Associates, 2221 Warwick Aves., Santa Monica, Calif.

KAY-LAB, 5725 Kearney Villa Rd., San Diego 12, Calif. ADV. PG. 407.

Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Mohawk Electronic Research Labs., Inc., Box 126-A, RD 4, Amsterdam, N. Y.

Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.

RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.

STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Telephonics Corp., Park Ave., Huntington, N. Y.

Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.

PRE-AMPLIFIERS for OSCILLOSCOPES

Aerovox Corp., 740 Belleville Ave., Bedford, Mass.

Airmec Ltd., High Wycombe, Buckinghamshire, England.

Allegany Instrument Co., Inc., Cumberland, Md.

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.

American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.

Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.

Cossor (Canada) Ltd., 301-303 Windsor St. Halifax, N. S., Canada.

Daytronic Corp., 216 S. Main St., Dayton, Ohio.

DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.

Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.

ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.

Ellis Associates, Box 77, Peiham, N. Y.

FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.

Hanover Developments, 401 E. 71st St., New York 21, N. Y.

Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.

KEITHLEY INSTRUMENTS, 3868 Carnegie Ave., Cleveland 15, Ohio. ADV. PG. 501.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Railway Communications, Inc., P. O. Box 67, Raytown, Mo.

Tektronix, Inc., P. O. Box 831, Portland 7, Ore.

Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.

Volkers & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.

PRE-AMPLIFIERS—Phonograph

Alco Electronics Mfg. Co., 3 Wolcott Ave., Lawrence, Mass.

Allied Radio Corp., 100 North Western Ave., Chicago 80, Ill.

Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.

Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.

Brainard Electronics, 8586-90 Santa Monica Blvd., Los Angeles 46, Calif.

Brociner Electronics Corp., 344 E. 32nd St., New York 16, N. Y.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.

Dukane Corp., St. Charles, Ill.

Electro Voice Mfg. Co., Inc., Buchanan, Mich.

Fairchild Recording Equipment Co., 154th St. & Seventh Ave., Whitestone, N. Y.

Fisher Radio Corp., 21-21 Forty-fourth Drive, Long Island City 1, N. Y.

Gotham Television Corp., 123 W. 64th St., New York 23, N. Y.

Hartley Products Co., 521 E. 162nd St., New York 51, N. Y.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.

McIntosh Laboratory, Inc., 320 Water St., Binghamton, N. Y.

National Co., Inc., 61 Sherman St., Malden 48, Mass.

Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
PICKERING & CO., 309 Woods Ave., Oceanside, N. Y. ADV. PG. 679.
 Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Precision Radiation Instruments, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif.
 Radio Craftsmen, Inc., The, 4401 N. Ravenswood Ave., Chicago 40, Ill.
 Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
SONEX, INC., 245 Sansom St. Upper Darby, Pa. ADV. PG. 456.
 Special Products Co., P. O. Box 188, Rockville 3, Md.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100-Carlson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Weingarten Electronic Labs, Inc., 7556 Melrose Ave., Los Angeles 46, Calif.

PRE-SELECTORS

Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
 Radio Mfg. Engineers, Inc., 501 Walnut St., Washington, Ill.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.

PRÉSSES—Metal Forming

Hydraulic Press Mfg. Co., Mt. Gilead, Ohio.
 Keller Tool Div., Gardner-Denver Co., Grand Haven, Mich.
 Stueck, Inc., Whitney W., Dept. E, Old Saybrook, Conn.
 Walsh Press & Die Co., Div. of American Gage & Machine Co., 47-09 W. Kinzie St., Chicago, Ill.

PRESSURE

See **CONTROLS**

PRESSURIZATION UNITS

DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
EASTERN INDUSTRIES, INC., 100 Skiff St., Hamden, Conn. ADV. PG. 292.
 Great Lakes Electric Mfg. Co., 17 S. Desplaines St., Chicago 6, Ill.
 Lear-Romec Div. of Lear, Inc., Abbe Rd., Elyria, Ohio.

PRINTED, STAMPED or ETCHED CIRCUITS

See **CIRCUITS**

PRINTERS—High Speed

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Anelex Corp., 150 Causeway St., Boston 14, Mass.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 General Cybernetic Corp., 1751 N. Coronado St., Los Angeles 26, Calif.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Matthews & Co., James H., 3942 Pittsburgh, Pa.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.
 Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
 Sillocks-Miller Co., Maplewood, N. J.

PRINTERS—Keyboard

Clary Multiplier Corp., Electronics Div., San Gabriel, Calif.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.

PRINTERS—Line

Clary Multiplier Corp., Electronics Div., San Gabriel, Calif.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 662.
 Sillocks-Miller Co., Maplewood, N. J.

PROBES

See also **LINES—Slotted**

Aerolite Electronics Corp., 507 26th St., Union City, N. J.
 Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
COAXIAL CONNECTOR CO., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 671.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.

GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 82.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 422.
 Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Revere Corporation of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
 Transatron, Inc., 186 Granite St., Manchester, N. H.
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.

PROBES—High Frequency

American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
COAXIAL CONNECTOR CO., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 671.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109,110.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.
 Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
 Transatron, Inc., 186 Granite St., Manchester, N. H.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.
 Yonkers Industries, Inc., 28 School St., Yonkers, N. Y.

PROBES—High Voltage

American Metrix Corp., 15 Exchange Place, Jersey City 2, N. J.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
COAXIAL CONNECTOR CO., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 671.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 Javex, P. O. Box 646, Redlands, Calif.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.
 Peerless Products Industries, 812 N. Pulaski St., Chicago 51, Ill.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, Calif.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 Yonkers Industries, Inc., 28 School St., Yonkers, N. Y.

PROBES—Microwave

See **MICROWAVE ACCESSORIES**

PROJECTION TUBES

See **TUBES—Television Projection**

PROTECTIVE SEALERS

See **INSULATING COMPOUNDS**

PSYCHO GALVANOMETERS

Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 Grason-Stadler Co., Engineering Service Dept., West Concord, Mass.

PUBLIC ADDRESS SYSTEMS

See also **SOUND SYSTEMS—Complete**

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Allied Radio Corp., 100 North Western Ave., Chicago 80, Ill.
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
 Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
 Audio-Master Corp., 17 E. 45th St., New York 17, N. Y.
 Bliss Electronic Corp., Box 366, Sussex, N. J.
 Bogen Co., Inc., David, 28 Ninth Ave., New York 14, N. Y.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
 Califone Corp., 1041 N. Sycamore Ave., Hollywood 38, Calif.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Dukane Corp., St. Charles, Ill.
 Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y.
 Loge Sound Engineers, J. M., 2171 W. Washington Blvd., Los Angeles 18, Calif.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.

Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

PUMPS—Metering

Hardman Co., Inc., H. V., 571 Cortland St., Belleville 9, N. J.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., LeRoy, N. Y. ADV. PG. 228, 229.
 Robinson Inc., Edward E., 95 Park Ave., Nutley 10, N. J.

PUMPS—Vacuum

See VACUUM PUMPS

PUSHBUTTONS

Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Kirkland Co., H. R., 8 King St., Morristown, N. J.

QUARTZ

See also CRYSTALS

QUARTZ—Fused

Amersil Co., Inc., 685 Ramsey Ave., Hillside 5, N. J.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
SERVO-RECORDING INSTRUMENTS, INC., 917 Grand Ave., Phoenix, Ariz. ADV. PG. 587.
SYNGOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 571.
 Thermal American Fused Quartz Co., Inc., 18-20 Salem St., Dover, N. J.

RACKS, AGING—Vacuum Tube & Transistor

BRISTOL ENGINEERING CORP., Beaver Dam Road & Oak Lane, Bristol, Pa. ADV. PG. 300.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
 Kahn & Co., 541 Windsor St., Hartford 1, Conn.
 Mack Electronics Division, Inc., Plainfield, N. J.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
 Research Electronics Laboratories, Roslyn, Pa.
 Sorensen Industrial Electronic Co., Route 10, Dover, N. J.
STANDARD TOOL & MFG. CO., Arlington, N. J. ADV. PG. 632.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.

RACKS—Relay

ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
 Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
BALTIC METAL PRODUCTS CO., 120 Sutton St., Brooklyn 22, N. Y. ADV. PG. 304.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.
 Conrad & Moser, 2 Borden Ave., Long Island City 1, N. Y.
CRAIG SYSTEMS, INC., Danvers, Mass. ADV. PG. 223.
 Dahlstrom Metallic Door Co., Jamestown, N. Y.
 Dukane Corp., St. Charles, Ill.
 Elgin Metalformer Corp., 901 N. Liberty St., Elgin, Ill.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
 Falstrom Co., 44 Falstrom Court, Passaic, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FORMICA METAL PRODUCTS CO., Corporation Way, Medford 55, Mass. ADV. PG. 606.
 Gates Radio Co., Quincy, Ill.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.

I. E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 Par-Metal Products Corp., 32-62 49th St., Long Island City 3, N. Y.
 Pneumafil Corp., Charlotte, N. C.
PREMIER METAL PRODUCTS CO., 337 Manida St., Bronx 59, N. Y. ADV. PG. 687.
 REF Manufacturing Corp., Jericho Turnpike, Mineola, N. Y.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Ventrak Corp., 11 W. 42nd St., New York, N. Y.
 Walter Co., Inc., S., 1400 Atlantic Ave., Brooklyn 16, N. Y.
WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.

RADAR SYSTEMS

A. R. F. Products, Inc., 7627 Lake St., River Forest, Ill.
AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 Avion Instrument Corp., A Sub. of A. C. F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 54, Calif.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.

Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Edo Corp., College Point, N. Y.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Electric Co., Broadcasting Equipment Dept., Electronics Park, Syracuse, N. Y.
 Giffill Bros., Inc., 1815 Venice Blvd., Los Angeles 6, Calif.

Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
 International Electronics Corp., (Mullard Equipment) 81 Spring St., New York 12, N. Y.
 Laboratory For Electronics, Inc., 75 Pitts St., Boston 14, Mass.

LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
 Loral Electronics Corp., 794 E. 140th St., New York 54, N. Y.
 Magnavox Co., Fort Wayne 4, Ind.
 Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Missouri Research Labs, Inc., 2019 Locust St., St. Louis 3, Mo.
 Moran Instrument Corp., 170 E. Orange Grove St., Pasadena 3, Calif.
 Motorola Communications & Electronics, Inc., 4501 Augusta Blvd., Chicago 51, Ill.
 National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
 Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasadena 1, Calif.

Sanders Associates, Inc., Nashua, N. H.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Telephonics Corp., Park Ave., Huntington, N. Y.
TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RADIOSONDES

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Friez Instrument Division, Bendix Aviation Corp., Baltimore 4, Md.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Kelk & Co., G. F., 130 Willowdale Ave., Willowdale, Ontario, Canada.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.

RADOMES

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
CRYSTAL-X CORP., 403 Lenni Rd., Lenni Mills, Pa. ADV. PG. 634.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Keller Products Co., 41 Union St., Manchester, N. H.
KENNEDY & CO., D. S., Cohasset, Mass. ADV. PG. 135.
KOCH & SON, H., Corte Madera, Calif. ADV. PG. 581.
McMILLAN INDUSTRIAL CORP., Brownville Avenue Plant, Ipswich, Mass. ADV. PG. 484, 485.
 Metaplast Corp., 7931 Oxford Ave., Philadelphia 11, Pa.
 Mycalex Electronics Corp., 125 Clifton Blvd., Clifton, N. J.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Sanders Associates, Inc., Nashua, N. H.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Zenith Aircraft Div. of Zenith Plastics Co., P. O. Box 91, Gardena, Calif.

RATIOMETERS

See INSTRUMENTS—Electrical Measuring

REACTORS—Saturable

Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y.
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
 Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
 American Research & Mfg. Corp., 4914 Delray Ave., Bethesda, Md.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 C. G. S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 551.
 Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
 Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y.
GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank, Calif. ADV. PG. 460.
 Harder Co., Donald C., 3710 Midway Drive, San Diego 10, Calif.
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
MACARR, INC., 2458 Arthur Ave., Bronx 58, N. Y. ADV. PG. 620.

Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNATRAN, INC., P. O. Box 211, Kearny, N. J. ADV. PG. 39.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 54, 55.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 Nothelfer Winding Labs., Inc., P. O. Box 455, Trenton 3, N. J.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
OSBORNE ELECTRIC CO., 712 S.E. Hawthorne Blvd., Portland 14, Ore. ADV. PG. 624.
 Pantek Co., P. O. Box 212, El Segundo, Calif.
 Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y.
 Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn.
 S.N.C. Mfg. Co., Inc., Box 277, Oshkosh, Wis.
SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654.
 Sorgel Electric Co., 838 W. National Ave., Milwaukee 4, Wis.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.
TRESCO, INC., 3824 Terrace St., Philadelphia 28, Pa. ADV. PG. 635.
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. ADV. PG. 569.

RECEIVERS—Aircraft

Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Bendix Radio Div., Bendix Aviation Corp., Baltimore 4, Md.
 Collins Radio Co., Cedar Rapids, Iowa.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Loral Electronics Corp., 794 E. 140th St., New York 54, N. Y.
 Magnavox Co., Fort Wayne 4, Ind.
 Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Maryland Electronic Mfg. Corp., College Park, Md.
 Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
 National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
 Sonar Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y.
 Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
 Springer Aircraft Radio Co., Earl W., Rte. 11, Box 330, Sky Harbor Airport, Indianapolis, Ind.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.

Telephonics Corp., Park Ave., Huntington, N. Y.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RECEIVERS—a-m Fixed Frequency

Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
BRUNO-NEW YORK INDUSTRIES, CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Collins Audio Products Co., P. O. Box 368, Westfield, N. J.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Gonset Co., 801 S. Main St., Burbank, Calif.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
 Heintz & Kaufman Div. of The Robert Dollar Co., 50 Drumm St., San Francisco 11, Calif.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Nems-Clarke, Inc., Silver Spring, Md.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Parsons Co., Ralph M., The, 617 S. Olive St., Los Angeles 14, Calif.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
 Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
SPIVEY INC., JAMES S., 4908 Hampden Lane, Washington 4, D. C. ADV. PG. 569.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RECEIVERS—a-m/f-m Communication

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
 Brainard Electronics, 8586-90 Santa Monica Blvd., Los Angeles 46, Calif.
 Calbest Engineering & Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.

Fairchild Controls Corp., Electronics Div., 200 Hudson St., New York, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355, 360.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Hallicrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
 Heintz & Kaufman Div. of The Robert Dollar Co., 50 Drumm St., San Francisco 11, Calif.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
 Loral Electronics Corp., 794 E. 140th St., New York 54, N. Y.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Magnavox Co., Fort Wayne 4, Ind.
 Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.
 Marconi Instruments, 44 New St., New York 4, N. Y.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Nems-Clarke, Inc., Silver Spring, Md.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
 Ratigan Electronics, Inc., 3514 Maple Ave., Los Angeles 11, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Symphony Radio & Television Corp., 925 South Western Ave., Los Angeles 6, Calif.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago 39, Ill.

RECEIVERS—Automatic Radio Alarm

Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

RECEIVERS—Automobile

Automatic Radio Mfg. Co., Inc., 122 Brookline Ave., Boston, Mass.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Delco Radio Div., General Motors Corp., Kokomo, Ind.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Eckstein Radio & Television Co., 2601 E. Franklin Ave., Minneapolis 6, Minn.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Gotham Television Corp., 123 W. 64th St., New York 23, N. Y.
 I.D.E.A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Philco Corp., C & Tioga Sts., Philadelphia 34, Pa.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Symphony Radio & Television Corp., 925 S. Western Ave., Los Angeles 6, Calif.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.

RECEIVERS—Coin Operated

BRUNO-NEW YORK INDUSTRIES, CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Calbest Engineering & Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Coradio, Inc., 196 Albion Ave., Paterson, N. J.
 Electron Enterprises, 6917-19-21 Stanley Ave., Berwyn, Ill.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.

RECEIVERS—Communication and Amateur

Airmec, Ltd., High Wycombe, Buckinghamshire, England.
 American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

Browning Laboratories, Inc., Main St., Winchester, Mass.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
 Collins Radio Co., Cedar Rapids, Iowa.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Hallicrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
 Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Heintz & Kaufman Div. of The Robert Dollar Co., 50 Drumm St., San Francisco 11, Calif.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I. D. E. A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 630.
 Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
 Marconi Instruments, 44 New St., New York 4, N. Y.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Motorola Communications and Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 Multi-Products Co., 21470 Coolidge Highway, Oak Park 37, Mich.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
 Radio Mfg. Engineers, Inc., 501 Walnut St., Washington, Ill.
SPIVEY INC., JAMES S., 4908 Hampden Lane, Washington 4, D. C. ADV. PG. 569.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 Warsaw Coil Co., Warsaw, Ind.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RECEIVERS—Diversity Reception

Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Collins Radio Co., Cedar Rapids, Iowa.
 Crosby Labs, Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 Hallicrafters Co., 401 W. Fifth Ave., Chicago 24, Ill.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
 Heintz & Kaufman Div. of The Robert Dollar Co., 50 Drumm St., San Francisco 11, Calif.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 McLaughlin Corp., J. L. A., P. O. Box 529, Jolla, Calif.
 Motorola Communications & Electronics, Inc., 4501 Augusta Blvd., Chicago 51, Ill.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
NORTHERN RADIO CO., INC., 143-145 W. 22nd St., New York 11, N. Y. ADV. PG. 64-66.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London W. C. 2, England.
 Stelma, Inc., 389 Ludlow St., Stamford, Conn.
 Technical Materiel Corp., Teh, P. O. Box 142, Mamaroneck, N. Y.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

RECEIVERS—Fixed Frequency

Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., 2200 Wright Ave., Dept. G-13, Richmond 3, Calif. ADV. PG. 69-76.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Calbest Engineering & Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Collins Audio Products Co., P. O. Box 368, Westfield, N. J.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Denson Electronics Corp., Ellington, Conn.
 DuMont Laboratories, Inc., Allen B. Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
 Erco Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
 Heintz & Kaufman Div. of The Robert Dollar Co., 50 Drumm St., San Francisco 11, Calif.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I. D. E. A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Measurements Engineering Ltd., Arnprior, Ontario Canada.
 Motorola Communications and Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Nems-Clarke, Inc., Silver Spring, Md.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Parsons Co., Ralph M., The, 617 S. Olive St., Los Angeles 14, Calif.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
SHASTA DIV., BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.
 Specific Products, 14515 Dickens St., Sherman Oaks 13, Calif.
SPIVEY INC., JAMES S., 4908 Hampden Lane, Washington 4, D. C. ADV. PG. 569.
 Stelma, Inc., 389 Ludlow St., Stamford, Conn.
 Technical Materiel Corp., The, P. O. Box 142, Mamaroneck, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RECEIVERS—f-m
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
 Brainard Electronics, 8586-90 Santa Monica Blvd., Los Angeles 46, Calif.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
 Calbest Engineering & Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Communications Co., Inc., Coral Gables 34, Fla.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Denson Electronics Corp., Ellington, Conn.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electron Enterprises, 6917-18-21 Stanley Ave., Berwyn, Ill.
 Fada Radio & Electric Co., Inc., 525 Main St., Belleville, N. J.

Franklin Electronics Inc., E. Fourth St., Bridgeport, Pa.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Gotham Television Corp., 123 W. 64th St., New York 23, N. Y.
 Granco Products, Inc., 36-17 20th Ave., Long Island City, N. Y.
 Hallicrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I. D. E. A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif.
 Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.
 Marconi Instruments, 44 New St., New York 4, N. Y.
 Maryland Electronic Mfg. Corp., College Park, Md.
 National Electronics Laboratories, Inc., 1713 Kalorama Rd., N. W., Washington 9, D. C.
 Nems-Clarke, Inc., Silver Spring, Md.
NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.
 Pedersen Electronics Co., Mt. Diablo Blvd., Lafayette, Calif.
 Precision Radiation Instruments, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.
 Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London W. C. 2, England.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.

RECEIVERS—Loran

Edo Corp., College Point, N. Y.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

RECEIVERS—Marine

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Applied Electronics Co., Inc., 1246 Folsom St., San Francisco 3, Calif.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Bassett Inc., Rex, 1314 N.E. 17th Court, P. O. Box 1727, Fort Lauderdale, Fla.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
 Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 Erco Radio Labs, Inc., 637 Stewart Ave., Garden City, N. Y.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 Gotham Television Corp., 123 W. 64th St., New York 23, N. Y.
 Gray Radio Co., 501 Forest Hill Blvd., West Palm Beach, Fla.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson American Corp., 25 W. 43rd St., New York 36, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
 Jefferson, Inc., Ray, 40 E. Merrick Rd., Freeport, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Motorola Communications & Electronics, Inc., 4501 Augusta Blvd., Chicago 51, Ill.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Pearce-Simpson, Inc., 3023 Coral Way, Miami 34, Fla.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.

Sonar Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.

RECEIVERS—Microwave

See MICROWAVE ACCESSORIES

RECEIVERS—Panoramic

APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
 C. G. S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, California.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.
 PANORAMIC RADIO PRODUCTS, INC., 10 South Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.
 RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.

RECEIVERS—Portable & Mobile

Acme Telectronics Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Aeronautical Electronics, Inc., Raleigh Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Applied Electronics Co., Inc., 1246 Folsom St., San Francisco 3, Calif.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Dumont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
 Gosnet Co., 801 S. Main St., Burbank, Calif.
 Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 630.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Multi-Products Co., 21470 Coolidge Hwy., Oak Park, Mich.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 Pearce-Simpson, Inc., 3023 Coral Way, Miami 34, Fla.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
 Sonar Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.

RECEIVERS—Radio Direction Finder

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 Applied Electronics Co., Inc., 1246 Folsom St., San Francisco 3, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
 Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave. & 4th St., New Hyde Park, N. Y.
 Collins Radio Co., Cedar Rapids, Iowa.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 Gotham Television Corp., 123 W. 64th St., New York 23, N. Y.

Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
 Jefferson, Inc., Ray, 40 E. Merrick Rd., Freeport, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Loral Electronics Corp., 794 E. 140th St., New York 54, Magnavox Co., Fort Wayne 4, Ind.
 Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.
 MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 181.
 RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Sonar Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RECEIVERS—Railroad

Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Delco Radio Div., General Motors Corp., Kokomo, Ind.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Railway Communications, Inc., P. O. Box 67, Raytown, Mo.

RECEIVERS—Single Side Band

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 CLEGG LABORATORIES, INC., Hanover & Ridgedale Ave., Morristown, N. J. ADV. PG. 566.
 Collins Radio Co., Cedar Rapids, Iowa.
 Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Gosnet Co., 801 S. Main St., Burbank, Calif.
 Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
 HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Kahn Research Labs, Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
 MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 McLaughlin Corp., J. L. A., P. O. Box 529, La Jolla, Calif.
 MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 181.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Radio Mfg. Engineers, Inc., 501 Walnut St., Washington, Ill.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 STODDART AIRCRAFT RADIO CO., 6644 Santa Monica Blvd., Hollywood 38, Calif. ADV. PG. 509.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

RECEIVERS—uhf

Aerolab Development Co., 330 W. Holly St., Pasadena, Calif.

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 AIRBORNE INSTRUMENTS LABS., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
 BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Collins Radio Co., Cedar Rapids, Iowa.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Emerson Radio & Phonograph Corp., 111 Eighth Ave., New York, N. Y.
 Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.
 Erco Radio Labs., 637 Stewart Ave., Garden City, N. Y.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 Gyro Electronics Co., 325 Canal St., New York, N. Y.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 KINGS ELECTRONICS CO., 40 Marbledale Rd., Tucka-hoe, N. Y. ADV. PG. 592.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Marconi Instruments, 44 New St., New York 4, N. Y.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Nems-Clarke, Inc., Silver Spring, Md.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Parsons Co., Ralph M., The, 617 S. Olive St., Los Angeles 34, Calif.
 RADIO ENGINEERING LABORATORIES, INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.
 RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Telephonics Corp., Park Ave., Huntington, N. Y.

RECEIVERS—vhf

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 AIRBORNE INSTRUMENTS LABS., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 AMERICAN TELEVISION & RADIO CO., 300 E. 4th St., St. Paul 1, Minn. ADV. PG. 176.
 APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
 Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
 Bendix Radio Div., Bendix Aviation Corp., Baltimore 4, Md.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
 BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 CLEGG LABORATORIES, INC., Hanover & Ridgedale Ave., Morristown, N. J. ADV. PG. 566.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 EBERLINE INSTRUMENT DIV., P. O. Box 279, Santa Fe, N. M. ADV. PG. 654.
 Emerson Radio & Phonograph Corp., 111 Eighth Ave., New York, N. Y.
 Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
 Gosnet Co., 801 S. Main St., Burbank, Calif.
 HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
 Heintz & Kaufman Div. of the Robert Dollar Co., 50 Drumm St., San Francisco 11, Calif.

Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 I. D. E. A., Inc., 7900 Pendleton Pike, Indianapolis 16, Ind.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 630.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tucka-hoe, N. Y. ADV. PG. 592.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Marconi Instruments, 44 New St., New York 4, N. Y.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Mohawk Electronic Research Labs., Inc., Box 126-A, RD 4, Amsterdam, N. Y.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 National Electronics Laboratories, Inc., 1713 Kalamora Rd., N. W., Washington 9, D. C.
 Nems-Clarke, Inc., Silver Spring, Md.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Parsons Co., Ralph M., The, 617 S. Olive St., Los Angeles 14, Calif.
 Peer, Inc., Benton Harbor, Mich.
 Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
RADIO ENGINEERING LABORATORIES, INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.
 Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
SPIVEY INC., JAMES S., 4908 Hampden Lane, Wash- ington 4, D. C. ADV. PG. 569.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Telephonics Corp., Park Ave., Huntington, N. Y.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RECEIVERS—Home

1. a-m Clock Radio
 2. a-m phono Console
 3. a-m phono Table
 4. a-m Console
 5. a-m Portable
 6. a-m Table
 7. a-m Vest Pocket
 8. a-m/f-m phono, Console
 9. a-m/f-m phono, Table
 10. a-m/f-m Console
 11. a-m/f-m Portable
 12. a-m/f-m Table
 13. f-m Console
 14. f-m Portable
 15. f-m Table
 16. t-v Console
 17. t-v Portable
 18. t-v Table
 19. f-m/t-v Console
 20. a-m/f-m/t-v Console
 21. a-m/f-m/t-v Table
 22. a-m/f-m/t-v phono, Console
 23. Recorder and Phonograph Combination
 24. Built-in Wall Type
- A. R. F. Products, Inc., 7627 Lake St., River Forest, Ill. 8.
 Admiral Corp., 3800 Cortland St., Chicago 47, Ill. 1-3-5-6-16-17-18.
 American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y. 8-9-10-11-12.
AMERICAN TELEVISION & RADIO CO., 300 E. 4th St., St. Paul 1, Minn. 16. ADV. PG. 176.
 Andrea Radio Corp., 27-01 Bridge Plaza North, Long Island City 1, N. Y. 16-18.
 Ansley Mfg. Co., Arthur, Doylestown, Pa. 8-12.
 Arvin Industries, Inc., Electronics & Appliance Div., Columbus, Ohio. 1-5-6-12.
 Audar, Inc., P. O. Box 438 M, Pasadena 18, Calif. 1-2-3-6.
 Automatic Radio Mfg. Co., Inc., 122 Brookline Ave., Boston, Mass. 1-3-5-6-7-12.
 Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y. 24.
 Brainard Electronics, 8586-90 Santa Monica Blvd., Los Angeles 46, Calif. 9.
 Browning Laboratories, Inc., Main St., Winchester, Mass. 1-3-12-15-24.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. 23. ADV. PG. 418.
 Calbest Engineering & Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif. 6-12-16-18-24.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec. 1-2-4-5-6-10-13-16-17-18-22.

Capehart-Farnsworth Corp., 3700 E. Pontiac, Fort Wayne 1, Ind. 1-5-6-8-16-18-20-23-24.
 Conrac, Inc., Glendora, Calif. 24.
 Crosley Division, Avco Mfg. Corp., 1329 Arlington St., Cincinnati 25, Ohio. 1-5-6-16-18-22.
 Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y. 12-24.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. 1. ADV. PG. 380.
 DuMont Laboratories, Inc., Allen B., Television Receiver Div., 35 Market St., East Paterson, N. J. 1-6-8-16-18.
 Eckstein Radio & Television Co., 2601 E. Franklin Ave., Minneapolis 6, Minn. 1-3-6-24.
 Emerson Radio & Phonograph Corp., 111 Eighth Ave., New York, N. Y. 1-2-3-5-6-7-16-17-18.
 Fada Radio & Electric Co., Inc., 525 Main St., Belle- ville, N. J. 1-2-3-4-5-6-8-12-16-18-20-22.
 Fisher Radio Corp., 21-21 Forty Fourth Drive, Long Island City 1, N. Y. 3-8-10.
 Flush Wall Radio Co., 1012 Cleveland St., Clearwater, Fla. 24.
 Gotham Television Corp., 123 W. 64th St., New York 23, N. Y. 16-17-18.
 Guild Radio & Television Co., 460 N. Eucalyptus Ave., Inglewood, Calif. 6-16.
 Hallicrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill. 1-5-6-7-16-18.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Har- bor 14, Mich. 6. ADV. PG. 588.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif. 1-2-3-4-5-6-7-16-18.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif. 1-12-20-21-22-24.
 I. D. E. A., Inc., 7900 Pendleton Pike, Indianapolis 16, Ind. 5-6.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif. 16.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa. 2-6.
 Liberty Industries, 107-37 71 Ave., Forest Hills, N. Y. 1-6.
 Lynmar Engineers, Inc., 1432 N. Carlisle St., Phila- delphia 21, Pa. 14.
 M P Engineering Co., Fairfield 3, Conn. 2-8-10-16-18-20.
 Magna Electronics Co., 9810 Anza Ave., Inglewood, Calif. 3-6-8-9-10-11-12-21.
 Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif. 1-2-3-4-5-6-8-9-10-11-12-13-14-15-16-18-19-20-21-22.
 Miller Electronics, 2840 Naomi St., Burbank, Calif. 24.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa. 6.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif. 5.
 Olympic Radio & Television Co., 34-01 38th Ave., Long Island City, N. Y. 5-6-8-16-18-20-22.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. 1-2-3-4-5-6-7-8-10-16-18-20-22. ADV. PG. 322.
PARAPLEGICS MFG. CO., INC., 10068 Franklin Ave., Franklin Park, Ill. 8. ADV. PG. 528.
 Philco Corp., C & Tioga Sts., Philadelphia 34, Pa. 1-2-3-5-6-8-12-16-18-22.
 Philco Corp., Government & Industrial Div., 4700 Wis- sahickon Ave., Philadelphia 44, Pa. 1-2-3-4-5-6-8-9-10-11-12-13-14-15-16-17-18-19-20-21-22.
 Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y. 6.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turn- pike, West Hempstead, N. Y. 5-12. ADV. PG. 556.
 Precision Electronics, 7518 Melrose Ave., Los Angeles 46, Calif. 8.
 Prescott Television Co., 7352 Beverly Blvd., Los Angeles 36, Calif. 16-21-22.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. 23. ADV. PG. 457.
 Radio Corp. of America, Consumer Products Div., Cam- den 8, N. J. 1-3-5-6-8-12.
 Raytheon Mfg. Co., Television & Radio Div., 5921 W. Dickens Ave., Chicago 39, Ill. 1-16-18.
 Revere Camera Co., 320 E. 21st St., Chicago 16, Ill. 5.
 Setchell Carlson, Inc., 330 Fifth Ave., New Brighton, Minn. 16-18.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y. 23-24.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y. 2-8-24.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y. 7.
 Symphony Radio & Television Corp., 925 S. Western Ave., Los Angeles 6, Calif. 1-2-3-5-6-7-9-12-14-15-18.
 Sylvania Electric Products Inc., Radio & Television Div., 254 Rano St., Buffalo 7, N. Y. 1-3-5-6-16-17-18-19-20-22.
 Telegrip Radio Co., 2559 W. 21st St., Chicago 8, Ill. 16-18.
 Thermyte Inc., 414 Amory St., Boston 30, Mass. 5.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. 12-15.
 Weingarten Electronic Labs., Inc., 7556 Milrose Ave., Los Angeles 46, Calif. 8-24.
 Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago 39, Ill. 2-3-4-5-6-8-9-10-16-18.
 Zenith Radio Corp., 6001 Dickens Ave., Chicago 39, Ill. 1-2-3-4-5-6-8-9-10-12-13-15-16-17-18-19-20-22-23.

RECEIVING EQUIPMENT—vhf Omni-Range

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
 Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
 Collins Radio Co., Cedar Rapids, Iowa.
FEDERAL TELEPHONE & RADIO CO., A DIV OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
 National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

RECORDERS—Blood Pressure, Electronic

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 Photon Instrumnt Co., 6516 Detroit Ave., Cleveland 2, Ohio.
SANBORN CO., 39 Osborn St., Cambridge 39, Mass. ADV. PG. 205.
TECHNITROL ENGINEERING CO., 2751 N. Fourth St., Philadelphia 33, Pa. ADV. PG. 83, 491.

RECORDERS—Density

See RECORDERS—Specific Gravity

RECORDERS—Depth

Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
 Bludworth Marine Div., National-Simplex Bludworth Inc., 92 Gold St., New York 38, N. Y.
 Bristol Co., The, Waterbury 20, Conn.
 Edo Corp., College Point, N. Y.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Telephonics Corp., Park Ave., Huntington, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

RECORDERS—Disc

Allied Recording Products Co., 32-32 Greenpoint Ave., Long Island City 1, N. Y.
 Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.
 Fairchild Recording Equipment Co., 154th St. & Seventh Ave., Whitestone, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.
 Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
 Scully Machine Co., 62 Walter St., Bridgeport, Conn.
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
 SoundScriber Corp., The, 146 Munson St., New Haven 9, Conn.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

RECORDERS—Drum, Magnetic

AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 415.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England.
DAVIES LABORATORIES, INC., 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.
 Epsylon Research & Development Co., Ltd., The Barons, St. Margarets, Middlesex, England.

FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.

Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.

Logistics Research, Inc., 141 S. Pacific Ave., Redondo Beach, Calif.

Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.

Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.

Peirce Wire Recorder Corp., 5900 Northwest Highway, Chicago 31, Ill.

SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.

Technical Instrument Co., 3732 Westheimer Rd., Houston 6, Texas.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

RECORDERS—Electronic Rotary Stylus

AIRBORNE INSTRUMENTS LAB., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.

RECORDERS—Electronic Self-Balancing Recorders and Indicators

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.

Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J. Bristol Co., The Waterbury 20, Conn.

Electro Instruments, Inc., 3794 Rosecrans, San Diego 10, Calif.

Foxboro Co., The, Foxboro, Mass.

Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Mid-Century Instrument Corp., 611 Broadway, New York 12, N. Y.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.

MOSELEY CO., F. L., 409 Fair Oaks Ave., Pasadena 3, Calif. ADV. PG. 684.

VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 282, 283.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

Westronics, Inc., 3605 McCart St., Fort Worth, Texas.

RECORDERS—Facsimile

Acme Telexonix Div. of NEA Service, Inc., West Third & Lakeside, Cleveland 13, Ohio.

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 673.

Alden Systems, Inc., Alden Research Center, Westboro, Mass.

Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.

General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.

General Photo Products Co., Inc., General Photo Bldg., 15 Summit Ave., Chatham, N. J.

Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.

L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.

Muirhead & Co., Ltd., Beckenham, Kent, England.

TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 392.

RECORDERS—Film

Acme Telexonix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.

ACTON LABORATORIES, INC., Acton, Mass. ADV. PG. 494.

Beckman & Whitley, Inc., 913 San Carlos Ave., San Carlos, Calif.

Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.

Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.

Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.

GENERAL PRECISION LABORATORY, INC., 63 Bedford Rd., Pleasantville, N. Y. ADV. PG. 189.

HEILAND DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 5200 E. Evans Ave., Denver 22, Colo. ADV. PG. 376.

International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.

Laboratoire Industriel de Physique Appliquées, 67 Rue M. A.-Columbier, Bagnolet (Seine) France.

Magnasync Manufacturing Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.

RECORDERS—Film Thickness

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.

Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.

Foxboro Co., The, Foxboro, Mass.

HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.

RECORDERS—Fluid Conductivity, Electronic

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

BECKMAN DIVISION, BECKMAN INSTRUMENTS, INC., 2200 Wright Ave., Dept. G-13, Richmond 3, Calif. ADV. PG. 69-76.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

RECORDERS—Film Thickness

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.

Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.

Foxboro Co., The, Foxboro, Mass.

HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.

RECORDERS—Fluid Conductivity, Electronic

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

BECKMAN DIVISION, BECKMAN INSTRUMENTS, INC., 2200 Wright Ave., Dept. G-13, Richmond 3, Calif. ADV. PG. 69-76.

Bristol Co., The, Waterbury 20, Conn.

Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

Foxboro Co., The, Foxboro, Mass.

Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.

RECORDERS—Fluid Flow, Electronic

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., 2200 Wright Ave., Dept. G-13, Richmond 3, Calif. ADV. PG. 69-76.

Bristol Co., The, Waterbury 20, Conn.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.

Foxboro Co., The, Foxboro, Mass.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Leupold & Stevens Instruments, Inc., P. O. Box 5082, Portland 13, Ore.

Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.

Potter Aeronautical Co., Route 22, Union, N. J.

SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.

RECORDERS—Frequency

See INSTRUMENTS—Electrical Measuring

RECORDERS—Humidity, Electronic

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., 2200 Wright Ave., Dept. G-13, Richmond 3, Calif. ADV. PG. 69-76.

Bristol Co., The, Waterbury 20, Conn.

Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.

Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.

Foxboro Co., The, Foxboro, Mass.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.

Serdex, Inc., 91 Cambridge St., Boston, Mass.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

RECORDERS—Intermittent

Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.

Bristol Co., The, Waterbury 20, Conn.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

Seco Mfg. Co., 5015 Penn Ave., S., Minneapolis, Minn.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

RECORDERS—Liquid Level, Electronic

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., DEPT. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.

Bristol Co., The, Waterbury 20, Conn.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.

Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Leupold & Stevens Instruments, Inc., P. O. Box 5082, Portland 13, Ore.

Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.

MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.

Radioactive Products, Inc., 2421 Wolcott, Ferndale, Mich.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

RECORDERS—Magnetic

See RECORDERS—Tape

RECORDERS—Materials Thickness, Electronic

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.

Bristol Co., The, Waterbury 20, Conn.

Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.

Foxboro Co., The, Foxboro, Mass.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.

Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.

RECORDERS—Mechanical

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

Bristol Co., The, Waterbury 20, Conn.

California Computer Products, 3927 W. Jefferson Blvd., Los Angeles 16, Calif.

DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.

Highland Engineering, 1732 Berkeley, Santa Monica, Calif.

Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.

Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.

L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Leupold & Stevens Instruments, Inc., P. O. Box 5082, Portland 13, Ore.

LIBRASCOPE, INC., 808 Western Ave., Glendale, Calif. ADV. PG. 190.

Ram Meter, Inc., 1102 Hilton Rd., Ferndale, Detroit 20, Mich.

Streeter-Amet Corp., 4101 N. Ravenswood Ave., Chicago 13, Ill.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

RECORDERS—Moisture, Electronic

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

Bristol Co., The, Waterbury 20, Conn.

Foxboro Co., The, Foxboro, Mass.

Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

RECORDERS—Oscillographic

See OSCILLOGRAPHS

RECORDERS—Oxygen

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

Baker & Co., Inc., 113 Astor St., Newark 5, N. J.

Beckman Inc., Arnold O., 1020 Mission St., South Pasadena, Calif.

Bristol Co., The, Waterbury 20, Conn.

Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.

Consolidated Electro-dynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.

Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.

RECORDERS—pH

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.

Bristol Co., The, Waterbury 20, Conn.

Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.

Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.

Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
 44, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-
TRIAL DIV., Wayne & Windrim Aves., Philadelphia
 44, Pa. ADV. PG. 377.
 Precision Scientific Co., 3737 W. Cortland Ave., Chicago
 47, Ill.

RECORDERS—Potentiometer

Allegany Instrument Co., Inc., Cumberland, Md.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV.
 PG. 68.
 Bristol Co., The, Waterbury 20, Conn.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls
 Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
 44, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-
TRIAL DIV., Wayne & Windrim Aves., Philadelphia
 44, Pa. ADV. PG. 377.
 Servomechanisms, Inc., Post & Stewart Aves., Westbury,
 N. Y.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Phila-
 delphia 44, Pa.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif.
 ADV. PG. 282, 283.
 West Instrument Corp., 4363 W. Montrose Ave., Chi-
 cago 41, Ill.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB-
OF DAYSTROM, INC., 614 Frelinghuysen Ave.,
 Newark 5, N. J. ADV. PG. 483.
 Westronics, Inc., 3605 McCart St., Fort Worth, Texas.

RECORDERS—Power Level

See **INSTRUMENTS—Electrical Measuring**

RECORDERS—Pressure, Electronic

Allegany Instrument Co., Inc., Cumberland, Md.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP.,
 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
 Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
 Beckman & Whitley, Inc., 913 San Carlos Ave., San
 Carlos, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Chesapeake Instrument Corp., Shadyside, Md.
 Fielden Instrument Div. of Robertshaw-Fulton Controls
 Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
 Industrial Electronics, Inc., 8060 Wheeler St., De-
 troit 10, Mich.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
 44, Pa.
 Manning, Maxwell & Moore, Inc., 250 E. Main St.,
 Stratford, Conn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-
TRIAL DIV., Wayne & Windrim Aves., Philadelphia
 44, Pa. ADV. PG. 377.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago
 25, Ill.
 Photon Instrument Co., 6516 Detroit Ave., Cleveland 2,
 Ohio.
 Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.
 Streeter-Amet Corp., 4101 N. Ravenswood Ave., Chicago
 13, Ill.
TECHNITROL ENGINEERING CO., 2751 N. Fourth St.,
 Philadelphia 33, Pa. ADV. PG. 83, 491.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB-
OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark
 5, N. J. ADV. PG. 483.

RECORDERS—Smoke and Combustion, Electronic

Axler Associates, 102-42 43rd Ave., Corona, N. Y.
 Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept 766, Rockford, Ill. ADV.
 PG. 68.
 Bristol Co., The, Waterbury 20, Conn.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7,
 Mich.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield
 10, N. J.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport,
 Pa.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
 44, Pa.

RECORDERS—Sound Level

BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleve-
 land 14, Ohio. ADV. PG. 314, 315.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J.
 ADV. PG. 262.
 L & O Research & Development Corp., 134 N. Wayne
 Ave., Wayne, Pa.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
 44, Pa.

Sorensen Industrial Electronic Co., Route 10, Dover,
 N. J.
SOUND APPARATUS CO., Stirling, N. J. ADV. PG. 536.
 Telectro Industries Corp., 35-16 37th St., Long Island
 City 1, N. Y.

RECORDERS—Sound and Phonograph

Audak Co., 500 Fifth Ave., New York, N. Y.
 Berndt-Bach, Inc., 6924 Romaine St., Hollywood 38,
 Calif.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th
 St., New York 1, N. Y. ADV. PG. 418.
 Dictaphone Corp., 420 Lexington Ave., New York 17,
 N. Y.
 Gotham Audio Development Corp., 1657 Broadway, New
 York 19, N. Y.
 Peirce Wire Recorder Corp., 5900 Northwest Highway,
 Chicago 31, Ill.
 Q.R.K. Electronic Products, 445 N. Circle Drive, Fresno
 4, Calif.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long
 Island City 3, N. Y.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Holly-
 wood 38, Calif.
 Telectro Industries Corp., 35-16 37 St., Long Island
 City 1, N. Y.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass.
 ADV. PG. 395.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

RECORDERS—Specific Gravity, Electronic

Bendix Aviation Corp., Cincinnati Div., 203 W. Third
 St., Cincinnati 2, Ohio.
 Bristol Co., The, Waterbury 20, Conn.
 Foxboro Co., The, Foxboro, Mass.
GENERAL COMMUNICATION CO., 681 Beacon St.,
 Boston 15, Mass. ADV. PG. 690.
GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
 44, Pa.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-
TRIAL DIV., Wayne & Windrim Ave., Philadelphia 44,
 Pa. ADV. PG. 377.

RECORDERS—Strain

Allegany Instrument Co., Inc., Cumberland, Md.
 Beckman Instruments, Inc., 2500 Fullerton Rd., Fuller-
 ton, Calif.
 Bristol Co., The, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleve-
 land 14, Ohio. ADV. PG. 314, 315.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre
 Villa, Pasadena 15, Calif.
 Fielden Instrument Div. of Robertshaw-Fulton Controls
 Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV.,
 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
HELLAND DIV. OF MINNEAPOLIS-HONEYWELL REGU-
LATOR CO., 5200 E. Evans Ave., Denver 22, Colo. ADV.
 PG. 376.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit
 10, Mich.
 Kelk & Co., G. F., 130 Willowdale Ave., Willowdale,
 Ontario, Canada.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia
 44, Pa.
 Manning, Maxwell & Moore, Inc., 250 E. Main St.,
 Stratford, Conn.
 Miller Instruments, Inc., William, 325 N. Halstead Ave.,
 Pasadena 8, Calif.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUS-
TRIAL DIV., Wayne & Windrim Aves., Philadelphia
 44, Pa. ADV. PG. 377.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago
 25, Ill.
 Photon Instrument Co., 6516 Detroit Ave., Cleveland 2,
 Ohio.
SANBORN CO., 39 Osborn St., Cambridge 39, Mass.
 ADV. PG. 205.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas
 9, Texas. ADV. PG. 403.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Phila-
 delphia 44, Pa.

RECORDERS—Tape

1. Cellophane Tape
2. Magnetic Tape
 American Electronics, Inc., 655 W. Washington Blvd.,
 Los Angeles 15, Calif. 2.
 American Scientific Development Co., 334 S. Main St.,
 Atkinson, Wis. 2.
AMPEX CORP., 934 Charter St., Redwood City, Calif.
 2. ADV. PG. 415.
 Amplifier Corp. of America, 396 Broadway, New York 13,
 N. Y. 2.
 Ampro Corp., 1345 Diversey Parkway, Chicago 14, Ill. 2.
 Audio-Master Corp., 17 E. 45th St., New York 17,
 N. Y. 2.
 A-V Mfg. Corp., 730 Fifth Ave., New York 19, N. Y. 2.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J. 2.
 Berlant Concertone-Audio Div. of American Electronics
 Inc., 655 W. Washington Blvd., Los Angeles 15,
 Calif. 2.
 Bogen Co., Inc., David, 29 Ninth Ave., New York 14,
 N. Y. 2.
 Broadcast Equipment Specialties Corp., P. O. Box 149,
 Beacon, N. Y. 2.
 Cambridge Instrument Co., Inc., 3035 Grand Central
 Terminal, New York 17, N. Y. 2.

Century Electronics & Instruments, Inc., P. O. Box 6216,
 Pine Station, Tulsa 10 Okla. 2.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre
 Villa, Pasadena 15, Calif. 2.
 Cook Electric Co., 2700 Southport Ave., Chicago 14,
 Ill. 2.
 Crestwood Recorder Div., Daystrom Electric Corp., 221
 N. LaSalle, Chicago 1, Ill. 2.
DAVIES LABORATORIES, INC., 4705 Queensbury Rd.,
 Riverside, Md. 2. ADV. PG. 140.
 Daystrom Electric Corp., 807 Main St., Poughkeepsie,
 N. Y. 2.
 Dictaphone Corp., 420 Lexington Ave., New York 17,
 N. Y. 2.
DUBROW DEVELOPMENT CO., 235B Penn St., Burling-
 ton, N. J. 2. ADV. PG. 380.
 Dukane Corp., St. Charles, Ill. 2.
 Duotone Co., Inc., Keyport, N. J. 2.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford,
 Conn. 2.
 Emerson Radio & Phonograph Corp., 111 Eighth Ave.,
 New York, N. Y. 2.
 Epsylon Research & Development Co., Ltd., The Barons,
 St. Margrets, Middlesex, England. 2.
 Fairchild Recording Equipment Co., 154th St. & 7th
 Ave., Whitestone, N. Y. 2.
FEDERAL MFG. & ENGINEERING CORP., 1055 Stewart
 Ave., Garden City, N. Y. 2. ADV. PG. 664.
 Gotham Audio Development Corp., 1657 Broadway, New
 York 19, N. Y. 2.
GULTON MFG. CORP., Metuchen, N. J. 2. ADV. PG. 433.
 Hartley Products Co., 521 E. 162nd St., New York 51,
 N. Y. 2.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics
 Corp., 3761 S. Hill St., Los Angeles 7, Calif. 1-2.
 International Radio & Electronics Corp., Elkhart, Ind. 2.

J-V-M ENGINEERING CO., 8846 W. 47th St., Brook-
 field, Ill. 1-2. ADV. PG. 540.
 Key Electric Corp., 287 Post Ave., Westbury, N. Y. 2.
 Kinevox Div., Electromation Co., 116 S. Hollywood Way,
 Burbank, Calif. 2.
 Logistics Research, Inc., 141 S. Pacific Ave., Redondo
 Beach, Calif. 2.
 Maico Co., Inc., 21 N. 3rd St., Minneapolis, Minn. 2.
 Magnasync Manufacturing Co., Ltd., 5546 Satsuma Ave.,
 P. O. Box 707, North Hollywood, Calif. 2.
MAGNECORD, INC., 1101 S. Kilbourn Ave., Chicago 24,
 Ill. 2. ADV. PG. 397.
 Miles Reproducer Co., Inc., 812 Broadway, New York
 3, N. Y. 1.
 Mohawk Business Machines Corp., 944 Halsey St.,
 Brooklyn 33, N. Y. 2.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41,
 Ill.
 North American Instruments, Inc., 2420 N. Lake Ave.,
 Altadena, Calif. 2.
 Peirce Wire Recorder Corp., 5900 Northwest Highway,
 Chicago 31, Ill. 2.
 Pentron Corp., 777 S. Tripp Ave., Chicago 24, Ill. 2.
 Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill.
 2.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great
 Neck, N. Y. 2.
 Premier Electronic Laboratories, 382 Lafayette St., New
 York 3, N. Y. 2.
 Press Wireless Laboratories, Inc., 25 Prospect Place,
 West Newton 65, Mass. 2.
PRESTO RECORDING CORP., P. O. Box 500, Paramus,
 N. J. 1-2. ADV. PG. 457.
 Radio Corp. of America, Consumer Products Div., Cam-
 den 8, N. J. 2.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS
DIV., Camden, N. J. 2. ADV. PG. 88, 89, Third &
 Fourth Covers & Preceding Insert.
 Rangertone, Inc., 73 Winthrop St., Newark 4, N. J. 2.
 Raytheon Mfg. Co., Television & Radio Div., 5921 W.
 Dickens Ave., Chicago 39, Ill. 1.
 Recoton Corp., 52-35 Barnett Ave., Long Island City 4,
 N. Y. 2.
 Reverse Camera Co., 320 E. 21st St., Chicago 16, Ill. 2.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio. 2.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long
 Island City 3, N. Y. 2.
 Sorensen Industrial Electronic Co., Route 10, Dover, N. J.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831
 Post Oak Rd., P. O. Box 13058, Houston 19, Texas.
 2. ADV. PG. 430, 431.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood
 38, Calif. 2.
 Stromberg-Carlson Co., Div. of General Dynamics Corp.,
 100 Carlson Rd., Rochester 3, N. Y. 2.
 Telectro Industries Corp., 35-16 37th St., Long Island
 City 1, N. Y. 1-2.
 United Electrodynamics Div. of United Geophysical Corp.,
 1200 S. Marengo, Pasadena, Calif. 2.
 V-M Corp., Benton Harbor, Mich. 2.
VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass.
 2. ADV. PG. 395.
 Vic-Dar Division 823, Victor Adding Machine Co., 3900
 N. Rockwell St., Chicago 18, Ill. 2.
 Webster-Chicago Corp., 5610 Bloomingdale Ave., Chi-
 cago 39, Ill. 2.
 Webster Electric Co., 1900 Clark St., Racine, Wis. 1-2.

RECORDERS—Telemetering
 See **INSTRUMENTS—Electrical Measuring**

RECORDERS—Telephone Recording Equipment

Dictaphone Corp., 420 Lexington Ave., New York 17,
 N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T,
 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

Miles Reproducer Co., Inc., 812 Broadway, New York 3, N. Y.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Peirce Wire Recorder Corp., 5900 Northwest Highway, Chicago 31, Ill.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Sorensen Industrial Electronic Co., Route 10, Dover, N. J.
 SoundScriber Corp., The, 146 Munson St., New Haven 9, Conn.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 VECTRON, INC., 1609 Trapelo Rd., Waltham 54, Mass. ADV. PG. 395.

RECORDERS—Temperature, Electronic

Allegany Instrument Co., Inc., Cumberland, Md.
 Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bristol Co., The, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 Foxboro Co., The, Foxboro, Mass.
 General Controls Co., Glendale 1, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

RECORDERS—Timing

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 673.
 Allegany Instrument Co., Inc., Cumberland, Md.
 Bristol Co., The, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Clary Multiplier Corp., Electronics Div., San Gabriel, Calif.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
 Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Sheffield Corp., The, Dayton 1, Ohio.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 392.

RECORDERS—Torque, Electronic

Allegany Instrument Co., Inc., Cumberland, Md.
 Bristol Co., The, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Highland Engineering, 1732 Berkeley, Santa Monica, Calif.
 Mid-Century Instrument Corp., 611 Broadway, New York 12, N. Y.

RECORDERS—Transient

ALDEN ELECTRONIC & IMPULSE RECORDING CO., Box 125, Westboro, Mass. ADV. PG. 673.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Magne-Pulse Corp., 11 Godwin Ave., Fair Lawn, N. J.
 Offner Electronics, Inc., 5320 N. Kedzie Ave., Chicago 25, Ill.

RECORDERS—Vacuum

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.

Bristol Co., The, Waterbury 20, Conn.
 Consolidated Vacuum, Rochester 3, N. Y.
 Esterline-Angus Co., Inc., P.O. Box 596, Indianapolis 6, Ind.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
 U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.
 Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

RECORDERS—Weight, Electronic

Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Bristol Co., The, Waterbury 20, Conn.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Industrial Electronic Engineers, 3973 Lankersheim Blvd., North Hollywood, Calif.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Protron Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.
 Streeter-Amet Corp., 4101 N. Ravenswood Ave., Chicago 13, Ill.

RECORDERS—Wire

GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Peirce Wire Recorder Corp., 5900 Northwest Highway, Chicago 31, Ill.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

RECORDING HEADS

See **HEADS—Recording**

RECORDING TAPE

See **TAPE—Recording**

RECORDING WIRE

See **WIRE—Recording**

RECORDS—Phonograph

American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
 Cook Laboratories, 101 Second St., Stamford, Conn.
 Decca Records, Inc., 50 West 57th St., New York 19, N. Y.
 Livingston Electronics Corp., Livingston, N. J.
 Sonic Recording Products, Inc., 58 Mill Rd., Freeport, N. Y.

RECTIFIERS—Dry Disc

See **RECTIFIERS—Copper Oxide**

RECTIFIERS—Copper Sulphide

RECTIFIERS

1. Germanium Diode
2. Germanium Area Type
3. Copper Oxide
4. Copper Sulphide
5. Selenium
6. Tube

American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y. 1-5.
 Bart-Messing Corp., 229 Main St., Belleville, N. J. 2-3-4-5-7.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J. 5-6-7.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. 6. ADV. PG. 84, 85.
BRADLEY LABS., INC., 170 G Columbus Ave., New Haven 11, Conn. 3-5. ADV. PG. 210.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. 1. ADV. PG. 37.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. 5. ADV. PG. 278, 279.
 Clark Electronic Labs., Box 165, Palm Springs, Calif. 1-2-5-7.
 Cleveite Transistor Products, A Div. of Cleveite Corp., 241-257 Crescent St., Waltham 54, Mass. 1-2.
 Conant Laboratories, 6500 O St., Lincoln 5, Neb. 3-5.
 Electronic Devices, Inc., Precision Rectifier Div., 429 12th St., Brooklyn, N. Y. 5.
 Fansteel Metallurgical Corp., 2220 Sheridan Rd., North Chicago, Ill. 5.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J. 1-5.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. 1-2-5-6-7. ADV. PG. 355-360.
GATES ELECTRONIC CO., 611 Morriss Park Ave., Bronx, N. Y. 5. ADV. PG. 536.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 2-3-5. ADV. PG. 1-12.
GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. 1-2-6-7. ADV. PG. 18.
 General Instrument Corp., 65 Gouverneaux St., Newark 4, N. J. 6-7.
 General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y. 2-5.
 Germanium Products Corp., 26 Cornellson Ave., Jersey City 4, N. J. 6-7.
 Green Rectifier Co., 83-3 Murray St., New York 7, N. Y. 2-5-7.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif. 6-7.
HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. 1-6. ADV. PG. 153-155.
INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. 1-2-5-6-7. ADV. PG. 236.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. 5. ADV. PG. 183-186.
 Kemtron Electron Products, Inc., 5 Prince Place, Newbury Port, Mass. 1-6.
 Knopp Inc., 4224 Holden St., Oakland 8, Calif. 5.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind. 3-5.
 Metal & Thermit Corp., Rahway, N. J. 5.
MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston 15, Mass. 7. ADV. PG. 163-166.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif. 1-6-7.
NATIONAL SEMICONDUCTOR PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 930 Pitner Ave., Evanston, Ill. 6-7. ADV. PG. 26, 27.
 National Union Electric Corp., 350 Scotland Rd., Orange, N. J. 1.
OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. 2-5-7. ADV. PG. 524.
 Pacific Semiconductors, Inc., 10451 W. Jefferson, Culver City, Calif. 1-2-6-7.
PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. 1-2-5. ADV. PG. 309.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. 3. ADV. PG. 556.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J. 1-2-3-4-5-6-7.
PYRAMID ELECTRIC CO., 1445 Hudson Blvd., North Bergen, N. J. 5. ADV. PG. 281.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. 1. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. 1-5-6. ADV. PG. 318, 319.
 Rapid Electric Co., 2881 Middletown Rd., Bronx 61, N. Y. 2-5.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operation, 55 Chapel St., Newton 58, Mass. 1-6-7.
RECTICO INC., 963 Frelinghuysen Ave., Newark 5, N. J. 5. ADV. PG. 649.
 Sanford Miller Co., 691 Bedford Ave., Brooklyn 6, N. Y. 5.
SARKES TARZIAN INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. 5-7. ADV. PG. 488.
 Schauer Mfg. Corp., 4521 Alpine Ave., Cincinnati 36, Ohio. 3.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London W.C. 2, England. 1-2-5-6-7.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. 1-2-6. ADV. PG. 727-733.
 Syntron Corp., 243 Lexington, Homer City, Pa. 5.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y. 2-5.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. 1-6-7. ADV. PG. 403.
 Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill. 1-2-3-4-5.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y. 5.
TRANSITRON ELECTRONIC CORP., 403-407 Main St., Melrose 76, Mass. 1-6-7. ADV. PG. 156, 157.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa. 3-5.
 U. S. Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass. 1-2-6-7.
 Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo. 5.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. 5. ADV. PG. 325-336.

RECTIFIERS—Metallic, Power Supplies

American Rectifier Corp., 95 Lafayette St., New York 13, N. Y.
AMERICAN TELEVISION & RADIO CO., 300 E. Fourth St., St. Paul 1, Minn. ADV. PG. 176.
 Bart-Messing Corp., 229 Main St., Belleville, N. J.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
BRADLEY LABS., INC., 170 G Columbia Ave., New Haven 11, Conn. ADV. PG. 210.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
 Clark Electronic Labs., Box 165, Palm Springs, Calif.

- Dresser Electric Co., 942 E. Larned St., Detroit 7, Mich.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FOX PRODUCTS CO., 4720 N. 18th St., Philadelphia 41, Pa. ADV. PG. 602.
GATES ELECTRONIC CO., 611 Morris Park Ave., Bronx, N. Y. ADV. PG. 536.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y.
 Green Rectifier Co., 83-3 Murray St., New York 7, N. Y.
 Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif.
INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. ADV. PG. 236.
 Knopp Inc., 4224 Holden St., Oakland 8, Calif.
 Lawn Electronics Co., E. Freehold Rd., Freehold, N. J.
LEACH CORPORATION, 5915 Avalon Blvd., Los Angeles 3, Calif. ADV. PG. 247.
 Lee Electric & Mfg. Co., 2806 Clearwater St., Los Angeles 39, Calif.
 McColepin-Christie Corp., 3410 W. 67th St., Los Angeles 43, Calif.
MACARR, INC., 2458 Arthur Ave., Bronx 58, N. Y. ADV. PG. 620.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
MODEL RECTIFIER CORP., 1065 Utica Ave., Brooklyn 3, N. Y. ADV. PG. 576, 577.
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 486.
 Motorsearch Co., 1600 Junction Ave., Racine, Wis.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 111-122.
 North American Research Labs., Inc., 725 Lexington Ave., Kenilworth, N. J.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. ADV. PG. 309.
 Power Equipment Co., 5740 Nevada, East, Detroit 34, Mich.
 Power Supplies, Inc., 1007 Olive St., Highland, Ill.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Rapid Electric Co., 2881 Middletown Rd., Bronx 61, N. Y.
 Sanford Miller Co., 691 Bedford Ave., Brooklyn 6, N. Y.
 Schauer Mfg. Corp., 4521 Alpine Ave., Cincinnati 36, Ohio.
SORENSEN & CO., INC., 375 Fairfield Ave., Stamford, Conn. ADV. PG. 177-180.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Syntro Corp., 243 Lexington, Homer City, Pa.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
 Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill.
 U. S. Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
 Wallison Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 Winder Aircraft Corp., P. O. Box 2397, Lakeland, Fla.
- RECTIFIERS—Metallic Stack**
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
BRADLEY LABS., INC., 170 G, Columbus Ave., New Haven 11, Conn. ADV. PG. 210.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
 Clevite Transistor Products, A Div. of Clevite Corp., 241-257 Crescent St., Waltham 54, Mass.
 Electronic Devices, Inc., Precision Rectifier Div., 429 12th St., Brooklyn, N. Y.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GATES ELECTRONIC CO., 611 Morris Park Ave., Bronx, N. Y. ADV. PG. 536.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. ADV. PG. 18.
 General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y.
 Green Rectifier Co., 83-3 Murray St., New York 7, N. Y.
INTERNATIONAL RECTIFIER CORP., 1521 E. Grand Ave., El Segundo, Calif. ADV. PG. 236.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
- MODEL RECTIFIER CORP.**, 1065 Utica Ave., Brooklyn 3, N. Y. ADV. PG. 576, 577.
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 486.
 Rapid Electric Co., 2881 Middletown Rd., Bronx 61, N. Y.
RECTICO INC., 963 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 649.
OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Sanford Miller Co., 691 Bedford Ave., Brooklyn 6, N. Y.
SARKES TARZIAN INC., RECTIFIER DIV., 415 College Ave., Bloomington, Ind. ADV. PG. 488.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London W. C. 2, England.
 Syntro Corp., 243 Lexington, Homer City, Pa.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.
 U. S. Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
 Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
- RECTIFIERS—Tube**
 See **TUBES—Rectifying**
- RECTIFIERS—Tube Rectifying Units**
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
 Dresser Electric Co., 942 E. Larned St., Detroit 7, Mich.
 Instrukon Corp., 50 Brook Rd., Needham Heights, Mass.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
LAMBDA ELECTRONICS CORP., 11-11 131st St., College Point 56, N. Y. ADV. PG. 381-384.
 Lawn Electronics Co., E. Freehold Rd., Freehold, N. J.
MAGNATRAN, INC., P. O. Box 211, Kearny, N. J. ADV. PG. 39.
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 486.
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 111-122.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Power Equipment Co., 5740 Nevada, East, Detroit 34, Mich.
 Power Supplies, Inc., 1007 Olive St., Highland, Ill.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Rectifier Engineering Co., Inc., 1803 E. Seventh St., Los Angeles 21, Calif.
SORENSEN & CO., INC., 375 Fairfield Ave., Stamford, Conn. ADV. PG. 177-180.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
 Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill.
 Transitron, Inc., 186 Granite St., Manchester, N. H.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.
 U. S. Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
 Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
- REELS—Tape Recording & Telemetering**
AMERICAN MOLDED PRODUCTS CO., 2727 W. Chicago Ave., Chicago 22, Ill. ADV. PG. 596.
AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 415.
 Broadcast Equipment Specialties Corp., P. O. Box 149, Beacon, N. Y.
 Cycle Equipment Co., 420 Market St., San Francisco, Calif.
 Livingston Electronic Corp., Livingston, N. J.
 Orradio Industries, Inc., 120 Marvyn Rd., Opelika, Ala.
- REGULATORS—Current**
AMPERITE CO., INC., 561 Broadway, New York 12, N. Y. ADV. PG. 454.
 Basler Electronics, Inc., 13th & Broadway, Highland, Ill.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Electric Regulator Corp., Pearl St., Norwalk, Conn.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
- FURST ELECTRONICS, INC.**, 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. ADV. PG. 246.
HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. ADV. PG. 689.
 Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
KEPCO LABS., 131-38 Sanford Ave., Flushing 55, N. Y. ADV. PG. 51-53.
LEACH CORPORATION, 5915 Avalon Blvd., Los Angeles 3, Calif. ADV. PG. 247.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
POWER DESIGNS, INC., 89-25 130th St., Richmond Hill 18, N. Y. ADV. PG. 533.
 R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 U. S. Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Warren Mfg. Co., Inc., The Littleton, Mass.
 Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
- REGULATORS—Frequency**
 Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
 Electric Regulator Corp., Pearl St., Norwalk, Conn.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
 Fidelity Instrument Corp., 1320 W. Market St., York, Pa.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif.
LEACH CORP., 5915 Avalon Blvd., Los Angeles 3, Calif. ADV. PG. 247.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
PHILAMON LABORATORIES, INC., 90 Hopper St., Westbury, N. Y. ADV. PG. 389.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
 Regulator Equipment Corp., 52 Iowa Ave., Paterson 3, N. J.
SORENSEN & CO., INC., 375 Fairfield Ave., Stamford, Conn. ADV. PG. 177-180.
TELECHROME INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
WAC LINE INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.
 Warren Mfg. Co., Inc., The Littleton, Mass.
 Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
- REGULATORS—Voltage Regulators and Stabilizers**
ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388.
 Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Basler Electronics, Inc., 13th & Broadway, Highland, Ill.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
 Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 C B C Electronics Co., Inc., 2601 Howard St., Philadelphia 33, Pa.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
 Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.
 Electric Regulator Corp., Pearl St., Norwalk, Conn.

Electro Engineering Works, 401 Preda St., San Leandro, Calif.

ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.

Electronic Products Co., 111 E. 3rd St., Mt. Vernon, N. Y.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

Fidelity Instrument Corp., 1320 W. Market St., York, Pa.

FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.

Furzehill Laboratories, Ltd., 57 Clarendon Rd., Watford, Herts., England.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. ADV. PG. 246.

General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. ADV. PG. 689.

Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif.

INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.

International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.

Jack & Heintz, Inc., Cleveland 1, Ohio.

Keik & Co., G. F., 130 Willowdale Ave., Willowdale, Ontario, Canada.

KEPCO LABS., 131-38 Sanford Ave., Flushing 55, N. Y. ADV. PG. 51-53.

LEACH CORP., 5915 Avalon Blvd., Los Angeles 3, Calif. ADV. PG. 247.

Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif.

MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.

MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.

Magnetics Research Co., 255 Grove St., White Plains, N. Y.

MAXSON INSTRUMENTS, A DIV. OF THE W. L. MAXSON CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 438.

Mega Research, P. O. Box 371, Dover, N. J.

Microtran Co., Div. of Crest Labs, Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y.

National Aircraft Corp., 3411 Tulare St., Burbank, Calif.

ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.

PERKIN ENGINEERING CORP., 345 Kansas St., El Segundo, Calif. ADV. PG. 309.

PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.

Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.

POWER DESIGNS INC., 89-25 130th St., Richmond Hill 18, N. Y. ADV. PG. 533.

PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.

R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.

RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.

Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.

RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River Rt., Waltham 54, Mass. ADV. PG. 364, 365.

RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.

Regulator Equipment Corp., 52 Iowa Ave., Paterson 3, N. J.

Service Instruments Co., 422 S. Dearborn St., Chicago 5, Ill.

Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J.

SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.

Signalite, Inc., 37-41 Neptune Highway, Neptune, N. J.

SOLA ELECTRIC CO., 4633 W. 16th St., Chicago 50, Ill. ADV. PG. 224.

SORENSEN & CO., INC., 375 Fairfield Ave., Stamford, Conn. ADV. PG. 177-180.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

SUPERIOR ELECTRIC CO., THE, 4000 Middle St., Bristol, Conn. ADV. PG. 470, 471.

Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

Timely Instruments & Controls Corp., 1645 W. 135th St., Gardena, Calif.

U. S. Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.

UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.

VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.

VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.

VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.

Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.

WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.

Warren Mfg. Co., Inc., The, Littleton, Mass.

RELAY COILS
See COILS—Relay

RELAYS—Capacitance Operated
See CONTROLS—Capacitance Operated

RELAYS

1. Coaxial
2. Cross-Bar
3. d'Arsonval
4. Differential
5. Electronic, Resistance Activated
6. Frequency Selective
7. High Voltage
8. Impulse
9. Keying and Break-in
10. Latching
11. Mercury
12. Overload
13. Overvoltage & Undervoltage
14. Passive Microwave
15. Photoelectric
16. Polarized
17. Power
18. Rotary
19. Sensitive
20. Sequence
21. Stepping
22. Sub-Miniature
23. Telephone
24. Temperature Compensated
25. Time Delay
26. Vacuum Contact
27. Vibrating Reed Type

A/G/A' DIV. OF ELASTIC STOP NUT CORP. OF AMERICA, 1029 Newark Ave., Elizabeth 3, N. J. 25. ADV. PG. 663.

ADAMS & WESTLAKE CO., Michigan St., Elkhart, Ind. 11-12-13-17-19-25. ADV. PG. 158, 159.

Advance Electric & Relay Co., 2435-L N. Naomi St., Burbank, Calif. 1-7-9-10-12-17-19-22-23-26. (h)

AEMCO, INC., 62 State St., Mankato, Minn. 1-7-9-10-17-22-23-25. ADV. PG. 198.

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif. 19.

Air Associates, Inc., Electronics Equipment Div., 511 Joyce St., Orange, N. J. 12-22-24.

Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J. 17.

Allard Instrument Corp., 146 E. Second St., Mineola, N. Y. 10.

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. 10-12-17-20-25. ADV. PG. 497.

ALLIED CONTROL CO., INC., 2 East End Ave., New York 21, N. Y. 1-4-7-8-9-10-12-13-16-17-18-19-22-23-24-25. ADV. PG. 92, 93.

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md. 15-17-19-25.

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. 22-23. ADV. PG. 440.

AMERICAN TELEVISION & RADIO CO., 300 E. 4th St., St. Paul 1, Minn. 27. ADV. PG. 176.

AMPERITE CO., INC., 561 Broadway, New York 12, N. Y. 4-25. ADV. PG. 454.

Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn. 10-12-13-19.

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. 3-4-10-12-13-16-19-24-25. ADV. PG. 368, 369.

Automatic Electric Sales Co., 1033 W. Van Buren St., Chicago 7, Ill. 16-18-19-21-23.

Automatic Switch Co., 391 Lakeside Ave., Orange, N. J. 5-12-13-17-19-25. (h)

Babcock Radio Engineering Co., 7942 Woodley Ave., Van Nuys, Calif. 19.

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. 16. ADV. PG. 68.

Bennett Co., Inc., R. P., Frederick, Md. 1-16-17-19-22-23.

Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J. 5-13-18-21.

Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa. 6.

Branson Corp., 113 Cornelia St., Boonton, N. J. 16-17-22-23-24-25.

Bristol Co., The, Waterbury 20, Conn. 4-16-19-22-24-26-27.

Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif. 22.

BUDD-STANLEY CO., INC., 43-01 22nd St., Long Island City 1, N. Y. 14. ADV. PG. 614.

CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. 26. ADV. PG. 278, 279.

Clare & Co., C. P., 3101 Pratt Blvd., Chicago 45, Ill. 8-9-10-11-16-17-18-21-22-23-25-26. (h)

Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio. 10-12-17-25.

Comar Electric Co., 3349 W. Addison, Chicago 18, Ill. 1-8-10-17-19-22-23-25. (h)

Control Corp., 718 Central Ave., Minneapolis 14, Minn. 10-23-27.

Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill. 4-5-6-7-8-9-10-12-13-17-19-20-21-22-23-24-25. (h)

Corbett Science Laboratories, F. W., 3115 Venice Blvd., Los Angeles 19, Calif. 21.

Couch Co., Inc., S. H., North Quincy 71, Mass. 18-22. (h)

CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. 25. ADV. PG. 387.

CUNNINGHAM SON & CO., INC., James, 33 Litchfield St., Rochester, N. Y. 2. ADV. PG. 626.

CURTISS-WRIGHT CORP., ELECTRONICS DIV., 631 Central Ave., Carlstadt, N. J. 25. ADV. PG. 583-585.

Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis. 5-7-12-13-25.

DANBURY-KNUDSEN, INC., P. O. Box 170, Danbury, Conn. 1. ADV. PG. 647.

Davis Electric Co., Cape Girardeau, Mo. 22-23. (h)

DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. 22. ADV. PG. 295.

Deltron, Inc., P. O. Box 192, Glenside, Pa. 5-13.

Deltron Corp., 1507 Riverside Drive, Los Angeles 31, Calif. 22.

Dielectric Products Engineering Co., Inc., Raymond, Maine, 1.

Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass. 24-25.

Durakool, Inc., 1010 N. Main St., Elkhart, Ind. 11-25.

Eagle Signal Corp., Moline, Ill. 25.

Ebert Electronics Corp., 212-26 Jamaica Ave., Queens Village 28, N. Y. 10-11-17-19-25-26. (h)

ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. 13. ADV. PG. 129-132.

EDISON, INC., THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. 4-12-13-16-19-24-25. ADV. PG. 268, 269.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. 5-19-25. ADV. PG. 516.

Electrical Products Corp., 1100 N. Main St., Los Angeles 12, Calif. 17-18.

Electrical Service Co., 1271 Mission St., San Francisco, Calif. 15-25.

Electro-Mechanical Specialties Co., Inc., 6819 Melrose Ave., Los Angeles 38, Calif. 12-13-17-22. (h)

Electro-Switch & Controls, Inc., 5755 Camille Ave., Culver City, Calif. 10-16-17-19-22-23-24. (h)

Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich. 5-12-15.

Electronic Research Labs., 85 Surrey St., Brighton 35, Mass. 26.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif. 6-9-10-13-17-18-19-20-21-22-24-25. (h)

ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. 1-4-5-8-9-10-12-13-16-17-19-22-23-24-25. ADV. PG. 208.

Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J. 15.

Falcon Electronics Corp., 308 William St., Harrison, N. J. 13-22-24-25. (h)

FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. 5. ADV. PG. 462.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. 8-18-19-22-23-25. ADV. PG. 355-360.

FILTERS, INC., 30 Sagamore Hill Drive, Port Washington, N. Y. 10-18-22. ADV. PG. 545.

FIVE STAR CO., 10 W. Main St., Plantsville, Conn. 17-19. ADV. PG. 204.

G-V CONTROLS, INC., 28 Hollywood Plaza, East Orange, N. J. 6-12-13-24-25. ADV. PG. 473.

GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. 1. ADV. PG. 690.

General Controls Co., Glendale 1, Calif. 11-17. (h)

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 5-10-12-13-15-17-19-22-23-24-25. ADV. PG. 1-12. (h)

Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif. 4-5-9-10-17-18-19-23-25.

Gordos Corp., 250 Glenwood Ave., Bloomfield, N. J. 11-25.

Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill. 5-7-8-9-10-12-13-17-18-19-20-21-22-23-25. (h)

Haley Electronics Co., 57 William St., New York 5, N. Y. 5-11-15-19-26.

Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif. 25.

HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 1, Conn. 19-22. ADV. PG. 304. (h)

HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. 25. ADV. PG. 613.

Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn. 25.

Hedin Tele Technical Corp., 87 Dorsa Ave., Livingston, N. J. 12-13-19. (h)

Heinemann Electric Co., 150 Plum St., Trenton 2, N. J. 12-25.

Hetherington, Inc., Sharon Hill, Pa. 7-10-17. (h)

Hi-G, Inc., Bradley Field, Windsor Locks, Conn. 8-18-19-22.

Hoffman Engineering Corp., Anoka, Minn. 10.

Hufco Industries, 2815 West Olive, Burbank, Calif. 17-22-23. (h)

HUGHEY & PHILLIPS, INC., 3300 N. San Fernando Blvd., Burbank, Calif. 15. ADV. PG. 552.

Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill. 15.

Industrial Electronic Controls Co., 2271 E. 14th St., Brooklyn 29, N. Y. 5.

Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn. 1.

INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. 25. ADV. PG. 565.

Iron Fireman Mfg. Co., Electronics Div., 2838 S. E. 9th Ave., Portland 2, Ore. 17-19. (h)
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. 1-14. ADV. PG. 540.
 Jack & Heintz, Inc., Cleveland 1, Ohio. 20.
 James Vibrapowr Co., 4050 N. Rockwell St., Chicago 18, Ill. 1-6-16-27. (h)
JENNINGS RADIO MFG. CORP., 970 McLaughlin Ave., P. O. Box 1278, San Jose 8, Calif. 1-7-8-10-12-17-26. ADV. PG. 256, 257.
 Johnson Co., E. F., Waseca, Minn. 7-17.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill. 2-4-8-16-23.
KURMAN ELECTRIC CO., INC., 35-18 37th St., Long Island City 1, N. Y. 1-4-5-6-7-8-9-10-12-13-15-16-17-19-22-23-25. ADV. PG. 687. (h)
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y. 19.
LEACH CORP., 5915 Avalon Blvd., Los Angeles 3, Calif. 4-6-7-8-9-10-12-13-17-18-19-22-23-25. ADV. PG. 247. (h)
 Leland, Inc., G. H., 123 Webster St., Dayton 2, Ohio. 10-18-20-21. (h)
LIQUIDOMETER CORP., THE, Dept. U, Skillman Ave. at 36th St., Long Island City 1, N. Y. 19. ADV. PG. 284. (h)
 Livingston Electronic Corp., Livingston, N. J. 25. (h)
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill. 8-10-17-19-22. (h)
 Machinery Electrification, Inc., Northboro, Mass. 5-12-15-25.
 Mack Electric Devices, Inc., 43 Glenside Ave., Wyncote, Pa. 11-17-26.
 Magnecraft Electric Co., 3352 W. Grand Ave., Chicago 51, Ill. 2-4-5-9-10-12-13-16-17-19-22-23-25. (h)
 Magnetic Devices, Inc., 712 East St., Frederick, Md. 7-18-19.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. 3. ADV. PG. 478.
 May Engineering Co., 6055 Lankershim Blvd., North Hollywood, Calif. 25.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill. 11.
 Mercury Contacts, Inc., P. O. Box 615-E, Far Hills Station, Dayton 9, Ohio. 11.
MILWAUKEE GAS SPECIALTY CO., 730 Jackson, Milwaukee 1, Wis. 19-22. ADV. PG. 610. (h)
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn. 5-11-25.
 Modelcraft Products Corp., 1500 Bangs Ave., Asbury Park, N. J. 27.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa. 22.
 Moulis Specialties Co., 1007 W. Washington St., Bloomington, Ill. 5.
 Naylor Laboratories, E. V., 30 Manorhaven Blvd., Port Washington, N. Y. 7-10-12-13-17-18-19-22-23-25. (h)
 North Electric Co., 553 S. Market St., Galion, Ohio. 16-17-19-21-22-23-25-27.
 O K Electronics Corp., 7 Hunt Place, Nutley, N. J. 24-25. (h)
 Oerlikon Tool & Arms Corp., of America, Asheville, N. C. 25.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. 10-12-13-17-19-23-25. ADV. PG. 44, 45.
 Pacific Relays, Inc., 12027 Vose St., North Hollywood, Calif. 17-19-22. (h)
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash. 16-18-20-21-23-25-27.
 Penta Laboratories, Inc., 312 N. Nopal St., Santa Barbara, Calif. 7-26.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. 5-7. ADV. PG. 543.
 Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif. 3-4-6-10-12-13-17-19-22-25. (h)
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa. 11-17-24-26.
 Phillips Control Corp., 59 W. Washington St., Joliet, Ill. 4-5-10-12-13-17-23-25.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill. 15.
 Photobell Co., Inc., 43 Vesev St., New York 7, N. Y. 5-25.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif. 5-15-20-21.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. 1-7-9-10-12-13-17-23-24-26. ADV. PG. 555. (h)
 Polytron Engineering Inc., P. O. Box 124, Emala Ave., Middle River 20, Md. 19-22. (h)
POTTER & BRUMFIELD, Princeton, Ind. 5-6-7-8-9-10-12-15-16-17-19-21-22-23-25-27. ADV. PG. 46. (h)
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. 19. ADV. PG. 147.
 Precision Scientific Co., 3737 W. Cortland St., Chicago 47, Ill. 11.
PRICE ELECTRIC CORP., Frederick, Md. 1-7-10-12-13-17-18-19-21-22-23-25. ADV. PG. 694.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y. 19.
 R.B.M. Div., Essex Wire Corp., Logansport, Ind. 2-4-5-8-9-12-17-19-23. (h)
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. 23. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert. (h)
RED BANK DIVISION, BENDIX AVIATION CORP., Eatontown, N. J. 13. ADV. PG. 128.
RELAY SALES, INC., P. O. Box 186, West Chicago, Ill. 1-4-7-8-9-10-11-12-13-16-17-18-19-20-22-23-25. ADV. PG. 390.
 Research Electronics Laboratories, Roslyn, Pa. 5.

Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif. 7-11-26.
 Revere Corp. of America, Sub. of Neptune Meter Co., Wallingford 2, Conn. 4-19.
 Rhodes, Inc., M. H., 30 Bartholomew Ave., Hartford, Conn. 25.
RIPLEY CO., INC., Middletown, Conn. 15. ADV. PG. 451.
 Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa. 13-25.
 Servo-Tek Products Co., Inc., 1086 Goffle Rd., Hawthorne, N. J. 5.
SIGMA INSTRUMENTS, INC., 180 Pearl St., South Braintree 85, Mass. 8-9-16-19. ADV. PG. 313. (h)
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. 3-9-20-25. ADV. PG. 214.
 Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass. 25.
 Sperti-Faraday Inc., Cooper Hewitt Electric Div., 720-732 Grand St., Hoboken, N. J. 26.
 Standard Telephones & Cables, Ltd., Connought House, Aldwych, London, W. C. 2, England. 7-15-16-25-26.
 Stelma, Inc., 389 Ludlow St., Stamford, Conn. 5.
STEVENS-ARNOLD INC., 22 Elkins St., South Boston 27, Mass. 6-9-16-27. ADV. PG. 644. (h)
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y. 2-16-23-27.
 Struthers-Dunn, Inc., Lamb's Rd., Pitman, N. J. 4-7-8-9-10-11-12-13-17-18-19-20-21-22-25-26. (h)
 Synchro Start Products, Inc., 8151 Ridgeway Ave., Skokie, Ill. 13.
 Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J. 18.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. 14. ADV. PG. 259.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. 7-25.
 Terado Co., Dept. 1, 1059 Raymond Ave., St. Paul 14, Minn. 19-22. (h)
 Thermal-Devices Div. of Curtiss-Wright Corp., 631 Central Ave., Carlstadt, N. J. 4-12-13-19-24-25. (h)
TRANSCO PRODUCTS, INC., 12210 Nebraska Ave., Los Angeles 25, Calif. 1. ADV. PG. 226.
TRIPLET ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. 3. ADV. PG. 244.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. 4-5-12-13-25. ADV. PG. 429.
ULANET CO., GEORGE, 413 Market St., Newark 5, N. J. 25. ADV. PG. 617.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa. 9-10-16-18-19-20-21-22. (h)
 U. S. Relay Co., 1740 Albion St., Los Angeles 31, Calif. 7-10-12-13-17-18-19-22-23-25. (h)
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. 6-13. ADV. PG. 305.
 Vernaline Products Co., P. O. Box 222E, Hawthorne, N. J. 25.
VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. 27. ADV. PG. 569.
 Vocaline Co. of America, Inc., Old Saybrook, Conn. 25.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J. 6.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. 3-4-6-10-12-13-16-19-24-25. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. 3-17-19-23-25. ADV. PG. 483.
WHEELLOCK SIGNALS INC., 273 Branchport Ave., Long Branch, N. J. 1-4-7-9-10-16-17-19-23-25. ADV. PG. 529. (h)
 Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va. 5-25.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J. 3-6-19-27.
 Worner Electronic Devices, Rankin, Ill. 15.
REMOTE CONTROL SYSTEMS
 See **SYSTEMS—Remote Control**
RESINS—Potting
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
 Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Biggs Co., Carl H., 2255 Barry Ave., West Los Angeles 64, Calif.
 Dow Corning Corp., Midland, Mich.
 Emerson & Cuming Inc., 869 Washington St., Canton, Mass.
 Hardman Co., Inc., H. V. 571 Cortlandt St., Belleville 9, N. J.
 Iscoyante Products, Inc., P. O. Box 1681, Wilmington, Del.
 Melpar, Inc., 452 Swann Ave., Alexandria, Va.
 National Engineering Products, Inc., 435 Washington Bldg., Washington 5, D. C.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
 Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif.
 Technicraft Co., 1156 Commonwealth Ave., Boston 34, Mass.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Terrell Corp., 19 Lane St., Waltham 54, Mass.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

RESISTORS

Fixed Composition

1. Low wattage
2. Temperature sensitive
3. High frequency
4. High megohm
5. High voltage
6. High wattage
7. Voltage sensitive
8. Resistor-suppressor

Variable Composition

9. Controls
10. Controls, High Resistance
11. Controls, High Voltage

Wire Wound

12. 2 Watts and under
13. 4 to 35 Watts
14. 4 to 225 Watts
15. 4 to 500 Watts
16. 500 to 1500 Watts
17. Precision low voltage
18. Precision high voltage
19. Rf non-inductive

Variable Wire Wound

20. 4 Watts and under
21. 5 to 25 Watts
22. 25 Watts and over
23. 500 Watts and over
24. Slide wire
25. Adjustable
26. Rheostat—potentiometer types

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. 12-17-20-24-25-26. ADV. PG. 603.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. 1-3-4-5-8-12-13-14-17-18-24-25.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif. 26.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. 1-4-9-10. ADV. PG. 497.
 Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y. 1-3-4-5-6-13-14-19.
 Atlas Resistor Co., Main & Cotton Sts., Philadelphia 27, Pa. 13-14-21-22-24-25.
AXEL BROS., ELECTRONICS DIV., 134-20 Jamaica Ave., Jamaica, N. Y. 12-17. ADV. PG. 447.
 Bond Electronics Corp., 60 Springfield Ave., Springfield, N. J. 12-13-17-18-19.
 Bradford Components, Inc., Bradford, Pa. 12-13-14-15-17-18-19-24.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. 17. ADV. PG. 418.
CARBOLLOY DEPT. OF GENERAL ELECTRIC CO., Box 237, Roosevelt Park Annex, Detroit 32, Mich. 2-7. ADV. PG. 20, 21.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va. 12-17.
 Carter Parts Co., 213 Institute Place, Chicago 10, Ill. 20-21-26.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. 9-10-11-20-21-25-26. ADV. PG. 37.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. 4. ADV. PG. 278, 279.
CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. 9-10-20-25-26. ADV. PG. 249.
 Cima Corp., 119 Braintree St., Allston 34, Mass. 13-14-17-18.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. 12-17-26. ADV. PG. 639.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio. 6-16.
 Clark Electronic Labs., Box 165, Palm Springs, Calif. 9-10.
CLAROSTAT MFG. CO., INC., Dover, N. H. 9-10-11-12-13-14-17-18-19-20-21-22-25-26. ADV. PG. 628, 265.
COILCRAFT, INC., Cary, Ill. 12-17. ADV. PG. 628.
 Consolidated Resistance Co. of America Inc., 44 Prospect St., Yonkers, N. Y. 12-17.
 Continental Carbon, Inc., 13900 Lorain Ave., Cleveland 11, Ohio. 8-12-13-14-20-25-26.
 Corbett Science Laboratories, F. W., 3115 Venice Blvd., Los Angeles 19, Calif. 12-17-18-24.
DALE PRODUCTS, INC., Box 136, Columbus, Neb. 12-13-14-17-18-19-20. ADV. PG. 168, 169.
DAVEN CO., Route 10, Livingston, N. J. 12-17-19-20-26. ADV. PG. 47.
DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. 12-20-25-26. ADV. PG. 295.
DE JUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. 26. ADV. PG. 194-197.
 Dmter Mfg. Co., Inc., 22-24 Larkin Plaza, Yonkers, N. Y. 12-17.
EASTERN PRECISION RESISTOR CORP., 675 Barby St., Brooklyn, N. Y. 1-2-4-7-12-17-19-20. ADV. PG. 456.
 Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif. 20-26.
ELECTRO-MEASUREMENTS, INC., 4312 S.E. Stark St., Portland 15, Ore. 12-17. ADV. PG. 579.
ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. 12-13. ADV. PG. 520.
EMPIRE DEVICES PRODUCTS CORP., 38-15 Bell Blvd., Bayside 61, N. Y. 3. ADV. PG. 424.
ERIE RESISTOR CORP., 639 W. 12th St., Erie Pa. 1-8. ADV. PG. 274, 275.

- FAIRCHILD CONTROLS CORP., COMPONENTS DIV.**, 225 Park Ave., Hicksville, N. Y. 20-25. ADV. PG. 498.
- FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T**, 88 Kingsland Rd., Clifton, N. J. 4-12-13. ADV. PG. 355-360.
- Fortiphone Ltd., 247 Regent St., W1, London, England. 9-10.
- GENERAL CEMENT MFG. CO., ELECTRONIC DIV.**, 919 Taylor Ave., Rockford, Ill. 1. ADV. PG. 86.
- GENERAL ELECTRIC CO., APPARATUS SALES DIV.**, 1 River Rd., Schenectady 5, N. Y. 15-21-22-24-25. ADV. PG. 1-12.
- GENERAL RADIO CO.**, 275 Massachusetts Ave., Cambridge 39, Mass. 12-17-20-21-25-26. ADV. PG. 109, 110.
- GENERAL RESISTANCE PRODUCTS CORP.**, 42-11 192nd St., Flushing 58, N. Y. 12-17. ADV. PG. 653.
- Globar Division, Carborundum Co., Niagara Falls, N. Y. 1-2-3-5-6-7-8.
- Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif. 17-20.
- Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif. 8.
- Hansen Electronics Co., 7117 1/2 Santa Monica Blvd., Los Angeles 46, Calif.
- HARDWYK HINDLE, INC.**, 40 Harmon St., Newark 5, N. J. 13-14-15-21-22-24-25-26. ADV. PG. 346, 347.
- Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif. 20-25-26.
- Instrument Resistors Co., 1036 Commerce Ave., Union, N. J. 12-17-18-19.
- (h) Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y. 8-19.
- INTERNATIONAL RESISTANCE CO.**, 401 N. Broad St., Philadelphia 8, Pa. 1-3-4-5-6-7-9-10-12-13-14-17-18-19-20-25-26. ADV. PG. 183-186.
- Janco Corp., 3111 Winona Ave., Burbank, Calif. 7.
- Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill. 12-13-17-18-20-21-24-25-26.
- K-F DEVELOPMENT CO.**, 2606 Spring St., Redwood City, Calif. 12-17-18. ADV. PG. 630.
- Lectrohm, Inc., 5561 Northwest Highway, Chicago 30, Ill. 12-13-14-15-19-25.
- Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa. 12-17-18-19-24-26.
- Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind. 10-13-14-15-20-21-22-23-24-25-26.
- Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill. 26.
- Mecco, Inc., 35-37 Abnett Ave., Morristown, N. J. 14-17-18-19.
- (h) Miller Research Laboratories, 5529 S. Fifth St., Milwaukee 7, Wis. 12-17-19.
- Milwaukee Resistor Co., 700 W. Virginia St., Milwaukee 4, Wis. 15-16-21-22-25.
- Model Engineering & Mfg., Inc., Huntington, Ind. 13-15-16-19-22-25-26.
- Muirhead & Co., Ltd., Beckenham, Kent, England. 12-17-24.
- Muter Co., 1255 S. Michigan Ave., Chicago 5, Ill. 12-13-26.
- Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio. 1-3-4-5-7-8-12-13-14.
- OHMITE MFG. CO.**, 3601 Howard St., Skokie, Ill. 1-9-10-11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26. ADV. PG. 44, 45.
- OSBORNE ELECTRIC CO.**, 712 S. E. Hawthorne Blvd., Portland 14, Ore. 12-17. ADV. PG. 624.
- Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif. 12-17-18.
- Precision Electronic Components (1956) Ltd., 50 Wingold Ave., Toronto 10, Ont. 9-10-11.
- Precision Inc., 730 Lyndale Ave. N., Minneapolis, Minn. 13-14-17-21-22-24-25.
- Precision Line, Inc., 63 Main St., Maynard, Mass. 17-24-25-26.
- PRECISION RESISTOR CO.**, 109 U. S. Highway #22, Hillside 5, N. J. 12-17-18. ADV. PG. 587.
- Rattray & Co., Inc., George, 116-08 Myrtle Ave., Richmond Hill, N. Y. 12-17-20-26.
- R.C.L. MFG. CO.**, New Jersey Ave., Riverside 1, N. J. 12-13-14-15-17-25. ADV. PG. 695.
- REON RESISTOR CORP.**, 117 Stanley Ave., Yonkers, N. Y. 12-13-14-15-16-17. ADV. PG. 408.
- RESISTANCE PRODUCTS CO.**, 914 S. 13th St., Harrisburg, Pa. 3-4-5-6-12-17-18. ADV. PG. 594, 595.
- Resistors, Inc., 5226 W. 26th St., Chicago 50, Ill. 13-14-15.
- Rex Rheostat Co., 3 Foxhurst Rd., Baldwin, N. Y. 22-23-24-25-26.
- Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif. 12-17-18-19.
- Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill. 1-4-12-17-19-20.
- Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa. 12-17-18-24.
- SAGE ELECTRONICS CORP.**, 302 N. Goodman St., Rochester 7, N. Y. 14. ADV. PG. 670.
- (h) **SENSITIVE RESEARCH INSTRUMENT CORP.**, 310 Main St., New Rochelle, N. Y. 12-17-18. ADV. PG. 312.
- SHALLCROSS MFG. CO.**, 10 Jackson Ave., Collingdale, Pa. 12-13-19-20-21. ADV. PG. 493.
- (h) Shallite, Inc., 10 Mill St., Paterson, N. J. 17.
- Sprague Electric Co., 125 Marshall St., North Adams, Mass. 4-5-13-14-17-18-19.
- Sprague Electric Co. of Wisconsin Inc., Sixth & Beech St., Grafton, Wis. 1.
- Speer Resistor Division, Speer Carbon Co., St. Marys, Pa. 1.
- STACKPOLE CARBON CO.**, St. Marys, Pa. 1-9. ADV. PG. 80, 81.
- Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W.C. 2, England. 12-13-20-21.
- STUPAKOFF DIV. OF THE CARBORUNDUM CO.**, Latrobe, Pa. 2. ADV. PG. 150, 151.
- TECHNOLOGY INSTRUMENT CORP.**, 533 Main St., Acton, Mass. 20-24. ADV. PG. 172, 173.
- Tel-Labs, Inc., 1050 Second St., Manchester, N. H. 12-17-18-20.
- Tepro Electric Corp., 421 Burke Bldg., 5 St. Paul St., Rochester 4, N. Y. 12-13-14-17.
- TEXAS INSTRUMENTS, INC.**, 6000 Lemmon Ave., Dallas 9, Texas. 1. ADV. PG. 403.
- Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif. 20-25-26.
- TRU-OHM PRODUCTS DIV., MODEL ENGINEERING & MFG., INC.**, 2800 Milwaukee Ave., Chicago 18, Ill. 12-13-14-15-16-21-22-23-26. ADV. PG. 189.
- United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y. 12-13-14-15-17-20-21-26.
- VECTRON, INC.**, 1609 Trapelo Rd., Waltham 54, Mass. 20-21-26. ADV. PG. 395.
- VICTOREEN INSTRUMENT CO.**, 3800 Perkins Ave., Cleveland 14, Ohio. 4. ADV. PG. 416.
- Victory Engineering Corp., 101 Springfield Rd., Union, N. J. 2-7.
- WARD LEONARD ELECTRIC CO.**, 31 South St., Mt. Vernon, N. Y. 13-14-15-16-19-23-25-26. ADV. PG. 502.
- WATERS MANUFACTURING INC.**, Boston Post Rd., Wayland, Mass. 20-21-26. ADV. PG. 138, 139.
- WELWYN INTERNATIONAL INC.**, 3355 Edgecliff Terrace, Cleveland 11, Ohio. 12-13-17-18-20-21-24-25-26. ADV. PG. 514.
- WESTINGHOUSE ELECTRIC CORP.**, P.O. Box 868, Pittsburgh 30, Pa. 1-3-5-6-10-11-18-21-22-23-24-25. ADV. PG. 325-336.
- Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa. 5.
- Wirt Co., 5221 Greene St., Philadelphia 44, Pa. 12-13-14-20-21-22-24-25-26.
- Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J. 2-5-13.
- Yonkers Industries, Inc., 28 School St., Yonkers, N. Y. 17.
- RESISTORS—Carbon Film**
- Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
- Arnhold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
- Campbell Industries, Inc., Sub. of Clarostat Mfg. Co., Inc., 3806 St. Elmo Station, Chattanooga 9, Tenn. **CLAROSTAT MFG. CO., INC.**, Dover, N. H. ADV. PG. 264, 265.
- Continental Carbon, Inc., 13900 Lorain Ave., Cleveland 11, Ohio.
- DALE PRODUCTS, INC.**, Box 136, Columbus, Neb. ADV. PG. 168, 169.
- DAVEN CO.**, Route 10, Livingston, N. J. ADV. PG. 47.
- Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y. Fortiphone Ltd., 247 Regent St., London W. 1, England.
- INTERNATIONAL RESISTANCE CO.**, 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186.
- Mecco, Inc., 35-37 Abnett Ave., Morristown, N. J. Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
- Pyrofilm Resistor Co., Inc., 8 Whippany St., Morristown, N. J.
- RESISTANCE PRODUCTS CO.**, 914 S. 13th St., Harrisburg, Pa. ADV. PG. 594, 595.
- Sprague Electric Co., 125 Marshall St., North Adams, Mass.
- TEXAS INSTRUMENTS, INC.**, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
- United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
- VICTOREEN INSTRUMENT CO.**, 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.
- WELWYN INTERNATIONAL INC.**, 3355 Edgecliff Terrace, Cleveland 11, Ohio. ADV. PG. 514.
- Wilrite Products, Inc., 3835 W. 150th St., Cleveland 11, Ohio.
- RESISTORS—Deposited Carbon**
- ACF Electronics, 800 N. Pitt St., Alexandria, Va. Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
- Allies' Products Corp., 1028 Connecticut Ave., N.W., Suite 1221, Lasalle Bldg., Washington 6, D. C.
- AMERICAN LAVA CORP.**, Chattanooga 5, Tenn. ADV. PG. 87.
- Arnhold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
- Campbell Industries, Inc., Sub. of Clarostat Mfg. Co., Inc., 3806 St. Elmo Station, Chattanooga 9, Tenn. **CLAROSTAT MFG. CO., INC.**, Dover, N. H. ADV. PG. 264, 265.
- DALE PRODUCTS, INC.**, Box 136, Columbus, Neb. ADV. PG. 168, 169.
- ELECTRA MFG. CO., RESISTOR DIV.**, 4051 Broadway, Kansas City, Mo. ADV. PG. 459.
- (h) **EMPIRE DEVICES PRODUCTS CORP.**, 38-15 Bell Blvd., Bayside 61, N. Y. ADV. PG. 424.
- ERIE RESISTOR CORP.**, 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.
- GENERAL CEMENT MFG. CO., ELECTRONIC DIV.**, 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
- Glenco Corp., Metuchen, N. J.
- INTERNATIONAL RESISTANCE CO.**, 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186.
- Mecco, Inc., 35-37 Abnett Ave., Morristown, N. J. (h) Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif.
- Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
- Pyrofilm Resistor Co., Inc., 8 Whippany St., Morristown, N. J.
- Sprague Electric Co., 125 Marshall St., North Adams, Mass.
- TEXAS INSTRUMENTS, INC.**, 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
- United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
- VICTOREEN INSTRUMENT CO.**, 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.
- WELWYN INTERNATIONAL INC.**, 3355 Edgecliff Terrace, Cleveland 11, Ohio. ADV. PG. 514.
- Wilrite Products, Inc., 3835 W. 150th St., Cleveland 11, Ohio.
- RESISTORS—Encapsulated**
- Cima Corp., 119 Braintree St., Allston 34, Mass. **CLAROSTAT MFG. CO., INC.**, Dover, N. H. ADV. PG. 264, 265.
- ELECTRA MFG. CO., RESISTOR DIV.**, 4051 Broadway, Kansas City, Mo. ADV. PG. 459.
- INTERNATIONAL RESISTANCE CO.**, 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186.
- R.C.L. MFG. CO.**, New Jersey Ave., Riverside 1, N. J. ADV. PG. 695.
- Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif.
- SHALLCROSS MFG. CO.**, 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
- Sprague Electric Co., 125 Marshall St., North Adams, Mass.
- RESISTORS—Fuse**
- Bradford Components, Inc., Bradford, Pa. Cima Corp., 119 Braintree St., Allston 34, Mass. **CLAROSTAT MFG. CO., INC.**, Dover, N. H. ADV. PG. 264, 265.
- GENERAL CEMENT MFG. CO., ELECTRONIC DIV.**, 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
- INTERNATIONAL RESISTANCE CO.**, 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186.
- Lectrohm, Inc., 5561 Northwest Highway, Chicago 30, Ill.
- Milwaukee Resistor Co., 700 W. Virginia St., Milwaukee 4, Wis.
- Model Engineering & Mfg., Inc., Huntington, Ind. **OHMITE MFG. CO.**, 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
- TRU-OHM PRODUCTS DIV., MODEL ENGINEERING & MFG., INC.**, 2800 Milwaukee Ave., Chicago 18, Ill. ADV. PG. 289.
- Workman TV, Inc., 309 Queen Anne Rd., Teaneck, N. J.
- RESISTORS—Miniature Variable**
- ACE ELECTRONICS ASSOCIATES**, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- ALLEN-BRADLEY CO.**, 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
- CENTRALAB DIV. GLOBE-UNION, INC.**, 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
- CHICAGO TELEPHONE SUPPLY CORP.**, 1142 W. Beardslay Ave., Elkhart, Ind. ADV. PG. 249.
- CLAROSTAT MFG. CO., INC.**, Dover, N. H. ADV. PG. 264, 265.
- COMPUTER INSTRUMENTS CORP.**, 1964 Utica Ave., Brooklyn 34, N. Y. ADV. PG. 576.
- DAVEN CO.**, Route 10, Livingston, N. J. ADV. PG. 47.
- Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.
- FAIRCHILD CONTROLS CORP., COMPONENTS CORP.**, 225 Park Ave., Hicksville, N. Y. ADV. PG. 498.
- Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
- Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
- Precision Line, Inc., 63 Main St., Maynard, Mass. Rattray & Co., Inc., George, 116-08 Myrtle Ave., Richmond Hill, N. Y.
- STACKPOLE CARBON CO.**, St. Marys, Pa. ADV. PG. 80, 81.
- TECHNOLOGY INSTRUMENT CORP.**, 533 Main St., Acton, Mass. ADV. PG. 172, 173.
- Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
- WATERS MANUFACTURING INC.**, Boston Post Rd., Wayland, Mass. ADV. PG. 138, 139.
- Wirt Co., 5221 Greene St., Philadelphia 44, Pa.
- RESISTORS—Precision Film Type**
- ACE ELECTRONICS ASSOCIATES**, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
- Arnhold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
- C B C Electronics Co., Inc., 2601 N. Howard St., Philadelphia 33, Pa.
- Campbell Industries, Inc., Sub. of Clarostat Mfg. Co., Inc., 3806 St. Elmo Station, Chattanooga 9, Tenn. (h) **CLAROSTAT MFG. CO., INC.**, Dover, N. H. ADV. PG. 264, 265.
- Continental Carbon, Inc., 13900 Lorain Ave., Cleveland 11, Ohio.

- CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
- DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
- DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
- Mepco, Inc., 35-37 Abgett Ave., Morristown, N. J.
- METAVAC, INC., 45-68 162nd St., Flushing 58, N. Y. ADV. PG. 510.
- Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
- POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
- Pyrofilm Resistor Co., 8 Whippany St., Morristown, N. J.
- Optical Film Engineering Co., 2731-37 N. Sixth St., Philadelphia 33, Pa.
- Ruckelshaus Labs., Inc., John G., Madison, N. J.
- SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale Pa. ADV. PG. 493.
- Sprague Electric Co., 125 Marshall St., North Adams, Mass.
- VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.
- WELWYN INTERNATIONAL INC., 3355 Edgely Terrace, Cleveland 11, Ohio. ADV. PG. 514.
- Wilrite Products, Inc., 3835 W. 150th St., Cleveland 11, Ohio. (h)
- RESISTORS—Printed Strip**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
- California Bent Glass Corp., Torrance, Calif.
- CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
- Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.
- Hansen Electronics Co., 7117½ Santa Monica Blvd., Los Angeles 46, Calif.
- Insulated Circuits, Inc., 115 Roosevelt Ave., Belleville, N. J.
- INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186.
- Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
- Micro-Circuits Co., New Buffalo, Mich.
- Ruckelshaus Labs., Inc., John G., Madison, N. J.
- STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
- RESISTORS—Sub-Miniature**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
- Bond Electronics Corp., 60 Springfield Ave., Springfield, N. J.
- Bradford Components, Inc., Bradford, Pa.
- Campbell Industries, Inc., Sub. of Clarostat Mfg. Co., Inc., 3806 St. Elmo Station, Chattanooga 9, Tenn. (h)
- CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardslay Ave., Elkhart, Ind. ADV. PG. 249.
- CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
- Consolidated Resistance Co. of America Inc., 44 Prospect St., Yonkers, N. Y.
- DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
- DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
- Hansen Electronics Co., 7117½ Santa Monica Blvd., Los Angeles 46, Calif.
- Instrument Resistors Co., 1036 Commerce Ave., Union, N. J.
- Mepco, Inc., 35-37 Abgett Ave., Morristown, N. J.
- Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
- PRECISION RESISTOR CO., 109 U. S. Highway #22, Hillside 5, N. J. ADV. PG. 587.
- Pyrofilm Resistor Co., Inc., 8 Whippany St., Morristown, N. J.
- R.C.L. MFG. CO., New Jersey Ave., Riverside 1, N. J. ADV. PG. 695.
- REON RESISTOR CORP., 117 Stanley Ave., Yonkers, N. Y. ADV. PG. 408.
- RESISTANCE PRODUCTS CO., 914 S. 13th St., Harrisburg, Pa. ADV. PG. 594, 595.
- Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif.
- SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
- Telewave Laboratories, Inc., 43-20 34th St., Long Island City, N. Y.
- Tel-Labs, Inc., 1050 Second St., Manchester, N. H.
- Tepro Electric Corp., 421 Burke Bldg., 5 St. Paul St., Rochester 4, N. Y.
- Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
- RESISTORS—Tape**
- ACF Electronics, 800 N. Pitt St., Alexandria, Va.
- Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.
- Electro Flex Heat, Inc., 516 Asylum St., Hartford, Conn.
- Hansen Electronics Co., 7117½ Santa Monica Blvd., Los Angeles 46, Calif.
- OHMWEVE CO., 43 Darcy St., West Hartford 6, Conn. ADV. PG. 631.
- Sanders Associates, Inc., Nashua, N. H.
- RESISTORS—Wire Woven**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- OHMWEVE CO., 43 Darcy St., West Hartford 6, Conn. ADV. PG. 631.
- States Co., 19 New Park Ave., Hartford 6, Conn.
- WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
- Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.
- Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
- WARD LEONARD ELECTRIC CO., 31 South St., Mt. Vernon, N. Y. ADV. PG. 502.
- WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
- Wirt Co., 5221 Greene St., Philadelphia 44, Pa.
- RESISTORS—Electronic**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- BETA ELECTRIC CORP., 333 E. 103rd St., New York 29, N. Y. ADV. PG. 652.
- Carter Parts Co., 213 Institute Place, Chicago 10, Ill.
- CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
- ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. ADV. PG. 520.
- GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
- Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
- Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
- Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.
- OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
- PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
- Wirt Co., 5221 Greene St., Philadelphia 44, Pa.
- RESISTORS—Slide Wire**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
- Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
- ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. ADV. PG. 520.
- HARDWICK HINDLE INC., 40 Hermon St., Newark 5, N. J. ADV. PG. 346, 347.
- Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
- Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
- Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
- OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
- Rex Rheostat Co., 3 Foxhurst Rd., Baldwin, N. Y.
- STICHT CO., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
- Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
- Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
- Wirt Co., 5221 Greene St., Philadelphia 44, Pa.
- RINGS—Carbon Packing**
- Garlock Packing Co., Palmyra, N. Y.
- GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
- National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
- Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
- STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
- Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
- United States Graphite Co., Div. of The Wickes Corp., 1621 Holland Ave., Saginaw, Mich.
- RINGS—Collector**
- AIRFLYTE ELECTRONICS CO., 353-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
- Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
- Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
- Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
- COLLECTRON CORP., 216 E. 45th St., New York 17, N. Y. ADV. PG. 534.
- ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.
- ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 301.
- Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
- Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
- General Findings & Supply Co., Industrial Div., Attleboro, Mass.
- GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
- Industrial Electrical Works, 1509 Chicago St., Omaha 2, Nebr.
- KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 556.
- Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
- MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
- NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
- PM Industries, Inc., Stamford, Conn.
- Research Development Mfg., Inc., 429 E. Collom St., Philadelphia 44, Pa.
- Sinclair Mfg. Co., Chartley, Mass.
- Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
- RESOLVERS**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
- Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
- Basler Electronics, Inc., 13th & Broadway, Highland, Ill.
- ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
- FORD INSTRUMENT CO., DIV. OF THE SPERRY CORP., 31-10 Thomson Ave., Long Island City 11, N. Y. ADV. PG. 667.
- KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
- Kollsman Instrument Corp., Sub. of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.
- Magnavox Co., Fort Wayne 4, Ind.
- Muirhead & Co., Ltd., Beckenham, Kent, England.
- Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
- OSTER MFG. CO., JOHN AVONICS DIV., 1 Main St., Racine, Wis. ADV. PG. 38.
- REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
- RESOLVERS—Coordinate Transform**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- COMPUTER INSTRUMENTS CORP., 1964 Utica Ave., Brooklyn 34, N. Y. ADV. PG. 576.
- KEARFOTT CO., INC., ENGINEERING SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
- Muirhead & Co., Ltd., Beckenham, Kent, England.
- REEVES INSTRUMENT CORP., 215 E. 91st St., New York, N. Y. ADV. PG. 385.
- RESOLVERS—Product**
- KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
- WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
- RESOLVERS—Sine-Cosine**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
- Arma Div. of American Bosch Arma Corp., Old Country Rd., Garden City, N. Y.
- Basler Electronics, Inc., 13th & Broadway, Highland, Ill.
- COMPUTER INSTRUMENTS CORP., 1964 Utica Ave., Brooklyn 34, N. Y. ADV. PG. 576.
- FORD INSTRUMENT CO., DIV. OF THE SPERRY CORP., 31-10 Thomson Ave., Long Island City 1, N. Y. ADV. PG. 667.
- KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
- Mid-Century Instrument Corp., 611 Broadway, New York 12, N. Y.
- Muirhead & Co., Ltd., Beckenham, Kent, England.
- Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
- Sibley Co., The, Haddam, Conn.
- RHEOSTATS**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
- Carter Parts Co., 213 Institute Place, Chicago 10, Ill.
- CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
- CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardslay Ave., Elkhart, Ind. ADV. PG. 249.
- Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
- CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
- DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
- ELECTRO-MEASUREMENTS, INC., 4312 S. E. Stark St., Portland 15, Ore. ADV. PG. 579.
- GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
- GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
- HARDWICK HINDLE INC., 40 Hermon St., Newark 5, N. J. ADV. PG. 346, 347.
- Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
- Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
- Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
- Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.
- National Electric Controller Co., 7070 Glenwood Ave., Chicago 26, Ill.
- OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
- Rex Rheostat Co., 3 Foxhurst Rd., Baldwin, N. Y.
- STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
- STICHT CO., INC., HERMAN H., 27 Park Place, New York, N. Y. ADV. PG. 696.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

RINGS—Oil Sealing

Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Garlock Packing Co., Palmyra, N. Y.
GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
 Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 692.
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.
 Western Felt Works, 4029 Ogden Ave., Chicago, Ill.

RINGS—Retaining

BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 225.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 225.
 Carroll Pressed Metal Co., 133 Dewey St., Worcester, Mass.
 Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S.E., Massillon, Ohio.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
GIBSON CO., WILLIAM D. THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 225.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
 Industrial Retaining Ring Co., 8 W. Sidney Ave., Mount Vernon, N. Y.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 225.
 National Lock Washer Co., 40 Hermon St., Newark 5, N. J.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 225.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 225.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 225.
SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Waldes Kohninor Inc., 47-16 Austel Place, Long Island City 1, N. Y.
 Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.

RIVETS

Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
 Anti-Corrosive Products Co., Castleton-on-Hudson, N. Y.
 Autoscrew Co., 216-222 West 18th St., New York, N. Y.
 Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Chicago Rivet & Machine Co., Bellwood, Ill.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
 General Findings & Supply Co., Industrial Div., Attleboro, Mass.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
 Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
 Huck Mfg. Co., 2480 Belleville Ave., Detroit 7, Mich.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 567.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
 Progressive Mfg. Co., 50 Norwood St., Torrington, Conn.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Southco Division, South Chester Corp., 233 Industrial Highway, Lester, Pa.
 Torrington Co., Specialties Div., 37 Field St., Torrington, Conn.
 Tubular Rivet & Stud Co., Weston Ave., Wollaston (Quincy) 70, Mass.
UNITED SHOE MACHINERY CORP., 140 Federal St., Boston 7, Mass. ADV. PG. 250, 251.

ROCHELLE SALTS

See Crystals

RODS—Tungsten

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25 St., Union City, N. J. ADV. PG. 575.
 General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Micro-Wire Stranding Co., 252 Chestnut St., Passaic, N. J.
 North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

ROOMS—Screen

Ace Engineering & Machine Co., Inc., 3644 N. Lawrence St., Philadelphia 40, Pa.
SHIELDING, INC., Dept. LB, Riverside, N. J. ADV. PG. 263.

ROTOR CASTINGS

CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.

RUBBER

RUBBER—Conductive
 See INSULATION MATERIALS

SCALERS

See COUNTERS

SCALES—Oscilloscope

Browning Laboratories, Inc., Main St., Winchester, Mass.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
PHOTO CHEMICAL PRODUCTS, INC., 479 Walton Ave., New York 51, N. Y. ADV. PG. 530.

SCANNERS—Reflected & Transmitted Light

Acme Telectronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
ALDEN ELECTRONIC & IMPULSE RECORDING CO., Box 125, Westboro, Mass. ADV. PG. 673.
 Alden Systems, Inc., Alden Research Center, Westboro, Mass.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Haller-Raymond & Brown, Inc., State College, Pa.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
 MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TELECHROME INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
TIMES FACSIMILE CORP., 540 W. 59th St., New York 19, N. Y. ADV. PG. 392.

SCRAMBLERS—Speech

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

SCREENS—Television Projection

Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.

SCREWS—Self-Tapping

Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
 American Screw Co., Willimantic, Conn.
 Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
 Atlas Screw & Specialty Co., 450 Broome St., New York 13, N. Y.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 3, N. Y.
 Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
 Camcar Screw & Mfg. Co., 600 18th Ave., Rockford, Ill.
 Central Screw Co., 3501 Shields Ave., Chicago 9, Ill.
 Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S.E., Massillon, Ohio.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.

Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 567.
 Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2, Ohio.
 National Screw & Mfg. Co., The, Cleveland 4, Ohio.
 Parker-Kalon Div. of General American Transportation Corp., Clifton, N. J.
 Pheoll Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
 Pilgrim Screw Corp., 259 Dexter St., Providence, R. I.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Set Screw Mfg. Co., 470 Main St., Bartlett, Ill.
 Shakeproof Div. of Illinois Tool Works, St. Charles Rd., Elgin, Ill.
 Sinclair Mfg. Co., Chartley, Mass.
 Southern Screw Co., P. O. Box 1360-EG, Statesville, N. C.
 United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.

SCREWS—Set

Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
 Allen Mfg. Co., Hartford 2, Conn.
 Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
 Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
 Atlas Screw & Specialty Co., 450 Broome St., New York 13, N. Y.
 Autoscrew Co., 216-222 W. 13th St., New York, N. Y.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
 Bristol Co., The, Waterbury 20, Conn.
 Chicago Screw Co., Bellwood, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
 Greer Stop Nut Co., 2620 W. Flournoy St., Chicago 12, Ill.
 Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
 Kerr-Lakeside Industries, Inc., 12858 St. Clair Ave., Cleveland 17, Ohio.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 567.
 Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2, Ohio.
 National Screw & Mfg. Co., The, Cleveland 4, Ohio.
 Nylok Corp., Box 341, Elmira, N. Y.
 P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
 Parker-Kalon Div. of General American Transportation Corp., Clifton, N. J.
 Pheoll Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
 Set Screw Mfg. Co., 470 Main St., Bartlett, Ill.
 Sinclair Mfg. Co., Chartley, Mass.
 Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
 United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.

SEALING SERVICE—Hermetic

AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
BENNETT PRODUCTS MFG. CO., P. O. Box 1055, Palo Alto, Calif. ADV. PG. 492.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. ADV. PG. 571.
ELECTRO-SEAL CORP., 946 North Ave., Des Plaines, Ill. ADV. PG. 608.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
HELDOR MFG. CORP., 238 Lewis St., Paterson, N. J. ADV. PG. 482.
MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617.
 Microtran Co., Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 3, Calif.
 Sealtron Corp., Reading Rd. & Amity, Cincinnati 15, Ohio.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
 Telectro Industries Corp., 35-16 37th St., Long Island City, N. Y.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.
 Warren Plastics Corp., Warren, Pa.

SEALS—Carbon

Garlock Packing Co., Palmyra, N. Y.
GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
 Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa.
 National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

- CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
- DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
- DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
- Mepco, Inc., 35-37 Abgett Ave., Morristown, N. J.
- METAVAC, INC., 45-68 162nd St., Flushing 58, N. Y. ADV. PG. 510.
- Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
- POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
- Pyrofilm Resistor Co., 8 Whippany St., Morristown, N. J.
- Optical Film Engineering Co., 2731-37 N. Sixth St., Philadelphia 33, Pa.
- Ruckelshaus Labs., Inc., John G., Madison, N. J.
- SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale Pa. ADV. PG. 493.
- Sprague Electric Co., 125 Marshall St., North Adams, Mass.
- VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.
- WELWYN INTERNATIONAL INC., 3355 Edgecliff Terrace, Cleveland 11, Ohio. ADV. PG. 514.
- Wilrite Products, Inc., 3835 W. 150th St., Cleveland 11, Ohio. (h)
- RESISTORS—Printed Strip**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
- California Bent Glass Corp., Torrance, Calif.
- CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
- Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.
- Hansen Electronics Co., 7117½ Santa Monica Blvd., Los Angeles 46, Calif.
- Insulated Circuits, Inc., 115 Roosevelt Ave., Belleville, N. J.
- INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186.
- Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
- Micro-Circuits Co., New Buffalo, Mich.
- Ruckelshaus Labs., Inc., John G., Madison, N. J.
- STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
- RESISTORS—Sub-Miniature**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- Arnhold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
- Bond Electronics Corp., 60 Springfield Ave., Springfield, N. J.
- Bradford Components, Inc., Bradford, Pa.
- Campbell Industries, Inc., Sub. of Clarostat Mfg. Co., Inc., 3806 St. Elmo Station, Chattanooga 9, Tenn. (h)
- CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. ADV. PG. 249.
- CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
- Consolidated Resistance Co. of America Inc., 44 Prospect St., Yonkers, N. Y.
- DALE PRODUCTS, INC., Box 136, Columbus, Neb. ADV. PG. 168, 169.
- DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
- Hansen Electronics Co., 7117½ Santa Monica Blvd., Los Angeles 46, Calif.
- Instrument Resistors Co., 1036 Commerce Ave., Union, N. J.
- Mepco, Inc., 35-37 Abgett Ave., Morristown, N. J.
- Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
- PRECISION RESISTOR CO., 109 U. S. Highway #22, Hillside 5, N. J. ADV. PG. 587.
- Pyrofilm Resistor Co., Inc., 8 Whippany St., Morristown, N. J.
- R.C.L. MFG. CO., New Jersey Ave., Riverside 1, N. J. ADV. PG. 695.
- REON RESISTOR CORP., 117 Stanley Ave., Yonkers, N. Y. ADV. PG. 408.
- RESISTANCE PRODUCTS CO., 914 S. 13th St., Harrisburg, Pa. ADV. PG. 594, 595.
- Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif.
- SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
- Telewave Laboratories, Inc., 43-20 34th St., Long Island City, N. Y.
- Tel-Labs, Inc., 1050 Second St., Manchester, N. H.
- Tepro Electric Corp., 421 Burke Bldg., 5 St. Paul St., Rochester 4, N. Y.
- Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
- RESISTORS—Tape**
- ACF Electronics, 800 N. Pitt St., Alexandria, Va.
- Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.
- Electro Flex Heat, Inc., 516 Asylum St., Hartford, Conn.
- Hansen Electronics Co., 7117½ Santa Monica Blvd., Los Angeles 46, Calif.
- OHMWEVE CO., 43 Darcy St., West Hartford 6, Conn. ADV. PG. 631.
- Sanders Associates, Inc., Nashua, N. H.
- RESISTORS—Wire Woven**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- OHMWEVE CO., 43 Darcy St., West Hartford 6, Conn. ADV. PG. 631.
- States Co., 19 New Park Ave., Hartford 6, Conn.
- WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
- Tech Laboratories, Inc., Bergen & Edsall Blvds., Paltzades Park, N. J.
- Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
- WARD LEONARD ELECTRIC CO., 31 South St., Mt. Vernon, N. Y. ADV. PG. 502.
- WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
- Wirt Co., 5221 Greene St., Philadelphia 44, Pa.
- RHEOSTATS—Electronic**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- BETA ELECTRIC CORP., 333 E. 103rd St., New York 29, N. Y. ADV. PG. 652.
- Carter Parts Co., 213 Institute Place, Chicago 10, Ill.
- CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
- ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. ADV. PG. 520.
- GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
- Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
- Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
- Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.
- OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
- PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
- Wirt Co., 5221 Greene St., Philadelphia 44, Pa.
- RHEOSTATS—Slide Wire**
- ACE ELECTRONICS ASSOCIATES, 99 Dover St., Somerville 44, Mass. ADV. PG. 603.
- Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
- Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
- ELECTRO-MEC LABORATORY, INC., 47-51 33rd St., Long Island City 1, N. Y. ADV. PG. 520.
- HARDWICK HINDLE INC., 40 Hermon St., Newark 5, N. J. ADV. PG. 346, 347.
- Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
- Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
- Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
- OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
- Rex Rheostat Co., 3 Foxhurst Rd., Baldwin, N. Y.
- STICHT CO., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
- Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
- Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
- Wirt Co., 5221 Greene St., Philadelphia 44, Pa.
- RINGS—Carbon Packing**
- Garlock Packing Co., Palmyra, N. Y.
- GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
- National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
- Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
- STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
- Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
- United States Graphite Co., Div. of The Wickes Corp., 1621 Holland Ave., Saginaw, Mich.
- RINGS—Collector**
- AIRFLYTE ELECTRONICS CO., 353-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
- Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
- Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
- Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
- COLLECTRON CORP., 216 E. 45th St., New York 17, N. Y. ADV. PG. 534.
- ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.
- ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 301.
- Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
- Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.
- General Findings & Supply Co., Industrial Div., Attleboro, Mass.
- GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
- Industrial Electrical Works, 1509 Chicago St., Omaha 2, Neb.
- KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 556.
- Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
- MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
- NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
- PM Industries, Inc., Stamford, Conn.
- Research Development Mfg., Inc., 429 E. Collum St., Philadelphia 44, Pa.
- Sinclair Mfg. Co., Chartley, Mass.
- Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

RINGS—Oil Sealing

Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Garlock Packing Co., Palmyra, N. Y.
GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
 Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
RESISTOFLEX CORP., Roseland, N. J. ADV. PG. 692.
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.
 Western Felt Works, 4029 Ogden Ave., Chicago, Ill.

RINGS—Retaining

BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 225.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 225.
 Carroll Pressed Metal Co., 133 Dewey St., Worcester, Mass.
 Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S.E., Massillon, Ohio.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
GIBSON CO., WILLIAM D. THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 225.
 Gries Reproductor Corp., 151 Beechwood St., New Rochelle, N. Y.
 Industrial Retaining Ring Co., 8 W. Sidney Ave., Mount Vernon, N. Y.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 225.
 National Lock Washer Co., 40 Hermon St., Newark 5, N. J.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 225.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 225.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 225.
SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Waldes Kohinor Inc., 47-16 Austel Place, Long Island City 1, N. Y.
 Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.

RIVETS

Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
 Anti-Corrosive Products Co., Castleton-on-Hudson, N. Y.
 Autoscrew Co., 216-222 West 18th St., New York, N. Y.
 Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Chicago Rivet & Machine Co., Bellwood, Ill.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
 General Findings & Supply Co., Industrial Div., Attleboro, Mass.
 Gries Reproductor Corp., 151 Beechwood St., New Rochelle, N. Y.
 Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
 Huck Mfg. Co., 2480 Belleville Ave., Detroit 7, Mich.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 567.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
 Progressive Mfg. Co., 50 Norwood St., Torrington, Conn.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Southco Division, South Chester Corp., 233 Industrial Highway, Lester, Pa.
 Torrington Co., Specialties Div., 37 Field St., Torrington, Conn.
 Tubular Rivet & Stud Co., Weston Ave., Wollaston (Quincy) 70, Mass.
UNITED SHOE MACHINERY CORP., 140 Federal St., Boston 7, Mass. ADV. PG. 250, 251.

ROCHELLE SALTS

See Crystals

RODS—Tungsten

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25 St., Union City, N. J. ADV. PG. 575.
 General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Micro-Wire Stranding Co., 252 Chestnut St., Passaic, N. J.
 North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

ROOMS—Screen

Ace Engineering & Machine Co., Inc., 3644 N. Lawrence St., Philadelphia 40, Pa.
SHIELDING, INC., Dept. LB, Riverside, N. J. ADV. PG. 263.

ROTOR CASTINGS

CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.

RUBBER

RUBBER—Conductive
 See INSULATION MATERIALS

SCALERS

See COUNTERS

SCALES—Oscilloscope

Browning Laboratories, Inc., Main St., Winchester, Mass.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
PHOTO CHEMICAL PRODUCTS, INC., 479 Walton Ave., New York 51, N. Y. ADV. PG. 530.

SCANNERS—Reflected & Transmitted Light

Acme Telectronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
ALDEN ELECTRONIC & IMPULSE RECORDING CO., Box 125, Westboro, Mass. ADV. PG. 673.
 Alden Systems, Inc., Alden Research Center, Westboro, Mass.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S.E. 26, England.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Haller-Raymond & Brown, Inc., State College, Pa.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
 MacLeod & Hanopol, Inc., 10 Roland St., Charlestown 29, Mass.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
 Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.
TELECHROME INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
TIMES FACSIMILE CORP., 540 W. 59th St., New York 19, N. Y. ADV. PG. 392.

SCRAMBLERS—Speech

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

SCREENS—Television Projection

Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.

SCREWS—Self-Tapping

Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
 American Screw Co., Willimantic, Conn.
 Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
 Atlas Screw & Specialty Co., 450 Broome St., New York 13, N. Y.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 3, N. Y.
 Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
 Camcar Screw & Mfg. Co., 600 18th Ave., Rockford, Ill.
 Central Screw Co., 3501 Shields Ave., Chicago 9, Ill.
 Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S.E., Massillon, Ohio.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.

Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 567.
 Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2, Ohio.
 National Screw & Mfg. Co., The, Cleveland 4, Ohio.
 Parker-Kalon Div. of General American Transportation Corp., Clifton, N. J.
 Pheoll Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
 Pilgrim Screw Corp., 259 Dexter St., Providence, R. I.
 Russell, Burdall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Set Screw Mfg. Co., 470 Main St., Bartlett, Ill.
 Shakeproof Div. of Illinois Tool Works, St. Charles Rd., Elgin, Ill.
 Sinclair Mfg. Co., Chartley, Mass.
 Southern Screw Co., P. O. Box 1360-EG, Statesville, N. C.
 United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.

SCREWS—Set

Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
 Allen Mfg. Co., Hartford 2, Conn.
 Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
 Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
 Atlas Screw & Specialty Co., 450 Broome St., New York 13, N. Y.
 Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
 Bristol Co., The, Waterbury 20, Conn.
 Chicago Screw Co., Bellwood, Ill.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
 Greer Stop Nut Co., 2620 W. Flournoy St., Chicago 12, Ill.
 Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
 Kerr-Lakeside Industries, Inc., 12858 St. Clair Ave., Cleveland 17, Ohio.
KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 567.
 Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2, Ohio.
 National Screw & Mfg. Co., The, Cleveland 4, Ohio.
 Nylok Corp., Box 341, Elmira, N. Y.
 P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
 Parker-Kalon Div. of General American Transportation Corp., Clifton, N. J.
 Pheoll Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
 Set Screw Mfg. Co., 470 Main St., Bartlett, Ill.
 Sinclair Mfg. Co., Chartley, Mass.
 Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
 United Screw & Bolt Corp., 2513 W. Cullerton St., Chicago 8, Ill.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.

SEALING SERVICE—Hermetic

AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
BENNETT PRODUCTS MFG. CO., P. O. Box 1055, Palo Alto, Calif. ADV. PG. 492.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. ADV. PG. 571.
ELECTRO-SEAL CORP., 946 North Ave., Des Plaines, Ill. ADV. PG. 608.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
HELDOR MFG. CORP., 238 Lewis St., Paterson, N. J. ADV. PG. 482.
MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617.
 Microtran Co., Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y.
 Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 3, Calif.
 Sealtron Corp., Reading Rd. & Amity, Cincinnati 15, Ohio.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
 Telectro Industries Corp., 35-16 37th St., Long Island City, N. Y.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.
 Warren Plastics Corp., Warren, Pa.

SEALS—Carbon

Garlock Packing Co., Palmyra, N. Y.
GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
 Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa.
 National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
 Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.

SEALS—Hermetic

ADVANCED VACUUM PRODUCTS, INC., DIV. OF GENERAL CERAMICS CORP., 122 Liberty St., Stamford, Conn. ADV. PG. 235.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
ANDERSON ASSOCIATES, H. V., 239 Park Ave., Berkeley Heights, N. J. ADV. PG. 560.
AUTOMATIC & PRECISION MFG. CO., 252 Hawthorne Ave., Yonkers 5, N. Y. ADV. PG. 508.
BENNETT PRODUCTS MFG. CO., P. O. Box 1055, Palo Alto, Calif. ADV. PG. 492.
 Ceramaseal Co., The, Box 25, New Lebanon Center, N. Y.
COAXIAL CONNECTOR CO., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 671.
CONSTANTIN & CO., L. L., Route #46, Lodi, N. J. ADV. PG. 411.
ELECTRICAL INDUSTRIES, 44 Summer Ave., Newark 4, N. J. ADV. PG. 455.
ELECTRO-SEAL CORP., 946 North Ave., Des Plaines, Ill. ADV. PG. 608.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549.
 Garlock Packing Co., Palmyra, N. Y.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.

GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
HELDOR MFG. CORP., 238 Lewis St., Paterson, N. J. ADV. PG. 482.
 Hermaseal Co., Inc., 1101 Lafayette St., Elkhart, Ind.
 Hermetic Connector Corp., 176 Walnut St., Bloomfield, N. J.
HERMETIC SEAL PRODUCTS CO., 29-37 South 6th St., Newark 7, N. J. ADV. PG. 233.
 Hermetite Corp., 702 Beacon St., Boston 15, Mass.
KEARFOOT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
 Keystone Watch Case & Instruments, The, Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J.
 Livingston Electronic Corp., Livingston, N. J.
MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617.

MINNESOTA MINING & MFG. CO., 900 Fauquier Ave., St. Paul 6, Minn. ADV. PG. 253.
 Mitronics, Inc., 232 Thirteenth Ave., Newark, N. J.
 Molding Corp. of America, 40 Church St., Pawtucket, R. I.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
 Quality Products Co., 387 Charles St., Providence 4, R. I.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 Sealtron Corp., Reading Rd. at Amity, Cincinnati 15, Ohio.

Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.
 Soldering Specialties Co., 18 Chatham Rd., Summit, N. J.
Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.

VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.
 Vitroaseal Corp., The, 709 E. 106th St., Box 6048, Indianapolis 20, Ind.
 Warren Plastics Corp., Warren, Pa.
 Zeli Products Corp., 276-280 Main St., Norwalk, Conn.

SEALS—Metal-to-Glass

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
BENNETT PRODUCTS MFG. CO., P. O. Box 1055, Palo Alto, Calif. ADV. PG. 492.
 Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
ELECTRICAL INDUSTRIES, 44 Summer Ave., Newark 4, N. J. ADV. PG. 455.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.
 Electronic Products Co., 111 E. 3rd St., Mt. Vernon, N. Y.
GENERAL ELECTRIC CO., LAMP DIV., LAMP LEADS & BASES DEPT., 17825 St. Clair Ave., Cleveland 12, Ohio. ADV. PG. 22.

SEALS—Metal-to-Glass

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
BENNETT PRODUCTS MFG. CO., P. O. Box 1055, Palo Alto, Calif. ADV. PG. 492.
 Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
ELECTRICAL INDUSTRIES, 44 Summer Ave., Newark 4, N. J. ADV. PG. 455.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.
 Electronic Products Co., 111 E. 3rd St., Mt. Vernon, N. Y.
GENERAL ELECTRIC CO., LAMP DIV., LAMP LEADS & BASES DEPT., 17825 St. Clair Ave., Cleveland 12, Ohio. ADV. PG. 22.

GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
 Glass Engineering Labs., 601 O'Neil Ave., Belmont, Calif.

Hermaseal Co., Inc., 1101 Lafayette St., Elkhart, Ind.
HERMETIC SEAL PRODUCTS CO., 29-37 South 6th St., Newark, N. J. ADV. PG. 233.
 Hermetite Corp., 702 Beacon St., Boston 15, Mass.
MANSOL CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.

Quality Products Co., 387 Charles St., Providence 4, R. I.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.

Sealtron Corp., Reading Rd. at Amity, Cincinnati 15, Ohio.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
 Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
 Warren Plastics Corp., Warren, Pa.
 Wheaton Co., T. C., Millville, N. J.
 Zeli Products Corp., 276-280 Main St., Norwalk, Conn.

SEALS—Oil

Arrowhead Rubber Co., 2350 Curry St., Long Beach, Calif.
AUTOMATIC & PRECISION MFG. CO., 252 Hawthorne Ave., Yonkers 5, N. Y. ADV. PG. 508.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
 Bristol Co., The, Waterbury 20, Conn.
 Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
 Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.

Garlock Packing Co., Palmyra, N. Y.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
 Greer Stop Nut Co., 2620 W. Flurnoy St., Chicago 12, Ill.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
 Minor Rubber Co., Inc., 45 Ackerman St., Bloomfield, N. J.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.

STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.

Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.

Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.

SEALS—Switch

AUTOMATIC & PRECISION MFG. CO., 252 Hawthorne Ave., Yonkers 5, N. Y. ADV. PG. 508.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Murray Mfg. Corp., 1250 Atlantic Ave., Brooklyn 16, N. Y.
 Pansael Inc., 10 Main St., Little Ferry, N. J.
 Phaostron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.

RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.
Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

SELECTIVE CALLING APPARATUS

Dukane Corp., St. Charles, Ill.
 Electrical Communications Co., 765 Clementina St., San Francisco, Calif.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
 Mobil Electronics Mfg. Co., 1111 State Rd. 67 E., Anderson, Ind.
 Motorola Communications & Electronics, Inc., 4501 Augusta Blvd., Chicago 51, Ill.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.

WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.

SERVICE BULLETINS & COMPONENT REPLACEMENT—AM-FM TV

SAMS & CO., INC., HOWARD W., 2201 E. 46th St., Indianapolis 5, Ind. ADV. PG. 399.

SERVICES

See
Encapsulation
Engraving & Profiling
Frequency Calibration
Computing
Heat Treating
Laboratories—Testing
Packaging—Electronic
Equipment
Plating—Metal on
Plastic
Plating—Precision
Metal

Sealing—Hermetic
Service Bulletins & Component Replacement—AM-FM TV
Silk Screen Processing
Subminiaturization
Technical Writing
Tinning—Hot Dipped
Tower Service
Treating—Fungus & Moisture Proof
Wire Marking

SHAFTS—Flexible

Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.

KUPFRIAN MFG. CO., 398 State St., Binghamton, N. Y. ADV. PG. 667.

Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
STEWART CORP., F.W., A SUB. OF S.S. WHITE DENTAL MFG. CO., 4311 Ravenswood Ave., Chicago 13, Ill. ADV. PG. 522.

Stow Mfg. Co., 101 Shear St., Binghamton, N. Y.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

White Dental Mfg. Co., S. S., Industrial Div., 10 E. 40th St., New York 16, N. Y.

SHAPERS—Television Signal

Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.

HARRISON LABORATORIES, INC., 45 Industrial Rd., Berkeley Heights, N. J. ADV. PG. 689.

Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.

TELECHROME INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.

SHEETS—Molybdenum

Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.

General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.

North American Phillips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.

SHIELDING—Electrostatic

Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.

Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.

LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.

METAL TEXTILE CORP., 647 E. First Ave., Roselle, N. J. ADV. PG. 443.

Micro-Circuits Co., New Buffalo, Mich.

Optical Film Engineering Co., 2731-37 N. Sixth St., Philadelphia 33, Pa.

Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.

Schuyler Mfg. Corp., 84 Porete Ave., North Arlington, N. J.

SHIELDING, INC., Dept. LB, Riverside, N. J. ADV. PG. 263.

THOMAS & SONS, INC., WILLIAM, Slocum Ave., Ridgefield, N. J. ADV. PG. 626.

SHIELDING—Radio Ignition

Aeronautical Electronics, Inc., Raleigh-Durham Airport, P.O. Box 6043, Raleigh, N. C.

Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.

Bernco Engineering Corp., P.O. Box #8238, Indianapolis 24, Calif.

Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

Breeze Corps, Inc., 41 S. Sixth St., Newark 7, N. J.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.

Hopkins Engineering Co., 2082 Lincoln Ave., Altadena, Calif.

Interference Measurement Lab., Inc., 901 E. 51st St., Brooklyn, N. Y.

KUPFRIAN MFG. CORP., 398 State St., Binghamton, N. Y. ADV. PG. 667.

METAL TEXTILE CORP., 647 E. First Ave., Roselle, N. J. ADV. PG. 443.

Schuyler Mfg. Corp., 84 Porete Ave., North Arlington, N. J.
Uniform Tubes, Level Rd., Collegetown 2, Pa.

SHIELDING—Sheet or Screen

Ace Engineering & Machine Co., Inc., 3642 N. Lawrence St., Philadelphia 40, Pa.
Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.

SHIELDING, INC., Dept LB, Riverside, N. J. ADV. PG. 263.

SHIELDING—Wire

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.

Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
Dielectric Materials Co., 5317-17 N. Ravenswood Ave., Chicago 40, Ill.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.

KUPFRIAN MFG. CO., 398 State St., Binghamton, N. Y. ADV. PG. 667.

Revere Corp. of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.

Schuyler Mfg. Corp., 84 Porete Ave., North Arlington, N. J.

U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.

Uniform Tubes, Level Rd., Collegetown 2, Pa.
Whitaker Cable Corp., Kansas City 16, Mo.

SHIELDS—Cathode Ray Tube

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.

ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.

GENERAL AVIATION & ELECTRONICS MFG. CO., INC., 179 Berger St., Wood-Ridge, N. J. ADV. PG. 622.

Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.

Magnetic Metals Co., Hayes Ave. at 21st St., Camden, N. J.

MAGNETICS, INC., P.O. Box 391, Butler, Pa. ADV. PG. 54, 55.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.

PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.

Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.

WATERMAN PRODUCTS CO., INC., 2445-63 Emerald St., Philadelphia 25, Pa. ADV. PG. 96, 97.

SHIELDS—Coil

Barnes Metal Products Co., 4425 W. 16th St., Chicago 23, Ill.

CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.

GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.

NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.

Paul & Beekman, Inc., 1801 Cortland St., Philadelphia 40, Pa.

Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.

Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.

Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.

SHIELDS—Ferrite

Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.

NATIONAL MOLDITE CO., 1410 Chestnut Ave., Hillside 5, N. J. ADV. PG. 449.

Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.

SHIELDS—Lead

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.

Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.

Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.

Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.

Division Lead Co., 7742 W. 61st Place, Summit, Ill.

Ellis & Sons, Inc., George D., 4002 N. American St., Philadelphia 40, Pa.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.

Menlo Research Laboratory, Menlo Park, Calif.

NRD Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.

National Lead Co., 111 Broadway, New York 6, N. Y.

Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

Nuclear Instrument & Chemical Corp., 223 W. Erie St., Chicago 10, Ill.

Nuclear Research Corp., Southampton, Pa.

Nucleonic Company of America, 196 De Graw St., Brooklyn 31, N. Y.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

SHIELDS—Transformer

ALGO, INC., 251 West St., South Hackensack, N. J. ADV. PG. 476.

Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind.

Ellis & Sons, Inc., George D., 4002 N. American St., Philadelphia 40, Pa.

Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.

Magnetic Metals Co., Hayes Ave. at 21st St., Camden, N. J.

MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 54, 55.

Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.

Repath Co., Paul R., 641 E. 61st St., Los Angeles 1, Calif.

Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.

Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.

SHIELDS—Tube

ACCURATE PAPER TUBE CO., 801 North Peoria St., Chicago 22, Ill. ADV. PG. 591.

ATLAS E-E CORP., Bedford Airport Terminal Bldg., Bedford, Mass. ADV. PG. 571.

BIRTCHEER CORP., 4371 Valley Blvd., Los Angeles 32, Calif. ADV. PG. 552.

Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.

Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.

CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.

Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.

ELCO CORP., "M" St. below Erie Ave., Philadelphia 24, Pa. ADV. PG. 569.

Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.

Formatic Co., 178 Bridge St., Naugatuck, Conn.

GOAT CO., INC., FRED, 308 Dean St., Brooklyn 7, N. Y. ADV. PG. 506.

I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.

Insuline Corp. of America, 186 Granite St., Manchester, N. H.

International Electronic Research Corp., 145 W. Magnolia Blvd., Burbank, Calif.

JOHNSON & HOFFMAN MFG. CORP., 31 W. Second St., Mineola, N. Y. ADV. PG. 42, 43.

JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.

Kaup & Sons, C. B., 32 Newark Way, Maplewood, N. J.

Livingston Electronic Corp., Livingston, N. J.

MAGNETICS INC., P.O. Box 391, Butler, Pa. ADV. PG. 54, 55.

Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.

METAL TEXTILE CORP., 647 E. First Ave., Roselle, N. J. ADV. PG. 443.

METHODE MFG. CORP., 2021 W. Churchill St., Chicago 47, Ill. ADV. PG. 666.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.

NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.

Nemws-Clarke, Inc., Silver Spring, Md.

Paul & Beekman, Inc., 1801 Cortland St., Philadelphia 40, Pa.

Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.

Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.

Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.

Staver Co., Inc., Box 431, Bay Shore, N. Y.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

TEINER ENGINEERING CORP., 116 Madison St., Malden, Mass. ADV. PG. 524.

Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.

THOMAS & SONS, INC., WILLIAM, Slocum Ave., Ridgefield, N. J. ADV. PG. 626.

Uniform Tubes, Level Rd., Collegetown 2, Pa.

VOLKERT STAMPINGS, INC., 22-23 96th Ave., Queens Village 8, N. Y. ADV. PG. 211.

Waldom Electronics Inc., 4625 W. 53rd St., Chicago 32, Ill.

SHIFTERS—Color Phase
See PARTS for COLOR TV TUBES

SHIFTERS—Phase, Microwave
See MICROWAVE ACCESSORIES

SHIPPING CONTAINERS
See PACKAGING MATERIALS

SHUNTS—Meter

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.

Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.

DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

HOYT ELECTRICAL INSTRUMENT WORKS, 42 Carleton St., Cambridge 42, Mass. ADV. PG. 452.

Jack & Heintz, Inc., Cleveland 1, Ohio.

Janco Corp., 3111 Winona Ave., Burbank, Calif.

Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.

PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.

PRECISION RESISTOR CO., 109 U. S. Hwy. #22, Hillside 5, N. J. ADV. PG. 587.

Ram Meter, Inc., 1102 Hilton Rd., Ferndale, Detroit 20, Mich.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

SILICON

See METALS

SILICONE—Compounds

See INSULATING COMPOUNDS

SILICONE CRYSTALS

See CRYSTALS

SILICONE GREASES

Dow Corning Corp., Midland, Mich.

Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

SILICONE OILS

Dow Corning Corp., Midland, Mich.

Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

SILICONE RUBBER INSULATION PARTS

See INSULATION PARTS

SILICONE RUBBER

Arrowhead Rubber Co., 2350 Curry St., Long Beach 35, Calif.

Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.

Connecticut Hard Rubber Co., 407 East St., New Haven 9, Conn.

Dow Corning Corp., Midland, Mich.

Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.

Garlock Packing Co., Palmyra, N. Y.

General Tire & Rubber Co., The, Akron, Ohio.

Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.

Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.

Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.

Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.

UNIVOX-EASTERN CORP., 102 Warren St., New York 7, N. Y. ADV. PG. 226.

SILK SCREEN PROCESSING

Aerolite Electronics Corp., 507 26th St., Union City, N. J.

ANDERSON ASSOCIATES, H. V., 239 Park Ave., Berkeley Heights, N. J. ADV. PG. 560.

Bill Jack Scientific Instrument Co., P. O. Box C-3, Solano Beach, Calif.

BRUNO NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.

Croname, Inc., 3701 N. Ravenswood, Chicago, Ill.

Eaton Associates, Inc., Moodus, Conn.

Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.

Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.

Naz-Dar Co., 465 Milwaukee Ave., Chicago 10, Ill.

Pantek Co., P. O. Box 212, El Segundo, Calif.

Phen-O-Tron, Inc., 455 Main St., New Rochelle, N. Y.

Repath Inc., Paul R., 641 E. 61st St., Los Angeles 1, Calif.

Sillcocks-Miller Co., Maplewood, N. J.

Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.

U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

SLEEVING—Electrical Insulating

See INSULATION PARTS

SLEEVING—Varnished or Lacquered
See **TUBING—Varnished or Lacquered**

SLIDES—Chassis

ABALON PRECISION MFG. CORP., 540 Casanova St., Bronx 59, N. Y. ADV. PG. 590.
Chassis Trak Corp., 6250 E. Iona Rd., Indianapolis, Ind. **GENERAL COMPONENTS CO.**, 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
GRANT PULLEY & HARDWARE CORP., 31-85 Whitestone Parkway, Flushing, N. Y. ADV. PG. 539.
Henry & Miller Industries, Inc., 675 Garfield Ave., Jersey City, N. J.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.
Ventrak Corp., 11 W. 42nd St., New York, N. Y.

SLIP RING ASSEMBLIES

AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
COLLECTRON CORP., 216 E. 45th St., New York 17, N. Y. ADV. PG. 534.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
Electro Development Co., 14701 Keswick St., Van Nuys, Calif.
ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.
ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 301.
GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
Iron Fireman Mfg. Co., Electronics Div., 2838 E. 9th Ave., Portland 2, Ore.
Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
PM Industries, Inc., Stamford, Conn.
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.
POLY-SCIENTIFIC CORP., Blacksburg, Va. ADV. PG. 311.
Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif.
Sinclair Mfg. Co., Chartley, Mass.
Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

SMOKESee **DETECTORS****SOCKETS**

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|--------------------|------------------|
| 1. Crystal | 8. Relay |
| 2. Diode | 9. Sub-Miniature |
| 3. Lamp | 10. Transistor |
| 4. Miniature | 11. Tube |
| 5. Pencil Tube | 12. Turret |
| 6. Pilot Light | 13. UHF Tube |
| 7. Printed Circuit | |

Aerolite Electronics Corp., 507 26th St., Union City, N. J. 6.
Aeronautical Electric Co., 5656 Northwest Highway, Chicago 30, Ill. 6.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. 11.
Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif. 7-1.
ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. 4-7-11. ADV. PG. 610.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. 3-4-6-7-11-12. ADV. PG. 361.
American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y. 1-2-3-4-6-11.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. 11. ADV. PG. 87.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. 3-4-11. ADV. PG. 254.
Armel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y. 7-8.
ATLAS E-E CORP., Bedford Airport Terminal Bldg., Bedford, Mass. 10. ADV. PG. 571.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y. 11.
Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J. 4-11.
Buggie, Inc., H. H., P. O. Box 817, Toledo 1, Ohio. 1.
CENTRALAB DIV., GLOBE-UNION, INC., 9149 E. Keefe Ave., Milwaukee 1, Wis. 7. ADV. PG. 37.
CINCH MFG. CORP., 2026 S. Homan Ave., Chicago 24, Ill. 1-2-4-5-7-8-9-10-11-12-13. ADV. PG. 99-101.
CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. 1-2-3-4-6-7-8-9-10. ADV. PG. 606.
CORNING GLASS WORKS, Corning, N. Y. 11. ADV. PG. 523.
DIALIGHT CORPORATION, 60 Stewart Ave., Brooklyn 37, N. Y. 3-4-6-9. ADV. PG. 108.

Digital Products, Inc., 7643 Fay Ave., LaJolla, Calif. 7.
Drake Mfg. Co., 1713 Hubbard St., Chicago 22, Ill. 3-6.
Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S., Long Island City, N. Y. 3-4-6.
Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa. 1-2-4-5-7-8-9-10-11-12-13.
EITEL-McCULLOUGH, INC., San Bruno, Calif. 11. ADV. PG. 174, 175.
ELCO CORP., "M" St. below Erie Ave., Philadelphia 24, Pa. 1-4-7-8-9-10-11-12-13. ADV. PG. 569.
ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. 1-11. ADV. PG. 604.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J. 1-2-4-11-13.
Fortiphone Ltd., 247 Regent St., London W. 1, England. 4-9.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. 4-11. ADV. PG. 620.
GENERAL ELECTRIC CO., LAMP DIV., LAMP LEADS & BASES DEPT., 17825 St. Clair Ave., Cleveland 12, Ohio. 3. ADV. PG. 22.
General Laminated Products, Inc., 2857 S. Halsted St., Chicago 8, Ill. 2-5-9-10.
Graphic Circuits Div. of Cinch Mfg. Corp., 221 S. Arroyo Parkway, Pasadena, Calif. 4-7-9-10-11.
GRAYHILL, 537 Hillgrove Ave., La Grange, Ill. 5. ADV. PG. 224.
Hobson Bros., 4940 W. Lawrence Ave., Chicago 30, Ill. 11.
Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif. 4-7-9-11.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. 4-7-9-10-11. ADV. PG. 678.
Javex, P. O. Box 646, Redlands, Calif. 1.
Johnson Co., E. F., Waseca, Minn. 1-3-4-6-11-13.
JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. 1-2-4-5-7-9-10-11-12. ADV. PG. 99-101.
Joy Mfg. Co., Dept. 39, Oliver Bldg., Pittsburgh 22, Pa. 3.
Keystone Electronics Corp., 423 Broome St., New York 12, N. Y. 2.
LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. 7. ADV. PG. 685.
Livingston Electronic Corp., Livingston, N. J. 4-9-11.
Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill. 4-7-11-13.
METHODE MFG. CORP., 2021 W. Churchill St., Chicago 27, Ill. 1-4-7-8-9-10-11-13. ADV. PG. 666.
Micarta Fabricators, Inc., 5324 Ravenswood Ave., Chicago 40, Ill. 6.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass. 1-4-11.
Morse Co., Frank W., 1300 Soldiers Field Rd., Boston 35, Mass. 4.
Mosley Electronics, Inc., 8622 St. Charles Rock Rd., St. Louis 14, Mo. 1.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. 4-7-9-10-11-13. ADV. PG. 465.
Mycalex Tube Socket Corporation, 125 Clifton Blvd., Clifton, N. J. 4-7-9-10-11-13.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif. 10.
National Co., Inc., 61 Sherman St., Malden 48, Mass. 1-11.
NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. 1-2-4-5-6-7-8-9-10-11-12-13. ADV. PG. 24, 25.
NATIONAL TEL-TRONICS CORP., 35 St. Casimir Ave., Yonkers, N. Y. 4-6-7-11. ADV. PG. 681.
Permonite Mfg. Corp., 4554 North Broadway, Chicago 40, Ill. 1-3-4-6-7-11.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. 1. ADV. PG. 394.
PLASTIC MOLD & ENGINEERING CO., INC., 157 Clifford St., Providence 3, R. I. 4-7-9-10. ADV. PG. 462.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. 10. ADV. PG. 364, 365.
Remler Co., 2101 Bryant St., San Francisco 10, Calif. 11.
Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N., Long Island City 1, N. Y. 11-13.
SEALTECO CORP., 610 Fayette Ave., Mamaroneck, N. Y. 9. ADV. PG. 467.
Super Ear Products Co., 675 Merrick Rd., Lynbrook, N. Y. 9-10.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. 1-2-3-4-7-9-10-11. ADV. PG. 727-733.
Techron Corp., 254-256 Friend St., Boston 14, Mass. 2-9-10.
Tingstol Co., 1461 W. Grand Ave., Chicago 22, Ill. 3-4-6.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. 3-6. ADV. PG. 161.
UNITED-CARR FASTENER CORP., Cambridge 42, Mass. 3. ADV. PG. 160.
U. S. COMPONENTS, INC., 454 E. 148th St., New York 55, N. Y. 4-7-8-9. ADV. PG. 141.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. 1-4-11-13. ADV. PG. 477.
VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. 10-11. ADV. PG. 696.
Viking Industries, Inc., 21343 Roscoe Blvd., Canoga Park, Calif. 7.
Wade Electric Products Co., 400 Jacob St., Sturgis, Mich. 3-4-6.
Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill. 1-2-11.
Warren Plastics Corp., Warren, Pa. 1-2-10.

WINCHESTER ELECTRONICS, INC., Willard Rd., Norwalk, Conn. 11. ADV. PG. 62.

SOLDER

All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.
Allen Co., Inc., L. B., 6751 Bryn Mawr Ave., Chicago 31, Ill.
ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
BOW SOLDER PRODUCTS CO., INC., 251 Freeman St., Brooklyn 22, N. Y. ADV. PG. 50.
Cerro de Pasco Corp., 300 Park Ave., New York 22, N. Y.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Division Lead Co., 7742 W. 61st Place, Summit, Ill.
Dunton Co., M. W., 7 Goff St., Providence, R. I.
Electrovert Inc., 489 Fifth Ave., New York 17, N. Y.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
Howe International, 431 Danforth, Dept. E-7, Jersey City 5, N. J.
Johnson Mfg. Co., Inc., Mt. Vernon, Iowa.
KESTER SOLDER CO., 4212 Wrightwood Ave., Chicago 39, Ill. ADV. PG. 77.
Leach & Garner Co., Attleboro, Mass.
Lenk Mfg. Co., The, 30 Cummington St., Boston 15, Mass.
London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 553.
MULTICORE SALES CORP., 80 Shore Rd., Port Washington, N. Y. ADV. PG. 270.
MULTICORE SOLDERS, LTD., MULTICORE WORKS, Maylands Ave., Hemel, Hempstead, Hertfordshire, England. ADV. PG. 270.
National Lead Co., 111 Broadway, New York 6, N. Y.
New York Solder Co., 684 E. 133rd St., New York 54, N. Y.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
Ruby Chemical Co., 68 McDowell St., Columbus, Ohio.
Soldering Specialties Co., 18 Chatham Rd., Summit, N. J.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.

SOLDER—Aluminum

AEROPROJECTS, INC., 310 E. Rosedale Ave., West Chester, Pa. ADV. PG. 674.
All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.
Allen Co., Inc., L. B., 6751 Bryn Mawr Ave., Chicago 31, Ill.
ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
American Solder & Flux Co., 19th & Willard Sts., Philadelphia 40, Pa.
Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
Chemoalloy Electronics Corp., Gillespie Field, Santee, Calif.
Division Lead Co., 7742 W. 61st Place, Summit, Ill.
Dunton Co., M. W., 7 Goff St., Providence, R. I.
Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
Howe International, 431 Danforth, Dept. E-7, Jersey City 5, N. J.
Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
KESTER SOLDER CO., 4212 Wrightwood Ave., Chicago 39, Ill. ADV. PG. 77.
Lenk Mfg. Co., The, 30 Cummington St., Boston 15, Mass.
Louis Laboratories, 1947 Broadway, New York 23, N. Y.

SOLDER—Platinum

ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
AMERICAN PLATINUM WORKS, N. J. R. R. Ave., at Oliver St., Newark 5, N. J. ADV. PG. 654.
Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
Baker & Co., Inc., 113 Astor St., Newark 5, N. J.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
Goldsmith Bros., Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
METZ REFINING CO., 369 Mulberry St., Newark 2, N. J. ADV. PG. 543.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
Western Gold & Platinum Co., 589 Bryant St., San Francisco, Calif.

Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

SOLDER—Silver

All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.
 Allen Co., Inc., L. B., 6751 Bryn Mawr Ave., Chicago 31, Ill.
ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
 American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
AMERICAN PLATINUM WORKS, N. J. R. R. Ave. at Oliver St., Newark 5, N. J. ADV. PG. 654.
 American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
 Baker & Co., Inc., 113 Astor St., Newark 5, N. J.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
 Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 206.
 Howe International, 431 Danforth, Dept. E-7, Jersey City 5, N. J.
 Leach & Garner Co., Attleboro, Mass.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
METZ REFINING CO., 369 Mulberry St., Newark 2, N. J. ADV. PG. 543.
MULTICORE SOLDERS, LTD., MULTICORE WORKS, Maylands Ave., Hemel, Hempstead, Hertfordshire, England. ADV. PG. 270.
 National Lead Co., 111 Broadway, New York 6, N. Y.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
 Soldering Specialties Co., 18 Chatham Rd., Summit, N. J.
 Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
 Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
 United Wire & Supply Corp., Providence 7, R. I.
 Western Gold & Platinum Co., 589 Bryant St., San Francisco, Calif.
 Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

SOLDER—Rings and Preforms

All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.
 Allen Co., Inc., L. B., 6751 Bryn Mawr Ave., Chicago 31, Ill.
ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
AMERICAN PLATINUM WORKS, N. J. R. R. Ave. at Oliver St., Newark 5, N. J. ADV. PG. 654.
 American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
 Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
 Baker & Co., Inc., 113 Astor St., Newark 5, N. J.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
BOW SOLDER PRODUCTS CO., INC., 251 Freeman St., Brooklyn 22, N. Y. ADV. PG. 50.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 General Findings & Supply Co., Industrial Div., Attleboro, Mass.
 Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
 Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 206.
 Howe International, 431 Danforth, Dept. E-7, Jersey City 5, N. J.
KESTER SOLDER CO., 4212 Wrightwood Ave., Chicago 39, Ill. ADV. PG. 77.
MULTICORE SOLDERS LTD., MULTICORE WORKS, Mayland Ave., Hemel, Hempstead, Hertfordshire, England. ADV. PG. 270.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 Newcomb Spring Corp., 77 E. Hawthorne Ave., Valley Stream, N. Y.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
 Soldering Specialties Co., 18 Chatham Rd., Summit, N. J.
 Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
 Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.
 United Wire & Supply Corp., Providence 7, R. I.

SOLDERING IRONS

See **IRONS—Soldering**
TOOLS—Thermal Soldering
TOOLS—Ultrasonic Soldering

SOLENOID COILS

See **COILS—Magnet**

SOLENOID VALVES

See **VALVES—Solenoid**

SOLENOIDS

A. P. W. Co., 72 W. Main St., Rockaway, N. J.
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Adel Precision Products Div. of General Metals Corp., 10777 Vanowen St., Burbank, Calif.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Best Manufacturing Co., Inc., 1200 Grove St., Irvington 11, N. J.
 Caltron Products Co., 1310-12 S. Hobart Blvd., Los Angeles 6, Calif.
CANNON ELECTRIC CO., 3209 Humboldt St., Los Angeles 31, Calif. ADV. PG. 213.
COLCRAFT, INC., Cary, Ill. ADV. PG. 628.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Comar Electric Co., 3349 W. Addison St., Chicago 18, Ill.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
CUNNINGHAM SON & CO., INC., JAMES, 33 Litchfield St., Rochester, N. Y. ADV. PG. 626.
 Dalmotor Co., 1375 Clay St., Santa Clara, Calif.
 Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill.
ELECTRA MFG. CO., RESISTOR DIV., 4051 Broadway, Kansas City, Mo. ADV. PG. 459.
 Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill.
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Guardian Electric Co., 1621 W. Walnut St., Chicago 12, Ill.
 Mack Electronics Division Inc., Plainfield, N. J.
 McQuay-Norris Mfg. Co., 2320 Marconi Ave., St. Louis 10, Mo.
 Magnavox Co., Fort Wayne 4, Ind.
 Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.
MENDELSONN SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.
 National Acme Co., 170 E. 131st St., Cleveland 8, Ohio.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 Oaktron Electric Co., Tinley Park, Ill.
PSP ENGINEERING CO., 8606 Otis St., South Gate, Calif. ADV. PG. 490.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Phillips Control Corp., 59 W. Washington St., Joliet, Ill.
PICKERING & CO., 309 Woods Ave., Oceanside, N. Y. ADV. PG. 679.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 555.
 R. B. M. Division, Essex Wire Corp., Loganport, Ind.
RELAY SALES, INC., P. O. Box 186, West Chicago, Ill. ADV. PG. 390.
 Sag Harbor Industries, Inc., Bay St., Sag Harbor, N. Y.
 Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Synchro Start Products, Inc., 8151 Ridgeway Ave., Skokie, Ill.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Television Laboratories, Inc., Mill St., Wanconda, Ill.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
 U. S. Relay Co., 1740 Albion St., Los Angeles 31, Calif.
 Waco, Inc., 2032 Broadway, Santa Monica, Calif.
 West Coast Electrical Mfg. Co., 233 W. 116th Place, Los Angeles 61, Calif.

SOLENOIDS—Rotary

Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill.
 Lee Spring Co., 32 Main St., Brooklyn 1, N. Y.
 Leland, Inc., G. H., 123 Webster St., Dayton 2, Ohio.
 Oak Mfg. Co., 1260 Clybourn Ave., Chicago 10, Ill.
RELAY SALES, INC., P. O. Box 186, West Chicago, Ill. ADV. PG. 390.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Waco, Inc., 2032 Broadway, Santa Monica, Calif.

SOLENOIDS—Sub-Miniature

A. P. W. Co., 72 N. Main St., Rockaway, N. J.
CANNON ELECTRIC CO., 3209 Humboldt St., Los Angeles 31, Calif. ADV. PG. 213.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Comar Electric Co., 3349 W. Addison St., Chicago 18, Ill.

First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
 Mack Electronics Division, Inc., Plainfield, N. J.
MENDELSONN SPEEDGUN CO., INC., Fourth Ave., Haskell, N. J. ADV. PG. 568.
PSP ENGINEERING CO., 8606 Otis St., South Gate, Calif. ADV. PG. 490.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Phillips Control Corp., 59 W. Washington St., Joliet, Ill.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 555.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Tur-Bo Jet Products, Inc., 424 S. San Gabriel Blvd., San Gabriel, Calif.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Waco, Inc., 2032 Broadway, Santa Monica, Calif.
 West Coast Electrical Mfg. Corp., 233 W. 116th Place, Los Angeles 61, Calif.

SOLVENTS—Epoxy Resin

Mona Industries, Inc., Paterson 4, N. J.

SOLVENTS—Oil & Grease

Barco Chemical Products Co., 701-703 S. LaSalle, Chicago 5, Ill.
 Cobehn, Inc., 100 Passaic Ave., Caldwell, N. J.
 Degreasing Products Co., 701 N. LaSalle, Chicago, Ill.

SOLVENTS—Rosin Flux

Cobehn Inc., 100 Passaic Ave., Caldwell, N. J.
 Division Lead Co., 7742 W. 61st Place, Summit, Ill.

SONAR

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
 Chesapeake Instrument Corp., Shadyside, Md.
 Harris Transducer Corp., Woodbury, Conn.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Technical Development Corp., 4060 Ince Blvd., Culver City, Calif.
RADIO CORP. OF AMERICA, Engineering Products Div., Camden, N. J. 88, 89. Third & Fourth Covers and Preceding Insert.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Warren Mfg. Co., Inc., The, Littleton, Mass.

SOUND SYSTEMS—Complete

A. R. F. Products, Inc., 7627 Lake St., River Forest, Ill.
 Allied Radio Corp., 100 N. Western Ave., Chicago 80, Ill.
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.
AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 415.
 Bliss Electronic Corp., Box 366, Sussex, N. J.
 Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Dukane Corp., St. Charles, Ill.
 Executone, Inc., 415 Lexington Ave., New York 17, N. Y.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 Melody Master Mfg. Co., 2842 N. Cicero Ave., Chicago 41, Ill.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
PARAPLEGICS MFG. CO., INC., 10068 Franklin Ave., Franklin Park, Ill. ADV. PG. 528.
 Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89. Third & Fourth Covers & Preceding Insert.
 Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 Stephens Mfg. Corp., 8538 Warner Drive, Culver City, Calif.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Telephonics Corp., Park Ave., Huntington, N. Y.

Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

SPEAKERS—Bar

See PARTS for COLOR TV TUBES

SPEAKER DRIVER UNITS

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
Jensen Mfg. Co., 6601 S. Laramie Ave., Chicago 38, Ill.
Lansing Sound, Inc., James B., 2439 Fletcher Drive, Los Angeles 26, Calif.
Racon Electric Co., 1261 Broadway, New York 1, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
Stephens Mfg. Corp., 8538 Warner Drive, Culver City, Calif.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

SPEAKERS

A. R. F. Products, Inc., 7627 Lake St., River Forest, Ill.
Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
AMPEX CORP., 934 Charter St., Redwood City, Calif. ADV. PG. 415.
Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
Becker Electronics Mfg. Corp., Horton & Rockaway Aves., Valley Stream, N. Y.
Best Mfg. Co., Inc., 1200 Grove St., Irvington 11, N. J.
Bozak Mfg. Co., R. T., Box 966, Darien, Conn.
British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
British Radio Electronics Ltd., 1833 Jefferson Place, N.W., Washington 6, D. C.
Carboneau Industries, Inc., 100 Lexington S.W., Grand Rapids, Wis.
Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 17, Ill.
Delco Radio Div., General Motors Corp., Kokomo, Ind.
Dukane Corp., St. Charles, Ill.
Duotone Co., Inc., Keyport, N. J.
Eltran Corp., St. Anne, Ill.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
Goodmans Industries (Rockbar Corp.), 215 E. 37th St., New York 16, N. Y.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
Hartley Products Co., 521 E. 162nd St., New York 51, N. Y.
Heppner Mfg. Co., P. O. Box 612, Round Lake, Ill.
Hofl Audio Inc., 5014 N. Encinita Ave., Temple City, Calif.
Jensen Mfg. Co., 6601 S. Laramie Ave., Chicago 38, Ill.
Lansing Sound Inc., James B., 2439 Fletcher Drive, Los Angeles 26, Calif.
Magnavox Co., Fort Wayne 4, Ind.
Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.
OXFORD ELECTRIC CORP., 3911 S. Michigan Ave., Chicago 15, Ill. ADV. PG. 544.
Perfection Electric Co., 2635 S. Wabash Ave., Chicago 16, Ill.
Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill.
PICKERING & CO., 309 Woods Ave., Oceanside, N. Y. ADV. PG. 679.
Quam-Nichols Co., Marquette Rd. & Prairie Ave., Chicago 37, Ill.
Racon Electric Co., 1261 Broadway, New York 1, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert
Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
Sieler Design Products, 10460 San Pablo Ave., El Cerrito, Calif.
SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.
Stephens Mfg. Corp., 8535 Warner Drive, Culver City, Calif.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
TELEX, INC., Telex Park, St. Paul 1, Minn. ADV. PG. 686.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.
Wright-Zimmerman, Inc., New Brighton, Minn.

SPEAKERS—Dual Cone

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.

Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
Brociner Electronics Corp., 344 E. 32nd St., New York 16, N. Y.
Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
Duotone Co., Inc., Keyport, N. J.
Electro-Voice Mfg. Co., Inc., Buchanan, Mich.
Goodmans Industries (Rockbar Corp.), 215 E. 37th St., New York 16, N. Y.
Hartley Products Co., 521 E. 162nd St., New York 51, N. Y.
Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.
Quam-Nichols Co., Marquette Rd. & Prairie Ave., Chicago 37, Ill.
Racon Electric Co., 1261 Broadway, New York 1, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

SPEAKERS—Flame & Explosion-Proof

Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
Racon Electric Co., 1261 Broadway, New York 1, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

SPEAKERS—Marine Speaker Systems

MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23-25 Beaver St., New York 4, N. Y. ADV. PG. 557.
Racon Electric Co., 1261 Broadway, New York 1, N. Y.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

SPECTROMETERS—Mass

Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.

SPECTROMETERS and SPECTROGRAPHS

American Optical Co., Instrument Div., Box A, Buffalo 15, N. Y.
Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
Beva Laboratory, 1640 Olden Ave. Ext., Trenton 9, N. J.
Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
Devtron Engineering, 1 Winslow St., Redwood City, Calif.
Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
National Spectrographic Labs., Inc., 6300 Euclid Ave., Cleveland 3, Ohio.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.
Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 282, 283.

SPECTROPHOTOMETERS

American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.

American Optical Co., Instrument Div., Box A, Buffalo 15, N. Y.
Applied Physics Corp., 362 W. Colorado St., Pasadena 1, Calif.
Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
Axler Associates, 102-42 43rd Ave., Corona, N. Y.
Baird Associates, Inc., 23 University Rd., Cambridge 38, Mass.
Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
Coleman Instruments, Inc., 318 Madison St., Maywood, Ill.
Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Instrument Development Labs., Inc., 163 Highland Ave., Needham Heights, Mass.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Missouri Research Labs., Inc., 2109 Locust St., St. Louis 3, Mo.
Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
Warren Electronics, Inc., Bound Brook, N. J.

SPECTROSCOPIC SOURCE UNITS

Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
National Spectrographic Labs., Inc., 6300 Euclid Ave., Cleveland 3, Ohio.

SPEECH INPUT CONSOLES

See AMPLIFIERS—Audio Input Systems

SPEED CONTROLS AC MOTORS

See CONTROLS—Electronic AC Motor Speed

SPLICERS—for Magnetic Recording Tapes

Kinevox Div., Electromation Co., 116 S. Hollywood Way, Burbank, Calif.
MULTICORE SOLDERS, LTD., MULTICORE WORKS, Maylands Ave., Hemel Hempstead, Hertfordshire, England. ADV. PG. 270.
Robins Industries Corp., 41-08 Bell Blvd., Bayside, N. Y.
Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.

SPRINGS

Accurate Spring Mfg. Co., 3811 W. Lake St., Chicago, Ill.
Ace Spring Mfg. Co., 77 W. Houston St., New York 12, N. Y.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 225.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 225.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P.O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.
Dudek & Bock Spring & Mfg. Co., 4018 W. Grand Ave., Chicago 51, Ill.
Dzus Fastener Co., Inc., Box 185, Babylon, N. Y.
Eastern Tool & Specialty Co., 1 Montgomery St., Belleville 9, N. J.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GIBSON CO., WILLIAM D. THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 225.
INSTRUMENT SPECIALTIES CO., INC., 254 Bergen Blvd., Little Falls, N. J. ADV. PG. 537.
Lee Spring Co., Inc., 30 Main St., Brooklyn 1, N. Y.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 225.
Newcomb Spring Corp., 77 E. Hawthorne Ave., Valley Stream, N. Y.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 225.
Queens Tool Mfg. Co., Inc., 15 Front St., Rockville Centre, N. Y.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 225.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 225.
Sheffco Mfg. Co., Grand & Ruby Aves., Palisades Park, N. J.
Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Stone City Machine & Tool Co., Inc., P.O. Box 351, 1206 Seventh St., Bedford, Ind.
THOMAS & SONS, INC., WILLIAM, Slocum Ave., Ridgefield, N. J. ADV. PG. 626.

SPRINGS—Antenna Tension

Ace Spring Mfg. Co., 77 W. Houston St., New York 12, N. Y.
BARNES CO., WALLACE DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 225.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 225.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Communication Products Co., Inc., Marlboro, N. J.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 225.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 225.
 Newcomb Spring Corp., 77 E. Hawthorne Ave., Valley Stream, N. Y.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 225.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 225.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 225.

SPRINGS—Instrument Hairsprings

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 225.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 225.
 Glatfelter & Sons, John, 85 Cliff St., New York, N. Y.
 Dudek & Bock Spring & Mfg. Co., 4018 W. Grand Ave., Chicago 51, Ill.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 225.
 Instrument Wire Co., 41 Kendall Ave., Maplewood, N. J.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 225.
 Newcomb Spring Corp., 77 E. Hawthorne Ave., Valley Stream, N. Y.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 225.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 225.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 225.

SPRINGS—Precision

Accurate Spring Mfg. Co., 3811 W. Lake St., Chicago, Ill.
 Ace Spring Mfg. Co., 77 West Houston St., New York 12, N. Y.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 225.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 225.
 Braun Tool & Instrument Co., Inc., 140 Fifth Ave., Hawthorne, N. J.
 Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
 Dudek & Bock Spring & Mfg. Co., 4018 W. Grand Ave., Chicago 51, Ill.
 General Findings & Supply Co., Industrial Div., Attleboro, Mass.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 225.
INSTRUMENT SPECIALTIES CO., INC., 254 Bergen Blvd., Little Falls, N. J. ADV. PG. 537.
 Leach & Garner Co., Attleboro, Mass.
 Lee Spring Co., Inc., 30 Main St., Brooklyn 1, N. Y.
 Lewis Spring & Mfg. Corp., 2656 W. North Ave., Chicago 47, Ill.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 225.
 Newcomb Spring Corp., 77 E. Hawthorne Ave., Valley Stream, N. Y.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 225.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 225.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 225.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
THOMAS & SONS, INC., WILLIAM, Slocum Ave., Ridgefield, N. J. ADV. PG. 626.

STABILIZERS

See **REGULATORS—Voltage Regulators & Stabilizers**

STAMPED CIRCUITS

See **CIRCUITS—Printed, Stamped or Etched**

STAMPS—Marking

CARBOLOY DEPT. OF GENERAL ELECTRIC CO., Box 237, Roosevelt Park Annex, Detroit 32, Mich. ADV. PG. 20, 21.
 Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
 Griffin Co., John, 2157 James Ave., St. Paul 5, Minn.
KRENGEL MFG. CO., INC., 227 Fulton St., New York, N. Y. ADV. PG. 615.
 Matthews & Co., James H., 3042 Forbes St., Pittsburgh, Pa.
 Noble & Westbrook Mfg. Co., 27 Westbrook St., East Hartford 8, Conn.

PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Techniques, Inc., 178-184 Central Ave., Hackensack, N. J.

STANDARDS—Capacitance

STANDARDS—Frequency

STANDARDS—Inductance

See **INSTRUMENTS—Electrical Measuring**

STANDARDS—Frequency, Microwave

See **MICROWAVE ACCESSORIES**

STANDARDS—Laboratory Time

Airmec, Ltd., High Wycombe, Buckinghamshire, England.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
NORMAN LABORATORIES, ERNST, Williams Bay, Wis. ADV. PG. 552.
 Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 392.

STANDARDS—Resistance

See **INSTRUMENTS—Electrical Measuring**

STANDARDS EQUIPMENT—Calibration

BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
BOONTON RADIO CORP., Boonton, N. J. ADV. PG. 481.
 Bristol Co., The, Waterbury 20, Conn.
CALIDYNE CO., THE, 120 Cross St., Winchester, Mass. ADV. PG. 593.
 Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
CONTROL ELECTRONICS CO., INC., 1925 New York Ave., Huntington Station, N. Y. ADV. PG. 591.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MEASUREMENTS CORP., Boonton, N. J. ADV. PG. 422.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Radiation, Inc., Melbourne, Fla.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 342.
SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

STANDARD WAVE

See **DETECTORS**

STANDS—Microphone

American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.
 Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
 Racon Electric Co., 1261 Broadway, New York 1, N. Y.
SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.

STANDS—Speaker

Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
 Queens Tool Mfg. Co., Inc., 15 Front St., Rockville Centre, N. Y.
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

STEATITE

See **INSULATION MATERIALS**

STETHOGRAPHS AND STETHOPHONES

Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.

STETHOSCOPES—Amplifying

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 Holland Electronics, 2133 Central Drive, S., East Meadow, N. Y.
 Maico Co., Inc., 21 N. Third St., Minneapolis, Minn.
 Microtran Co. Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

STILLS & DEMINERALIZERS

See **DEMINERALIZERS & STILLS—Water**

STIMULATORS

American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
 Applegate & Co., C. J., 1816 Grove St., Boulder, Colo.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 Electrodyne Co., Endicott St., Norwood, Mass.
 Fischer & Co., R. A., 517 Commercial St., Glendale 3, Calif.
 Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
 Measurement Engineering Ltd., Arnprior, Ontario, Canada.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Wappler, Inc., 27-10 Astoria Blvd., Long Island City 2, N. Y.

STOOLS & BENCHES—for Work Assembly

Alden Systems, Inc., Alden Research Center, Westboro, Mass.
FORMICA METAL PRODUCTS CO., Corporation Way, Medford 55, Mass. ADV. PG. 606.
 Royal Metal Mfg. Co., 175 N. Michigan Ave., Chicago 1, Ill.
 Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.

STRAIGHTENERS—Pin, Tube

Design Tool Corp., 80 Washington St., New York 6, N. Y.
DURO SPECIALTY CO., INC., 8 Bennett St., Lynn, Mass. ADV. PG. 615.
 Production Tool & Fixture Co., 37 West Main St., Oyster Bay, N. Y.
STAR EXPANSION PRODUCTS CO., 147 Cedar St., New York 6, N. Y. ADV. PG. 562.

STRAIN INDICATORS

See **INDICATORS**

STRAIN RELIEFS

COMMERCIAL PLASTICS CO., 2812 W. North Ave., Chicago 47, Ill. ADV. PG. 530.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
GENERAL CEMENT MFG. CO. ELECTRONICS DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
HEYMAN MFG. CO., Kenilworth 2, N. J. ADV. PG. 689.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Royal Electric Co., Inc., Pawtucket, R. I.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
WALKER CO., GEORGE, 118 Amsterdam Ave., Passaic, N. J. ADV. PG. 588.

STRIPPERS—Wire

See **MACHINES—Wire Stripping**
WIRE STRIPPERS—Chemical
WIRE STRIPPERS—Hand
WIRE STRIPPERS—Mechanical

STRIPS—Grounding

ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
CHURCHILL LIGHTING CORP., 344 Franklin St., Melrose 76, Mass. ADV. PG. 532.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
INSTRUMENT SPECIALTIES CO., INC., 254 Bergen Blvd., Little Falls, N. J. ADV. PG. 537.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.

STRIPS—Mounting

Aerolite Electronics Corp., 507-26th St., Union City, N. J.
ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 678.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.

VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.
Warren Plastics Corp., Warren, Pa.

STROBOSCOPE—Synchronizer

Bendix Aviation Corp., York Div., York, Pa.
BULOVA WATCH CO., QUARTZ CRYSTAL DIV., Valley Stream, N. Y. ADV. PG. 378, 379.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
Winkler Laboratories, 5225 N. 20th St., Phoenix, Ariz.

STROBOSCOPES

BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
COMMUNICATION MEASUREMENTS LAB., INC., 350 Leland Ave., Plainfield, N. J. ADV. PG. 541.
Epic, Inc., 154 Nassau St., New York 38, N. Y.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Gyro Electronics Co., 325 Canal St., New York, N. Y.
Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.
MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 59.
Pantek Co., Box 212, El Segundo, Calif.
Wilcox Research Co., 2506 N. Ontario St., Burbank, Calif.

SUBMINIATURIZATION SERVICES

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BULOVA WATCH CO., QUARTZ CRYSTAL DIV., Valley Stream, N. Y. ADV. PG. 378, 379.
Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
CIRCÓN COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
Digital Products, Inc., 7643 Fay St., La Jolla, Calif.
ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.
Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

Hansen Electronics Co., 7117½ Santa Monica Blvd., Los Angeles 46, Calif.

Instrument Development Labs., Inc., 163 Highland Ave., Needham Heights, Mass.

International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.

KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.

Microdot, Inc., 1826 Fremont Ave., South Pasadena, Calif.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.

PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.

Phen-O-Tron, Inc., 455 Main St., New Rochelle, N. Y.

PHOTOCIRCUITS CORP., Glen Cove, N. Y. ADV. PG. 442.

Plastronics, P. O. Box 96, Winter Hill 45, Mass.

Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.

RS ELECTRONICS CORP., 435 Portage Ave., Palo Alto, Calif. ADV. PG. 631.

Rho Engineering Co., 2240-42 Sepulveda Blvd., Los Angeles 64, Calif.

Techniques, Inc., 178-184 Central Ave., Hackensack, N. J.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Thompson Co., A. J., The, Route #1, Box 812, Florissant, Mo.

Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

WALKIRT CO., 145 W. Hazel St., Inglewood, Calif. ADV. PG. 724.

SUPERSONIC EQUIPMENT

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
Chesapeake Instrument Corp., Shadyside, Md.
Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis, Mo.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
Telephonics Corp., Park Ave., Huntington, N. Y.

SUPPRESSORS—Auto Radio Ignition

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

Continental Carbon, Inc., 13900 Lorain Ave., Cleveland 11, Ohio.

ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

Hopkins Engineering Co., 2082 Lincoln Ave., Altadena, Calif.

JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.

Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.

Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.

ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.

Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London, W. 3, England.

Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.

SUPPRESSORS—Noise

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.

Carad Corp., 2850 Bay Rd., Redwood City, Calif.

Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.

ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.

Entron, Inc., 4902 Lawrence St., Bladensburg, Md.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

Insuline Corp. of America, 186 Granite St., Manchester, N. H.

Interference Measurement Lab., Inc., 907 E. 51st St., Brooklyn 3, N. Y.

JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.

Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.

ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.

Special Products Co., P. O. Box 188, Rockville 3, Md.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W.C. 2, England.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London, W. 3, England.

Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.

SURFACE ANALYZERS / ND COMPARATORS**See ANALYZERS****SURPLUS NEW & USED EQUIPMENT****See Pages 709 to 724****SUSPENSIONS—for Speaker Cones**

Hawley Products Co., St. Charles, Ill.

UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.

SWITCHBOARDS—Television Master

Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.

General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.

MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.

SWITCHES—Automatic

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.

Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.

Bristol Co., The, Waterbury 20, Conn.

Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.

Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.

Ebert Electronics Corp., 212-26 Jamaica Ave., Queens Village 28, N. Y.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.

GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 252.

Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.

Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.

Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.

Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.

Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N., Long Island City 1, N. Y.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.

TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.

United Electric Controls Co., 85 School St., Watertown 72, Mass.

SWITCHES—Automatic Transfer

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.

Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.

Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

Philco Corp., Government & Industrial Div., 4700 Wisconsin Ave., Philadelphia 44, Pa.

Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.

Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

SWITCHES—Coaxial Cable

American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.

ANDREW CORP., 363 E. 75th St., Chicago 19, Ill. ADV. PG. 348.

AUTOMATIC METAL PRODUCTS CORP., 315 Berry St., Brooklyn 11, N. Y. ADV. PG. 541.

Barker & Williamson, 235 Fairfield Ave., Upper Derby, Pa.

BIRD ELECTRONIC CORP., 1800 E. 38th St., Cleveland 14, Ohio. ADV. PG. 216.

BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.

DANBURY-KNUDSEN, INC., P. O. Box 170, Danbury, Conn. ADV. PG. 647.

DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.

Dielectric Products Engineering Co., Inc., Raymond, Me.

ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.

Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.

Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.

Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.

Javex, P. O. Box 646, Redlands, Calif.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N., Long Island City 1, N. Y.

Thompson Products, Inc., Electronics Div., 2196 Clarkwood Rd., Cleveland 3, Ohio.

TRAD ELECTRONICS CORP., 1001 First Ave., Asbury Park, N. J. ADV. PG. 680.

TRANSCO PRODUCTS, INC., 12210 Nebraska Ave., Los Angeles 25, Calif. ADV. PG. 226.

SWITCHES—Control

Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 673.

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.

American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.

Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.

Bristol Co., The, Waterbury 20, Conn.

Carter Parts Co., 213 Institute Pl., Chicago 10, Ill.

CENTRAL LAB DIV., GLOBE-UNION, INC., 914 Y. E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.

CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardslay Ave., Elkhart, Ind. ADV. PG. 249.

CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.

Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.

Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.

Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.

ELECTRO SWITCH CORP., 167 King Ave., Weymouth 88, Mass. ADV. PG. 234.

ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 301.

GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.

General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.

Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.

International Register Co., 2620 Washington Blvd., Chicago 12, Ill.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

Marco Industries, Inc., 207 S. Helena St., Anaheim, Calif.

Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.

Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 555.
 Reynolds Electric Co., 3000 River Road, River Grove, Ill.
 Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N., Long Island City 1, N. Y.
 Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa.
 Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
 Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

SWITCHES—Crossbar

CUNNINGHAM SON & CO., INC., JAMES, 33 Litchfield St., Rochester, N. Y. ADV. PG. 626.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Philco Corp., Government & Industrial Div., 4700 Wisconsin Ave., Philadelphia 44, Pa.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 668.

SWITCHES—Decade

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
 Clary Multiplier Corp., Electronics Div., San Gabriel, Calif.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Decade Instrument Co., Box 153, Caldwell, N. J.
 Endevo Corp., 161 E. California St., Pasadena, Calif.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 J-B-L Instrument Co., Sycamore & Mill Rds., Clifton Heights, Pa.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

SWITCHES—Duplex

BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

SWITCHES—Electronic

Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
 Bristol Co., The, Waterbury 20, Conn.
 Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia 23, Pa.
 Carter Parts Co., 213 Institute Pl., Chicago 10, Ill.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
CHICAGO MINIATURE LAMP WORKS, 1500 N. Ogden Ave., Chicago 10, Ill. ADV. PG. 574.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Deltron, Inc., P. O. Box 192, Glenside, Pa.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
 Ebert Electronics Corp., 212-26 Jamaica Ave., Queens Village 28, Pa.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Electro-Mechanical Research, Inc., Ridgefield, Conn.
 Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
 Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 Furzehill Laboratories, Ltd., 57 Clarendon Rd., Watford, Herts, England.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

Globe Industries, Inc., P.O. Box 101, North Dayton Station, Dayton 4, Ohio.
 Grason-Stadler Co., Engineering Service Dept., West Concord, Mass.
 Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 3, Conn. ADV. PG. 304.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
 Pantek Co., P. O. Box 212, El Segundo, Calif.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 Tech Laboratories, Inc., Bergen & Edsall Bldvs., Palisades Park, N. J.
TELETRONICS LABORATORY, INC., Kinkel St., Westbury, N. Y. ADV. PG. 545.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Walktronic Co., 145 W. Hazel St., Inglewood 3, Calif.
 Weltron Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
 White Electron Devices Inc., Roger, Fourth Ave., Haskell, N. J.

SWITCHES—Float Type

ALLEN-BRADLEY CO., 36 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
 Bristol Co., The, Waterbury 20, Conn.
 Carling Electric, Inc., 499 New Park Ave., West Hartford 10, Conn.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gorn Electric Co., Stamford, Conn.
 Revere Corp. of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
 Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

SWITCHES—Key

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
 Automatic Electric Sales Corp., 1033 W. Van Buren St., Chicago 7, Ill.
 Capitol Machine Co., The, Switch Div., 36 Baimforth Ave., Danbury, Conn.
 Carter Parts Co., 213 Institute Place, Chicago 10, Ill.
 Clare & Co., C. P., 3101 Pratt Bldg., Chicago 45, Ill.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Mossman Inc., Donald P., Brewster, N. Y.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 North Electric Mfg. Co., 553 S. Market St., Galion, Ohio.
RELAY SALES, INC., P. O. Box 186, West Chicago, Ill. ADV. PG. 390.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N., Long Island City 1, N. Y.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SWITCHCRAFT, INC., 1320 N. Halsted St., Chicago 22, Ill. ADV. PG. 668.
 Universal Circuit Controls Corp., 3610 Oakton St., Skokie, Ill.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

SWITCHES—Knife

Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Hetherington, Inc., Sharon Hill, Pa.
 Insuline Corp. of America, 186 Granite St., Manchester, N. H.
JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Kolton Mfg. Corp., 123 New Jersey Railroad Ave., Newark, N. J.
 Murray Mfg. Corp., 1250 Atlantic Ave., Brooklyn 16, N. Y.
 Philmore Mfg. Co., Inc., 113 University Pl., New York 13, N. Y.
 Radio Merchandise Sales, Inc., 2016 Bronxdale Ave., New York 62, N. Y.
 Roflan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
 Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

SWITCHES—Limit

Acro-Mu Switch Div., Acro Mfg. Co., Columbus, Ohio.
ALLEN-BRADLEY CO., 36 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Control Products, Inc., 306 Sussex St., Harrison, N. J.
 Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 462.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
 Hetherington, Inc., Sharon Hill, Pa.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Licon Switch & Control Div. of Illinois Tool Works, 2501 N. Keeler Ave., Chicago 39, Ill.
 Mercoird Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Micro Switch, Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 National Acme Co., 170 E. 131st St., Cleveland 5, Ohio.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
 Unimax Switch Div., The W. L. Maxson Corp., Ives Rd., Wallingford, Conn.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

SWITCHES—Mercury

Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
 Durakool, Inc., 1010 N. Main St., Elkart, Ind.
 Ebert Electronics Corp., 212-26 Jamaica Ave., Queens Village 28, Pa.
GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.
 Gordos Corp., 250 Glenwood Ave., Bloomfield, N. J.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
 Hamlin, Inc., 1316 Sherman Ave., Evanston, Ill.
 Mercoird Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Mercury Contacts, Inc., Box 615-E, Far Hills Station, Dayton 9, Ohio.
 Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 Willy-Gunther K. G., 1138 Massachusetts Ave., Arlington, Mass.

SWITCHES—Microwave

See MICROWAVE ACCESSORIES

SWITCHES—Miniature

Acro-Mu Switch Div., Acro Mfg. Co., Columbus, Ohio.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 673.
 American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.
 Bristol Co., The, Waterbury 20, Conn.
 Carter Parts Co., 213 Institute Pl., Chicago 10, Ill.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.

Comar Electric Co., 3349 W. Addison, Chicago 18, Ill.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
ELECTRO SWITCH CORP., 167 King Ave., Weymouth 88, Mass. ADV. PG. 234.
ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 301.
 Fortiphone Ltd., 247 Regent St., London W. 1, England.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 252.
GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.
GRAYHILL, 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 224.
 Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
 Halax Corp., P. O. Box 425, Los Gatos, Calif.
HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 304.
 Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
 Hetherington, Inc., Sharon Hill, Pa.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
 Miniature Switch Corp., 147 Ocean Ave., Lynbrook, N. Y.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 465.
 Oak Mfg. Co., 1260 Clybourn Ave., Chicago 10, Ill.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 555.
 R-F Electronics, Inc., Div. of Electro Switch Corp., Weymouth, Mass.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
 Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park N. J.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 161.
 Unimax Switch Div., The W. L. Maxson Corp., Ives Rd., Wallingford, Conn.

SWITCHES—Pushbutton

Acro-Mu Switch Div., Acro Mfg. Co., Columbus, Ohio.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
 American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.
 Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
 Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Capitol Machine Co., The, Switch Div., 36 Balmforth Ave., Danbury, Conn.
 Carter Parts Co., 213 Institute Place, Chicago 10, Ill.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Control Products, Inc., 306 Sussex St., Harrison, N. J.
 Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
 Cutler-Hammer Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
 Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.
GRAYHILL, 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 224.
 Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 304.
 Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
 Hetherington, Inc., Sharon Hill, Pa.
 Hupp Electronics Co., A. Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 Kirkland Co., H. R., 8 King St., Morristown, N. J.
 Licon Switch & Control Div. of Illinois Tool Works, 2501 N. Keeler Ave., Chicago 39, Ill.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

Marco Industries, Inc., 207 S. Helena St., Anaheim, Calif.
 Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Mossman, Inc., Donald P. Brewster, N. Y.
 National Acme Co., 170 E. 131st St., Cleveland 8, Ohio.
 Oak Mfg. Co., 1260 Clybourn Ave., Chicago 10, Ill.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 555.
 Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
 Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N., Long Island City 1, N. Y.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
 Smith Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
 Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
SWITCHCRAFT, INC., 1320 N. Halstead St., Chicago 22, Ill. ADV. PG. 668.
 Universal Circuit Controls Corp., 3610 Oakton St., Skokie, Ill.
 Vernaline Products Co., P. O. Box 222E, Hawthorne, N. J.
WARD LEONARD ELECTRIC CO., 31 South St., Mount Vernon, N. Y. ADV. PG. 502.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

SWITCHES—Remote Control

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
 Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
 Bristol Co., The, Waterbury 20, Conn.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Cooper Co., Clark, 349 Market St., Palmyra, N. J.
 Ebert Electronics Corp., 212-26 Jamaica Ave., Queens Village 28, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 252.
GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.
 Gyro Electronics Co., 325 Canal St., New York, N. Y.
 Hetherington, Inc., Sharon Hill, Pa.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
POLLAK CORP., JOSEPH, 75-99 Dorchester 22, Mass. ADV. PG. 555.
 Recora Co., Inc., 6100 S. Archer Rd., Summit, Ill.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.
 Teletron Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.
 Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

SWITCHES—Rotary and Band Change

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
 Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
BOGART MFG. CORP., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
 Bristol Co., The, Waterbury 20, Conn.
 Carling Electric, Inc., 499 New Park Ave., West Hartford 10, Conn.
CENTRALAB DIV., GLOBE UNION INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
 Communication Products Co., Inc., Marlboro, N. J.
COMPUTER INSTRUMENTS CORP., 1964 Utica Ave., Brooklyn 34, N. Y. ADV. PG. 576.
 Couch Co., Inc., S. H., North Quincy 71, Mass.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
 Eastern Specialty Co., Philadelphia 40, Pa.
 Electro Development Co., 14701 Keswick St., Van Nuys, Calif.
ELECTRO SWITCH CORP., 167 King Ave., Weymouth 88, Mass. ADV. PG. 234.
ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 301.
 Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 252.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
GRAPHITE METALLIZING CORP., 1053 Nepperhan Ave., Yonkers, N. Y. ADV. PG. 468, 469.
GRAYHILL, 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 224.
 Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.
HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 304.
 Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
INTERNATIONAL INSTRUMENTS, INC., P. O. Box 2954, New Haven 15, Conn. ADV. PG. 188.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Janco Corp., 3111 Winona Ave., Burbank, Calif.
 Javex, P. O. Box 646, Redlands, Calif.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Leland, Inc., G. H., 123 Webster St., Dayton 2, Ohio.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Micro Switch Div., Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 465.
 North Electric Co., 553 S. Market St., Galion, Ohio.
 Oak Mfg. Co., 1260 Clybourn Ave., Chicago 10, Ill.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 555.
 R-F Electronics, Inc., Div. of Electro Switch Corp., Weymouth, Mass.
 Reynolds Electric Co., 3000 River Road, River Grove, Ill.
 Roller-Smith Corp., Instrument Div., 1925 W. Market St., Bethlehem, Pa.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
 Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
SWITCHCRAFT, INC., 1320 N. Halstead St., Chicago 22, Ill. ADV. PG. 668.
 Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.
 Teletron Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 161.
 Universal Circuit Controls Corp., 3610 Oakton St., Skokie, Ill.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

SWITCHES—Safety

Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
 Federal Pacific Electric Products Company, 50 Paris St., Newark 5, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Hetherington, Inc., Sharon Hill, Pa.
 Joy Mfg. Co., Dept. 39, Oliver Bldg., Pittsburgh 22, Pa.
 Kolton Electric Mfg. Co., 123 New Jersey Railroad Ave., Newark 5, N. J.
 Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
 Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Murray Mfg. Corp., 1250 Atlantic Ave., Brooklyn 16, N. Y.
 Pyle-National Co., 1334 N. Kostner Ave., Chicago 51, Ill.
 Recora Co., Inc., 6100 S. Archer Rd., Summit, Ill.
 Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
Winterburn Mfg. Co., P. O. Box 386, Putnam, Conn.

SWITCHES—Slide

Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Carling Electric, Inc., 499 New Park Ave., West Hartford 10, Conn.
Carter Parts Co., 213 Institute Pl., Chicago 10, Ill.
CENTRALAB DIV., GLOBE-UNION INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
Continental Carbon, Inc., 13900 Lorain Ave., Cleveland 11, Ohio
Endevco Corp., 161 E. California St., Pasadena, Calif.
GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.

GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
Hetherington, Inc., Sharon Hill, Pa.
suline Corp. of America, 186 Granite St., Manchester, N. H.

JFD MANUFACTURING CO., INC., 101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
Liberty Industries, 107-37 71 Ave., Forest Hills, N. Y.
Micro Switch Div., Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
Oak Mfg. Co., 1260 Clybourn Ave., Chicago 10, Ill.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 555.

SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
Smith Inc., Herman H., 2326 Nosttrand Ave., Brooklyn 10, N. Y.
STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.
Wirt Co., 5221 Greene St., Philadelphia 44, Pa.

SWITCHES—Snap Action

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
Automatic Electric Sales Co., 1033 W. Van Buren St., Chicago 7, Ill.
Carling Electric, Inc., 499 New Park Ave., West Hartford 10, Conn.
Carter Parts Co., 213 Institute Pl., Chicago 10, Ill.
CHICAGO TELEPHONE SUPPLY CORP., 1142 W. Beardsley Ave., Elkhart, Ind. ADV. PG. 249.
CLAROSTAT MFG. CO., INC., Dover, N. H. ADV. PG. 264, 265.
Comar Electric Co., 3349 W. Addison St., Chicago 18, Ill.

Control Products, Inc., 306 Sussex St., Harrison, N. J.
Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
ELECTRO SWITCH CORP., 167 King Ave., Weymouth 88, Mass. ADV. PG. 234.
GEE-LAR MFG. CO., 819 Elm St., Rockford, Ill. ADV. PG. 620.

GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.

GRAYHILL, 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 224.
Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 304.
Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.

Hetherington, Inc., Sharon Hill, Pa.
J-B-L Instrument So., Sycamore & Mill Rds., Clifton Heights, Pa.
JFD MANUFACTURING CO., INC., 6101-16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
Licon Switch & Control Div. of Illinois Tool Works, 2501 N. Keeler Ave., Chicago 39, Ill.
Marco Industries, Inc., 207 S. Helena St., Anaheim, Calif.

Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.
Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
National Acme Co., 170 E. 131st St., Cleveland 8, Ohio.
Phaotron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.

Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
Square D Co., 4041 N. Richards, Milwaukee 12, Wis.

STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
UCINITE CO., DIV. OF UNITED-CARR FASTENER CORP., 459 Watertown St., Newtonville, Mass. ADV. PG. 161.
Unimax Switch Div., The W. L. Maxson Corp., Ives Rd., Wallingford, Conn.
United Electric Controls Co., 85 School St., Watertown 72, Mass.

SWITCHES—Step Type

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
American Elite, Inc. (Telefunken) 7 Park Ave., New York 16, N. Y.
Anatran Engineering Corp., 165 E. California St., Pasadena, Calif.
Automatic Electric Sales Co., 1033 W. Van Buren St., Chicago 7, Ill.

Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
Bristol Co., The, Waterbury 20, Conn.
Clare & Co., C. P., 3101 Pratt Blvd., Chicago 45, Ill.
Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 252.
Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
Leland, Inc., G. H., 123 Webster St., Dayton 2, Ohio.
Livingston Electronic Corp., Livingston, N. J.
North Electric Co., 553 S. Market St., Galion, Ohio.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.

Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

SWITCHES—Sub-Miniature

Acro-Mu Switch Div., Acro Mfg. Co., Columbus, Ohio.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Bristol Co., The, Waterbury 20, Conn.
CENTRALAB DIV., GLOBE-UNION INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
COMPUTER INSTRUMENTS CORP., 1964 Utica Ave., Brooklyn 34, N. Y. ADV. PG. 576.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
Electro Development Co., 14701 Keswick St., Van Nuys, Calif.

Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 301.
Endevco Corp., 161 E. California St., Pasadena, Calif.
Fortiphone Ltd., 247 Regent St. W. J. London, England.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 252.

GRAYHILL, 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 224.
Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
Hetherington, Inc., Sharon Hill, Pa.
Lico, Inc., 147 Ocean Ave., Lynbrook, N. Y.
Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

Micro Switch Div., Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.
Miniature Switch Corp., 147 Ocean Ave., Lynbrook, N. Y.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.

Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
POLLAK CORP., JOSEPH, 75-99 Dorchester 22, Mass. ADV. PG. 555.
R-F Electronics, Inc., Div. of Electro Switch Corp., Weymouth, Mass.
Unimax Switch Div., The W. L. Maxson Corp., Ives Rd., Wallingford, Conn.

SWITCHES—Tap
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.

Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Carter Parts Co., 213 Institute Place, Chicago 10, Ill.
CENTRALAB DIV., GLOBE-UNION INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.
Couch Co., Inc., S. H., North Quincy 71, Mass.

DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
Eastern Specialty Co., Philadelphia 40, Pa.
ELECTRO-SWITCH CORP., 167 King Ave., Weymouth 88, Mass. ADV. PG. 234.
ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 301.
Grigsby-Allison Co., 407 N. Salem Ave., Arlington Heights, Ill.

J-B-L Instrument Co., Sycamore & Mill Rds., Clifton Heights, Pa.
Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.

Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 555.
R-F Electronics, Inc., Div. of Electro Switch Corp., Weymouth, Mass.
SWITCHCRAFT, INC., 1320 N. Hialsted St., Chicago 22, Ill. ADV. PG. 668.
Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

SWITCHES—Telemetering
AIRFLYTE ELECTRONICS CO., 535-9 Avenue "A", Bayonne, N. J. ADV. PG. 677.
Anatran Engineering Corp., 165 E. California St., Pasadena, Calif.
APPLIED SCIENCE CORP. OF PRINCETON, 45 Wallace Rd., Princeton, N. J. ADV. PG. 412, 413.
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.

Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Bristol Co., The, Waterbury 20, Conn.
COMPUTER INSTRUMENTS CORP., 1964 Utica Ave., Brooklyn 34, N. Y. ADV. PG. 576.
CUNNINGHAM SON & CO., INC., JAMES, 33 Litchfield St., Rochester, N. Y. ADV. Pgs. 626.
DAVEN CO., Route 10, Livingston, N. J. ADV. PG. 47.
Detroit Controls Corp., 1650 Broadway, Redwood City, Calif.

ELECTRO-MINIATURES CORP., 1060 Elm Ave., Ridgefield, N. J. ADV. PG. 510.
ELECTRO TEC CORP., South Hackensack, N. J. ADV. PG. 301.
Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 252.
Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
Instrument Development Laboratories, Inc., 163 Highland Ave., Needham Heights, Mass.
Kybernetics Co., 9 E. 40th St., New York 16, N. Y.
Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

MYCALEX CORPORATION OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 465.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

SWITCHES—Time
A'G'A' DIV. OF ELASTIC STOP NUT CORP. OF AMERICA, 1029 Newark Ave., Elizabeth 3, N. J. ADV. PG. 663.
AEMCO, INC., 62 State St., Mankato, Minn. ADV. PG. 198.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.

Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
Bristol Co., The, Waterbury 20, Conn.
DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. ADV. PG. 312.
General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
General Electric Co., Clock and Timer Dept., Ashland, Mass.
HAYDON CO., A. W. THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 613.
Haydon Mfg. Co., 2400 Elm St., Torrington, Conn.

Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 565.
International Register Co., 2620 Washington Blvd., Chicago 12, Ill.
Landis & Gyr, Inc., 45 W. 45th St., New York 36, N. Y.

Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Montgomery Mfg Co., 204 S. Main St., Owensville, Ind.
O K Electronics Corp., 7 Hunt Place, Nutley, N. J.
Paragon Electric Co., Two Rivers, Wisconsin.
Reliance Automatic Lighting Co., 1919 Mead St., Racine, Wis.

Rhodes, Inc., M. H., 30 Bartholomew Ave., Hartford, Conn.
Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
Tork Clock Co., Inc., 1 Grove St., Mt. Vernon, N. Y.
Vermaline Products Co., P. O. Box 222E, Hawthorne, N. J.

WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
Willy Guenther K. G., 1138 Massachusetts Ave., Arlington 74, Mass.
Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

SWITCHES—Toggle
American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.

Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.

Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.

Carling Electric, Inc., 499 New Park Ave., West Hartford 10, Conn.

Carter Parts Co., 213 Institute Place, Chicago 10, Ill.

Connecticut Telephone & Electric Corp., 70 Britannia St., Meridan, Conn.

Control Products, Inc., 306 Sussex St., Harrison, N. J.

Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.

ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.

Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.

GEE-LAR MFG. CO., 418 S. Wyman St., Rockford, Ill. ADV. PG. 620.

GENERAL CEMENT MFG. CO., ELECTRONICS DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.

General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.

GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.

HART MFG. CO., 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 304.

Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.

Hetherington, Inc., Sharon Hill, Pa.

Insuline Corp. of America, 186 Granite St., Manchester, N. H.

J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.

JFD MANUFACTURING CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.

KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.

Licon Switch & Control Div. of Illinois Tool Works, 2501 N. Keeler Ave., Chicago 39, Ill.

Lieco, Inc., 147 Ocean Ave., Lynbrook, N. Y.

Master Appliance Mfg. Co., Fourth & Ontario Sts., Racine, Wis.

Micro Switch Div. of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.

Miniature Switch Corp., 147 Ocean Ave., Lynbrook, N. Y.

NETWORK MFG. CORP., 213 W. Fifth St., Bayonne, N. J. ADV. PG. 567.

POLLAK CORP., JOSEPH, 75-99 Freeport St., Dorchester 22, Mass. ADV. PG. 555.

SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.

Smith Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.

SWITCHCRAFT, INC., 1320 N. Halstead St., Chicago 22, Ill. ADV. PG. 668.

SWITCHES—Transformer

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.

J-B-L Instrument Co., Sycamore & Mill Rds., Clifton Heights, Pa.

SWITCHES—Vacuum

Bristol Co., The, Waterbury 20, Conn.

CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.

Consolidated Vacuum, Rochester 3, N. Y.

Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.

DOLINKO & WILKENS, INC., 1901-7 Summit Ave., Union City, N. J. ADV. PG. 541.

EITEL-McCULLOUGH INC., San Bruno, Calif. ADV. PG. 174, 175.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Gorn Electric Co., Inc., Stamford, Conn.

JENNINGS RADIO MFG. CORP., 970 McLaughlin Ave., P. O. Box 1278, San Jose 8, Calif. ADV. PG. 256, 257.

McQuay-Norris Mfg. Co., 2320 Marconi Ave., St. Louis 10, Mo.

Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.

Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.

NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.

Penta Laboratories, Inc., 312 N. Nopal St., Santa Barbara, Calif.

Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.

Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.

SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.

Sperti Farraday Inc., Cooper Hewitt Electric Div., 720-732 Grand St., Hoboken, N. J.

United Electric Controls Co., 85 School St., Watertown 72, Mass.

VICTOREAN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.

Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.

Whittington Pump & Engineering Corp., 1126 Prospect St., Indianapolis 3, Ind.

SYNCHRONIZER STROBOSCOPE

See STROBOSCOPE—Synchronizer

SYNCHRO

Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.

Basler Electronics, Inc., 13th & Broadway, Highland, Ill.

CLIFTON PRECISION PRODUCTS CO., INC., Broadway at Marple Ave., Clifton Heights, Pa. ADV. PG. 230, 231.

DAYSTROM PACIFIC CORP., 3030 Nebraska Ave., Santa Monica, Calif. ADV. PG. 295.

ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.

FORD INSTRUMENT CO., DIV. OF THE SPERRY CORP., 31-10 Thomson Ave., Long Island City 1, N. Y. ADV. PG. 667.

KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.

Kollsman Instrument Corp., Sub. of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.

Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.

Magnavox Co., Fort Wayne 4, Ind.

Muirhead & Co., Ltd., Beckman, Kent, England.

Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.

OSTER MFG. CO., JOHN, AVIONICS DIV., 1 Main St., Racine, Wis. ADV. PG. 38.

Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.

TRANSICOIL CORP., Worcester, Penna. ADV. PG. 187.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

SYNCSOPIES

Beva Laboratory, 1640 Olden Ave. Ext., Trenton 9, N. J.

Browning Laboratories, Inc., Main St., Winchester, Mass.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.

Kollsman Instrument Corp., Sub. of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

WESTINGHOUSE ELECTRIC CO., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

WESTON ELECTRIC INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

SYSTEMS—Remote Control

Analog Controls, Inc., 39 Roselle St., Mineola, N. Y.

APPLIED SCIENCE CORP., PRINCETON, 45 Wallace Rd., Princeton, N. J. ADV. PG. 412, 413.

Arma Div. of American Bosch Arma Corp., Old Country Rd., Garden City, N. Y.

Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.

Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., DEPT. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.

Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif.

BOWMAR INSTRUMENT CORP., 2400 Pennsylvania Ave., Fort Wayne, Ind. ADV. PG. 204.

Bristol Co., The, Waterbury 20, Conn.

Calbest Engineering & Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.

Control Corp., 718 Central Ave., Minneapolis 14, Minn.

ECLIPSE PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.

EDISON, INC., THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.

Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.

Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

Foxboro Co., The, Foxboro, Mass.

Gates Radio Co., Quincy, Ill.

HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.

Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.

Inland Electronics Corp., 500 Rathbone Ave., Aurora, Ill.

Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.

KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.

Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.

Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N.W., Grand Rapids 2, Mich.

Lenkurt Electric Co., Inc., 1105 County Rd., San Carlos, Calif.

MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.

Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.

Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridgway Rd., Minneapolis 13, Minn.

O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.

Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.

Pantek Co., Box 212, El Segundo, Calif.

Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.

RADIO FREQUENCY LABS, INC., Boonton 2, N. J. ADV. PG. 297.

Ram Meter, Inc., 1102 Hilton Rd., Ferndale, Detroit 20, Mich.

Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J.

Simmonds Aerocessories, Inc., Tarrytown, N. Y.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.

VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.

WACLIN, INC., 35 S. St. Clair St., Dayton 2, Ohio. ADV. PG. 550.

Wallson Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.

West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.

Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

TACHOMETERS

American Electronics Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.

Amthor Testing Instrument Co., 45-53 Van Sinderen Ave., Brooklyn 7, N. Y.

ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 588.

Basler Electronics, Inc., 13th & Broadway, Highland, Ill.

Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.

Bristol Co., The, Waterbury 20, Conn.

Boulin Instrument Corp., 65 Madison Ave., New York 16, N. Y.

D & R, Ltd., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif.

Diehl Mfg. Co., 1129 Finnerne Ave., Somerville, N. J.

EASTERN AIR DEVICES, INC., 385 Central Ave., Dover, N. H. ADV. PG. 480.

Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.

Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.

King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.

Kollsman Instrument Corp., Sub. of Standard Coil Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.

Maico Co., Inc., 21 N. Third St., Minneapolis, Minn.

Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.

Metron Instrument Co., 432 Lincoln St., Denver 3, Colo.

Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.

Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif.

Rotating Components, Inc., 267 Green St., Brooklyn 22, N. Y.

Servo-Tek Products Co., Inc., 1086 Goffe Rd., Hawthorne, N. J.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.

STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.

WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.

Westberg Mfg. Co., 144 S. Coombs St., Napa, Calif.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

TACHOMETERS—Electronic

Airmec Ltd., High Wycombe, Buckinghamshire, England.

Basler Electronics, Inc., 13th & Broadway, Highland, Ill.

Beckman & Whitley, Inc., 913 San Carlos Ave., San Carlos, Calif.

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., 2200 Wright Ave., Dept. G-13, Richmond 3, Calif. ADV. PG. 69-76.

Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.

Bill Jack Scientific Instrument Co., P. O. Box C-3, Solano Beach, Calif.

Bristol Co., The, Waterbury 20, Conn.

Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.

Control Devices, Inc., 8299 E. Nine Mile Rd., Van Dyke, Mich.

Electro Instruments, Inc., 3794 Telescans, San Diego, Calif.

ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.

ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.

Erdco Engineering Corp., Addison, Ill.

Foxboro Co., The, Foxboro, Mass.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
 Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
KAY-ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.
MERCURY ELECTRONIC CO., Box 450, Red Bank, N. J. ADV. PG. 59.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Ransom Research, Box 382, San Pedro, Calif.
 Servospeed Div. of Electro Devices, Inc., 4 Goodwin Ave., Paterson, N. J.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
WANG LABORATORIES, 37 Hurley St., Cambridge 41, Mass. ADV. PG. 675.
 Westberg Mfg. Co., 144 S. Coombs St., Napa, Calif.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTRON, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

TAPE MECHANISMS
 Mfg. Corp., 730 Fifth Ave., New York 19, N. Y.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Cycle Equipment Co., 420 Market St., San Francisco, Calif.
DAVIES LABORATORIES, INC., 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.
 Electro Data Corp., 460 Sierra Madre Villa, Pasadena, Calif.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
 York 20, N. Y.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 Pentron Corp., 777 S. Tripp Ave., Chicago 24, Ill.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.
REMINGTON RAND UNIVAC, 1902 W. Minnehaha Ave., St. Paul, Minn. ADV. PG. 622.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Summitt Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.

TAPES—Electrical Insulation
 Accurate Mfg. Co., 44 Hepworth Place, Garfield, N. J.
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
 Bishop Mfg. Corp., 10 Canfield Rd., Cedar Grove, N. J.
 Brady Co., W. H., 727 W. Glendale Ave., Milwaukee 12, Wis.
 Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
 Connecticut Hard Rubber Co., 407 East St., New Haven 9, Conn.
CONTINENTAL-DIAMOND FIBRE, DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
 Dow Corning Corp., Midland, Mich.
ELECTRO-TECHNICAL PRODUCTS DIV. OF SUN CHEMICAL CORP., 113 E. Centre St., Nutley 10, N. J. ADV. PG. 288.
GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Irvington Varnish & Insulator Div., Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Johns-Manville Dutch Brand Division, 7800 Woodlawn Ave., Chicago 19, Ill.
MAIGNE CO., O. J., 321 Pearl St., New York 38, N. Y. ADV. PG. 677.
 Mica Insulator Co., Schenectady 1, N. Y.
MINNESOTA MINING & MFG. CO., 900 Fauquier Ave., St. Paul 6, Minn. ADV. PG. 253.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
 New Jersey Wood Finishing Co., Amboy Ave., Woodbridge, N. J.
 Okonite Co., The, Canal St., Passaic, N. J.
 Permacel Tape Corp., U. S. Highway 1, New Brunswick, N. J.
 Polyken Products Dept. of Kendall Co., 222 W. Adams St., Chicago 6, Ill.
POLYMER CORP., THE, Reading, Pa. ADV. PG. 243.
 Technical Tape Corp., 177th & Harlem River, Bronx 53, N. Y.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works Greenwich, London S. E. 10, England.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
 Wright & Sons Co., William E., West Warren, Mass.

TAPES—Lacing
 See **CORDS—Lacing**

TAPES—Recording

AUDIO DEVICES INC., 444 Madison Ave., New York 22, N. Y. ADV. PG. 499.
 Audio-Master Corp., 17 E. 45th St., New York 17, N. Y.
DAVIES LABORATORIES, INC., 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.
 Fidelitone, Inc., 6415 Ravenswood, Chicago 26, Ill.
 Maico Co., Inc., 21 N Third St., Minneapolis, Minn.
MINNESOTA MINING & MFG. CO., 900 Fauquier Ave., St. Paul 6, Minn. ADV. PG. 253.
 Orradio Industries, Inc., 120 Marvyn Rd., Opelika, Ala.
 Radio Corp. of America, Consumer Products Div., Camden 8, N. J.
 Reeves Soundcraft Corp., 10 E. 52nd St., New York 22, N. Y.

TECHNICAL BOOKS—Publishers

Academic Press Inc., 125 E. 23rd St., New York 10, N. Y.
 Addison-Wesley Publishing Co., Cambridge 42, Mass.
 American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
 American Institute of Electrical Engineers, 33 W. 39th St., New York, N. Y.
 American Radio Relay League, West Hartford, Conn.
 American Standards Association, 70 E. 45th St., New York, N. Y.
 Audel & Co., Theodore, 49 W. 23rd St., New York, N. Y.
 Bernards Publishers Ltd., The Gramplans, Western Gate, London W 6, England.
 Blakiston Co., 1012 Walnut St., Philadelphia 5, Pa.
 Boyce-Roche Book Co., 460 Bloomfield Ave., Montclair, N. J.
 Chapman & Hall Ltd., 37 Essex St., London, W. C. 2, England.
 Day Co., Inc., John, 62 W. 45th St., New York, N. Y.
 Dover Publications Inc., 1780 Broadway, New York, N. Y.
 Editors and Engineers Ltd., Santa Barbara, Calif.
 Electronics Research Publishing Co., Inc., 480 Canal St., New York 13, N. Y.
 Elsevier Publishing Co., Inc., 215 Fourth Ave., New York, N. Y.
 Engineers Council for Professional Development, 29 W. 39th St., New York, N. Y.
 Federal Telephone & Radio Corp., Publication Dept., 67 Broad St., New York 4, N. Y.
 Frederick Research Corp., 4630 Montgomery Ave., Bethesda, Md.
 Harper & Brothers, 49 E. 33rd St., New York, N. Y.
 Industrial Research Service, Dover, N. H.
 Institute of Radio Engineers, Inc., 1 E. 79th St., New York, N. Y.
 International Publishers Co., 381 Fourth Ave., New York, N. Y.
 Interscience Publishers Inc., 215 Fourth Ave., New York 3, N. Y.
 Irwin Inc., Richard D., 3201 S. Michigan Ave., Chicago 16, Ill.
 Johnson Research Corp., Bethpage, N. Y.
 MacMillan Co., The, 60 Fifth Ave., New York 11, N. Y.
 McGraw-Hill Book Company, Inc., 330 W. 42nd St., New York 36, N. Y.
 Maedel Publishing House, 593 East 38th St., Brooklyn 3, N. Y.
 National Bureau of Standards, Washington, D. C.
 Nelson & Sons, Thomas, 385 Madison Ave., New York, N. Y.
 Oxford University Press, 114 Fifth Ave., New York, N. Y.
 Pergamon Press Inc., 122 E. 55th St., New York 22, N. Y.
 Philips Gloeilampenfabrieken, N. V., Eindhoven, The Netherlands.
 Philosophical Library, Publishers, 15 E. 40th St., New York 16, N. Y.
 Pitman Publishing Corp., 2 W. 45th St., New York, N. Y.
 Prentice-Hall, Inc., 70 Fifth Ave., New York, N. Y.
 Princeton University Press, Princeton, N. J.
 Radcraft Publications Inc., 25 W. Broadway, New York, N. Y.
 Radio Corporation of America, R C A Laboratories Div., Princeton, N. J.
RADIO CORPORATION OF AMERICA, TUBE DEPT., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Rider Publications Inc., John F., 480 Canal St., New York 13, N. Y.
 Rinehart Books Inc., 232 Madison Ave., New York 16, N. Y.
 Ronald Press Co., The, 15 E. 26th St., New York 10, N. Y.
SAMS & CO., INC., HOWARD W., 2201 E. 46th St., Indianapolis 5, Ind. ADV. PG. 399.
 Stechert-Hafner Inc., 31 East 10th St., New York, N. Y.
 Stockman Electronics Research Co., 543 Lexington St., Waltham 54, Mass.
 Technical Associates Inc., 129 W. 52nd St., New York 19, N. Y.
 United Catalog Publishers Inc., 106-110 Lafayette St., New York 13, N. Y.
 Universal Scientific Co., Inc., Vincennes, Ind.
 University of Chicago Press, The, Chicago, Ill.
 VanNostrand Co., Inc., D., 250 Fourth Ave., New York 3, N. Y.
 Wiley & Sons Inc., John, 440 Fourth Ave., New York, N. Y.

TECHNICAL WRITING—Electronic

AVR Publications Inc., 41 E. 42nd St., New York 17, N. Y.

Cook Co., The, Ken, 9929 W. Silver Spring Rd., Milwaukee, Wis.
 Kalite Technical Co., 715 Mattison Ave., Asbury Park, N. J.
 McGraw-Hill Book Co., Technical Writing Service, 330 W. 42nd St., New York 36, N. Y.
 Publication Engineering Consultants, 93 Nassau St., New York 38, N. Y.
SAMS & CO., INC., HOWARD W., 2201 E. 46th St., Indianapolis 5, Ind. ADV. PG. 399.
 Technical Associates Inc., 129 W. 52nd St., New York 19, N. Y.
 Technical Publishing House, P. O. Box 61, Waltham 54, Mass.

TEES—Microwave

See **MICROWAVE ACCESSORIES**
Hybrid Junctions—Microwave

TEFLON

See **PLASTIC MATERIALS**
Tetrafluoroethylene

TELEMETERING SYSTEMS—Electronic

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
 Aircorn Inc., 354 Main St., Winthrop 52, Mass.
 Aircraft Armaments, Inc., Cockeysville, Md.
 Allegany Instrument Co., Inc., Cumberland, Md.
APPLIED SCIENCE CORP. OF PRINCETON, THE, 45 Wallace Rd., Princeton, N. J. ADV. PG. 412, 413.
 Audio Products Corp., 2265 Westwood Blvd., Los Angeles 64, Calif.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
 Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
 Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., 2200 Wright Ave., Dept. G-13, Richmond 3, Calif. ADV. PG. 69-76.
 Bristol Co., The, Waterbury 20, Conn.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 54, Calif.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Control Corp., 718 Central Ave., Minneapolis 14, Minn.
DOELCAM A DIV. OF MINNEAPOLIS-HONEYWELL REGULATOR CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
 EECO Production Co., 506 E. 1st St., Santa Ana, Calif.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 Electro-Mechanical Research, Inc., Ridgefield, Conn.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 272, 273.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL COMMUNICATION CO., 681 Beacon St., Boston 15, Mass. ADV. PG. 690.
GENERAL DEVICES, INC., P. O. Box 253, Princeton, N. J. ADV. PG. 252.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HAMMARLUND MFG. CO., INC., 460 W. 34th St., New York 1, N. Y. ADV. PG. 67.
HILL ELECTRONIC ENGINEERING & MFG. CO., INC., New Kingstown, Pa. ADV. PG. 466.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
 Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
 Magnasync Mfg. Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Motorola Communications & Electronics, Inc., 4501 Augusta Blvd., Chicago 51, Ill.
 North Electric Co., 553 S. Market St., Galion, Ohio
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Parsons Co., Ralph M., The, 617 S. Olive St., Los Angeles 14, Calif.
 Radiation, Inc., Melbourne, Fla.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.
 Ram Meter, Inc., 1102 Hilton Rd., Ferndale, Detroit 20, Mich.
 Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.
 Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.
 Rutico, Inc., 490 S. Fair Oaks Ave., Box 1151M, Pasadena 1, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Summitt Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Teller & Cooper Co., 75 Front St., Brooklyn, N. Y.
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Ultradyne Engineering Labs., Inc., P. O. Box 8007, Albuquerque, N. M.
 Vapor Recovery Systems Co., 2820 N. Alameda, P. O. Box 231, Compton, Calif.

Warren Mfg. Co., Inc., The Littleton, Mass.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

TELEPHONES—Handsets

Automatic Electric Sales Corp., 1033 W. Van Buren St., Chicago 7, Ill.
Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
Couch Co., Inc., S. H., North Quincy 71, Mass.
Dukane Corp., St. Charles, Ill.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
North Electric Mfg. Co., 553 S. Market St., Galion, Ohio
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Remler Co., 2101 Bryant St., San Francisco 10, Calif.
Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
Sears Co., M. J., Delaware County, Roxbury, N. Y.
SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.

TELEPHONES—Handsets, Sound Powered

Automatic Electric Sales Corp., 10 3 W. Van Buren St., Chicago 7, Ill.
ELGIN NATIONAL WATCH CO., ELECTRONICS DIV., Elgin, Ill. ADV. PG. 208.
Sears Co., M. J., Delaware County, Roxbury, N. Y.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Telephonics Corp., Park Ave., Huntington, N. Y.
WHEELER INSULATED WIRE CO., INC., THE DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.

TELEVISION MASKS

*See MASKS—Television

TELEVISION PROJECTION SCREENS

See SCREENS—Television Projection

TELEVISION SYSTEMS—Industrial

Ampli-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.
Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.
Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
Brainard Electronics, 8586-90 Santa Monica Blvd., Los Angeles 46, Calif.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
Dage Television Div. of Thompson Products, Inc., W. 10th St., Michigan City, Ind.
Diamond Power Specialty Corp., Electronics Dept., Lancaster, Ohio
DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
Farnsworth Electronics Div. of IT&T, 3700 E. Pontiac St., Fort Wayne, Ind.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. Y.
General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
GENERAL PRECISION LABORATORY INC., 63 Bedford Rd., Pleasantville, N. Y. ADV. PG. 189.
Hallamore Electronics Co., A Div. of The Siegler Corp., 2001 E. Artesia, Long Beach 5, Calif.
Jerrold Electronics Corp., 26th & Dickinson Sts., Philadelphia 6, Pa.
KAY LAB., 5725 Kearney Villa Rd., San Diego 12, Calif. ADV. PG. 407.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
Phico Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.

TEMPERATURE

See INDICATORS

TENSIONS—Coil Winding

Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
Tensitron, Inc., Harvard, Mass.

TERMINAL BLOCKS

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
Aerolite Electronics Corp., 507 26th St., Union City, N. J.
AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. ADV. PG. 353.

ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
Applied Resins Corp., 304 Oraton St., Newark 4, N. J.
Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
Armel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y.
Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
BUCHANAN ELECTRICAL PRODUCTS CORP., 223 U. S. Route 22, Hillside, N. J. ADV. PG. 461.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
COLLECTRON CORP., 216 E. 45th St., New York 17, N. Y. ADV. PG. 534.
Continental Connector Corp., 30-30 Northern Blvd., Long Island City, N. Y.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
Excellex Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
Hermetite Corp., 702 Beacon St., Boston 15, Mass.
IlSCO Corporation, Cincinnati 27, Ohio.
INDUSTRIAL DEVICES, INC., 982 River Rd., Edgewater, N. J. ADV. PG. 546.
Javex, P. O. Box 646, Redlands, Calif.
JONES DIV. HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
Koltan Electric Mfg. Co., 123 New Jersey Railroad Ave., Newark 5, N. J.
KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.
Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
Marathon Electric Mfg. Corp., Randolph & Cherry Sts., Wausau, Wis.
Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
Molding Corp. of America, 40 Church St., Pawtucket, R. I.
NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.
North Electric Mfg. Co., 553 S. Market St., Galion, Ohio.
Olympic Plastics Co., Inc., 5741 W. Jefferson Blvd., Los Angeles 16, Calif.
Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
Pfeffer Products, 3901 W. 54th St., Los Angeles, Calif.
RICHARDSON CO., 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N., Long Island City 1, N. Y.
ROGAN BROS., 8031 N. Monticello Ave., Skokie, Ill. ADV. PG. 564.
SILICON INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
Smith Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
States Co., 19 New Park Ave., Hartford 6, Conn.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.
Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.
U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.
Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

TERMINAL BOARDS

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
Aerolite Electronics Corp., 507 26th St., Union City, N. J.
Aeronautical Electric Co., 5656 Northwest Highway, Chicago 30, Ill.
AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. ADV. PG. 353.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
Chicago 47, Ill. ADV. PG. 610.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
American Printed Circuits Co., Inc., Forest St., Metuchen, N. J.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
Armel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y.
Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
COAXIAL CONNECTOR CO., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 671.
COLLECTRON CORP., 216 E. 45th St., New York 17, N. Y. ADV. PG. 534.
Continental Connector Corp., 30-30 Northern Blvd., Long Island City, N. Y.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. ADV. PG. 312.
Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.
ELECTRICAL INSULATION CO., INC., 1245 Marconi Blvd., Copiague, N. Y. ADV. PG. 675.
Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.
Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
Excellex Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
FISHER & CROME, 109 N. Camac St., Philadelphia 7, Pa. ADV. PG. 691.
GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.
Graphik Circuits Div. of Cinch Mfg. Corp., 221 S. Arroya Parkway, Pasadena, Calif.
Hermetite Corp., 702 Beacon St., Boston 15, Mass.
INDUSTRIAL DEVICES INC., 982 River Rd., Edgewater, N. J. ADV. PG. 546.
INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 678.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
Insulantite Manufacturing Corp., Stirling, N. J.
Javex, P. O. Box 646, Redlands, Calif.
Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
Johns-Manville, 22 E. 40th St., New York 16, N. Y.
JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.
K-F DEVELOPMENT CO., 2606 Spring St., Redwood City, Calif. ADV. PG. 630.
Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
KINGS ELECTRONICS CO., 40 Marbledale Rd., Tucka-hoe, N. Y. ADV. PG. 592.

KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.

LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.

Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.

LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 685.

Litton Industries, Components Div., Beverly Hills, Calif.

Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.

Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.

Mica Insulator Co., Schenectady 1, N. Y.

Micarta Fabricators, Inc., 5324 Ravenswood Ave., Chicago 40, Ill.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.

Molding Corporation of America, 40 Church St., Pawtucket, R. I.

NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.

NATIONAL TEL-TRONICS CORP., 35 St. Casmirs Ave., Yonkers, N. Y. ADV. PG. 681.

Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.

Olympic Plastics Co., Inc., 5741 W. Jefferson Blvd., Los Angeles 16, Calif.

PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322.

Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.

Pfeiger Products, 3901 W. 54th St., Los Angeles, Calif.

Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.

RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.

Sealtron Corp., Reading Rd. & Amity, Cincinnati 15, Ohio.

Shaw Insulator Co., 160 Coit St., Irvington 11, N. J.

SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.

Sillicocks-Miller Co., Maplewood, N. J.

Smith Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.

States Co., 19 New Park Ave., Hartford 6, Conn.

Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Taylor Fibre Co., Norristown, Pa.

THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.

Tingstol Co., 1461 W. Grand Ave., Chicago 22, Ill.

Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.

U. M. & F. Mfg. Corp., 10929 Vanowen St., North Hollywood, Calif.

U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.

U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477.

Vanguard Electronics Co., 3384 Motor Av., Los Angeles 34, Calif.

Viking Industries, Inc., 21343 Roscoe Blvd., Canoga Park, Calif.

W & M Manufacturing Corp., 187 Lafayette St., New York 13, N. Y.

Warren Plastics Corp., Warren, Pa.

WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

TERMINAL STRIPS

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.

Aerolite Electronics Corp., 507 26th St., Union City, N. J.

Aeronautical Electric Co., 5656 Northwest Highway, Chicago 30, Ill.

AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. ADV. PG. 353.

ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610.

ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.

American Printed Circuits Co., Inc., Forrest St., Metuchen, N. J.

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.

Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.

Armel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y.

Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.

Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn.

Birnbach Radio Co., 145 Hudson St., New York 13, N. Y.

Brach Mfg. Co., 200 Central Ave., Newark 4, N. J.

BRUNO NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

BUCHANAN ELECTRICAL PRODUCTS CORP., 223 U. S. Route 22, Hillside, N. J. ADV. PG. 461.

CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.

CANNON ELECTRIC CO., 3209 Humboldt St., Los Angeles 31, Calif. ADV. PG. 213.

CINEMA ENGINEERING CO., 1100 Chestnut St., Burbank, Calif. ADV. PG. 639.

CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.

CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.

Eby Co., Hugh H., 2700 Stenton Ave., Philadelphia 44, Pa.

ELECTRICAL INSULATION CO., INC., 1245 Marcom Blvd., Copiague, N. Y. ADV. PG. 675.

Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.

Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.

Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.

Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.

Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J.

Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.

Excellex Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.

FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549.

GENERAL CEMENT MFG. CO., ELECTRONICS DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.

GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.

General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.

General Laminated Products, Inc., 2857 S. Halsted St., Chicago 8, Ill.

Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif.

Graphik Circuits Div. of Cinch Mfg. Corp., 221 S. Arroya Parkway, Pasadena, Calif.

HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 82.

Hermetite Corp., 702 Beacon St., Boston 15, Mass.

Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.

INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 678.

Insuline Corp. of America, 186 Granite St., Manchester, N. H.

JFD MFG. CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.

Javex, P. O. Box 646, Redlands, Calif.

Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.

JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101.

KINGS ELECTRONICS CO., 40 Marbledale Rd., Tuckahoe, N. Y. ADV. PG. 592.

KULKA ELECTRIC CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531.

LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.

Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.

LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 685.

Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.

Meridian, Inc., 7 Mitchell Pl., New York 17, N. Y.

Micarta Fabricators, Inc., 5324 Ravenswood Ave., Chicago 40, Ill.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.

Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.

Molding Corporation of America, 40 Church St., Pawtucket, R. I.

NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.

North Electric Co., 553 S. Market St., Galion, Ohio.

Northern Industrial Chemical Co., 7-11 Elkin St., South Boston 27, Mass.

Olympic Plastics Co., Inc., 5741 W. Jefferson Blvd., Los Angeles 16, Calif.

Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.

Pfeiger Products, 3901 W. 54th St., Los Angeles, Calif.

Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.

RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.

Sealtron Corp., Reading Rd. & Amity, Cincinnati 15, Ohio.

Sibley Co., The, Haddam, Conn.

SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.

Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.

Sillicocks-Miller Co., Maplewood, N. J.

Sinclair Mfg. Co., Chartley, Mass.

Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.

States Co., 19 New Park Ave., Hartford 6, Conn.

Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.

Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

SUFFOLK PRODUCTS CORP., Woodbine & Scudder, Northport, N. Y. ADV. PG. 676.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.

Tingstol Co., 1461 W. Grand Ave., Chicago 22, Ill.

TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.

Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.

U M & F Manufacturing Corp., 10929 Vanowen St., North Hollywood, Calif.

U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261.

VECTOR ELECTRONICS CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696.

W & M Manufacturing Corp., 187 Lafayette St., New York 13, N. Y.

Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.

Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.

Warren Plastics Corp., Warren, Pa.

TERMINALS

(h) Indicates hermetically sealed types.

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.

ADVANCED VACUUM PRODUCTS, INC., DIV. OF GENERAL CERAMICS CORP., 122 Liberty St., Stamford, Conn. ADV. PG. 235.

Aerolite Electronics Corp., 507 26th St., Union City, N. J.

Aeronautical Electric Co., 5656 Northwest Highway, Chicago 30, Ill.

AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. ADV. PG. 353. (h)

ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610. (h)

ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.

ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87. (h)

ANDERSON ASSOCIATES, H. V., 239 Park Ave., Berkeley Heights, N. J. ADV. PG. 560. (h)

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629. (h)

Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.

Armel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y.

BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 554.

Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.

Berg Mfg. Corp., 142 Reno Ave., New Cumberland, Pa.

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.

Brihart Plastics Corp., Old Country Rd., Mineola, N. Y.

BUCHANAN ELECTRICAL PRODUCTS CORP., 223 U. S. Route 22, Hillside, N. J. ADV. PG. 461. (h)

Burndy Engineering Co., Inc., Norwalk, Conn. (h)

CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.

Ceramaseal Co., The, Box 25, New Lebanon Center, N. Y. (h)

CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101. (h)

CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.

COAXIAL CONNECTOR CO., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 671. (h)

CONSTANTIN & CO., L. L., Route #46, Lodi, N. J. (h)

ADV. PG. 411. (h)

Continental Connector Corp., 30-30 Northern Blvd., Long Island City, N. Y.

Dante Electric Mfg. Co., Bantam, Conn.

DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197.

ELECTRICAL INDUSTRIES, 44 Summer Ave., Newark 4, N. J. ADV. PG. 455.

Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y. (h)

ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 604. (h)

ELECTRONIC SERVICE CORP., 221 W. Lake St., Oak Park, Ill. ADV. PG. 571. (h)

Enflo Corp., Route 38 at Airport Circle, Pensauken, N. J. (h)

ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.

Excellex Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.

FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
 FUSITE CORP., 6000 Fernview Ave., Cincinnati 13, Ohio ADV. PG. 125. (h)
 GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549. (h)
 GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237. (h)
 GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550. (h)
 GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677. (h)
 Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif. (h)
 HELDOR MFG. CORP., 238 Lewis St., Paterson, N. J. ADV. PG. 482. (h)
 Hermaseal Co., Inc., 1101 Lafayette St., Elkhart, Ind. (h)
 Hermetite Corp., 702 Beacon St., Boston 15, Mass. (h)
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 HOLLINGSWORTH CO., SOLDERLESS TERMINAL DIV., Phoenixville, Pa. ADV. PG. 202.
 Ilco Corporation, Cincinnati 27, Ohio.
 INDUSTRIAL HARDWARE MFG. CO., INC., 109 Prince St., New York, N. Y. ADV. PG. 678. (h)
 INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186. (h)
 Ippolito & Co., Inc., James, 401 Concord Ave., Bronx 54, N. Y.
 Isolantite Mfg. Corp., Stirling, N. J.
 JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 42, 43. M
 JONES DIV., HOWARD B., CINCH MFG. CORP., 1026 S. Homan Ave., Chicago 24, Ill. ADV. PG. 99-101. M-S
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
 KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531. M-S
 LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 685. M-S
 Litton Industries, Components Div., Beverly Hills, Calif. (h)
 Livingston Electronic Corp., Livingston, N. J. (h)
 LUNDEY ASSOCIATES, 694 Main St., Waltham 54, Mass. ADV. PG. 238. M-S
 MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 609. M-S
 Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill. (h)
 MANSOLF CERAMICS, 140 Little St., Belleville, N. J. ADV. PG. 617. (h)
 Marshall Associates, Inc., John, Box 2463, Bridgeport 8, Conn. M
 Micarta Fabricators, Inc., 5324 Ravenswood Ave., Chicago 40, Ill. M-S
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass. M-S
 Mitronics Inc., 232 Thirteenth Ave., Newark, N. J. (h)
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa. M-S
 Molding Corp. of America, 40 Church St., Pawtucket, R. I. (h)
 Morse Co., Frank W., 1300 Soldiers Field Rd., Boston 35, Mass. M-S
 NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25. M-S
 NATIONAL TEL-TRONICS CORP., 35 St. Casmlrs Ave., Yonkers, N. Y. ADV. PG. 681. M-S
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y. M-S
 Pacific Electricrod Co., P. O. Box 8805, Crenshaw Sta., Los Angeles 8, Calif. M-S
 PATTON-MACGUYVER CO., 17 Virginia Ave., Providence 5, R. I. ADV. PG. 304. M-S
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill. M-S
 PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394. M-S
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass. M-S
 Quality Products Co., 387 Charles St., Providence 4, R. I. (h)
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa. M-S
 Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N. Long Island City 1, N. Y. (h)
 SEALECTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 467. M-S
 Sealtron Corp., Reading Rd. & Amity, Cincinnati 15, Ohio (h)
 Shakeproof Div. of Illinois Tool Works, St. Charles Rd., Elgin, Ill. M-S
 Sheffco Mfg. Co., Grand & Ruby Aves., Palisades Park, N. J. M-S
 Sherman Mfg. Co., H. B., 22 Barney St., Battle Creek, Mich. M-S
 Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill. (h)
 Sinclair Mfg. Co., Chartley, Mass. M-S
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y. M-S
 Sperti Faraday Inc., Cooper Hewitt Electric Div., 720-732 Grand St., Hoboken, N. J. (h)
 Sphere Co., Inc., P. O. Box 557, Short Hills, N. J. (h)
 Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y. M-S
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind. M-S

Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill. (h)
 STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151. (h)
 Thomas & Betts Co., Inc., 36 Butler St., Elizabeth 1, N. J. M-S
 Thompson-Bremer & Co., 520 N. Dearborn, Chicago 10, Ill. M-S
 THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464. (h)
 TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526. (h)
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif. M-S
 Tubular Rivet & Stud Co., Weston Ave., Wollaston (Quincy) 70, Mass. M-S
 U M & F Manufacturing Corp., 10929 Vanowen St., North Hollywood, Calif. M-S
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y. M-S
 UNITED SHOE MACHINERY CORP., 140 Federal St., Boston 7, Mass. ADV. PG. 250, 251. M-S
 U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261. M-S
 U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477. (h)
 VECTOR ELECTRONIC CO., 3352 San Fernando Rd., Los Angeles 65, Calif. ADV. PG. 696. M-S
 VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416. (h)
 Vitroreol Corp., The, 709 E. 106th St., Box 6048, Indianapolis 20, Ind. (h)
 VOLKERT STAMPINGS, INC., 22-23 96th Ave., Queens Village 8, N. Y. ADV. PG. 211. M-S
 W & M Manufacturing Corp., 187 Lafayette St., New York 13, N. Y. M-S
 Wade Electric Products Co., 400 Jacob St., Sturgis, Mich. M-S
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill. M-S
 Warren Plastics Corp., Warren, Pa. M-S
 Wheaton Co., T. C., Millville, N. J. (h)
 Whitaker Cable Corp., Kansas City 16, Mo. M-S
 WHITSO, INC., 9328 Byron St., Schiller Park, Ill. ADV. PG. 534. M-S
 WINCHESTER ELECTRONICS, INC., Willard Rd., Norwalk, Conn. ADV. PG. 62. M-S
 Zierick Mfg. Corp., Beechwood & Rockdale Aves., New Rochelle, N. Y. M-S

TERMINALS—Miniature & Subminiature
M—Miniature . . . S—Subminiature

Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio M
 Aerolite Electronics Corp., 507 26th St., Union City, N. J. M-S
 AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. ADV. PG. 353. M-S
 ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610. M-S
 ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361. M-S
 AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87. M-S
 ANTON ELECTRONIC LABS, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629. M-S
 Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass. M-S
 Armel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y. M-S
 Beck's, Inc., 298-300 E. Fifth St., St. Paul 1, Minn. M-S
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y. M-S
 BUCHANAN ELECTRICAL PRODUCTS CORP., 223 U. S. Route 22, Hillside, N. J. ADV. PG. 461. M-S
 Burndy Engineering Co., Inc., Norwalk, Conn. M-S
 CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310. M-S
 Ceramaseal Co., The, Box 25, New Lebanon Center, N. Y. M-S
 CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606. M-S
 COAXIAL CONNECTOR CO., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 671. M-S
 Continental Connector Corp., 30-03 Northern Blvd., Long Island City, N. Y. M-S
 Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill. M-S
 DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558. S
 DEJUR-AMSCO CORP., Northern Blvd. at 45th St., Long Island City 1, N. Y. ADV. PG. 194-197. M-S
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y. M-S
 Exceller Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y. M-S
 FUSITE CORP., 6000 Fernview Ave., Cincinnati 13, Ohio. ADV. PG. 125. M-S
 GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549. M-S
 GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550. S
 Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif. M
 HARVEY HUBBELL, INC., State St. & Bostwick Ave., Bridgeport 2, Conn. ADV. PG. 82. M-S
 Hermetite Corp., 702 Beacon St., Boston 15, Mass. M-S
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif. M-S

JOHNSON & HOFFMAN MFG. CORP., 31 W. Second St., Mineola, N. Y. ADV. PG. 42, 43. M
 Kaiser Manufacturing Engineers, Inc., Summit, N. J. M-S
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y. M-S
 KULKA ELECTRIC MFG CO., INC., 633 S. Fulton Ave., Mount Vernon, N. Y. ADV. PG. 531. M-S
 LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 685. M-S
 Litton Industries, Components Div., Beverly Hills, Calif. M
 LUNDEY ASSOCIATES, 694 Main St., Waltham 54, Mass. ADV. PG. 238. M-S
 MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 609. M-S
 Molding Corporation of America, 40 Church St., Pawtucket, R. I. M-S
 MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 465. M-S
 NATIONAL TEL-TRONICS CORP., 35 St. Casmlrs Ave., Yonkers, N. Y. ADV. PG. 681. M-S
 P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y. M-S
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash. M-S
 Permonite Mfg. Co., 4554 North Broadway, Chicago 40, Ill. M-S
 PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394. M-S
 Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass. M-S
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa. M-S
 Robco Mfg. Div. of Pilot International Corp., 27-01 Bridge Plaza, N. Long Island City 1, N. Y. M-S
 SEALECTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 467. M-S
 Sealtron Corp., Reading Rd. & Amity, Cincinnati 15, Ohio M-S
 Sheffco Mfg Co., Grand & Ruby Aves., Palisades Park, N. J. M-S
 Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill. M-S
 Sinclair Mfg. Co., Chartley, Mass. M-S
 Sphere Co., Inc., P. O. Box 557, Short Hills, N. J. M-S
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind. M-S
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill. M-S
 STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151. M-S
 THOR CERAMICS, INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464. M-S
 TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526. M-S
 U M & F Manufacturing Corp., 10929 Vanowen St., North Hollywood, Calif. M-S
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y. M-S
 U. S. ENGINEERING CO., A DIV. OF LITTON INDUSTRIES, INC., 521 Commercial St., Glendale 3, Calif. ADV. PG. 260, 261. M-S
 U. S. GASKET CO., P. O. Box 93, Camden, N. J. ADV. PG. 477. M-S
 VOLKERT STAMPINGS, INC., 22-23 96th Ave., Queens Village 8, N. Y. ADV. PG. 211. M-S
 WHITSO, INC., 9328 Byron St., Schiller Park, Ill. ADV. PG. 534. M-S
 WINCHESTER ELECTRONICS, INC., Willard Rd., Norwalk, Conn. ADV. PG. 62. M-S

TERMINALS—Solderless

Aerolite Electronics Corp., 507 26th St., Union City, N. J. M-S
 AIRCRAFT-MARINE PRODUCTS, INC., 2100 Paxton St., Harrisburg 10, Pa. ADV. PG. 353. M-S
 ALCON METAL PRODUCTS, INC., 1750 N. Kimball Ave., Chicago 47, Ill. ADV. PG. 610. M-S
 American Pamcor, Inc., Havertown, Pa. M-S
 Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass. Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill. M-S
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y. M-S
 BUCHANAN ELECTRICAL PRODUCTS CORP., 223 U. S. Route 22, Hillside, N. J. ADV. PG. 461. M-S
 Burndy Engineering Co., Inc., Norwalk, Conn. M-S
 CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310. M-S
 CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606. M-S
 Dante Electric Mfg. Co., Bantam, Conn. M-S
 FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586. M-S
 GARDE MFG. CO., 588 Eddy St., Providence 3, R. I. ADV. PG. 549. M-S
 GENERAL CEMENT MFG. CO., Electronic Div., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86. M-S
 Globe Electrical Mfg. Co., Dept. J, 1729 W. 134th St., Gardena, Calif. M-S
 Hobson Bros., 4940 W. Lawrence Ave., Chicago 30, Ill. M-S
 HOLLINGSWORTH CO., SOLDERLESS TERMINAL DIV., Phoenixville, Pa. ADV. PG. 202. M-S
 Ilco Corp., Cincinnati 27, Ohio. M-S
 Javex, P. O. Box 646, Redlands, Calif. M-S
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y. M-S
 Kolton Electric Mfg. Co., 123 New Jersey Railroad Ave., Newark 5, N. J. M-S

KULKA ELECTRIC MFG. CO., INC., 633 S. Fulton Ave., Mt. Vernon, N. Y. ADV. PG. 531.

LERCO ELECTRONICS, INC., 501 S. Varney St., Burbank, Calif. ADV. PG. 685.

MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 609.

NATIONAL TEL-TRONICS CORP., 35 St. Casparys Ave., Yonkers, N. Y. ADV. PG. 681.

PATTON-MACGUYER CO., 17 Virginia Ave., Providence 5, R. I. ADV. PG. 304.

PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.

Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.

Sherman Mfg. Co., H. B., 22 Barney St., Battle Creek, Mich.

Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.

Sinclair Mfg. Co., Chertley, Mass.

Sphere Co., Inc., P. O. Box 557, Short Hills, N. J.

Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y.

Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.

Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.

Thomas & Betts Co., 36 Butler St., Elizabeth 1, N. J.

Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.

Vaco Products Co., 317 E. Ontario St., Chicago 11, Ill.

W & M Manufacturing Corp., 187 Lafayette St., New York 13, N. Y.

Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.

Whitaker Cable Corp., Kansas City 16, Mo.

TERMINATIONS—Microwave
See **MICROWAVE ACCESSORIES**

TERMINATIONS for VHF, Video & Pulse Work

APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.

BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.

COAXIAL CONNECTOR CO., 37 N. Second Ave., Mt. Vernon, N. Y. ADV. PG. 671.

CUSTOM COMPONENTS, INC., Caldwell N. J. ADV. PG. 564.

ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.

ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.

Holland Electronics, 2133 Central Drive, S., East Meadow, N. Y.

MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 609.

MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.

MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.

SEALCTRO CORP., 610 Fayette Ave., Mamaroneck, N. Y. ADV. PG. 467.

SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.

TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

TELEONIC INDUSTRIES, 73 N. 2nd Ave., Beech Grove, Ind. ADV. PG. 602.

WACLIN, INC., 35 S. St. Claire St., Dayton 2, Ohio. ADV. PG. 550.

TEST CHAMBERS
See **CHAMBERS—Test**

TEST EQUIPMENT—Environmental

Aireco, Inc., 2315-19 Second Ave., Carmen, Schenectady, N. Y.

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.

AMERICAN RESEARCH CORP., 11 Brook St., Bristol, Conn. ADV. PG. 669.

Arga Div., Beckman Instruments Inc., 220 Pasadena Ave., South Pasadena, Calif.

Atmosphere Control Co., Inc., 5315 Chester Ave., Philadelphia 43, Pa.

Blue M Electric Co., 130th & Chatham St., Blue Island, Ill.

Bowser Technical Refrigeration Div., Bowser, Inc., Eagle St., Terryville, Conn.

CONRAD, INC., 141 Jefferson St., Holland, Mich. ADV. PG. 58.

Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.

DEVELOPMENT ENGINEERING CO., 9 Cross St., Norwalk, Conn. ADV. PG. 524.

Environmental Equipment Corp., 371 Linden St., Brooklyn 27, N. Y.

Genisco, Inc., 2233 Federal Ave., Los Angeles 64, Calif.

General Testing Labs., Div. of Electronic Mfg. Corp., 227 W. Chestnut, Monrovia, Calif.

Hiatt Engineering Co., 2228 N. Hollywood Way, Burbank, Calif.

Hudson Bay Co., Div. of Labline Inc., 3070 W. Grand Ave., Chicago 22, Ill.

International Radiant Corp., 4 Manhasset Ave., Port Washington, N. Y.

Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.

L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.

MURPHY & MILLER, INC., 1322 S. Michigan Ave., Chicago 5, Ill. ADV. PG. 649.

NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.

Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.

Pomona Electronics Co., Inc., 1126 W. Fifth Ave., Pomona, Calif.

PHYSICS RESEARCH LABS, INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.

STANDARD CABINET CO., 57 Washington Ave., Carlstadt, N. J. ADV. PG. 518.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

TENNEY ENGINEERING INC., 1090 Springfield Rd., Union, N. J. ADV. PG. 436.

Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.

WEBBER MFG. CO., INC., 2745 Madison Ave., Indianapolis 3, Ind. ADV. PG. 604.

TEST LEADS
See **LEADS—Test**

TESTERS
See Also **INDICATORS METERS**

TESTERS—Amplitude Linearity

Decade Instrument Co., Box 153, Caldwell, N. J.

Devtron Engineering, 1 Winslow St., Redwood City, Calif.

Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.

Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.

Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.

WICKES ENGINEERING & CONSTRUCTION CO., P. O. Box 590, Camden 1, N. J. ADV. PG. 682.

TESTERS—Automatic Tube

BRISTOL ENGINEERING CORP., Beaver Dam Rd. & Oak Lane, Bristol, Pa. ADV. PG. 300.

CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.

Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England.

International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.

Mack Electronics Division, Inc., Plainfield, N. J.

MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 181.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

Research Electronics Laboratories, Roslyn, Pa.

SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

Sherron Electronics Co., 1201 Flushing Ave., Brooklyn 6, N. Y.

SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.

TESTERS—Battery

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.

FOX PRODUCTS CO., 4720 N. 18th St., Philadelphia 41, Pa. ADV. PG. 602.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.

King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.

Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.

McColpin-Christie Corp., 3410 W. 67th St., Los Angeles 43, Calif.

Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.

OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.

Rectifier Engineering Co., Inc., 1803 E. Seventh St., Los Angeles 21, Calif.

SHASTA DIV. OF BECKMAN INSTRUMENTS, INC., P. O. Box 296, Station A, Richmond, Calif. ADV. PG. 78, 79.

SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.

Sterling Mfg. Co., 7201 Wentworth, Cleveland 2, Ohio.

Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.

TESTERS—Capacitor

Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.

BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England.

Deltron, Inc., P. O. Box 192, Glenside, Pa.

DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.

Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.

GULTON MFG. CORP., Metuchen, N. J. ADV. PG. 433.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.

KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.

King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.

Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.

Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

Metronix, Inc., P. O. Box 549, New London, Conn.

National Capacitor Co., 18 Webster St., Brookline, Mass.

NETWORK MFG. CORP., 213 Fifth St., Bayonne, N. J. ADV. PG. 567.

Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.

Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.

Simmonds Aeroproducts, Inc., Tarrytown, N. Y.

SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.

Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.

Teletest Instrument Corp., 31-05 Linden Place, Flushing, N. Y.

TESTERS—Cathode Ray Tube

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.

Computing Devices of Canada, Ltd., P. O. Box 508, Ottawa, Ontario.

Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.

International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.

Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.

Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.

Mack Electronics Division, Inc., Plainfield, N. J.

MANSON LABORATORIES, 207 Greenwich Ave., Stamford, Conn. ADV. PG. 550.

Precise Development Corp., 2 Neil Court, Oceanside, N. Y.

Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.

Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.

Research Electronics Laboratories, Roslyn, Pa.

Sherron Electronics Co., 1201 Flushing Ave., Brooklyn 6, N. Y.

SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.

Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.

Teletest Instrument Corp., 31-05 Linden Place, Flushing, N. Y.

Vidaire Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.

TESTERS—Circuit

ACF Electronics, 800 N. Pitt St., Alexandria, Va.

Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.

Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.

Bliss Electronic Corp., Box 366, Sussex, N. J.

Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.

BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Color Television Inc., 973 E. San Carlos Ave., San Carlos, Calif.

Craft Laboratories, P. O. Box 606, Westfield, N. J.

Dante Electric Mfg. Co., Bantam, Conn.

Decade Instrument Co., Box 153, Caldwell, N. J.

Dit-Mco Inc., Electronics Div., 505 W. 9th St., Kansas City 5, Mo.

Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S., Long Island City, N. Y.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

Fordham Mfg. Co., 2220 Pearsall Ave., New York 69, N. Y.

Ideal Industries, Inc., 5103 Park & Borden Aves., Syracuse, Ill.

Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
 King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.
 Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.
NETWORK MFG. CORP., 213 Fifth St., Bayonne, N. J. ADV. PG. 567.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, Calif.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa.
 Seco Mfg. Co., 5015 Penn Ave., S., Minneapolis, Minn.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Sittler Corp., 18 N. Ada St., Chicago 7, Ill.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
 Wallson Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. AV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.
 Yonkers Industries, Inc., 28 School St., Yonkers, N. Y.

TESTERS—Coating Thickness

American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
 Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
BRANSON INSTRUMENTS, INC., 1 Brown House Rd., Stamford, Conn. ADV. PG. 654.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Research Electronics Laboratories, Roslyn, Pa.

TESTERS—Color Infra Red

Axler Associates, 102-42 43rd Ave., Corona, N. Y.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.

TESTERS—Continuity

BRISTOL ENGINEERING CORP., Beaver Dam Rd. & Oak Lane, Bristol, Pa. ADV. PG. 300.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Color Television Inc., 973 E. San Carlos Ave., San Carlos, Calif.
 Dit-Mco Inc., Electronics Div., 505 W. 9th St., Kansas City 5, Mo.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Fomham Mfg. Co., 2220 Pearsall Ave., New York 69, N. Y.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
 Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.
NETWORK MFG. CORP., 213 Fifth St., Bayonne, N. J. ADV. PG. 567.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 Sittler Corp., 18 N. Ada St., Chicago 7, Ill.
 Technical Development Corp., 4060 Ince Blvd., Culver City, Calif.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Tricraft Products Corp., 1535 N. Ashland Ave., Chicago 22, Ill.

TESTERS—Crystal Testing

AIRBORNE INSTRUMENTS LABS., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.

BRISTOL ENGINEERING CORP., Beaver Dam Rd. & Oak Lane, Bristol, Pa. ADV. PG. 300.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Decade Instrument Co., Box 153, Caldwell, N. J.
DUNN ENGINEERING ASSOCIATES, INC., 186 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 586, 587.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 Omega Laboratories Inc., P. O. Box-264, Rowley, Mass.
RADIO FREQUENCY LABS., INC., Boonton 2, N. J. ADV. PG. 297.
 Sherron Electronics Co., 1201 Flushing Ave., Brooklyn 6, N. Y.
 Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.

TESTERS—Distortion

Audio Instrument Co., Inc., 133A W. 14th St., New York 11, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOONTON ELECTRONICS CORP., 738 Speedwell Ave., Morris Plains, N. J. ADV. PG. 248.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Collins Radio Co., Cedar Rapids, Iowa.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
NETWORK MFG. CORP., 213 W. Fifth St., Bayonne, N. J. ADV. PG. 567.
PANORAMIC RADIO PRODUCTS, INC., 10 S. Second St., Mt. Vernon, N. Y. ADV. PG. 627.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Towaco Electronics, Pine Brook Rd., Towaco, N. J.

TESTERS—Inductance

SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. ADV. PG. 685.
WATERS MANUFACTURING INC., Boston Post Rd., Wayland, Mass. ADV. PG. 138, 139.

TESTERS—Insulation

Airmec Ltd., High Wycombe, Buckinghamshire, England.
BETA ELECTRIC CORP., 333 E. 103rd St., New York 29, N. Y. ADV. PG. 652.
 Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
 Bliss Electronic Corp., Box 366, Sussex, N. J.
 Central Research Labs., Inc., Rec Wing, Minn.
 Dice Co., J. W., Englewood, N. J.
 Dit-Mco Inc., Electronics Div., 505 W. 9th St., Kansas City 5, Mo.
 Eastern Specialty Co., Philadelphia 40, Pa.
 Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371.
 Janco Corp., 3111 Winona Ave., Burbank, Calif.
 Lee Electronics Labs., Inc., 88 Evans St., Watertown, Mass.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
NETWORK MFG. CORP., 213 W. Fifth St., Bayonne, N. J. ADV. PG. 567.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
PHYSICS RESEARCH LABS, INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
SHALLCROSS MFG. CO., 10 Jackson Ave., Collingdale, Pa. ADV. PG. 493.
SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 372, 373.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
 Takk Corp., Box 346, Newark, Ohio.
TRANSFORMER SPECIALTY CO., INC., Bala-Cynwyd, Pa. ADV. PG. 685.
 Transiron, Inc., 186 Granite St., Manchester, N. H.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

TESTERS—Insulation Breakdown

Airmec Ltd., High Wycombe, Buckinghamshire, England.
ASSOCIATED RESEARCH, INC., 3788 W. Belmont Ave., Chicago 18, Ill. ADV. PG. 588.
BETA ELECTRIC CORP., 333 E. 103rd St., New York 29, N. Y. ADV. PG. 652.
 Bliss Electronic Corp., Box 366, Sussex, N. J.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
 Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
MANSON LABORATORIES, 207 Greenwich Ave., Stamford, Conn. ADV. PG. 550.
 Mystic Transformers, Inc., 63 Swanton St., Winchester, Mass.
NETWORK MFG. CORP., 213 W. Fifth St., Bayonne, N. J. ADV. PG. 567.
OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524.
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 372, 373.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
 Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
 Transitron, Inc., 186 Granite St., Manchester, N. H.

TESTERS—Meter

Bristol Co., The, Waterbury 20, Conn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
 Eastern Specialty Co., Philadelphia 40, Pa.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
 Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
RADIO FREQUENCY LABS, INC., Boonton 2, N. J. ADV. PG. 297.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
SIMPSON ELECTRIC CO. DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 States Co., 19 New Park Ave., Hartford 6, Conn.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

TESTERS—Microwave Testing Equipment
See MICROWAVE ACCESSORIES**TESTERS—Moisture Detection, Electronic**

BERKELEY DIVISION, BECKMAN INSTRUMENTS, INC., Dept. G-13, 2200 Wright Ave., Richmond, Calif. ADV. PG. 69-76.
 Brociner Electronics Corp., 344 E. 32nd St., New York 16, N. Y.
 Delmhorst Instrument Co., 601 Cedar St., Boonton, N. J.
 Moisture Register Co., 1510 W. Chestnut St., Alhambra, Calif.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
PHYSICS RESEARCH LABS, INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Precision Scientific Co., 3737 W. Cortland St., Chicago 47, Ill.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

TESTERS—Multitesters

Allegany Instrument Co., Inc., Cumberland, Md.
 American Matrix Corp., 15 Exchange Place, Jersey City 2, N. J.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Laboratory For Electronics, Inc., 75 Pitts St., Boston 14, Mass.
 Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.
 NETWORK MFG. CORP., 213 W. Fifth St., Bayonne, Calif. ADV. PG. 567.
 NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.
 Phoastron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, Calif.
 Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
 SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
 TRIPLET ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.
 WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

TESTERS—Phanotron

See ANALYZERS—Thyratron or Phanotron

TESTERS—Radar Tube

ALTO SCIENTIFIC CO., 855 Commercial St., Palo Alto, Calif. ADV. PG. 171.
 BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
 Browning Laboratories, Inc., Main St., Winchester, Mass.
 Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
 CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
 Computing Devices of Canada, Ltd., P. O. Box 508, Ottawa, Ontario.
 F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
 Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 MANSON LABORATORIES, 207 Greenwich Ave., Stamford, Conn. ADV. PG. 550.
 Research Electronics Laboratories, Roslyn, Pa.

TESTERS—Synchro Error

CLIFTON PRECISION PRODUCTS CO., INC., Broadway at Marple Ave., Clifton Heights, Pa. ADV. PG. 230, 231.
 ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 INDUSTRIAL TEST EQUIPMENT CO., 55 E. 11th St., New York 3, N. Y. ADV. PG. 628.
 KEARFOTT CO., INC., ENGINEERING & SALES DIV., 1378 Main Ave., Clifton, N. J. ADV. PG. 191.
 Kelk & Co., G. F., 130 Willowdale Ave., Willowdale, Ontario, Canada.
 NETWORK MFG. CORP., 213 W. Fifth St., Bayonne, Calif. ADV. PG. 567.
 Rubicon Co., Ridge Ave. at 35th St., Philadelphia 29, Pa.
 Solartron Electronic Group, Ltd., Thames Ditton, Surrey, England.

TESTERS—Thyratron

See ANALYZERS—Thyratron or Phanotron

TESTERS—Transconductance Tube

CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
 Eder Engineering Co., The, 219 E. Becher St., Milwaukee 2, Wis.
 Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
 Electronic Measurements Corp., 280 Lafayette St., New York 12, N. Y.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
 TRIPLET ELECTRICAL INSTRUMENT CO., Harmon Rd., Bluffton, Ohio. ADV. PG. 244.

WATERS MANUFACTURING INC., Boston Post Rd., Wayland, Mass. ADV. PG. 138, 139.

TESTERS—Transistor

Alco Electronics Mfg. Co., 3 Wolcott Ave., Lawrence, Mass.
 Baird Associates, Inc., 33 Unlversity Rd., Cambridge 38, Mass.
 BRISTOL ENGINEERING CORP., Beaver Dam Rd. & Oak Lane, Bristol, Pa. ADV. PG. 300.
 Devenco, Inc., 150 Broadway, New York 38, N. Y.
 DUNN ENGINEERING ASSOCIATES, INC., 186 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 586, 587.
 ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
 Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
 GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. ADV. PG. 18.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 GENERAL TRANSISTOR CORP., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 448.
 INSTANT CIRCUITS DIV. OF ALFRED W. BARBER LABS., 32-44 Francis Lewis Blvd., Flushing, N. Y. ADV. PG. 631.
 KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
 MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.
 Marconi Instruments, 44 New St., New York 4, N. Y.
 Metronix, Inc., P.O. Box 549, New London, Conn.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
 Owen Laboratories, 55 Beacon Place, Pasadena, Calif.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Quantum Electronics, Inc., 1921 Virginia St., N. E., Albuquerque, N. M.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Research Electronics Laboratories, Roslyn, Pa.
 SONEK, INC., 245 Sansom St., Upper Darby, Pa. ADV. PG. 546.
 Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
 TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

TESTERS—Vacuum Tube

AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
 American Matrix Corp., 15 Exchange Place, Jersey City 2, N. J.
 American Scientific Development Co., 334 S. Main St., Atkinson, Wis.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
 Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
 CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant, Livingston, N. J. ADV. PG. 278, 279.
 Cinema-Television, Ltd., Worsley Bridge Rd., London S.E. 26, England.
 ECLIPSE-PIONEER DIV., BENDIX AVIATION CORP., Teterboro, N. J. ADV. PG. 129-132.
 Eder Engineering Co., The, 219 E. Becher St., Milwaukee 2, Wis.
 Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
 Electronic Measurements Corp., 280 Lafayette St., New York 12, N. Y.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 HICKOK ELECTRICAL INSTRUMENT CO., 10514 Dupont Ave., Cleveland 8, Ohio. ADV. PG. 152.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Measurement Engineering, Ltd., Arnprior, Ontario, Canada.
 NETWORK MFG. CORP., 213 W. Fifth St., Bayonne, Calif. ADV. PG. 567.
 NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
 Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.

Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
 R&D Laboratories, Rheem Mfg. Co., 9236 E. Hall Rd., Downey, Calif.
 Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
 RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Research Electronics Laboratories, Roslyn, Pa.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Seco Mfg. Co., 5015 Penn Ave., S., Minneapolis, Minn.
 SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
 Service Instruments Co., 422 S. Dearborn St., Chicago 5, Ill.
 Sherron Electronics Co., 1201 Flushing Ave., Brooklyn 6, N. Y.
 SIMPSON ELECTRIC CO. DIV. AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.
 SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Tektronix, Inc., P. O. Box 831, Portland 7, Ore.
 Tricraft Products Corp., 1535 N. Ashland Ave., Chicago 22, Ill.
 WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

THERMISTORS

See also CRYSTAL MOUNTS & MIXERS

CARBOLLOY DEPT. OF GENERAL ELECTRIC CO., Box 237, Roosevelt Park Annex, Detroit 32, Mich. ADV. PG. 20, 21.
 FENWAL ELECTRONICS, INC., Ashland, Mass. ADV. PG. 663.
 Fenwal, Inc., 60 Pleasant St., Ashland, Mass.
 Ferroxcube Corp. of America, 125 E. Bridge St., Saugerties, N. Y.
 Friez Instrument Div., Bendix Aviation Corp., Baltimore 4, Md.
 Global Div., Carborundum Co., Niagara Falls, N. Y.
 Keystone Carbon Co., Inc., 52 Mary, Pa.
 Miller Research Laboratories, 5529 S. Fifth St., Milwaukee 7, Wis.
 NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych London, W. C. 2, England.
 STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
 Thermistor Corp. of America, Durham Ave., Metuchen, N. J.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.

THERMOCOUPLES

Aero Research Instrument Co., 315 N. Aberdeen St., Chicago 7, Ill.
 AIRTRON, INC., 1101 W. Elizabeth Ave., Linden, N. J. ADV. PG. 504.
 ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
 BARBER-COLMAN CO., Dept 766, Rockford, Ill. ADV. PG. 68.
 Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
 Bishop & Co., J., Platinum Works, Malvern, Pa.
 Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
 Bristol Co., The, Waterbury 20, Conn.
 Detroit Controls Corp., 1650 Broadway, Redwood City, Calif.
 DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 574.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Fenwal, Inc., 60 Pleasant St., Ashland, Mass.
 Fischer & Porter Co., 476 Warmminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gordon Co., Claud S., 3000 S. Wallace St., Chicago 16, Ill.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrton Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Reeder & Co., Charles M., 173 Victor Ave., Detroit 3, Mich.
 Revere Corporation of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
 Richards Co., Inc., Arklay S., 38 Winchester St., Newton Highlands 61, Mass.
 Rutico, Inc., 490 S. Fair Oaks Ave., Box 1151M, Pasadena 1, Calif.
 SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.

SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 Tuttle & Kiff, 1823 N. Monitor St., Chicago 39, Ill.
 Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
 Western Gold & Platinum Co., 589 Bryant St., San Francisco, Calif.
WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

THERMOCOUPLES—Pyrometric

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
 Bristol Co., The, Waterbury 20, Conn.
 Electrovert, Inc., 489 Fifth Ave., New York 17, N. Y.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Gordon Co., Claud S., 3000 S. Wallace St., Chicago 16, Ill.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
PHYSICS RESEARCH LABS., INC., 507 Hempstead Turnpike, West Hempstead, N. Y. ADV. PG. 556.
 Revere Corp. of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
 Richards Co., Inc., Arklay S., 38 Winchester St., Newton Highlands 61, Mass.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
 Western Gold & Platinum Co., 589 Bryant St., San Francisco, Calif.
 Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

THERMOCOUPLES—Vacuum Type

American Thermo Electric Co., 7269 Santa Monica Blvd., Los Angeles 46, Calif.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 Consolidated Vacuum, Rochester 3, N. Y.
 Electronic Research Labs., 85 Surrey St., Brighton 35, Mass.
 Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
 Field Electrical Instrument Co., 8 N. Manheim Blvd., New Paltz, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Hastings Instrument Co., Inc., Hampton 9, Va.
 High-Vacuum Equipment Corp., Hingham, Mass.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
 Reeder & Co., Charles M., 173 Victor Ave., Detroit 3, Mich.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.

THERMOMETERS—Resistance

Aero Research Instrument Co., 315 N. Aberdeen St., Chicago 7, Ill.
 Arnoux Corp., Box 34628, Los Angeles, Calif.
 Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bristol Co., The, Waterbury 20, Conn.
EDISON, INC., THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.

LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.
 Miller Research Laboratories, 5529 S. Fifth St., Milwaukee 7, Wis.
MINNEAPOLIS-HONEYWELL REGULATOR CO., INDUSTRIAL DIV., Wayne & Windrim Aves., Philadelphia 44, Pa. ADV. PG. 377.
 Ruge Associates, Inc., Arthur, 733 Concord Ave., Cambridge, Mass.
SIMPSON ELECTRIC CO., DIV. OF AMERICAN GAGE & MACHINE CO., 5218 W. Kinzie St., Chicago 44, Ill. ADV. PG. 214.
 Thwing-Albert Instrument Co., 5351 Pulaski Ave., Philadelphia 44, Pa.
TRANS-SONICS, INC., P.O. Box 328, Lexington 73, Mass. ADV. PG. 218.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.
WESTINGHOUSE ELECTRIC CORP., P.O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

THERMOPILES

Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
 Bristol Co., The, Waterbury 20, Conn.
 Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
 Eppley Lab., Inc., The Newport, R. I.
 Field Electrical Instrument Co., 8 N. Manheim Blvd., New Platz, N. Y.
 Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Reeder & Co., Charles M., 173 Victor Ave., Detroit 3, Mich.
SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.

THERMOSTATS—Bimetal

American Instrument Co., Inc., 9030 Georgia Ave., Silver Spring, Md.
BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bristol Co., The, Waterbury 20, Conn.
 Combustion Control Div., Electronics Corp. of America, 718 Beacon St., Boston 15, Mass.
 Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
 Curtis Development & Mfg. Co., 3226 N. 33rd St., Milwaukee 16, Wis.
EDISON, INC., THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.
 Fenwal, Inc., 60 Pleasant St., Ashland, Mass.
HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 304.
 Iron Fireman Mfg. Co., Electronics Div., 2838 S.E. 9th Ave., Portland 2, Ore.
 Mechanical Industries Production Co., 217 Ash St., Akron 8, Ohio.
 Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
STEVENS MFG. CO., INC., P. O. Annex 1007, Mansfield, Ohio. ADV. PG. 437.
 Thermal-Devices Div. of Curtiss-Wright Corp., 631 Central Ave., Carlstadt, N. J.
ULANET CO., GEORGE, 413 Market St., Newark 5, N. J. ADV. PG. 617.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.
 Wilson Co., The, H. A., 2655 U.S. Hwy. 22 Union, N. J.

THERMOSTATS—Electronic

See also CONTROLS—Temperature

BARBER-COLMAN CO., Dept. 766, Rockford, Ill. ADV. PG. 68.
 Bristol Co., The, Waterbury 20, Conn.
 Fenwal, Inc., 60 Pleasant St., Ashland, Mass.
G-V CONTROLS INC., 28 Hollywood Plaza, East Orange, N. Y. ADV. PG. 473.
HART MFG. CO., THE, 242 Bartholomew Ave., Hartford 1, Conn. ADV. PG. 304.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
 Spencer Thermostat Div., Metals & Control Corp., 34 Forest St., Attleboro, Mass.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.

THYRATRONS

See TUBES

TIMERS—Automatic Cycle

AEMCO, INC., 62 State St., Mankato, Minn. ADV. PG. 198.
 Aiden Systems, Inc., Alden Research Center, Westboro, Mass.
 Automatic Temperature Control Co., Inc., 5212 Pulaski Ave., Philadelphia 44, Pa.
 Birdsall Mfg. Co., Inc., 750 San Antonio Rd., Palo Alto, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Bristol Motor Division, Vocaline Company of America, Inc., Old Saybrook, Conn.
 Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. ADV. PG. 387.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
 Eagle Signal Corp., Moline, Illinois.
ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 462.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 Foxboro Co., The, Foxboro, Mass.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
 General Controls Co., Glendale 1, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 613.
 Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 565.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 International Register Co., 2620 Washington Blvd., Chicago 12, Ill.
 Lektra Laboratories, 154 11th Ave., New York 3, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.
 Pantek Co., Box 212, El Segundo, Calif.
 Phaestron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 Rhodes, Inc., M. H., 30 Bartholomew Ave., Hartford, Conn.
 Sessions Clock Co., Industrial Products Div., Forestville, Conn.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
ULANET CO., GEORGE, 413 Market St., Newark 5, N. J. ADV. PG. 617.
 Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
 Vemaline Products Co., P. O. Box 222 E, Hawthorne, N. J.
 Vocaline Co. of America, Inc., Old Saybrook, Conn.
WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.
 Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Automatic Interval

Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing 1, Mich.
AEMCO, INC., 62 State St., Mankato, Minn. ADV. PG. 198.
 Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
 Automatic Temperature Control Co., Inc., 5212 Pulaski Ave., Philadelphia 44, Pa.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Bristol Motor Division, Vocaline Company of America, Inc., Old Saybrook, Conn.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Cinema-Television, Ltd., Worsley Bridge Rd., London S.E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
 Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. ADV. PG. 387.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.

DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. ADV. PG. 312.

Eagle Signal Corp., Moline, Ill.
Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 462.

Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Ill.

Foxboro Co., The, Foxboro, Mass.

General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

General Electric Co., Clock and Timer Dept., Ashland, Mass.

HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 613.

Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.

INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 565.

International Register Co., 2620 Washington Blvd., Chicago 12, Ill.

Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.

Lektra Laboratories, 154 11th Ave., New York 3, N. Y.

Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.

O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.

Pantek Co., Box 212, El Segundo, Calif.

Paragon Electric Co., Two Rivers, Wis.

Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.

Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Reliance Automatic Lighting Co., 1919 Mead St., Racine, Wis.

Rhodes, Inc., M. H., 30 Bartholomew Ave., Hartford, Conn.

Sessions Clock Co., Industrial Products Div., Forestville, Conn.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.

Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.

Tork Clock Co., Inc., 1 Grove St., Mt. Vernon, N. Y.

Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.

WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.

Walser Automatic Timer Corp., Graybar Bldg., New York 17, N. Y.

Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.

X-Ray Dept. of General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Automatic Reset

AEMCO, INC., 62 State St., Mankato, Minn. ADV. PG. 198.

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.

ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.

Automatic Temperature Control Co., Inc., 5212 Pulaski Ave., Philadelphia 44, Pa.

Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.

Bristol Co., The, Waterbury 20, Conn.

Bristol Motor Div., Vocaline Co. of America, Inc., Old Saybrook, Conn.

Camera Mart Inc., 1845 Broadway, New York 23, N. Y.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.

CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. ADV. PG. 387.

Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.

Eagle Signal Corp., Moline, Illinois.

Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. AV. PG. 462.

Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Mich.

General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 613.

Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.

INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 565.

International Register Co., 2620 Washington Blvd., Chicago 12, Ill.

Lektra Laboratories, 154 11th Ave., New York 3, N. Y.

Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Machinery Electrification, Inc., Northboro, Mass.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.

Pantek Co., Box 212, El Segundo, Calif.

Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.

Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Quaker City Gear Works, Red Lion & Philmont Rd., Bethayres, Pa.

Sherman Industrial Electronics Co., 505 Washington Ave., Belleville 9, N. J.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.

ULANET CO., GEORGE, 413 Market St., Newark 5, N. J. ADV. PG. 617.

Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.

WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.

WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.

Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Clock Radio

General Electric Co., Clock and Timer Dept., Ashland, Mass.

Sessions Clock Co., Industrial Prod. Div., Forestville, Conn.

TIMERS—Cycle

AEMCO, INC., 62 State St., Mankato, Minn. ADV. PG. 198.

ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 673.

Alden Systems, Inc., Alden Research Center, Westboro, Mass.

ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.

Automatic Temperature Control Co., Inc., 5212 Pulaski Ave., Philadelphia 44, Pa.

Bristol Co., The, Waterbury 20, Conn.

Bristol Motor Div., Vocaline Co. of America, Inc., Old Saybrook, Conn.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.

CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. ADV. PG. 387.

Devtron Engineering, 1 Winslow St., Redwood City, Calif.

Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.

Eagle Signal Corp., Moline, Ill.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Mich.

Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.

General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 613.

Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.

Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.

INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 565.

International Register Co., 2620 Washington Blvd., Chicago 12, Ill.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Rhodes, Inc., M. H., 30 Bartholomew Ave., Hartford, Conn.

Sherman Industrial Electronics Co., Inc., 505 Washington Ave., Belleville 9, N. J.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.

Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.

Vocaline Co. of America, Inc., Old Saybrook, Conn.

WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.

Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.

Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Electronic

Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing 1, Mich.

Airmec Ltd., High Wycombe, Buckinghamshire, England.

Allegany Instrument Co., Inc., Cumberland, Md.

ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.

American Chronoscope Corp., 316 West First St., Mt. Vernon, N. Y.

ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.

Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.

Automatic Temperature Control Co., Inc., 5212 Pulaski Ave., Philadelphia 44, Pa.

Autotron Co., P. O. Box 722-H, Danville, Ill.

Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.

BRUNO NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Calbest Engineering & Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.

Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.

Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England.

COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.

COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.

EEO Production Co., 506 E. 1st St., Santa Ana, Calif.

Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.

ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.

Electro Instruments, Inc., 3794 Rosecrans, San Diego, Calif.

ELECTRO-PULSE, INC., 11861 Teale St., Dept EB, Culver City, Calif. ADV. PG. 512, 513.

Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.

Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.

EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.

FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 462.

Federal Tool Engineering, Inc., 1386 Pompton Ave., Cedar Grove, N. J.

Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Mich.

Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.

FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.

General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.

Grason-Stadler Co., Engineering Service Dept., West Concord, Mass.

HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.

Hupp Instru/mation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.

Lektra Laboratories, 154 11th Ave., New York 3, N. Y.

Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Machinery Electrification, Inc., Northboro, Mass.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

O'Brien Electric Corp., 6514 Santa Monica Blvd., Hollywood 38, Calif.

Pantek Co., Box 212, El Segundo, Calif.

PARAPLEGICS MFG. CO., INC., 10068 Franklin Ave., Franklin Park, Ill. ADV. PG. 528.

PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.

Photoswitch Div., Electronics Corp., of America, 77 Broadway, Cambridge 42, Mass.

Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.

Ransom Research, Box 382, San Pedro, Calif.

Research Electronics Laboratories, Roslyn, Pa.

RIPLEY CO., INC., Middletown, Conn. ADV. PG. 451.

Rutherford Electronics Co., 3707 S. Robertson Blvd., Culver City, Calif.

STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.

STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.

TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.

Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.

WALKIRT CO., 145 W. Hazel St., Inglewood 3, Calif. ADV. PG. 724.

Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.

Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.

Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.

TIMERS—Hour Counting

Aero Instrument Co., 11423 Vanover St., North Hollywood, Calif.

Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.
 Automatic Temperature Control Co., Inc., 5212 Pulaski Ave., Philadelphia 44, Pa.
 Bristol Motor Division, Vocaline Company of America, Inc., Old Saybrook, Conn.
 Clary Multiplier Corp., Electronics Div., San Gabriel, Calif.
CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. ADV. PG. 387.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HAYDON CO., A. W., THE, 238 N. Elm St., Waterbury, Conn. ADV. PG. 613.
 Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 565.
J-B-T INSTRUMENTS, INC., 431 Chapel St., New Haven 8, Conn. ADV. PG. 607.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
MARION ELECTRICAL INSTRUMENT CO., 402 Canal St., Manchester, N. H. ADV. PG. 478.
 Rhodes, Inc., M. H., 30 Bartholomew Ave., Hartford, Conn.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Vocaline Co. of America, Inc., Old Saybrook, Conn.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

TIMERS—Impulse

ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.
 Automatic Temperature Control Co., Inc., 5212 Pulaski Ave., Philadelphia 44, Pa.
 Bristol Co., The, Waterbury 20, Conn.
 Clary Multiplier Corp., Electronics Div., San Gabriel, Calif.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. ADV. PG. 387.
 Eagle Signal Corp., Moline, Ill.
ELECTRICAL & PHYSICAL INSTRUMENT CORP., 42-19 27th St., Long Island City 1, N. Y. ADV. PG. 514.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Fischer & Porter Co., 476 Warminster Rd., Hatboro, Pa.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 613.
 Hubbard Scientific Labs., Inc., 1292 E. Third St., Pomona, Calif.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 565.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Ransom Research, Box 382, San Pedro, Calif.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
 Telectronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Inertia

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Struthers-Dunn, Inc., Lamb's Rd., Pitman, N. J.

TIMERS—Motor Operated

AEMCO, INC., 62 State St., Mankato, Minn. ADV. PG. 198.
 Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
ALLEN-BRADLEY CO., 136 W. Greenfield Ave., Milwaukee 4, Wis. ADV. PG. 497.
 Amglo Corp., 2037 W. Division St., Chicago 22, Ill.
 Automatic Temperature Control Co., Inc., 5212 Pulaski Ave., Philadelphia 44, Pa.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Bristol Motor Division, Vocaline Company of America, Inc., Old Saybrook, Conn.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. ADV. PG. 387.
DIMCO-GRAY CO., 207 E. Sixth St., Dayton, Ohio. ADV. PG. 312.
 Eagle Signal Corp., Moline, Ill.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 613.
 Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.
 Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
 Hubbard Scientific Labs., Inc., 1292 E. Third St., Pomona, Calif.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 565.
 Janco Corp., 3111 Winona Ave., Burbank, Calif.
 Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave. S., Minneapolis 8, Minn.
 Mohawk Business Machines Corp., 944 Halsey St., Brooklyn 33, N. Y.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Precision Scientific Co., 3737 W. Cortland St., Chicago 47, Ill.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 Sessions Clock Co., Industrial Products Div., Forestville, Conn.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Struthers-Dunn, Inc., Lamb's Rd., Pitman, N. J.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Vocaline Company of America, Inc., Old Saybrook, Conn.
 Zenith Electric Co., 152 W. Walnut St., Chicago 10, Ill.

TIMERS—Multicontact

AEMCO, INC., 62 State St., Mankato, Minn. ADV. PG. 198.
 Amglo Corp., 2037 W. Division St., Chicago 22, Ill.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Bristol Motor Div., Vocaline Co. of America, Inc., Old Saybrook, Conn.
CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. ADV. PG. 387.
 Eagle Signal Corp., Moline, Illinois.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Mich.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 613.
 Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.
 Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
 Hubbard Scientific Labs., Inc., 1292 E. Third St., Pomona, Calif.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 565.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 Rhodes, Inc., M. H., Bartholomew Ave., Hartford, Conn.
 Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Percentage

Bristol Co., The, Waterbury 20, Conn.
CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. ADV. PG. 387.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 565.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Photoelectric

Airmec Ltd., High Wycombe, Buckinghamshire, England.
 Autotron Co., P. O. Box 722-H, Danville, Ill.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
COMPUTER-MEASUREMENT CORP., 5528 Vineland Ave., North Hollywood, Calif. ADV. PG. 589.
 Electrical Service Co., 1271 Mission St., San Francisco, Calif.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Machinery Electrification, Inc., Northboro, Mass.
 Pantek Co., P. O. Box 212, El Segundo, Calif.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Unitronics, Inc., 472 Paul Ave., Ferguson Station, St. Louis 21, Mo.
 Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

TIMERS—Sequence

ADAMS & WESTLAKE CO., Michigan St., Elkhart, Ind. ADV. PG. 158, 159.
AEMCO, INC., 62 State St., Mankato, Minn. ADV. PG. 198.
 Alden Systems, Inc., Alden Research Center, Westboro, Mass.
 Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
 Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
 Birdsell Mfg. Co., Inc., 750 San Antonio Rd., Palo Alto, Calif.
 Bristol Co., The, Waterbury 20, Conn.
 Bristol Motor Div., Vocaline Co. of America, Inc., Old Saybrook, Conn.
CRAMER CO., INC., R. W., Box 13, Centerbrook, Conn. ADV. PG. 387.
 Devtron Engineering, 1 Winslow St., Redwood City, Calif.
 Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.
 Eagle Signal Corp., Moline, Ill.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
EL MEC LABORATORIES, INC., 730 Boulevard, Kenilworth, N. J. ADV. PG. 516.
 Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Mich.
 General Control Co., 1212 Soldiers Field Rd., Boston 34, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
HAYDON CO., A. W., THE, 238 Elm St., Waterbury, Conn. ADV. PG. 613.
 Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.
 Holtzer-Cabot Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
 Hubbard Scientific Labs., Inc., 1292 E. Third St., Pomona, Calif.
INDUSTRIAL TIMER CORP., 1407 McCarter Highway, Newark 4, N. J. ADV. PG. 565.
 Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Pantek Co., Box 212, El Segundo, Calif.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
STANDARD ELECTRIC TIME CO., 97 Logan St., Springfield, Mass. ADV. PG. 276.
 Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.
 Vocaline Co. of America, Inc., Old Saybrook, Conn.
WALKIRT CO., 145 W. Hazel St., Ingwood 3, Calif. ADV. PG. 724.
 Weltronic Co., 19500 West Eight Mile Rd., Detroit 19, Mich.
 Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.
 Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.

TIMERS—Thermal

Bristol Co., The, Waterbury 20, Conn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
EDISON, INC., THOMAS A., INSTRUMENT DIV., 81 Lakeside Ave., West Orange, N. J. ADV. PG. 268, 269.

G-V CONTROLS INC., 28 Hollywood Plaza, East Orange, N. J. ADV. PG. 473.
 O K Electronics Corp., 7 Hunt Place, Nutley, N. J.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
 STEVENS MFG. CO., INC., P. O. Annex 1007, Mansfield, Ohio. ADV. PG. 437.
 Struthers-Dunn, Inc., Lamb's Rd., Pitman, N. J.
 ULANET CO., GEORGE, 413 Market St., Newark 5, N. J. ADV. PG. 617.

TIMERS—Welding, Electronic

Birdsell Mfg. Co., Inc., 750 San Antonio Rd., Palo Alto, Calif.
 Cinema-Television Ltd., Worsley Bridge Rd., London S.E. 26, England.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 ELECTRO-PULSE, INC., 11861 Teale St., Dept. EB, Culver City, Calif. ADV. PG. 512, 513.
 Ewald Instruments, 99 Nassau St., New York 38, N. Y.
 FARMER ELECTRIC PRODUCTS CO., INC., 2300 Washington St., Newton Lower Falls 62, Mass. ADV. PG. 462.
 Federal Tool Engineering Co., 1386 Pompton Ave., Cedar Grove, N. J.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Ktra Labs., 154 11th Ave., New York 11, N. Y.
 Livingston Electronic Corp., Livingston, N. J.
 Machinery Electrification Inc., Northboro, Mass.
 PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Potter Instrument Co., Inc., 115 Cutter Mill Rd., Great Neck, N. Y.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 Thor Transformer & Electronics Co., 750 San Antonio Rd., Palo Alto, Calif.
 Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
 Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.
 Welttron Co., 19500 West Eight Mile Road, Detroit 19, Mich.
 WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.
 Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.

TIMING

See CONTROLS—Timing

TINNING—Hot Dipped

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 ALPHA METALS, INC., 60 Water St., Jersey City, N. J. ADV. PG. 94.
 ANDERSON ASSOCIATES, H. V., 239 Park Ave., Berkeley Heights, N. J. ADV. PG. 560.
 Hopkins Engineering Co., 2082 Lincoln Ave., Altadena, Calif.
 INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371.
 Johnson Mfg. Co., Inc., Mt. Vernon, Iowa.
 Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
 Somers Brass Co., 94 Baldwin Ave., Waterbury, Conn.
 Steel Protection & Chemical Co., Inc., Mooresville, Ind.
 Wright Metalcoaters Inc., 255 West St., South Hackensack, N. J.

TITRATION APPARATUS—Electronic

GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 181.
 Precision Scientific Co., 3737 W. Cortland St., Chicago 47, Ill.
 Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.

TOOLS—Hand or Mechanical

Note: Includes grinders, milling cutters, pliers, punches, reamers, screwdrivers, taps, wrenches, etc. For further particulars, consult advertisement of manufacturer in this issue.
 Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
 AMERICAN MACHINE & FOUNDRY CO., DEFENSE PRODUCTS GROUP, 1101 N. Royal St., Alexandria, Va. ADV. PG. 440.
 Beryllium Corp., Reading, Pa.
 BUCHANAN ELECTRICAL PRODUCTS CORP., 223 U. S. Route 22, Hillside, N. J. ADV. PG. 461.
 Burndy Engineering Co., Inc., Norwalk, Conn.
 Clauss Cutlery Co., Fremont, Ohio.
 Dremel Mfg. Co., 2300 18th St., Racine, Wis.
 DURO SPECIALTY CO., INC., 8 Bennett St., Lynn, Mass. ADV. PG. 615.
 Erwood, Inc., 1770 Berteau Ave., Chicago 13, Ill.
 F & M Sales, Inc., 1054 Cahuenga Blvd., Hollywood 38, Calif.
 Hunter Tool Co., 6608 S. Cretna Ave., Whittier, Calif.
 Huck Mfg. Co., 2480 Bellevue Ave., Detroit 7, Mich.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.

Lemert Engineering Co., Inc., 185 E. Jefferson St., Plymouth, Ind.
 Master Appliance Mfg. Co., Fourth & Ontario Sts., Racine, Wis.
 MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 553.
 Millen Mfg. Co., 90 Summit Ave., Brookline, Mass.
 Millers Falls Co., Greenfield, Mass.
 Moody Machine Products Co., Inc., 42-46 Dudley St., Providence 5, R. I.
 PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Radial Cutter Corp., 831 Bond St., Elizabeth, N. J.
 Richmond, Inc., 922 S. Myrtle Ave., Monrovia, Calif.
 Shearcut Tool Co., 7045 Darby Ave., Reseda, Calif.
 Special Products Co., P. O. Box 188, Rockville 3, Md.
 Speedway Mfg. Co., 1834 S. 52nd Ave., Cicero 50, Ill.
 Stanley Tools, New Britain, Conn.
 Stevens-Walden, Inc., 475 Shrewsbury St., Worcester 4, Mass.
 Sturtevant Co., P. A., Addison, Ill.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
 Television Accessories Co., Box 368, Scottsdale, Ariz.
 Thomas & Betts Co., Inc., 36 Butler St., Elizabeth 1, N. J.
 Utica Drop Forge & Tool Co., 2500 Whitesboro St., Utica, N. Y.
 Vaco Products Co., 317 E. Ontario St., Chicago 11, Ill.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
 Wen Products, Inc., 5808 Northwest Highway, Chicago 31, Ill.
 WENCO MFG. CO., 1133 W. Hubbard St., Chicago 22, Ill. ADV. PG. 598.
 Xcelite, Inc., 28 Bank St., Orchard Park, N. Y.

TOOLS—Pneumatic Assembly

BUCHANAN ELECTRICAL PRODUCTS CORP., 223 U. S. Route 22, Hillside, N. J. ADV. PG. 461.
 Huck Mfg. Co., 2480 Bellevue Ave., Detroit 7, Mich.
 Keller Tool Div., Gardner-Denver Co., Grand Have, Mich.
 Klein & Sons, Mathias, 7200 McCormick Rd., Chicago 45, Ill.
 Lemert Engineering Co., Inc., 185 E. Jefferson St., Plymouth, Ind.

TOOLS—Resistance Soldering

Cole Radio Works, 86 Westville Ave., Caldwell, N. J.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
 Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.
 Wassco Electric Products Corp., 126 W. Cass St., Joliet, Ill.

TOOLS—Thermal Soldering

Television Accessories Co., Box 368, Scottsdale, Ariz.
 Wall Mfg. Co., Grove City, Pa.

TOOLS—Ultrasonic Soldering

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
 AEROPROJECTS INCORPORATED, 310 E. Rosedale Ave., West Chester, Pa. ADV. PG. 674.
 Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
 MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 181.
 Vibro Ceramics Corp., Metuchen, N. J.

TOOLS—Wire Wrapping

Keller Tool Div., Gardner-Denver Co., Grand Have, Mich.
 Rush Wire Stripper Div., The Eraser Co., Inc., 1068 S. Clinton St., Syracuse 4, N. Y.

TOROIDAL WINDERS

See MACHINES—Coil Winding
MACHINES—Coil Winding, Toroidal

TOROIDS

A. P. W. Co., 72 W. Main St., Rockaway, N. J.
 Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y.
 ADVANCE ELECTRONICS CO., 451 Highland Ave., Pas-saic, N. J. ADV. PG. 600.
 Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Mon-rovia, Calif.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
 AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146.
 ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. ADV. PG. 696, 697.
 ATLAS ENGINEERING CO., 176 Blue Hill Ave., Rox-bury, Mass. ADV. PG. 540.
 Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Basler Electric Co., 605 Fifth St., Highland, Ill.
 BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.

Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
 CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
 CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573.
 CHICAGO MAGNETIC CONTROL, 1616 Damon Ave., Chi-cago, Ill. ADV. PG. 572.
 CHICAGO STANDARD TRANSFORMER CORP., 3580 Ellston Ave., Chicago 18, Ill. ADV. PG. 170.
 Coast Coil Co., 5333 W. Washington Blvd., Los Angeles 16, Calif.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
 COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
 COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Control Components Co., 1 Holden St., Brookline 46, Mass.
 Coto-Coil Co., Inc., 65 Pavilion Ave., Providence 5, R. I.
 D & R, Ltd., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chi-cago 47, Ill.
 De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.
 DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
 Double "E" Products Co., 216 Standard St., El Segundo, Calif.
 ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 515.
 ENDICOTT COIL CO., INC., 24 Charlotte St., Bingham-ton, N. Y. ADV. PG. 665.
 EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17 N. Y. ADV. PG. 609.
 ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 89 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio.
 FREE TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
 GENERAL RADIO CO., 275 Massachusetts Ave., Cam-bridge 39, Mass. ADV. PG. 109, 110.
 GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank, Calif. ADV. PG. 460.
 Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill.
 Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif.
 Hall Mfg. Co., 3901 Wesley Terrace, Schiller Park, Ill.
 Harder Co., Donald C., 3710 Midway Drive, San Diego 10, Calif.
 HERMETIC SEAL TRANSFORMER CO., 555 N. Fifth St., Garland, Texas. ADV. PG. 687.
 HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
 HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Phil-adelphia 30, Pa.
 INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371.
 INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 KEARFOTT CO., INC., WESTERN DIV., 253 N. Vinedo Ave., Pasadena 8, Calif. ADV. PG. 192.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
 Keystone Products Co., 904-6 23rd St., Union City, N. J.
 Knopp Inc., 4224 Holden St., Oakland 8, Calif.
 Laboratory For Electronics, Inc., 75 Pitts St., Boston 14, Mass.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Haw-thorne, Calif.
 MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401.
 MAGNETICS, INC., P. O. Box 391, Butler, Pa. ADV. PG. 54, 55.
 Magnetics Research Co., 255 Grove St., White Plains, N. Y.
 Mectronics, P. O. Box 807, Ridgecrest, Calif.
 MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 553.
 MID-WEST COIL & TRANSFORMER CO., 1642 N. Hal-stead St., Chicago 14, Ill. ADV. PG. 286.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Mil-waukee 9, Wis.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
 Mt. Vernon Precision Transformer Co., 201 S. Third Ave., Mt. Vernon, N. Y.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass.
 NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.

New York Transformer Co., Inc., Third Ave., Alpha, N. J.
 Nothelfer Winding Labs., Inc., P. O. Box 455, Trenton 3, N. J.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
OSBORNE ELECTRIC CO., 712 S. E. Hawthorne Blvd., Portland 14, Ore. ADV. PG. 624.
PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Palo Alto Engineering Co., 440 Olive Ave., Palo Alto, Calif.
Peerless Electrical Products Div. of Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 586.
Precision, Inc., 730 Lyndale Ave., N., Minneapolis, Minn.
PULSE ENGINEERING, 2431 Spring St., Redwood City, Calif. ADV. PG. 621.
Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
Railway Communications, Inc., P. O. Box 67, Raytown, Mo.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 615.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
Stator Electric Corp., 46-25 58th St., Woodside, N. Y. Television Laboratories, Inc., Mill St., Wauconda, Ill.
TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles, Calif.
Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.
Torocoil Co., 2615 Bristol Rd., Columbus 21, Ohio.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526.
Transformer Engineers, 161 E. California, Pasadena 1, Calif.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.
Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
UNIVERSAL MFG. CO., INC., 410 Hillside Ave., Hillside, N. J. ADV. PG. 642.
Valor Electronic Components Co., 5808 Marilyn Ave., Culver City, Calif.
Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
VARI-L CO., INC., P. O. Box 1433, Stamford, Conn. ADV. PG. 500.
WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.

TOURMALINESee **CRYSTALS****TOWER SERVICE—Installers, Erectors, Mainrainers**

Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
 Dresser-Ideco Co., 875 Michigan Ave., Columbus 8, Ohio.
 Electrical Tower Service, Inc., 325 S. Washington St., Peoria, Ill.
 Tower Construction Corp., 2700 Hawkeye Drive, Sioux City, Iowa.

TRACERS—SignalSee **INSTRUMENTS—Electrical Measuring****TRANSCEIVERS—Aviation**

Acme Electronix Div. of NEA Service, Inc., W. Third & Lakeside, Cleveland 13, Ohio.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 American Electronics Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
 Collins Radio Co., Cedar Rapids, Iowa.

Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
 National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Telephonics Corp., Park Ave., Huntington, N. Y.

TRANSCEIVERS—Lifeboat

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.

TRANSCEIVERS—Portable

Acme Electronix Div., NEA Service, Inc., West Third & Lakeside, Cleveland 13, Ohio.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 Telephonics Corp., Park Ave., Huntington, N. Y.

TRANSCEIVERS—uhf

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 Collins Radio Co., Cedar Rapids, Iowa.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 Vocatron Mfg. Div. of Vocaline Co. of America, Inc., Old Saybrook, Conn.

TRANSCEIVERS—vhf

Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
 Collins Radio Co., Cedar Rapids, Iowa.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasadena 1, Calif.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
 Telephonics Corp., Park Ave., Huntington, N. Y.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.

TRANSDUCERS

American Diathermy Products, Inc., 11858 Mississippi Ave., Los Angeles 25, Calif.

Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.
 Automatic Temperature Control Co., Inc., 5212 Pulaski Ave., Philadelphia 44, Pa.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
BJ ELECTRONICS DIV. OF BORG-WARNER CORP., 3300 Newport Blvd., Santa Ana, Calif. ADV. PG. 578.
 Blackstone Corp., 1111 Allen St., Jamestown, N. Y.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
BOURNS LABORATORIES, 6135 Magnolia Ave., Riverside, Calif. ADV. PG. 134.
 Bristol Co., The, Waterbury 20, Conn.
 Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.
 Chesapeake Instrument Corp., Shadyside, Md.
 Clark Electronic Labs., Box 165, Palm Springs, Calif.
 Consolidated Avionics, Inc., Stamford, Conn.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Corbett Science Laboratories, F. W., 3115 Venice Blvd., Los Angeles 19, Calif.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Datran Engineering Corp., 3613 Aviation Blvd., Manhattan Beach, Calif.
 Daytron Corp., 216 S. Main St., Dayton, Ohio.
DEFIANCE ENGINEERING & MICROWAVE CORP., 81 Albion St., Box 151, Wakefield, Mass. ADV. PG. 558.
DYNA-EMPIRE, INC., 1075 Stewart Ave., Garden City, N. Y. ADV. PG. 574.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 522.
 Electronic Engineering Associates, Ltd., 1048 Brittan Ave., San Carlos, Calif.
 Endevo Corp., 161 E. California St., Pasadena, Calif.
ERIE RESISTOR CORP., 639 W. 12th St., Erie, Pa. ADV. PG. 274, 275.
FAIRCHILD CONTROLS CORP., COMPONENTS CORP., 225 Park Ave., Hicksville, N. Y. ADV. PG. 498.
 General Cybernetics Corp., 1751 N. Coronado St., Los Angeles 26, Calif.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 Genisco, Inc., 2233 Federal Ave., Los Angeles 64, Calif.
 Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.
 Gorn Electric Co., Inc., Stamford, Conn.
 Harris Transducer Corp., Woodbury, Conn.
HATHAWAY INSTRUMENT CO., 1315 S. Clarkson St., Denver 10, Colo. ADV. PG. 599.
 Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
 Kistler Instrument Co., 15 Webster St., Tonawanda, N. Y.
KNIGHTS CO., JAMES, THE, Sandwich, Ill. ADV. PG. 568.
 Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.
 Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
 Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.
 Minatron Corp., 14 Cliveden Place, Belle Mead, N. J.
 Naylor Laboratories, E. V., 30 Manorian Blvd., Port Washington, N. Y.
 Nilsen Mfg. Co., Addison, Ill.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
PICKERING & CO., 309 Woods Ave., Oceanside, N. Y. ADV. PG. 679.
 Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.
STACKPOLE CARBON CO., St. Marys, Pa. ADV. PG. 80, 81.
 Statham Laboratories, Inc., 12401 W. Olympic Blvd., Los Angeles 64, Calif.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Tensitron, Inc., Harvard, Mass.
TRANS-SONICS, INC., P. O. Box 328, Lexington 73, Mass. ADV. PG. 218.
 Ultradyne Engineering Labs., Inc., P. O. Box 8007, Albuquerque, N. M.

TRANSFORMERS**Audio**

1. Input, Output or Interstage
2. Modulator
3. Very Low Frequency

Power

4. Current Limiting
5. 400 Cycle
6. Insulation
7. Plate, Filament or Bias—Under 500 Watts
8. Plate, Filament or Bias—Over 500 Watts
9. Saturable
10. Variable
11. Vibrator
12. Voltage Regulating
13. Welding
14. X-Ray

- A.C. Transformer Corp., 89 Madison St., Newark, N. J. 4-5-6-7-8-13.
- ACME ELECTRIC CORP., 21 Water St., Cuba, N. Y. 1-2-3-4-5-6-7-8-9-10-12. ADV. PG. 388. (h)
- Acro Products Co., 369 Shurs Lane, Philadelphia 28, Pa. 1-2-3-5-6-7-8-9-11.
- Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y. 1-2-3-4-5-6-7-8-9-11. (h)
- Aerovox Corp., 740 Belleville Ave., New Bedford, Mass. 1-3-5-10-12.
- Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif. 1-2-3-5-6-7-9. (h)
- Air Associates, Inc., Electronic Equipment Div.; 511 Joyce St., Orange, N. J. 1-2-3-5-6-7-8-9-11.
- Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J. 1-2-3-4-7-9-10. (h)
- Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa. 1-2-3-5-6-7-8-11. (h)
- AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. 1-2-3-5-7-9-11. ADV. PG. 143-146. (h)
- Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif. 1-2-3-5-6-7-8. (h)
- American Speedlight Corp., 63-01 Metropolitan Ave., Middle Village 79, N. Y. 7-11. (h)
- Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind. 1-5-6-7-11-13. (h)
- ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. 1-5-9. ADV. PG. 696, 697. (h)
- Atlas Coil, Inc., Cottage St., Derby, Conn. 1-3-4-5-6-7-8-9-10-12-14. (h)
- ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. 1-2-3-4-5-6-7-8-9-10-11-12. ADV. PG. 540. (h)
- Audio Development Co., 2833 13th Ave. S., Minneapolis 7, Minn. 3. (h)
- Ballastran Corp., Fort Wayne, Ind. 1-2-3-4-5-6-7-8-9-10. (h)
- Barwood Electronics Inc., 546 W. Garfield Ave., Glendale 4, Calif. 1-5-6-7-8-11. (h)
- Basler Electric Co., 605 Fifth St., Highland, Ill. 1-2-3-4-5-6-7-8-9-10-11-12-13-14. (h)
- Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J. 10. (h)
- Best Mfg. Co., Inc., 1200 Grove St., Irvington 11, N. J. 1. (h)
- Birdsell Mfg. Co., Inc., 750 San Antonio Rd., Palo Alto, Calif. 6-13. (h)
- Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J. 5-12-13. (h)
- BRACKE-SEIB X-RAY CO., INC., 16 Pelham Bay Parkway, Pelham Manor, N. Y. 14. ADV. PG. 632. (h)
- CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. 1-2-3-4-5-6-7-8-9-10-11-12. ADV. PG. 551. (h)
- California Magnetic Control Corp., 1922 Valerio St., North Hollywood, Calif. 1-2-3-4-5-6-7-8-9-10-11-13-14. (h)
- Campbell Co., Inc., Colin, Westville, Conn. Danbury, Conn. 1-2-3-4-5-6-7-8-9-12. (h)
- Carad Corp., 2850 Bay Rd., Redwood City, Calif. 1-2-3-5-6-7-8-9-10-11-12. (h)
- Carlson & Nicholson, Inc., 497 Maynard Drive, Buffalo 21, N. Y. 5-7-9. (h)
- Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va. 1-2-3-4-5-6-7-9-11-14. (h)
- DELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. 1-2-3-4-5-6-7-8-9-10. ADV. PG. 136, 137. (h)
- CENTRAL TRANSFORMER CORP., 910 W. Jackson Blvd., Chicago, Ill. 1-2-3-4-5-6-7-8-9-10-11-12-13-14. ADV. PG. 663. (h)
- CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. 1-3-4-5-6-7-9. ADV. PG. 573. (h)
- CHICAGO MAGNETIC CONTROL CO., 1616 Darnon Ave., Chicago, Ill. 1-3-4-5-6-7-9. ADV. PG. 572. (h)
- CHICAGO STANDARD TRANSFORMER CORP., 3850 Elston Ave., Chicago 18, Ill. 1-2-4-5-6-7-8-10-11-12. ADV. PG. 170. (h)
- Coil Co. of America, Inc., 207 Washington St., Northvale, N. J. 1-2-3-4-5-6-7-8-9-11-12-13-14. (h)
- COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. 1-2-3. ADV. PG. 602. (h)
- Comar Electric Co., 3349 W. Addison, Chicago 18, Ill. 7. (h)
- Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill. 1-2-3-4-5-6-7-8-9-10-11-12. (h)
- Control Components Co., 1 Holden St., Brookline 46, Mass. 9-10. (h)
- Control Corp., 718 Central Ave., Minneapolis 14, Minn. 7. (h)
- Coscor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada. 3. (h)
- Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill. 1-2-4-5-6-7-8-11. (h)
- Crittenden Transformer Co., 1220 Nadeau St., Los Angeles, Calif. 5-6-8. (h)
- Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J. 1-3-5-6-7-8-9-11-13. (h)
- DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. 1-7-9. (h)
- DANO ELECTRIC CO., Main St., Winsted, Conn. 12. ADV. PG. 518. (h)
- Del Electronics Corp., 39 N. Macqueston Parkway, Mt. Vernon, N. Y. 4-5-6-7-8-9-10-14. (h)
- Delco Radio Div., General Motors Corp., Kokomo, Ind. 1-11. (h)
- Deltron Inc., P.O. Box 192, Glenside, Pa. 9-14. (h)
- DIETZ DESIGN & MFG. CO., Grandview 6, Mo. 1-3-5-6-7-9-11. ADV. PG. 566. (h)
- Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill. (h)
- Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass. 1-5-7-11. (h)
- Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J. 8-13. (h)
- Electran Mfg. Co., 1901 N. Clybourn, Chicago, Ill. 1-2-4-5-6-7-8-11-13. (h)
- Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill. 1-2-3-5-6-7-8-11. (h)
- Electro Engineering Works, 401 Preda St., San Leandro, Calif. 1-2-3-4-5-6-7-8-9-11-12-13-14. (h)
- Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y. 1-2-4-5-6-7-8-9. (h)
- ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. 11. ADV. PG. 665. (h)
- EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. 1-2-3-5-6-7-8-9-10-11-12-13. ADV. PG. 609. (h)
- Ewald Instruments, 99 Nassau St., New York 38, N. Y. 13. (h)
- FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. 1-2-5-6-7-8-11-12. ADV. PG. 355-360. (h)
- FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. 1-2-3-5-6-7-8-11. ADV. PG. 660. (h)
- Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind. 1-5-6-7-8-9-10. (h)
- Fisher Radio Corp., 21-21 Forty Fourth Drive, Long Island City 1, N. Y. 12. (h)
- FOREST ELECTRIC CO., 7216 Circle Ave., Forest Park, Ill. 1-2-4-5-6-7-8-11. ADV. PG. 658. (h)
- Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio. 1-2-7-11. (h)
- FOX PRODUCTS CO., 4720 N. 18th St., Philadelphia 41, Pa. 10-13. ADV. PG. 602. (h)
- FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. 1-2-3-4-5-6-7-8-9-11-13. ADV. PG. 645. (h)
- General Controls Co., Glendale 1, Calif. 7. (h)
- GENERAL ELECTRIC CO. APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. 1-3-4-5-6-7-8-9-11-12-13-14. ADV. PG. 1-12. (h)
- General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y. 1-2-4-7-8-12. (h)
- General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y. 6. (h)
- GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. 1-2-3-5-10. ADV. PG. 109, 110. (h)
- General Transformer Co., 18240 Harwood Ave., Homewood, Ill. 1-2-5-6-7-8-11. (h)
- GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank, Calif. 1-2-3-4-5-6-7-8-9-11-12. ADV. PG. 460. (h)
- Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. 1-2-3-4-5-6-7-8-9-11-12-13-14. (h)
- Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich. 1-2-3-5-6-7-8-11-12-13. (h)
- GRAND TRANSFORMERS, INC., Hey St., Grand Haven, Mich. 1-2-5-6-7-8-11. ADV. PG. 617. (h)
- Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. 3. (h)
- Harder Co., Donald C., 3710 Midway Drive, San Diego 10, Calif. 1-2-3-5-6-7-8-9. (h)
- HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. 6. ADV. PG. 588. (h)
- HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. 1-2-3-4-5-6-7-8-9-11-12. ADV. PG. 687. (h)
- HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. 1-2-3-4-5-6-7-8-9-10-11-12-13-14. ADV. PG. 530. (h)
- Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J. 5-6-7-8-9-13-14. (h)
- Holl Audio Inc., 5014 N. Encinita Ave., Temple City, Calif. 1. (h)
- HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. 5. ADV. PG. 601. (h)
- INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. 1-2-3-4-5-6-7-8-9-10-11-13-14. ADV. PG. 370, 371. (h)
- Industron Corp., 50 Brook Rd., Needham Heights, Mass. 8. Interference Measurement Lab., Inc., 907 E. 51st St., Brooklyn 3, N. Y. 4-5. (h)
- Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y. 1-2-3-5-6-7-8-9-11. (h)
- Jack & Heintz, Inc., Cleveland 1, Ohio. 4. (h)
- James Vibrapow Co., 4050 N. Rockwell St., Chicago 18, Ill. 7-11. (h)
- Jobbins Electronic Enterprises, 771 Hamilton Ave., Menlo Park, Calif. 2-3-4-5-6-7-8-9. (h)
- K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. 1-2-3-4-5-6-7-8-9-11. (h)
- Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. 1-2-3-4-5-6-7-8-9-11. (h)
- KESSLER CO., FRANK, 41-45 47th St., Long Island City 4, N. Y. 5-6. ADV. PG. 671. (h)
- Keystone Products Co., 904-6 23rd St., Union City, N. J. 1-2-5-6-7-9-11. (h)
- Knopp Inc., 4224 Holden St., Oakland 8, Calif. 5-6-7-8. Laboratory For Electronics, Inc., 75 Pitts St., Boston 14, Mass. 1-2-3-7-9. (h)
- LANGVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. 1-2-3-4-5-6-7-8-9-11-12. ADV. PG. 439. (h)
- LAVOIE LABORATORIES, INC., Morganville, N. J. 2-3-5-7-9-12. ADV. PG. 625. (h)
- McGregor Electronic Industries, McGregor, Iowa. 1-3-5-6-10. (h)
- MACARR, INC., 2458 Arthur Ave., Bronx 58, N. Y. 5-6-9. ADV. PG. 620. (h)
- Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. 1-2-3-4-5-6-7-8-9-10-11-12-13-14. (h)
- MAGMATRAN, INC., P.O. Box 211, Kearny, N. J. 4-5-6-8-10-12-13. ADV. PG. 39. (h)
- MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. 5-6-9. ADV. PG. 401. (h)
- MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. 9-12. ADV. PG. 582. (h)
- Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. 1-2-3-4-5-6-7-8-9-11-12. (h)
- Magnetics Research Co., 255 Grove St., White Plains, N. Y. 9-12. (h)
- Magnavox Co., Fort Wayne 4, Ind. 1-2-3-4-5-6-7-8-9-10-11-12-13-14. (h)
- Mectronics, P. O. Box 807, Ridgecrest, Calif. 1. (h)
- Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill. 1-2-6-7-8-10-11. (h)
- Microtran Co., Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y. 1-2-3-5-6-7-8-10-11-12. (h)
- MID-WEST COIL & TRANSFORMER CO., 1642 N. Halstead St., Chicago 14, Ill. 1-3-4-7-9-11. ADV. PG. 286. (h)
- Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. 1-2-3-4-5-6-7-8-9-10-11-12-13-14. (h)
- MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. 5-6-7-8. ADV. PG. 486. (h)
- Moran Electronic Components, Inc., 7660 Woodbury Drive, Silver Spring, Md. 1-5. (h)
- Mt. Vernon Precision Transformer Co., 201 S. Third Ave., Mt. Vernon, N. Y. 1-3-4-5-6-7-8-9-10-11-12-14. (h)
- Muirhead & Co., Ltd., Beckenham, Kent, England. 1. (h)
- Mystic Transformers, Inc., 63 Swanton St., Winchester, Mass. 1-2-5-6-7-8-11. (h)
- NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. 5-6-7-8-14. ADV. PG. 111-122. (h)
- NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. 1-2-3-5-6-7-8-9-11. (h)
- National Aircraft Corp., 3411 Tulare St., Burbank, Calif. 1-5-7-8-9-12. (h)
- New England Transformer Co., 47 McGrath Highway, Somerville, Mass. 1-2-3-4-5-6-7-8-9-10-11-12-13-14. (h)
- NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. 1-2-3-4-5-6-7. ADV. PG. 302. (h)
- New York Transformer Co., Inc., Third Ave., Alpha, N. J. 1-2-3-4-5-6-7-8-11. (h)
- Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y. 8. North Hills Electric Co., Inc., 203-18 35th Ave., Bay-side 63, N. Y. 3. (h)
- Nothelfer Winding Labs., Inc., P. O. Box 455, Trenton 3, N. J. 4-5-6-7-8-9-13-14. (h)
- Oaktron Electric Co., Tinley Park, Ill. 1. (h)
- OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. 7-8. ADV. PG. 524. (h)
- ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. 1-2-3-4-5-6-7-8-9-11-12. ADV. PG. 546, 547. (h)
- OSBORNE ELECTRIC CO., 712 S. E. Hawyhorne Blvd., Portland 14, Ore. 1-2-5-6-7-9-11. ADV. PG. 624. (h)
- OXFORD ELECTRIC CORP., 3911 S. Michigan Ave., Chicago 15, Ill. 1. ADV. PG. 544. (h)
- Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif. 1. (h)
- Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England. 1-2-3-5-6-7-8. (h)
- Peerless Electrical Products Div. of Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif. 1-2-3-4-5-6-7-8-9-11-14. (h)
- Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill. 1-5-7. (h)
- POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. 11. ADV. PG. 586. (h)
- Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J. 1-2-3-4-5-6-7-8-9-10-11-12-13-14. (h)
- PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. 7-11. ADV. PG. 147. (h)
- Quam Nichols Co., Marquette Rd. & Prairie Ave., Chicago 37, Ill. 1. (h)
- Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y. 1-2-3-4-5-6-7-8-9-12. (h)
- RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. 1-2-5-6. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert. (h)
- Ram Electronics, Inc., South Buckout St., Irvington, N. Y. 6-9-10. (h)
- Raypar, Inc., 7800 W. Addison St., Chicago, Ill. 1-2-7-8. (h)
- RAYTHEON MFG. CO. EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. 6-9-12-13. ADV. PG. 364, 365. (h)
- REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 615. (h)
- Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn. 1-2-3-4-5-6-7-8. (h)
- Rola Co., Inc. 2530 Superior Ave., Cleveland 14, Ohio. 1-2-3-5-6-7-11. (h)
- S N C Mfg. Co., Inc., Box 277, Oshkosh, Wis. 1-2-3-4-5-6-7-8-9-10-11-12-14. (h)
- Sangamo Electric Co., Capacitor Div., Marion, Ill. 5-7. (h)
- Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill. 13. (h)
- SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. 1-2-3-5-6-7-8-9-11. ADV. PG. 654. (h)
- Skysweeper Inc., McHenry, Ill. 1-2-3-4-5-6-7-8-11. (h)
- Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif. 1-6-7. (h)
- SOLA ELECTRIC CO., 4633 W. 16th St., Chicago 50, Ill. 12. ADV. PG. 224. (h)
- SORENSEN & CO., INC., 375 Fairfield Ave., Stamford, Conn. 12. ADV. PG. 177-180. (h)

Sorgel Electric Co., 838 W. National Ave., Milwaukee 4, Wis. 4-6-8-9-10-13-14.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. 1-3-7. ADV. PG. 430, 431. (h)
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. 11-12. ADV. PG. 95.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J. 1-2-3-4-5-6-7-8-9-10-11-12-13-14.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa. 5.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England. 1-2.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. 1-2-3-4-5-6-7-8-9-11-12-13. (h)
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y. 9-12.
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. 1-2-3-4-5-6-7-8-9-11-12. ADV. PG. 577. (h)
SUPERIOR ELECTRIC CO. THE, 4000 Middle St., Bristol, Conn. 5-10-12. ADV. PG. 470, 471.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y. 9-10-12.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. 1-2-5-7. (h)
TELEX, INC., Telex Park, St. Paul 1, Minn. 1. ADV. PG. 686.
 Television Laboratories, Inc., Mill St., Wauconda, Ill. 1-7-11.
 Tensitron, Inc., Harvard, Mass. 10.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. 1-2-3-5-6-7-8-9. ADV. PG. 403. (h)
 Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill. 1-6-7-8-9.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. 1-2-3-4-5-6-7-8-9-11-12. (h)
 Thor Transformer & Electronics Co., 750 San Antonio Rd., Palo Alto, Calif. 4-6-7-8-9-10.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. 1-2-3-4-5-6-7-8-9-10-11-12-13-14.
 Todd Products, 156 Gramatan Ave., Mt. Vernon, N. Y. 1-5-6-7-8-11. (h)
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. 1-3-5-6-7. ADV. PG. 526. (h)
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y. 1-2-3.
TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. 1-2-3-4-5-6-7-8-11-12-13. ADV. PG. 685. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. 1-2-3-4-5-6-7-8-9. ADV. PG. 337-344.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif. 1-2-3-4-5-6-7-8-9-10-11-13-14. (h)
 Trenton Transformer Corp., Box 568B, Trenton, N. J. 1-2-3-4-5-6-7-8-13-14.
TRESCO, 3824 Terrace St., Philadelphia 28, Pa. 1-2-3-5-6-7-9-11. ADV. PG. 635.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif. 1-2-3-5-6-7-8-11. (h)
 Tronic Coil Winding Co., Inc., 161 Fairfield Ave., Waterbury, Conn. 1-2-3-5-6-7-8-9-11-13-14. (h)
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J. 1-2-3-4-5-6-7-8-9-11-12. (h)
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. Y. 1-2-4-5-6-7-9-10-11-12. ADV. PG. 548. (h)
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. 1-2-3-4-5-6-7-8-9-10-11-12-13. ADV. PG. Second Cover. (h)
UNIVERSITY LOUDSPEAKERS, INC., 80 S. Kensico Ave., White Plains, N. Y. ADV. PG. 446.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. 5-9. ADV. PG. 605.
VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. 5-7-9-11. ADV. PG. 569. (h)
 Webster Electric Co., 1900 Clark St., Racine, Wis. 1.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. 5-6-7-8. ADV. PG. 325-336. (h)
WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. 1-5-6-7. ADV. PG. 531. (h)
 X-Ray Dept. of General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis. 14.

TRANSFORMERS—Fly Back

ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388.
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Carad Corp., 2850 Bay Rd., Redwood City, Calif.
CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137. (h)
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170. (h)
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. (h)
 Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill. (h)
 Electrometric, Inc., P. O. Box 107, Woodstock, Ill.
ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 665.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12. (h)
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
 Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill.

Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y. (h)
 Heppner Mfg. Co., P. O. Box 612, Round Lake, Ill.
HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N. Y. ADV. PG. 697.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526. (h)
 McGregor Electronic Industries, McGregor, Iowa.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill. (h)
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302. (h)
OHMITE MFG. CO., 3601 Howard St., Skokie, Ill. ADV. PG. 44, 45.
 Penn Tran Corp., Bellefonte, Pa.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 586.
PULSE ENGINEERING, 2431 Spring St., Redwood City, Calif. ADV. PG. 621.
 Ram Electronics, Inc., South Buckhout St., Irvington, N. Y.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Standard Winding Corp., 44-62 Johnes St., Newburgh, N. Y.
TELECHROME INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Telectron Co., 4019 Prospect Ave., Cleveland 3, Ohio.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Todd-Tran Corp., 156 Gramatan Ave., Mt. Vernon, N. Y. (h)
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Transformer Engineers, 161 E. California St., Pasadena 1, Calif. (h)
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif. (h)
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548. (h)
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 Warsaw Coil Co., Warsaw, Ind.
TRANSFORMERS—High Voltage Power Supply
 A. C. Transformer Corp., 89 Madison St., Newark, N. J.
 Acro Products Co., 369 Shurs Lane, Philadelphia 28, Pa.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif. (h)
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146. (h)
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif. (h)
 Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind. (h)
 Audio Development Co., 2833 13th Ave., South, Minneapolis 7, Minn. (h)
 Ballastran Corp., Fort Wayne, Ind. (h)
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. (h)
 Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J. (h)
BRACKE-SEIB X-RAY CO., INC., 16 Pelham Bay Parkway, Pelham Manor, N. Y. ADV. PG. 632.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
 Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn. (h)
 Carad Corp., 2850 Bay Rd., Redwood City, Calif. (h)
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663.
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170. (h)
 Coil Co. of America, Inc., 207 Washington St., Northvale, N. J. (h)
 Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill. (h)
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J. (h)
 Del Electronics Corp., 39 N. MacQueston Parkway, Mt. Vernon, N. Y. (h)
 Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass. (h)
 Electran Mfg. Co., 1901 N. Clybourn, Chicago, Ill. (h)
 Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill. (h)
 Electro Engineering Works, 401 Preda St., San Leandro, Calif. (h)
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y. (h)
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460.

FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660. (h)
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645. (h)
FUGLE-MILLER LABORATORIES, INC., 398 Main St., Metuchen, N. J. ADV. PG. 634, 635.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12. (h)
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank Calif. ADV. PG. 460. (h)
 Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill.
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
GRAND TRANSFORMERS, INC., Hey St., Grand Haven, Mich. ADV. PG. 617. (h)
 Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y. (h)
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687. (h)
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 530. (h)
 Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J.
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371. (h)
 Instron Corp., 50 Brook Rd., Needham Heights, Mass.
 Jobbins Electronic Enterprises, 771 Hamilton Ave., Menlo Park, Calif. (h)
 K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. (h)
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. (h)
 Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Lindberg Engineering Co., 2450 W. Hubbard St., Chicago 11, Ill. (h)
MAGNATRAN, INC., P. O. Box 211, Kearny, N. J. ADV. PG. 39.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill. (h)
 Microtran Co. Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y. (h)
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif. (h)
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 486. (h)
 Mystic Transformers, Inc., 63 Swanton St., Winchester, Mass. (h)
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif. (h)
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302. (h)
 New York Transformer Co., Inc., Third Ave., Alpha, N. J. (h)
 Nothelfer Winding Labs., Inc., P. O. Box 455, Trenton 3, N. J. (h)
OPAD ELECTRIC CO., 69-5 Warren St., New York 7, N. Y. ADV. PG. 524. (h)
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547. (h)
OSBORNE ELECTRIC CO., 712 S. E. Hawthorne Blvd., Portland 14, Ore. ADV. PG. 624. (h)
 Palo Alto Engineering Co., 440 Olive Ave., Palo Alto, Calif. (h)
 Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England. (h)
PESCHEL ELECTRONICS, INC., 13 Garden St., New Rochelle, N. Y. ADV. PG. 543.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J. (h)
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 615.
 S N C Mfg. Co., Inc., Box 277, Oshkosh, Wis. (h)
 Sangamo Electric Co., Capacitor Div., Marlon, Ill. (h)
 Scientific Electric Corp., 105-109 Monroe St., Garfield, N.J.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y. (h)
SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654.
 Skysweeper Inc., McHenry, Ill.
 Sorgel Electric Co., 838 W. National Ave., Milwaukee 4, Wis. (h)
SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 372, 373.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N.J.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)
 Stator Electric Corp., 46-25 58th St., Woodside, N. Y.
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. ADV. PG. 577. (h)
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y. (h)
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403. (h)
 Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill. (h)

Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif. (h)
 Trenton Transformer Corp., Box 568 B, Trenton, N. J.
TRESCO, INC., 3824 Terrace St., Philadelphia 28, Pa. ADV. PG. 635.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif. (h)
 Tronic Coil Winding Co., Inc., 161 Fairfield Ave., Waterbury, Conn. (h)
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J. (h)
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. Y. ADV. PG. 548. (h)
 Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.
VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. ADV. PG. 569. (h)
 Waco, Inc., 2032 Broadway, Santa Monica, Calif.

TRANSFORMERS—Instrument

ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388.
 Acro Products Co., 369 Shurs Lane, Philadelphia 28, Pa. (h)
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J. (h)
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif. (h)
 Annis Co., R. B., 1101 North Delaware St., Indianapolis, Ind. (h)
 Arco Transformer & Electric Co., 1602 South Hanna St., Fort Wayne, Ind. (h)
ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Audio Development Co., 2833 13th Ave., South, Minneapolis 7, Minn. (h)
 Barwood Electronics, Inc., 546 W. Garfield Ave., Glendale 4, Calif. (h)
 Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J. (h)
 Bristol Co., The, Waterbury 20, Conn. (h)
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
 Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn. (h)
CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137. (h)
CENTRAL TRANSFORMER CO., 910 W Jackson Blvd., Chicago, Ill. ADV. PG. 663. (h)
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y. (h)
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222. (h)
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J. (h)
 Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill. (h)
 Electron Mfg. Co., 1901 N. Clybourn, Chicago, Ill. (h)
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y. (h)
 Esterline-Angus Co., Inc., P. O. Box 596, Indianapolis 6, Ind. (h)
 Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio. (h)
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645. (h)
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd. Schenectady 5, N. Y. ADV. PG. 1-12 (h)
 General Transformer Co., 18240 Harwood Ave., Home-wood, Ill. (h)
 Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich. ADV. PG. 617. (h)
 Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687. (h)
HIGHLAND ENGINEERING CO., 91 Magnolia St., West-bury, N. Y. ADV. PG. 530. (h)
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Phila-delphia 30, Pa. (h)
INDUSTRIAL TRANSFORMER CO., Gouldsboro, Pa. ADV. PG. 370, 371. (h)
 Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill. (h)
 Jobbins Electronic Enterprises, 771 Hamilton Ave., Menlo Park, Calif. (h)
 K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. (h)
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. (h)
 Knopp Inc., 4224 Holden St., Oakland 8, Calif. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625. (h)
 Mag-Electric Products, Inc., 12822 Yukon Ave., Haw-thorne, Calif. (h)

Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
 Microtran Co., Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y. (h)
 Milwaukee Transformer Co., 5231 N. Hopkins St., Mil-waukee 9, Wis. (h)
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 111-122. (h)
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif. (h)
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302. (h)
 New York Transformer Co., Inc., Third Ave., Alpha, N. J. (h)
 Nothelmer Winding Labs., Inc., P. O. Box 455, Trenton 3, N. J. (h)
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547. (h)
OSBORNE ELECTRIC CO., 712 S. E. Hawthorne Blvd., Portland 14, Ore. ADV. PG. 624. (h)
 Palo Alto Engineering Co., 440 Olive Ave., Palo Alto, Calif. (h)
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif. (h)
PULSE ENGINEERING, 2431 Spring St., Redwood City, Calif. ADV. PG. 621. (h)
 Quotronic Transformer Corp., 525 Broadway, New York 12, N. Y. (h)
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert. (h)
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365. (h)
 Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio. (h)
 S N C Mfg. Co., Inc., Box 277, Oshkosh, Wis. (h)
 Sclaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill. (h)
SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654. (h)
 Skysweeper Inc., McHenry, Ill. (h)
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431. (h)
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J. (h)
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403. (h)
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. (h)
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y. (h)
TORWIC ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526. (h)
 Transformer Engineers, 161 E. California St., Pasadena 1, Calif. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344. (h)
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif. (h)
 Trenton Transformer Corp., Box 4688, Trenton, N. J. (h)
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif. (h)
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)
 Waco, Inc., 2032 Broadway, Santa Monica, Calif. (h)
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pitts-burgh 30, Pa. ADV. PG. 325-336. (h)
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483. (h)
WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91 Conn. ADV. PG. 531. (h)

TRANSFORMERS—Microwave See MICROWAVE ACCESSORIES

TRANSFORMERS—Miniature

ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388. (h)
 Acro Products Co., 369 Shurs Lane, Philadelphia 28, Pa. (h)
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif. (h)
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J. (h)
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J. (h)
 Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa. (h)
AIRPAD PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146. (h)
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif. (h)
ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. ADV. PG. 696, 697. (h)
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Rox-bury, Mass. ADV. PG. 540. (h)
 Audio Development Co., 2833 13th Ave. S., Minneapolis 7, Minn. (h)
 Ballastina Corp., Fort Wayne, Ind. (h)
 Barwood Electronics Inc., 546 W. Garfield Ave., Glen-dale 4, Calif. (h)

Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J. (h)
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 551. (h)
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310. (h)
 Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn. (h)
 Carad Corp., 2850 Bay Rd., Redwood City, Calif. (h)
CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663. (h)
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170. (h)
 Coll Co. of America, Inc., 207 Washington St., North-ville, N. J. (h)
 Coll Winders, Inc., 100 New York Ave., Westbury, N. Y. (h)
COILCRAFT, INC., Cary, Ill. ADV. PG. 628. (h)
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222. (h)
 Crest Transformer Corp., 1834-36 W. North Ave., Chi-cago 22, Ill. (h)
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J. (h)
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. (h)
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566. (h)
 Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill. (h)
 Electron Mfg. Co., 1901 N. Clybourn, Chicago, Ill. (h)
 Electro Engineering Works, 401 Preda St., San Leandro, Calif. (h)
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y. (h)
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 609. (h)
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360. (h)
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660. (h)
 Fortiphone Ltd., 247 Regent St., W1, London, England. (h)
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645. (h)
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12. (h)
 General Transformer Co., 18240 Harwood Ave., Home-wood, Ill. (h)
GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank, Calif. ADV. PG. 460. (h)
 Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
GRAND TRANSFORMERS, INC., Hey St., Grand Haven, Mich. ADV. PG. 617. (h)
GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307. (h)
 Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
 Harder Co., Donald C., 3710 Midway Drive, San Diego 10, Calif. (h)
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687. (h)
HIGHLAND ENGINEERING CO., 91 Magnolia St., West-bury, N. Y. ADV. PG. 530. (h)
INDUSTRIAL TRANSFORMER CO., Gouldsboro, Pa. ADV. PG. 370, 371. (h)
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y. (h)
 K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. (h)
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. (h)
KESSLER CO., FRANK, 41-45 47th St., Long Island City 4, N. Y. ADV. PG. 671. (h)
 Keystone Products Co., 904-6 23rd St., Union City, N. J. (h)
LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625. (h)
 Mag-Electric Products, Inc., 12822 Yukon Ave., Haw-thorne, Calif. (h)
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
 Magnetix Research Co., 255 Grove St., White Plains, N. Y. (h)
 Melectronics, P.O. Box 807, Ridgecrest, Calif. (h)
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill. (h)
MICO INSTRUMENT CO., 77 Trowbridge St., Cambridge 38, Mass. ADV. PG. 553. (h)
 Microtran Co., Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y. (h)
 Milwaukee Transformer Co., 5231 N. Hopkins St., Mil-waukee 9, Wis. (h)
 Model Electric Products Corp., 1500 Bangs Ave., Asbury Park, N. J. (h)
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 111-122. (h)
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif. (h)
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
NEW LONDON INSTRUMENT CO., P.O. Box 189, New London, Conn. ADV. PG. 302. (h)
 New York Transformer Co., Inc., Third Ave., Alpha, N. J. (h)

Oaktron Electric Co., Tinley Park, Ill.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
OSBORNE ELECTRIC CO., 712 S.E. Hawthorne Blvd., Portland 14, Ore. ADV. PG. 624. (h)
 Partridge Transformers, Ltd., Rogbugk Rd. Tolworth, Surrey, England. (h)
 Peerless Electrical Products, Div. of Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif. (h)
 Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
PULSE ENGINEERING, 2431 Spring St., Redwood City, Calif. ADV. PG. 621.
 Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y. (h)
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert (h)
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365. (h)
 Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn. (h)
 Sciaký Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 Skysweeper Inc., McHenry, Ill.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431. (h)
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. ADV. PG. 577. (h)
 Super Ear Products Co., 675 Merrick Rd., Lynbrook, N. Y.
TELEX, INC., Telex Park, St. Paul 1, Minn. ADV. PG. 686.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403. (h)
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. (h)
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Todd Products, 156 Gramatan Ave., Mt. Vernon, N. Y. (h)
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526. (h)
 Transformer Engineers, 161 E. California, Pasadena 1, Calif. (h)
TRANSFORMER SPECIALTY CO., INC., Bala-Cynwyd, Pa. ADV. PG. 685. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif. (h)
TRESCO, INC., 3824 Terrace St., Philadelphia 28, Pa. ADV. PG. 635.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif. (h)
 Tronic Coil Winding Co., Inc., 161 Fairfield Ave., Waterbury, Conn. (h)
 Tur-Bo Jet Products, Inc., 424 S. San Gabriel Blvd., San Gabriel, Calif.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J. (h)
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. Y. ADV. PG. 548.
 Waco, Inc., 2032 Broadway, Santa Monica, Calif.
WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531. (h)
TRANSFORMERS—Precision Matched
ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388. (h)
 Acro Products Co., 369 Shurs Lane, Philadelphia 28, Pa.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif. (h)
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146. (h)
 Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind.
 Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn. (h)
 Ballastran Corp., Fort Wayne, Ind. (h)
 Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 551.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
 Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn. (h)
 Carad Corp., 2850 Bay Rd., Redwood City, Calif. (h)
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va. (h)
CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137. (h)
CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
 Coast Coil Co., 5333 W. Washington Blvd., Los Angeles 16, Calif. (h)
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222. (h)
 Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill. (h)

Electro Engineering Works, 401 Preda St., San Leandro, Calif.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645. (h)
 Gertsch Products, Inc., 11846 Mississippi Ave., P. O. Box 25856, Los Angeles 25, Calif.
GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank, Calif. ADV. PG. 460. (h)
GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307.
 Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687. (h)
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 530. (h)
INDUSTRIAL TRANSFORMER CO., Gouldsboro, Pa. ADV. PG. 370, 371.
 K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. (h)
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. (h)
 Knopp Inc., 4224 Holden St., Oakland 8, Calif.
LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
 Microtran Co., Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif. (h)
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
OSBORNE ELECTRIC CO., 712 S.E. Hawthorne Blvd., Portland 14, Ore. ADV. PG. 624. (h)
 Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England. (h)
PULSE ENGINEERING, 2431 Spring St., Redwood City, Calif. ADV. PG. 621.
 Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y. (h)
SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654.
 Skysweeper Inc., McHenry, Ill.
SOUTHWESTERN INDUSTRIAL ELECTRONICS CO., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas. ADV. PG. 430, 431. (h)
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403. (h)
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. (h)
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526. (h)
 Transformer Engineers, 161 E. California St., Pasadena 1, Calif. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif. (h)
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif. (h)
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)
TRANSFORMERS—Precision Voltage Dividing
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146. (h)
 Basler Electric Co., 605 Fifth St., Highland, Ill.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
 Carad Corp., 2850 Bay Rd., Redwood City, Calif. (h)
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
 Coast Coil Co., 5333 W. Washington Blvd., Los Angeles 16, Calif.
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222. (h)
 Electro Engineering Works, 401 Preda St., San Leandro, Calif.
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 Gertsch Products, Inc., 11846 Mississippi Ave., P. O. Box 25856, Los Angeles 25, Calif.
GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank, Calif. ADV. PG. 460. (h)
 Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)

HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687. (h)
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 530. (h)
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601. (h)
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371.
 K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif. (h)
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
OSBORNE ELECTRIC CO., 712 S. E. Hawthorne Blvd., Portland 14, Ore. ADV. PG. 624. (h)
PERKIN-ELMER CORP., THE, Main Ave., Norwalk, Conn. ADV. PG. 309.
PULSE ENGINEERING, 2431 Spring St., Redwood City, Calif. ADV. PG. 621.
 Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y. (h)
SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)
 Thermador Electric Mfg. Co., 521 S. Boyle Ave., Los Angeles 58, Calif. (h)
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)
 Waco, Inc., 2032 Broadway, Santa Monica, Calif.
TRANSFORMERS—Printed Circuit
 ACF Electronics, 800 N. Pitt St., Alexandria, Va.
ACE COIL & ELECTRONICS CO., 912 Lincoln Highway, Metuchen, N. J. ADV. PG. 600.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
ANDERSON ASSOCIATES, H.V., 239 Park Ave., Berkeley Heights, N. J. ADV. PG. 560.
 Ballastran Corp., Fort Wayne, Ind.
BART LABORATORIES DIV. OF BART MFG. CORP., 227 Main St., Belleville, N. J. ADV. PG. 608.
 Beck's Inc., 298-300 E. Fifth St., St. Paul 1, Minn.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310.
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
CENTRALAB DIV., GLOBE-UNION, INC., 914 Y. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Digital Products, Inc., 7643 Fay Ave., LaJolla, Calif.
 Electrometric, Inc., P.O. Box 107, Woodstock, Ill.
ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 665.
 Graphik Circuits Div. of Cinch Mfg. Corp., 221 S. Arroyo Parkway, Pasadena, Calif.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
 Metronics, P.O. Box 807, Ridgecrest, Calif.
 Mitronics, Inc., 232 Thirteenth Ave., Newark, N. J.
 North Hills Electric Co., Inc., 203-18 35th Ave., Bay-side 61, N. Y.
PHOTOCIRCUITS CORP., Glen Cove, N. Y. ADV. PG. 442.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 586.
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
 Techniques, Inc., 178-184 Central Ave., Hackensack, N. J.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
 Tri-Dex Co., P.O. Box 1207, Lindsay, Calif.
 Vokar Corp., 7300 Huron River Drive, Dexter, Mich.
TRANSFORMERS—Pulse
ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388.
 Acro Products Co., 369 Shurs Lane, Philadelphia 28, Pa.
 Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif. (h)
 Aircraft Armaments, Inc., Cockeysville, Md. (h)
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J. (h)
 Airdesign Inc., 241 Fairfield Ave., Upper Darby, Pa. (h)
 Aladdin Radio Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn. (h)
 Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif. (h)
ALTO SCIENTIFIC CO., 855 Commercial St., Palo Alto, Calif. ADV. PG. 171.

- APPLIED RADIATION CORP., 1210 Spring Brook Rd., Walnut Creek, Calif. ADV. PG. 643.
 Audio Development Co., 2833 13th Ave. S., Minneapolis 7, Minn. (h)
 Ballastran Corp., Fort Wayne, Ind. (h)
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. (h)
 Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
 BERKSHIRE LABORATORIES, 580 Bank Village, Greenville, N. H. ADV. PG. 649. (h)
 C B C Electronics Co., Inc., 2601 N. Howard St., Philadelphia 33, Pa. (h)
CALEDONIA ELECTRONICS & TRANSFORMER CO., Caledonia, N. Y. ADV. PG. 551.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
 Campbell Co., Inc., Collin, Westville Ave., Danbury, Conn. (h)
 Carad Corp., 2850 Bay Rd., Redwood City, Calif. (h)
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137. (h)
CENTRAL TRANSFORMER CO., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663. (h)
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170. (h)
 Coil Co. of America, Inc., 207 Washington St., Northvale, N. J. (h)
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada. (h)
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J. (h)
 Dielectric Div., The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif. (h)
 Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill. (h)
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J. (h)
ESC CORP., 534 Bergen Blvd., Palisades Park, N. J. ADV. PG. 417. (h)
 Electro Engineering Works, 401 Preda St., San Leandro, Calif. (h)
 Electrometric, Inc., P. O. Box 107, Woodstock, Ill. (h)
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y. (h)
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 272, 273. (h)
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460. (h)
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360. (h)
 Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind. (h)
 Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio. (h)
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645. (h)
GENERAL ELECTRIC CO. APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12. (h)
GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank, Calif. ADV. PG. 460. (h)
 Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
GUDEMAN CO., 340 W. Huron St., Chicago 10, Ill. ADV. PG. 307. (h)
 Gudeman Co. of California Inc., 9200 Exposition Blvd., Los Angeles 34, Calif. (h)
 Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y. (h)
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687. (h)
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 530. (h)
INDUSTRIAL TRANSFORMER CO., Gouldsboro, Pa. ADV. PG. 370, 371. (h)
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md. (h)
 K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. (h)
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. (h)
 Keystone Products Co., 904-6 23rd St., Union City, N. J. (h)
 Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass. (h)
LANGVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625. (h)
 Luther Electronic Mfg. Co., 5728 W. Washington Blvd., Los Angeles 16, Calif. (h)
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
MAGNATRON, INC., P. O. Box 211, Kearny, N. J. ADV. PG. 39. (h)
 Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. & Hobson Blvd., Easton, Pa. (h)
 Magnetics Research Co., 255 Grove St., White Plains, N. Y. (h)
 Melectronics, P. O. Box 807, Ridgecrest, Calif. (h)
 Microtran Co., Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y. (h)
- MID-WEST COIL & TRANSFORMER CO.**, 1642 N. Halstead St., Chicago 14, Ill. ADV. PG. 286. (h)
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif. (h)
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
 Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J. (h)
MOLONEY ELECTRIC CO., 5590 Bircher Blvd., St. Louis 20, Mo. ADV. PG. 486. (h)
 Mystic Transformers, Inc., 63 Swanton St., Winchester, Mass. (h)
NJE CORPORATION, 345 Carnegie Ave., Kenilworth, N. J. ADV. PG. 111-122. (h)
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif. (h)
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302. (h)
 New York Transformer Co., Inc., Third Ave., Alpha, N. J. (h)
 Nothelfer Winding Labs., Inc., P. O. Box 455, Trenton 3, N. J. (h)
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547. (h)
OSBORNE ELECTRIC CO., 712 S. E. Hawthorne Blvd., Portland 14, Ore. ADV. PG. 624. (h)
 PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif. (h)
PACKARD-BELL CO., 12333 W. Olympic Blvd., Los Angeles 64, Calif. ADV. PG. 322. (h)
 Palo Alto Engineering Co., 440 Olive Ave., Palo Alto, Calif. (h)
 Pearson Electronics, 895 Commercial St., Palo Alto, Calif. (h)
 Peerless Electrical Products Div. of Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif. (h)
 Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa. (h)
 Power Industries Co., 2611 Indiana Ave., Chicago 16, Ill. (h)
PULSE ENGINEERING, 2431 Spring St., Redwood City, Calif. ADV. PG. 621. (h)
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert. (h)
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill. (h)
 Ram Electronics, Inc., S. Buckout St., Irvington, N. Y. (h)
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365. (h)
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 615. (h)
 S N C Mfg. Co., Inc., Box 277, Oshkosh, Wis. (h)
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill. (h)
SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654. (h)
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif. (h)
 Sprague Electric Co., 125 Marshall St., North Adams, Mass. (h)
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95. (h)
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. ADV. PG. 577. (h)
TECHNITROL ENGINEERING CO., 2751 N. 4th St., Philadelphia 33, Pa. ADV. PG. 83, 491. (h)
TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403. (h)
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. (h)
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
 Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y. (h)
 Transformer Engineers, 161 E. California St., Pasadena 1, Calif. (h)
TRANSFORMER SPECIALTY CO., Bala-Cynwyd, Pa. ADV. PG. 685. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344. (h)
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif. (h)
TRESCO, INC., 3824 Terrace St., Philadelphia 28, Pa. ADV. PG. 635. (h)
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif. (h)
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J. (h)
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548. (h)
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)
 Valor Electronic Components Co., 5808 Marilyn Ave., Culver City, Calif. (h)
 Waco, Inc., 2032 Broadway, Santa Monica, Calif. (h)
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336. (h)
WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531. (h)
- ACME ELECTRIC CORP.**, 31 Water St., Cuba, N. Y. ADV. PG. 388. (h)
 Aerocoil Inc., 24 Cliff St., Jersey City, N. J. (h)
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif. (h)
 Aladdin Radio Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn. (h)
 All-Tronics, Inc., 45 Bond St., Westbury, N. Y. (h)
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540. (h)
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa. (h)
 Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J. (h)
 Caddell-Burns Mfg. Co., 40 E. Second St., Mineola, N. Y. (h)
CAMBRIDGE THERMIONIC CORP., 445 Concord Ave., Cambridge 38, Mass. ADV. PG. 310. (h)
 Carad Corp., 2850 Bay Rd., Redwood City, Calif. (h)
CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137. (h)
 Central Coil Co., 1720 N. Luett St., Indianapolis, Ind. (h)
COILCRAFT, INC., Cary, Ill. ADV. PG. 628. (h)
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y. (h)
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602. (h)
 Custom Electronics Corp., 738 Speedwell Ave., Morris Plains, N. J. (h)
 DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. (h)
 Delco Radio Div., General Motors Corp., Kokomo, Ind. (h)
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566. (h)
 Electrometric, Inc., P. O. Box 107, Woodstock, Ill. (h)
 Embassy Engineering Corp., 673 Elton Ave., New York 51, N. Y. (h)
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460. (h)
FUGLE-MILLER LABORATORIES, INC., 398 Main St., Metuchen, N. J. ADV. PG. 634, 635. (h)
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y. (h)
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J. (h)
 Gerlyn Engineering Co., 2151 N. Damen Ave., Chicago 47, Ill. (h)
 Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich. (h)
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y. (h)
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687. (h)
HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N. Y. ADV. PG. 697. (h)
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa. (h)
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371. (h)
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y. (h)
 Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625. (h)
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526. (h)
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif. (h)
 McGregor Electronic Industries, McGregor, Iowa. (h)
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
MAGNATRON, INC., P. O. Box 211, Kearny, N. J. ADV. PG. 39. (h)
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill. (h)
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass. (h)
 Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif. (h)
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
 Moran Electronic Components, Inc., 7660 Woodbury Dr., Silver Spring, Md. (h)
 Muter Co., 1255 S. Michigan Ave., Chicago 5, Ill. (h)
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif. (h)
 National Co., Inc., 61 Sherman St., Malden 48, Mass. (h)
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
 North Hills Electric Co., Inc., 203-18 35th Ave., Bay-side 61, N. Y. (h)
 Oaktron Electric Co., Tinley Park, Ill. (h)
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547. (h)
PULSE ENGINEERING, 2431 Spring St., Redwood City, Calif. ADV. PG. 621. (h)
 Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill. (h)
 Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif. (h)
REDMAN ELECTRONICS CORP., P. O. Box 72, Thompsonville, Conn. ADV. PG. 615. (h)
 Rollan Electric Co., 8020 S. South Park, Chicago 19, Ill. (h)
SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57. (h)
SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 372, 373. (h)

TRANSFORMERS—r-f and i-f

ACE COIL & ELECTRONICS CO., 912 Lincoln Highway, Metuchen, N. J. ADV. PG. 600. (h)

STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
Standard Winding Corp., 44-62 Johnes St., Newburgh, N. Y.
Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
Summit Coil Co., 4 Claremont Rd., Bernardsville, N. J.
Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
TEXAS INSTRUMENTS INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.
Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
Vokar Corp., 7300 Huron River Dr., Dexter, Mich.
Warsaw Coil Co., Warsaw, Ind.
Western Coil Products Co., 2989 Middlefield Rd., Palo Alto, Calif.
Wirt Co., 5221 Greene St., Philadelphia 44, Pa.

TRANSFORMERS—Subsonic

ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388.
Acro Products Co., 369 Shurs Lane, Philadelphia 28, Pa.
Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y.
Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
Ballastran Corp., Fort Wayne, Ind.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
Carad Corp., 2850 Bay Rd., Redwood City, Calif. (h)
California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn. (h)
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137. (h)
CENTRAL TRANSFORMER CORP., 910 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663. (h)
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573. (h)
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572. (h)
Coil Co. of America, Inc., 207 Washington St., Northvale, N. J. (h)
Coil Winders, Inc., 100 New York Ave., Westbury, N. Y. (h)
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222. (h)
Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J. (h)
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. (h)
De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif. (h)
Del Electronics Corp., 39 N. MacQueston Parkway, Mt. Vernon, N. Y. (h)
Electro Engineering Works, 401 Preda St., San Leandro, Calif. (h)
Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y. (h)
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645. (h)
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12. (h)
GENERAL MAGNETICS, INC., 135 Bloomfield Ave., Bloomfield, N. J. ADV. PG. 246. (h)
GOSLIN ELECTRIC & MFG. CO., 2921 W. Olive St., Burbank, Calif. ADV. PG. 460. (h)
Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
HERMETIC SEAL TRANSFORMER CO., 555 N. 5th St., Garland, Texas. ADV. PG. 687. (h)
HIGHLAND ENGINEERING CO., 91 Magnolia St., Westbury, N. Y. ADV. PG. 530. (h)
Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J. (h)
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371. (h)
Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y. (h)
K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn. (h)
Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. (h)
Keystone Products Co., 904-6 23rd St., Union City, N. J. (h)
Laboratory For Electronics, Inc., 75 Pitts St., Boston 14, Mass. (h)
LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439. (h)
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625. (h)

Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill. (h)
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
MAGNATRAN, INC., P.O. Box 211, Kearny, N. J. ADV. PG. 39. (h)
MAGNETIC AMPLIFIERS, INC., 632 Tinton Ave., New York 55, N. Y. ADV. PG. 401. (h)
MAGNETIC RESEARCH CORP., 200 Center St., El Segundo, Calif. ADV. PG. 582. (h)
Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
MAGNETICS, INC., P.O. Box 391, Butler, Pa. ADV. PG. 54, 55. (h)
Magnetics Research Co., 255 Grove St., White Plains, N. Y. (h)
Microtran Co., Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y. (h)
MID-WEST COIL & TRANSFORMER CO., 1642 N. Halstead St., Chicago 14, Ill. ADV. PG. 286. (h)
NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
National Aircraft Corp., 3411 Tulare St., Burbank, Calif. (h)
New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
Nothelfer Winding Labs., Inc., P. O. Box 455, Trenton 3, N. J. (h)
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547. (h)
Pantek Co., P.O. Box 212, El Segundo, Calif. (h)
Peerless Electrical Products Div. of Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif. (h)
Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J. (h)
Qutronic Transformer Corp., 525 Broadway, New York 12, N. Y. (h)
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365. (h)
S N C Mfg. Co., Inc., Box 277, Oshkosh, Wis. (h)
Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill. (h)
SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654. (h)
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J. (h)
Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)
Stator Electric Corp., 46-25 58th St., Woodside, N. Y. (h)
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. ADV. PG. 577. (h)
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733. (h)
Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y. (h)
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403. (h)
Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif. (h)
Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
TORWICO ELECTRONICS, INC., 1090 Morris Ave., Union, N. J. ADV. PG. 526. (h)
TRANSFORMERS, INC., 200 Stage Rd., Vestal, N. Y. ADV. PG. 337-344. (h)
Tranonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif. (h)
Tronic Coil Winding Co., Inc., 161 Fairfield Ave., Waterbury, Conn. (h)
Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J. (h)
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548. (h)
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605. (h)
VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. ADV. PG. 569. (h)
Waco, Inc., 2032 Broadway, Santa Monica, Calif. (h)

TRANSFORMERS—Subsonic

See **TRANSFORMERS—Audio (3)**

TRANSFORMERS—TV Deflection

ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388. (h)
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137. (h)
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170. (h)
Cinema-Television Ltd., Worsley Bridge Rd., London S. E. 26, England. (h)
Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill. (h)
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill. (h)
General Instrument Corp., 65 Gouverneur St., Newark 4, N. J. (h)
Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590. (h)
I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa. (h)
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty Fourth St., Brooklyn 32, N. Y. ADV. PG. 526. (h)
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
Medal Mfg. Co., Inc., 194 E. Silver St., Sharon, Pa. (h)

Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill. (h)
Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
Penn Tran Corp., Bellefonte, Pa. (h)
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert. (h)
Ram Electronics, Inc., S. Buckout St., Irvington, N. Y. (h)
Raypar, Inc., 7800 W. Addison St., Chicago, Ill. (h)
Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio. (h)
TELECHROME, INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149. (h)
Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)
Todd-Tran Corp., 156 Gramatan Ave., Mt. Vernon, N. Y. (h)
Transformer Engineers, 161 E. California St., Pasadena 1, Calif. (h)
Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif. (h)
Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J. (h)
Warsaw Coil Co., Warsaw, Ind. (h)

TRANSFORMERS—TV Impedance Matching

ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388. (h)
All-Tronics, Inc., 45 Bond St., Westbury, N. Y. (h)
Ampli-Vision Div. of The International Telemeter Corp., 2500 Stoner Ave., Los Angeles 25, Calif. (h)
Arco Transformer & Electric Co., 1602 S. Hanna St., Fort Wayne, Ind. (h)
Blonder-Tongue Labs., Inc., 526-536 North Ave., Westfield, N. J. (h)
California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va. (h)
CELCO CONSTANTINE ENGINEERING LABS CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137. (h)
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170. (h)
Cinema-Television Ltd., Worsley Bridge Rd., London S. E. 26, England. (h)
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602. (h)
Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill. (h)
Dane Electronic Labs., Inc., P. O. Box #209, Salem, Mass. (h)
Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill. (h)
Electrometric Inc., P. O. Box 107, Woodstock, Ill. (h)
Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y. (h)
Entron Inc., 4902 Lawrence St., Bladenburg, Md. (h)
ESSEX ELECTRONICS, Berkeley Heights, N. J. ADV. PG. 460. (h)
General Coil Products Corp., 43 Roselle St., Mineola, N. Y. (h)
General Instrument Corp., 65 Gouverneur St., Newark 4, N. J. (h)
Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill. (h)
JFD MFG. CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227. (h)
Jerrold Electronics Corp., 26th & Dickinson St., Philadelphia 46, Pa. (h)
Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa. (h)
McGregor Electronic Industries, McGregor, Iowa. (h)
Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa. (h)
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif. (h)
Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547. (h)
Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill. (h)
Ram Electronics, Inc., South Buckout St., Irvington, N. Y. (h)
Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio. (h)
SHURE BROTHERS, INC., 222 Hartrey Ave., Evanston, Ill. ADV. PG. 298. (h)
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95. (h)
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J. (h)
Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill. (h)

TRANSFORMERS—Toroidal

See **TOROIDS**

TRANSFORMERS—Ultrasonic

ACME ELECTRIC CORP., 31 Water St., Cuba, N. Y. ADV. PG. 388. (h)
Acro Products Co., 369 Shurs Lane, Philadelphia 28, Pa. (h)
Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y. (h)
Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif. (h)

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J. (h)
AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146. (h)
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Audio Development Co., 2833 13th Ave., S. Minneapolis 7, Minn.
 Basler Electric Co., 605 Fifth St., Highland, Ill. (h)
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif. (h)
CELCO CONSTANTINE ENGINEERING LABS CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137. (h)
CENTRAL TRANSFORMER CO., 919 W. Jackson Blvd., Chicago, Ill. ADV. PG. 663. (h)
COMMUNICATION ACCESSORIES CO., Red Bridge Rd., Hickman Mills, Mo. ADV. PG. 219-222. (h)
 Corbett Science Laboratories, F. W., 3115 Venice Blvd., Los Angeles 19, Calif.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J. (h)
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
 Electro Engineering Works, 401 Preda St., San Leandro, Calif.
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 609. (h)
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660. (h)
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645. (h)
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12. (h)
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
 Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif. (h)
HERMETIC SEAL TRANSFORMER CO., 555 N. Fifth St., Garland, Texas. ADV. PG. 687. (h)
HYCOR DIV. OF INTERNATIONAL RESISTANCE CO., 12970 Bradley Ave., Sylmar, Calif. ADV. PG. 601. (h)
INDUSTRIAL TRANSFORMER CORP., Gouldsboro, Pa. ADV. PG. 370, 371. (h)
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y. (h)
 Mag-Electric Products, Inc., 12822 Yukon Ave., Hawthorne, Calif. (h)
 Microtran Co., Div. of Crest Labs, Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis. (h)
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif. (h)
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass. (h)
 North Hills Electric Co., Inc., 203-18 35th Ave., Bay-side 61, N. Y.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654.
SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 372, 373.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y. (h)
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 11, N. Y. ADV. PG. 199. (h)
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
TRANSFORMER SPECIALTY CO., INC., Bala-Cynwyd, Pa. ADV. PG. 685. (h)
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif. (h)
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif. (h)
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover. (h)

TRANSFORMER WINDINGS
 A. P. W. Co., 72 W. Main St., Rockaway, N. J.
ACE COIL & ELECTRONICS CO., 912 Lincoln Highway, Metuchen, N. J. ADV. PG. 600.
 Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y.
 Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
ALLIED ALLEGRI INC., 141 River Rd., Nutley 10, N. J. ADV. PG. 669.
ARNOLD MAGNETICS CORP., 5962 Smiley Drive, Culver City, Calif. ADV. PG. 696, 697.
ATLAS ENGINEERING CO., 176 Blue Hill Ave., Roxbury, Mass. ADV. PG. 540.
 Ballastran Corp., Fort Wayne, Ind.
 Barwood Electronics Inc., 546 W. Garfield Ave., Glendale 4, Calif.
BURNELL & CO., INC., 45 Warburton Ave., Yonkers 2, N. Y. ADV. PG. 366, 367.
 California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.

Carad Corp., 2850 Bay Rd., Redwood City, Calif.
 Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
CELCO CONSTANTINE ENGINEERING LABORATORIES CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
 Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170.
 Coil Co. of America, Inc., 207 Washington St., Northvale, N. J.
COILCRAFT, INC., Cary, Ill. ADV. PG. 628.
COILS-ELECTRONICS CO., 2939-49 N. 2nd St., Philadelphia 33, Pa. ADV. PG. 602.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
 Coto-Coil Co., Inc., 65 Pavilion Ave., Providence 5, R. I.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
 DeLuxe Coils, Inc., Wabash, Ind.
 DeWitt Development Co., 3008 W. 127th St., Blue Island, Ill.
DIETZ DESIGN & MFG. CO., Grandview 6, Mo. ADV. PG. 566.
 Double "E" Products Co., 216 Standard St., El Segundo, Calif.
 Electran Mfg. Co., 1901 N. Claybourn, Chicago, Ill.
 Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill.
ELECTRONIC COILS, INC., P. O. Box 1665, 33 Lyman St., Springfield, Mass. ADV. PG. 515.
EPCO PRODUCTS, INC., 2500 Atlantic Ave., Brooklyn 17, N. Y. ADV. PG. 609.
FERRANTI ELECTRIC INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
FREED TRANSFORMER CO., INC., 1736 Weirfield St., Brooklyn 27, N. Y. ADV. PG. 645.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
GENERAL TRANSFORMER CO., 18240 Harwood Ave., Homewood, Ill. ADV. PG. 617.
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
GRAND TRANSFORMERS, INC., Hey St., Grand Haven, Mich. ADV. PG. 617.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.
 Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
HOULIHAN CO., T. J., 2508-14 W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 608.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. Y.
 Jobbins Electronic Enterprises, 771 Hamilton Ave., Menlo Park, Calif.
LANGEVIN MFG. CORP., 47-37 Austel Place, Long Island City 1, N. Y. ADV. PG. 439.
 Magnetic Windings Div., Essex Wire Corp., Freemans-burg Ave. at Hobson Blvd., Easton, Pa.
 May Engineering Co., 6055 Lankershim Blvd., North Hollywood, Calif.
MID-WEST COIL & TRANSFORMER CO., 1642 N. Halstead St., Chicago 14, Ill. ADV. PG. 286.
 Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
 Mystic Transformers, Inc., 63 Swanton St., Winchester, Mass.
 North Hills Electric Co., Inc., 203-18 35th Ave., Bay-side 61, N. Y.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn.
SIGNAL TRANSFORMER CO., 2518 Coney Island Ave., Brooklyn 23, N. Y. ADV. PG. 654.
 Skysweeper Inc., McHenry, Ill.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
STERLING TRANSFORMER CORP., 297 N. Seventh St., Brooklyn 7, N. Y. ADV. PG. 577.
 Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
 Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.
 Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
TRANSFORMER SPECIALTY CO., INC., Bala Cynwyd, Pa. ADV. PG. 685.
 Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
 Tronic Coil Winding Co., Inc., 161 Fairfield Ave., Waterbury, Conn.
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
U. S. ELECTRONICS CORP., 276 Warren St., Lyndhurst, N. J. ADV. PG. 548.
UNITED TRANSFORMER CO., 150 Varick St., New York 13, N. Y. ADV. PG. Second Cover.
 Vokar Corp., 7300 Huron River Drive, Dexter, Mich.

WHEELER INSULATED WIRE CO., INC., THE, DIV. OF SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.
 Wirt Co., 5221 Greene St., Philadelphia 44, Pa.

TRANSISTORS—Germanium
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 415.
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 CBS-Hytron Div., Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y East Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
 Clevite Transistor Products A Div. of Clevite Corp., 241-257 Crescent St., Waltham 54, Mass.
 Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. ADV. PG. 18.
GENERAL TRANSISTOR CORP., 130-11 90th Ave., Richmond Hill 18, N. Y. ADV. PG. 448.
 Germanium Products Corp., 26 Cornelison Ave., Jersey City 4, N. J.
HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 153-155.
 Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Minneapolis-Honeywell Regulator Co., Transistor Div., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Motorola, Inc., Semiconductor Products Div., 5005 E. McDowell Rd., Phoenix, Ariz.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif.
 Pacific Semiconductors, Inc., 10451 W. Jefferson Blvd., Culver City, Calif.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W.C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
TRANSITRON ELECTRONIC CORP., 403-407 Main St., Melrose 76, Mass. ADV. PG. 156, 157.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.
 Wells Co., Gary, 149 Broadway, New York 6, N. Y.
WESTINGHOUSE ELECTRIC CORP., P. O. Box 868, Pittsburgh 30, Pa. ADV. PG. 325-336.

TRANSISTORS—Silicon
 Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
 CBS-Hytron Div., Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
 Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
GENERAL ELECTRIC CO., SEMICONDUCTOR PRODUCTS DEPT., Electronics Park, Syracuse, N. Y. ADV. PG. 18.
 Germanium Products Corp., 26 Cornelison Ave., Jersey City 4, N. J.
 Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.
 Motorola, Inc., Semiconductor Products Div., 5005 E. McDowell Rd., Phoenix, Ariz.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 Pacific Semiconductors, Inc., 10451 W. Jefferson Blvd., Culver City, Calif.
 Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
TRANSITRON ELECTRONIC CORP., 403-407 Main St., Melrose 76, Mass. ADV. PG. 156, 157.

TRANSMISSION LINES
See CABLE—Coaxial or WAVEGUIDES

TRANSMITTERS—Aircraft
 Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P.O. Box 6043, Raleigh, N. C.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.

Bendix Radio Division, Bendix Aviation Corp., Baltimore, 4, Md.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 Collins Radio Co., Cedar Rapids, Iowa.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, California.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
 Kaar Engineering Corp., 2995 Middlefield Rd., P.O. Box 1320, Palo Alto, Calif.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Mitchell Industries, Inc., P.O. Box 17, Mineral Wells, Texas.
 National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
NEW LONDON INSTRUMENT CO., P.O. Box 189, New London, Conn. ADV. PG. 302.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
 Springer Aircraft Radio Co., Earl W., Rte. 11, Box 330, Sky Harbor Airport, Indianapolis, Ind.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

TRANSMITTERS—Amateur

American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
 Collins Radio Co., Cedar Rapids, Iowa.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Hallicrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
 Harvey-Wellis Electronics, Inc., North St., Southbridge, Mass.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
 Heintz & Kaufman Div. of The Robert Dollar Co., 50 Drumm St., San Francisco 11, Calif.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Johnson Co., E. F., Waseca, Minn.
 Lettine Radio Mfg. Co., 62 Berkeley St., Valley Stream, N. Y.
 Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
 Mohawk Electronic Research Labs., Inc., Box 126-A, RD 4, Amsterdam, N. Y.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Multi-Products Co., 21470 Coolidge Hwy., Oak Park, Mich.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Sorensen Industrial Electronic Co., Route 10, Dover, N. J.
 Technical Materiel Corp., P.O. Box 142, Mamaroneck, N. Y.
 Transiron, Inc., 186 Granite St., Manchester, N. H.
 Valley Engineering Co., P.O. Box 2, Los Alamos, N. M.
 World Radio Laboratories, 3415 W. Broadway, Council Bluffs, Iowa.

TRANSMITTERS—Broadcast

Collins Radio Co., Cedar Rapids, Iowa.
 Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. Y.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Parisier & Co., Maurice I., 1860 Broadway, New York 23, N. Y.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W.C. 2, England.
 Stephens Mfg. Corp., 8538 Warner Drive, Culver City, Calif.

TRANSMITTERS—Color Television

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W.C. 2, England.
TELECHROME INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.

TRANSMITTERS—Direction Finding

Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

TRANSMITTERS—f-m

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
 Collins Radio Co., Cedar Rapids, Iowa.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 National Electronics Laboratories, Inc., 1713 Kalorama Rd., N. W., Washington 9, D. C.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Radiation Inc., Melbourne, Fla.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City, N. Y. ADV. PG. 123.
 Rosen Engineering Products, Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
TELECHROME INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
 Telemetering Associates, 494C Pine Forest Drive, Marietta, Ga.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.

TRANSMITTERS—Facsimile

Acme Electronix Div. of NEA Service, Inc., West Third & Lakeside, Cleveland 13, Ohio.

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
ALDEN ELECTRONIC & IMPULSE RECORDING EQUIPMENT CO., Box 125, Westboro, Mass. ADV. PG. 673.
 Alden Systems, Inc., Alden Research Center, Westboro, Mass.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
TIMES FACSIMILE CORP., 540 W. 58th St., New York 19, N. Y. ADV. PG. 392.

TRANSMITTERS—Fixed Frequency

Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bristol Co., The Waterbury 20, Conn.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Hallicrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
 Heintz & Kaufman Div. of the Robert Dollar Co., 50 Drumm St., San Francisco 11, Calif.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Lettine Radio Mfg. Co., 62 Berkeley St., Valley Stream, N. Y.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Maryland Electronic Mfg. Corp., College Park, Md.
 Measurement Engineering, Ltd., Annprior, Ontario, Canada.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Motorola Communications & Electronics, Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
NEW LONDON INSTRUMENT CO., P. O. Box 189, New London, Conn. ADV. PG. 302.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.
 Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.
 Standard Telephones & Cables, Ltd., 4 Connaught House, Aldwych, London, W. C. 2, England.
 Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

TRANSMITTERS—Fixed Station Communication

Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Applied Electronics Co., Inc., 1246 Folsom St., San Francisco 3, Calif.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Bassett, Inc., Rex, 1314 N.E. 17th Court, P. O. Box 1727, Fort Lauderdale, Fla.
 Bristol Co., The Waterbury 20, Conn.
 BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
 CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
 Collins Radio Co., Cedar Rapids, Iowa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Gates Radio Co., Quincy, Ill.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Heintz & Kaufman Div. of The Robert Dollar Co., 50 Drumm St., San Francisco 11, Calif.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Johnson Co., E. F., Waseca, Minn.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
 Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Lettine Radio Mfg. Co., 62 Berkley St., Valley Stream, N. Y.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
MULLARD OVERSEAS, LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 181.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Parister & Co., Maurice I., 1860 Broadway, New York 23, N. Y.
 Pearce-Simpson, Inc., 3023 Coral Way, Miami 34, Fla.
 Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
SIERRA ELECTRONIC CORP., San Carlos, Calif. ADV. PG. 56, 57.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Technical Materiel Corp., P. O. Box 142, Mamaroneck, N. Y.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.
 Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

TRANSMITTERS—Loran

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

TRANSMITTERS—Marine

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
 Applied Electronics Co., Inc., 1246 Folsom St., San Francisco 3, Calif.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Bassett, Inc., Rex, 1314 N.E. 17th Court, P. O. Box 1727, Fort Lauderdale, Fla.
 Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.
 Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.

Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
 Crosby Labs., Inc., Box 233, Robbins Lane Hicksville, N. Y.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 Gray Radio Co., 501 Forest Hill Blvd., West Palm Beach, Fla.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson American Corp., 25 W. 43rd St., New York 36, N. Y.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Jefferson, Inc., Ray, 40 E. Merrick Rd., Freeport, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Measurement Engineering Ltd., Arnprior, Ontario, Canada.
 Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Pearce-Simpson, Inc., 3023 Coral Way, Miami 34, Fla.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Sonar Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.

TRANSMITTERS—Microwave

See MICROWAVE ACCESSORIES

TRANSMITTERS—Portable and Mobile Radio-telephone

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
 Applied Electronics Co., Inc., 1246 Folsom St., San Francisco 3, Calif.
 Avia Products Co., 7266 Beverly Rd., Los Angeles 36, Calif.
 Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 Dumont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
 Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Motorola Communications & Electronics, Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
MULLARD OVERSEAS LTD., EQUIPMENT DIV., Century House, Shaftesbury Ave., London, W. C. 2, England. ADV. PG. 181.
 Multi-Products Co., 21470 Coolidge Hwy., Oak Park, Mich.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Pearce-Simpson, Inc., 3023 Coral Way, Miami 34, Fla.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Sonar Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.
VECTROL ENGINEERING INC., P. O. Box 1089, Stamford, Conn. ADV. PG. 528.

TRANSMITTERS—Pulse Time Modulation

Bristol Co., The, Waterbury 20, Conn.

CHICAGO ELECTRONIC ENGINEERING CO., 3223 W. Armitage Ave., Chicago 47, Ill. ADV. PG. 573.
CHICAGO MAGNETIC CONTROL CO., 1616 Damon Ave., Chicago, Ill. ADV. PG. 572.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 National Co., Inc., 61 Sherman St., Malden 48, Mass.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Vapor Recovery Systems Co., 2820 N. Alameda, P. O. Box 231, Compton, Calif.
 West Coast Electronics Co., 9261 W. 3rd St., Beverly Hills, Calif.

TRANSMITTERS—Radar

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRBORNE INSTRUMENTS LABS., INC., 160 Old Country Rd., Mineola, N. Y. ADV. PG. 317.
 American Electronic Labs, Inc., 641 Arch St., Philadelphia 6, Pa.
 Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
 Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
 Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 54, Calif.
 Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Edo Corp., College Point, N. Y.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 Goodyear Aircraft Corp., 1210 Massillon Rd., Akron 15, Ohio.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
LAVOIE LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
 Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
 Magnavox Co., Fort Wayne 4, Ind.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
 National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
PORTCHESTER INSTRUMENT CORP., 114 Wilkins Ave., Port Chester, N. Y. ADV. PG. 461.
PREMIER INSTRUMENT CORP., 52 W. Houston St., New York 12, N. Y. ADV. PG. 555.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
TEXAS INSTRUMENTS, INC., 6000 Lemmon Ave., Dallas 9, Texas. ADV. PG. 403.
 Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

TRANSMITTERS—Radio Range

Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
 Calbest Engineering & Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
 Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
 Magnavox Co., Fort Wayne 4, Ind.
 Maryland Electronic Mfg. Corp., College Park, Md.

RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Electro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

TRANSMITTERS—Railroad

Bendix Radio Division, Bendix Aviation Corp., Baltimore, 4, Md.
Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.

TRANSMITTERS—Single Side Band

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
Collins Radio Co., Cedar Rapids, Iowa.
Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
INSTANT CIRCUITS DIV. OF ALFRED W. BARBER LABS., 32-44 Francis Lewis Blvd., Flushing, N. Y. ADV. PG. 631.
International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Johnson Co., E. F., Waseca, Minn.
Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23-25 Beaver St., New York 4, N. Y. ADV. PG. 557.
Mohawk Electronic Research Labs., Inc., Box 126-A, RD 4, Amsterdam, N. Y.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Pariser & Co., Maurice I., 1860 Broadway, New York 23, N. Y.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Transitron, Inc., 186 Granite St., Manchester, N. H.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.

TRANSMITTERS—Television

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
Gates Radio Co., Quincy, Ill.
General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23-25 Beaver St., New York 4, N. Y. ADV. PG. 557.
Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
TELECHROME INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.
Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.

TRANSMITTERS—uhf

Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.

Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
Collins Radio Co., Cedar Rapids, Iowa.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meridan, Conn.
Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.
Maryland Electronic Mfg. Corp., College Park, Md.
Motorola Communications & Electronics Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Parsons Co., Ralph M., The, 617 S. Olive St., Los Angeles 14, Calif.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.
RADIO RECEPTOR CO., 251 W. 19th St., New York 11, N. Y. ADV. PG. 318, 319.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
TELECHROME INC., 84 Merrick Rd., Amityville, N. Y. ADV. PG. 149.

TRANSMITTERS—vhf

Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
AIRCRAFT RADIO CORP., Boonton, N. J. ADV. PG. 212.
Avia Products Co., 7266 Beverly Rd., Los Angeles 36, Calif.
Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
BUDELMAN RADIO CORP., 376 Fairfield Ave., Stamford, Conn. ADV. PG. 554.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Chemalloy Electronics Corp., Gillespie Field, Santee, Calif.
CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
Collins Radio Co., Cedar Rapids, Iowa.
Communications Co., 300 Greco Ave., Coral Gables 34, Fla.
Connecticut Telephone & Electric Corp., 70 Britannia St., Meridan, Conn.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
DuMont Laboratories, Inc., Allen B. Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Gates Radio Co., Quincy, Ill.
General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
Gonset Co., 801 S. Main St., Burbank, Calif.
Heintz & Kaufman Div. of the Robert Doller Co., 50 Drumm St., San Francisco 11, Calif.
Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.

International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
Johnson Co., E. F., Waseca, Minn.
Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
Letline Radio Mfg. Co., 62 Berkley St., Valley Stream, N. Y.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
Maryland Electronic Mfg. Corp., College Park, Md.
Mohawk Electronic Research Labs., Inc., Box 126-A, RD 4, Amsterdam, N. Y.
Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
Motorola Communications & Electronics, Inc., 4501 W. Augusta Blvd., Chicago 51, Ill.
National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
National Co., Inc., 61 Sherman St., Malden 48, Mass.
National Electronics Laboratories, Inc., 1713 Kalorama Rd., N. W., Washington 9, D. C.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Peer, Inc., Benton Harbor, Mich.
PRODUCTION RESEARCH CORP., Thornwood, N. Y. ADV. PG. 576.
RADIO CORP. OF AMERICA, ENGINEERING PRODUCTS DIV., Camden, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.
Telemetering Associates, 494C Pine Forest Drive, Marietta, Ga.
VARO MFG. CO., INC., 2201 Walnut St., Garland, Texas. ADV. PG. 605.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Missouri.

TRANSMITTERS—vhf Omni Range

Collins Radio Co., Cedar Rapids, Iowa.
Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
FEDERAL TELEPHONE & RADIO CO. A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
Kaar Engineering Corp., 2995 Middlefield Rd., P. O. Box 1320, Palo Alto, Calif.
LAOVO LABORATORIES, INC., Morganville, N. J. ADV. PG. 625.
MARCONI'S WIRELESS TELEGRAPH CO., LTD., 23/25 Beaver St., New York 4, N. Y. ADV. PG. 557.
Maryland Electronics Mfg. Corp., College Park, Md.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.

TRAPS—Wave

Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.
BRUNO-NEW YORK INDUSTRIES CORP., 460 W. 34th St., New York 1, N. Y. ADV. PG. 418.
General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
HILLBURN ELECTRONIC PRODUCTS CO., 55 Nassau Ave., Brooklyn 22, N. Y. ADV. PG. 697.
Jerrold Electronics Corp., 26th & Dickinson St., Philadelphia 46, Pa.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
Mosley Electronics, Inc., 8622 St. Charles Rock Rd., St. Louis 14, Mo.
Muter Co., The, 1255 S. Michigan Ave., Chicago 5, Ill.
ORTHO FILTER CORP., 198 Albion Ave., Paterson 2, N. J. ADV. PG. 546, 547.
Superex Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.
Thordarson Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
Vidaire Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.

TREATING—Fungus & Moisture Proof

Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.
ZOPHAR MILLS, INC., 115 26th St., Brooklyn 32, N. Y. ADV. PG. 577.

TRIMMERS—Capacitors See CAPACITORS

TUBE PARTS

Anodes, Carbon

National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
STACKPOLE CARBON CO., St. Mary's, Pa. ADV. PG. 80, 81.

Anodes, Gold

Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
 General Findings & Supply Co. Industrial Div., Attleboro, Mass.
LACEY BROTHERS ETCHED CIRCUITS, 117 S. Lombard, Oak Park, Ill. ADV. PG. 610.
 Leach & Garner Co., Attleboro, Mass.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
 Western Gold & Platinum Co., 589 Bryant St., San Francisco, Calif.
 Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

Anodes, Graphite

National Carbon Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
STACKPOLE CARBON CO., St. Mary's, Pa. ADV. PG. 80, 81.

Anodes, Metal

Anton Machine Works, 1226 Flushing Ave., Brooklyn 37, N. Y.
ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 400.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 42, 43.
 Lewis & Kaufman, Ltd., P. O. Box 337, Los Gatos, Calif.
REMBAR CO., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.
 Sinclair Mfg. Co., Chartley, Mass.
SUPERIOR TUBE CO., 2504 Germantown Pike, Norristown, Pa. ADV. PG. 40, 41.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 211.

Anodes, Silver

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
 General Findings & Supply Co., Industrial Div., Attleboro, Mass.
 Leach & Garner Co., Attleboro, Mass.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
 Sinclair Mfg. Co., Chartley, Mass.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

Base Pins

American Brass Co., 414 Meadow St., Waterbury 20, Conn.
ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 400.
 Associated Engineering & Mfg. Co., Glen Ridge, N. J.
BEAD CHAIN MFG. CO., 110 Mountain Grove St., Bridgeport 5, Conn. ADV. PG. 554.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 544, 545.
NATIONAL FABRICATED PRODUCTS DIV. OF HOFFMAN ELECTRONICS CORP., 2650 W. Belden Ave., Chicago 47, Ill. ADV. PG. 24, 25.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 Sinclair Mfg. Co., Chartley, Mass.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Bases

ALDEN PRODUCTS CO., 112 N. Main St., Brockton 64, Mass. ADV. PG. 361.
AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
 Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
 Enfo Corp., Route 38 at Airport Circle, Pensauken, N. J.

ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 544, 545.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
 General Electric Co., Plastics Dept., Pittsfield, Mass.
 I.E. Manufacturing, 325 N. Hoyne Ave., Chicago 12, Ill.
 Isolantite Manufacturing Corp., Stirling, N. J.
MYCALEX CORP. OF AMERICA, 125 Clifton Blvd., Clifton, N. J. ADV. PG. 465.
 Owens-Illinois, Closure & Plastics Div., P. O. Box 1035, Toledo 1, Ohio.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Romar Plastics, Inc., 1309 E. Main St., St. Charles 11, Ill.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
THOMAS & SONS, INC., WILLIAM, Slocum Ave., Ridgefield, N. J. ADV. PG. 626.
VOLKERT STAMPINGS, INC., 224-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 211.

Bulbs & Envelopes

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
 Ceramaseal Co., The Box 25, New Lebanon Center, N. Y.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 Lancaster Lens Co., Lancaster, Ohio.
SCIENTIFIC ELECTRONIC LABS, INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.

Button Stems

HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.
SCIENTIFIC ELECTRONIC LABS, INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 Sinclair Mfg. Co., Chartley, Mass.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Caps

Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 544, 545.
 Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.
GENERAL ELECTRIC CO., LAMP DIV., LAMP LEADS & BASES DEPT., 17825 St. Clair Ave., Cleveland 12, Ohio. ADV. PG. 22.
 Hobson Bros., 4940 W. Lawrence Ave., Chicago 30, Ill.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PAGE 88, 89, Third & Fourth Covers & Preceding Insert.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 211.
 Warren Plastics Corp., Warren, Pa.

Cathode Ray Tube Powders

General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
U. S. RADIUM CORP., 535 Pearl St., New York 7, N. Y. ADV. PG. 58.

Cathode Ray Tube Side Contacts

Braun Tool & Instrument Co., Inc., H., 140 Fifth Ave., Hawthorne, N. J.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 211.

Cathodes, Sleeves, Discs and Tubes

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
JOHNSON & HOFFMAN MFG. CORP., 31 W. Second St., Mineola, N. Y. ADV. PG. 42, 43.
 Kleiner Metal Specialties, Inc., P.O. Box 185, Dunellen, N. J.
REMBAR CO., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.
SUPERIOR TUBE CO., 2504 Germantown Pike, Norristown, Pa. ADV. PG. 40, 41.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
VOLKERT STAMPINGS, INC., 222-23 96th Ave., Queens Village 8, N. Y. ADV. PG. 211.

Conductive Paints

See PAINTS—Conductive

Filament Wire

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
 Bigelow Mfg. Corp., 225 W. Bigelow St., Newark 8, N. J.
 Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 544, 545.
 General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Micro-Wire Stranding Co., 252 Chestnut St., Passaic, N. J.

North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
REMBAR CO., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.
 Secor Metals Corp., 7 Intervale St., White Plains, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727, 733.

Getters

American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.
ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 400.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Carborundum Metals Co., Inc., The, P.O. Box 32, Akron, N. Y.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Kemet Co., A Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
KING LABORATORIES INC., 127 Solar St., Syracuse 3, N. Y. ADV. PG. 675.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Grids and Supports

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
 Anton Machine Works, 1226 Flushing Ave., Brooklyn 37, N. Y.
ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 400.
 Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 544, 545.
 Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 42, 43.
 Lewis & Kaufman, Ltd., P.O. Box 337, Los Gatos, Calif.
 North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Grid Wire

ALLOY METAL WIRE DIV. OF H. K. PORTER CO., Prospect Park, Pa. ADV. PG. 148.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.
EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 174, 175.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
 General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Kemet Co., A Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Leach & Garner Co., Attleboro, Mass.
 North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
REMBAR CO., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Heat Radiators

Anton Machine Works, 1226 Flushing Ave., Brooklyn 37, N. Y.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.

Metal Supports

ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 400.
 Bigelow Mfg. Corp., 225 W. Bigelow St., Newark 8, N. J.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.
 Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 544, 545.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.
JOHNSON & HOFFMAN MFG. CORP., 31 E. Second St., Mineola, N. Y. ADV. PG. 42, 43.
MALCO TOOL & MFG. CO., 4025 W. Lake St., Chicago 24, Ill. ADV. PG. 609.

North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
REMBAR CO., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
THOMAS & SONS, INC., WILLIAM, Slocum Ave., Ridgefield, N. J. ADV. PG. 626.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 211.

Mica Supports

American Mica Insulation Co., Manasquan, N. J.
GENERAL ELECTRIC CO., LAMP DIV., LAMP LEADS & BASES DEPT., 17825 St. Clair Ave., Cleveland 12, Ohio. ADV. PG. 22.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P.O. Box 1226, Plainfield, N. J. ADV. PG. 409.
 Industrial Mica Corp., 223 S. Van Brunt St., Englewood, N. J.
 Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Micacraft Products Inc., 703 McCarter Highway, Newark 5, N. J.
 Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.

Tube Seal Leads

ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 400.
 Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
 Bigelow Mfg. Corp., 225 W. Bigelow St., Newark 8, N. J.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Electronic Mfg. Co., 20 Orange St., Newark, N. J.
ELECTRONIC PARTS MFG. CO., INC., 508 25th St., Union City, N. Y. ADV. PG. 575.
ENGINEERING CO., 27 Wright St., Newark, N. J. ADV. PG. 544, 545.
GENERAL ELECTRIC CO., LAMP DIV., LAMP LEADS & BASES DEPT., 17825 St. Clair Ave., Cleveland 12, Ohio. ADV. PG. 22.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P.O. Box 1226, Plainfield, N. J. ADV. PG. 409.
 North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
 Quality Products Co., 387 Charles St., Providence, R. I.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
 Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S.E. 10, England.

Water Jackets

Anton Machine Works, 1226 Flushing Ave., Brooklyn 37, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Wire Parts

ALLOY METAL WIRE DIV. OF H. K. PORTER CO., Prospect Park, Pa. ADV. PG. 148.
 Anton Machine Works, 1226 Flushing Ave., Brooklyn 37, N. Y.
ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 400.
 Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
 Bigelow Mfg. Corp., 225 W. Bigelow St., Newark 8, N. J.
ELECTRONIC PARTS MFG. CO., INC., 508 25th St., Union City, N. J. ADV. PG. 575.
GENERAL ELECTRIC CO., LAMP DIV., LAMP LEADS & BASES DEPT., 17825 St. Clair Ave., Cleveland 12, Ohio. ADV. PG. 22.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P.O. Box 1226, Plainfield, N. J. ADV. PG. 409.
KING LABORATORIES, INC., 127 Solar St., Syracuse 3, N. Y. ADV. PG. 675.
 North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Reliable Spring & Wire Forms Co., Fulton Rd. & Paris Ave., Cleveland 9, Ohio.
REMBAR CO., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.
 Seccon Metals Corp., 7 Intervale St., White Plains, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727, 733.
VOLKERT STAMPINGS, INC., 222-34 96th Ave., Queens Village 8, N. Y. ADV. PG. 211.

TUBE COOLING UNITS—Electronic

EASTERN INDUSTRIES, INC., 100 Skiff St., Hampden, Conn. ADV. PG. 292.

Lear-Romec Div. of Lear, Inc., Abbe Rd., Elyria, Ohio.
 Lewyt Mfg. Corp., 66 Broadway, Brooklyn, N. Y.
 United Aircraft Products, Inc., 1116 Bolander Ave., Dayton 1, Ohio.

TUBES—Backward Wave

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
HUGGINS LABORATORIES, 711 Hamilton Ave., Menlo Park, Calif. ADV. PG. 580.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway 19, N. Y. ADV. PG. 727-733.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 282, 283.
 White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TUBES—Ballast

CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
CLAROSTAT MFG. CO., INC. ADV. PG. 264, 265.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
JFD MFG. CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Kip Electronics Corp., 29 Holly Place, Stamford, Conn.
 Signalite, Inc., 37-41 Neptune Highway, Neptune, N. J.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.

TUBES—Battery Charger

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.
ELECTRONS, INC., 127 Sussex Ave., Newark 3, N. J. ADV. PG. 590.
GENERAL ELECTRIC CO. APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
 King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
TAYLOR TUBES, INC., 2312 Wabansia Ave., Chicago 47, Ill. ADV. PG. 538.
 Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.

TUBES—Bolometer

Kip Electronics Corp., 29 Holly Place, Stamford, Conn.
NARDA CORP., 160 Herricks Rd., Mineola, N. Y. ADV. PG. 616.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

TUBES—Cathode Ray, Instrument Use

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
 Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.
HUGHES PRODUCTS DIVISION, HUGHES AIRCRAFT CO., Los Angeles 45, Calif. ADV. PG. 153-155.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.
 MacKay Research Labs., R. R. #2, P. O. Box 401, McHenry, Ill.
 National Union Electric Corp., 350 Scotland Rd., Orange, N. J.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Tel-O-Tube Corp. of America, 180 Van Riper Ave., East Paterson, N. J.
 Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
 Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
WATERMAN PRODUCTS CO., INC., 2445-63 Emerald St., Philadelphia 25, Pa. ADV. PG. 96, 97.

Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Cathode Ray, Multiple Gun

Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
 CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
ELECTRONIC TUBE CORP., 1200 E. Mermaid Ave., Philadelphia 18, Pa. ADV. PG. 63.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 MacKay Research Labs., R.R. #2, P. O. Box 401, McHenry, Ill.
 National Union Electric Corp., 350 Scotland Rd., Orange, N. J.
 Philco Corp., Government & Industrial Div., 4700 Wis-sahickon Ave., Philadelphia 44, Pa.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
 Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Cathode Ray, Studio or Theatre

Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
 Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Cathode Ray, Television Picture

CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Clarendont Tube Corp., 36-02 35th Ave., Long Island City, N. Y.
 DuMont Laboratories, Inc., Allen B., Cathode Ray Tube Div., 750 Bloomfield Ave., Clifton, N. J.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
 International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.
 National Video Corp., 4300 W. 47th St., Chicago 32, Ill.
 Orsyd Co., 2421 Smith, Hamtramck 11, Mich.
 Philco Corp., Government & Industrial Div., 4700 Wis-sahickon Ave., Philadelphia 44, Pa.
 Pioneer Electronics Corp., 2235 South Carmelina, West Los Angeles 65, Calif.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Rauland Corp., The, 4245 N. Knox Ave., Chicago 41, Ill.
 Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
 Tel-O-Tube Corp. of America, 180 Van Riper Ave., East Paterson, N. J.
 Thomas Electronics, Inc., 118 Ninth St., Passaic, N. J.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.
 Vega Electronics Corp., 1921 Pontius Ave., Los Angeles 25, Calif.
 Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Electrometer

FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
 International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
Tracerlab, Inc., 130 High St., Boston 10, Mass.
VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.

TUBES—Geiger Mueller

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 529.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.
ANTON ELECTRONIC LABORATORIES, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England.
Cyclotron Specialties Co., Moraga 8, Calif.
Detectolab, Inc. 6544 N. Sheridan Rd., Chicago 26, Ill.
Electronic Products Co., 111 E. 3rd St., Mt. Vernon, N. Y.
International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Landsverk Electrometer Co., 505 W. Garfield Ave., Glendale 4, Calif.
NRD Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.
Nuclear Development Lab., Box 7034, Kansas City, Mo.
Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
Nuclear Instrument & Chemical Corp., 223 W. Erie St., Chicago 10, Ill.

Nuclear Research Corp., Southampton, Pa.
Nuclonic Company of America, 196 De Graw St., Brooklyn 31, N. Y.
Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
RED BANK DIV. BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.
Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.
Technical Associates, 140 W. Providencia Ave., Burbank, Calif.
Tracerlab, Inc., 130 High St., Boston 10, Mass.
Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.
Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.

TUBES—Glow or Discharge

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 529.
Amglo Corp., 2037 W. Division St., Chicago 22, Ill.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.
ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
CHICAGO MINIATURE LAMP WORKS, 1500 N. Ogden Ave., Chicago 10, Ill. ADV. PG. 574.
DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
Electronic Products Co., 11 E. Third St., Mt. Vernon, N. Y.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.
Kip Electronics Corp., 29 Holly Place, Stamford, Conn.
Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.
MacKay Research Labs., R. R. #2, P. O. Box 401, McHenry, Ill.
Menlo Research Laboratory, Menlo Park, Calif.
National Union Electric Corp., 350 Scotland Rd., Orange, N. J.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.
SCIENTIFIC ELECTRONIC LABS, INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
Signalite Inc., 37-41 Neptune Highway, Neptune, N. J.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.
White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TUBES—Hearing Aid

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Kip Electronics Corp., 29 Holly Place, Stamford, Conn.
Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.
National Union Electric Corp., 350 Scotland Rd., Orange, N. J.
Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.
Super Ear Products Co., 675 Merrick Rd., Lynbrook, N. Y.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.

TUBES—Ignitron

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
Industrial Tubes, Inc., Geneva, Ill.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
NATIONAL ELECTRONICS, INC., Geneva, Ill. ADV. PG. 678.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Ionization

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
Central Sales & Mfg. Co., 2, Richwood Place, Denville, N. J.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
High Vacuum Equipment Corp., Hingham, Mass.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Kip Electronics Corp., 29 Holly Place, Stamford, Conn.
Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Nuclear Instrument & Chemical Corp., 223 W. Erie St., Chicago 10, Ill.
Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.
Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
Tracerlab, Inc., 130 High St., Boston 10, Mass.
Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Klystron

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.
APPLIED RADIATION CORP., 1210 Spring Brook Rd., Walnut Creek, Calif. ADV. PG. 643.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85
EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 174, 175.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Litton Industries, 1025 Brittan Ave., San Carlos, Calif.
Litton Industries, Components Div., Beverly Hills, Calif.
POLARAD ELECTRONICS CORP., 43-20 34th St., Long Island City 1, N. Y. ADV. PG. 203.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham, Mass. ADV. PG. 363.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 282, 283.

TUBES—Magnetron

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.
BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.

International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Litton Industries, 1025 Brittan Ave., San Carlos, Calif.
Litton Industries, Components Div., Beverly Hills, Calif.
MacKay Research Labs., R. R. #2, P. O. Box 401, McHenry, Ill.
MICROWAVE ASSOCIATES INC., 22 Cummington St., Boston 15, Mass. ADV. PG. 163-166.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham, Mass. ADV. PG. 363.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Microwave

TUBES—Microwave Receiving
See MICROWAVE ACCESSORIES

TUBES—Miniature

American Elite, Inc., (Telefunken), 7 Park Ave., New York 16, N. Y.
ANTON ELECTRONIC LABORATORIES, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
Continental Electric Co., Geneva, Ill.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Kip Electronics Corp., 29 Holly Place, Stamford, Conn.
Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.
National Union Electric Corp., 350 Scotland Rd., Orange, N. J.
Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert. Inside Back & Back Covers.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.
SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.
Super Ear Products Co., 675 Merrick Rd., Lynbrook, N. Y.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
THERMOSEN, INC., 361 W. Main St., Stamford, Conn. ADV. PG. 526.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.

TUBES—Phototubes

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
Continental Electric Co., Geneva, Ill.
Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
MacKay Research Labs., R. R. #2, P. O. Box 401, McHenry, Ill.
Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Standard Piezo Co., P. O. Box 153, Carlisle, Pa.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Phototubes, Multiplier

ANTON ELECTRONIC LABS., INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
ATOMIC INSTRUMENT CO., 84 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 611.
Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
Farnsworth Electronics Co. Div. of IT&T, 3700 E. Pontiac St., Fort Wayne 1, Ind.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.

International Electronics Corp., (Mullard Equipment) 81 Spring St., New York 12, N. Y.
MacKay Research Labs., R. R. #2, P. O. Box 401, McHenry, Ill.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Standard Piezo Co., P. O. Box 153, Carlisle, Pa.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.

Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Photovoltaic

See CELLS—Photovoltaic

TUBES—Pirani

Continental Electric Co., Geneva, Ill.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.

Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.

Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.

TUBES—Power Amplifier

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.

British Industries Corp., 80 Shore Rd., Port Washington, N. Y.

CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.

Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.

EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 174, 175.

Electronic Enterprises, Inc., 65 7th Ave., Newark 4, N. J.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.

HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.

International Electronics Corp. (Mullard Equipment), 81 Spring St., New York 12, N. Y.

Lewis & Kaufman, Ltd., P. O. Box 337, Los Gatos, Calif.

MACHLETT LABORATORIES, INC., Springdale, Conn. ADV. PG. 308.

Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

Penta Laboratories, Inc., 312 N. Nopal St., Santa Barbara, Calif.

Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.

SONOTONE CORP., Saw Mill River Rd., P. O. Box 200, Elmsford, N. Y. ADV. PG. 515.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

TAYLOR TUBES, INC., 2312 W. Wabansia Ave., Chicago 47, Ill. ADV. PG. 538.

TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 5, N. J. ADV. PG. 429.

UNITED ELECTRONICS CO., 42 Spring St., Newark 4, N. J. ADV. PG. 126, 127.

VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 282, 283.

Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Receiving

American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.

CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.

CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.

GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.

International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.

Kip Electronics Corp., 29 Holly Place, Stamford, Conn.

Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.

Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.

RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.

SONOTONE CORP., P. O. Box 200, Saw Mill River Rd., Elmsford, N. Y. ADV. PG. 515.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.

Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Rectifying, Gas Filled Type

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 529.

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.

CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.

Continental Electric Co., Geneva, Ill.

Dunlee Corp., 4560 W. Congress St., Chicago 24, Ill.

EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 174, 175.

ELECTRONS, INC., 127 Sussex Ave., Newark 3, N. J. ADV. PG. 590.

Electronic Products Co., 111 E. 3rd St., Mt. Vernon, N. Y.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.

Industrial Tubes, Inc., Geneva, Ill.

International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.

MACHLETT LABORATORIES, INC., Springdale, Conn. ADV. PG. 308.

NATIONAL ELECTRONICS, INC., Geneva, Ill. ADV. PG. 678.

Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.

RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.

Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

TAYLOR TUBES, INC., 2312 Wabansia Ave., Chicago 47, Ill. ADV. PG. 538.

Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.

Transitron, Inc., 186 Granite St., Manchester, N. H.

UNITED ELECTRONICS CO., 42 Spring St., Newark 2, N. J. ADV. PG. 126, 127.

Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Rectifying, Vacuum Type

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.

CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.

Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.

CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.

Continental Electric Co., Geneva, Ill.

EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 174, 175.

Electronic Enterprises, Inc., 65 Seventh Ave., Newark 4, N. J.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.

GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.

Industrial Tubes, Inc., Geneva, Ill.

International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.

Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.

Lewis & Kaufman, Ltd., P. O. Box 337, Los Gatos, Calif.

MACHLETT LABORATORIES, INC., Springdale, Conn. ADV. PG. 308.

Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.

RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

TAYLOR TUBES, INC., 2312 W. Wabansia Ave., Chicago 47, Ill. ADV. PG. 538.

Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.

THERMOSEN, INC., 361 W. Main St., Stamford, Conn. ADV. PG. 526.

TUNG-SOL ELECTRIC INC., 95 Eighth Ave., Newark 4, N. J. ADV. PG. 429.

UNITED ELECTRONICS CO., 42 Spring St., Newark 2, N. J. ADV. PG. 126, 127.

Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.

VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.

Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Storage, Electrostatic

See TUBES—Cathode Ray

TUBES—Television

See TUBES—Cathode Ray, Television Picture

TUBES—Television Camera Pickup

Diamond Power Specialty Corp., Electronics Dept., Lancaster, Ohio.

GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.

Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.

Twentieth Century Electronics Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.

Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Television Projection (for Home Entertainment)

International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.

Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—Thyratron

AEROLUX LIGHTS CORP., 653 Eleventh Ave., New York 36, N. Y. ADV. PG. 529.

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.

BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.

CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.

Continental Electric Co., Geneva, Ill.

EITEL-McCULLOUGH, INC., San Bruno, Calif. ADV. PG. 174, 175.

ELECTRONS, INC., 127 Sussex Ave., Newark 3, N. J. ADV. PG. 590.

GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.

Industrial Tubes, Inc., Geneva, Ill.

International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.

Kip Electronics Corp., 29 Holly Place, Stamford, Conn.

Kuthe Laboratories, Inc., 730 S. 13th St., Newark 3, N. J.

MACHLETT LABORATORIES, INC., Springdale, Conn. ADV. PG. 308.

MacKay Research Labs., R. R. #2, P. O. Box 401, McHenry, Ill.

NATIONAL ELECTRONICS, INC., Geneva, Ill. ADV. PG. 678.

Penta Laboratories, Inc., 312 N. Nopal St., Santa Barbara, Calif.

Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.

RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.

RED BANK DIV. BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.

Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

TAYLOR TUBES, INC., 2312 Wabansia Ave., Chicago 47, Ill. ADV. PG. 538.

Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.

UNITED ELECTRONICS CO., 42 Spring St., Newark 4, N. J. ADV. PG. 126, 127.

Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—TR, Pre TR & Anti TR

BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.

Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.

GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.

International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.

MICROWAVE ASSOCIATES, INC., 22 Cummington St., Boston, Mass. ADV. PG. 163-166.

Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.

RED BANK DIV. BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.
White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TUBES—Traveling Wave (Amplifying Type)

BOMAC LABORATORIES, INC., Salem Rd., Beverly, Mass. ADV. PG. 84, 85.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. Y.
FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
HUGGINS LABORATORIES, 711 Hamilton Ave., Menlo Park, Calif. ADV. PG. 580.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Philco Corp., Government & Industrial Div., 4700 Wissahickon Ave., Philadelphia 44, Pa.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham, Mass. ADV. PG. 363.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.
Jerry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
Stanford Laboratories Co., P. O. Box 252, Menlo Park, Calif.
Stewart Engineering Corp., Soquel, Calif.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
VARIAN ASSOCIATES, 611 Hansen Way, Palo Alto, Calif. ADV. PG. 282, 283.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.
White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.

TUBES—Voltage Reference or Regulating

AEROLUX LIGHTS CORP., 653 Eighth Ave., New York 36, N. Y. ADV. PG. 529.
AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.
ANTON ELECTRONIC LABORATORIES, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.
Electronic Products Co., 111 E. Third St., Mt. Vernon, N. Y.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
GENERAL ELECTRIC CO., TUBE DEPT., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 13-16.
International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
Kip Electronics Corp., 29 Holly Place, Stamford, Conn.
National Union Electric Corp., 350 Scotland Rd., Orange, N. J.
Nuclear Development Lab., Box 7034, Kansas City, Mo.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
RED BANK DIV., BENDIX AVIATION CORP., Eatontown, N. J. ADV. PG. 128.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W.C. 2, England.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.
VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.

TUBES—X-Ray

AMPEREX ELECTRONIC CORP., 230 Duffy Ave., Hicksville, N. Y. ADV. PG. 426, 427.
ANTON ELECTRONIC LABORATORIES, INC., 1226 Flushing Ave., Brooklyn 37, N. Y. ADV. PG. 629.
Dunlee Corp., 4560 W. Congress St., Chicago 24, Ill.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
Hamlin, Inc., 1316 Sherman Ave., Evanston, Ill.
MACHLETT LABORATORIES, INC., Springdale, Conn. ADV. PG. 308.
North American Philips Co., Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W.C. 2, England.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.
X-Ray Dept. of General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

TUBING—Aluminum

Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.

American Brass Co., 414 Meadow St., Waterbury 20, Conn.
Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
Precision Tube Co., Inc., North Wales, Pa.
Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky.
SUN TUBE CORP., Washington, N. J. ADV. PG. 528.
Titeflex Inc., Aviation Products Div., Hendee St., Springfield 4, Mass.
Uniform Tubes, Level Rd., Collegeville 2, Pa.
United Wire & Supply Corp., Providence 7, R. I.
UTILITY BRASS & COPPER CORP., 255 Conover St., Brooklyn 31, N. Y. ADV. PG. 693.

TUBING—Brass or Copper

American Brass Co., 414 Meadow St., Waterbury 20, Conn.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
Kleiner Metal Specialties, Inc., P. O. Box 185, Duncellen, N. J.
Leach & Garner Co., Attleboro, Mass.
Precision Tube Co., Inc., North Wales, Pa.
Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
Schutter Co., Carl W., 80 E. Montauk Pkwy., Lindenhurst, N. Y.
Scovill Mfg. Co., Waterbury 20, Conn.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
Titeflex, Inc., Aviation Products Div., Hendee St., Springfield 4, Mass.
Uniform Tubes, Level Rd., Collegeville 2, Pa.
United Wire & Supply Corp., Providence 7, R. I.
UTILITY BRASS & COPPER CORP., 255 Conover St., Brooklyn 31, N. Y. ADV. PG. 693.

TUBING—Ceramic

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
American Mica Insulation Co., Manasquan, N. J.
Bristol Co., The, Waterbury 20, Conn.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
Du-Co Ceramics Co., Box 587, Butler 8, Pa.
Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.
Frenchtown Porcelain Co., Trenton 9, N. J.
GENERAL CERAMICS CORP., Keasbey, N. J. ADV. PG. 237.
Isolantite Manufacturing Corp., Stirling, N. J.
Kirchberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
LAPP INSULATOR CO., INC., RADIO SPECIALTIES DIV., 31 Gilbert St., Le Roy, N. Y. ADV. PG. 228, 229.
Louthan Mfg. Co., East Liverpool, Ohio.
Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
Porcelain Products, Inc., Findlay, Ohio.
RAYTHEON MFG. CO., MICROWAVE & POWER TUBE OPERATIONS, Waltham, Mass. ADV. PG. 363.
Steward Mfg. Co., D. M., 3600 Jerrome Ave., Chattanooga 1, Tenn.
STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
SUPERIOR STEATITE & CERAMIC CORP., 83-91 W. Forest Ave., Englewood, N. J. ADV. PG. 555.
THOR CERAMICS INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
Wisconsin Porcelain Co., Sun Prairie, Wis.

TUBING—Fabric

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
BENTLEY-HARRIS MFG. CO., Conshohocken, Pa. ADV. PG. 316.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
Irvington Varnish & Insulator Div. of Minneapolis Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
Mica Insulator Co., Schenectady 1, N. Y.
Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
Panelyte Div., St. Regis Paper Corp., 230 Park Ave., New York 17, N. Y.
Varflex Corp., 506 W. Court St., Rome, N. Y.

TUBING—Fibre

American Mica Insulation Co., Manasquan, N. J.
Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
CLEVELAND CONTAINER CO., THE, 6201 Barberton Ave., Cleveland 2, Ohio. ADV. PG. 458.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC. Newark 100, Del. ADV. PG. 349-352.

Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
Mica Insulator Co., Schenectady 1, N. Y.
Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
National Vulcanized Fibre Co., Wilmington, Del.
Niemand Brothers Inc., 37-03 35th Ave., Long Island City 1, N. Y.
PARAMOUNT PAPER TUBE CORP., 614 Lafayette St., Fort Wayne, Ind. ADV. PG. 604.
Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.
RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
Taylor Fibre Co., Norristown, Pa.
Wilmington Fibre Specialty Co., New Castle, Del.

TUBING—Flexible Metal

Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Breeze Corps., Inc., 41 S. Sixth St., Newark 7, N. J.
Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
Flexonics Corp., 1315 S. Third Ave., Maywood, Ill.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
Titeflex, Inc., Aviation Products Div., Hendee St., Springfield 4, Mass.
Trent Tube Co., East Troy, Wis.
UTILITY BRASS & COPPER CORP., 255 Conover St., Brooklyn 31, N. Y. ADV. PG. 693.

TUBING—Fused Quartz

Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
SYNOR PRODUCTS CO., 30 Eastern Ave., Malden, Mass. ADV. PG. 571.
Thermal American Fused Quartz Co., Inc., 19-20 Salem St., Dover, N. J.

TUBING—Glass Fibre Insulation

American Mica Insulation Co., Manasquan, N. J.
B & C Insulation Products, Inc., Lincoln Highway, Iselin, N. J.
BENTLEY-HARRIS MFG. CO., Conshohocken, Pa. ADV. PG. 316.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC. Newark 100, Del. ADV. PG. 349-352.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
MARKEL & SONS, L. FRANK, School House, Norristown, Pa. ADV. PG. 669.
Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
Mica Insulator Co., Schenectady 1, N. Y.
Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
National Electric Coil Co., Columbus 16, Ohio.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
Panelyte Div., St. Regis Paper Co., 230 Park Ave., New York 17, N. Y.
SILICONE INSULATION, INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
Stevens Products, Inc., 86-88 Main St., East Orange, N. J.
Taylor Fibre Co., Norristown, Pa.
Varflex Corp., 506 W. Court St., Rome, N. Y.

TUBING—Glass, Precision

Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
CORNING GLASS WORKS, Corning, N. Y. ADV. PG. 523.
Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
SCIENTIFIC ELECTRONIC LABS., INC., 866 Bergen St., Newark 8, N. J. ADV. PG. 542.
Wilmad Glass Co., Inc., Landisville, N. J.

TUBING—Metal and Alloy

Alloy Tube Div. of The Carpenter Steel Co., Union, N. J.
Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.

- BART LABORATORIES DIV. OF BART MFG. CORP.**, 227 Main St., Belleville, N. J. ADV. PG. 608.
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
- Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
- CRUCIBLE STEEL CO. OF AMERICA**, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.
- Division Lead Co., 7742 W. 61st Place, Summit, Ill.
- Haynes Stellite Co., Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
- International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.
- Kleiner Metal Specialties, Inc., P. O. Box 185, Dunellen, N. J.
- Leach & Garner Co., Attleboro, Mass.
- Precision Tube Co., Inc., North Wales, Pa.
- Revere Copper & Brass, Inc., 230 Park Ave., New York 17, N. Y.
- Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
- SUPERIOR TUBE CO.**, 2504 Germantown Pike, Norristown, Pa. ADV. PG. 40, 41.
- Titeflex, Inc., Aviation Products Div., Hendee St., Springfield 4, Mass.
- Timken Roller Bearing Co., Canton 6, Ohio.
- Trent Tube Co., East Troy, Wis.
- Uniform Tubes, Level Rd., Colledgeville 2, Pa.
- United Wire & Supply Corp., Providence 7, R. I.
- UTILITY BRASS & COPPER CORP.**, 255 Conover St., Brooklyn 31, N. Y. ADV. PG. 693.
- TUBING—Mica**
- American Mica Insulation Co., Manasquan, N. J.
- Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
- CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC.**, Newark 100, Del. ADV. PG. 349-352.
- Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
- Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
- Mica Insulator Co., Schenectady 1, N. Y.
- Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
- Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.
- TUBING—Molybdenum**
- Associated Engineering & Mfg. Co., Glen Ridge, N. J.
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
- REMBAR CO., THE**, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.
- Trent Tube Co., East Troy, Wis.
- TUBING—Nickel**
- ELECTRONIC PARTS MFG. CO., INC.**, 508-10 25th St., Union City, N. J. ADV. PG. 575.
- International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.
- Kleiner Metal Specialties, Inc., P. O. Box 185, Dunellen, N. J.
- Leach & Garner Co., Attleboro, Mass.
- Precision Tube Co., Inc., North Wales, Pa.
- SUPERIOR TUBE CO.**, 2504 Germantown Pike, Norristown, Pa. ADV. PG. 40, 41.
- Trent Tube Co., East Troy, Wis.
- Uniform Tubes, Level Rd., Colledgeville 2, Pa.
- TUBING—Paper**
- ACCURATE PAPER TUBE CO.**, 801 N. Peoria St., Chicago 22, Ill. ADV. PG. 591.
- CLEVELAND CONTAINER CO., THE**, 6201 Barberton Ave., Cleveland 2, Ohio. ADV. PG. 458.
- Mica Insulator Co., Schenectady 1, N. Y.
- Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
- Panelite Div., St. Regis Paper Corp., 230 Park Ave., New York 17, N. Y.
- PARAMOUNT PAPER TUBE CORP.**, 614 Lafayette St., Fort Wayne, Ind. ADV. PG. 604.
- Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
- PRECISION PAPER TUBE CO.**, 2041 W. Charleston St., Chicago 47, Ill. ADV. PG. 659.
- Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.
- Stone Paper Tube Co., Inc., 900 Franklin St., N. E., Washington 17, D. C.
- TUBING—Plastic**
- Alloy Tube Div. of The Carpenter Steel Co., Union, N. J.
- ALPHA WIRE CORP.**, 200 Varick St., New York 14, N. Y. ADV. PG. 432.
- ANCHOR INDUSTRIAL CO., DIV. OF ANCHOR PLASTICS CO., INC.**, 36-36 36th St., Long Island City 6, N. Y. ADV. PG. 492.
- Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
- Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
- BENTLEY-HARRIS MFG. CO.**, Conshohocken, Pa. ADV. PG. 316.
- Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
- BRAND & CO., INC., WILLIAM**, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
- Chicago Die Mold Div. of U. S. Rubber Co., 4300 New Haven Ave., Fort Wayne 4, Ind.
- CLEVELAND CONTAINER CO., THE**, 6201 Barberton Ave., Cleveland 2, Ohio. ADV. PG. 458.
- CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC.**, Newark 100, Del. ADV. PG. 349-352.
- Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
- Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
- DeLuxe Coils, Inc., Wabash, Ind.
- Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
- Dixon Corp., Bristol, R. I.
- ELECTRONIC MECHANICS, INC.**, 101 Clifton Bldg., Clifton, N. J. ADV. PG. 604.
- Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
- Enflo Corp., Route 38 at Airport Circle, Pennsauken, N. J.
- Extruders, Inc., 3232 W. El Segundo Blvd., Hawthorne, Calif.
- Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
- Garlock Packing Co., Palmyra, N. Y.
- GENERAL CEMENT MFG. CO., ELECTRONIC DIV.**, 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
- General Electric Co., Plastics Dept., Pittsfield, Mass.
- General Tire & Rubber Co., Akron, Ohio.
- Gering Products, Inc., N. 7th St. at Monroe Ave., Kenilworth, N. J.
- Halogen Insulator & Seal Corp., 10121 Franklin Ave., Franklin Park, Ill.
- Houghton Laboratories Inc., 322 Houghton Ave., Olean, N. Y.
- Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
- Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
- Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
- MAIGNE CO., O. J.**, 321 Pearl St., New York 38, N. Y. ADV. PG. 677.
- Marblette Corp., 37-21 30th St., Long Island City 1, N. Y.
- MARKEL & SONS, L. FRANK**, School House, Norristown, Pa. ADV. PG. 669.
- Mica Insulator Co., Schenectady 1, N. Y.
- Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
- Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
- Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
- National Vulcanized Fibre Co., Wilmington, Del.
- NATVAR CORP.**, Woodbridge, N. J. ADV. PG. 637.
- Niemand Brothers, Inc., 37-03 35th Ave., Long Island City 1, N. Y.
- Olympic Plastics Co., Inc., 5741 W. Jefferson Blvd., Los Angeles 16, Calif.
- Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
- Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
- PHALO PLASTICS CORP.**, 25 Foster St., Worcester 8, Mass. ADV. PG. 559.
- POLYMER CORP., THE**, Reading Pa. ADV. PG. 243.
- PRECISION PAPER TUBE CO.**, 2041 W. Charleston St., Chicago 47, Ill. ADV. PG. 659.
- Raybestos-Manhattan, Inc., 51 Willett St., Passaic, N. J.
- Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
- RESIN INDUSTRIES**, P. O. Box 1589, Santa Barbara, Calif. ADV. PG. 641.
- Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.
- RESISTOFLEX CORP.**, Roseland, N. J. ADV. PG. 692.
- REX CORP., THE**, Hayward Rd., West Acton, Mass. ADV. PG. 479.
- RICHARDSON CO., THE**, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
- Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
- SILICONE INSULATION, INC.**, 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
- Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
- Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
- SURPRENANT MFG. CO.**, 199 Washington St., Boston 8, Mass. ADV. PG. 296.
- Taylor Fibre Co., Norristown, Pa.
- Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.
- Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.
- Titeflex, Inc., Aviation Products Div., Hendee St., Springfield 4, Mass.
- Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.
- Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
- U. S. GASKET CO.**, P. O. Box 93, Camden, N. J. ADV. PG. 477.
- U. S. Plywood Corp., Electrical Structures Dept., 55 W. 44th St., New York 17, N. Y.
- United States Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
- U. S. Stoneware Co., The, Akron 9, Ohio.
- U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
- Varflex Corp., 506 W. Court St., Rome, N. Y.
- Walco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
- Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.
- WESTLAKE PLASTICS CO.**, 133 W. Lenni Mills, Pa. ADV. PG. 634.
- Wilmington Fibre Specialty Co., New Castle, Del.
- TUBING—Precious Metal**
- AMERICAN PLATINUM WORKS**, N. J. R. R. Ave. at Oliver St., Newark 5, N. J. ADV. PG. 654.
- Baker Co., Inc., 113 Astor St., Newark 5, N. J.
- Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
- COHN CORP., SIGMUND**, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 620.
- Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
- IMPROVED SEAMLESS WIRE CO.**, 775 Eddy St., Providence 5, R. I. ADV. PG. 434.
- Kleiner Metal Specialties, Inc., P. O. Box 185, Dunellen, N. J.
- Leach & Garner Co., Attleboro, Mass.
- MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO.**, Attleboro, Mass. ADV. PG. 303.
- METALS & CONTROLS CORP., GENERAL PLATE DIV.**, Attleboro, Mass. ADV. PG. 525.
- METZ REFINING CO.**, 369 Mulberry St., Newark 2, N. J. ADV. PG. 543.
- Secor Metals Corp., 7 Intervale St., White Plains, N. Y.
- Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
- Uniform Tubes, Level Rd., Colledgeville 2, Pa.
- TUBING—Steel**
- Alloy Tube Div., The Carpenter Steel Co., Union, N. J.
- Armco Steel Corp., 703 Curtis St., Middletown, Ohio.
- Avon Tube Div., Higbie Mfg. Co., Wagner Rd., Rochester, Mich.
- Bishop & Co., J., Platinum Works, Malvern, Pa.
- Blaw-Knox Co., Farmers Bank Bldg., Pittsburgh 22, Pa.
- CRUCIBLE STEEL CO. OF AMERICA**, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. ADV. PG. 103-106.
- Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
- Kleiner Metal Specialties, Inc., P. O. Box 185, Dunellen, N. J.
- Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
- Revere Copper & Brass, Inc., 230 Park Avenue, New York 17, N. Y.
- ROME CABLE CORP.**, 330 Ridge St., Rome, N. Y. ADV. PG. 98.
- SUPERIOR TUBE CO.**, 2504 Germantown Pike, Norristown, Pa. ADV. PG. 40, 41.
- Timken Roller Bearing Co., Canton 6, Ohio.
- Trent Tube Co., East Troy, Wis.
- Uniform Tubes, Level Rd., Colledgeville 2, Pa.
- TUBING—Synthetic Resin**
- See **TUBING—Plastic**
- TUBING—Tantalum**
- Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
- Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
- TUBING—Titanium**
- Alloy Tube Div. of The Carpenter Steel Co., Union, N. J.
- Bram Chemical Co., 820 65th Ave. Philadelphia 26, Pa.
- CRUCIBLE STEEL CO. OF AMERICA**, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.
- Rem-Cru Titanium, Inc., Midland, Pa.
- SUPERIOR TUBE CO.**, 2504 Germantown Pike, Norristown, Pa. ADV. PG. 40, 41.
- Trent Tube Co., East Troy, Wis.
- TUBING—Varnished or Lacquered**
- ALPHA WIRE CORP.**, 200 Varick St., New York 14, N. Y. ADV. PG. 432.
- B & C Insulation Products, Inc., Lincoln Highway, Ise'lin, N. J.
- BENTLEY-HARRIS MFG. CO.**, Conshohocken, Pa. ADV. PG. 316.
- Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
- BRAND & CO., INC. WILLIAM**, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
- CLEVELAND CONTAINER CO., THE**, 6201 Barberton Ave., Cleveland 2, Ohio. ADV. PG. 458.
- Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
- GENERAL CEMENT MFG. CO., ELECTRONIC DIV.**, 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
- Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
- MARKEL & SONS, L. FRANK**, School House, Norristown, Pa. ADV. PG. 669.
- Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
- Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
- Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
- National Electric Coil Co., Columbus, Ohio.
- NATVAR CORP.**, Woodbridge, N. J. ADV. PG. 637.
- PARAMOUNT PAPER TUBE CORP.**, 614 Lafayette St., Fort Wayne, Ind. ADV. PG. 604.
- Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.
- Varflex Corp., 506 W. Court St., Rome, N. Y.
- Walco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
- TUBING—Varnished Cambric Insulation**
- ALPHA WIRE CORP.**, 200 Varick St., New York 14, N. Y. ADV. PG. 432.
- BENTLEY-HARRIS MFG. CO.**, Conshohocken, Pa. ADV. PG. 316.
- Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
- BRAND & CO., INC., WILLIAM**, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
- Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.
- Flexaust Co., The, 100 Park Ave., New York 17, N. Y.

GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
MARKEL & SONS, L. FRANK, School House, Norristown, Pa. ADV. PG. 669.
Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.
NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
Precision Metal Products Co. of Malden, 41 Elm St., Stoneham 80, Mass.
PRECISION PAPER TUBE CO., 2041 W. Charleston St., Chicago 47, Ill. ADV. PG. 659.
Varflex Corp., 506 W. Court St., Rome, N. Y.

TUBING—Waveguide

American Brass Co., 414 Meadow St., Waterbury 20, Conn.
BOGART MFG. CO., 315 Siegel St., Brooklyn 6, N. Y. ADV. PG. 511.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
DEMORNAY-BONARDI, INC., 780 S. Arroyo Parkway, Pasadena, Calif. ADV. PG. 207.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
DOUGLAS MICROWAVE CO., 252 E. Third St., Mt. Vernon, N. Y. ADV. PG. 636.
J-V-M ENGINEERING CO., 8846 W. 47th St., Brookfield, Ill. ADV. PG. 540.
KENT CO., F. C., 64 Howard St., Irvington, N. J. ADV. PG. 556.
Leach & Garner Co., Attleboro, Mass.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
Meridian Metalcraft, Inc., 8739 Miller Grove Dr., Whittier, Calif.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Prodelin Inc., 307 Bergen Ave., Kearny, N. J.
SPECIALTY AUTOMATIC MACHINE CORP., 88 Gerrish Ave., Chelsea 50, Mass. ADV. PG. 522.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
SUPERIOR TUBE CO., 2504 Germantown Pike, Norristown, Pa. ADV. PG. 40, 41.
TECHNICRAFT LABORATORIES, INC., Thomaston-Waterbury Rd., Thomaston, Conn. ADV. PG. 259.
Titeflex, Inc., Aviation Products Div., Henderie St., Springfield 4, Mass.
UTILITY BRASS & COPPER CORP., 255 Conover St., Brooklyn 31, N. Y. ADV. PG. 693.
Waveline, Inc., Box 470, Caldwell, N. J.

TUBING—Woven or Knitted Wire

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Factory Enterprises, Inc., 3431 Butler St., Pittsburgh 1, Pa.
U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.

TUNERS—am

Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
Browning Laboratories, Inc., Main St., Winchester, Mass.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
Collins Audio Products Co., P. O. Box 368, Westfield, N. J.
Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
Delco Radio Div., General Motors Corp., Kokomo, Ind.
Fisher Radio Corp., 21-21 Forty-fourth Drive, Long Island City 1, N. Y.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.

TUNERS—f-m

Aermotive Equipment Corp., 1632-8 Central St., Kansas City 10, Mo.
American Elite, Inc., (Telefunken) 7 Park Ave., New York 16, N. Y.

Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
Browning Laboratories, Inc., Main St., Winchester, Mass.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
Collins Audio Products Co., P. O. Box 368, Westfield, N. J.
Denson Electronics Corp., Ellington, Conn.
Fisher Radio Corp., 21-21 Forty-fourth Drive, Long Island City 1, N. Y.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
Gotham Television Corp., 123 W. 64th St., New York 23, N. Y.
Granco Products, Inc., 36-17 20th Ave., Long Island City, N. Y.
HEATH CO., A SUB. OF DAYSTROM, INC., Benton Harbor 14, Mich. ADV. PG. 588.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
Pedersen Electronics Co., Mt. Diablo Blvd., Lafayette, Calif.
Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
Precise Development Corp., 2 Neil Court, Oceanside, N. Y.
Precision Radiation Instruments, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif.
Radio Craftsmen, Inc., The, 4401 N. Ravenswood Ave., Chicago 40, Ill.
RADIO ENGINEERING LABS., INC., 36-40 37th St., Long Island City 1, N. Y. ADV. PG. 123.
Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.

TUNERS—f-m/a-m

Allied Radio Corp., 100 N. Western Ave., Chicago 80, Ill.
Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
Anslay Mfg. Corp., Arthur, New Hope, Pa.
Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
Browning Laboratories, Inc., Main St., Winchester, Mass.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
Collins Audio Products Co., P. O. Box 368, Westfield, N. J.
Electro Voice Mfg. Co., Inc., Buchanan, Mich.
Fisher Radio Corp., 21-21 Forty-fourth Drive, Long Island City 1, N. Y.
Granco Products, Inc., 36-17 20th Ave., Long Island City, N. Y.
National Co. Inc., 61 Sherman St., Malden 48, Mass.
Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
Pedersen Electronics Co., Mt. Diablo Blvd., Lafayette, Calif.
Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
Radio Craftsmen, Inc., 4401 N. Ravenswood Ave., Chicago 40, Ill.
Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
Sargent-Raymont Co., The, 4926-28 E. 12th St., Oakland 1, Ohio.
Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
Weingarten Electronics Labs., Inc., 7556 Melrose Ave., Los Angeles 46, Calif.

TUNERS—Klystron

Aircorn Inc., 354 Main St., Winthrop 52, Mass.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
DIAMOND MICROWAVE CORP., 7 North Ave., Wakefield, Mass. ADV. PG. 453.
F-R MACHINE WORKS, INC., 26-12 Borough Place, Woodside 77, N. Y. ADV. PG. 266, 267.
MICROLAB, 71 Okner Parkway, Livingston, N. J. ADV. PG. 629.
POLYTECHNIC RESEARCH & DEVELOPMENT CO., INC., 202 Tillary St., Brooklyn 1, N. Y. ADV. PG. 507.
Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
Wheeler Laboratories, Inc., Great Neck, N. Y.

TUNERS—Microwave

See MICROWAVE ACCESSORIES

TUNERS—Permeability

Aermotive Equipment Corp., 1632-8 Central St., Kansas City 10, Mo.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.

Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
Collins Audio Products Co., P. O. Box 368, Westfield, N. J.
Delco Radio Div., General Motors Corp., Kokomo, Ind.
General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
RADIO CONDENSER CO., Camden, N. J. ADV. PG. 255.
Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.

TUNERS—Television

Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Eastern Specialty Co., Philadelphia 40, Pa.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
RADIO CONDENSER CO., Camden, N. J. ADV. PG. 255.
SARKES TARZIAN INC., RECTIFIER DIV., 415 College Ave., Bloomington, Ind. ADV. PG. 488.
Sarkes Tarzian Inc., Tuner Div., East Hillside Dr., Bloomington, Ind.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
Television Utilities Corp., 1315 Jericho Turnpike, New Hyde Park, N. Y.

TUNERS—Television rf

Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
Sarkes Tarzian Inc., Tuner Div., East Hillside Dr., Bloomington, Ind.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.

TUNERS—uhf

APPLIED RESEARCH INC., 163-07 Depot Rd., Flushing, N. Y. ADV. PG. 466.
Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.
Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.
Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
Granco Products, Inc., 36-17 20th Ave., Long Island City, N. Y.
Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
MICROPHASE CORP., P. O. Box 1166X, Greenwich, Conn. ADV. PG. 462.
Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
RADIO CONDENSER CO., Camden, N. J. ADV. PG. 255.
SARKES TARZIAN, INC., RECTIFIER DIV., 415 N. College Ave., Bloomington, Ind. ADV. PG. 488.
Sarkes Tarzian Inc., Tuner Div., East Hillside Dr., Bloomington, Ind.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.

TUNING DEVICES—Receiver Mechanical

ATLAS PRECISION PRODUCTS CO., Castor & Kensington Ave., Philadelphia 24, Pa. ADV. PG. 543.
BOWMAN INSTRUMENT CORP., 2400 Pennsylvania Ave., Fort Wayne, Ind. ADV. PG. 204.
Collins Audio Products Co., P. D. Box 368, Westfield, N. J.
Collins Radio Co., Cedar Rapids, Iowa.
Croname, Inc., 3701 N. Ravenswood Ave., Chicago, Ill.
Delco Radio Div., General Motors Corp., Kokomo, Ind.
Elm Laboratories, 18 S. Broadway, Dobbs Ferry, N. Y.
General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
KUPFRAN MFG. CORP., 398 State St., Binghamton, N. Y. ADV. PG. 667.
Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
Waldom Electronics Inc., 4625 W. 53rd St., Chicago 32, Ill.

TUNING DEVICES—Transmitter Mechanical

Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.

ATLAS PRECISION PRODUCTS CO., Castor & Kensington Ave., Philadelphia 24, Pa. ADV. PG. 543.
Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
BOWMAR INSTRUMENT CORP., 2400 Pennsylvania Ave., Fort Wayne, Ind. ADV. PG. 204.
Collins Radio Co., Cedar Rapids, Iowa.
Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
DALMO VICTOR CO., 1414 El Camino Real, San Carlos, Calif. ADV. PG. 561.
General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
Industron Corp., 50 Brook Rd., Needham Heights, Mass.
Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
KUPFFRIAN MFG. CORP., 398 State St., Binghamton, N. Y. ADV. PG. 667.
Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
Woodwelding, Inc., 3000 W. Olive, Burbank, Calif.

TURNTABLES—Recording and Transcription

Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
Collaro, Ltd., (Rockbar Corp.), 215 E. 37th St., New York 16, N. Y.
Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
D & R, Ltd., 402 E. Gutierrez St., P. O. Box 1500, Santa Barbara, Calif.
Epsylon Research & Development Co., Ltd., The Barons, St. Margarets, Middlesex, England.
Fairchild Recording Equipment Co., 154th St. & 7th Ave., Whitestone, N. Y.
Flock Process Co., Inc., 373 Main Ave., Norwalk, Conn.
Garrard Sales Corp., 80 Shore Rd., Port Washington, N. Y.
Gates Radio Co., Quincy, Ill.
PRESTO RECORDING CORP., P. O. Box 500, Paramus, N. J. ADV. PG. 457.
Q. R. K. Electronic Products, 445 N. Circle Drive, Fresno 4, Calif.
Rek-O-Kut Co., Inc., 38-01 Queens Blvd., Long Island City, N. Y.
Scott, Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

TWEETERS

See **SPEAKERS**

TWISTS

See **MICROWAVE ACCESSORIES**
BENDS—Microwave

ULTRASONIC EQUIPMENT:

See also:
AMPLIFIERS—Ultrasonic
ANALYZERS—Ultrasonic
CLEANERS—Ultrasonic
CONTROLS—Ultrasonic
GAGES—Ultrasonic Thickness
GENERATORS—Ultrasonic
INSTRUMENTS—Ultrasonic
TOOLS—Ultrasonic Soldering
VIBRATORS—Ultrasonic

Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
AEROPROJECTS INCORPORATED, 310 E. Rosedale Ave., West Chester, Pa. ADV. PG. 674.
Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
ARENBERG ULTRASONIC LABORATORY, 94 Green St., Jamaica Plain 30, Mass. ADV. PG. 570.
Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.
Bendix Aviation Corp., Pacific Div., 11600 Sherman Way, North Hollywood, Calif.
BIRTCHEER CORP., 4371 Valley Blvd., Los Angeles 32, Calif. ADV. PG. 552.
Blackstone Corp., 1111 Allen St., Jamestown, N. Y.
BRANSON INSTRUMENTS, INC., 1 Brown House Rd., Stamford, Conn. ADV. PG. 654.
BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 655.
Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.
Chesapeake Instrument Corp., Shadyside, Md.
COMPUTER CONTROL CO., INC., 92 Broad St., Babson Park 57, Mass. ADV. PG. 536.
Corbett Science Laboratories, F. W., 3115 Venice Blvd., Los Angeles 19, Calif.
Cossor (Canada) Ltd., 301-303 Windsor St. Halifax, N. S., Canada.
Dice Co., J. W., Englewood, N. J.
Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.
Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y.
Harris Transducer Corp., Woodbury, Conn.
HEWLETT-PACKARD CO., 275 Page Mill Rd., Palo Alto, Calif. ADV. PG. 29-36.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
Mack Electronics Division, Inc., Plainfield, N. J.

Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
McKenna Laboratories, Santa Monica 6, Calif.
New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
Phillips Mfg. Co., 3406 W. Touhy Ave., Chicago 45, Ill.
Pioneer-Central Division, Bendix Aviation Corp., Davenport, Iowa.
Power Supplies, Inc., 1007 Olive St., Highland, Ill.
RAYTHEON MFG. CO., EQUIPMENT MARKETING DEPT., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
Reeve Electronics, Inc., 609 W. Lake St., Chicago 6, Ill.
Sheffield Corp., The, Dayton 1, Ohio.
SORENSEN & CO., INC., 375 Fairfield Ave., Stamford, Conn. ADV. PG. 177-180.
SPELLMAN TELEVISION CO., INC., 3029 Webster Ave., New York 67, N. Y. ADV. PG. 372, 373.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Telephonics Corp., Park Ave., Huntington, N. Y.
Vibro Ceramics Corp., Metuchen, N. J.

VACUUM ALUMINIZERS

Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Consolidated Vacuum, Rochester 3, N. Y.
Green Rectifier Co., 83-3 Murray St., New York 7, N. Y.
High-Vacuum Equipment Corp., Hingham, Mass.
Hull Corporation, Abington, Pa.
International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.
Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston 30, Mass.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
Stokes Machine Co., F. J., 5550 Tabor Rd., Philadelphia 20, Pa.
Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.
Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.

VACUUM GAGES

See **GAGES—Vacuum or Pirani**

VACUUM INDICATING, RECORDING AND CONTROL EQUIPMENT

Bailey Meter Co., 1050 Ivanhoe Rd., Cleveland 10, Ohio.
Bristol Co., The, Waterbury 20, Conn.
Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Consolidated Vacuum, Rochester 3, N. Y.
Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
Electronic Research Labs., 85 Surrey St., Brighton 35, Mass.
GENERAL ELECTRIC CO., APPARATUS SALES DIV., 1 River Rd., Schenectady 5, N. Y. ADV. PG. 1-12.
Green Rectifier Co., 83-3 Murray St., New York 7, N. Y.
Hastings Instrument Co., Hampton 9, Va.
High Vacuum Equipment Corp., Hingham, Mass.
International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.
Manning, Maxwell & Moore Inc., 250 E. Main St., Stratford, Conn.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
Research Electronics Laboratories, Roslyn, Pa.
Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
Stokes Machine Co., F. J., 5550 Tabor Rd., Olney P. O., Philadelphia 20, Pa.
U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.
Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.
Vacuum Tube Products, 506 S. Cleveland St., Oceanside, Calif.
Wallace & Tiernan Products, Inc., 25 Main St., Belleville 9, N. J.
WESTON ELECTRICAL INSTRUMENT CORP., A SUB. OF DAYSTROM, INC., 614 Frelinghuysen Ave., Newark 5, N. J. ADV. PG. 483.

VACUUM PUMPS

Allis-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis.
Associated Engineering & Mfg. Co., Glen Ridge, N. J.
Beach-Russ Co., 50 Church St., New York 7, N. Y.
Central Scientific Co., 1700 Irving Park Road, Chicago 13, Ill.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Consolidated Vacuum, Rochester 3, N. Y.
Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.

EITEL-McCULLOUGH INC., San Bruno, Calif. ADV. PG. 174, 175.
High Vacuum Equipment Corp., Hingham, Mass.
International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.
King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
Kinney Mfg. Div., The New York Air Brake Co., 3529 Washington St., Boston 30, Mass.
Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
Nelson Vacuum Pump Co., George F., 2133 Fourth St., Berkeley 10, Calif.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
Optical Film Engineering Co., 2731-37 N. 6th St., Philadelphia 33, Pa.
Parsons Co., Ralph M., The, 617 S. Olive St., Los Angeles 14, Calif.
Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
Red Point Products, Inc., 1907 Riverside Drive, Glendale 1, Calif.
Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
Stokes Machine Co., F. J., 5550 Tabor Rd., Olney P. O., Philadelphia 20, Pa.
Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.
Whittington Pump & Engineering Corp., 1126 Prospect St., Indianapolis 3, Ind.

VACUUM TUBE VOLTMETERS

See **VOLTMETERS—Electronic**

VACUUM UNITS

AMERICAN RESEARCH CORP., 11 Brook St., Bristol, Conn. ADV. PG. 669.
Consolidated Vacuum, Rochester 3, N. Y.
Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.
Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
GENERAL HERMETIC SEALING CORP., 99 E. Hawthorne Ave., Valley Stream, N. Y. ADV. PG. 677.
Green Rectifier Co., 83-3 Murray St., New York 7, N. Y.
Hamlin, Inc., 1316 Sherman Ave., Evanston, Ill.
High Vacuum Equipment Corp., Hingham, Mass.
International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.
KAHLE ENGINEERING CO., 1307 Seventh St., North Bergen, N. J. ADV. PG. 321.
Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston 30, Mass.
MURPHY & MILLER, INC., 1322 S. Michigan Ave., Chicago 5, Ill. ADV. PG. 649.
NRC EQUIPMENT CORP., 160 Charlemont St., Newton Highlands 61, Mass. ADV. PG. 527.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Optical Film Engineering Co., 2731-37 N. 6th St., Philadelphia 33, Pa.
Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
Red Point Products, Inc., 1907 Riverside Drive, Glendale 1, Calif.
Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
STEINER-IVES CO., Springfield Rd., Union, N. J. ADV. PG. 514.
Stokes Machine Co., F. J., 5550 Tabor Rd., Olney P. O., Philadelphia 20, Pa.
TENNEY ENGINEERING, INC., 1090 Springfield Rd., Union N. J. ADV. PG. 436.
Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.

VALVES—Solenoid

Adel Precision Products Div. of General Metals Corp., 10777 Vanowen St., Burbank, Calif.
Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.
Caltron Products Co., 1310-12 S. Hobart Blvd., Los Angeles 6, Calif.
Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
Combustion Control Div., Electronics Corp. of America, 718 Beacon St., Boston 15, Mass.
General Controls Co., Glendale 1, Calif.
Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
Hays Mfg. Co., 818 W. 12th St., Erie, Pa.
Hydraulic Press Mfg. Co., Mt. Gilead, Ohio.
Jackes-Evans Mfg. Co., 4427 Geraldine Ave., St. Louis 15, Mo.
McQuay-Norris Mfg. Co., 2320 Marconi Ave., St. Louis 10, Mo.
Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., S., Minneapolis 8, Minn.
Moog Valve Co., Inc., Proner Airport, East Aurora, N. Y.
National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkley, Mich.
Skinner Electric Valve Div., The Skinner Chuck Co., Edgewood Ave., New Britain, Conn.
Vacuum-Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.

VARISTORS

See also **CRYSTAL MOUNTS & MIXERS**
CARBOLBY DEPT. OF GENERAL ELECTRIC CO., Box 237, Roosevelt Park Annex, Detroit 32, Mich. ADV. PG. 20, 21.
INTERNATIONAL RESISTANCE CO., 401 N. Broad St., Philadelphia 8, Pa. ADV. PG. 183-186.
Kemtron Electron Products, Inc., 5 Prince Place, Newbury Port, Mass.
Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
Victory Engineering Corp., 101 Springfield Rd., Unlon, N. J.

VARNISH—Cambric Coatings

VARNISH—Insulating

See **INSULATING COMPOUNDS**

VIBRATION ANALYSIS EQUIPMENT

ACF Electronics, 800 N. Pitt St., Alexandria, Va.
Advanced Electronics, Inc., 95 Silas Deane Highway, Rocky Hill, Conn.
Allegany Instrument Co., Inc., Cumberland, Md.
Blaw-Knox Co., Farmers Bank Bldg., Pittsburgh 22, Pa.
BRUSH ELECTRONICS CO., 3405 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 314, 315.
Consolidated Electrodynamic Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
escent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
DAVIES LABORATORIES, INC., THE, 4705 Queensbury Rd., Riverdale, Md. ADV. PG. 140.
DUBROW DEVELOPMENT CO., 235B Penn St., Burlington, N. J. ADV. PG. 380.
ELECTRO PRODUCTS LABS., 4501 N. Ravenswood Ave., Chicago 40, Ill. ADV. PG. 522.
Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
Endevco Corp., 161 E. California St., Pasadena, Calif.
Epic, Inc., 154 Nassau St., New York 38, N. Y.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
GENERAL RADIO CO., 275 Massachusetts Ave., Cambridge 39, Mass. ADV. PG. 109, 110.
Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Cleveland 16, Ohio.
Kahn & Co., Inc., 541 Windsor St., Hartford 1, Conn.
KAY ELECTRIC CO., 25 Maple Ave., Pine Brook, N. J. ADV. PG. 262.
Kybernetes Co., 9 E. 40th St., New York 16, N. Y.
L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
MB MFG. CO., A DIV. OF TEXTRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 496.
Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.
Muirhead & Co., Ltd., Beckenham, Kent, England.
Pacific Electro-Nuclear Div. of Western Devices, Inc., 8930 Lindblade Ave., Culver City, Calif.
PANORAMIC RADIO PRODUCTS, INC., 10 South Second Ave., Mt. Vernon, N. Y. ADV. PG. 627.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
Technical Instrument Co., 3732 Westheimer Rd., Houston 6, Texas.
Telesco Corp., 1415 Golf Rd., Des Plaines, Ill.
Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.
Winkler Laboratories, 5225 N. 20th St., Phoenix, Ariz.

VIBRATION ANALYSIS EQUIPMENT—

Electronic Balancing

International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Cleveland 16, Ohio.
Sperry Gyroscope Co., Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.

VIBRATION ANALYSIS EQUIPMENT—

High Temperature Fatigue

Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Cleveland 16, Ohio.
L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.

VIBRATION ANALYSIS EQUIPMENT—

Vibration Fatigue

Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
Endevco Corp., 161 E. California St., Pasadena, Calif.
International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Cleveland 16, Ohio.
L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
PROBESCOPE CO., 44-05 30th Ave., Long Island City 3, N. Y. ADV. PG. 693.

VIBRATION EXCITING EQUIPMENT

All American Tool & Mfg. Co., 8027 Lawndale, Skokie, Ill.
Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.

CALIDYNE CO., THE, 120 Cross St., Winchester, Mass. ADV. PG. 593.
Endevco Corp., 161 E. California St., Pasadena, Calif.
L. A. B. Corp., Skaneateles, N. Y.
L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
MB MFG. CO., A DIV. OF TEXTRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 496.
Massa Laboratories, Inc., Fottler Rd., Hingham, Mass.
Sherron Electronics Co., 1201 Flushing Ave., Brooklyn 6, N. Y.

VIBRATORS

AIRPAX PRODUCTS CO., Middle River, Baltimore 20, Md. ADV. PG. 143-146.
AMERICAN TELEVISION & RADIO CO., 300 E. Fourth St., St. Paul 1, Minn. ADV. PG. 176.
Collins Electronics Mfg. Corp., Stevensville, Md.
CORNELL-DUBILIER ELECTRIC CORP., South Plainfield, N. J. ADV. PG. 445.
Fischer & Co., R. A., 517 Commercial St., Glendale 3, Calif.
Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
James Vibrapowr Co., 4050 N. Rockwell St., Chicago 18, Ill.
KURMAN ELECTRIC CO., INC., 35-18 37th St., Long Island City, N. Y. ADV. PG. 687.
L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
MB MFG. CO., A DIV. OF TEXTRON AMERICAN, INC., 1060 State St., New Haven 11, Conn. ADV. PG. 496.
Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
Oak Mfg. Co., 1260 Clybourn Ave., Chicago 10, Ill.
PRECISE MEASUREMENTS CO., 942 Kings Highway, Brooklyn 23, N. Y. ADV. PG. 147.
Radiart Co., The, 3455 Vega Ave., Cleveland 13, Ohio.
Rumple Inc., 2308 Beloit Ave., West Los Angeles 64, Calif.
Senn Corp., New Augusta, Ind.
Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.
VIBRATION RESEARCH LABS., INC., 97 Lake Ave., Tuckahoe, N. Y. ADV. PG. 569.
VICTOREEN INSTRUMENT CO., 3800 Perkins Ave., Cleveland 14, Ohio. ADV. PG. 416.
Vokar Corp., 7300 Huron River Drive, Dexter, Mich.

VIBRATORS—Multivibrators

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

VIBRATORS—Ultrasonic

AEROPROJECTS INCORPORATED, 310 E. Rosedale Ave., West Chester, Pa. ADV. PG. 674.
Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
BRANSON ULTRASONIC CORP., 1 Brown House Rd., Stamford, Conn. ADV. PG. 655.
Chesapeake Instrument Corp., Shadyside, Md.
Fischer & Co., R. A., 517 Commercial St., Glendale 3, Calif.
Harris Transducer Corp., Woodbury, Conn.
Mack Electronics Division, Inc., Plainfield, N. J.
Telesco Corp., 1415 Golf Rd., Des Plaines, Ill.
VISCOSIMETERS WITH ELECTRONIC RECORDERS
Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
Bristol Co., The, Waterbury 20, Conn.
DOELCAM DIV. OF MINNEAPOLIS-HONEYWELL REGULATORY CO., 1400 Soldiers Field Rd., Boston 35, Mass. ADV. PG. 375.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
Foxboro Co., The, Foxboro, Mass.
Ultrasonic Engineering Co., 2402 Second St., Peru, Ill.

VOLTAGE REGULATING

See CONTROLS

VOLTAGE REGULATORS & STABILIZERS

See **REGULATORS—Voltage Regulators & Stabilizers**

VOLTAGE SUPPLIES—Decade

Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.
CLEGG LABORATORIES, INC., Hanover & Ridgedale Aves., Morristown, N. J. ADV. PG. 566.
ELECTRONIC MEASUREMENTS CO., Lewis St. & Maple Ave., Eatontown, N. J. ADV. PG. 562.
EPSCO INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 272, 273.
FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.
INTERELECTRONICS CORP., 2432 Grand Concourse, New York 58, N. Y. ADV. PG. 521.
Service Instruments Co., 422 S. Dearborn St., Chicago 5, Ill.
Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.
Universal Atomics Corp., 19 E. 48th St., New York 17, N. Y.

VOLTMETERS

See **INSTRUMENTS—Electrical Measuring**

VOLTMETERS—Digital

ASSEMBLY PRODUCTS, INC., Chesterland 6, Ohio. ADV. PG. 368, 369.

Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
CHATHAM ELECTRONICS DIV. OF GERA CORP., 630 W. Mt. Pleasant Ave., Livingston, N. J. ADV. PG. 278, 279.

Consolidated Electrodynamic Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
Delaware Products Co., 300 Broadway, Camden 3, N. J.
Electro Instruments, Inc., 3794 Rosecrans, San Diego 10, Calif.
EPSCO, INCORPORATED, 588 Commonwealth Ave., Boston 15, Mass. ADV. PG. 272, 273.
Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
FURST ELECTRONICS, INC., 3324-A W. Lawrence Ave., Chicago 25, Ill. ADV. PG. 628.
Hudson Associates, Inc., 50 Drum St., San Francisco 11, Calif.
Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.
Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
Telecomputing Corp., 12838 Satcoy St., North Hollywood, Calif.
Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

VOLTMETERS—Electronic

See **INSTRUMENTS—Electrical Measuring**

VOLTMETERS—Electrostatic

Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
Epic, Inc., 154 Nassau St., New York 38, N. Y.
FERRANTI ELECTRIC, INC., 30 Rockefeller Plaza, New York 20, N. Y. ADV. PG. 660.
Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
RAWSON ELECTRICAL INSTRUMENT CO., 111 Potter St., Cambridge 42, Mass. ADV. PG. 659.
SENSITIVE RESEARCH INSTRUMENT CORP., 310 Main St., New Rochelle, N. Y. ADV. PG. 312.
STICHT CO., INC., HERMAN H., 27 Park Place, New York 7, N. Y. ADV. PG. 696.
Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.

VOLTMETERS—Slideback

COLORTONE ELECTRONICS, INC., 100 Frank Rd., Hicksville, N. Y. ADV. PG. 645.
Fluke Mfg. Co., Inc., John, 111 W. Nickerson St., Seattle 99, Wash.
Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.

VOLT-OHM-MILLIAMMETERS

See **INSTRUMENTS—Electrical Measuring**

WASHERS—Insulating

AMERICAN LAVA CORP., Chattanooga 5, Tenn. ADV. PG. 87.
Anti-Corrosive Metal Products Co., Castleton-On-Hudson, N. Y.
Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
BARWOOD MFG. CO., INC., L. J., 22 Williams St., Everett 49, Mass. ADV. PG. 521.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
CENTRALAB DIV., GLOBE-UNION, INC., 914Y E. Keefe Ave., Milwaukee 1, Wis. ADV. PG. 37.
CONTINENTAL-DIAMOND FIBRE DIV. OF THE BUDD CO., INC., Newark 100, Del. ADV. PG. 349-352.
Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
Du-Co Ceramics Co., Box 587, Butler 8, Pa.
ELECTRONIC MECHANICS, INC., 101 Clifton Blvd., Clifton, N. J. ADV. PG. 604.
Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
Emerson Plastics Corp., 564 Thrd Ave., New York 16, N. Y.
Enflo Corp., Route 38 at Airport Circle, Pennsauken, N. J.
FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
Felt Products Mfg. Co., 1504 West Carroll Ave., Chicago 7, Ill.
GENERAL COMPONENTS CO., 233 E. 146th St., New York 51, N. Y. ADV. PG. 550.
General Electric Co., Plastics Dept., Pittsfield, Mass.
General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
GRAYHILL, 537 Hillgrove Ave., La Grange, Ill. ADV. PG. 224.
Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
Insuline Corp. of America, 186 Granite St., Manchester, N. H.
Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
MAIGNE CO., O. J., 321 Pearl St., New York 38, N. Y. ADV. PG. 677.

Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.
 Mica Insulator Co., Schenectady 1, N. Y.
 Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 National Vulcanized Fibre Co., Wilmington, Del.
 NATVAR CORP., Woodbridge, N. J. ADV. PG. 637.
 Northern Plastics Corp., Second & Market Sts., La Crosse, Wis.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
 Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
 Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
 RICHARDSON CO., THE, 2767 Lake St., Melrose Park, Ill. ADV. PG. 474.
 Rogers Corporation, Goodyear, Conn.
 Sheffco Mfg. Corp., Grand & Ruby Ave., Palisades Park, N. J.
 SILICONE INSULATION INC., 564 Third Ave., New York 16, N. Y. ADV. PG. 531.
 Sinclair Mfg. Co., Chartley, Mass.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
 Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.
 Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.
 STUPAKOFF DIV. OF THE CARBORUNDUM CO., Latrobe, Pa. ADV. PG. 150, 151.
 Taylor Fibre Co., Norristown, Pa.
 THOR CERAMICS INC., 225 Belleville Ave., Bloomfield, N. J. ADV. PG. 464.
 United States Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
 Wilmington Fibre Specialty Co., New Castle, Del.
 Wrought Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.

WASHERS—Lock

Anti-Corrosive Metal Products Co., Castleton-On-Hudson, N. Y.
 Atlas Screw & Specialty Co., Inc., 450 Broome St., New York 13, N. Y.
 Autoscrew Co., 216-222 W. 18th St., New York, N. Y.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 CIRCON COMPONENT CO., 17544 Raymer St., Northridge, Calif. ADV. PG. 606.
 Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S. E., Massillon, Ohio.
 FEDERAL SCREW PRODUCTS, INC., 3917 N. Kedzie Ave., Chicago 18, Ill. ADV. PG. 586.
 Harper Co., H. M., 8200 Lehigh Ave., Morton Grove, Ill.
 KEYSTONE BOLT & NUT CORP., 127 Church St., New York 7, N. Y. ADV. PG. 567.
 National Lock Washer Co., 40 Hermon St., Newark 5, N. J.
 P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
 Positive Lock Washer Co., 181 Miller St., Newark 5, N. J.
 Shakeproof Div. of Illinois Tool Works, St. Charles Rd., Elgin, Ill.
 Sheffco Mfg. Corp., Grand & Ruby Ave., Palisades Park, N. J.
 Standard Locknut & Lockwasher, Inc., 510 N. Capitol Ave., Indianapolis, Ind.
 Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.
 Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y.
 Thompson-Bremer & Co., 520 N. Dearborn, Chicago 10, Ill.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
 Wrought Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.

WATTMETERS

See INSTRUMENTS—Electrical Measuring

WAVEGUIDE TEST EQUIPMENT**WAVEGUIDES—Combination, Flexible & Rigid****WAVEMETERS—Microwave**

See MICROWAVE ACCESSORIES

WAXES

See INSULATING COMPOUNDS

WEDGES—Wood Slot

Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
 Mitchell-Rand Insulation Co., Inc., 51 Murray St., New York 7, N. Y.

WELDERS—Spot

Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
 Federal Tool Engineering Co., 1386 Pompton Ave., Cedar Grove, N. J.
 HAYDU BROTHERS DIV. OF BURROUGHS CORP., P. O. Box 1226, Plainfield, N. J. ADV. PG. 409.

RAYTHEON MFG. CO., EQUIPMENT MARKETING DIV., 100 River St., Waltham 54, Mass. ADV. PG. 364, 365.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 Stewart Engineering Corp., Soquel, Calif.
 UNITEK CORP., 275 N. Halstead Ave., Pasadena 8, Calif. ADV. PG. 657.

WELDING

See CONTROLS

WIRE CAT WHISKERS for TRANSISTORS

ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 400.
 Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
 Nesor Alloy Products Co., 282 Halsey St., Newark 2, N. J.
 Secom Metals Corp., 7 Intervale St., White Plains, N. Y.

WIRE—Aluminum

Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 620.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Insuline Corp., of America, 186 Granite St., Manchester, N. H.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 JFD MFG. CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Kaiser Aluminum & Chemical Sales, Inc., 1924 Broadway, Oakland 12, Calif.
 Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
 Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
 Nesor Alloy Products Co., 282 Halsey St., Newark, N. J.
 Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky.
 ROMÉ CABLE CORP., 330 Ridge St., Rome, N. Y. ADV. PG. 98.
 Royal Electric Co., Inc., Pawtucket, R. I.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Secom Metals Corp., 7 Intervale St., White Plains, N. Y.
 South River Metal Products Co., 377-379 Turnpike, South River, N. J.
 Uniform Tubes, Level Rd., Collegeville 2, Pa.
 United States Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 United Wire & Supply Corp., Providence 7, R. I.

WIRE—Annunciator

American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
 Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
 Chester Cable Corp., Hill St., Chester, N. Y.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Continental Wire Sales Corp., Wallingford, Conn.
 CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
 Diamond Wire & Cable Co., Sycamore, Ill.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
 SEQUOIA PROCESS CORP., 871 Willow St., P. O. Box 1007, Redwood City, Calif. ADV. PG. 553.
 Superior Insulated Wire Co., Route 9W, Haverstraw, N. Y.
 Times, Wire & Cable Co., Wallingford, Conn.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 United States Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.

WIRE—Antenna

ALLOY METAL WIRE DIV. OF H. K. PORTER CO., INC., Prospect Park, Pa. ADV. PG. 148.
 ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
 Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
 Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
 Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
 Channel Master Co., Ellenville, N. Y.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Continental Wire Sales Corp., Wallingford, Conn.
 Copperweld Steel Co., Wire & Cable Div., Frick Bldg., Pittsburgh 19, Pa.
 CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
 Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
 Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.
 FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.
 Flexo Wire Div. of Copperweld Steel Co., Oswego, N. Y.
 Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 GENERAL CEMENT MFG. CO., ELECTRONIC DIV., 919 Taylor Ave., Rockford, Ill. ADV. PG. 86.
 Goodline Corp., 309 Date Ave., Alhambra, Calif.
 Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
 JFD MFG. CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Piastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Superior Insulated Wire Co., Route 9W, Haverstraw, N. Y.
 Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.
 Times, Wire & Cable Co., Wallingford, Conn.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
 Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.

WIRE—Asbestos Insulated

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
 American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
 Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
 B & M Electric Co., 838 Fourth Ave., Brooklyn, N. Y.
 Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
 Collyer Insulated Wire Co., 249 Roosevelt Ave., Pawtucket, R. I.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
 Continental Wire Sales Corp., Wallingford, Conn.
 CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
 Diamond Wire & Cable Co., Sycamore, Ill.
 DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.
 Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
 LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.
 Okonite Co., The, Canal St., Passaic, N. J.
 Piastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.
 Revere Corporation of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
 Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.
 Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
 Royal Electric Co., Inc., Pawtucket, R. I.
 Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.

WIRE—Beryllium Copper

Beryllium Corp., Reading, Pa.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 620.
 Consolidated Wire & Associated Cos., 1635 S. Clinton St., Chicago 16, Ill.
 DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.
 INSTRUMENT SPECIALTIES CO., INC., 254 Bergen Blvd., Little Falls, N. J. ADV. PG. 537.
 Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J.
 Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
 Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.
 Nesor Alloy Products Co., 282 Halsey St., Newark, N. J.
 Secom Metals Corp., 7 Intervale St., White Plains, N. Y.
 Telegraph Construction & Maintenance Co., Ltd., Telcom Works, Greenwich, London S. E. 10, England.

WIRE—Ceramic Insulated

Aero Research Instrument Co., 315 N. Aberdeen St., Chicago 7, Ill.
 Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
 Consolidated Wire & Associated Co., 1635 S. Clinton St., Chicago 16, Ill.

Sprague Electric Co., 125 Marshall St., North Adams, Mass.
Times, Wire & Cable Co., Wallingford, Conn.

WIRE—Copper, Bare

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
American Brass Co., 414 Meadow St., Waterbury 20, Conn.
American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Columbia-Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
Copperweld Steel Co., Wire & Cable Div., Frick Bldg., Pittsburgh 19, Pa.
Diamond Wire & Cable Co., Sycamore, Ill.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.
Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
Garfield Wire Div., The Overlakes Corp., 142 Monroe St., Garfield, N. J.
General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 320.
Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
Leach & Garner Co., Attleboro, Mass.
Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
Nesor Alloy Products Co., 282 Halsey St., Newark, N. J.
Nonotuck Mfg. Co., Holyoke, Mass.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., 4400 New Haven Ave., Fort Wayne, Ind. ADV. PG. 60, 61.
Plastic Wire & Cable Corp., Jewett City, Conn.
Rea Magnet Wire Co., Inc., East Pontiac St., Fort Wayne, Ind.
Roebling's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.
ROME CABLE CORP., 330 Ridge St., Rome, N. Y. ADV. PG. 98.
Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
SEQUOIA PROCESS CORP., 871 Willow St., P. O. Box 1007, Redwood City, Calif. ADV. PG. 553.
Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
United Wire & Supply Corp., Providence 7, R. I.
U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
UTILITY BRASS & COPPER CORP., 255 Conover St., Brooklyn 31, N. Y. ADV. PG. 693.
Warren Wire Co., Pownal, Vt.
WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.
Whitaker Cable Corp., Kansas City 16, Mo.

WIRE—Copper-Clad

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Consolidated Wire & Associated Cos., 1635 S. Clinton St., Chicago 16, Ill.
Copperweld Steel Co., Wire & Cable Div., Frick Bldg., Pittsburgh 19, Pa.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.
General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
Nesor Alloy Products Co., 282 Halsey St., Newark 2, N. J.
Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.

WIRE—Copper, Insulated

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
Aero Specialties, Pleasant Valley Rd., Sutton, Mass.

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
Ansonia Wire & Cable Co., The, 63 Main St., Ansonia, Conn.
Apex Wire & Cable Corp., 237 37th St., Brooklyn 32, N. Y.
Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 271.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Chester Cable Corp., Hill St., Chester, N. Y.
Collyer Insulated Wire Co., 249 Roosevelt Ave., Pawtucket, R. I.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
Continental Wire Sales Corp., Wallingford, Conn.
Copperweld Steel Co., Wire & Cable Div., Frick Bldg., Pittsburgh 19, Pa.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
Diamond Wire & Cable Co., Sycamore, Ill.
Dielectric Materials Co., 5317-17 N. Ravenswood Ave., Chicago 40, Ill.
Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.
General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.
General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
Goodline Corp., 309 Date Ave., Alhambra, Calif.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.
Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.
New England Electrical Works, Inc., Lisbon, N. H.
North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Me.
Okonite Co., The, Canal St., Passaic, N. J.
Pacific Electrod Corp., P. O. Box 8805, Crenshaw Station, Los Angeles 8, Calif.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., 4400 New Haven Ave., Fort Wayne, Ind. ADV. PG. 60, 61.
Plastic Wire & Cable Corp., Jewett City, Conn.
Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.
Rea Magnetic Wire Co., Inc., E. Pontiac St., Fort Wayne, Ind.
Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
Revere Corporation of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.
Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
Roebling's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.
ROME CABLE CORP., 330 Ridge St., Rome, N. Y. ADV. PG. 98.
Royal Electric Co., Inc., Pawtucket, R. I.
Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
SEQUOIA PROCESS CORP., 871 Willow St., P. O. Box 1007, Redwood City, Calif. ADV. PG. 553.
Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.
Superior Insulated Wire Co., Route 9W, Haverstraw, N. Y.
SURPRENANT MFG. CO., 199 Washington St., Boston 8, Mass. ADV. PG. 296.
TENSOLITE INSULATED WIRE CO., INC., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.
Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.
Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
United State Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.

WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.
Whitaker Cable Corp., Kansas City 16, Mo.
Whitney Blake Co., New Haven 14, Conn.

WIRE—Cut and Stripped

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
Actioncraft Products, 8 Sagamore Hill Drive., Port Washington, N. Y.
ALDEN PRODUCTS CO., 112 N. Main St., Brockton, Mass. ADV. PG. 361.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
Apex Wire & Cable Corp., 237 37th St., Brooklyn 32, N. Y.
Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
B & M Electric Co., 939 Fourth Ave., Brooklyn, N. Y.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
Buffalo Electronics Corp., 37 Franklin St., Buffalo 2, N. Y.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Consolidated Wire & Associated Co., 1635 S. Clinton St., Chicago 16, Ill.
Diamond Wire & Cable Co., Sycamore, Ill.
Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
GENERAL ELECTRIC CO., LAMP DIV., LAMP LEADS & BASES DEPT., 17825 St. Clair Ave., Cleveland 12, Ohio. ADV. PG. 22.
General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.
Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.
Lenz Electric Mfg. Co., 1751 N. Western Ave., Chicago 47, Ill.
Manger Electric Co., Miller St., Stamford, Conn.
Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.
Pacific Electrod Corp., P. O. Box 8805, Crenshaw Station, Los Angeles 8, Calif.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.
Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.
Royal Electric Co., Inc., Pawtucket, R. I.
Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
Sheltered Workshop, 2521 5th St., Santa Monica, Calif.
Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
TENSOLITE INSULATED WIRE CO., INC., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.
Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.
Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
Whitaker Cable Corp., Kansas City 16, Mo.

WIRE—Enameled
ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.
Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
Asco Wire & Cable Co., 2 Burroughs St., Bridgeport 7, Conn.
Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
COHN CORP., SIGMUND, 121 S. Columbia Ave., Mt. Vernon, N. Y. ADV. PG. 620.
Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.
Copperweld Steel Co., Wire & Cable Div., Frick Bldg., Pittsburgh 19, Pa.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.
Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
Garfield Wire Div. of The Overlakes Corp., 142 Monroe St., Garfield, N. J.
GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.
HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.
Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 320.
Instrument Wire Co., Guilford, Conn.
JELLIFF MFG. CORP., C. O., 200 Pequot Ave., Southport, Conn. ADV. PG. 510.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.
Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
New England Electrical Works, Inc., Lisbon, N. H.
North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., 4400 New Haven Ave., Fort Wayne, Ind. ADV. PG. 60, 61.
Rea Magnet Wire Co., Inc., E. Pontiac St., Fort Wayne, Ind.

Roebbling's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.
Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
Slepian & Co., Arthur, 2 Burroughs St., Bridgeport 7, Conn.

Warren Wire Co., Pownal, Vt.
Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.
WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.

WIRE—Fine Wire Specialties

Accurate Spring Mfg. Co., 3811 West Lake St., Chicago, Ill.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
ALLOY METAL WIRE DIV. OF H. K. PORTER CO., INC., Prospect Park, Pa. ADV. PG. 148.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
ART WIRE & STAMPING CO., 227 High St., Newark 2, N. J. ADV. PG. 400.
BARNES CO., WALLACE, DIV. OF ASSOCIATED SPRING CORP., Bristol, Conn. ADV. PG. 225.
BARNES-GIBSON-RAYMOND DIVISION, 40300 Plymouth Rd., Plymouth, Mich. ADV. PG. 225.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.
Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
Carpenter Steel Co., Webb Wire Div., New Brunswick, N. J.

COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 620.
Consolidated Wire & Associated Cos., 1635 S. Clinton St., Chicago 16, Ill.

Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
Copperweld Steel Co., Wire & Cable Div., Frick Bldg., Pittsburgh 19, Pa.

Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.

DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.

Dudek & Bock Spring & Mfg. Co., 4018 W. Grand Ave., Chicago 51, Ill.
Eastern Tool & Specialty Co., 1 Montgomery St., Belleville 9, N. J.

Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.

Flexo Wire Div. of Copperweld Steel Co., Oswego, N. Y.
Fort Wayne Metals, Inc., Fort Wayne 6, Ind.
GIBSON CO., WILLIAM D., THE, 1800 Clybourn Ave., Chicago 14, Ill. ADV. PG. 225.

HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.
Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.

HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 320.
Instrument Wire Co., Guilford, Conn.

JELLIFF MFG. CORP., C. O., 200 Pequot Ave., Southport, Conn. ADV. PG. 510.
Judd Co., H. L., 87 Chambers St., New York 7, N. Y.
Leach & Garner Co., Attleboro, Mass.

Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.
Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.

Mid-West Spring Mfg. Corp., Mentone, Ind.
MILWAUKEE DIV. OF ASSOCIATED SPRING CORP., 341 E. Erie St., Milwaukee 2, Wis. ADV. PG. 225.
Nesor Alloy Products Co., 282 Halsey St., Newark, N. J.

New England Electrical Works, Inc., Lisbon, N. H.
NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.

North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
OHIO DIV. OF ASSOCIATED SPRING CORP., 1825 E. First St., Dayton 3, Ohio. ADV. PG. 225.

PIX MFG. CO., INC., 81A Hudson St., Newark, N. J. ADV. PG. 394.
RAYMOND MANUFACTURING CO., Corry, Pa. ADV. PG. 225.

Rea Magnet Wire Co., Inc., E. Pontiac St., Fort Wayne, Ind.
Roebbling's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.

Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
SEABOARD COIL SPRING DIVISION, 15001 S. Broadway, Gardena, Calif. ADV. PG. 225.

Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
SEQUOIA PROCESS CORP., 871 Willow St., P. O. Box 1007, Redwood City, Calif. ADV. PG. 553.
Techalloy Co., Inc., Box 34, Rahns, Pa.

TENSOLITE INSULATED WIRE CO., INC., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.
Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.

Times, Wire & Cable Co., Wallingford, Conn.
Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.

WENCO MFG. CO., 1133 W. Hubbard St., Chicago 22, Ill. ADV. PG. 598.
WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.

WIRE—Glass Insulated

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
ACME WIRE CORP., New Haven 14, Conn. ADV. PG. 677.
Aero Specialties, Pleasant Valley Rd., Sutton, Mass.

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.

Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 271.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.

Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Chester Cable Corp., Hill St., Chester, N. Y.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Consolidated Wire & Associated Co., 1635 S. Clinton St., Chicago 16, Ill.

Continental Wire Sales Corp., Wallingford, Conn.
CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.

DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.
DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.

Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.
GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.

HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.
Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.

JELLIFF MFG. CORP., C. O., 200 Pequot Ave., Southport, Conn. ADV. PG. 510.
Lenz Electric Mfg. Co., 1751 N. Western Ave., Chicago 47, Ill.

LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.
Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.

Okonite Co., The, Canal St., Passaic, N. J.
Pacific Electricrod Co., P. O. Box 8805, Crenshaw Station, Los Angeles 8, Calif.

PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., 4400 New Haven Ave., Fort Wayne, Ind. ADV. PG. 60, 61.
Plastoid Corp., 42-61 24th St., Long Island City, N. Y.

Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.
Revere Corporation of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.

Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.
Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.

ROME CABLE CORP., 330 Ridge St., Rome, N. Y. ADV. PG. 98.
Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.

SURPRENANT MFG. CO., 199 Washington St., Boston 8, Mass. ADV. PG. 296.
TENSOLITE INSULATED WIRE CO., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.

Times, Wire & Cable Co., Wallingford, Conn.
U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.

Warren Wire Co., Pownal, Vt.
Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.

WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.
Whitaker Cable Corp., Kansas City 16, Mo.

WIRE—Gold Plated

Bishop & Co., J., Platinum Works, Malvern, Pa.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Channel Master Co., Ellenville, N. Y.

COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 620.
Consolidated Wire & Associated Cos., 1635 S. Clinton St., Chicago 16, Ill.

Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.
IMPROVED SEAMLESS WIRE CO., 775 Eddy St., Providence 5, R. I. ADV. PG. 434.

Leach & Garner Co., Attleboro, Mass.
LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.

METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
Nesor Alloy Products Co., 282 Halsey St., Newark 2, N. J.

North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
North American Research Labs., Inc., 725 Lexington Ave., Kenilworth, N. J.

Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.
Times, Wire & Cable Co., Wallingford, Conn.

WIRE—Guy

American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Copperweld Steel Co., Wire & Cable Div., Frick Bldg., Pittsburgh 19, Pa.

General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
Indiana Steel & Wire Co., 700 Council St., Muncie, Ind.

JFD MFG. CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
Walasco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.

WIRE—High Voltage

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.

American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.

Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 271.
BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.

Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
Chester Cable Corp., Hill St., Chester, N. Y.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.

Continental Wire Sales Corp., Wallingford, Conn.
Copperweld Steel Co., Wire & Cable Div., Frick Bldg., Pittsburgh 19, Pa.

CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.
Dielectric Materials Co., 5315-17 North Ravenswood Ave., Chicago 40, Ill.

Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
General Cable Corp., 420 Lexington Ave., New York 17, N. Y.

GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.
Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.

Okonite Co., The, Canal St., Passaic, N. J.
PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.

Plastic Wire & Cable Corp., Jewett City, Conn.
Plastoid Corp., 42-61 24th St., Long Island City, N. Y.

ROME CABLE CORP., 330 Ridge St., Rome, N. Y. ADV. PG. 98.
Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.

SEQUOIA PROCESS CORP., 871 Willow St., P. O. Box 1007, Redwood City, Calif. ADV. PG. 553.
Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.

SURPRENANT MFG. CO., 199 Washington St., Boston 8, Mass. ADV. PG. 296.
TENSOLITE INSULATED WIRE CO., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.

Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.
Times, Wire & Cable Co., Wallingford, Conn.

Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.

U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.

Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.
Whitaker Cable Corp., Kansas City 16, Mo.

WIRE—Hook-up

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
Aero Specialties, Pleasant Valley Rd., Sutton, Mass.

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.
AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.

Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
Apex Wire & Cable Corp., 237 37th St., Brooklyn 32, N. Y.

Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.

Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 271.

BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.

Chester Cable Corp., Hill St., Chester, N. Y.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.

Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.

Continental Wire Sales Corp., Wallingford, Conn.

Copperweld Steel Co., Wire & Cable Div., Frick Bldg., Pittsburgh 19, Pa.

CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.

Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.

Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.

Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

Flexo Wire Div. of Copperweld Steel Co., Oswego, N. Y.

General Cable Corp., 420 Lexington Ave., New York 17, N. Y.

GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.

Goodline Corp., 309 Date Ave., Alhambra, Calif.

HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.

Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.

Lenz Electric Mfg. Co., 1751 N. Western Ave., Chicago 47, Ill.

Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.

Okonite Co., Canal St., Passaic, N. J.

PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.

Plastic Wire & Cable Corp., Jewett City, Conn.

Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.

Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.

Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.

Revere Corp. of America Sub. of Neptune Meter Co., Wallingford 2, Conn.

REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.

Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.

Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.

ROME CABLE CORP., 330 Ridge St., Rome, N. Y. ADV. PG. 98.

Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.

Saxton Products Inc., 1661 Boone Ave., Bronx 60, N. Y.

SEQUOIA PROCESS CORP., 871 Willow St., P. O. Box 1007, Redwood City, Calif. ADV. PG. 553.

Superior Insulated Wire Co., Route 9W, West Havenstraw, N. Y.

SURPRENANT MFG. CO., 199 Washington St., Boston 8, Mass. ADV. PG. 296.

TENSOLITE INSULATED WIRE CO., INC., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.

Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif. Times, Wire & Cable Co., Wallingford, Conn.

Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.

United States Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.

U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.

Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.

Warren Wire Co., Pownal, Vt.

Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.

Whitaker Cable Corp., Kansas City 16, Mo.

WIRE-Litz

Asco Wire & Cable Co., 2 Burroughs St., Bridgeport 7, Conn.

Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.

Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

Consolidated Wire & Associated Cos., 1635 S. Clinton St., Chicago 16, Ill.

Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.

GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.

HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.

Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.

HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 320.

Instrument Wire Co., Guilford, Conn.

New England Electrical Works, Inc., Lisbon, N. H.

Slepian & Co., Arthur, 2 Burroughs St., Bridgeport 7, Conn.

U. S. Plastic Rope Co., 2581 Spring St., Redwood City 10, Calif.

U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.

WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.

WIRE-Magnet

ACME WIRE CO., New Haven 14, Conn. ADV. PG. 677.

American Brass Co., 414 Meadow St., Waterbury 20, Conn.

Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.

Asco Wire & Cable Co., 2 Burroughs St., Bridgeport 7, Conn.

Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.

Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.

Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.

Continental Wire Sales Corp., Wallingford, Conn.

Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.

Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.

Garfield Wire Div. of The Overlakes Corp., 142 Monroe St., Garfield, N. J.

General Cable Corp., 420 Lexington Ave., New York 17, N. Y.

GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.

HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.

HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 320.

Instrument Wire Co., Guilford, Conn.

Kaiser Aluminum & Chemical Sales, Inc., 1924 Broadway, Oakland 12, Calif.

New England Electrical Works, Inc., Lisbon, N. H.

North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.

PHELPS DODGE COPPER PRODUCTS CORP., INCA MFG. DIV., 4400 New Haven Ave., Fort Wayne, Ind. ADV. PG. 60, 61.

Rea Magnet Wire Co., Inc., East Pontiac St., Fort Wayne, Ind.

Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.

Roebbing's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.

ROME CABLE CORP., 330 Ridge St., Rome, N. Y. ADV. PG. 98.

Saxton Products Inc., 1661 Boone Ave., Bronx 60, N. Y.

Slepian & Co., Arthur, 2 Burroughs St., Bridgeport 7, Conn.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

Warren Wire Co., Pownal, Vt.

WHEELER INSULATED WIRE CO., INC., THE, DIV. OF THE SPERRY CORP., 150 E. Aurora St., Waterbury 91, Conn. ADV. PG. 531.

WIRE-Metal Shielded

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.

Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.

Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.

Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 271.

BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.

Carol Cable Div. of Crescent Co., Inc., 20 Central Ave., Pawtucket, R. I.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.

Consolidated Wire & Associated Cos., 1635 S. Clinton St., Chicago 16, Ill.

CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.

General Cable Corp., 420 Lexington Ave., New York 17, N. Y.

GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS, DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.

Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.

Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.

Nesor Alloy Products Co., 282 Halsey St., Newark, N. J.

Okonite Co., The, Canal St., Passaic, N. J.

Plastoid Corp., 42-61 24th St., Long Island City, N. Y.

Precision Tube Co., Inc., North Wales, Pa.

Revere Corp. of America Sub. of Neptune Meter Co., Wallingford 2, Conn.

REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.

Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.

ROME CABLE CORP., 330 Ridge St., Rome, N. Y. ADV. PG. 98.

Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.

Superior Insulated Wire Co., Route 9W, Havestraw, N. Y.

TENSOLITE INSULATED WIRE CO., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.

Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif. Times, Wire & Cable Co., Wallingford, Conn.

Uniform Tubes, Level Rd., Colledgeville 2, Pa.

Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.

U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.

Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.

Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.

WIRE-Molybdenum

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.

ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.

Fanstel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.

General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.

Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.

Kemet Co., A Division of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

Micro-Wire Stranding Co., 252 Chestnut St., Passaic, N. J.

Murex Ltd., Rainham, Essex, England.

North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.

REMBAR CO., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

WIRE-Monel

ALLOY METAL WIRE DIV. OF H. K. PORTER CO., INC., Prospect Park, Pa. ADV. P. 148.

Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.

DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.

DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.

Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S. E., Massillon, Ohio.

International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.

JELLIFF MFG. CORP., C. O., 200 Pequot Ave., Southport, Conn. ADV. PG. 510.

Leach & Garner Co., Attleboro, Mass.

Nesor Alloy Products Co., 282 Halsey St., Newark 2, N. J.

Techalloy Co., Inc., Box 34, Rahns, Pa.

WIRE-Nickel Clad Copper

ALLOY METAL WIRE DIV. OF H. K. PORTER CO., INC., Prospect Park, Pa. ADV. P. 148.

American Leonic Mfg. Co., Amber & Hagert Sts., Philadelphia 25, Pa.

Associated Engineering & Mfg. Co., Glen Ridge, N. J.

Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.

Bishop & Co., J., Platinum Works, Malvern, Pa.

Buckbee Mears Co., Lindeco Bldg., St. Paul 1, Minn.

ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.

IMPROVED SEAMLESS WIRE CO., 775 Eddy St., Providence 5, R. I. ADV. PG. 434.

Leach & Garner Co., Attleboro, Mass.

LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.

Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.

METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.

Nesor Alloy Products Co., 282 Halsey St., Newark 2, N. J.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Techalloy Co., Inc., Box 34, Rahns, Pa.

WIRE-Phosphor Bronze

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.

American Brass Co., 414 Meadow St., Waterbury 20, Conn.

American Leonic Mfg. Co., Amber & Hagert Sts., Philadelphia 25, Pa.

Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.

Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.

COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 620.

Consolidated Wire & Associated Cos., 1635 S. Clinton St., Chicago 16, Ill.

Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S. E., Massillon, Ohio.

General Cable Corp., 420 Lexington Ave., New York 17, N. Y.

HUDSON WIRE CO., Ossining, N. Y. ADV. PG. 320.

Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J.

Leach & Garner Co., Attleboro, Mass.

Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.

Nesor Alloy Products Co., 282 Halsey St., Newark, N. J.

Seccon Metals Corp., 7 Intervale St., White Plains, N. Y.

UTILITY BRASS & COPPER CORP., 255 Conover St., Brooklyn 31, N. Y. ADV. PG. 693.

WIRE—Plastic Insulated

Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.

Aero Specialties, Pleasant Valley Rd., Sutton, Mass.

ALPHA WIRE CORP., 200 Varick St., New York 14, N. Y. ADV. PG. 432.

Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.

Ansonia Wire & Cable Co., The, 63 Main St., Ansonia, Conn.

Apex Wire & Cable Corp., 237 37th St., Brooklyn 32, N. Y.

Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.

Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.

B & M Electric Co., 838 Fourth Ave., Brooklyn, N. Y.

Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

BOSTON INSULATED WIRE & CABLE CO., 63 Bay St., Boston 25, Mass. ADV. PG. 271.

BRAND & CO., INC., WILLIAM, North & Valley Sts., Willimantic, Conn. ADV. PG. 386.

Carol Cable Div. of Crescent Co., Inc., 20 Central Ave., Pawtucket, R. I.

Chester Cable Corp., Hill St., Chester, N. Y.

Colyer Insulated Wire Co., 249 Roosevelt Ave., Pawtucket, R. I.

Columbia Wire Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.

Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.

Continental Wire Sales Corp., Wallingford, Conn.

CORNISH WIRE CO., 50 Church St., New York 7, N. Y. ADV. PG. 102.

Diamond Wire & Cable Co., Sycamore, Ill.

Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.

DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.

Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.

Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.

General Cable Corp., 420 Lexington Ave., New York 17, N. Y.

General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, N. Y.

Goodline Corp., 309 Date Ave., Alhambra, Calif.

HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.

Holyoke Wire & Cable Corp., 720 Main St., Holyoke, Mass.

Jersey Specialty Co., Burgess Place, Mountainview, N. J.

Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.

LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.

Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.

Okonite Co., The, Canal St., Passaic, N. J.

Pacific Electric Co., P. O. Box 8805, Crenshaw Station, Los Angeles 8, Calif.

PHALO PLASTICS CORP., 25 Foster St., Worcester 8, Mass. ADV. PG. 559.

Plastic Wire & Cable Corp., Jewett City, Conn.

Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.

Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.

Revere Corporation of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.

REX CORP., THE, Hayward Rd., West Acton, Mass. ADV. PG. 479.

Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.

Rockbestos Products, Nicoll & Canner Sts., New Haven 4, Conn.

Roebing's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.

ROME CABLE CORP., 330 Ridge St., Rome, N. Y. ADV. PG. 98.

Royal Electric Co., Inc., Pawtucket, R. I.

Saxton Products Inc., 1661 Boone Ave., Bronx 60, N. Y.

SEQUOIA PROCESS CORP., 871 Willow St., P. O. Box 1007, Redwood City, Calif. ADV. PG. 553.

Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.

Standard Telephones & Cables, Ltd., Connaught House, Aldwych, London, W. C. 2, England.

Superior Insulated Wire Co., Route 9W, Haverstraw, N. Y.

SURPRENANT MFG. CO., 199 Washington St., Boston 8, Mass. ADV. PG. 296.

Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.

TENSOLITE INSULATED WIRE CO., INC., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.

Tevco Insulated Wire, 119 Prospect Ave., Burbank, Calif.

Times, Wire & Cable Co., Wallingford, Conn.

Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.

United States Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.

U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.

Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.

Whitaker Cable Corp., Kansas City 16, Mo.

Whitney Blake Co., New Haven 14, Conn.

WIRE—Platinum

AMERICAN PLATINUM WORKS, N. J. R. R. Ave. at Oliver St., Newark 5, N. J. ADV. PG. 654.

Baker & Co., Inc., 113 Astor St., Newark 5, N. J.

Bishop & Co., J., Platinum Works, Malvern, Pa.

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

Bristol Co., The, Waterbury 20, Conn.

COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 620.

Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.

Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.

Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.

HANDY & HARMAN, 82 Fulton St., New York 38, N. Y. ADV. PG. 206.

Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.

Leach & Garner Co., Attleboro, Mass.

METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.

METZ REFINING CO., 369 Mulberry St., Newark 2, N. J. ADV. PG. 543.

Nesor Alloy Products Co., 282 Halsey St., Newark, N. J.

NEY CO., J. M., 179 Elm St., Hartford, Conn. ADV. PG. 630.

Secon Metals Corp., 7 Intervale St., White Plains, N. Y.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.

Western Gold & Platinum Co., 589 Bryant St., San Francisco, Calif.

Wildberg Bros., Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.

WIRE—Precious Metal Plated

See WIRE—Silver Plated

WIRE—RECORDING

ALLOY METAL WIRE DIV. OF H. K. PORTER CO., INC., Prospect Park, Pa. ADV. PG. 148.

Fidelitone, Inc., 6415 Ravenswood, Chicago 26, Ill.

Fort Wayne Metals, Inc., Fort Wayne 6, Ind.

Peirce Wire Recorder Corp., 5900 Northwest Highway, Chicago 31, Ill.

WIRE—Resistance and Filament

ALLOY METAL WIRE DIV. OF H. K. PORTER CO., INC., Prospect Park, Pa. ADV. PG. 148.

American Leonic Mfg. Co., Amber & Hagert Sts., Philadelphia 25, Pa.

Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.

COHN CORP., SIGMUND, 121 S. Columbus Ave. Mt., Vernon, N. Y. ADV. PG. 620.

DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.

DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.

Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza, S., Long Island City, N. Y.

Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.

GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.

Hoskins Mfg. Co., 4445 Lawton Ave., Detroit 8, Mich.

JELIFF MFG. CORP., C. O., 200 Pequot Ave., Southport, Conn. ADV. PG. 510.

KANTHAL CORP., Amelia Place, Stamford, Conn. ADV. PG. 466.

Micro-Wire Stranding Co., 252 Chestnut St., Passaic, N. J.

Nesor Alloy Products Co., 282 Halsey St., Newark, N. J.

North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Me.

Secon Metals Corp., 7 Intervale St., White Plains, N. Y.

Techalloy Co., Inc., Box 34, Rahns, Pa.

TENSOLITE INSULATED WIRE CO., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.

WIRE—Silver Plated

Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 620.

Consolidated Wire & Associated Cos., 1635 S. Clinton St., Chicago 16, Ill.

DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.

DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.

Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.

Hudson Wire Co., Ossining, N. Y.

Illumintronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.

IMPROVED SEAMLESS WIRE CO., 775 Eddy St., Providence 5, R. I. ADV. PG. 434.

Leach & Garner Co., Attleboro, Mass.

LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.

Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.

MAKEPEACE CO., D. E., DIV. OF UNION PLATE & WIRE CO., Attleboro, Mass. ADV. PG. 303.

METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.

Nesor Alloy Products Co., 282 Halsey St., Newark, N. J.

North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.

North American Research Labs, Inc., 725 Lexington Ave., Kenilworth, N. J.

Plastoid Corp., 42-61 24th St., Long Island City, N. Y.

Secon Metals Corp., 7 Intervale St., White Plains, N. Y.

Standard Metals Corp., Broad & Whiting Sts., North Attleboro, Mass.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

TENSOLITE INSULATED WIRE CO., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.

Times, Wire & Cable Co., Wallingford, Conn.

Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.

WIRE—Stainless Steel

ALLOY METAL WIRE DIVISION OF H. K. PORTER COMPANY, INC., Prospect Park, Pa. ADV. PG. 148.

American Leonic Mfg. Co., Amber & Hagert Sts., Philadelphia 25, Pa.

American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.

Armco Steel Corp., 730 Curtis St., Middletown, Ohio.

Carpenter Steel Co., Webb Wire Div., New Brunswick, N. J.

COHN CORP., SIGMUND, 121 S. Columbus Ave., Mt. Vernon, N. Y. ADV. PG. 620.

CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.

DRIVER CO., WILBUR B., 1875 McCarter Highway, Newark 4, N. J. ADV. PG. 374.

DRIVER-HARRIS CO., 201 Middlesex St., Harrison, N. J. ADV. PG. 299.

Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S. E., Massillon, Ohio.

Fort Wayne Metals, Inc., Fort Wayne 6, Ind.

Indiana Steel & Wire Co., 700 Council St., Muncie, Ind.

Nesor Alloy Products Co., 282 Halsey St., Newark, N. J.

Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.

SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

Techalloy Co., Inc., Box 34, Rahns, Pa.

Telegraph Construction & Maintenance Co., Ltd., Telcon Works, Greenwich, London S. E. 10, England.

WIRE—Tantalum

Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.

Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.

Murex Ltd., Rainham, Essex, England!

WIRE—Teflon Insulated

Aero Specialties, Pleasant Valley Rd., Sutton, Mass.

AMPHENOL ELECTRONICS CORP., 1830 S. 54th Ave., Chicago 50, Ill. ADV. PG. 254.

Birnbach Radio Co., Inc., 145 Hudson St., New York 13, N. Y.

BOSTON INSULATED WIRE & CABLE CO., 65 Bay St., Boston 25, Mass. ADV. PG. 271.

Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.

Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Ill.

Continental Wire Sales Corp., Wallingford, Conn.

CRUCIBLE STEEL CO. OF AMERICA, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa. ADV. PG. 103-106.

Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.

FEDERAL TELEPHONE & RADIO CO., A DIV. OF IT&T, 88 Kingsland Rd., Clifton, N. J. ADV. PG. 355-360.

GENERAL ELECTRIC CO., CONSTRUCTION MATERIALS DIV., 1285 Boston Ave., Bridgeport 2, Conn. ADV. PG. 17.

HITEMP WIRES, INC., 26 Windsor Ave., Mineola, N. Y. ADV. PG. 425.

LEWIS ENGINEERING CO., 52 Rubber Ave., Naugatuck, Conn. ADV. PG. 354.

Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.

Okonite Co., Canal St., Passaic, N. J.

Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.

Revere Corporation of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.

Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.

SEQUOIA PROCESS CORP., 871 Willow St., Redwood City, Calif. ADV. PG. 553.

Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.

Sprague Electric Co., 125 Marshall St., North Adams, Mass.

SURPRENANT MFG. CO., 199 Washington St., Boston 8, Mass. ADV. PG. 296.

TENSOLITE INSULATED WIRE CO., 198 Main St., Tarrytown, N. Y. ADV. PG. 362.

Times, Wire & Cable Co., Wallingford, Conn.

Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.

UNIVOX-EASTERN CORP., 102 Warren St., New York 7, N. Y. ADV. PG. 226.

Warren Wire Co., Pownal, Vt.

WIRE—Titanium

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.

Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.

Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.
 Nesor Alloy Products Co., 282 Halsey St., Newark 2, N. J.
 Rem-Cru Titanium, Inc., Midland, Pa.
 Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
 Techalloy Co., Inc., Box 34, Rahns, Pa.

WIRE—Tungsten

Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
 Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.
ELECTRONIC PARTS MFG. CO., INC., 508-10 25th St., Union City, N. J. ADV. PG. 575.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
 General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Micro-Wire Stranding Co., 252 Chestnut St., Passaic, N. J.
 Murex Ltd., Rainham, Essex, England.
 North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
REMBAR CO., THE, 147 Main St., Dobbs Ferry, N. Y. ADV. PG. 683.
SYLVANIA ELECTRIC PRODUCTS, INC., 1740 Broadway, New York 19, N. Y. ADV. PG. 727-733.

WIRE—Zirconium

Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
 Carborundum Metals Co., Inc., The, P. O. Box 32, Akron, N. Y.
 Foote Mineral Co., 452-18 W. Chelton Ave., Philadelphia 44, Pa.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
METALS & CONTROLS CORP., GENERAL PLATE DIV., Attleboro, Mass. ADV. PG. 525.
 Murex Ltd., Rainham, Essex, England.
 Secon Metals Corp., 7 Intervale St., White Plains, N. Y.

WIRE MARKING—Service

Acromark Company, Inc., 323 Morrell St., Elizabeth 4, N. J.
 Aeronautical Electronics, Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
 Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.
 Manger Electric Co., Miller St., Stamford, Conn.
MARKWIK MFG. CO., INC., 31 Sexton Rd., Clearview Village, Hicksville, N. Y. ADV. PG. 505.
 Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
 Westline Products Div. of Western Lithograph Co., 600 E. Second St., Los Angeles 54, Calif.

WIRE STRIPPERS—Chemical

Division Lead Co., 7742 W. 61st Place, Summit, Ill.
 Ellanar Chemical Co., 2308 Oakton St., Evanston, Ill.
 Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
 London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.

WIRE STRIPPERS—Hand

Holub Industries, Inc., 414 DeKalb Ave., Sycamore, Ill.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.

JFD MFG. CO., INC., 6101 16th Ave., Brooklyn 4, N. Y. ADV. PG. 227.
 Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.
MULTICORE SOLDERS, LTD., MULTICORE WORKS, Maylands Ave., Hemel Hempstead, Hertfordshire, England. ADV. PG. 270.
 Rush Wire Stripper Div., The Eraser Co., Inc., 1068 S. Clinton St., Syracuse 4, N. Y.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
WENCO MFG. CO., 1133 W. Hubbard St., Chicago 22, Ill. ADV. PG. 598.
 Whitaker Cable Corp., Kansas City 16, Mo.

WIRE STRIPPERS—Machine

See **MACHINES—Wire Stripping**

WIRE STRIPPERS—Mechanical

ACME WIRE MACHINE CO., 234 E. 3rd St., New York, N. Y. ADV. PG. 677.
 Artos Engineering Co., 2737 S. 28th St., Milwaukee, Wis.
 Electro Wire Service, 5 Beekman St., New York 7, N. Y.
 Ideal Industries, Inc., 5103 Park & Borden Aves., Sycamore, Ill.
 Rush Wire Stripper Div., The Eraser Co., Inc., 1068 S. Clinton St., Syracuse 4, N. Y.
STEVENS MFG. CO., GEORGE, 6022 N. Rogers Ave., Pulaski & Peterson, Chicago 30, Ill. ADV. PG. 634.
THOMAS INSTRUMENT CO., Phoenix, N. Y. ADV. PG. 673.
WENCO MFG. CO., 1133 W. Hubbard St., Chicago 22, Ill. ADV. PG. 598.
 Wire Stripper Co., 1722 Eastham Ave., East Cleveland 12, Ohio.

WIRED WIRELESS COMMUNICATIONS SYSTEMS

See **COMMUNICATION SYSTEMS—Carrier Current**

WOOFERS

See **SPEAKERS**

X-RAY EQUIPMENT—Industrial

Allis-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis.
APPLIED RADIATION CORP., 1210 Spring Brook Rd., Walnut Creek, Calif. ADV. PG. 643.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Beva Laboratory, 1640 Olden Ave. Ext., Trenton 9, N. J.
BRACKE-SEIB X-RAY CO., INC., 16 Pelham Bay Parkway, Pelham Manor, N. Y. ADV. PG. 632.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
 Deltron Inc., P. O. Box 192, Glenside, Pa.
 High Voltage Engineering Corp., 7 University Rd., Cambridge 38, Mass.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
 North American Philips Co., Inc., 70 S. Fulton Ave., Mt. Vernon, N. Y.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 St. John X-Ray Laboratory, Califon, N. J.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Television Utilities Corp., 1315 Jericho Turnpike, New Hyde Park, N. Y.
 Triplett & Barton, Inc., 831 N. Lake St., P. O. Box 3128, Burbank, Calif.

X-Ray Dept. of General Electric Co., 4855 Electric Ave., Milwaukee, Wis.

X-RAY EQUIPMENT—Medical

Allis-Chalmers Mfg. Co., 935 S. 70th St., Milwaukee 1, Wis.
APPLIED RADIATION CORP., 1210 Spring Brook Rd., Walnut Creek, Calif. ADV. PG. 643.
 Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
 Beva Laboratory, 1640 Olden Ave. Ext., Trenton 9, N. J.
BRACKE-SEIB X-RAY CO., INC., 16 Pelham Bay Parkway, Pelham Manor, N. Y. ADV. PG. 632.
 Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.
 High Voltage Engineering Corp., 7 University Rd., Cambridge 38, Mass.
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 North American Philips Co., Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
 Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
 Television Utilities Corp., 1315 Jericho Turnpike, New Hyde Park, N. Y.
 X-Ray Dept. of General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

YOKES—Deflection

Atlas Coil, Inc., Cottage St., Derby, Conn.
CELCO CONSTANTINE ENGINEERING LABS. CO., Island Ave., Mahwah, N. J. ADV. PG. 136, 137.
CHICAGO STANDARD TRANSFORMER CORP., 3580 Elston Ave., Chicago 18, Ill. ADV. PG. 170.
 Cinema-Television, Ltd., Worsley Bridge Rd., London S. E. 26, England.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Davis Electric Co., Cape Girardeau, Mo.
 Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
ENDICOTT COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 665.
GUTHMAN DIV. OF ESSEX WIRE CORP., 15 S. Throop St., Chicago 7, Ill. ADV. PG. 590.
 I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
LEONARD ELECTRIC PRODUCTS CO., INC., 67 Thirty-fourth St., Brooklyn 32, N. Y. ADV. PG. 526.
 Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.
 Penn Tran Corp., Bellefonte, Pa.
POUGHKEEPSIE COIL CO., INC., 24 Charlotte St., Binghamton, N. Y. ADV. PG. 586.
RADIO CORP. OF AMERICA, TUBE DIV., 415 S. Fifth St., Harrison, N. J. ADV. PG. 88, 89, Third & Fourth Covers & Preceding Insert.
 Ram Electronics, Inc., S. Buckout St., Irvington, N. Y.
 Rola Co., Inc., 2530 Superior Ave., Cleveland 14, Ohio.
 Senn Corp., New Augusta, Ind.
STANDARD COIL PRODUCTS CO., 2085 N. Hawthorne St., Melrose Park, Ill. ADV. PG. 95.
SYNTRONIC INSTRUMENTS, INC., 100 Industrial Rd., Addison, Ill. ADV. PG. 619.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa.
 Teletron Co., The, 4019 Prospect Ave., Cleveland 3, Ohio.
 Television Laboratories, Inc., Mill St., Wauconda, Ill.
 Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.
 Todd-Tran Corp., 156 Gramatan Ave., Mt. Vernon, N. Y.
 Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.
 Union Electric & Mfg. Corp., 105 Summit Ave., Jersey City, N. J.

TRADE NAME INDEX

The following list of trade names of manufacturers and products in or related to the field of electronics has been prepared from data supplied by manufacturers. This list is intended for use in determining the manufacturer's name when only a purported trade name is known. The editors for obvious reasons have not attempted to determine a manufacturer's right to the exclusive use of any such name. Addresses can be obtained by referring to the Manufacturers Index on Page D-224. Only coined trade names are listed as it was deemed unnecessary to include a company name inasmuch as the manufacturer's identity was immediately apparent.

- A-10** Suprenant Mfg. Co.
A-30 Superior Tube Co.
A-31 Superior Tube Co.
A-100 Advanced Electronics, Inc.
A-300 Advanced Electronics, Inc.
"A" NICKEL International Nickel Co., Inc.
ABOGLAS Natvar Corp.
ABRASO Roebbing's Sons Co., John A.
ABSORB-A-SHOCK Federal Shock Mount Corp.
ACA Amplifier Corp. of America
ACA Magnasync Mfg. Co., Ltd.
A. C. GREYSON A. C. Transformer, Inc.
ACI Air Control Installations, Ltd.
ACO General Control Co.
ACL Adler Electronics, Inc.
ACCUMET Crucible Steel Co. of America
ACCURAY Industrial Nuclonics Corp.
ACCUVAG Green Rectifier Co.
ACCWIRE Accurate Insulated Wire Corp.
ACE American Hard Rubber Co.
ACE Arro Expansion Bolt Co.
ACEPOT Ace Electronics Associates
ACETRIM Ace Electronics Associates
ACME Aerovox Corp.
ACME-LITE Acme Battery Co.
ACME-MOLD Acme Wire Co.
ACOUSTALLOY Electro Voice Inc.
ACOUSTIC TAPE Jensen Industries, Inc.
ACOUSTICEL Brush Electronics Co.
ACRA-COTE Pacific Universal Products Corp.
ACRAGAGE Norden-Ketay Corp.
ACRASPLIT Entron Inc.
ACRAWAX Glyco Products Co., Inc.
ACROCEL Acromark Co.
ACROCUT Acromark Co.
ACROBOSS Acromark Co.
ACROD Acme Electric Heating Co.
ACRODIE Acromark Co.
ACRO-ETCH Acromark Co.
ACROFLEX Anchor Plastics Co., Inc.
ACROGRAVE Acromark Co.
ACROHEX Acromark Co.
ACRO-INK Acromark Co.
ACROM Acme Electric Heating Co.
ACROMARKER Acromark Co.
ACRO-MATCH Communications Co., Inc.
ACROPLAC Acromark Co.
ACROPRENE Acromark Co.
ACROPRINTER Acromark Co.
ACROSOUND Acro Products Co.
ACROSTAMP Acromark Co., The
ACROTOOL Acromark Co.
ACROVISION Acro Products Co.
ACRYWELD Amphenol Electronics Corp.
ACTONE Acton Co., H. W.
ACTO-TENNA Acme Tool & Specialties Co.
ACTRON Radinco Transformer Co.
ACYA-COTE Pacific Universal Products Corp.
ADD A TANK Bar-Ray Products, Inc.
ADD-A-UNIT Blender-Tongue Laboratories, Inc.
ADAPEC Centralab Div. of Globe-Union, Inc.
ADAR Radiation Inc.
ADASHAFT Centralab Div. of Globe-Union, Inc.
AD-A-SWITCH Clarostat Mfg. Co., Inc.
ADC Audio Development Co.
ADDAPLUG Associated Engineering Corp.
ADDITIVE DRIVE Electro-Voice, Inc.
ADJUST-A-CONE Quam-Nichols Co.
ADJUSTA-V Radio Merchandise Sales, Inc.
ADJUSTOHM Ward Leonard Electric Co.
ADJUSTOROID Burnell & Co., Inc.
ADLAKE Adams & Westlake Co., The.
ADVAC General Ceramics Corp.
ADVANCE Acme Battery Co.
ADVANCE Driver-Harris Co.
ADVANCE Elgin National Watch Co., Electronics Div.
ADVANCETRON Advance Electronics Co.
AE 16 Bow Solder Products Co., Inc.
AERIOTRON Westinghouse Electric Corp.
AERO Smith Mfg. Co., Nathan R.
AEROCOM Aeronautical Communications Equipment Co.
AEROCON Aerovox Corp.
AERO-GUN Shallcross Mfg. Co.
AEROFILM Aerovox Corp.
AEROFLEX Anchor Industrial Co., Div. of Anchor Plastics Co., Inc.
AEROHEAD Giannini & Co., Inc., G. M.
AEROHM Waters Mfg., Inc.
AEROLENE Aerovox Corp.
AEROLITE Aerovox Corp.
AERO-MAGNETTE Heinemann Electric Co.
AEROSEAL Breeze Corps.
AEROTEMP Aerovox Corp.
AERO-THREAD Heli-Coll Corp.
AEROTROL Cook Electric Co.
AEROTRON Aeronautical Electronics, Inc.
AEROTWEED Apex Coated Fabrics Co.
AEROVANE Air Control Installations Ltd.
AEROVANE Friez Instrument Div., Bendix Aviation Corp.
A'G'A' Elastic Stop Nut Corp. of America
AGASTAT Elastic Stop Nut Corp. of America.
AH Arrow-Hart & Hegeman Electric Co.
AICO Aeromotive Equipment Corp.
AIL Airborne Instrument Lab., Inc.
AIRACOUSTIC Johns-Manville.
AIRBOY Mitchell Industries, Inc.
AIRBOY American Insulator Corp.
AIR COM Mitchell Industries, Inc.
AIR COMMANDER Auc. Equipment Co., Inc.
AIR-CORE Amphenol Electronics Corp.
AIR-DUX Illumitronic Engineering
AIRFLEX Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co.
AIRFLEX Lemert Engineering Co., Inc.
AIRFLEX Transradio Ltd.
AIR GENERAL Brach Mfg. Co.
AIRGRIT Matthews & Co., James H.
AIR INDUCTORS Barker & Williamson.
AIR KING Ward Products Corp., Div., The Gabriel Co.
AIR-METER Hastings Instrument Co.
AIR-O-LIMIT Pratt & Whitney Div., Niles-Bement. Pond Co.
AIRPOT Electric Regulator Corp.
AIR-RAY Edin Co.
AIRSCOOT Mitchell Industries, Inc.
AIR SPECIAL Brach Mfg. Corp.
AIRSTAT Minneapolis-Honeywell Regulator Co.
AIRSWITCH Minneapolis-Honeywell Regulator Co.
AIRTURN Barber-Colman Co.
A.K.G. Electrovert, Inc.
AKRA-OHM Shallcross Mfg. Co.
ALATHON du Pont de Nemours & Co., Inc., E. I.
ALBASEAL Johns-Manville
ALCLAD General Cable Corp.
ALCO Ahrendt Instrument Co.
ALCOA Aluminum Company of America
ALCORITE Alcor Electronics Corp.
ALCROHM Magnetic Metals Co.
ALCUPLATE Metals & Controls Corp. General Plate Div.
ALFER Metals & Controls Corp. General Plate Div.
ALFERON Driver-Harris Co.
ALGCO Auburn Manufacturing Co.
ALGIN Autel Electronics Co.
A L I Acton Laboratories, Inc.
ALIGN-O-POR Service Instrument Co.
ALINCO Allegany Instrument Co., Inc.
ALITE U. S. Stoneware Co.
ALJAK Amphenol Electronics Corp.
ALKA-DEOX Enthone, Inc.
ALL-ANGL Barry Controls, Inc.
ALL-HYDRAULIC Hydraulic Press Mfg. Co.
ALL-METL Barry Controls, Inc.
ALL SOL Allen Co., Inc., L. B.
ALLEN-HEAD Allen Mfg. Co.
ALLIED PROFESSIONAL Allied Recording Products Co.
ALLOY A Jelliff Mfg. Corp., C. O.
ALLOY C Jelliff Mfg. Corp., C. O.
ALLOY 30 Jelliff Mfg. Corp., C. O.
ALLOY 45 Jelliff Mfg. Corp., C. O.
ALLOY 60 Jelliff Mfg. Corp., C. O.
ALLOY 90 Jelliff Mfg. Corp., C. O.
ALLOY 180 Jelliff Mfg. Corp., C. O.
ALLOY 800 Jelliff Mfg. Corp., C. O.
ALMANOX Frenchtown Porcelain Co.
ALMET Alloy Metal Wire Div. of H. K. Porter Co., Inc.
ALNICO Arnold Engineering Co.
ALNICO Crucible Steel Co. of America
ALNIFER Metals & Controls Corp., General Plate Div.
ALNOR Illinois Testing Labs., Inc.
ALPHATRON Canadian Radium & Uranium Corp.
ALPHETRON NIRC Equipment Corp.
ALPHLEX Alpha Wire Corp.
ALPO Standard-Toch Chemicals, Inc.
ALRAY Alloy Metal Wire Div. of H. K. Porter Co., Inc.
ALROK Aluminum Co. of America
ALSCO Automatic Switch Co.
ALSIMAG American Lava Corp.

- ALSIPLATE**
Metals & Controls Corp.
General Plate Div.
- ALTIVAR**
Rotron Mfg. Co., Inc.
- ALUMAST**
Channel Master Co.
- ALUNAWELD**
Johnson Mfg. Co., Inc.
- ALUMILITE**
Aluminum Co. of America
- ALUMI-SOLDER**
Allen Co., Inc., L. B.
- ALUMON**
Enthone, Inc.
- ALUMOUNT**
Channel Master Co.
- ALUMOX**
Enthone, Inc.
- ALUNDUM**
Norton Co.
- ALUZOOM**
JFD Mfg. Co., Inc.
- ALWAC**
Logistics Research Inc.
- ALZAK**
Aluminum Co. of America
- AMBERSHEATH**
Rome Cable Corp.
- AMBERYL**
Vaco Products Co.
- AMCO**
American Solder & Flux Co.
- AMCON**
American Condenser Co.
- AMECO**
American Electronics Co.
- AMERBESTOS**
American Steel & Wire Co.
U. S. Steel Corp., Sub.
- AMERCLAD**
American Steel & Wire Co.
U. S. Steel Corp., Sub.
- AMERCON**
American Relay & Controls, Inc.
- AMERFLEX**
Margo Industries.
- AMERGLASS**
American Steel & Wire Co.
U. S. Steel Corp., Sub.
- AMERICAN**
Elgin National Watch Co.
- AMERICAN**
Manning, Maxwell & Moore, Inc.
- AMERICAN BEAUTY**
American Electrical Heater Co.
- AMERICAN-PHILLIPS**
American Screw Co.
- AMERICAN-MICROSEN**
Manning, Maxwell & Moore, Inc.
- AMERINE**
American Insulator Corp.
- AMERLAC**
American Electric Cable Co.
- AMPERLASTIC**
American Electric Cable Co.
- AMERSTRAND**
American Steel & Wire Co.
U. S. Steel Corp., Sub.
- AMERTRAN**
Standard Electronics Corp.
- AMETRON**
Streeter-Amet Corp.
- AMICO**
American Mica Insulation Co.
- AMING**
Dumont-Airplane & Marine Instruments,
Inc.
- AMINCO**
American Instrument Co.
- AMMOGAS**
Westinghouse Electric Corp.
- AMO**
General Cement Mfg. Co.
- AMO-ENO-MONO GAS**
Westinghouse Electric Co.
- AMOil**
Consolidated Vacuum.
- AMP**
Aircraft-Marine Products, Inc.
- AMPACET**
American Molding Powder &
Chemical Corp.
- AMPEC**
Centralab Div.
Globe Union, Inc.
- AMPICALL**
Rauland-Borg Corp.
- AMPLICORP**
Amplifier Corp. of America
- AMPLIFILM**
Aircraft-Marine Products, Inc.
- AMPLI-RUSS**
Aircraft-Marine Products, Inc.
- AMPLISET**
Bristol Co., The
- AMPLI-VERSAL**
Aircraft-Marine Products, Inc.
- AMPLIVERTER**
Blonder-Tongue Laboratories, Inc.
- AMPLUG**
Electrodyne Co.
- AMP-O-ELECTRIC**
Aircraft-Marine Products, Inc.
- AMOPLEX**
Aircraft-Marine Products, Inc.
- AMP-O-MATIC**
Aircraft-Marine Products, Inc.
- AMPROBE**
Pyramid Instrument Corp.
- AMPPTROL**
Friez Instrument Div.
Bendix Aviation Corp.
- AMPSULATION**
Aircraft-Marine Products, Inc.
- AMPYROL**
American Steel & Wire Corp.,
U. S. Steel Corp., Sub.
- AMRECON**
American Relay & Controls, Inc.
- AMRECON**
Ohmite Mfg. Co.
- AMVAR**
American Steel & Wire Co.,
U. S. Steel Corp., Sub.
- ANACONDA**
American Brass Co.
- ANALYTROL**
Beckman Instruments, Inc.
- ANGLE DRIVE**
James Vibrapowr Co.
- ANGLGEAR**
Airborne Accessories, Inc.
- ANGLYZER**
Waters Manufacturing Inc.
- ANGSYN**
Control Components Co.
- ANHDXEX**
Simplex Wirp & Cable Co.
- ANKOSEAL**
Ansonia Wire & Cable Co., The
- ANOTHER ABALON PRODUCT**
Abalon Precision Mfg. Corp.
- ANNOUNCE-A-LARM**
Dondar Devices.
- ANNOUNCEMAT**
Recora Co.
- ANTALON**
Green Rectifier Co.
- ANTENNA PLEX**
Radio Corp. of America.
- ANTENNASCOPE**
Eldico of New York, Inc.
- ANTENSIFIER**
Blonder-Tongue Laboratories, Inc.
- ANYVOLT**
Sorensen & Co.
- AO**
American Optical Co.
- APACHE**
Sangamo Electric Co.
- APECO**
American Photocopy Equipment Co.
- APEIZON**
Shell Oil Co.
- APELCO**
Applied Electronics Co., Inc.
- API**
Assembly Products, Inc.
- APW**
American Platinum Works.
- AQUADAG**
Acheson Colloids Co.
- AQUALITE**
National Vulcanized Fibre Co.
- AQUALUX**
Westinghouse Electric Corp.
- AQUAMETER**
Beckman Instruments, Inc.
- AQUAPLATE**
Back & Co., Semon
- AQUARESIN**
Glyco Products Co., Inc.
- AQUASTOP**
Protection Coatings Corp.
- AQUATRATOR**
Precision Scientific Co.
- AQUATROL**
Minneapolis-Honeywell Regulator Co.
- AQUIFLUX**
Special Chemicals Co.
- ARALDITE**
Ciba Company, Inc.
- ARAX**
Multicore Solders Ltd.
- ARC**
Aircraft Radio Corp.
- ARCADIA**
Wells-Gardner & Co.
- ARCO-FLEX**
Applied Resins Corp.
- ARCON**
Lear, Inc.
- ARGLASS**
Servo Corp. of America.
- ARISTOCRAT**
Electro-Voice, Inc.
- ARITEMP**
Aries Laboratories, Inc.
- ARKLESS**
Economy Fuse & Mfg. Co.
- ARL**
Applied Research Labs.
- ARLAVOX**
Radionic Transformer Co.
- ARMA**
American Bosch Arma Corp.
- ARMATITE**
Mica Insulator Co.
- ARMATURO**
Johns-Manville
- ARMITE**
Spaulding Fibre Co., Inc.
- ARRESTONE**
Armstrong Cork Co.
- ARROFULTE**
Arro Expansion Bolt Co.
- ARROWHEAD**
Sangamo Electric Co.
- ARTIC-GLO**
Canadian Radium & Uranium Corp.
- ASAPCO-LO**
Federated Metals Div.
American Smelting & Refining Co.
- ASBESTOS EBONY**
Johns-Manville
- ASBESTOSPAK**
Felt Products Mfg. Co.
- ASCO**
Automatic Switch Co.
- ASCOP**
Applied Science Corp. of Princeton.
- ASCOR**
American Speedlight Corp.
- ASCORLIGHT**
American Speedlight Corp.
- ASENCO**
Associated Engineering & Mfg. Corp.
- ASHCROFT**
Manning, Maxwell & Moore, Inc.
- ASRA-SONIC**
The Pentron Corp.
- ATC**
Automatic Temperature Control Co., Inc.
- ATCOTRAN**
Automatic Temperature Control Co., Inc.
- ATCOTROL**
Automatic Temperature Control Co., Inc.
- ATCOTRONIC**
Automatic Temperature Control Co., Inc.
- ATL EE**
Atlas E-E Corp.
- ATOMS**
Sprague Electric Co.
- ATOMER**
Maico Co., Inc.
- ATR**
American Television & Radio Co.
- ATTIC-V-BEAM**
Telrex, Inc.
- AUBESTON**
Auburn Manufacturing Co.
- AUC**
Rockbestos Products Corp.
- AUDAX**
Audak Co.
- AUDET**
Centralab Div. of
Globe-Union, Inc.
- AUDIAD**
Magnecord, Inc.
- AUDICLE**
Sonotone Corp.
- AUDIGAGE**
Branson Instruments, Inc.
- AUDIO-AID**
Ansley Mfg. Co., Arthur
- AUDIODISC**
Audio Devices, Inc.
- AUDIOFILM**
Audio Devices, Inc.
- AUDIO HAILER**
Audio Equipment Co., Inc.
- AUDIOHM**
Mallory & Co., Inc., P. R.
- AUDIOID**
Cook Laboratories.
- AUDIOM**
Goodmans Industries, Ltd.
Aixom Works.
- AUDIO MIX**
Pentron Corp., The
- AUDIPOINTS**
Audio Devices, Inc.
- AUDIOSCOPE**
Audio-Master Corp.
- AUDIOSCOPE**
Sonotone Corp.
- AUDI-O-SEAL**
Automatic & Precision Mfg. Co.
- AUDIOTAPE**
Audio Devices, Inc.
- AUDITION**
Reeves Soundcraft Corp.
- AUDITORIUM**
Jensen Mfg. Co.
- AUDITRON**
Sonotone Corp.
- AUGATOR**
Mitchell Industries, Inc.
- AUMAN**
Associated American Trading Division.
- AUOMETERS**
British Industries Corp.
- AURICON**
Berndt-Bach, Inc.
- AUTELCO**
Automatic Electric Sales Corp.
- AUTOBOOSTER**
Industrial Television, Inc.
- AUTOCON**
Sprague Electric Co.
- AUTOCOUPLER**
Industrial Television, Inc.
- AUTO-CRIMP**
Aircraft-Marine Products, Inc.
- AUTOCROMATIC**
Acton Co., H. W.
- AUTO-DRYAIR**
Communication Products Co., Inc.
- AUTODYNE**
Westinghouse Electric Corp.
- AUTOFAB**
Mechanical Div., General Mills, Inc.
- AUTOGRAF**
Moseley Co., F. L.
- AUTOGRIP**
Magnasync Mfg. Co.
- AUTOLLIZER**
North Electric Co.
- AUTOLOY**
Taller & Cooper Co.
- AUTOLYTIC**
Micamold Electronics Mfg. Corp.
- AUTOMANIC**
Premax Products Div.
Chisholm-Ryder Co., Inc.
- AUTOMATIC TERMINATOR**
Aircraft-Marine Products, Inc.
- AUTOMIX**
Westinghouse Electric Corp.
- AUTOMACAP**
Standard Condenser Co.
- AUTOMUTE**
Collins Audio Products Co.
- AUTO-NODE**
Kay Electric Co.
- AUTOPILOT**
Lear, Inc.
- AUTOPLATER**
Tracerlab, Inc.
- AUTOPOSITIONER**
Collins Radio Co.
- AUTOSCALER**
Tracerlab, Inc.
- AUTO-SCAN**
Nuclear Magnetics Corp.
- AUТОSET**
Bristol Co., The
- AUTO-SONIC**
Vendo Co.
- AUTO-STAT**
American Photocopy Equipment Co.
- AUTOSYN**
Eclipse-Pioneer Div.
Bendix Aviation Corp.
- AUTOTROL**
Westinghouse Electric Corp.
- AUTOTUNE**
Collins Radio Co.
- AUTOVALVE**
Westinghouse Electric Corp.
- AUTO-VOX**
Kay Electric Co.
- AUTRASTAT**
Ward Leonard Electric Co.
- A.V.C.**
Rockbestos Products Corp.
- AVIGATOR**
Mitchell Industries, Inc.
- AVITRON**
Avion Instrument Corp.
Div. of American Car & Foundry Co.
- AXIFLO**
Westinghouse Electric Corp.
- AXIOHM**
Ward Leonard Electric Co.
- AXIOM**
Goodman's Industries, Ltd.
- AXIVANE**
Joy Mfg. Co.
- A-Z**
Plastic Wire & Cable Corp.
- AZTEC**
Sangamo Electric Co.
- B-2**
Peck & Harvey.
- B.B.B.**
Butler Mfg. Co., Inc.
- B.S.R.**
Birmingham Sound Reproducers, Ltd.
- B-T LABS**
Blonder-Tongue Laboratories, Inc.
- BAACH-INTERNATIONAL**
International Machine Works.
- BABY TRIM TROL**
Airborne Accessories Corp.
- BADGER**
Reliance Automatic Lighting Co.
- BAKELITE**
Union Carbide & Carbon Co.
- BALAC**
Conant Laboratories.
- BALANCED BEAM**
Precise Measurements Co.
- BALANCED PHASE**
Sieler Design Products.
- BALANCETROL**
Automatic Temperature Control Co., Inc.
- BALCO**
Driver Co., Wilbur B.
- BALINE**
JFD Mfg. Co., Inc.
- BALL**
Thomson Industries, Inc.
- BALLARD**
Electrovert Inc.
- BANC-LOK**
Boots Aircraft Nut Corp.
- BANDMASTER**
Harvey-Wells Electronics, Inc.
- BANDOLUG**
Burndy Engineering Co., Inc.
- BANSHEE**
JFD Mfg. Co., Inc.
- BANTAM**
Aerovox Corp.
- BANTAM**
Small Motors, Inc.

BANTAM GT
 CBS-Hytron,
 A Division of Columbia Broadcasting
 System, Inc.
BANTAM JR
 CBS-Hytron,
 A Division of Columbia Broadcasting
 System, Inc.
BARANM
 Ward Leonard Electric Co.
BARCOL
 Barber Colman Co.
BARCOMBO
 Electronic Enterprises, Inc.
BAREX
 King Laboratories, Inc.
BAROHH
 Ward Leonard Electric Co.
BARONET
 Electro-Voice, Inc.
BARREL-LIFT
 Falstrom Co.
BARRYMOUNTS
 Barry Controls Inc.
BAT-WING
 Telrex Inc.
BASS ULTRAFLEX
 Jensen Mfg. Co.
BATTERY-SCOPE
 McColepin-Christie Corp.
BATRYPOWER
 Radiart Corp.
BAT'S-EYE RADARECTOR
 Kennedy & Co., D. S.
BAYTEX
 Union Bay State Chemical Co., Inc.
BEACHCOMER
 JFD Mfg. Co., Inc.
BEACON
 Esso Standard Oil Co.
BEAM
 Barker Sales Co.
BEAM
 Camburn, Inc.
BEAM BENDER
 Technicraft Laboratories, Inc.
BEAMA JUSTER
 Perfection Electric Co.
BEAMED POWER
 Telrex, Inc.
BEAVER
 Cornell-Dubilier Electric Corp.
BECK PROCESS
 Beck's Inc.
BECKAMINE
 Reichhold Chemicals, Inc.
BECO
 Westinghouse Electric Corp.
BEE
 Buchanan Electrical Products Corp.
BEE LINE
 Radio Merchandise Sales, Inc.
BEETLE
 American Cyanamid Co.
BELCAP
 Sprague Electric Co.
BELCO
 Bogue Electric Mfg. Co.
BELCON
 Bogue Electric Mfg. Co.
BELLOWS
 Boots Aircraft Nut Co.
BELL-TIME
 Industrial Timer Corp.
BELMONT
 Thermo Instruments Co.
BELOCK
 Instrument Components Inc.
BEMCO
 Becker Electronics Mfg. Corp.
BENCO
 Buck Engineering Co., Inc.
BEN HAR
 Bentley-Harris Mfg. Co.
BENELEX
 Masonite Corp.
BEPCO
 Buchanan Electrical Products Corp.
BERALDY
 Driver Co., Wilbur B.
BERCO BRAND
 Bergen Wire Rope Co.
BERGER
 Republic Steel Corp.
BERKELEY DECIMAL
 Berkeley Scientific Co.
BERKSHIRE
 Radio Corporation of America.
BERYLCO
 Beryllium Corp.
BESTPRODUCTS
 Barker Sales Corp.
BEST PRODUCTS
 Beam Instruments Corp.
BESTO-WIRE
 Rhode Island Insulated Wire Co.
BETTER LIVING
 Sonotone Corp.
BEV-RICH
 Richardson Co., The
BH
 Bentley-Harris Mfg. Co.
BIB
 Multicore Solders, Ltd.
BICHROMETER
 Perkin-Elmer Corporation, The
BICO
 Belock Instrument Corp.
BIFLEX
 Altec Lansing Corp.
BIG BERTHA
 Telrex, Inc.
BIMORPH
 Brush Electronics Co.
BI-PRENE
 Bishop Mfg. Corp.
BIRACO
 Birnbach Radio Co., Inc.
BIRFLENE
 Birnbach Radio Co., Inc.
BIRFLEX
 Birnbach Radio Co., Inc.
BIRFLON
 Birnbach Radio Co., Inc.
BIRNTEX
 Birnbach Radio Co., Inc.
BI-SEAL
 Bishop Mfg. Corp.
BI-SILON
 Bishop Mfg. Corp.
B.I.W.
 Boston Insulated Wire & Cable Co.
BJ
 Rollin Co.
BK
 Barrett Varnish Co.
BL
 Browning Laboratories, Inc.
BLACK ARROW
 Sangamo Electric Co.
BLACK BEAUTY
 Sprague Electric Co.
BLACK DIAMOND
 Dunton Co., M. W.
BLACKLINE
 Frederick Post Co.
BLINKER LITES
 Noel Mfg. Co.
BLU-RED
 Associated American Trading Division.
BLUE JACKET
 Sprague Electric Co.
BLUE POINT
 Astron Corp.
BLUE SHAFT
 Centralab Div. of Globe-Union, Inc.
BLUE STREAK
 American Electric Cable Co.
BLUE STREAK
 Paragon-Revolute Corp.
BLUE ZEPHYR
 Mole-Richardson Co.
BLUEBIRD
 Radio Corporation of America.
BLUEPLATES
 Sprague Electric Co.
BM-100
 Miller Labs., August E.
B-NOBATRON
 Sorensen & Co., Inc.
B. O. ELIMINATOR
 Perfection Electric Co.
BOARDMASTER
 Universal Drafting Machine Corp.
BOFFLE
 Hartley Products Co.
BOGENPHONE
 Bogen Co., Inc., David.
BOLEX
 Paillard Products Inc.
BOLTA-GRAY
 The General Tire & Rubber Co.,
 Bolta Products Div.
BOLTARON
 The General Tire & Rubber Co.,
 Bolta Products Div.
BONDEZE
 Phelps Dodge Copper Products Co.
BONDMASTER
 Rubber & Asbestos Corp.
BONDOLITE
 Goodyear Aircraft Corp.
BONDRITE
 Union Bay State Chemical Co., Inc.
BOND-ROD
 Sherman Mfg. Co., H. B.
BONDWICH
 Metals & Controls Corp.,
 General Plate Div.
BOR-AL-SIL
 Bird Co., Richard H.
BORG WARNER
 B-J Electronics
BORG WARNER
 Rollin Co.
BOROFILM
 Aerovox Corp.
BOROHH
 Shallicross Mfg. Co.
BORON X
 Technicraft Co.
BOSCAR
 Benson-Lehner Corp.
BOSIPT
 Workman TV, Inc.
BO TENNA
 Radio Merchandise Sales, Inc.
BO TI
 Fretco Inc.
BOVIE
 Liebel-Flarsheim Co.
BOW-FLECTOR
 J F D Mfg. Co., Inc.
BOW-TIE
 J F D Mfg. Co., Inc.
BOWTIE-FLECTOR
 J F D Mfg. Co., Inc.
BOXSEAL
 Paisley Products Inc.
BOY-MAR
 Electrical Service Co.
BRADLEY
 De Jur-Amsco Corp.
BRADLEYDENSER
 Allen-Bradley Co.
BRADLEYLEAK
 Allen-Bradley Co.
BRADLEYOHH
 Allen-Bradley Co.
BRADLEYOMETER
 Allen-Bradley Co.
BRADLEYSTAT
 Allen-Bradley Co.
BRADLEYSWITCH
 Allen-Bradley Co.
BRADLEYUNIT
 Allen-Bradley Co.
BRANDES
 Cannon Co., C. F.
BRAZALOY
 All-State Welding Alloys Co., Inc.
BRAZE-CLAD
 American Silver Co., Inc.
BRAZO
 Linde Air Products Co.
 Unit of Union Carbide & Carbon Corp.
BRENKERT
 Radio Corp. of America.
BRELSCO
 British Electronics Sales Co.
BRENCO
 Bristol Engineering Corp.
BRIDGER
 Audio Instrument Co., Inc.
BRIGHT GOLD
 Sel-Rex Precious Metals Div. of Bart-
 Messing Corp.
BRIGHT RHODIUM
 Sel-Rex Precious Metals Div. of Bart-
 Messing Corp.
BRILLIANTONE
 Acton Co., H. W.
BRIMAR
 Standard Telephones & Cables, Ltd.
BRINELCO
 Brinnell Co., The
BRISTO
 Bristol Co., The
BROADBAND
 Racon Electric Co.
BROADCASTER
 Reeves Soundcraft Corp.
BROADMASTER
 Universal Drafting Machine Corp.
BRONCO
 Metals & Controls Corp.
 General Plate Div.
BRONCO
 Western Insulated Wire Co.
BRONZIDITE
 J. F. D. Mfg. Co., Inc.
BROWN DEVIL
 Chmite Mfg. Co.
BROWN HILL
 R-F Electronics, Inc.
S. G. BROWN
 British Industries Corp.
BRYANT
 Westinghouse Electric Corp.
BUCCANEER
 Hudson American Corp.
BUCKEY BRAND
 Tubular Rivet & Stud Co.
BUDGET
 Aircraft Marine Products Inc.
BUG
 Vibroplex Co., Inc.
BUILT IN WATCHMAN
 Westinghouse Electric Corp.
BUILT-ON
 Radion Corp.
BULLGOG
 Phelps Dodge Copper Products Corp.
BULLS-I-UNITS
 Kirkland Co., H. R.
BULPLATE
 Sprague Electric Co. of Wisconsin, Inc.
BUNA-FLEX
 Auburn Mfg. Co.
BUNNY-GARD
 Television Accessories Co.
BUSHEND
 Buchanan Electrical Products Corp.
BUSS
 Bussmann Mfg. Co.
BUTACITE
 du Pont de Nemours Co., Inc., E. I.
BUTTON
 Erie Resistor Corp.
BUZZ-TIME
 Industrial Timer Corp.
B&W
 Barker & Williamson
BW COPYFLEX
 Bruning Co., Inc., Charles
BYRON JACKSON
 Rollin Co.
C-B
 Caddell Burns Mfg. Co.
CAC
 Communication Accessories Co.
CCC
 Chicago Condenser Corp.
C & C
 McColepin-Christie Corp.
CC PUMP
 Cooper Co., Clark
C-D-F
 Continental-Diamond Fibre Co.
CDM
 Curtis Development & Mfg. Co.
CDP
 Electro Voice, Inc.
CDX
 X-Ray Dept. of General Electric Co.
C-H
 Cutler-Hammer, Inc.
CMR
 Assembly Products, Inc.
CMSZ ALLOY
 Electro Metallurgical Co.
 Unit of Union Carbide & Carbon Corp.
CADAC
 Computer Research Corp.
CADET
 Raytheon Mfg. Co.
CALBENT
 California Bent Glass Co.
CAL-CON
 Cal-Connector Co.
CAL-CORD
 Electric Cords & Supply Co.
CALETCH
 California Bent Glass Co.
CALI-BRIDGE
 Industrial Electronics, Inc.
CALIMAG
 California Magnetic Control Corp.
CALI-POWER
 Industrial Electronics, Inc.
CALIVOLTER
 Calidyne Co.
CALL-A-PHONE
 Talk-A-Phone Co.
CALLMASTER
 Lyman Electronics Corp.
CALMAG
 California Magnetic Control Corp.
CAL-MET
 Richardson Co.
CALOMIC
 Telegraph Construction & Maintenance
 Co., Ltd.
CALPRINT
 California Bent Glass Co.
CALTROL
 Caltron Co.
CAMART
 Camera Mart, Inc.
CAMBIRCROID
 American Electric Cable Co.
CAMCO
 Camburn, Inc.
CAMTROL
 Lear, Inc.
CANADIAN
 Measurement Engineering, Ltd.
CANDOC
 Cudner & O'Connor Co.
CANDOHMS
 Muter Co.
CANNON-BALL
 Cannon Co., C. F.
CANSEAL
 Cannon Electric Co.
CAPACOMETER
 Simpson Electric Co. Div. of
 American Gage & Machine Co.
CAPASWITCH
 Mullenbach Div. of Electric
 Machinery Mfg. Co.
CAPACIOLOG
 Barber-Colman Co.
CAPACIPROBE
 Esco, Incorporated.
CAPACITROL
 Barber-Colman Co.
CAPE COD NAVIGATOR
 Raytheon Mfg. Co.
CAPEHART
 Capehart-Farnsworth Corp.
CAPITRON
 Aircraft-Marine Products, Inc.
CAPOHMIST
 Special Products Co.
CAPR
 Camburn, Inc.
CAPRISTOR
 Jeffers Electronics Div.,
 Speer Carbon Co.
CAP-SUBBER
 Sprague Electric Co.
CAPTAIN
 Metal Mfg. Co., Inc.
CAPTI VATED
 Staver Co., Inc.
CARBIC
 Linde Air Products Co.
 Unit of Union Carbide & Carbon Corp.
CARBO-DUR
 Permutit Co.
CARBOFILM
 Aerovox Corp.
CARBOLITE
 Linde Air Products Co.
 Unit of Union Carbide & Carbon Corp.
CARBOMITE
 Continental Carbon, Inc.

CARBON-COAT
Electra Mfg. Co., Resistor Div.

CARBONYL
General Dyestuff Corp.

CAR CALL
Seeley Electronics.

CARDAX
Electro-Voice, Inc.

CARDIALYZER
Kay Electric Co.

CARDIETTE
Sanborn Co.

CARDINAL
Midland Mfg. Co.

CARDIOFAX
Electrofax Corp.

CARDIOSCRIBE
X-Ray Dept. of General Electric Co.

CARDIOTRON
American Machine & Foundry Co.,
Electronics Div.

CARDIOTRON
Electro-Physical Laboratories, Inc.

CARDYNE
Electro-Voice, Inc.

CAREER
Ampro Corp.

CARILLON DYNAMIC
Miller Mfg. Co., M. A.

CARITRON
Sheffield Corp., The

CARL MEYER
Burke & James, Inc.

CARLITE
Armco Steel Co.

CARLITE
Bogue Electric Mfg. Co.

CARLTON
Hudson Lamp Co.

CARRON
United Pressed Products Co.

CARRON-AIRE
Carron Mfg. Co.

CARRY PHONE
Union Switch & Signal Div. of
Westinghouse Air Brake Co.

CARTEL
Electro Craft Industries, Inc.

CARTWHEEL
Aerovox Corp.

CARTRIJ-DRY
Pyramid Electric Co.

CARY
Applied Physics Corp.

CASCADE
Audio Industries.

CASCADE
Linde Air Products Co.
Unit of Union Carbide & Carbon Corp.

CASCADE YAGI
J F D Mfg. Co., Inc.

CASCAMATIC
Alliance Mfg. Co.

CASCAMITE
The Borden Co.,
Chemical Division.

CASCO
The Borden Co.,
Chemical Division.

CASCODE
J F D Mfg. Co., Inc.

CASCODE AUTOBOOSTER
Industrial Television, Inc.

CASCOPHEN
The Borden Co.,
Chemical Division.

CASCOREZ
The Borden Co.
Chemical Divis.

CASTOHM
Shallcross Mfg. Co.

CASTOMATIC
Federated Metals Div.,
American Smelting & Refining Co.

CASTORDAG
Acheson Colloids Co.

CAST-X
Acme Electric Heating Co.

CATABOND
Catalin Corp. of America

CATAPAK
Catalin Corp. of America

CATAVAR
Catalin Corp. of America

CATHALLOY
Superior Tube Co.

CATHODE-RAY STETHOSCOPE
Feiler Engineering & Mfg. Co.

CATHODRAM
Telegraph Condenser Co., Ltd.

CATHODRAY
Telegraph Condenser Co., Ltd.

CATHOUISER
Cinema-Television, Ltd.

CATHOVISOR
Cinema-Television, Ltd.

CAT'S EYE
Ess Specialty Corp.

CAVALCADE
Molded Insulation Co.
Aircraft Control Div.

CAVITRON
Woodwelding, Inc.

CAVI-TUNER
Radio Receptor Co.

CBS
CBS-Hytron Div. of
Columbia Broadcasting System, Inc.

CBWT
Automatic Metal Products Co.

CCO
Billey Electric Co.

C-D SEAL
Cornell-Dubilier Electric Corp.

CDR
Radiart Corp.

CDR ROTOR
Radiart Corp.

CECILIAN
Pickard & Burns, Inc.

CECOTITE
Cook Electric Co.

CEE-COR
Permoflux Corp.

CELAB
Clark Electronic Labs.

CELASCREEN
Celanese Corp. of America.

CELCON
Celanese Corp. of America

CELECTRAY
Weston Electrical Instruments Corp.

CELLO-BOND
Paisley Products, Inc.

CELLUFOAM
Masonite Corp.

CELLULOID
Celanese Corp. of America

CELORON
Continental-Diamond Fibre Div. of The
Budd Co.

CENCO
Central Scientific Co.

CENCO-HYHERVAC
Central Scientific Co.

CENCO-HYVAC
Central Scientific Co.

CENCO-MEZAVAC
Central Scientific Co.

CENCO-SUPERVAC
Central Scientific Co.

CENTILATOR
Kay Electric Co.

CENTRATHENE
Centralab Div. of Globe-Union, Inc.

CENTRE-KOOLED
Sarkes Tarzian Inc.

CEN-TRI-CORE
Alpha Metals, Inc.

CENTRICORES
Magnetic Metals Co.

CENTURY
Electro-Voice, Inc.

CENTURY TELECEIVERS
Industrial Television, Inc.

CERAMAG
Stackpole Carbon Co.

CERAMAGNET
Stackpole Carbon Co.

CERAMELEX
Erie Resistor Corp.

CERAMICAPS
Muter Co.

CERAMICON
Erie Resistor Corp.

CERAMIKIT
Sprague Electric Co.

CERAMISTOR
Glenco Corp.

CERA-MITE
Sprague Electric Co.

CEREX
Monsanto Chemical Co.
Plastics Div.

CERISSO
Isolantite Mfg. Corp.

CEROC
Sprague Electric Co.

CER-OHM
Bradford Components, Inc.

CERON
Sprague Electric Co.

CERROBEND
Cerro De Pasco Corp.

CERROSAFE
Cerro De Pasco Corp.

CERROSEAL-35
Cerro De Pasco Corp.

CERROTRU
Cerro De Pasco Corp.

CERTI-CRIMP
Aircraft-Marine Products, Inc.

CETRON
Continental Electric Co.

CHALLENGER
Bogen Co., Inc., David

CHALLENGER
Rek-O-Kut Co., Inc.

CHAMPION
Channel Master Co.

CHAMPION
Crucible Steel Co. of America

CHAMPION
Permoflux Corp.

CHAMPION No. 180
Division Lead Co.

CHANALYST
Radio Corporation of America

CHANGE-A-CYCLE
Carter Motor Co.

CHANGE-A-VOLT
Carter Motor Co.

CHANGE-O-MATIC
Viewlex, Inc.

CHAN-L-MOUNT
Lord Mfg. Co.

CHANNEL AUTOBOOSTER
Industrial Television, Inc.

CHANNELOCK
Radio Engineering Labs., Inc.

CHARGALYZER
McColpin-Christie Corp.

CHARGATROL
Assembly Products Co.

CHARGICATOR
Hickok Electrical Instrument Co.

CHARG-O-MATIC
Hertner Electric Co.

CHASS-EZ
General Cement Mfg. Co.

CHEER
Aerolux Lights Corp.

CHEMACO
Koppers Co.

CHEMALLOW-KAHL
Chemalloy Electronics Corp.

CHEMELEC
U. S. Gasket Co.

CHEM-ETCH
Automatic Processing Corp.

CHEMETCH
Chem-Etched Circuits, Inc.

CHEMIFLEX
Technicraft Co.

CHEMIGLAS
Technicraft Co.

CHEMIGUM
Goodyear Tire & Rubber Co.

CHEM-INERT
Lennard Co., Inc., P. M.

CHEMISEAL
U. S. Gasket Co.

CHEMLON
Crane Packing Co.

CHEM-O-SOL
Chemical Products Corp.

CHEMROK
Richardson Co., The

CHEMSTONE
Johns-Manville

CHEMXORK
Electro Chemical Engineering Co.

CHEROKEE
Sangamo Electric Co.

CHIEF
Audio Equipment Co., Inc.

CHIEFTAIN
Sangamo Electric Co.

CHILCO
Chicago Miniature Lamp Works.

CHIME-MATIC
Executone, Inc.

CHITRAN
Chicago Standard Transformer Corp.

CHLORINOL
Sprague Electric Co.

CHROMABAR
Kay Electric Co.

CHROMADOT
Kay Electric Co.

CHROMALIZER
Maico Co., Inc.

CHROMALUX
Wiegand Co., Edwin L.

CHROMALYZER
Teledrome, Inc.

CHROMASCOPE
Teledrome, Inc.

CHROMASOL
Ward Leonard Electric Co.

CHROMASTER
Ward Leonard Electric Co.

CHROMAX
Driver-Harrls Co.

CHROMEL
Hoskins Mfg. Co.

CHROMEL P
Hoskins Mfg. Co.

CHROMOLYTIC
Micamold Electronics Mfg. Corp.

CHRONO-SPRAY
Paragon Electric Co.

CHRONOTEST
Sticht Co., Inc., Herman H.

CHRONOTHERM
Minneapolis-Honeywell Regulator Co.

CHRONOTRON
Eclipse Pioneer Div.
Bendix Aviation Corp.

CIBANITE
Ciba Company, Inc.

CICRO MICROPOSITIONER
Barber-Colman Co.

CIMET
Driver-Harris Co.

CINELIGHT
Dormitzer Electric & Mfg. Co., Inc.

CINCH
National Lead Co.

CINELITE
Mole-Richardson Co.

CINEMA
Aerovox Corp.

CINEVISION
Calbest Engineering & Electronics Co.

CINE-VOICE
Berndt-Bach Inc.

CINTEL
Cinema-Television, Ltd.

CIRCLE
Hogan Laboratories, Inc.

CIRCLE 2
Sprague Electric Co.

CIRCLE B
Bristol Motor Div.,
Vocaline Company of America

CIRCLE COMPUTER
Hogan Laboratories, Inc.

CIRCLE ESS
Stewart Corp., F. W., (A Sub. of The
S. S. White Dental Mfg. Co.)

CIRCLET
Trumbull Dept. of General Electric Co.

CIRCLE-VANE
Ward Products Corp., Div., Gabriel Co.

CIRCON
Universal Circuit Controls Corp.

CIRCUITMASTER
Fordham Mfg. Co.

CIRCUTROL
Kollman Instrument Corp.

CK
Raytheon Mfg. Co.

"CL"
Alpha Wire Corp.

CLAIMSTAKER
Detectron Corp., The

CLAMPIPE
Mueller Electric Co.

CLARKSTAN
Pacific Transducer EBG Corp.

CLARO
Clarostat Mfg. Co., Inc.

CLASSIC
Jensen Industries, Inc.

CLASSMETER
Nuclear Instrument & Chemical Corp.

CLEAR-PIX
Superex Electronics Corp.

CLEAR-PRINT
Phillips Process Co., Inc.

CLEARSITE
Economy Fuse & Mfg. Co.

CLEARSONIC
U. S. Television Mfg. Corp.

CLETRON
Cleveland Electronics, Inc.

CLEVELITE
Cleveland Container Corp.

CLEVITE
Transistor Products, Inc.

CLIMASTER
Clegg Laboratories, Inc.

CLIMATITE
Triad Transformer Corp.

C LINE
Clarostat Mfg. Co., Inc.

CLIP ON
Ferranti Electric, Inc.

CLIPPER
Sterling Transformer Corp.

CLIPPER SEALS
Johns-Manville

CLOCKTIMER
International Register Co.

CLORINOL
Sprague Electric Co.

CLOSTEMP
Westinghouse Electric Corp.

CLOVER-V-BEAMS
Telrex, Inc.

CMH
Flexonics Corp.

CMI
Condenser Manufacturers, Inc.

CML
Communication Measurements Lab., Inc.

CMR
Assembly Products, Inc.

COAST CABLE
Pacific Electriccord Co.

COATINGAGE
Branson Instruments, Inc.

CO-3
Cast Optics Corp.

CO-AX
Transradio Ltd.

COAXITUBE
Precision Tube Co., Inc.

COAXWITCH
Bird Electronic Corp.

COBANIC
Driver Co., Wilbur B.

COBENTUM
Driver Co., Wilbur B.

COC
Hammarlund Mfg. Co., Inc.

CODEMASTER
Merchant Research, Inc.

CODUR
Maas & Waldstein Co.

COHARDITE
Connecticut Hard Rubber Co.

COHRLASTIC
Connecticut Hard Rubber Co.

COILITE
National Vulcanized Fibre Co.

COINRAD
Northeastern Engineering, Inc.

COINVIDEO
Coradio, Inc.

CO-LATERAL
Finney Co.

COLONIAL
Sylvania Electric Products, Inc.

COLORBEAM
Tennalab

COLOR BEAM
Wells & Winegard.

COLORBRITE
Eberhard Faber Pencil Co.

COLORCORD
Pacific Electriccord Co.

COLORDEDE
Instrument Development Laboratories, Inc.

COLOR-EYE
Instrument Development Laboratories, Inc.

COLORMASTER
Manufacturers Engineering & Equipment Co.

COLORSCOPE
Simpson Electric Co., Div. of American Gage & Machine Co.

COLOR-TENNA
JFD Mfg. Co., Inc.

COLORTOP
Trico Fuse Mfg. Co.

COLORTRONIC
Thomas Electronics, Inc.

COLPLAST
Topper Mfg. Co., Inc.

COLUMBIA FIBER GLASS
Columbia Tape Mills Inc.

COMANCHE
Sangama Electric Co.

COMCO
Communications Co., Inc.

COMET
Astron Corp.

COMET
Driver-Harris Co.

COMMAIRE
Avionex Electronics Corp.

COMMANDAIR
J F D Mfg. Co., Inc.

COMMULAC
Martindale Electric Co.

COMMUNICATOR
West Coast Electronics Co.

COMMUNO-PHONE
Bogen Co., Inc., David

COMMUTATOR RESURFACERS
Ideal Industries, Inc.

COMPAC
A.C.F. Electronics

COMPACTUATOR
Air Associates, Inc.

COMPAR
Goodyear Tire & Rubber Co.

COMPARITOL
Scherr Co., Inc., George

COMPA-STATION
Motorola Inc.

COMPENTROL
Centralab Div. of Globe-Union, Inc.

COMPO
Muter Co.

COMPOUND DIFFRACTION PROJECTOR
Electro-Voice, Inc.

COMPREGNITE
Borden Co., The, Chemical Div.

COMP-U-TRIM
Eastern Precision Resistor Corp.

COMSPEC
Instrument Motors

COMTEL
Radio Frequency Labs., Inc.

COMTONE
Communications Co., Inc.

COMVOR
Radio Frequency Labs., Inc.

CONALERT
Kaar Engineering Corp.

CONCERT
Jensen Industries, Inc.

CONCERT GRAND
Stewart-Warner Corp.

CONCERT-LINE
Shure Brothers, Inc.

CONCERTO
Jensen Mfg. Co.

CONCERTONE
Berlant Concertone-Audio Div. of American Electronics Inc.

CONDENS-O-WELD
Westinghouse Electric Corp.

CONDUCTALUTE
Sauerisen Cements Co.

CONDUX
Hardman Co., Inc., H. V.

CONELRAD
Kaar Engineering Corp.

CONELRADIO
Aircraft Armaments, Inc.

CON-FEE-PHONE
Simpson Mfg. Co., Inc., Mark

CONETIC
Perfection Mica Co.

CONFESSIONAIRE
Audio Equipment Co., Inc.

CONFIDENCER
Roanwell Corp.

CONFLEX
Metals & Controls Corp., General Plate Div.

CONICAL-V-BEAM
Telrex Inc.

CONNECTICUT BRAKES
Stueck, Inc., W. Whitney.

CONNECTRONICS
Continental Connector Corp.

CONNSONATA
Conn Ltd., C. G.

CONNSONETTE
Conn Ltd., C. G.

CONNTENNA
Connecticut Telephone & Electric Corp.

CONOLITE
Continental Can Co., Inc.

CONPERNIK
Westinghouse Electric Corp.

CONSOLETTA
Ampco Corp.

CONSOLIDATED
Manning, Maxwell & Moore Inc.

CONSTAYAC
Green Rectifiers Co.

CONSTELLATION
JFD Mfg. Co., Inc.

CONTOUR SENSOR
Aerolab Development Co.

CONSTRUCT-O-GRIP
Technology Instrument Corp.

CONTACTENE
Waisco Electronics Corp.

CON-TAC-TOR
Minneapolis-Honeywell Regulator Co.

CONTINENTAL
DeJur-Amisco Corp.

CONTROFLEX
Eagle Signal Corp.

CONTROLARC
Vickers Electric Div., Vickers, Inc.

CONTROLITE
Ward Leonard Electric Co.

CONVECTRON
Eclipse Pioneer Div. Bendix Aviation Corp.

CONVERS-O-CALL
National Inter-Communication Systems, Inc.

CONVOTROL
Automatic Electric Sales Corp.

CON-WATE
Blue M Electric Co.

COOK SOUNDS OF OUR TIMES
Cook Laboratories Inc.

COOLER-PROOF
Paisley Products Inc.

COORDINATED PROCESS CONTROL
Bristol Co., The

COPEL
Hoskins Mfg. Co.

COPULENE
Amphenol Electronics Corp.

COPRENE
Mass & Waldstein Co.

COPROX
Bradley Labs., Inc.

COPYFLEX
Bruning Co., Inc., Charles

COPYMASTER
Peck & Harvey Mfg. Corp.

CORAL DESIGNS
Dietz Co., Henry G.

COREPROOF
Magnetic Metals Co.

CORKOUSTIC
Armstrong Cork Co.

CORO-GRAD
Minnesota Mining & Mfg. Co.

COROMON
Hi-Q Div., Aerovox Corp.

CORONATEST
Network Mfg. Corp.

CORONATION
Interelectronics Corp.

CORONET
Camburn, Inc.

CORONOX
Westinghouse Electric Corp.

COROX
Westinghouse Electric Corp.

CORRIB
Ohmite Mfg. Co.

CORSAIR
Hudson American Corp.

CORSAIR
JFD Mfg. Co., Inc.

CORULITE
Premax Products Div. Chisholm-Ryder Co., Inc.

CORVETTE
JFD Mfg. Co., Inc.

CORWICO
Cornish Wire Co.

COSMALITE
Cleveland Container Co., The

CO-SPIRAL
Stephens Mfg. Corp.

COSSOR
Barker Sales Corp.

COTO
Coto-Coil Co., Inc.

COTTONITE
Acme Wire Co.

COUNTOMATIC
Instrument Development Labs.

COUNTRY BELLE
Guild Radio & Television Co.

COUNTRY BELLE MUSIC MAID
Guild Radio & Television Co.

COUPLATE
Centralab Div. Globe-Union Inc.

COX
Commercial Research Labs., Inc.

COX
Boston Insulated Wire & Cable Co.

COXPROX
Bradley Labs.

CP-2
Cast Optics Corp.

CPPC
Clifton Precision Products Co., Inc.

CR-39
Cast Optics Corp.

CRL
Centralab Div. of Globe-Union, Inc.

CRABLOK
Burdoy Engineering Co., Inc.

CRAFT LABORATORIES
Electra Craft Industries, Inc.

CRAFTSMEN
Radio Craftsmen, Inc.

CRAPO
Indiana Steel & Wire Co.

CREME-O-WAX
General Cement Mfg. Co.

CRESTBRITE
Crest Transformer Corp.

CRESTRAN
Crest Transformer Corp.

CRESTROL
Crest Transformer Corp.

CRESTWOOD
Daystrom Electric Corp.

CRISE
Acro Mfg. Co.

CROFLEX
Croname, Inc.

CROFLEX
Waldom Electronics Inc.

CROLITE
Crowley & Co., Inc., Henry L.

CROLOY
Aerovox Corp.

CROLOY
Crowley & Co., Inc., Henry L.

CROMAG
Crowley & Co., Inc., Henry L.

CROMALLOY
Linde Air Products Co. Unit of Union Carbide & Carbon Corp.

CROMAX
Aerovox Corp., Pacific Coast

CROMEL-ALUMEL
Hoskins Mfg. Co.

CRONAME
Waldom Electronics Inc.

CROTHANE
Crowley & Co., Inc., Henry L.

CROWLEY
Aerovox Corp.

CROWLEY
International Radio & Electronics Corp.

CRUCIBLE WELD
Westinghouse Electric Corp.

CRUSADER
Hudson American Corp.

CRUCAST
Crucible Steel Co. of America

CRUSFIDER
Hudson American Corp.

CRYSTALEAR
Brush Electronics Co.

CRYSTALIGNED
Magnetic Metals Co.

CRYSTALINER
Monitor Products Co.

CRYSTAL-VOX
Laurehk Radio Mfg. Co.

CRYSTOGRAPH
Offner Electronics, Inc.

CRYSTOLON
Norton Co.

C-S
Felt Products Mfg. Co.

C S P
Westinghouse Electric Corp.

CTS
Chicago Telephone Supply Corp.

CUEMETER
Lear, Inc.

CUE TAPE
Rangertone, Inc.

CUNICO
Arnold Engineering Co.

CUNIFE
Arnold Engineering Co.

CUNNINGHAM
Radio Corp. of America

CUPALOY
Westinghouse Electric Corp.

CUPRON
Driver Co., Wilbur B.

CUPROVAC-E
Vacuum Metals Corp.

CURTAIN OF LIGHT
Electronic Control Corp.

CUSHIONED-POWER
Robotron Corp.

CUSHIONTONE
Armstrong Cork Co.

CUSTOM
Precision Radiation Instruments, Inc.

CUSTOM FOUR HUNDRED
Stromberg-Carlson Co., Div. of General Dynamics Corp.

CUSTOM SPECIAL
Collins Audio Products Co.

CUSTOMODE
Jensen Mfg. Co.

CUTAWL
International Register Co.

C. W. C.
Continental Wire Corp.

CYCOLAC
Marbon Corp.

CYCLE-PROGRESS
Automatic Temperature Control Co.

CYCLELOG
Foxboro Co., The

CYCL-FLEX
Eagle Signal Corp.

CYCL-O-FLEX
Wilson & Co., G. C.

CYCLOHM
Howard Industries, Inc.

CYCLO-BAY
Friez Instrument Div. Bendix Aviation Corp.

CYCLOTROL
Cyclotron Specialties Co.

CYCLOTROL
Minneapolis-Honeywell Regulator Co.

CYNEL
American Cyanamid Co.

CYPAK
Westinghouse Electric Corp.

D 54
Matory & Co., Inc., P. R.

"D" NICKEL
International Nickel Co., Inc.

DAG
Acheson Colloids Co.

DAGE
Thompson Products, Inc.

DAGLAS
Pheps Dodge Copper Products Corp.

DAKA-WARE
Davies Molding Co., Harry

DALBAR
Electronic Enterprises

DALE
Electronic Development Co.

DALMOTRON
Dalmo Victor Co.

DALOHM
Dale Products, Inc.

DAMASCENE
Linick Chemical Co.

DANCO
Daniels, Inc., C. R.

DANDEE
Aerovox Corp.

DANDUX
Daniels, Inc., C. R.

DA-NITE
Bendix Aviation Corp.

DARCON
du Pont de Nemours & Co., Inc., E. E.

DATAREADER
Electro Data Corp.

DATA TAPE
Consolidated Electrodynamics Corp.

DATATRON
Electro Data Corp.

DATA-VISION
Dage Television Div. of Thompson Products, Inc.

DAVENOIL
Daven Co.

DAVOHM
Daven Co.

DAZIC
Winterburn Mfg. Co.

DBPC
Koppers Co., Inc.

DC SILICONES
Dow Corning Corp.

DE-ACIDITE
Permutit Co.

DECADIAL
Ford Engineering Co. Inc.

DECI
Dwyer Engineering Co., Inc.

DECITRON
Post Machinery Co.

DE ARMOND
Rowe Industries

DE FOREST
Radio Corp. of America

DE FIANCE
All Star Products, Inc.

DECASWEEP
Decade Instrument Co.

DECAFIER
Decade Instrument Co.

DECALATOR
Decade Instrument Co.

DECAVIDER
Decade Instrument Co.

DECOHM
Davis Electric Co.

DEEMON-HEAT
Wall Mfg. Co.

DEFORST
Radio Corp. of America

DE-FROST-IT
Paragon Electric Co.

DEHYDRA
Wagpler, Inc.

DE-ION
Westinghouse Electric Corp.

DEKABOX
Electro-Measurements, Inc.

DEKAPOT
Electro-Measurements, Inc.

DEKASTAT
Electro-Measurements, Inc.

DEKATRON
Atomic Instrument Co.

DEKA-XTAL
Scientific Radio Products Co.

DELCO
General Motors Corp.

DELPEC
 Centralab Div. of Globe-Union, Inc.

DELTABESTON
 General Electric Co.

DELTAMAX
 Allegheny Ludlum Steel Corp.

DELTAMAX
 Arnold Engineering Co.

DELTASWITCH
 Detroit Controls Corp.

DELTA-TENNAS
 Western Gear Corp.,
 Electro Products Div.

DELTA-WELD
 Channel Master Co.

DeLUXE
 Precision Radiation Instruments, Inc.

DEMCO
 Deance Engineering & Microwave Corp.

DEMCO
 Dormitzer Electric & Mfg. Co., Inc.

DEMINERALIZER
 Barnstead Still & Sterilizer Co. Inc.

DEMSICHRON
 Welch Scientific Co., W. M.

DENSITE
 West Virginia Pulp & Paper Co.

DENSI-TINER
 Lekra Laboratories

DEOXIDINE
 American Chemical Paint Co.

DEOXO
 Baker & Co., Inc.

DEPTHOMETER
 Bludworth Marine Div.
 National-Simplex-Bludworth, Inc.

DERLIKOR
 Associated American Trading Division.

DERVIMETER
 Gerber Scientific Instrument Co.

DESCO
 Dietz Design & Mfg. Co.

DESK-FAX
 Western Union Telegraph Co.

DESKTOPPER
 Universal Drafting Machine Corp.

DETECT-A-FIRE
 Fenwal, Inc.

DETECTOMETER
 Dillon & Co., Inc., W. C.

DETECTRODE
 Detectolab, Inc.

DETERMOHM
 Ohmite Mfg. Co.

DEVELOCO
 Development Engineering Co.

DEVROOME
 Electrovert, Inc.

DEW POINTER
 Illinois Testing Labs., Inc.

DIABO
 Tibbetts Industries, Inc.

DIACLOR
 Sangamo Electric Co.

DIACONE
 Altec Lansing Corp.

DI-ACRO
 O'Neil-Irwin Mfg. Co.

DIAGNOMETER
 Supreme, Inc.

DIAL
 Nebel Lab., R. E.

DIAL-A-MATIC
 American Photocopy Equipment Co.

DIALAMATIC
 JFD Mfg. Co., Inc.

DIALCO
 Dialight Corporation

DIALGLO
 Ackerman Engravers

DIALSAW
 Erwood, Inc.

DIALX
 Stromberg-Carlson Co.

DIAMACONTROL
 Standard Electronics Research Corp.

DIAMATROL
 Standard Electronics Research Corp.

DIAMOND
 Continental-Diamond Fibre
 Div. of The Budd Co.

DIAMOND
 Tetrad Corp.

DIAMOND G
 Garrett Co., Inc., G. K.

DIAMOND-H
 Hart Mfg. Co.

DIAMOND PRODUCTS
 Garrett Co., Inc., George K.

DIAMOND WEAVE
 Sickles Div., F. W.

DIAMONTINE
 General Instrument Corp.

DIAPHLEX
 Linick Chemical Co.

DIATRON
 Cook Electric Co.

DIATRON
 Consolidated Engineering Corp.

DICO
 Diamond Mfg. Co.

DICO
 Diamond Microwave Corp.

DICTABELT
 Dictaphone Corp.

DICTACORD
 Dictaphone Corp.

DIEFLEX
 Insulation Manufacturers Corp.

DIEGRAF
 Grafo Colloids Corps.

DIELITE
 Wirt Co.

DI-FAN
 Andrew Co.

DIFFERENTIAL
 Electro-Voice, Inc.

DIFFUSICONE
 University Loudspeakers, Inc.

DIFILM
 Sprague Electric Co.

DI-FORMED
 Precision Paper Tube Co.

DIGESTER
 Telecomputing Corp.

DIGICON
 Anatron Engineering Corp.

DIGIDEL
 Jacobs Instrument Co.

DIGILOG
 Libroscope, Inc.

DIGIMATIC
 Electronic Control Systems, Inc.

DIGIPOT
 Anatron Engineering Corp.

DIGITIZER
 Coleman Engineering Co., Inc.

DIGIT-MATIC
 Vic-Dar Div. of Victor
 Adding Machine Co.

DIGITOMETER
 Electro-Mec Laboratory, Inc.

DILECTO
 Continental-Diamond Fibre
 Div. of The Budd Co.

DI-MAX
 Armco Steel Corp.

DIMINUETTE
 Permoflux Corp.

DIMMERETTE
 Ward Leonard Electric Co.

DIMOMATIC
 Maico Co., Inc.

DIOFHLEX
 Cook Electric Co.

DIOMITE
 Transistor Products, Inc.

DIPLOIT
 Dielectric Materials Co.

DIP PAK
 Fidelity Chemical Products Corp.

DIPWHITE
 Special Chemicals Co.

DIPWRAP
 Paisley Products Co.

DIRECT-A-CALL
 Connecticut Telephone & Electric Corp.

DIRECT-DRIVE
 Shure Brothers Inc.

DIRECTION EXPOSURE SHIELD
 Technical Operations, Inc.

DIRECTRON
 Sanford Miller Co.

DIRON
 Peerless Products Industries

DISCALOY
 Westinghouse Electric Corp.

DISCAP CON
 Sprague Electric Co.

DISCAPS
 Radio Materials Corp.

DISCOHM
 Ward Leonard Electric Co.

DISKCHANGERS
 Webster-Chicago Corp.

DISPATCHER
 Motorola Inc.

DIVCO
 Division Lead Co.

DIVCO HOT-ROZ
 Division Lead Co.

DIVCO INTENSE-REZ
 Division Lead Co.

DIVIDOHM
 Ohmite Mfg. Co.

"DM"
 Dase Electric Co.

DOBRO
 Valco Mfg. Co.

DODO
 JFD Mfg. Co., Inc.

DOG
 Radio Corporation of America.

DOMEPAK
 Sprague Electric Co.

DOMINO
 Sprague Electric Co.

DONUT
 Associated Research Inc.

DOSIFILM
 Reed-Curtis Nuclear Industries, Inc.

DOSIMETER
 Bendix Aviation Corp., Cincinnati Div.

DOSIMETER
 Instrument Development Labs.

DOT
 United-Carr Fastener Corp.

D.O.T.
 United Transformer Co.

DOUGLAS
 British Industries Corp.

DOWMETAL
 Dow Chemical Co.

DPR
 Hardman Co., Inc., H. V.

DR
 D & R, Ltd.

DRAFTMASTER
 Stacor Equipment Co.

DRAGNET
 Radelco Mfg. Co.

DREADNOUGHT
 Wall Mfg. Co.

DRILL HOLE
 Precision Radiation Instruments, Inc.

DRI-FILM
 General Electric Co.

DRIMETER
 Fielden Instrument Div. of Robertshaw-
 Fulton Controls Co.

DRI-N-TITE
 Horn Co., Inc., A. C.

DRIOX
 Linde Air Products Co.
 Unit of Union Carbide & Carbon Corp.

DRI-STAT
 Peerless Photo Products, Inc.

DRITHERM
 North American Electric Lamp Co.

DRUM-KARRIER
 Falsstrom Co.

DTNA-Q
 K-W Engineering Works

DU NOUY
 Central Scientific Co.

DUA-CAPS
 Centralab Div., Globe-Union, Inc.

DUARC
 Mole-Richardson Co.

DUAL DANDEE
 Aerovox Corp.

DUALDRUM
 Gorrell & Gorrell

DUAL-HORN
 Brocier Electronics Corp.

DUAL LOCK
 Simmont Fastener Corp.

DUAL MARKER
 Scala Radio Co.

DUALTRONIC
 Goldak Co., Inc., The

DUART
 Mass & Waldstein Co.

DUBL-X
 Telex, Inc.

DUCCO
 de Pont de Nemours & Co., Inc., E. I.

DUETTE
 Jensen Mfg. Co.

DULAC
 Maas & Waldstein Co.

DULUX
 de Pont de Nemours & Co., Inc., E. I.

DU-MITTER
 Dumont Laboratories, Inc., Allen B.

DUNCO
 Struthers-Dunn, Inc.

DUO
 J F D Mfg. Co., Inc.

DUO-BAND
 Telex, Inc.

DUOCARB
 Driver Co., Wilbur B.

DUO-CHROME
 Duotone Co., Inc.

DUOCREX
 Horn Co., Inc., A. C.

DUODE
 Beam Instruments Corp.

DUODIAL
 Hniloop Corp.

DUODISC
 Duotone Co., Inc.

DUO-FLEX
 Dumore Co., The

DUOFONIC
 Paraplegics Mfg. Co., Inc.

DUOLITE
 Pittsburgh Plate Glass Co.

DUOLUX
 Masonite Corp.

DU OP
 General Control Company

DU SPECTROPHOTOMETER
 Beckman Instruments, Inc.

DUO-PULSATOR
 Fischer & Co., R. A.

DUO-PULSE
 Automatic Temperature Control Co., Inc.

DUOSCALE
 Tracerlab, Inc.

DUOSEAL
 Welch Scientific Co., W. M.

DUO-SPEED
 Pentron Corp.

DUO-SPEED
 V-M Corp.

DUOSTAT
 Beckman Instruments, Inc.

DUOTAPE
 Duotone Co., Inc.

DUO-TENNA
 Waldom Electronics, Inc.

DUOVOLT
 Carter Motor Co.

DU-O-WAL
 Crown Electronics Corp.

DUPLATE
 Pittsburgh Plate Glass Co.

DUPLEX
 Altec Lansing Corp.

DUPLEXER
 Blonder-Tongue Laboratories, Inc.

DUPLICAN
 Canadian Radium & Uranium Corp.

DUPLO-RECORD
 Duplonat Co. of America.

DUPY
 Inet, Inc.

DURAFLEX
 American Brass Co.

DURAFLEX
 Co-operative Industries, Inc.

DURALINE
 Universal Drafting Machine Corp.

DURALON
 U. S. Stoneware Co.

DURAMEG
 Sprague Electric Co.

DURAMIC
 Aerovox Corp.

DURAMOULD
 Dumont-Airplane & Marine
 Instruments, Inc.

DURANICKEL
 International Nickel Co., Inc.

DURANITE
 Aerovox Corp.

DURATAPE
 Rahm Instruments, Inc.

DURATEX
 Stromberg-Carlson Co.,
 Div. of General Dynamics Corp.

DURISITE
 U. S. Stoneware Co.

DURITE
 Borden Co., Chemical Div.

DURO
 Rogers Corp.

DUROGLASS
 Chicago Dial Co.

DUROTEST
 Dearborn Electronic Laboratories, Inc.

DUROID
 Rogers Corp.

DURPOINT
 Duotone Co., Inc.

DUSTRONIC
 Raden Corp.

DUTCH BOY
 National Lead Co.

DUTCH BRAND
 Johns-Manville

DUTI-RATED
 Focis Brothers Gear & Machine Corp.

DUXSEAL
 Johns-Manville

DUZALL
 CBC Electronics Co., Inc.

DXER
 Eidico of New York, Inc.

D-XER
 JFD Mfg. Co., Inc.

DX MASTERSPEAKERS
 DX Radio Products Co., Inc.

DYEPRINT
 Times Facsimile Corp.

DYKANOL
 Cornell-Dubilier Electric Corp.

DYLAN
 Koppers Co., Inc.

DYLENE
 Koppers Co., Inc.

DYMIN-VANE
 Ward Products Corp., Div.
 The Gabriel Co.

DYNA-CHEK
 Western Gear Corp.
 Electro Products Div.

DYNACO
 Dynamic Gear Co.

DYNACONE
 Lord Mfg. Co.

DYNACORD
 Caliform Corp.

DYNACORD
 Pentron Corp.

DYNAFLUX
 Lear, Inc.

DYNAFOCAL
 Lord Mfg. Co.

DYNAGAGE
 Photocopy Research Products

DYNAGRAPH
 Orady Electronics, Inc.

DYNALOG
 Fagora Co., The

DYNAMASTER
 Bristol Co., The

DYNA-METER
 Industrial Electronics, Inc.

DYNAMIC
 Jackson Electric Instruments Co.

DYNAMIC
 Wright-Zimmerman, Inc.

DYNA-MYKE
 Industrial Electronics, Inc.

DYNAMU
 Maico Co., Inc.

DYNAPOST
 Lear, Inc.

DYNAPRENE
 Whitney Blake Co.

DYNA-Q
 K-W Engineering Works

DYNARAY
 Dormitzer Electric & Mfg. Co., Inc.

DYNASEAL
 Dormitzer Electric & Mfg. Co., Inc.

DYNASET
 Teled. Inc.

DYNASERT
 United Shoe Machinery Corp.

- DYNATHERM
American Diathermy Products, Inc.
- DYNATROPS
Lear, Inc.
- DYNAURAL
Scott, Inc., Herman Hosmer
- DYNAVAR
Allied Products Co.
Hamilton Watch Co.
- DYNETRIC
Gisholt Machine Co.
- DYNETRIC
Westinghouse Electric Corp.
- DYNOGRAPH
Annis Co., R. B.
- DYNOGRAPH
Offner Electronics, Inc.
- DYNOID
McQuay-Norris Mfg. Co.
- DYNO-MITE
Millers Falls Co.
- E A D
Eastern Air Devices, Inc.
- EAI
Electronic Associates, Inc.
- E" NICKEL
The International Nickel Co., Inc.
- EF
Electric Furnace Co.
- E101
Burroughs Corp.
- E-V
Electro Voice, Inc.
- EAGLE BRAND
Felters Co.
- EARSET
Telex, Inc.
- EASE
Berkeley Division, Beckman Instruments, Inc.
- EASTERN
Eastern Industries, Inc.
- EASY-FLO
Handy & Harman
- EASY LISTENER
Mitchell Industries, Inc.
- EASYPRODUCTS
Waldom Electronics Inc.
- EASY-VISION
Hoffman Electronics Corp.
- EBONOL
Enthone, Inc.
- EBROK
Richardson Co., The
- ECCO
Electrovox Co., Inc.
- ECCO
Emerson & Cuming, Inc.
- ECCO
Triad Transformer Corp.
- ECCOFOAM
Emerson & Cuming, Inc.
- ECCOSORB
Emerson & Cuming, Inc.
- ECHO
Fort Wayne Metals Inc.
- ECHOPHONE
Hallcrafters Co.
- ECHO-VOX
Kay Electric Co.
- ECKCO
Eckstein Radio & Television Co.
- ECO
Economy Fuse & Mfg. Co.
- ECONOMASTER
Sonotone Corp.
- ECON-OHM
Model Engineering & Mfg. Inc.
- ECONO-SLIDE
Grant Pulley & Hardware Co.
- ECONOSTAT
Barber-Colman Co.
- ECONO-SWITCH
Centralab Div. of
Globe Union, Inc.
- ECTROMAG
Electronic Processes Corp.
- ECTROTHERM
Electronic Processes Corp.
- EDDYSTONE
Marconi Instruments
- EDGE LIT
Ackerman Engravers
- EDGE OHM
Ward Leonard Electric Co.
- EDIPHONE
Edison, Inc., Thomas A.
- EDIPHONE-TELEDIPHONE
Edison, Inc., Thomas A.
- EDSCORP
Edmund Scientific Corp.
- EEOC
Electronic Engineering Co. of California.
- EEI
Electronic Enterprises Inc.
- EEPCO
Electronic Engineering Products Co.
- EFCON
Electronic Fabricators, Inc.
- EGYPTIAN TIP
Mitchell Industries, Inc.
- EI
Electrical Industries, Inc.
- EICO
Electronic Instrument Co., Inc.
- EIGHT-BALL
Ward Products Corp.,
Div. of The Gabriel Co.
- EILEX
Electro Engineering Works
- EILEX
Electro Impulse Labs.
- EIMAC
Eitel-McCullough, Inc.
- EKOMATIC
Laboratoire Industriel de
Physique Applique.
- EKOTAPE
Webster Electric Co.
- EKTAR
Eastman Kodak Co.
- EKTRON
Eastman Kodak Co.
- EL
Electrons, Inc.
- ELASTICABLE
Mutual Electronic Industries Corp.
- ELASTOBOND
Paisley Products, Inc.
- ELASTOMER
Kelllogg Co., M. W.
- ELASTRON
Industrial Synthetics Corp.
- ELC
Armco Steel Corp.
- ELCOFONE
Loral Electronics Corp.
- ELDEC
Electro Development Co.
- ELECOM
Electronic Computer Div.,
Underwood Corp.
- ELECOTONE
Northeastern Engineering, Inc.
- ELECTOUNITE
Republic Steel Corp.
- ELECTRACER
Special Products Co.
- ELECTRALOY
Circon Component Co.
- ELECTREX
Gorrell & Gorrell
- ELECTRICA
Arnhold Ceramics, Inc.
- ELECTRICORD
Pacific Electriccord Company
- ELECTRITE
West Virginia Pulp & Paper Co.
- ELECTRIX
U. S. Rubber Co.
- ELECTRO-BOND
Woodwelding, Inc.
- ELECTROC
Sprague Electric Co.
- ELECTRO-CAL
Industrial Electronics, Inc.
- ELECTROCAM
Westinghouse Electric Corp.
- ELECTRO-CHEMICAL
Electrovox Co., Inc.
- ELECTRO-CLUTCH
I-T-E Circuit Breaker Co.
- ELECTRO CORDER
Electron Enterprises.
- ELECTROEJECT
Southwest Products, Inc.
- ELECTROFLO
Hays Mfg. Co.
- ELECTRO-FLOW
Super Flow Solder Co., Inc.
- ELECTRO-GLOW
Industrial Devices, Inc.
- ELECTRO GRAPHIC
Precise Measurements Co.
- ELECTRO-LARYNX
Aurex Corp.
- ELECTROLIMIT
Pratt & Whitney.
- ELECTROLINK
Lear, Inc.
- ELECTROLYTIC
Astron Corp.
- ELECTROMANOMETER
Sanborn Co.
- ELECTRO-MATIC
Automatic Signal Div.,
Eastern Industries Inc.
- ELECTROMAX
Leeds & Northrup Co.
- ELECTRO-MESURFLO
Hays Mfg. Co.
- ELECTROMET
Electro Metallurgical Co., A Div. of
Union Carbide & Carbon Corp.
- ELECTROMITE
Hays Mfg. Co.
- ELECTRONAMIC
Precision Apparatus Co., Inc.
- ELECTRONHEAT
Resdel Engineering Corporation.
- ELECTRONICAST
Nilsen Mfg. Co.
- ELECTRONIC BUTLER
Miller Electronics
- ELECTRONIC DESIGNS
Yonkers Industries.
- ELECTRONIC EAR
Sonotone Corp.
- ELECTRONIC ESSENTIALS
Aerolite Electronics Corp.
- ELECTRONIC FEATHER
Westinghouse Electric Corp.
- ELECTRONIC LONGHAND
Tel Autograph Corp.
- ELECTRONIC MEMORY
Webster-Chicago Corp.
- ELECTRONIC-MESSENGER
Air Associates, Inc.
- ELECTRONIC SERVANT
Wiegand Mfg. Co.
- ELECTRONIK
Minneapolis-Honeywell Regulator Co.
- ELECTROPLOTTER
Lear, Inc.
- ELECTRO-PROBE
Benson-Lehner Corp.
- ELECTRO-PROBE
Edwood, Inc.
- ELECTROPHOTOMETER
Fisher Scientific Co.
- ELECTROQUIPT
Filtors, Inc.
- ELECTROSCOPE
Feiler Engineering & Mfg. Co.
- ELECTRO-SPAN
Bendix Aviation Corp., Pacific Div.
- ELECTRO-STAT
Annsley Mfg. Corp., Arthur
- ELECTROTESTER
Feiler Engineering & Mfg. Co.
- ELECTROTEMP
Westinghouse Electric Corp.
- ELECTROTYPYER
Benson-Lehner Corp.
- ELECTRO-WIPE
Duotone Co., Inc.
- ELECTROWRITER
Pioneer Electric & Research Corp.
- ELECTROX
Schauer Mfg. Corp.
- ELECTR-O-VANE
Minneapolis-Honeywell Regulator Co.
- ELECTROTUNER
General Instrument Corp.
- ELECTRUNITE
Republic Steel Corp.
- ELEKTRAN
Ward Products Div. of
The Gabriel Co.
- ELEPHANT
Phosphor Bronze Corp.
- ELFURNO
Electric Furnace Co.
- EL GATO
Lewis & Kaufman, Ltd.
- ELGIN-NEOMATIC
Elgin National Watch Co.
- ELIMAG
American Time Products, Inc.
- ELINCO
Electric Indicator Co., Inc.
- ELINVAR
Allied Products Div., Hamilton
Watch Co.
- ELINVAR EXTRA
Allied Products Div.
Hamilton Watch Co.
- ELITE
American Elite, Inc., (Telefunken).
- ELKOLOY
P. R. Mallory & Co., Inc.
- ELKONITE
P. R. Mallory & Co., Inc.
- ELKONIUM
P. R. Mallory & Co., Inc.
- ELLISCO
Ellis & Sons, Inc., George D.
- ELMAC
Multi-Products Co.
- EL MENCOC
Electro Motive Mfg. Co.
- ELMET
North American Phillips Co., Inc.
- EL-TEC
Electronic Protection Inc.
- ELVANOL
du Pont de Nemours & Co., Inc., E. I.
- E-M
Electric Machinery Mfg. Co.
- EM-BED-IT
Electronic Plastics Corp.
- EMBEE
Fairbanks Wire Co., Inc.
- EMC
Electronic Measurements Corp.
- EMC
Howard Industries, Inc.
- EMCOR
Elgin Metalformer Corp.
- EMDECO
Magnetic Devices Corp.
- EMPIRE
Mica Insulator Co.
- EMPIRE
Russell, Burdsall & Ward
Bolt & Nut Co.
- E. N.
Electro-Nite Carbon Co.
- ENAMELITE
Acme Wire Co.
- ENCAPSOR
Alcor Electronics Corp.
- ENCORE
Technical Tape Corp.
- ENDURO
Republic Steel Corp.
- ENDURPRENE
General Insulated Wire Works, Inc.
- ENDOGAS
Westinghouse Electric Corp.
- ENERGIZED
Alpha Metals, Inc.
- ENE-VOLT
Gorrell & Gorrell
- ENGRAVOGRAPH
New Hermes, Inc.
- ENPO
Piqua Machine & Mfg. Co.
- ENRUP
Chicago Die Mold Div of
U. S. Rubber Co.
- ENTHOX
Enthone, Inc.
- ENVOY
Annsley Mfg. Co., Arthur
- EOHITE
U. S. Rubber Co.
- EOON OHM
Tru-Ohrn Products Div., Model
Engineering & Mfg., Inc.
- EOPRENE
U. S. Rubber Co.
- E. P.
Electronic Products Co.
- EPC
Electronic Parts Mfg. Co., Inc.
- EPCO
Etched Products Corp.
- EPCOR
Electronic Products Corp.
- EPINATE
American Printed Circuits Co., Inc.
- EPINATE A
American Printed Circuits Co., Inc.
- EPINATE C-P
American Printed Circuits Co., Inc.
- EPINATE G
American Printed Circuits Co., Inc.
- EPINATE-P
American Printed Circuits Co., Inc.
- EPM
Electronics Parts Mfg. Co., Inc.
- EPIC
Electrical & Physical Instrument Corp.
- EPILATOR
Wappler, Inc.
- EPIPHEN
Borden Co., The, Chemical Div.
- EPLAB
Eppley Lab., Inc., The
- EPOGLAS
Plastilight, Inc.
- EPON
Shell Chemical Corp.
- EPUT
Berkeley Division,
Beckman Instruments, Inc.
- EQUALINE
Entron Inc.
- EQUALOAD
Keystone Carbon Co., Inc.
- EQUAMETER
Gerber Scientific Instrument Co.
- EQUIBAR
Trans-Sonics, Inc.
- ERECTOHM
Workman TV, Inc.
- ERSIN MULTICORE
Multicore Solders Ltd.
- ERX
Hupp Electronics Co., A
Div. of Hupp Corp.
- ESCO
Electric Specialty Co.
- ESCO
Electro Switch Corp.
- ESCON
Electro-Switch & Controls Inc.
- ESICO
Electric Soldering Iron Co.
- ESICO-LUGER
Electric Soldering Iron Co.
- ESNA
Elastic Stop Nut Corp.
- ESNAILS
Elastic Stop Nut Corp.
- ESSAR
Unitronics, Inc.
- ESTAR
Sprague Electric Co.
- ESTOGLAS
Plastilight, Inc.
- ET
Astron Corp.
- ETCO
Electronic Transformer Co., Inc.
- ETERNALLOY
Electro-Lab Processes, Inc.
- ETHOCEL
Dow Chemical Co.
- ETHYLON
Amphenol Electronics Corp.
- ETHOLOC
Weckesser Co.
- ETS-7
Industrial Electronic Engineers
- EUREKA
Morse Co., Frank W.
- EVABRITE
Bache & Co., Semon
- EVALAST
Bache & Co., Semon
- EVANOHM
Driver Co., Wilbur B.
- EVELYN
Rubicon Co.
- EVEN-BREAK
Electric Eye Equipment Co.

EVENRAY
 Fostoria Pressed Steel Corp.
EVERDUR
 American Brass Co.
EVEREADY
 National Carbon Co., Div. of
 Union Carbide & Carbon Corp.
EVERFAST
 Ambroid Co.
EVERLASTING
 Harper Co., The, H. M.
EVERLOCK
 Thompson-Bremer Co.
EVER-LOK
 Russell & Stoll Co., Inc.
EXACTOHHM
 Workman TV, Inc.
EXACT PHOTOCOPIY
 General Photo Products Co.
EXCELLALL
 Frederick Post Co.
EXECUTIVE ADF
 Lear, Inc.
EXIDE
 Electric Storage Battery Co.
EXIDE-IRONCLAD
 Electric Storage Battery Co.
EXIDE-MANCHEX
 Electric Storage Battery Co.
EXPAMET
 British Industries Corp.
EXPLAINETTE
 Dukane Corp.
XPRESS
 Centralab Div. of Globe-Union, Inc.
EYE WITNESS
 Radio Corporation of America
E-Z
 Ideal Industries, Inc.
E-Z
 Pyramid Products Co.
E-Z-CODE
 Westline Products Div. of
 Western Lithograph Co.
E-Z CUE
 Amplifier Corp. of America
E-ZEE-ON
 Indiana Steel Products Co.
EZSOL
 Hudson Wire Co.
FC
 Electro-Mechanical Div. of
 General Riveters, Inc.
F-C-1
 Film Capacitors, Inc.
FM
 Electro-Mechanical Div. of
 General Riveters, Inc.
FABRILITE
 du Pont de Nemours & Co., Inc., E. I.
FACTROL
 Maico Co., Inc.
FAI
 Summers Gyroscope Co.
FAIRPRENE
 du Pont de Nemours & Co., Inc., E. I.
FARADON
 Cornell-Dubilier Electric Corp.
FARATRON
 Lumenite Electric Co.
FARLITE
 Farley & Loetscher Mfg. Co.
FARRADIO
 Wilmar Mfg. Co., Inc.
FASALOY
 Fansteel Metallurgical Corp.
FASTACK
 Paisley Products, Inc.
FASTEE
 Entron, Inc.
FASTELL
 Fansteel Metallurgical Corp.
FASTATCH
 Centralab Div. of Globe-Union, Inc.
FASTEERING
 Central Screw Co.
FASTICK
 Paisley Products, Inc.
FASTOP
 Lear, Inc.
FAST'S
 Koppers Co., Inc.
FATHOMETER
 Raytheon Mfg. Co.
FAX-FILM
 Brush Electronics Co.
FAXIMILE
 Hogan Laboratories, Inc.
FAXPAPER
 Hogan Laboratories, Inc.
FEATHERIDE
 Webster Electric Co.
FEATHERLITE
 Brush Electronics Co.
FEATHERWEIGHT
 Clifford Mfg. Co.
FEATHERWEIGHT
 Goldack Co., Inc., The
FEDCO
 Federal Engineering Co.
FEDERAL RECORDER
 Conr. Ltd., C. G.
FELCO
 Forest Electric Co.
FELCOID
 Felt Products Mfg. Co.
FEL-PAK
 Felt Products Mfg. Co.
FEL-PRO
 Felt Products Mfg. Co.
FENOX
 Bakelite Corp.
FERNETIC
 Perfection Mica Co.
FERRAMIC
 General Ceramics Corp.
FERRI-CHOKE
 Superex Electronics Corp.
FERRI-LOOPSTICK
 Superex Electronics Corp.
FERRIMAG
 Crucible Steel Co. of America.
FERRO-DYNAMIC
 Lear, Inc.
FERROTRON
 Polymer Corp.
FERROVAC-E
 Vacuum Metals Corp.
FIBROID
 Johns-Manville.
FIBERGLAS
 Owen-Corning Fiberglas Corp.
FIBESTOS
 Monsanto Chemical Co.
FIBRACOUSTIC
 Johns-Manville.
FIBRETONE
 Johns-Manville.
FIDELITONE
 Permo, Inc.
FIELD-FONE
 Industrial Radio Corp.
FIL-CAP
 Filtron Co., Inc.
FILMAGNETIC
 Berndt-Bach, Inc., Auricon Div.
FILMGRAPH
 Miles Reproducer Co., Inc.
FILMITE
 Sprague Electric Co.
FILMPOT
 Fairchild Controls Corp.
FILM-X
 Good-All Electric Mfg. Co.
FILPEC
 Centralab Div. of Globe-Union, Inc.
FILPLATE
 Centralab Div. of Globe-Union, Inc.
FILMSCRIBER
 Miles Reproducer Co., Inc.
FILMIC
 Driver-Harris Co.
FILPEC
 Centralab Div. of Globe-Union, Inc.
FILTACOL
 Magnetic Core Corp.
FILT-A-COR
 Magnetic Core Corp.
FILTERETTE
 Tobe Deutschmann Corp.
FILTERMITE
 Tobe Deutschmann Corp.
FILTERNOYS
 Continental Carbon, Inc.
FILTEROL
 Sprague Electric Co.
FILTER POINT
 Duotone Co., Inc.
FILTERS L
 Sprague Electric Co.
FILTERVOLT
 Insuline Corp. of America.
FIL-TRAN
 Vidair Electronics Mfg. Co.
FINCO
 Finney Co.
FINCOR
 Fidelity Instrument Corp.
FINNFLEX
 Finn & Co., Inc., T. R.
FIREBALL
 JFD Mfg. Co., Inc.
FIRE BELLE
 Minneapolis-Honeywell Regulator Co.
FIRE DEVIL
 Littelfuse, Inc.
FIREFLOCK
 Cellusuede Products, Inc.
FIRETRON
 Electronics Corporation of America.
FIREYE
 Electronics Corp. of America.
FIREWALL
 Rockbestos Products Corp.
FIREZONE
 Rockbestos Products Corp.
FISCHERQUARTZ
 Fischer & Co., R. A.
FISCHERSINE
 Fischer & Co., R. A.
FISCHERSOUND
 Fischer & Co., R. A.
FISCHER THERM
 Fischer & Co., R. A.
FISCHER WAVE
 Fischer & Co., R. A.
FISHBONE
 Telrex Inc.
FISHERFONE
 Fisher Research Lab.
5-WAY
 Superior Electric Co., The
FIXTOHM
 Campbell Industries, Inc.
 Sub. of Clarostat Mfg. Co., Inc.
FIXTOHM
 Clarostat Mfg. Co., Inc.
FLAG GRIP
 Aircraft-Marine Products, Inc.
FLAME-O-TROL
 Barber-Colman Co.
FLASH
 Phillips Mfg. Co., Inc.
FLATACK
 Paisley Products Inc.
FLATOHM
 Centralab Div. of Globe-Union, Inc.
FLATWRAP
 Paisley Products Inc.
FLAWMASTER
 Biggs Co., Carl H.
FLEETCOM
 Communications Co., Inc.
FLEET CONTROL
 Hammarlund Mfg. Co.
FLEETWAY
 Connecticut Telephone & Electric Corp.
FLEETWOOD
 Conrac, Inc.
FLEXALL
 Rome Cable Corp.
FLEXLUG
 Frankel Connector Co.
FLEXALL
 Rome Cable Corp.
FLEX-A-POWER
 Trumbull Dept. of General Electric Co.
FLEXGUIDE
 Airtron Inc.
FLEXARC
 Westinghouse Electric Corp.
FLEXFLAT
 Paisley Products Inc.
FLEXIFONE
 Dukane Corp.
FLEXIFORM
 Precision Paper Tube Co.
FLEXIMOUNT
 Insuline Corp. of America.
FLEXISPLICES
 Frankel Connector Co.
FLEXITE
 Markel & Sons, L. Frank.
FLEXITIP
 Weller Mfg. Co.
FLEXI-TROL
 Wilson & Co., G. C.
FLEXLAB
 Standard Electric Time Co.
FLEXLOC
 Standard Pressed Steel Co.
FLEXO
 Copperweld Steel Co.
FLEXO-FLUTE
 Arro Expansion Bolt Co.
FLEXOHHM
 Clarostat Mfg. Co., Inc.
FLEXO-MOLD
 Plastronics
FLEXON
 Flexonics Corp.
FLEXOPULSE
 Eagle Signal Corp.
FLEXO WAX C
 Glyco Products Co., Inc.
FLEX-SEAL
 Bart Laboratories Div. of Bart Mfg.
 Corp.
FLEX-SOK
 Stupakoff Ceramic & Mfg. Co.,
 Div. of The Carborundum Co.
FLEX-STAFF
 Pfanstiehl Chemical Co.
FLEXTACK
 Paisley Products Co.
FLIGHTCOM
 Communications Co., Inc.
FLIGHTWEIGHT
 Bendix Aviation Corp.
FLIMOSEAL
 Telegraph Condenser Co., Ltd.
FLIPON
 Westinghouse Electric Corp.
FLOOD-FLASH
 Photobell Company
FLOSOL
 American Chemical Paint Co.
FLOWMETER
 Hastings Instrument Co.
FLOWRATOR
 Fischer & Porter Co.
FLUORADEX
 Westinghouse Electric Corp.
FLUORETOR
 Menlo Research Laboratory.
FLUOROFLEX
 Resistoflex Corp.
FLUOROFLEX-T
 Resistoflex Corp.
FLUOROSPOT
 Westinghouse Electric Corp.
FLOUROVUE
 Westinghouse Electric Corp.
FLUOROPACK
 Telegraph Condenser Co., Ltd.
FLUSH-LITE
 Littelfuse, Inc.
FLUSHLITE
 Drake Mfg. Co.
FLUTED ELECTRODE
 P. R. Mallory & Co., Inc.
FLUX GATE
 Eclipse-Pioneer Div.
 Bendix Aviation Corp.
FLUX-N-SOLDER
 Johnson Mfg. Co., Inc.
FLUXOL
 Standard Metals Corp.
FLUXRITE
 National Lead Co.
FLUX-STIK
 Lake Chemical Co.
FLUXVALVE
 Pickering & Co.
FLYING ARROW
 Ward Products Corp., Div. of
 The Gabriel Co.
FLYING TYPEWRITER
 Potter Instrument Co., Inc.
FLYWEIGHT MAGNEMITE
 Amplifier Corp. of America
F-MATCH
 Channel Master Co.
F-M-E
 Federal Mfg. & Engineering Corp.
FM-G
 General Controls Co.
F.N.A.
 Paisley Products, Inc.
FOAM LINE
 Plastoid Corp.
FOCALIZER
 Quam Nichols Co.
FONOGRAPHS
 Webster-Chicago Corp.
FOTROL
 General Control Company.
FORASITE
 Reichhold Chemicals, Inc.
FORDMICA
 Ford Radio & Mica Corp.
FORMEX
 General Electric Co.
FORMEZE
 General Cable Corp.
FORM FLEX
 Aircraft Transformer Corp.
FORMULA 21
 Aircraft-Marine Products, Inc.
FORMULA 22
 Aircraft-Marine Products, Inc.
FORMVAR
 General Cable Corp.
FORMVAR
 Acme Wire Co.
FORMVAR
 Phelps Dodge Copper Products Co.
FORTICEL
 Celanese Corp. of America.
FORTISAN
 Celanese Corp. of America.
FORTISSIMO
 PermoFlux Corp.
44
 Kester Solder Co.
"49" ALLOY
 Magnetic Metals Co.
49-1
 Triplett & Barton, Inc.
FOSTERITE
 Westinghouse Electric Corp.
FOTO-FLO
 Haloid Co., The
FOTOELECTRIC
 Wornier Electronic Devices.
FOTOLINE
 California Bent Glass Co.
FOTOLUX
 American Speedlight Corp.
FOTO SOLAR
 National Fabricated Products
 Div. of Hoffman Electronics Corp.
F.P.
 Mallory & Co., Inc., P. R.
FRAHM
 Biddle Co., James C.
FRANKLIN ELECTRONICS
 Precision Electronics, Inc.
FREAS
 Precision Scientific Co.
FREE-CUT INVVAR "36"
 Carpenter Steel Co.
FRED-EISEMAN
 Fairchild Controls Corp.
FREE-VANE
 Bristol Co., The
FREQUEMATIC
 Federal Telephone & Radio Corp.
FRETARAY
 Fretco, Inc.
FRETLINE
 Fretco, Inc.
FRIGISTAT
 Minneapolis-Honeywell Regulator Co.
FRINGE LEADER
 Radio Merchandise Sales, Inc.
FRINGEMASTER
 Radio Merchandise Sales, Inc.
FRINGE MASTER
 Tel-A-Ray Enterprises, Inc.
FROEHLER
 Associated American Trading Division.
FROST
 Chicago Telephone Supply Corp.
FRY'S
 Electrovert Inc.

- FURNATRON**
Westinghouse Electric Corp.
- FUSE-BAR**
Workman TV, Inc.
- FUSELITE**
Alden Products Co.
- FUSES**
Jefferson Electric Co.
- FUSETRON**
Bussmann Mfg. Co.
- FUSIONWELD**
Avon Tube Div.,
Higbie Mfg. Co.
- FUSISTOR**
Bradford Components, Inc.
- FUSTATS**
Bussmann Mfg. Co.
- FUTUREMIC**
Channel Master Co.
- FXR**
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- FYBRGLASS**
Rush Wire Stripper Div.,
Eraser Co., Inc., The
- FYBEROID**
Wilmington Fibre Specialty Co.
- FUZOHHM**
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- GA & F CARBONYL**
Antara Chemicals Div., General Aniline
& Film Corp.
- G-C**
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- G-B JET**
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- G METER**
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- GAINSET**
Kay Electric Co.
- GALVO PROTECTOR**
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- GAMMATRON**
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- GAMMATRON**
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The Robert Dollar Co.
- GANGPOT**
Giannini & Co., Inc., G. M.
- GAP/R**
Philbrick Researches, Inc., George A.
- GARCEAU**
Electro-Medical Lab., Inc.
- GARDINER**
Federated Metals Div., American
Smelting & Refining Co.
- GARDSMAN**
West Instrument Corp.
- GAROD**
The Wilcox-Gay Corp.
- GARRARD**
British Industries Corp.
- GASEAL**
General Hermetic Sealing Corp.
- GASK-O-SEAL**
Wolfe Co., Inc., Franklin C.
- GB**
Goldsmith Bros. Smelting & Refining Co.
- GEARMOTOR**
Motoresearch Co.
- GEDA**
Goodyear Aircraft Corp.
- GEM**
Jefferson Electric Co.
- GEMTENNA**
Tennalab.
- GEN**
Symphony Radio & Television Corp.
- GENALEX**
British Industries Corp.
- GENCAST**
General Plastics Corp.
- GENCOTE**
General Plastics Corp.
- GENEMOTOR**
Carter Motor Co.
- GENERALITIES**
Fostoria Pressed Steel Corp.
- GENESCOPE**
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- GENEVALOC**
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- GEN-RAL**
Muter Co.
- GENTON**
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- GEOCABLE**
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- GEOFORMER**
Triad Transformer Corp.
- GENIE**
Alliance Mfg. Co.
- GEOMETER**
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- GEOTRODE**
Georator Corp.
- GEOVOLTMETER**
Georator Corp.
- GER-HIDE**
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Gering Products, Inc.
- GER-PAK**
Gering Products, Inc.
- G-H**
Girard-Hopkins
- GI**
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- GIBSILOY**
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- G-L**
Gee-Lar Mfg. Co.
- GLASBES**
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- GLAS-GUIDE**
Lee Laboratories, Inc.
- GLASLINE**
Knights Co., James, The.
- GLASOHM**
Clarostat Mfg. Co., Inc.
- GLASSEAL**
Pyramid Electric Co.
- GLASSFLOSS**
Pittsburgh Plate Glass Co.
- GLASS SEALING "42"**
Carpenter Steel Co.
- GLASSMIKE**
Condenser Products Co.
- GLASWELD**
U. S. Plywood Corp.
- GLASWITCH**
Revere Corp. of America
Sub. of Neptune Meter Co.
- GLENNITE**
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- GLENNITE**
Gulton Mfg. Corp.
- GLENNITE**
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- GLIDER**
Shure Brothers
- G-LINE**
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- GLOBAR**
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- GLOBE TROTTER**
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- GLO-DROP**
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- GLO-N-GLO**
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- GLOSSTEX**
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- GLO-TECH**
Fischer & Porter Co.
- GLYCOWAX**
Glyco Products Co., Inc.
- GLYDAG**
Acheson Colloids Co.
- GLYPTAL**
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- GM**
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- GODFREY COMMUNICATOR**
Godfrey Mfg. Co.
- GOETZE**
Johns-Manville.
- GOLD CUP**
Carboneau Industries, Inc.
- GOLD-SEAL**
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- GOLD SHIELD**
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- GOLDEN BEAM**
Motorola, Inc.
- GOLDEN ROTOR**
Channel Master Co.
- GOLDEN THROAT**
Radio Corporation of America.
- GOLDEN VIEW**
Motorola, Inc.
- GOLDEN VOICE**
Motorola, Inc.
- GOLDEN WAND**
Peerless Products Industries
- GOODELL**
Minnesota Electronics Corp.
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- GOTHARD**
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- GRC**
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- GRACOIL**
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- GRADIENT**
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- GRAFOIL**
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- GRAFOLUBE**
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- GRAFOLUX**
Grafo Colloids Corp.
- GRAFO CONCENTRATE**
Grafo Colloids Corp.
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Neosil Products Div. of Rubber
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- GRAFTON**
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- GRA-LAB**
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- GRAMIX**
U. S. Graphite Co. Div. of
The Wicks Corp.
- GRANODINE**
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- GRAPHALLOY**
Graphite Metallizing Corp.
- GRAPHANALOGUE**
Gerber Scientific Instrument Co.
- GRAPHITAR**
U. S. Graphite Co. Div. of
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- GRAPHLON**
Graphite Metallizing Corp.
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- GRAVOFLEX**
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- GREEN BAND**
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- GREENBILT**
Equipment and Service Co.
- GREEN GEM**
Rauland-Borg Corp.
- GREENOHM**
Clarostat Mfg. Co., Inc.
- GREENHOLM JR.**
Clarostat Mfg. Co., Inc.
- GRENZ**
Westinghouse Electric Corp.
- GRIDNIC**
Driver-Harris Co.
- GRIP-HOLD**
JFD Mfg. Co.
- GRIP-POINT**
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Stevens-Walden, Inc.
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Paisley Products, Inc.
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- GROMMES**
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Borden Engineering Co. Div. of
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- RPC**
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- GUDELACE**
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- GUDE-NYLACE**
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Airtron, Inc.
- GYRALINE**
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- GYROPILOT**
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- GYROSTIE**
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- GYROSYN**
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- GYROTRON**
Sperry Gyroscope Co., Div. of
The Sperry Corp.
- H. C. R. ALLOY**
Telegraph Construction &
Maintenance Co., Ltd.
- HHB**
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- HABIRLENE**
Phelps Dodge Copper Products Corp.
- HABIRSHAW**
Phelps Dodge Copper Products Corp.
- HALLOWELL**
Standard Pressed Steel Co.
- HALO**
Haloid Co., The
- HALOBROME**
Haloid Co., The
- HALOWAX**
Union Carbide & Carbon Corp.
- HAM CRYSTALS**
Nebel Lab., R. E.
- HAMILTON**
Allied Products Div.,
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- HAMMERTONE**
Maas & Waldstein Co.
- HAMMETER**
Simpson Electric Co. Div. of
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- HAMSWITCH**
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- HANCOCK**
Manning, Maxwell & Moore, Inc.
- HANDI**
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General Electric Co.
- HANDIE-MICRO-TALKIE**
Motorola Communications &
Electronics, Inc.
- HANDI-GLOW**
Industrial Devices Inc.
- HANDIE TALKIE**
Motorola Communications &
Electronics, Inc.
- HANDY DUTCHMAN**
Aircraft-Marine Products, Inc.
- HANDY-FLUX**
Handy & Harman
- HANDYPAK**
Birnbach Radio Co., Inc.
- HANDYVAR**
Martindale Electric Co.
- HARMIC**
Wall Mfg. Co.
- HARTLEY-TURNER**
Hartley Co., Ltd., H. A.
- HARVEL**
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- HARVEY**
Harvey Wells Electronics, Inc.
- HARVEY**
Peck & Harvey
- HARWOOD**
Avia Products Co.
- HASCROME**
Haynes Stellite Co., Division of
Union Carbide & Carbon Corp.
- HASTELLO**
Haynes Stellite Co., Division of
Union Carbide & Carbon Corp.
- HAYSTELLITE**
Haynes Stellite Co., Division of
Union Carbide & Carbon Corp.
- HAZEGAGE**
Ess Specialty Corp.
- HC**
Nebel Lab., R. E.
- HCCX**
Sprague Electric Co.
- HEAD**
Industrial Electronics, Inc.
- HEATEX**
Acme Wire Co.
- HEATHKIT**
Heath Co.
- HEATZONE**
Rockbestos Products Corp.
- HECO**
Heinemann Electric Co.
- HECTOFAX**
Western Union Telegraph Co.
- HEEMCO**
Hill Electronic Engineering &
Mfg. Co., Inc.
- HEETMOR**
Acme Electric Heating Co.
- HELIAX**
Andrew Corp.
- HELICOP-HUT**
Craig Systems, Inc.
- HELIDEL**
Helipot Corp.
- HELIOFLASH NO. 124**
MacLeod & Hanopol
- HELI-O-LITES**
C. F. Pease Co.
- HELIOS**
Keuffel & Esser Co.
- HELIPULSE**
Helipot Corp.
- HELIX**
Biggs Co., Carl H.
- HERCOCEL A**
Hercules Powder Co., Inc.
- HERCOCEL E**
Hercules Powder Co., Inc.
- HERCULES**
Acromark Co.
- HERCULES**
Rubicon Co.
- HERCULES**
Shure Brothers, Inc.
- HERCULITE**
Pittsburgh Plate Glass Co.
- HERLEC**
Sprague Electric Co.
- HERMATRONIC**
General Hermetic Sealing Corp.
- HERMIFLEX**
Kearfott Co., Inc.
- HERMETICIAN**
Fusite Corp.
- HERMETRONIC KW**
General Hermetic Sealing Corp.
- HERMICO**
Hermetic Seal Products Co.
- HERVEL**
Irvington Varnish & Insulator Div.,
Minnesota Mining & Mfg. Co.
- HEVIMET**
Carboloy Dept. of General Electric Co.
- HEXAMAG**
Ferrocube Corp. of America

HEX-LOK
Boots Aircraft-Nut Corp.
HEX-SCRU
Stronghold Screw Products, Inc.
HEXSEAL
Automatic & Precision Mfg. Co.
HEYCO
Heyman Mfg. Co.
H & H
Arrow-Hart & Hegeman Electric Co.
HI
Holub Industries, Inc.
HI-BALL
Radiart Corp.
HI BRITE
Shannon Luminous Materials Co.
HI-CAPS
Centralab Div., Globe-Union, Inc.
HICO
Hastings Instrument Co., Inc.
HICO-LITE
Hauman Instrument Co.
HI-COR
Alpha Metals, Inc.
HI DRIVE
Specialty Battery Co.
HIDE-AWAY
JFD Mfg. Co., Inc.
HI-DUTY
Schmidt, Inc., Geo. T.
HI-FARAD
Aerovox Corp.
HI-FI
Ampro Corporation
FOAM
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HI-FLUX
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HI-G
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HI-GAIN
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HIGH PERMEABILITY "49"
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Fast & Co., John E.
HIGHWAYMAN
JFD Mfg. Co., Inc.
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Erie Resistor Corp.
HI-KAP
Centralab Div. of Globe-Union, Inc.
HIKONOL
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HILO-LITE
Hauman Instruments Co., Inc.
HI-LOY
Schmidt, Inc., Geo. T.
HI-MAG
P. R. Mallory & Co., Inc.
HI-MEG
Victoreen Instrument Co.
HINJON JR.
Thomas & Betts Co.
HIPERCO
Westinghouse Electric Corp.
HIPERMALLOY
United Transformer Co.
HIPERNIK
Westinghouse Electric Corp.
HIPERSIL
Westinghouse Electric Corp.
HIPOWER
Radiart Corp.
HI-Q
Aerovox Corp.
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Radio Corporation of America
HI STAB
Erie Resistor Corp.
HI-TEMP
Consolidated Wire & Associated Companies.
HI-TEMP
Rockbestos Products Corp.
HI-TEMP
Eastern Precision Resistor Corp.
HI-TEMP
Rome Cable Corp.
HI-TENSION
JFD Mfg. Co., Inc.
HI TRIM
Aerovox Corp.
HI TRONIC
Bliss Electronic Corp.
HI-VAC
High-Vacuum Equipment Corp.
HI-VOLT
Industrial Devices, Inc.
HI-VO-KAPS
Centralab Div. of Globe-Union, Inc.
H-LAB
Harrison Laboratories, Inc.
HOBBY-FLEX
Dumore Co., The
HOKE
Pratt & Whitney Div., Niles-Bement-Pond Co.
HOLD-TITE
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HOLITE
Holyoke Wire & Cable Co.
HOLLYTRAN
Transformer Engineers.
HOLLYWOOD VIBRA-TONE
Fischer & Co., R. A.
HOLMES-ROLLIN
Rollin Co.

HOLTITE
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National Pneumatic Co., Inc.
HOME HEALTH
Waters Conley Co.
HOMEASE
Bogue Electric Mfg. Co.
HOMOSIL
Amersil Co., Inc.
HORNAC
Horn Co., Inc., A. C.
HORNET
New York Transformer Co., Inc.
HORTON
Becker Electronics Mfg. Corp.
HOTSPOT
Mitchell Industries, Inc.
HOUSE OF ABALON PRODUCTS
Abalon Precision Mfg. Corp.
HOUSE OF HEARING
Sonotone Corp.
HOUSE OF RESISTORS
Clarostat Mfg. Co., Inc.
HOWALLOY
Howe International.
HOZ
Eaton Mfg. Co., Reliance Div.
HP
Aerovox Corp.
HP
Hewlett-Packard Co.
H-Q
Hammerlund Mfg. Co.
HRO-60
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HUBBELOCK
Harvey Hubbell, Inc.
HUCKBOLT
Huck Mfg. Co.
HUDCO
Hudson Wire Co.
HUDSON
Oxford Electric Corp.
HUDSON BAY
Tabline Inc.
HUMDINGER
Clarostat Mfg. Co., Inc.
HUMICOIL
Boswer Technical Refrigeration Div., Boswer, Inc.
HUMICON
Standard Telephones & Cables, Ltd.
HUMIDIGRAPH
Bristol Co., The
HUMIDI-SEAL
Pyramid Electric Co.
HUMIDISTAT
Minneapolis-Honeywell Regulator Co.
HUMIDOLAIN
Star Porcelain Co.
HUMIDUSTAT
Minneapolis-Honeywell Regulator Co.
HUMPHREY
Pacific Scientific Co.
HURLETRON
Electric Eye Equipment Co.
HUSHATONE
Brush Electronics Co.
HUSKY
Price Electric Corp.
HYCAR
Goodrich Chemical Co., B. F.
HYDENT
Burndy Engineering Co., Inc.
HYDEX
Jensen Mfg. Co.
HYDI
Jelliff Mfg. Corp., C. O.
HYDRAMOTOR
General Controls Co.
HYDRATUBE
Recora Co.
HYDRAFINED
Magnetic Metals Co.
HYDRIMET
Metal Hydrides, Inc.
HYDROCORDER
Raymond Rosen Engineering Prod., Inc.
HYDROGRAF
Grafo Colloids Corp.
HYDRON
Clifford Mfg. Co.
HYDROPHEN
Reichhold Chemicals, Inc.
HYDROSEC
U. S. Rubber Co.
HYFLEX
Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co.
HYFLUX ALNICO
Indiana Steel Products Company.
HYGRADE
Foote Brothers Gear & Machine Corp.
HYGRADE
Mitchell-Rand Insulation Co., Inc.
HYGRADE
Markel & Sons, L. Frank.
HYGRODIAL
Friez Instrument Div., Bendix Aviation Corp.
HYHERVAC
Central Scientific Co.
HYLINK
Burndy Engineering Co., Inc.
HY LOW
Stevens Products Inc.

HYLUG
Burndy Engineering Co., Inc.
HY-MET
Astron Corp.
HYMU
Magnetic Metals Co.
HYMU "80"
Carpenter Steel Co.
HYPALON
du Pont de Nemours & Co., Inc., E. I.
HYPASS
Sprague Electric Co.
HYPER
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HYPERCORE
Moloney Electric Co.
HYPER-MAG
Radio-Music Corp.
HYPERSONIC
Brush Electronics Co.
HYPERSIL
Westinghouse Electric Corp.
HYPERVAC
Central Scientific Co.
HYPEX
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HYPOT
Associated Research, Inc.
HYPRESS
Burndy Engineering Co., Inc.
HY-PUSS
Sprague Electric Co.
HYRAD
Sequoia Process Corp.
HYREL
Sprague Electric Co.
HYRING
Burndy Engineering Co., Inc.
HSAT
Telegraph Construction & Maintenance Co., Ltd.
HSYSL
Houghton Laboratories, Inc.
HYSPAR
Midland Paint & Varnish Co.
HYSTERSET
Ward Leonard Electric Co.
HYTEMCO
Driver-Harris Co.
HY-THERM
Hopkins Engineering Co.
HYTOOL
Burndy Engineering Co., Inc.
HYTROL
Hydro-Aire, Inc.
HYVAC
Central Scientific Co.
HYVOL
Aerovox Corp.

ICA
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ICE-STIK
Paisley Products, Inc.
I.C.I.
Insulated Circuits, Inc.
ICONIC
Altec Lansing Corp.
IDA
Computer Corp. of America.
I. D. C.
Motorola Inc.
IDEAL
Federal Instrument Corp.,
IDEAL
Melody Master Mfg. Co.
IDEALFONE
Automatic Electric Sales Corp.
IDECO
Dresser-Ideco Co.
IDENTRA
Union Switch & Signal Div. of Westinghouse Air Brake Co.
IHC
Illinois Condenser Co.
IHT
Illinois Condenser Co.
ILLINI-HYCAP
Illinois Condenser Co.
ILLUSTRAVOX
Electro Engineering & Mfg. Co.
I M C
Induction Motors Corp.
IMC
Insulation Manufacturers Corp.
IMCO
Interstate Mfg. Corp.
IMCOR
Insulation Manufacturers Corp.
IMMERSATHERM
Mercoild Corp.
IMMERSCOPE
Electro Circuits, Inc.
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Carter Parts Co.
IMP
Kaar Engineering Corp.
IMP
Pyramid Electric Co.
IMP
Wells & Winegard
IMPEDOMETER
Electrodyne Company
IMPERIAL
Jensen Mfg. Co.
IMPERIAL
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IMPERIAL
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IM-PLAST
Richardson Co., The
IMPREGNITE
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IMPRUVOL
Koppers Co., Inc.
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Bristol Co., The
IN-A-GRIP
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INCAS
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INCELOID
American Products Mfg. Co., Inc.
INCO
International Nickel Co., Inc., The
INCONEL
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International Nickel Co., Inc., The
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INCOSIL
Western Gold & Platinum Works.
INCREDUCTOR
C. G. S. Laboratories, Inc.
INCREVOLT
Sorensen & Co.
INDALLOY
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INDELCO
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INDELI-DENT
Markwik Manufacturing Co., Inc.
INDITRON
National Union Electric Corp.
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INDUCTUNER
Mallory & Co., Inc., P. R.
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Reilly Tar & Chemical Corp.
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Technic Inc.
INDUSTRIAL TELECEIVERS
Industrial Television, Inc.
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INERTAIRE
Westinghouse Electric Corp.
INERTEEN
Westinghouse Electric Corp.
INFERNOCOTE
Wirt Co.
INFRARED
Fostoria Pressed Steel Corp.
IN-LINE
JFD Mfg. Co., Inc.
INMANCO
Insulation Manufacturers Corp.
INMCO
Instrument Motors.
IN-RES-CO
Instrument Resistors Co.
INSA-LUTE
Sauerisen Cements Co.
INSANOL
Westinghouse Electric Corp.
INSL
Instl-X-Co., Inc.
INSPECTOGAGE
Alicar Instruments, Inc.
INSPECTOLITE
Hanovia Chemical & Mfg. Co.
INSTA-FRESH
Cymac Corp., The
INSTAGRAPH
Bristol Co., The
INSTAN-FORM
Tel Autograph Corp.
INSTANSOLDER
Cole Radio Works.
INSTOMATIC
Sanborn Co.
INSULAZED
Magnetic Metals Co.
INSULCON
Stupakoff Ceramic & Mfg. Co., Div. of The Carborundum Co.
INSULITE
Extruders, Inc.
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Johns-Manville.
INSULUGS
Burndy Engineering Co., Inc.
INSUROK
Richardson Co., The
INTELIN
Federal Telephone & Radio Co., a Div. of IT&T.
INTERCEPTOR
Wells & Winegard
INTERCHEMICAL
Precision Scientific Co.

INTERLINK
 Federal Telephone & Radio Co., a Div. of IT&T.

INTERLOCK
 Harvey Hubbell, Inc.

INTERMATIC
 International Register Co.

INTERNATIONAL
 Colortone Electronics, Inc.

INTERVERTER
 Interelectronics Corp.

INTRAFAX
 Western Union Telegraph Co.

INTREX
 Interelectronics Corp.

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 Harvey-Wells Electronics, Inc.

INVAR
 Telegraph Construction & Maintenance Co., Ltd.

INVAR "36"
 Carpenter Steel Co.

INVERTRON
 Behlman Engineering Co.

IONAC
 Permutit Co.

IONIC
 Scientific Electric Corp.

IONOTRON
 U. S. Radium Corp.

IPI ISOFOAM
 Iscoyante Products, Inc.

IRG
 International Resistance Co.

IRD
 International Research & Development Corp.

IRESCO RELAY SYSTEM
 International Research Associates.

IRIS
 American Scientific Co.

IRISH
 Orradio Industries, Inc.

IRN
 Williams & Co., C. K.

IROUOIS
 Sangamo Electric Co.

IRADIOMETERS
 Sensitive Research Instrument Co.

IRY-O-LITE
 Irvington Varnish & Insulator Div. of Minnesota Wiring & Mfg. Co.

IRV-O-VOLT
 Irvington Varnish & Insulator Co. Div. of Minnesota Mining & Mfg. Co.

ISATRON
 Consolidated Engineering Corp.

ISO
 Isolantite Manufacturing Corp.

ISOGLAS
 Natvar Corp.

ISOMICA
 Mica Insulator Co.

ISOMODE
 M B Mfg. Co.

ISOPHASE
 Pickering & Company

ISOPHON
 Arnbold Ceramics, Inc.

ISOPLANE
 Motorola Communications & Electronics, Inc.

ISO-Q
 Isolantite Mfg. Corp.

ISO-Q
 Motorola, Inc.

ISOTRON
 Nuclear Instrument & Chemical Corp.

IT
 Illinois Condenser Co.

ITECO
 Industrial Test Equipment Co.

ITELITE
 I-T-E Circuit Breaker Co.

IVIFLEX
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co.

IVITHENE
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co.

IXL
 Collyer Insulated Wire Co.

J-S-C
 Jersey Specialty Co.

J-CAP
 Jeffers Electronics Div. of Speer Carbon Co.

J P CAPACITOR
 Jeffers Electronics Div. of Speer Carbon Co.

JACKNIFE
 Radio Merchandise Sales

JACKSON
 Vulcan Electric Co.

JACO
 Jarrell-Ash Co.

JAGABI
 Biddle Co., James G.

JAINCO
 Jacobs Instrument Co.

JAINCOMP
 Jacobs Instrument Co.

JAY-BEE-TEE
 J-B-T Instruments, Inc.

JECO
 Jarvis Electronics Corp.

JERKIT
 Litteifuse Inc.

JET
 Carbonneau Industries, Inc.

JETCAL
 Howell Instrument Co.

JETENNA
 JFD Mfg. Co., Inc.

JETFLEX
 Cook Electric Co.

JET FLUX
 All-State Welding Alloys Co., Inc.

JET-HELIX
 JFD Mfg. Co., Inc.

JETIE
 J F D Mfg. Co., Inc.

JETLINE
 Carbonneau Industries, Inc.

JET-LOK
 Boots Aircraft Nut Corp.

JETOMIC
 J F D Mfg. Co., Inc.

JET PROBE
 Workman TV, Inc.

JEFFY-TITE
 Millen Mfg. Co.

JK
 Knights Co., James.

J-M
 Johns-Manville.

J. M.
 Paisley Products, Inc.

JOHNCRANE
 Crane Packing Co.

JOLTA
 Jan Hardware Mfg. Co., Inc.

JOMANCO
 Johns-Manville.

J.S.C.
 Jersey Specialty Co., Inc.

J-TRAN
 General Instrument Corp.

JUMBO
 JFD Mfg. Co., Inc.

J-W
 Johnson-Williams, Ltd.

JUPITER GUM
 Paisley Products, Inc.

J-W SNIFFER
 Johnson-Williams, Ltd.

K 42 B
 Westinghouse Electric Corp.

"K" MONEL
 International Nickel Co., Inc., The

"KR" MONEL
 International Nickel Co., Inc., The

KAHL
 Chemalloy Electronics Corp.

KALOTRON
 Thermosen, Inc.

KALWOOD
 Keller Products Co.

KANTARK
 Trico Fuse Mfg. Co.

KANTLINK
 Positive Lock Washer Co.

KANT-LINK
 American Nut & Bolt Fastener Co.

KANTLINK
 Eaton Mfg. Co.

KAPPA
 Wrights & Sons Co., William E.

KARADIO
 Eckstein Radio & Television Co.

KARAK
 Ohio Carbon Co.

KARBOMET
 Driver-Harris Co.

KARMA
 Driver Harris Co.

KARROPAK
 Felt Products Mfg. Co.

KASIL
 Philadelphia Quartz Co.

KATOLIGHT
 Kato Engineering Co.

KAYGREY
 Rogers Corp.

KAYPAR
 Rogers Corp.

KAYROK
 Rogers Corp.

KEI
 Kurman Electric Co., Inc.

KEL-F
 Electronic Mechanics, Inc.

KEL-F
 Kellogg Co., M. W.

KELLERFLEX
 Pratt & Whitney Div., Niles-Bennett-Pond Co.

KELLER POLYGRAPH
 Associated Research, Inc.

KELON
 Shamban & Co., W. S.

KEMET
 Union Carbide & Carbon Co.

KEMFUZE
 Bel Fuse, Inc.

KEMGO
 Markem Machine Co.

KEMISTOR
 Bel Fuse, Inc.

KENCO
 Kenwood Engineering Co., Inc.

KENEX
 Westinghouse Electric Corp.

KENITE
 Keystone Electronics Corp.

KEN-RAD
 General Electric Co.

KEPS
 Eaton Mfg. Co., Reliance Div.

KEPS
 Shakeproof Div., Illinois Tool Works.

KERATYM
 Horn Co., Inc., A. C.

KETAY
 Norden-Ketay Corp.

KETOS
 Crucible Steel Co. of America

KEYBOARD
 Weinschel Engineering Co.

KEYDSWEEP
 Kay Electric Co.

KEYNUNCIATOR
 Power Equipment Co.

KIC
 Union Carbide & Carbon Corp.

K-H
 Krohn-Hite Instrument Co.

KILO-Q
 Kay Electric Co.

KILO-SWEEP
 Kay Electric Co.

KILOVOLTER
 Caddell-Burns Mfg. Co.

KIN-EX
 Vidair Electronics Mfg. Co.

KINE-LITE
 Vidair Electronics Mfg. Co.

KINEPLEX
 Collins Radio Co.

KINE-TEST
 Vidair Electronics Mfg. Co.

KING MARKWELL
 Markem Machine Co.

KIRKSITE
 National Lead Co.

KLAMP-TITE
 I-T-E Circuit Breaker Co.

KLEEN'R
 Conrac, Inc.

KLEEN-SWEEP
 Duotone Co., Inc.

KLEER-IT
 Superex Electronics Corp.

KLEER-PAK
 Sprague Electric Co.

KLEIN-KOAT
 Klein & Sons, Mathias

KLIPOK
 Trico Fuse Mfg. Co.

KLIPXIT
 Vaco Products Co.

KLIPZON
 United Technical Laboratories.

KLIXON
 Spencer Thermostat Div., Metals & Controls Corp.

K-LOC
 Erie Resistor Corp.

KLOZURE
 Garlock Packing Co.

KLYDONOGRAPH
 Westinghouse Electric Corp.

KME
 Kaiser Manufacturing Engineers, Inc.

KNEADED
 Eberhard Faber Pencil Co.

KNIGHT
 Allied Radio Corp.

KNOCKOMETER
 Sperry Gyroscope Co., Div. of The Sperry Corp.

KNOLINK
 Eaton Mfg. Co., Reliance Div.

KNOPP
 Electrical Facilities, Inc.

KNURL-TITE
 Chase Mfg. Co.

KODAGRAPH
 Eastman Kodak Co.

KODAK
 Eastman Kodak Co.

KODAPAK
 Eastman Kodak Co.

KODIFIER
 Markwik Manufacturing Co., Inc.

KOHINOOR
 Waldes Kohinoor, Inc.

KOILED KORD
 Kellogg Switchboard & Supply Co.

KOLD-PAK
 Tenney Engineering, Inc.

KOLORDISK
 Centralab Div., Globe Union Inc.

KONAL
 Westinghouse Electric Corp.

KON-NEC-TOR
 General Electric Co.

KOOL KLAMPS
 Birtcher Corp.

KOOLOHM
 Sprague Electric Co.

KOOL-SEL
 Pyramid Electric Co.

KOTAK
 Amperite Co., Inc.

KOTOL
 U. S. Rubber Co.

KOVAR
 Stupakoff Ceramic & Mfg. Co. Div. of The Carborundum Co.

KOVAR
 Westinghouse Electric Corp.

KOVAR-ZIP
 Waldes Kohinoor, Inc.

KRECO
 Kreckman, Herb.

KRENE
 Bakelite Co., A Div. of Union Carbide & Carbon Corp.

KRISTON
 Goodrich Chemical Co., B. F.

KROME KOAT
 General Cement Mfg. Co.

KRYSTAL KOAT
 General Cement Mfg. Co.

K-TRAN
 General Instrument Corp.

KUPEC
 Centralab Div., Globe Union, Inc.

KULGRID
 Sylvania Electric Products, Inc.

KUM-KLEEN
 Avery Adhesive Label Corp.

KURMELEC
 Kurman Electric Co., Inc.

K-V-O
 Sprague Electric Co.

K-VOLT STANDARD
 Avien, Inc.

K/W
 Kaiser Aluminum & Chemical Sales, Inc.

KWIKFLUX
 Special Chemicals Co.

KWIK-KALL
 Loge Sound Engineers, J. M.

KWIK-TEST
 Sprague Electric Co.

"L" NICKEL
 International Nickel Co., Inc.

LB
 Louis Bros.

L-2 AUTOPILOT
 Lear, Inc.

LAB-BILT
 Specialty Battery Co.

LABCASE
 Berkshire Laboratories

LABCHECK
 Berkshire Laboratories

LABMARKER
 Berkshire Laboratories

LABMASTER
 General Nuclear Corp.

LABOHM
 Berkshire Laboratories

LABPEAK
 Berkshire Laboratories

LABRECT
 Berkshire Laboratories

LABSTROBE
 Berkshire Laboratories

LABTEST
 Berkshire Laboratories

LABSTRANS
 Berkshire Laboratories

LABVAR
 Berkshire Laboratories

LABVOLT
 Berkshire Laboratories

LABVOLT
 Electrodyne Co.

LACKON
 Sun Dial Corp.

LACKON
 U. S. Radium Corp.

LA-CO FLUXES
 Lake Chemical Co.

LACQUER-STIK
 Lake Chemical Co.

LADDER LINE
 Illumitronic Engineering.

LAMCO
 La Magna Mfg. Co., Inc.

LAMICOID
 Mica Insulator Co.

LAMICOID
 Insulating Fabricators, Inc.

LAMICORES
 Magnetic Metals Co.

LAMINAC
 American Cynamid Co.

LAMIPACKS
 Magnetic Metals Co.

LAMITEX
 Franklin Fibre-Lamitex Corp.

LAPMASTER
 Crane Packing Co.

LARGO
 Permoflux Corp.

LAUBSCHER
 American Laubscher Corp.

LAURETT
 Laurehk Radio Mfg. Co.

LAUXEIN
 Monsanto Chemical Co.

LAUXITE
 Monsanto Chemical Co.

LAVA
 Kirchberger & Co., Inc., M.

LAVA
 Maryland Lava Co.

LAVITE
 Steward Mfg. Co., D. M.

LAVOLAIN
 Star Porcelain Co.

- LAYTEX
U. S. Rubber Co.
- LAZY-X
Radiart Corp.
- L-C CHECKER
Aerovox Corp.
- LEAD CUTTER
Design Tool Corp.
- LEAD FORMER
Design Tool Corp.
- LEAD-STRAIGHTENER
Design Tool Corp.
- LEAK
British Industries Corp.
- LEARADIO
Lear, Inc.
- LEARAVIAN
Lear, Inc.
- LEARMATIC
Lear, Inc.
- LEARSTAR
Lear, Inc.
- LEARSTEER
Lear, Inc.
- LEARSYN
Lear, Inc.
- LEARTRAN
Lear, Inc.
- LEATHAFLEX
Paisley Products, Inc.
- LECTROFLASH
Telegraph Condenser Co., Ltd.
- LECTRO-CLAD
Bart Laboratories Div. of
Bart Mfg. Corp.
- LECTROFILTER
Pittsburgh Lectrodryer Co.
- LECTRO-FORMED
Bart Laboratories, Div. of
Bart Mfg. Corp.
- LECTROPACK
Telegraph Condenser Co., Ltd.
- LECTROVISION
Transvision, Inc.
- LECTURN
J. M. Loge Sound Engineers.
- LEDEX
Leland, Inc., G. H.
- LEE-PAC
Lee Laboratories, Inc.
- LEESONA
Universal Winding Co.
- LEETRONICS
Lee Spring Co.
- L-F
Liebel-Flarsheim Co.
- LEKTRO
Conn., Ltd., C. G.
- LE-LAND
Leland Electric Co.
- LENSCOTE
Metavac, Inc.
- LEROY
Keuffel & Esser Co.
- LEVEL
White Rodgers Electric Co.
- LEVELRATOR
Fischer & Porter Co.
- LEVERPAK
Continental Can Co., Inc.
- LGP-30
Librascope, Inc.
- LIFE-LINE
Westinghouse Electric Corp.
- LIFE SAVER
Cole Radio Works.
- LIFETIME
Reeves Soundcraft Corp.
- LIFETONE
Duotone Co., Inc.
- LIGHT WATCHMAN
Ripley Co., Inc.
- LIGHTING
Vaco Products Co.
- LIGHTNING BUG
Vibroflex Co., Inc.
- LIGHTNING SENTRY
J. F. D. Mfg. Co., Inc.
- LIGNA-SWEEP
Kay Electric Co.
- LIGNOTITE
Paisley Products, Inc.
- LIGNOTOX
Paisley Products, Inc.
- LIMITEMP
Westinghouse Electric Corp.
- LIMITROL
Barber-Colman Co.
- LIMITRON
American Bosch Arms Corp.
- LINAGRAPH
Eastman Kodak Co.
- LIN-DE
Linde Air Products Co.
Unit of Union Carbide & Carbon Corp.
- LINDOX
Linde Air Products Co.
Unit of Union Carbide & Carbon Corp.
- LINEAR STANDARD
United Transformer Co.
- LINEARSYN
Control Components Co.
- LINEATOR
Airborne Accessories, Inc.
- LINE-LOK
I. E. Manufacturing
- LINE-O-FLO
Barber-Colman Co.
- LINE-O-LIFE
Carter Motor Co.
- LINE-O-METER
Simpson Electric Co. Div. of
American Gage & Machine Co.
- LINE-O-POWER
Foote Brothers Gear & Machine Corp.
- LINE STARTER
Westinghouse Electric Corp.
- LINE-TITE
Paul & Stein Bros., Inc., F. H.
- LINICON
United Condenser Corp.
- LINIOMETER
Bourns Laboratories.
- LINIPOT
Benson-Lehner Corp.
- LINK-LOCK
Simmons Fastener Corp.
- LINVAR
Muirhead & Co., Ltd.
- LION
Southco Division, South Chester
Corp.
- LIPSTIK
Altec Lansing Corp.
- LITE-GAGE
Photocon Research Products.
- LITE-O-STAT
Viewlex, Inc.
- LITHALOID
Haloid Co., The
- LITHOFAX
Western Union Telegraph Co.
- LITHOFORM
American Chemical Paint Co.
- LITTLE DEVIL
Ohmite Mfg. Co.
- LITTLEPHONE
Hallcrafters Co.
- LITTLE GEM
Sickles Co., F. W. Div. General
Instrument Corp.
- LITTLE GIANT
Crucible Steel Co. of America.
- LITTLE GIANT
JFD Mfg. Co., Inc.
- LITTLE MAJOR
Arro Expansion Bolt Co.
- LITTL-LYTIC
Sprague Electric Co.
- LIVERMONT
Richmont, Inc.
- LLOYD'S
Johnson Mfg. Co., Inc.
- LOABOND
Catalin Corp. of America.
- LOADALARM
Brinnel Company, The
- LOADED-X
Radiart Corp., The
- LOALIN
Catalin Corp. of America
- LO-C
Eastern Precision Resistor Corp.
- LOCALITE
Fostoria Pressed Steel Corp.
- LOCKFOAM
Nopco Chemical Co.
- LOCKNUT
Klincher Locknut Corp.
- LOCK-ON
J. E. Manufacturing
- LOCK-O-SEAL
Wolfe Co., Inc., Franklin C.
- LOCKSEAM
Superior Tube Co.
- LOCK-TITE
Continental Screw Co.
- LOCK-TITE
Thomas & Betts Co.
- LOFYLD
Millivac Instrument Corp.
- LOGATEN
Kay-Lab, Inc.
- LOGE LECTERN
Loge Sound Engineers, J. M.
- LOGGER
Audio Instrument Co., Inc.
- LOGIBLOC
Computer Control Co., Inc.
- LOGIPAC
Computer Control Co., Inc.
- LOGRINC
Logistics Research Co., Inc.
- LOHM
Driver-Harris Co.
- LOKUTS
Shakeproof Div. of Illinois Tool Works.
- LOMU
Magnetic Metals Co.
- LONG LIFE
Marathon Battery Co.
- LONG RANGER
Ward Products Corp. Div. of
The Gabriel Co.
- LO-OHM
Bradford Components, Inc.
- LO-OHM
Workman TV, Inc.
- LOOPHM
Ward Leonard Electric Co.
- LOOPSTICK
Superelex Electronics Corp.
- LOTEMP
Mico Instrument Co.
- LOS GATOS
Lewis & Kaufman, Ltd.
- LO-VOLT
Industrial Devices, Inc.
- LOXIT
Scovill Mfg. Co.
- L. P.
Hickok Electrical Instruments Co.
- L-R
Ripley Co., Inc.
- L'TATRO
Eckstein Radio & Television Co.
- LUCERO
Driver-Harris Co.
- LUCITE
du Pont de Nemours & Co., Inc., E. I.
- LUCKY STRIKE
Precision Radiation Instruments, Inc.
- LUDOX
du Pont de Nemours & Co., Inc., E. I.
- LUG-CLIP
Littelfuse, Inc.
- LUMISCRIP
Epic, Inc.
- LUXIDE
Celanese Corp. of America.
- LUMARITH
Celanese Corp. of America.
- LUMATROL
Micro Balancing, Inc.
- LUMETRON
Photovolt Corp.
- LUSTERIZED
American Electric Cable Co.
- LUSTERLAC
American Electric Cable Co.
- LUSTREX
Monsanto Chemical Co.
- LUSTROM
Monsanto Chemical Co.
- LUXAN
Rauland Corp.
- LUXIFLUX
Special Chemicals Co.
- LUXOLENE
Deluxe Collis, Inc.
- LUXTAR
Viewlex, Inc.
- LUXTRON
Bradley Labs., Inc.
- LVSYN
Control Components Co.
- LYN-A-SYN
Minatron Corp.
- LYNN
Vaco Products Co.
- LYONS
Boulin Instrument Corp.
- LYRIC
Rauland-Borg Corp.
- LYTICAP
Planet Mfg. Corp.
- LYTRON
Monsanto Chemical Co.
- MC-126
Specific Products.
- M-C-R-W-S
Stevens Mfg. Co., Inc.
- M-10
Hudson American Corp.
- M-15
Hudson American Corp.
- M-20
Hudson American Corp.
- M-24
Hudson American Corp.
- MACADIE
British Industries Corp.
- MAESTRO
Reeves Soundcraft Corp.
- MAGATAPE
Crestwood Recorder Co.
- MAGIC CIRCLE
A.R.F. Products, Inc.
- MAGIC-HAND
Peerless Photo Products, Inc.
- MAGICORE
Crowley & Co., Inc., Henry L.
- MAGICORES
Crowley & Co., Inc., Henry L.
- MAGIC MIRROR
Pacific Universal Products Corp.
- MAGIC RIBBON
Brush Electronics Co.
- MAGIC TIPS
Hunter Tool Co.
- MAGIC WAND
Ward Products Corp.
Div. of The Gabriel Co.
- MAGIFLEX
Transradio, Ltd.
- MAGMOTOR
Carter Motor Co.
- MAG-NAC
Magnetic Devices, Inc.
- MAGNA-DIE
Whistler & Sons, Inc., S. B.
- MAGNADUR
Ferroxcube Corp. of America.
- MAGNAPHONIC
Magnasync Manufacturing Co.
- MAGNASHIELD
Perfection Mica Co.
- MAGNA-STRIPE
Reeves Soundcraft Corp.
- MAGNATELE
Electro Engineering & Mfg. Co.
- MAGNATONE
Magna Electronics Co.
- MAGNATORC
Hansen Mfg. Co., Inc.
- MAGNAVOLT
Inet Div. of Leach Corp.
- MAGNEBRAKE
Vickers, Inc.
- MAGNECLUTCH
Vickers, Inc.
- MAGNECORDER
Magnecord, Inc.
- MAGNECORDETTE
Magnecord, Inc.
- MAGNEDISC
Texas Instruments, Inc.
- MAGNEFILE
Electronics Corporation of America.
- MAGNEFLUX
Lear, Inc.
- MAGNELOOP
Amplifier Corp. of America.
- MAGNETMATIC
Amplifier Corp. of America.
- MAGNEMITE
Amplifier Corp. of America.
- MAGNEMUSE
Amplifier Corp. of America.
- MAGNE MUSIC
Magnecord, Inc.
- MAGNEPAINT
Micro-Circuits Co.
- MAGNEPASTE
Micro-Circuits Co.
- MAGNERAMA
Amplifier Corp. of America.
- MAGNERASER
Amplifier Corp. of America.
- MAGNERIBBON
Amplifier Corp. of America.
- MAGNESCOPE
Amplifier Corp. of America.
- MAGNESIL
Magnetics, Inc.
- MAGNASPEED
Magnetic Amplifiers, Inc.
- MAGNESTAT
Magnetic Research Corp.
- MAGNESYN
Eclipse-Pioneer Div.
Bendix Aviation Corp.
- MAGNETAPE
Amplifier Corp. of America.
- MAGNETER
Airpax Products Co.
- MAGNETEX
Callitone Corp.
- MAGNETONE
Brush Electronics Co.
- MAGNETORQUE
Avion Instrument Corp.
Div. of American Car & Foundry Co.
- MAGNETREATER
Radio Frequency Labs., Inc.
- MAGNETRONIC
Cook Electric Co.
- MAGNETRONIC
Teleregister Corp.
- MAGNETTE
Heinemann Electric Co.
- MAGNETWIN
Amplifier Corp. of America.
- MAGNILASTIC
Cook Electric Co.
- MAGNISET
Bristol Co., Inc.
- MAGNISTOR
Potter Instrument Co., Inc.
- MAGNITYPER
Potter Instrument Co., Inc.
- MAGNIVOLT
Inet, Inc.
- MAGNI-WHIRL
Blue M Electric Co.
- MAGNO
Driver-Harris Co.
- MAGNOGRAPH
Offner Electronics, Inc.
- MAGNORITE
Norton Co.
- MAGSEAL
Glennal & Co., Inc., G. M.
- MAIL-A-VOICE
Brush Electronics Co.
- MAILTENNAS
Insuline Corp. of America.
- MAJESTIC
Garod Radio Corp.
- MALLOCENE
Mallory & Co., Inc., P. R.
- MALLOSIL
P. R. Mallory & Co., Inc.
- MALLOTTRON
Mallory & Co., Inc., P. R.
- MALTESE
Bache & Co., Semon.
- MAMCO
Master Appliance Mfg. Co.
- MANGRID
Driver Co., Willbur B.
- MANHATTAN
Raybestos-Manhattan, Inc.
- MANU-MATIC
Kato Engineering Co.
- MAPICO
Columbian Carbon Co.
- MARBELITE
CBC Electronics Co., Inc.
- MARBELITE
Good-All Electric Mfg. Co.

MARCO
Celanese Corp. of America.

MARCOL
Esso Standard Oil Co.

MARCONITE
Marconi Wireless Telegraph Co., Ltd.

MARI-GUIDE
Bludworth Marine Div.,
National-Simplex-Bludworth, Inc.

MARINE ARROW
Bludworth Marine Div.,
National-Simplex-Bludworth, Inc.

MARINE PILOT
Bludworth Marine Div.,
National-Simplex-Bludworth, Inc.

MARINER
Hudson American Corp.

MARINER
JFD Mfg. Co., Inc.

MARINERS PATHFINDER
Raytheon Mfg. Co.

MARK 1
Technical Devices Co.

MARK-TIME
Rhodes, Inc., M. H.

MARKA-SWEEP
Kay Electric Co.

MARK-N-COUNT
May Engineering Co.

MARKER-PULSER
Brubaker Mfg. Co., Inc.

MARKER-SWEEPER
Brubaker Mfg. Co., Inc.

MARKLAD
Markite Corp.

MARK TWAIN
Raytheon Mfg. Co.

MARKSMAN
West Instrument Corp.

MARS
Staedtler, Inc., J. S.

MARS-LUMOGRAPH
Staedtler, Inc., J. S.

MARVELCO
National Aircraft Corp.

MASCO
Simpson Mfg. Co., Inc., Mark.

MASS
Massachusetts Gear & Tool Co.

MASTERCRAFT
F & M Sales, Inc.

MASTERLOUIT
Kellogg Switchboard & Supply Co.

MASTER MARINER
Hudson American Corp.

MASTER MET
Cannon-Muskegon Corp.

MASTERPHONE
Kellogg Switchboard & Supply Co.

MASTER-PRECISION
Doelcam Div. of Minneapolis-
Honeywell Regulator Co.

MASTERPRO
Rek-O-Kut Co.

MASTERTAPE
Audio-Master Corp.

MAVERICK
Channel Master Co.

MAXIMAR
X-Ray Dept. of General Electric Co.

MAXI-POWER
Foote Brothers Gear & Machine Corp.

MAXISERVICE
X-Ray Dept. of General Electric Co.

MAXISCOPE
X-Ray Dept. of General Electric Co.

MAXITONE
Maico Co., Inc.

MAXEVICK
Channel Master Co.

MAX MIXER
Special Products Co.

M. B. C.
Ray-O-Vac Co.

MC-504SLL
Photocon Research Products

MC-505AS
Photocon Research Products

MCA
Molding Corp. of America

MEASURAY
Sheffield Corp., The

MEASURTEST
Marconi Instruments Ltd.

MECATORN
Torngren Co., Inc., C. W.

MECATORN-SPYN
Torngren Co., Inc., C. W.

MECHA
Servomechanisms, Inc.

MECHANI-SEAL
Fafnir Bearing Co.

MECHANOPHASE
Electro-Voice, Inc.

MEDALIST
Marion Electrical Instrument Co.

MEDIQUARTZ
Dallons Labs.

MEDISCANNER
NRD Instrument Co.

MEDI-SINE
Dallons Labs.

MEDI-SONAR
Dallons Labs.

MEDI-SURGICAL
Dallons Labs.

MEDITHERM
Dallons Labs.

MEGA-CHARTS
Kay Electric Co.

MEGADIAL
Avonex Electronics Corp.

MEGALUME
Nems-Clark, Inc.

MEGA-MARKER
Kay Electric Co.

MEGA-MATCH
Kay Electric Co.

MEGA-NODE
Kay Electric Co.

MEGA-PIPPER
Kay Electric Co.

MEGA-PIX
Kay Electric Co.

MEGA-PULSER
Kay Electric Co.

MEGA-SWEEP
Kay Electric Co.

MEGALIGNER
Kay Electric Co.

MEGALYZER
Kay Electric Co.

MEGALYZER JR.
Kay Electric Co.

MEGASTYRENE
Transradio, Ltd.

MEGATENNA
Kay Electric Co.

MEGAVAC
Central Scientific Co.

MEGA-X
Kay Electric Co.

MEGGER
Biddle Co., James G.

MEG-METER
Winslow Co., Inc., The.

MEGA-MARKER SR.
Kay Electric Co.

MEGOHMER
Sticht Co., Inc., Herman H.

MEG-O-MAX
Sprague Electric Co.

MEGOSTAT
Sprague Electric Co.

MEGOT
General Hermetic Sealing Corp.

MEK
Machinery Electrification Inc.

MEL
Measurement Engineering, Ltd.

MELACON
Photocircuits Corp.

MELCOAT
Melpar, Inc.

MELCOR
Melpar, Inc.

MELLOTONE
Electron Enterprises

MELMAC
American Cyanamid Co.

MELODIER
Waters Conley Co.

MELODIST
Altec Lansing Corp.

MELODY MIKE
Audio Equipment Co., Inc.

MELPAK
Melpar, Inc.

MEMOBELT
Dictaphone Corp.

MEMOSCOPE
Millvac Instrument Corp.

MEMOSTAT
Minnesota Electronics Corp.

MEMOTRON
Hughes Products Division,
Hughes Aircraft Co.

MENLOLAB
Menlo Research Laboratory.

MERC-O-SEAL
Mercury Contacts, Inc.

MERCTRON
Ebert Electronics Corp.

MERCU-TROL
Mack Electrical Devices, Inc.

MERCURY
Electro-Voice, Inc.

MERCURY
Kemlite Labs.

MERCURY
Vulcan Electric Co.

MERCURYSTAT
Westinghouse Electric Corp.

MERITONE
American Laubscher Corp.

MERITONE
Autocrat Electronics Co.

MERITONE
American Laubscher Corp.

MERITONE-LAUBSCHER
American Laubscher Corp.

MERITUNE
Polytech Devices, Inc.

MERL
Miller Research Laboratories

MERLIN
Mohawk Electronic Research Labs., Inc.

MERLON
Monsanto Chemical Co.

MESSAGE REPEATER
Mohawk Business Machines Corp.

MESSAGE REPEATER JR
Mohawk Business Machines Corp.

MESURFLO
Hays Mfg. Co.

META-BASAL PORTABLE
Electro-Physical Laboratories, Inc.

METAGRAPHIC
Bristol Co., The

METAL-CAL
C & H Supply Co.

METALLIZED
Astron Corp.

METAL MIKE
Sperry Gyroscope Co.
Div. of the Sperry Corp.

METAL SHIELD WIRE
Uniform Tubes

METALASTIC
Cook Electric Co.

METALBOSS
Telegraph Condenser Co., Ltd.

METALCLAD
Burgess Battery Co.

METALITE
Astron Corp.

METALIX
North American Philips Co., Inc.

METALMITE
Telegraph Condenser Co., Ltd.

METALPACK
Telegraph Condenser Co., Ltd.

METALSEAL
Brush Electronics Co.

METAMETER
Bristol Co., The

METAPHONE
Bristol Co., The

METAPLATING
Metaplast Process, Inc.

METAVANE
Bristol Co., The

METCLAD
I-T-E Circuit Breaker Co.

METEOR
Associated American Trading Division.

METEOR
Astron Corp.

METER-MATIC
Leitch Engineering Corp.

METERMATIC
International Register Co.

METERMAX
Leeds & Northrup Co.

METEROL
Automatic Temperature Control Co.

METEX
Metal Textile Corp.

METL-CAN
Pyramid Electric Co.

MET-L-FLEX
Robinson Aviation, Inc.

METLOHM
Litton Industries.

METRIX
American Metrix Corp.

METRO-LITE
Viewlex, Inc.

METROPOLITON
Radion Corp.

ME-ROSCOPE
Photocon Research Products.

METROTHERM
General Controls Co.

METSO
Philadelphia Quartz Co.

MEX
U. S. Graphite Co., Div. of
The Wickes Corp.

MEXACOTE
U. S. Graphite Co., Div. of
The Wickes Corp.

MEXALLOY
U. S. Graphite Co., Div. of
The Wickes Corp.

MEXATOP
U. S. Graphite Co., Div. of
The Wickes Corp.

MEXICAN
U. S. Graphite Co., Div. of
The Wickes Corp.

MEXITE BRIQUETTES
U. S. Graphite Co., Div. of
The Wickes Corp.

MIC
Molded Insulation Co.

MICABOND
Continental-Diamond Fibre Div. of
The Budd Co.

MICADISC
Telegraph Condenser Co., Ltd.

MICAFIL
Cosa Corp.

MICA-GLAS
National Electric Coll Co.

MICANITE
Mica Insulator Co.

MICARTA
Westinghouse Electric Corp.

MICO
Mica Insulator Co.

MICRELAY
Ebert Electronics Corp.

MICRO
Minneapolis-Honeywell Regulator Co.

MICRO
New Hampshire Ball Bearings, Inc.

MICROACT
Bristol Co., The

MICRO-CAL
Cubic Corp.

MICROCAST
Austen Laboratories, Inc.,
Microcast Div.

MICROCEIVER
Doelcam Div. of Minneapolis-
Honeywell Regulator Co.

MICRO CIRCLE
Precise Measurements Co.

MICROCLUTCH
Magtrol, Inc.

MICROCORES
Magnetic Metals Co.

MICRODIAL
Borg Equipment Div.
The George W. Borg Corp.

MICRODRILL
Teletronics Laboratory, Inc.

MICRODUAL
Transradio, Ltd.

MICRODYNE
Audak Co.

MICROFINISH
American Silver Co., Inc.

MICROFLASH
General Radio Co.

MICROFLEX
Eagle Signal Corp.

MICROFUSION
Cook Laboratories

MICROGAP
Shure Brothers, Inc.

MICROLATOR
Kay Electric Co.

MICROLINE
Sperry Gyroscope Co., Div. of
The Sperry Rand Corp.

MICROLITE
LOF Glass Fibers Co.

MICROLLON
DeMornay-Bonardi, Inc.

MICROLTER
Kay Electric Co.

MICROLYTIC
Micamold Electronics Mfg. Corp.

MICROMAG
Magnetic Research Corp.

MICROMATCH
Jones Electronics Co., Inc., M. C.

MICROMAX
Leeds & Northrup Co.

MICRO-MIKER
Kay-Lab, Inc.

MICROMITE
Telegraph Condenser Co., Ltd.

MICROMOTORS
Redmond Co., Inc.

MICRONAIRE
Raytheon Mfg. Co.

MICRO-NAMIC
Micro Balancing, Inc.

MICROPACK
Telegraph Condenser Co., Ltd.

MICROPADS
Telewave Labs., Inc.

MICROPAINT
Micro-Circuits Co.

MICROPOINT
Duotone Co., Inc.

MICROPOSITIONER
Barber-Colman Co.

MICROPOT
Borg Equipment Div.,
George W. Borg Corp.

MICRO-PROCESSED
Instrument Specialties Co., Inc.

MICRO-PULSER
Kay Electric Co.

MICRO-RELAY
Terado Co.

MICROSEN
Manning, Maxwell & Moore, Inc.

MICRO-SET MANOSTAT
Precision Scientific Co.

MICROSIL
Magnetic Metals Co.

MICROTEMP
Transistor Products, Inc.

MICROTESTERS
Simpson Electric Co. Div.,
American Gage & Machine Co.

MICROTHERM
Barber-Colman Co.

MICROTHERM
Raytheon Mfg. Co.

MICROTORQUE
Giannini & Co., Inc., G. M.

MICROTROL
Airborne Instruments Lab., Inc.

MICRO-TROLLER
Westinghouse Electric Corp.

MICROTOMIC
Eberhard Faber Pencil Co.

MICROVAC
Stokes Machine Co., F. J.

MICROVOLT
Ferris Instrument Co.

MICROWALL
Rex Corp.

MID
Hudson American Corp.

MIDDLESEX
Bogen Co., Inc., David

MIDGET
Sprague Electric Co.

MIDGETALK
Simpson Mfg. Co., Inc., Mark

MIDGETAPE
Mohawk Business Machines Corp.

MIDGTESTER
Simpson Electric Co., Div. of
American Gage & Machine Co.

MIDGETROL
Mallory & Co., Inc., P. R.

MIDGI-LYTIC
Standard Condenser Co.

MIDJET
Electro Devices Co., Inc.

MIDOHM
Driver-Harris Co.

MIDWAY
Cardwell Mfg. Corp., Allen D.

MIGHTY MITE
Mechanical Industries Production Co.

MJAKON
Fast & Co., John E.

MIKASUB
Fast & Co., John E.

MIKE
Cornell-Dubilier Electric Corp.

MIK-O-METER
Sprague Electric Co.

MILCAPS
Dumont-Airplane & Marine Instruments, Inc.

MILCO
Miller Mfg. Co., M. A.

MIL-LINE
Radell Corp.

MILLISADIC
Consolidated Electrodynamics Corp.

MILLISEC
Stevens-Arnold, Inc.

MILLISU
Stevens-Arnold, Inc.

MILOMATIC
Wilton Tool Mfg. Co.

MILWAUKEE WROT
Wrought Washer Mfg. Co.

MILWROT
Wrought Washer Mfg. Co.

MINALITE
Westinghouse Electric Corp.

MINATROL
Westinghouse Electric Corp.

MIN-CAPS
Centralab Div., Globe-Union, Inc.

MINE-A-PHONE
Stromberg-Carlson Co.,
Div. of General Dynamics Corp.

MINIAC
Marchant Research, Inc.
Sub. of Marchant Calculators, Inc.

MINI-AMP
Industrial Devices, Inc.

MINI-BEAMS
Telrex, Inc.

MINIBOX
Bud Radio, Inc.

MINI-CHOKE
Superex Electronics Corp.

MINI-CHOPPER
Servomechanisms, Inc.

MINICUBE
Sanders Associates, Inc.

MINIGANG
Giannini & Co., Inc., G. M.

MINI-GATOR
Mueller Electric Co.

MINIGRAIN
American Silver Co., Inc.

MINIGRAPH
Westinghouse Electric Corp.

MINI-LINE
Bailey Meter Co.

MINI-MAX
National Carbon Division,
Union Carbide & Carbon Corp.

MINI-MIKE
Telrex, Inc.

MINIMITE
Astron Corp.

MINI-NOISE
Microdot, Inc.

MINI-OHM
Sprague Electric Co.

MINIPAK
Radio Specialty Mfg. Co.

MINIRELAY
Ebert Electronics Corp.

MINISCALER
Atomic Instrument Co.

MINISEL
Electronic Devices, Inc.,
Precision Rectifier Div.

MINI-SHIELD
Staver Co., Inc.

MINI-SIGNAL
Premier Crystal Labs., Inc.

MINI-SPRING
Staver Co., Inc.

MINITAPE
Stancil-Hoffman Corp.

MINITORQUE
Giannini & Co., Inc., G. M.

MINI-VOLT
Industrial Devices, Inc.

MIN-KAPS
Centralab Div. of Globe-Union, Inc.

MINSUA
Keuffel & Esser Co.

MINUTE MAN
Ward Products Corp.,
Div. of The Gabriel Co.

MIP
Amphenol Electronics Corp.

MIRACLE-X
Good-All Electric Mfg. Co.

MIRADO
Eagle Pencil Co.

MIRAGLAS
Mitchell-Rand Insulation Co., Inc.

MIRALITE
Mitchell-Rand Insulation Co., Inc.

MIRALLOY
Texas Instruments, Inc.

MIROC
Mitchell-Rand Insulation Co., Inc.

MIROPOINT
Duotone Co., Inc.

MIRROSCOPE
Simpson Electric Co., Div.,
American Gage & Machine Co.

MI-TEE RAY
Fretco Inc.

MIX-N-WHIP
Howard Industries, Inc.

M. L. S.
Paisley Products, Inc.

M M M
Midwest Molding & Manufacturing Co.

MOBILFONE
Mobile Electronics Mfg. Co.

MOBIL-MIKE
Electro-Voice, Inc.

MOBILTONE
Mobil Electronics Mfg. Co.

MODIFIED HILO
Driver Co., Wilbur B.

MODUFLOW
Minneapolis-Honeywell Regulator Co.

MODULE
ACF Electronics

MODULINE
Sprague Electric Co.

MODULITE
Berndt-Bach, Inc.

MODULITE
Electronic Control Corp.

MODUTROL
Minneapolis-Honeywell Regulator Co.

MODUTRONIC
Bill Jack Scientific Instrument Co.

MODU-WAVE
Sciaky Bros., Inc.

MOHICAN
Sangamo Electric Co.

MOISTEMP
Rockbestos Products Corp.

MOLARC
Mole-Richardson Co.

MOLDARTA
Westinghouse Electric Corp.

MOLDEX
Neosil Products Div. of Rubber Associates, Inc.

MOLDITE
National Moldite Co.

MOLDLOCK
American Brass Co.

MOLDTEX
Racon Electric Co.

MOLDTITE
United Condenser Corp.

MOLECULE SQUEEZER
Robinette Co., W. C.

MONARCH
Birmingham Sound Reproducers Ltd.

MONEL
International Nickel Co., Inc.

MONISEAL
Magnetic Metals Co.

MONISEAL "444"
Carpenter Steel Co.

MONITORADIO
Radio Apparatus Corp.

MON-KEY
Electric Eye Equipment Co.

MONOBAR
Tibbetts Industries, Inc.

MONOBLOC
Winchester Electronics Co.

MONOCELL
Fortiphone Ltd.

MONOCOIL
Kupfrian Mfg. Co.

MONODRUM
Gorrell & Gorrell

MONOLYTHIC
Sprague Electric Co.

MONOMATIC
Pentron Corp.

MONOMOTORS
Redmond Co., Inc.

MONO-PAC
Beltone Hearing Aid Co.

MONOPLEX
Shure Brothers, Inc.

MONOSET
Bristol Co., The.

MONOSET
Telex, Inc.

MONOSTRIP EP
Mona Industries, Inc.

MONOTUBE
Tuttle & Kiff

MORSE EUREKA
Morse Co., Frank W.

MOTO-MAGS
Keystone Products Co.

MOTO-MITE
Globe Industries, Inc.

MOTORLITE
Ward Leonard Electric Co.

MOTOR WATCHMAN
Westinghouse Electric Corp.

MOT-O-TROL
Westinghouse Electric Corp.

MOTRON
Robinette Co., W. C.

MPB
Miniature Precision Bearings, Inc.

M-R-C
Marlin-Rockwell Corp.

MSRD
Menlo Research Laboratory.

M-SCOPE
Fisher Research Lab.

MU
Acro Mfg. Co.

MUCHROHM
Magnetic Metals Co.

MUFAX
Muirhead & Co., Ltd.

MUGWUMP
Radio Merchandise Sales, Inc.

MULLARD
International Electronics Corp.

MUL-TEL
Brach Mfg. Corp.

MULTI-ANALYST
Electronic Instrument Co., Inc.

MULTICARDIOTRON
Electro-Physical Labs.

MULTI-CELL
Shielding, Inc.

MULTICON
Standard Electronics Corp.

MULTICORE
British Industries Corp.

MULTICOUNTER
Atomic Instrument Co.

MULTI-ELMAC
Multi-Products Co.

MULTIFLEX
Eagle Signal Corp.

MULTI-GATE
Hammarlund Mfg. Co.

MULTI-LOW-RANGE
Dillon & Co., Inc., W. C.

MULTI-MASTER
Precision Apparatus Co., Inc.

MULTIMET
Haynes Stellite Co., Division of
Union Carbide & Carbon Corp.

MULTIMETER
Rawson Electrical Instrument Co.

MULTIPAC
Dubrow Development Co.

MULTIPLANE
Lord Mfg. Co.

MULTIPOT
Ford Engineering Co.

MULTIPOWER
E. A. Myers & Sons.

MULTI-PULSER
Kay Electric Co.

MULTI-RECTIFIER
Green Electric Co., Inc.

MULTISCALER
Atomic Instrument Co.

MULTISCOPE
Acme Teletronix Div.
Nea Service Inc.

MULTISOURCE
Applied Research Labs.

MULTI-SPEED
Pentron Corp.

MULTI-SWAGE
Bead Chain Mfg. Co.

MULTITROL
Ward Leonard Electric Co.

MULTI-VENT
Pyle-National Co.

MULTIVIDEO
Industrial Television, Inc.

MULTIVISION
Industrial Television, Inc.

MULTIVOLT
Ohmite Mfg. Co.

MULTRON
Avion Instrument Corp., Div. of
American Car & Foundry Co.

MUL-TV
Jerold Electronics Corp.

MUMETAL
Telegraph Construction &
Maintenance Co., Ltd.

MU NET
Sickles, F. W. Div.
General Instrument Corp.

M-UNIT
Gorrell & Gorrell

MURFAX
Muirhead & Co., Ltd.

MUROSCOPE
Simpson Electric Co. Div. of
American Gage & Machine Co.

MUSIC LOVER
Shure Brothers, Inc.

MUSIC MASTER
M. P. Engineering Co.

MUSIC MASTER
Sonic Industries, Inc.

MUSIKING
Symphony Radio & Television Corp.

MUSITRON
Waters Conley Co., Inc.

MUTED-STYLUS
Shure Brothers, Inc.

MVR
Sorensen & Co., Inc.

M/W GAIN SET
Kay Electric Co.

MYERS LABELSTIK
Ellis & Sons, Inc., George D.

MYKAPLAST
United Condenser Corp.

MYKE-A-TROL
Industrial Electronics, Inc.

MYKROY
Electronic Mechanics, Inc.

MYLAR
du Pont de Nemours & Co., Inc.,
E. I.

NPC
Nucleonic Products Co.

NS
National Semiconductor Products
Div of Hoffman Electronics Corp.

NA-ALD
Alden Products Co.

NAFLI
Lear, Inc.

NALCO
National Lead Co.

NALCO
North American Electric Lamp Co.

NAMCO
National Acme Co.

NAPSEAL
Johns-Manville

NARCO
National Aeronautical Corp.

NARCO OMNIGATOR
National Aeronautical Corp.

NARCO OMNIOHOMER
National Aeronautical Corp.

NARCO SAPPHIRE
National Aeronautical Corp.

NARCO SIMPLEXER
National Aeronautical Corp.

NARCOIL
NRC Equipment Corp.

NALCOBRITE
North American Electric Lamp Co.

NARESCOIL
NRC Equipment Corp.

NARL
North American Research Labs., Inc.

NARLINER
NRC Equipment Corp.

NASAT
Westinghouse Electric Corp.

NATCO
National Tel-Tronics Corp.

NATFAB
National Fabricated Products
Div. of Hoffman Electronics Corp.

NATIONAL
Valco Mfg. Co.

NATITE 150
National Ceramic Co.

NAUGAHYDE
U. S. Rubber Co.

NAVAJO
Sangamo Electric Co.

NAVAREE
Videon Electronic Corp.

NAVASEAL
Johns-Manville

N-CAP
Eastern Precision Resistor Corp.

NEBROC
Hitemp Wires, Inc.

NEG'ATOR
Hunter Spring Co.

NELCO
Chemical Products Corp.

NEOLAC
U. S. Stoneware Co.

NEMCO
National Electronic Mfg. Corp.

NEO-CURK
Auburn Mfg. Co.

NEOFLOW
Peerless Photo Products, Inc.

NEOLAY
U. S. Rubber Co.

NE-O-LITE
General Cement Mfg. Co.

NEOMITE
Elgin National Watch Co.,
Electronics Div.

NEOTEL
General Cable Corp.

NEPCO
National Electric Products Co.

NEPEC
Centralab Div.,
Globe Union Inc.

NESA
Pittsburgh Plate Glass Co.

NESTIER
Doepke Mfg. Co., Inc., Chas. Wm.

NET
New England Transformer Co.

NETIC
Perfection Mica Co.

NITELIGHTER
Fisher-Pierce Co., Inc., The.

NEUTRASEAL
Cook Electric Co.

NEVA TIP
Radio Merchandise Sales, Inc.

NEVERSLIP
Philadelphia Steel & Wire Corp.

NIXIE
Haydu Brothers Div. of Burroughs Corp.

NEYDIUM
Ney Co., J. M.

NEY-ORO
Ney Co., J. M.

NICAD
Nickel Cadmium Battery Corp.

NIAGRITE-ASBESTOMENT
 Johns-Manville
NICHROME
 Driver-Harris Co.
NICORO
 Western Gold & Platinum Works
NIFER
 Metals & Controls Corp.,
 General Plate Div.
NILSTAIN
 Driver Co., Wilbur B.
NILVAR
 Driver-Harris Co.
999 "PLUS"
 Handy & Harman.
NIORO
 Western Gold & Platinum Works
NIREX
 Driver-Harris Co.
NITE-T-LITE
 Littelfuse, Inc.
NITRATE-ASBESTOMENT
 Johns-Manville.
NITRON
 Monsanto Chemical Co.
NITRONEAL
 Baker & Co., Inc.
NIVAC-P
 Vacuum Metals Corp.
NOARK
 Federal Electric Products Co.
NO-BATT
 Bristol Co., The.
NOBATRON
 Sorensen & Co., Inc.
NOBLELOY
 Continental Carbon, Inc.
NOBLETTE
 Continental Carbon, Inc.
NOBLEWEST
 Noble & Westbrook Mfg. Co.
NOBRUSH
 Georator Corp.
NODRSEAL
 Johns-Manville.
NOFLAME-COR
 Cornish Wire Co.
NOISERASER
 Minnesota Electronics Corp.
NOKORODE
 Dunton Co., M. W.
NO LEAK
 Marathon Battery Co.
NOMU
 Magnetic Metals Co.
NON-LINK
 Positive Lock Washer Co.
NONSTRIP
 Rex Corp., The.
NO-OX
 Walsco Electronics Corp.
NOPOFOAM
 Nopco Chemical Co.
NORBIDE
 Norton Co.
NORDEN
 Norden-Ketay Corp.
NORKO
 Schauer Mfg. Corp.
NORTHAM
 North American Instruments, Inc.
NORELCO
 North American Phillips Co., Inc.
NORPLEX
 Northern Plastics Corp.
NORTHEAST
 Delco Appliance Div.
 General Motors Corp.
NORWOOD
 Control Engineering Corp.
NO SPAT
 Midland Paint & Varnish Co.
NO-TOX
 Electrovox Co., Inc.
NOX-TARNISH
 Daubert Chemical Co.
NTC
 Keystone Carbon Co., Inc.
N. U.
 National Union Electric Corp.
NU-BLAC
 Star Porcelain Co.
NU-BLOK
 United Mfg. & Service Co.
NU BLOK, JR.
 United Mfg. & Service.
NU-BRAZEE
 American Silver Co., Inc.
NU CAP
 Set Screw Mfg. Co.
NUCLEAR-CHICAGO
 Nuclear Instrument & Chemical Corp.
NUCLEOMETER
 Radiation Counter Laboratories, Inc.
NUCLIBADGE
 Nuclear Instrument & Chemical Corp.
NUCLIOMETER
 Detectron Corp., The.
NUCOR
 Nuclear Corp. of America, Inc.
NUMAR
 Nuclear Magnetics Corp.
NUSO
 Esso Standard Oil Co.
NU TIP
 Mallory & Co., Inc., P. R.
NU-TRONIC
 Nuclear-Electronics Corp.

NU-TWIST
 Mallory & Co., Inc., P. R.
NWL
 Nothelfer Winding Labs.
NU-WAY
 Marshall Associates, Inc., John.
NU WRINKLE CAP
 Mallory & Co., Inc., P. R.
NW 25
 Kellogg Co., M. W.
NYFORM
 Acme Wire Co.
NYGRIP
 Weckesser Co.
NYLAFLOW
 Polymer Corp., The
NYLASINT
 Polymer Corp.
NYLATINT
 Polymer Corp.
NYLATRON
 Polymer Corp., The.
NYLAWELD
 Polymer Corp., The
NYLINED
 Thomson Industries, Inc.
NYLOBOND
 Aircraft-Marine Products, Inc.
NYLOCLIP
 Burndy Engineering Co., Inc.
NYLEX
 Boston Insulated Wire & Cable Co.
NYLO-FAST
 Anti-Corrosive Metal Products Co.
NYLON
 du Pont de Nemours & Co., Inc., E. I.
NYLONITE
 Plastic Wire & Cable Corp.
NYLON-ZIP
 Waldes Kohinoor Inc.

101
 Continental Communications, Inc.
110
 Continental Communications, Inc.
OAKWOOD
 Osborn Products.
OBELCOR
 O'Brien Electric Corp.
OBSERVER
 Blonder-Tongue Laboratories, Inc.
OCTOHL
 Eastman Kodak Co.
OFB
 Ortho Filter Corp.
OFHC
 American Metal Co., Ltd.
OHIOH
 Ohio Carbon Co.
OHMAX
 Driver-Harris Co.
OHMOID
 Wilmington Fibre Specialty Co.
OHM-SPUN
 States Co.
OHMSTONE
 Johns-Manville
OLDAG
 Acheson Colloids Co.
OILMITE
 Tobe Deutschmann Corp.
OKLIP
 Burndy Engineering Co., Inc.
OKOBESTOS
 Okonite Co.
OKOGLASS
 Okonite Co.
OKOLENE
 Okonite Co.
OKOLITE
 Okonite Co.
OKOPRENE
 Okonite Co.
OKOSEAL
 Okonite Co.
OMNI-GLOW
 Industrial Devices, Inc.
OMNIMATIC
 Lear, Inc.
OMNIMETER
 Lear, Inc.
OMNIOMETER
 Radiation Counter Laboratories, Inc.
OMNIPACK
 Lear, Inc.
OMNISCOPE
 Lear, Inc.
OMNITENNA
 Lear, Inc.
OMNITENNA
 Tennialab
O-PAC
 Opad Electric Co.
OPALON
 Monsanto Chemical Co.
OPCO
 Onondaga Pottery Works
OPENACTOR
 Jeffers Electronics Div. of
 Speer Carbon Co.
OPTIMATIC
 Minneapolis-Honeywell Regulator Co.
OPTIMIKE
 Instrument Development
 Laboratories, Inc.
OPTO-MATIC
 Trico Fuse Mfg. Co.

OPTOSIL
 Amersil Co., Inc.
ORACLE
 Nuclear Instrument &
 Chemical Corp.
ORATRON
 OMCO
ORENCO
 Ortho Engineering Corp.
ORIENTER
 Lear, Inc.
ORPHEUS
 International Research Associates.
ORIZON
 Monsanto Chemical Co.
ORTHONIK
 Armco Steel Corp.
ORTHONIK
 Westinghouse Electric Corp.
ORTHONOL
 Magnetics, Inc.
ORTHOSIL
 Thomas & Skinner, Inc.
ORYX
 Television Accessories Co.
OSAGE
 Sangamo Electric Co.
OSCAR
 Benson-Lehner Corp.
OSCILLATRON
 Vectron, Inc.
OSCILLO-RECORD
 Fairchild Camera & Instrument Corp.
OSISO
 Westinghouse Electric Corp.
OUNCER
 United Transformer Corp.
OVALTUBE
 Plastoid Corp.
OXYHEMOGRAPH
 Photocon Research Products.
OXWELD
 Linde Air Products Co.
 Unit of Union Carbide & Carbon Corp.
OYLITITE-STIK
 Lake Chemical Co.
OZALID
 General Aniline & Film Corp.
OZAMATIC
 Ozalid Div. General
 Aniline & Film Corp.

P. A.
 Aerovox Corp.
P-A-B-X
 Automatic Electric Sales Corp.
P & B
 Potter & Brumfield.
P-28
 Cook Ceramic Mfg. Co.
PACE
 Electronic Associates, Inc.
PACE
 Precision Apparatus Co., Inc.
PACER
 Sprague Electric Co.
PACE-SETTER
 J F D Mfg. Co., Inc.
PACEMAKER
 Electrodyne Co.
PACIFIC
 Transformer Engineers.
PACITRON
 Simmonds Aeroccessories, Inc.
PACKMASTER
 Radio Specialty Mfg. Co.
PAECO
 Palo Alto Engineering Co.
PAGEMASTER
 Electronic Control Systems, Inc.
PAGEMASTER
 Scantlin Electronics.
PAINSTIKS
 Markal Co.
PAINTON
 British Electronic Sales Co., Inc.
PAISOL
 Paisley Products, Inc.
PAISTEX
 Paisley Products, Inc.
PAISTIC
 Paisley Products, Inc.
PAISTICK
 Paisley Products, Inc.
PAKAP
 Audio Products Corp.
PAK-FONE
 Industrial Radio Corp.
PAL
 J F D Mfg. Co., Inc.
PALINEY
 Ney Co., J. M.
PAL
 Painot Co., Inc.
PAMCO
 Paraplegics Mfg. Co., Inc.
PANADAPTOR
 Panoramic Radio Products, Inc.
PANALYZOR
 Panoramic Radio Products, Inc.
PANARAMA
 JFD Mfg. Co., Inc.
PANARAMIC EXPOSURE SHIELD
 Technical Operations, Inc.
PANDEX
 Westinghouse Electric Corp.
PANDUX
 Pacific Transducer EBG Corp.

PAN-EL
 Pan-Electronics Corp.
PANEL
 Dzus Fastener Co., Inc.
PANELOC
 Scovill Mfg. Co.
PANELYTE
 St. Regis Paper Co.
PAN-I-LITE
 Alden Products Co.
PANORADIO
 Panoramic Radio Products, Inc.
PANDRAMA
 J F D Mfg. Co., Inc.
PANORAMIC
 Radio Merchandise Sales, Inc.
PANORAMOSCOPE
 Panoramic Radio Products, Inc.
PANOSCOPE
 Panoramic Radio Products, Inc.
PANTO
 Preis Engraving Machine Co., H. P.
PAPERITE
 Acme Wire Co.
PARA-CON
 Ward Products Corp.,
 Div. of The Gabriel Co.
PARACORE
 U. S. Rubber Co.
PARA-FLUX
 Radio Music Corp.
PARAFORMED
 Paramount Paper Tube Corp.
PARAGON
 Keuffel & Esser Co.
PARALEAD
 Chester Cable Corp.
PARATEX
 Blocksom & Co.
PAR GYRO
 Summers Gyroscope Co.
PARISIANOID
 Parisian Novelty Co.
A. B. PARKER
 Television Accessories Co.
PARLON
 Hercules Powder Co., Inc.
PARTRIDGE
 British Electronic Sales Co., Inc.
PATHFINDER
 Sangamo Electric Co.
PATRICIAN
 Electro-Voice, Inc.
PATRONIC
 SOS Cinema Supply Corp.
PATTERSON
 du Pont de Nemours & Co., Inc., E. I.
PAWNEE
 Sangamo Electric Co.
PAYOFFPAK
 Continental Can Co., Inc.
P-A-X
 Automatic Electric Sales Corp.
PDCP
 Phelps Dodge Copper Products Co.
P. E. C.
 Centralab Div.
 Globe Union Inc.
P.E.C.
 Precision Electronic Components
 (1956) Ltd.
PEAK-METER
 Control Devices, Inc.
PEAKTROL
 Control Corp.
PECO
 Pacific Electricord Co.
PECO
 Pomona Electronics Co., Inc.
PEDASINE
 Fisher & Co., R. A.
PEDIGREE
 George Co., P. D.
PEE-CEE
 Printed Cellophane Tape Co.
PEERAGE
 Electro-Voice, Inc.
PEERLESS
 Altec Lansing Corp.
PEERLESS
 National Vulcanized Fibre Co.
PEE-CEE
 Printed Cellophane Tape Co.
PEE-WEE
 Mueller Electric Co.
PEG-BOARD
 Butler Mfg. Co., Inc., B. B.
PELLETS
 Tempil Corp.
PEM
 Penn Engineering & Mfg. Corp.
PENACOLITE
 Koppers Co., Inc.
PENDET
 Centralab Div. of
 Globe-Union, Inc.
PENGUIN
 Daniels, Inc., C. R.
PENNROLD
 Penn Precision Products, Inc.
PENNTEMP
 Penn Precision Products, Inc.
PEPCO
 Peerless Electrical Products Div.
 of Altec Lansing Corp.
PERCEPTOSCOPE
 Sonotone Corp.

- PERFECT-O-CUT**
Tablet & Ticket Co.
- PERIDYNAMIC**
Jensen Mfg. Co.
- PERKINS**
Westinghouse Electric Corp.
- PERMA-A-CAPS**
Chicago Condenser Corp.
- PERMACELL**
U. S. Rubber Co.
- PERMA-GRIP**
Avery Adhesive Label Corp.
- PERMADINE**
American Chemical Paint Co.
- PERMAKAY**
Motorola Communications & Electronics, Inc.
- PERMALLOY**
Arnold Engineering Co.
- PERMALLOY**
Standard Telephones & Cables, Ltd.
- PERMA-MOLD**
Randall, Inc., Douglas.
- PERMANICKEL**
International Nickel Co., Inc.
- PERMANITE**
Footo Mineral Co.
- PERMANITE**
I-T-E Circuit Breaker Co.
- PERMA-NUTS**
Tubular Rivet & Stud Co.
- PERMAPAPER**
Sanborn Co.
- PERMAPLAST**
Richardson Co., The
- PERMA-POWER**
General Transformer Corp.
- PERMASEAL**
Sprague Electric Co.
- PERMA-SWITCH**
Centralab Div. of Globe-Union, Inc.
- PERMATAGS**
Actioncraft Products.
- PERMATORQ**
Cambridge Thermionic Corp.
- PERMENDUR**
Arnold Engineering Co.
- PERMENDUR**
Standard Telephone & Cables, Ltd.
- PERMENDUR**
Telegraph Construction & Maintenance Co., Ltd.
- PERMENORM**
Arnold Engineering Co.
- PERMERON**
I-T-E Circuit Breaker Co.
- PERMO**
Fidelitone, Inc.
- PERMO COMPOUNDS**
Hardman Co., Inc., H. V.
- PERMOGRAPH**
Electro-Physical Labs., Inc.
- PERMOHM**
Yonkers Industries
- PERMO-MAGNETIC**
Fidelitone, Inc.
- PERMO-SWITCH**
Centralab Div. of Globe-Union, Inc.
- PESCO**
Borg-Warner Corp.
- PETITE**
Mitchell Industries, Inc.
- PFAN-TONE**
Pfanstiehl Chemical Corp.
- PFAN-WOOD**
Pfanstiehl Chemical Co.
- P-50**
Superior Tube Co.
- PHALOCORD**
Phalo Plastics Corp.
- PHALON**
Phalo Plastics Corp.
- PHANTOM**
Ward Products Corp. Div. of The Gabriel Co.
- PHASATROL**
Mallory & Co., Inc., P. R.
- PHASEFORMER**
Eastern Specialty Co.
- PHAZOR**
Industrial Test Equipment Co.
- PHENOCEL**
Plastilight, Inc.
- PHENOCOTE**
Wirt Co.
- PHENOFLEX**
Dielectric Materials Co.
- PHENOL FIBRE**
Taylor Fibre Co.
- PHENOLITE**
National Vulcanized Fibre Co.
- PHENOWELD**
Hardman Co., Inc., H. V.
- PHILHARMONIC**
Espey Mfg. Co., Inc.
- PHIL-TROL**
Phillips Control Corp.
- PHONOLA**
Waters Conley Co.
- PHONOPHRAGMS**
Magnetic Metals Co.
- PHONOSTROBE**
Berkshire Laboratories.
- PHOS-COPPER**
Westinghouse Electric Corp.
- PHOSTUBE**
All-State Welding Alloys, Co., Inc.
- PHOTOFINISH #4**
Photocircuits Corp.
- PHOTOSWITCH**
Electronics Corporation of America.
- PHOSNIC**
Chase Brass & Copper Co., Inc.
- PHOTACT**
Keuffel & Esser Co.
- PHOTELOMETER**
Central Scientific Co.
- PHOTO-ARC**
Peerless Photo Products
- PHOTO-IT**
Diplomat Co. of America
- PHOTOLINE**
Bruning Co., Inc., Charles
- PHOTOLUX**
Westinghouse Electric Corp.
- PHOTO-MARK PROCESS**
Precision Marking Co.
- PHOTOPHONE**
Radio Corporation of America.
- PHOTO-TROLLER**
Westinghouse Electric Corp.
- PHOTOTRON**
Thomas Electronics, Inc.
- PHOTOTRONIC**
Weston Electrical Instruments Co.
- PHOTOX**
Westinghouse Electric Corp.
- PHOTRONIC**
Weston Electrical Instruments Co.
- PHOZOR**
Industrial Test Equipment Co.
- PICBOOST**
CBC Electronics Co., Inc.
- PICOPACK**
Telegraph Condenser Co., Ltd.
- PIC-SYNC**
Fairchild Recording Equipment Co.
- PICK-A-SHAFT**
Clarostat Mfg. Co., Inc.
- P. I. D.**
Burnell & Co.
- PIEZO-RAY**
Commercial Research Labs., Inc.
- PIG-TAILOR**
Bruno-New York Industries Corp.
- PILOTONE**
Pilot Radio Corp.
- PILOTROL**
Bailey Meter Co.
- PILOSTAT**
Minneapolis-Honeywell Regulator Co.
- PILOTUNER**
Pilot Radio Corp.
- PINCOR**
Pioneer Gen-E-Motor Corporation.
- PINHEAD**
Sprague Electric Co.
- PINK PEARL**
Eberhard Faber Pencil Co.
- PIN-POINTER**
Radio Merchandise Sales, Inc.
- PIONEER**
Bendix Aviation Corp.
- PIONEER**
Chase Mfg. Co.
- PIP**
Heli-Coil Corp.
- PIP-A-ROO**
JFD Mfg. Co., Inc.
- PIPETITE-STIK**
Lake Chemical Co.
- PIP-JET**
JFD Mfg. Co., Inc.
- PIROUETTE**
Presto Recording Corp.
- PISTOGRIP**
Wall Mfg. Co.
- PITLOG**
Pitometer Log Corp.
- PIX-EYE**
Radio Merchandise Sales, Inc.
- PIXIE**
Haydu Brothers Div. of Burroughs Corp.
- PIXIE**
Wells & Winegard
- P-K**
Parker Kalon Division of General American Transportation Corp.
- PL**
Penta Laboratories, Inc.
- PLANOFAX**
Times Facsimilie Corp.
- PLASCAP**
Mallory & Co., Inc., P. R.
- PLASCENE**
Chester Cable Corp.
- PLA-CIR**
Motorola Communications & Electronics, Inc.
- PLASKOIL**
Gramer-Halldorson Transformer Corp.
- PLASKON**
Barrett Div., Allied Chemical & Dye Corp.
- PLASKON**
Libbey-Owens-Ford Glass Co.
- PLAST-ALLOY**
Plastic Metals Div. National Radiator Co.
- PLAST-CORIRON**
Plastic Metals Division The National Radiator Co.
- PLASTACELE**
du Pont de Nemours & Co., Inc., E. I.
- PLASTAPACK**
Telegraph Condenser Co., Ltd.
- PLASTI-BOND**
Aircraft-Marine Products, Inc.
- PLASTICON**
Condenser Products Co.
- PLASTICON**
Plastic Wire & Cable Corp.
- PLASTICORD**
Chester Cable Corp.
- PLASTICORE**
Chester Cable Corp.
- PLASTICOTE**
Chester Cable Corp.
- PLASTIFLEX**
Calresin Corp.
- PLASTI-GRIP**
Aircraft-Marine Products, Inc.
- PLASTI-GROMMETS**
Fastex Div. of Illinois Tool Works
- PLASTIK-707**
United Technical Laboratories.
- PLASTIK-TUL**
Industrial Development & Mfg. Corp.
- PLASTILOKT**
Precision Paper Tube Co.
- PLASTINITE**
Fastex Div. of Illinois Tool Works.
- PLASTIPEEL**
Protective Coatings Corp.
- PLAST-IRON**
Plastics Metals Division National Radiator Co., The
- PLASTI-RINGS**
Fastex Div. of Illinois Tool Works.
- PLASTI-RIVETS**
Fastex Div. of Illinois Tool Works.
- PLASTISEL**
Electronics Devices, Inc., Precision Rectifier Div.
- PLASTI-STOP**
Aircraft-Marine Products, Inc.
- PLASTITE**
Whitney Blake Co.
- PLAST-MAGNETITE**
Plastics Metals Division National Radiator Co., The
- PLAST-MANGANESE**
Plastics Metals Division National Radiator Co., The
- PLAST-NICKEL**
Plastics Metals Division National Radiator Co., The
- PLASTOK**
Richardson Co., The
- PLASTOLYTIC**
Condenser Manufacturers, Inc.
- PLASTO-PAK**
Standard-Toch Chemicals, Inc.
- PLASTRONICS**
Maico Co., Inc.
- PLAST-SILICON**
Plastics Metals Division National Radiator Co., The
- PLAST-SPONGE**
Plastics Metals Division National Radiator Co., The
- PLAST-STEEL**
Plastics Metals Division National Radiator Co., The
- PLASTURBO**
Master Appliance Mfg. Co.
- PLATE-LOK**
Boots Aircraft Nut Co.
- PLATO**
Raytheon Mfg. Co.
- PLAYAL**
Sonotone Corp.
- PLAYBACK**
Reeves Soundcraft Corp.
- PLAYBOY**
Carbonneau Industries, Inc.
- PLAYSALL**
Carbonneau Industries, Inc.
- PLENTI-POWER**
Westinghouse Electric Corp.
- PLEXICON**
Eric Resistor Corp.
- PLIABOOK**
Paisley Products, Inc.
- PLIASTIC**
Paisley Products, Inc.
- PLIATAS**
Paisley Products, Inc.
- PLICA**
Flexhaust Co., The
- PLIOBOND**
Goodyear Tire & Rubber Co.
- PLIOGRIP**
Goodyear Tire & Rubber Co.
- PLIOLITE**
Goodyear Tire & Rubber Co.
- PLIOTHERM**
Goodyear Tire & Rubber Co.
- PLIO-TUF**
Goodyear Tire & Rubber Co.
- PLIOVIC**
Goodyear Tire & Rubber Co.
- PLIOWELD**
Goodyear Tire & Rubber Co.
- PLUG BOTTOMS**
United-Carr Fastener Corp.
- PLUG-IN**
JFD Mfg. Co., Inc.
- PLUG-IN-LINE**
Alden Systems Co.
- PLUGLINES**
Jacobs Instrument Co.
- PLUG-STAT**
Control Products, Inc.
- PLUMBER KRAK-STIK**
Lake Chemical Co.
- PLUS SOUND**
Penron Corp., Inc.
- PLYACIEN**
Reichhold Chemicals, Inc.
- PLYAMINE**
Reichhold Chemicals, Inc.
- PLYAMUL**
Reichhold Chemicals, Inc.
- PLYMASTER**
Rubber & Asbestos Corp.
- PLYMOUTH**
Colortone Electronics, Inc.
- PLYOPHEN**
Reichhold Chemicals, Inc.
- PLYPAK**
Hinde & Dauch
- PLYTUBULAR**
Tennalab
- PM**
Electro-Mechanical Div. of General Riveters, Inc.
- PN**
Brush Electronics Co.
- P-N**
Pyle-National Co.
- PNR**
Rockbestos Products Co.
- POCKETSCOPE**
Waterman Products Co., Inc.
- PODROMETER**
Branson Instruments, Inc.
- POINTARC**
Western Union Telegraph Co.
- POLAROID**
Pioneer Scientific Corp.
- POLAR PATH**
Eclipse-Pioneer Div., Bendix Aviation Corp.
- POLATENNA**
Capehart-Farnsworth Corp.
- POLATRON**
Capehart-Farnsworth Corp.
- POLECTRON**
Antara Chemicals Div., General Aniline & Film Corp.
- POLEX**
Union Plastics Corp.
- POLICARB**
Driver Co., Wilbur B.
- POLICALARM**
Radio Apparatus Corp.
- POLINEAR RECORDER**
Sound Apparatus Co.
- POLYCO**
Borden Co., The, Chemical Div.
- POLYCO**
Polymer Corp., The
- POLYCOUPLER**
C. G. S. Laboratories, Inc.
- POLYFILM**
Extruders, Inc.
- POLYFLEX**
Plax Corp.
- POLYIRON**
Aerovox Corp.
- POLYLITE**
Reichhold Chemicals, Inc.
- POLYMER**
Sylvania Electric Products, Inc.
- POLYOHM**
Polytechnic Research & Development Co., Inc.
- POLY-PEDANCE**
Chicago Standard Transformer Corp.
- POLYPENCO**
Polymer Corp., The
- POLYPHANE**
Technical Tape Corp.
- POLYRANGER**
Sensitive Research Instrument Corp.
- POLYTAPE**
Extruders, Inc.
- POLYTHENE**
du Pont de Nemours & Co., Inc., E. I.
- POLYTHERM**
Dielectric Materials Co.
- POLYVIAL**
Olympic Plastics Co., Inc.
- POLY-VISO**
Sanborn Co.
- POLYWELD**
Amphenol Electronics Corp.
- POLYZOL**
Aircraft-Marine Products, Inc.
- PONOGOMETER**
Technology Instrument Corp.
- POP**
United Shoe Machinery Corp.
- PORTA-FLEXER**
Miskella Infra-Red Co.
- PORTAFONE**
Stewart Warner Electric Div., Stewart-Warner Corp.
- PORT-A-PHONE**
Feiler Engineering & Mfg. Co.
- PORTA-KALL**
Loge Sound Engineers, J. M.
- PORTAPOWER**
Cornell-Dubilier Electric Corp.
- PORTAPOWER**
Electronic Labs., Inc.
- PORTA-POWER**
General Transformer Corp.

PORTENTIOTROL
Barber-Colman Co.

PORTOCO
Taller & Cooper Co.

PORTOMASTER
Peck & Harvey

PORT-O-REEL
Industrial Electrical Works

PORTOVENT
Flexaust Co., The

PORT PILOT
Bludworth Marine Div.,
National-Simplex-Bludworth, Inc.

PORTRAYA
Haloid Co., The

POSI-DRYER
Bar-Ray Products, Inc.

POSI TEMP
Bar-Ray Products, Inc.

POST-LITE
Littelfuse, Inc.

POSTLITE
Drake Mfg. Co.

POTENTIALS
Barber-Colman Co.

POTPOT
Clarostat Mfg. Co., Inc.

POTERMETER
Potter Aeronautical Co.

POWDERMET
Yale & Towne Mfg Co.,
Powdered Metal Products Div.

POWER BOOSTER
McColpin-Christie Corp.

POWERCHARGER
Fox Products Co.

POWEREEL
Industrial Electrical Works

POWERFAC
Schweitzer, Inc., Peter J.

POWER FIREBALL
JFD Mfg. Co., Inc.

POWER-FLEX
Dumore Co., The

POWER HELIX
JFD Mfg. Co., Inc.

POWERMASTER
Hupp Electronics Co.,
A Div. of Hupp Corp.

POWERPILE
Minneapolis-Honeywell Regulator Co.

POWERSEL
Electronic Devices, Inc.,
Precision Rectifier Div.

POWERSPAN
Videon Electronic Corp.

POWERSTAT
Superior Electric Co.

POWER STREAK
American Electric Cable Co.

POWRARM
Wilton Tool Mfg. Co.

POWRMIKE
University Loudspeakers, Inc.

POWR-RIB
Ohmite Mfg. Co.

POWR-PAKT
Alliance Mfg. Co.

PPG
Pittsburgh Plate Glass Co.

PRAMS
Jordan Electronics, Inc.

P.R.C.
Precision Resistor Co.

PRD
Polytechnic Research & Development
Co., Inc.

PRECÉDENT
Radio Engineering Labs., Inc.

PRECEPTRON
Sonotone Corp.

PRECIPITRON
Westinghouse Electric Corp.

PRECISE-OHM
Precision, Inc.

PRECISIONER
Malco Co., Inc.

PRECISION-GAUGED
Precision Products Co.

PRECOP-TIC
Edmund Scientific Corp.

PREDICO
Beam Instruments Corp.

PRE-FAB
Wiegand Co., Edwin L.

PRESWOOD
Masonite Corp.

PRE-FAB
Collins Audio Products Co.

PREGWOOD
Formica Co.

PREMAX
Chisholm-Ryder Co., Inc.

PRESET
Bristol Co., The

PRESS-FIT
Seaelectro Corp.

PRESSITE
West Virginia Pulp & Paper Co.

PRESSOVAC
Central Scientific Co.

PRESSTOP
Brinnell Co., The

PRES-SURE
Buchanan Electrical Products Corp.

PRESSUREGRAPH
Electro Products Labs., Inc.

PRES-SURE-SPLICE
Buchanan Electrical Products Corp.

PRES-SURE-TOOL
Buchanan Electrical Products Co.

PRESSURETROL
Minneapolis-Honeywell Regulator Co.

PRESTEEL
Worcester Pressed Steel Co.

PRESTEST
Miller Mfg. Co., M. A.

PRESTITUTE
Westinghouse Electric Corp.

PREST-O-LITE
Linde Air Products Co.,
Unit of Union Carbide & Carbon Corp.

PREST-O-WELD
Linde Air Products Co.,
Unit of Union Carbide & Carbon Corp.

PRESYN
Infra Electronic Corp.

PRINTMASTER
Ozalid Div.
General Aniline & Film Corp.

PRINTATE
American Printed Circuits Co.

PRINTOHM
Sprague Electric Co.

PRIVATE-EYE
American Photocopy Equipment Co.

PRIVATE EYE
Television Utilities Corp.

PRIVATE LINE
Connecticut Telephone & Electric
Corp.

PRIVATEER
Hudson American Corp.

PRIVATEL
North Electric Co.

PRMCO
Ports Mfg. Co.

PROCESS INK
Markwik Mfg. Co., Inc.

PRODAG
Acheson Colloids Corp.

PRODUCTIMETERS
Durant Manufacturing Co.

PROFESSIONAL
Precision Radiation Instruments, Inc.

PROGAR
Langevin Mfg. Co.

PROKAR
Sprague Electric Co.

PROMATIC
General Control Company

PROMCO
Progressive Mfg. Co.

PROPELLAIR
Robins & Myers, Inc.

PROTECTOGL
Minneapolis-Honeywell Regulator Co.

PROTECTORELAY
Minneapolis-Honeywell Regulator Co.

PROTECTOX
Technic, Inc.

PROTECTRON
Brinnell Company, The

PROTELGAM
North American Phillips Co., Inc.

PROTOMAKA
Printed Electronics Corp.

PROVAC
Electronic Designs, Inc.

PRYSTAL
Catalin Corp. of America
P. S.
Motorola, Inc.

PSI
Pacific Semiconductors, Inc.

PTF
Minnesota Mining & Mfg. Co.

PUEBLO
Sangamo Electric Co.

PULSESCOPE
Waterman Products Co., Inc.

PULSER-SWEEPER
Brubaker Mfg. Co., Inc.

PULSIGNAL
A. R. F. Products, Inc.

PULSITOMETER
Electronic Specialty Co.

PULSOLITE
Electronic Control Corp.

PULTEC
Pulse Techniques, Inc.

PURATONE
Brach Mfg. Corp.

PURETONE
Sonotone Corp.

PURIFIL
Electric Eye Equipment Co.

PUROMATIC
Barnstead Still & Sterilizer Co., Inc.

PUROX
Linde Air Products Co.,
Unit of Union Carbide & Carbon Corp.

PUSH-LOK
Sprague Electric Co.

PUSHNUTS
Palnut Co., Inc.

PUSH-PULL
James Vibrapowr Co.

PWC
Plastic Wire & Cable Corp.

PY-CAPS
Chicago Condenser Corp.

PYGMY
Vulcan Electric Co.

PYLE-O-FLEX
Pyle-National Co.

PYLETS
Pyle-National Co.

PYNACORD
Pentron Corp.

PYRALIN
du Pont de Nemours & Co., Inc., E. I.

PYRANOL
General Electric Co.

PYRA SHELL
Auburn Button Works, Inc.

PYREX
Corning Glass Works

PYROCON
Illinois Testing Labs., Inc.

PYROHM
Aerovox Corp.

PYROLANCE
Illinois Testing Labs., Inc.

PYROMARK
Tempil Corp.

PYROMASTER
Bristol Co., The

PYROMIC
Telegraph Construction &
Maintenance Co., Ltd.

PYROTROL
Bristol Co., The

PYROTRON
Bailey Meter Co.

PYROVAC
Eitel-McCullough, Inc.

PYROVISOR
Bristol Co., The

Q-BESTUN
Auburn Mfg. Co.

Q-GAS
Nuclear Instrument & Chemical Corp.

Q-LACE
Guthman Div. of Essex Wire Corp.

Q-MAX
Communication Products Co., Inc.

Q METER
Boonton Radio Corp.

QM 136
Barrett Varnish Co.

QIKLUG
Burndy Engineering Co., Inc.

QIKTAP
Burndy Engineering Co., Inc.

Q STANDARD
Boonton Radio Corp.

Q-SWEEP
Kay Electric Co.

Q-T
Superex Electronics Corp.

Q. U. A. O.
Beam Instruments Corp.

QUAD-EX
Telrex, Inc.

QUADRALINE
Radio Engineering Labs., Inc.

QUA-REX
Westinghouse Electric Corp.

QUADROINDEX
Westinghouse Electric Corp.

QUANTOGRAPH
Applied Research Labs.

QUANTOMETER
Applied Research Laboratories

QUARTET
Califone Corp.

QUARTZ Q
Millen Mfg. Co., James

QUEEN
Gray Instrument Co.

QUELARC
Pyle-National Co.

QUICK GRIP
Perfection Mica Co.

QUICKLAG
Westinghouse Electric Corp.

QUICK-LOCK
Simmons Fastener Corp.

QUICK-PIVOT
JFD Mfg. Co., Inc.

QUIETONE
Cornell-Dubilier Electric Corp.

QUIK-CALL
Motorola, Inc.

QUIK-CONNECT
Aircraft-Marine Products, Inc.

QUIK-LABEL
Brady Co., W. H.

QUIK-MASKS
Brady Co., W. H.

QUIK-RIG
JFD Mfg. Co., Inc.

QUIK-SHOT
Kemode Mfg. Co., Inc.

QUIK-SIGN
Brady Co., W. H.

QUILON
du Pont de Nemours & Co.,
Inc., E. I.

QUINORGO
Johns-Manville

QUINORGOBORD
Johns-Manville

QUINTENNA
Tennalab

QUINTERRA
Johns-Manville

QUINTETTE
Radio Merchandise Sales, Inc.

QWIK
Amphenol Electronics Corp.

QX CHECKER
Boonton Radio Corp.

R-313
Biggs Co., Carl H.

RR' MONEL
International Nickel Co., Inc., The

RCP
Radio City Products Co., Inc.

RFC
Radio Frequency Co.

RACON BROADBAND
Racon Electric Co.,

RADACOL
Magnetic Core Corp.

RAD-A-COR
Magnetic Core Corp.

RADALIGNER
Kay Electric Co.

RADALYZER
Kay Electric Co.

RADA-PULSER
Kay Electric Co.

RADAIR
Bassett Inc., Rex.

RADALARM
Communications Co., Inc.

RADAMETER
Raytheon Mfg. Co.

RADA-NODE
Kay Electric Co.

RADARANGE
Raytheon Mfg. Co.

RADAR-TENNA
Brach Mfg. Corp.

RADA SWEÉP
Kay Electric Co.

RADAX
Electro-Voice, Inc.

RADAX SUPER
Electro-Voice, Inc.

RADECTOR
Jordan Electronics, Inc.

RADELIN
U. S. Radium Corp.

RADELL
I.D.E.A., Inc.

RADENE
Reed-Curtis Nuclear Industries, Inc.

RADEX
Birnback Radio Co., Inc.

RADEX
Boston Insulated Wire & Cable Co.

RADIAC
Arnhold Ceramics, Inc.

RADI-AIRE
Reynolds Electric Co.

RADIALLOY-TIPPED
Radial Cutter Corp.

RADICOM
Crosby Labs., Inc.

RADIFLOW
Reed-Curtis Nuclear Industries, Inc.

RADIGRAPH
NRD Instrument Co.

RADIMAX
NRD Instrument Co.

RADIOCARB
Driver Co., Wilbur B.

RADIOCRAFTER
Technicraft Co.

RADIOEAR
Myers & Sons, E. A.

RADIOFOCAL
Lord Mfg. Co.

RADIOHM
Driver-Harris Co.

RADIOHM
Centralab Div. of
Globe-Union, Inc.

RADIOLA
Radio Corp. of America.

RADIOMARINE
Radio Corp. of America.

RADIOMETAL
Telegraph Construction &
Maintenance Co., Ltd.

RADIOPAK
Kaar Engineering Co.

RADIO-PILOT
Fisher Research Lab.

RADIOSTAT
Allen-Bradley Co.

RADIOTECHNIC
Peirce Wire Recorder Corp.

RADITHERM
Westinghouse Electric Corp.

RADIOTRON
Radio Corp. of America.

RAFAX
Haller, Raymond & Brown, Inc.

RAKSCOPE
Waterman Products Co., Inc.

RAINBOW
Channel Master Co.

RAINBOW
JFD Mfg. Co., Inc.

RAMS
Jordan Electronics, Inc.

RANAREX
Permutit Co.

RANCHO
Western Insulated Wire Co.

- RANGELUG**
Frankel Connector Co.
- RANGER**
JFD Mfg. Co., Inc.
- RANGER**
Sorensen & Co., Inc.
- RANGER**
Westinghouse Electric Corp.
- RANGERCORD**
Rangertone, Inc.
- RANGEREORDER**
Rangertone, Inc.
- RANGERETTE**
Rangertone, Inc.
- RANGESPLICES**
Frankel Connector Co.
- RANGETAPS**
Frankel Connector Co.
- RATIOTRAN**
Gertsch Products, Inc.
- RATOSIGHTS**
Fisher & Porter Co.
- RATOSLEEVES**
Fisher & Porter Co.
- RATOTRONIC**
Fisher & Porter Co.
- RAYBOULD**
Scovill Manufacturing Co.
- RAYCHRONIX**
Radioactive Products, Inc.
- RAYCHRONOMETER**
Radioactive Products, Inc.
- RAYDIST**
Hastings Instrument Co.
- RAYFUSER**
Radioactive Products, Inc.
- RAYMERSON**
Trumbull Dept. of General Electric Co.
- RAYOFLEX**
Schott Co., Walter L.
- RAYONIC**
Waterman Products Co., Inc.
- RAYOTUBE**
Leeds & Northrup Co.
- RAYPHOTO**
Times Facsimile Corp.
- RAYSONDE**
Friez Instrument Div.,
Bendix Aviation Corp.
- RAYTECTOR**
Miller Associates
- RAYTHERM**
Raytheon Mfg. Co.
- RAYTOMIC**
Atomic Research Corp.
- RAYTRAN**
Raypar, Inc.
- RAY-X**
Raytheon Mfg. Co.
- R B & W**
Russell, Burdsall &
Ward Bolt & Nut Co.
- R/C**
Radio Condenser Co.
- RCA**
Radio Corp. of America.
- RCA VICTOR**
Radio Corp. of America.
- RdF STIKON**
Ruge-DeForest, Inc.
- REAC**
Reeves Instrument Corp.
- REACONVERTER**
Rea Co., J. B.
- REACTRON**
United Condenser Corp.
- REACTRON**
Ward Leonard Electric Co.
- READIX**
Rea Co., J. B.
- READY COUNT**
Alden Systems Co.
- REAPAK**
Rea Magnet Wire Co., Inc.
- REATHERM**
Rea Co., J. B.
- RECARB-X**
U. S. Graphite Co.
Div. of The Wickes Corp.
- RECIPO**
Giannini & Co., Inc., G. M.
- RE-CIRK-IT**
Heineman Electric Co.
- RECITALIST**
Rek-O-Kut Co. Inc.
- RECO**
Rectifier Engineering Co.
- RECO**
Reynolds Electric Co.
- RECORDALL**
Miles Reproducer Co., Inc.
- RECORD-FLOW**
Watson Mfg. Co., Inc.
- RECORDION**
Wilcox-Gay Corp.
- RECORDIPOINT**
Wilcox-Gay Corp.
- RECORDISES**
Recordisc Corp.
- RECORD-LIFE**
Minnesota Electronics Corp.
- RECORDO**
Wilcox-Gay Corp.
- RECORDOMATIC**
Precision Scientific Co.
- RECORDOSCOPE**
Aremac Associates.
- RECOSTAT**
Regulator Equipment Corp.
- RECTALDY**
Union Switch & Signal Div. of Westinghouse Air Brake Co.
- RECTICHARGER**
Raytheon Mfg. Co.
- RECTIFILTER**
Raytheon Mfg. Co.
- RECTIGON**
Westinghouse Electric Corp.
- RECTIGRAPH**
Haloid Co., The
- RECTI-RINGER**
Raytheon Mfg. Co.
- RECTISEL**
Electronic Devices, Inc.,
Precision Rectifier Div.
- RECTODYNE**
McColpin-Christie Corp.
- RECTOMATIC**
Westinghouse Electric Corp.
- RECTOPLATER**
Mallory & Co., Inc., P. R.
- RECTOPOWER**
Mallory & Co., Inc., P. R.
- RECTOSTARTER**
McColpin-Christie Corp.
- RECTOSTARTER**
Mallory & Co., Inc., P. R.
- RECTOTRUCK**
Mallory & Co., Inc., P. R.
- RECTOX**
Westinghouse Electric Corp.
- RED-D**
Diamond Wire & Cable Co.
- REDDOT**
International Rectifier Corp.
- REDFLASH**
Vaco Products Co.
- RED HEAD**
Girdler Corp.
- REDIFON**
Beam Instruments Corp.
- REDI-RIG**
Radio Merchandise Sales, Inc.
- REDIVUE**
Bar-Ray Products, Inc.
- RED LETTER**
Ruby Chemical Co.
- RED SEAL**
Radiart Corp.
- RED SEAL**
Radio Corporation of America
- REDSKIN**
Sangamo Electric Co.
- REDUX**
Ciba Company, Inc.
- RED-WOOD**
JFD Mfg. Co., Inc.
- REDEER**
Reeder Co., Charles M.
- REEVELEC**
Reeve Electronics, Inc.
- REFLECTOGAGE**
Sperry Products, Inc.
- REFLECTOSCOPE**
Sperry Products, Inc.
- REFLEX TRUMPETS**
University Loudspeakers, Inc.
- REFRACTALLOY**
Westinghouse Electric Corp.
- REFRASIL**
Thompson Fiberglass Co., H. L.
- REGATRON**
Electronic Measurements Co.
- REGENCY**
Electro-Voice, Inc.
- REGENCY**
I.D.E.A., Inc.
- REGENT**
Birmingham Sound Reproducers Ltd.
- REGENT**
Duo-tone Co., Inc.
- REGOHM**
Electric Regulator Corp.
- REGOMATIC**
CBC Electronics Co., Inc.
- REGULAR**
Paramount Paper Tube Corp.
- REGULITE**
Ward Leonard Electric Co.
- REGULOMETER**
Electronic Specialty Co.
- REJAFIX**
Popper & Sons, Inc.
- REKORDER**
Gorrell & Gorrell
- REL**
Radio Engineering Labs., Inc.
- RELATROL**
Automatic Temperature Control Co.
- RELAYMATIC**
Kellogg Switchboard & Supply Co.
- RELIABLE MAILERS**
Corrugated Paper Products, Inc.
- RELIACAP**
Sanders Associates, Inc.
- RELIACUBE**
Sanders Associates, Inc.
- RELIAPAK**
Sanders Associates, Inc.
- RELIAPLATE**
Sanders Associates, Inc.
- RELIATRON**
Westinghouse Electric Corp.
- RELIO**
U. S. Rubber Co.
- RELIOHM**
Sanders Associates, Inc.
- RELOID**
Guardian Electric Mfg. Co.
- REMALLOY**
Arnold Engineering Co.
- REMOTE-O-CABLE**
JFD Mfg. Co., Inc.
- REMOTUNE**
Collins Audio Products Co.
- REN**
Nebel Lab., R. E.
- REQ-D**
Diamond Wire & Cable Co.
- REPAIRACK**
JFD Mfg. Co., Inc.
- REPEATER**
Kemlite Labs.
- RESERVISOR**
Teleregister Corp.
- RESIGUM**
Paisley Products, Inc.
- RESIMENE**
Monsanto Chemical Co.
- RESIN-FIVE**
Kester Solder Co.
- RESINITE**
Precision Paper Tube Co.
- RESINITE**
Resin Industries
- RESINOX**
Monsanto Chemical Co.
- RESI-RAP**
Paisley Products, Inc.
- RESISTOL**
Collyer Insulated Wire Co.
- RESLOOM**
Monsanto Chemical Co.
- RESOMAX**
Link Aviation, Inc.
- RESRIT**
Consolidated Resistance Co. of
America Inc.
- RETMA #770**
Stone City Machine & Tool Co., Inc.
- RETTAX**
Roanwell Corp.
- REVCOTHENE**
Revere Corporation of America
Sub. of Neptune Meter Co.
- REVERSO-MISSION**
Airborne Accessories, Inc.
- REVMASTER**
Opad Electric Co.
- REVOLUTE**
Paragon-Revolute Corp.
- REVOLUTE COMET**
Paragon-Revolute Corp.
- REVOLUTE JUMBO**
Paragon-Revolute Corp.
- REVOLUTE METEOR**
Paragon-Revolute Corp.
- REVOLUTE ROCKET**
Paragon-Revolute Corp.
- REVOLUTE STAR**
Paragon-Revolute Corp.
- REX**
Crucible Steel of America
- REX**
Shure Brothers, Inc.
- REX-FLEX**
Flexonics Corp.
- REX-KF**
Rex Corp., The
- REXLACE**
Rex Corp., The
- REXOLITE**
Rex Corp., The
- REXSELEN**
Knopp, Inc.
- REXTRUDE**
Rex Corp., The
- REX-TUBE**
Flexonics Corp.
- REXVANE**
Westinghouse Electric Corp.
- REXWELD**
Crucible Steel Co. of America
- REX-WELD**
Flexonics Corp.
- REZISTAL**
Crucible Steel Co. of America
- REZSEAL**
Sprague Electric Co.
- RFI**
Ace Engineering & Machine Co., Inc.
- REHOTROL**
Barber-Colman Co.
- RHINOBESTOS**
Westinghouse Electric Corp.
- RHOMAX**
Magnetic Metals Co.
- RHOMETAL**
Telegraph Construction &
Maintenance Co., Ltd.
- RHOMIZED**
Rho Engineering Co.
- RHOMU**
Magnetic Metals Co.
- RHYTHMASTER**
Rek-O-Kut Co., Inc.
- RIBBON HEAT**
Cox & Co., Inc.
- RIBFLEX**
Ward Leonard Electric Co.
- RIBOHN**
Ward Leonard Electric Co.
- RICHELAIN**
Richardson Co., THE
RIGHT OFF THE SHELF
Star Stainless Screw Co.
- RIGIDFRAME**
Delco Appliance Div.,
General Motors Corp.
- R.I.G.**
United Mineral & Chemical Corp.
- R. I. P.**
Westinghouse Electric Corp.
- RING-JET**
Stokes Machine Co., F. J.
- RINKELOID**
Standard-Toch Chemicals, Inc.
- RITEOHM**
Ohmite Mfg. Co.
- RIVER EDGE**
British Industries Corp.
- R-J**
British Industries Corp.
- RK**
Raytheon Mfg. Co.
- R/M**
Raybestos-Manhattan, Inc.
- R & M**
Robbins & Myers, Inc.
- R M B**
Landis & Gyr, Inc.
- RMC**
Radio Materials Corp.
- R. M. C.**
Radio Music Corp.
- RME**
Electro Voice Mfg. Co., Inc.
- RME**
Radio Mfg. Engineers, Inc.
- RMS**
Radio Merchandise Sales, Inc.
- ROBARN**
Rome Cable Corp.
- ROBOLITES**
Universal Microphone Co.
- ROBOMATIC REFRACTOMETER**
Precision Scientific Co.
- ROBOTROL**
Reliance Automatic Lighting Co.
- ROCKET**
Olympic Radio & Television Co.
- ROCKLOID**
Standard-Toch Chemical, Inc.
- ROCKTEMP**
Rockbestos Products Corp.
- RODAR**
Driver Co., Wilbur B.
- ROEBX**
Roebling's Sons Corp., John A.
- ROECLAD**
Roebling's Sons Corp., John A.
- ROECORD**
Roebling's Sons Corp., John A.
- ROEGLAS**
Roebling's Sons Corp., John A.
- ROEPLASTIC**
Roebling's Sons Corp., John A.
- ROEPRENE**
Roebling's Sons Corp., John A.
- ROESHEATH**
Roebling's Sons Corp., John A.
- ROETEMP**
Roebling's Sons Corp., John A.
- ROEVAR**
Roebling's Sons Corp., John A.
- ROEWELD**
Roebling's Sons Corp., John A.
- RO FLEX**
Rome Cable Corp.
- ROGER**
Roanwell Corp.
- ROL-DEX**
Watson Mfg. Co., Inc.
- RO LENE**
Rome Cable Corp.
- ROLLCO**
Rollins Co.
- ROLLIN**
BJ Electronics Div. of
Borg-Warner Corp.
- ROLLOCON**
Circon Component Co.
- ROLLPINS**
Elastic Stop Nut Corp.
- ROLOX**
Hardman Co., Inc., H. V.
- ROL-TOP**
Boots Aircraft Nut Corp.
- RO MARINE**
Rome Cable Corp.
- ROMECC**
Lear, Inc.
- ROMEX**
General Cable Corp.
- RONDINE**
Rek-O-Kut Co.
- RO NEON**
Rome Cable Corp.
- RO PRENE**
Rome Cable Corp.
- ROTABRAKE**
Lear, Inc.
- ROTALYZER**
Kay Electric Co.
- ROTASEAL**
General Hermetic Sealing Corp.

ROTO BEAM
Kings Electronics Co.

ROTOBRIDGE
Communication Measurements Lab., Inc.

ROTO-COUNT
Automatic Temperature Control Co., Inc.

ROTO FORMER
Westinghouse Electric Corp.

ROTO-KING
JFD Mfg. Co., Inc.

ROTO-LOCK
Simmons Fastener Corp.

ROTOLOK
Airborne Accessories, Inc.

ROTOMASTER
Master Appliance Mfg. Co.

ROTOMATIC
Johnson Co., E. F.

ROTOMOTIVE
Jack & Heintz, Inc.

ROTOMOUNT
Premax Products Div., Chisholm-Ryder, Inc.

ROTORAC
Airborne Accessories, Inc.

ROTO RANGER
Simpson Electric Co., Div. American Gage & Machine Co.

ROTORETTE
Airborne Accessories Corp.

ROTOROID
Burnell & Co., Inc.

ROTOSIL
Amersil Co., Inc.

ROTO-SPEED
General Devices, Inc.

ROTOSTEPPER
Giannini & Co., Inc., G. M.

ROTOTIMER
Farmer Electric Products Co., Inc.

ROTOTROL
Westinghouse Electric Co.

RO-TRAN
Rome Cable Corp.

ROV-A-LITE
Terado Co.

ROYAL
Permoflux Corp.

ROYAL
Precision Radiation Instruments, Inc.

ROYAL
U. S. Rubber Co.

ROYAL II
Electro-Voice, Inc.

ROYAL CORD
U. S. Rubber Co.

ROYAL GOLD
U. S. Rubber Co.

ROYAL JEWEL
Jensen Industries, Inc.

ROYAL MASTER
U. S. Rubber Co.

ROYALITE
U. S. Rubber Co.

RO ZONE
Rome Cable Corp.

ROZONE-ROPRENE
Rome Cable Corp.

ROZONE-ROSEAL
Rome Cable Corp.

R P C
Resistance Products Co.

R S M C
Radio Specialty Mfg. Co.

R T L
Peirce Wire Recorder Corp.

RTV
Clarostat Mfg. Co., Inc.

RUBAL
Ruby Chemical Co.

RUBCORD
U. S. Rubber Co.

RUB-EROK
Richardson Co., The

RUBKLEEN
Eberhard Faber Pencil Co.

RUBSEC
U. S. Rubber Co.

RUB-TEX
Richardson Co., The

RUBYFLUID
Ruby Chemical Co.

RUCCO
Ruby Chemical Co.

RUF KOAT
General Cement Mfg. Co.

RULAN
du Pont de Nemours & Co., Inc., E. I.

RULON
Dixon Corp.

RUNT
Eastern Precision Resistor Corp.

RURAX
Palmer, Inc., M. V.

RUSH
Eraser Co., Inc.

RUST-BAN
Esso Standard Oil Co.

RUTISHAUSER
Rutico, Inc.

R V
Clarkstan Corp.

RX
Raytheon Mfg. Co.

RX METER
Boonton Radio Corp.

RYCOM
Railway Communications, Inc.

RYERTEX
Ryerson & Son, Inc., Joseph T.

S.E.C.
Standard Electronics Corp.

SEI
Television Zoomar Corp.

SERC
Standard Electronics Research Corp.

SIE
Southwestern Industrial Electronics Co.

SK
Skottie Electronics, Inc.

SPX
Technic, Inc.

SRX
Hupp Electronics Co., A Div. of Hupp Corp.

SADIC
Consolidated Electrodynamics Corp.

SAFE-HED
Matthews & Co., James H.

SAFE-T-GLOW
Brach Mfg. Corp.

SAFE-T-KLIP
Industrial Devices, Inc.

SAFE-T-PLUG
Industrial Devices, Inc.

SAFE-T-PLUG
Littelfuse, Inc.

SAFE-T-SPARKY
Littelfuse, Inc.

SAFETY MARGIN
Astron Corp.

SAFETY PLUS
Chicago Screw Co.

SAFE-R-WIPE
Redmond Company, Inc.

SAFE TV GUARD
JFD Mfg. Co., Inc.

SAFE-T-VOICE
Z & W Machine Products, Inc.

SAFLEX
Monsanto Chemical Co.

SAL BRICK
American Solder & Flux Co.

SALESOMATIC
West Coast Electronics Co.

SANACOUSTIC
Johns-Manville

SAND-MEX
U. S. Graphite Co., Div. of The Wickes Corp.

SANFORD-BENNET
Rubicon Co.

SANITEX
Daniels, Inc., C. R.

SARA
Taller & Cooper Co.

SARAH
Simmonds Aerocessories, Inc.

SARAN
Dow Chemical Co.

SARATOGA
Espey Mfg. Co., Inc.

SARDAP
Nuclear Research Corp.

SATEMP
Infra Electronic Corp.

SAUCERLINE
Fretco Inc.

SAUTER
Cramer Co., Inc., R. W.

SAV-A-SHAFT
National Union Radio Corp.

SAVOY
Camburn, Inc.

S/3
Vaco Products Co.

SCAICO
Cooper Co., Clark

SCALE-O-MATIC
Technical Associates

SCANOGRAPH
Nuclear Research & Development, Inc.

SCINFLEX
Scintilla Div., Bendix Aviation Corp.

SCINTILLATOR
Precision Radiation Instruments, Inc.

SCINTIMETER
Reed-Curtis Nuclear Industries, Inc.

SCINTIMONITOR
Reed-Curtis Nuclear Industries, Inc.

SCINTISCALER
Reed-Curtis Nuclear Industries, Inc.

SCINTISCANNER
Reed-Curtis Nuclear Industries, Inc.

SCINTISCOPE
Reed-Curtis Nuclear Industries, Inc.

SCINTISTAND
Reed-Curtis Nuclear Industries, Inc.

SMATCO
Stone City Machine & Tool Co.

SCOTCH
Minnesota Mining & Mfg. Co.

SCOTCHCAST
Minnesota Mining & Mfg. Co.

SCOTCH KOTE
Minnesota Mining & Mfg. Co.

SCOTCHLOK
Minnesota Mining & Mfg. Co.

SCOTTIE
Remler Co., Ltd.

SCOUT
Sangamo Electric Co.

SCPULUG
Burdny Engineering Co., Inc.

SCRIBE
Permoflux Corp.

SCREWBALL
Fretco Inc.

SCREW-LOCK
Heli-Coil Corp.

SCRIBE
Permoflux Corp.

SEAFONE
Hallicrafters Co.

SEAL SILICATE
Philadelphia Quartz Co.

SEALDOHM
Daven Co.

SEALEX
General Ceramics Corp.

SEALNUT
Radio Frequency Labs., Inc.

SEAL-O-FLANGE
Communication Prpds. Co., Inc.

SEALSTIX
Central Scientific Co.

SEALVAC A
Vacuum Metals Corp.

SEA SCOUT
Lavoie Laboratories

SEEL
Automatic & Precision Mfg. Co.

SEELRIUIT
Automatic & Precision Mfg Co.

SEELSKREW
Automatic & Precision Mfg. Co.

SEEZAK
U M & F Mfg. Corp.

SEGMISTOR
Consolidated Resistance Co. of America

SEGMITE
Consolidated Resistance Co. of America

SEISMATRON
Texas Instruments, Inc.

SELECT-A-CALL
National Inter-Communication Systems, Inc.

SELECT-A-SPEDE
Allis Co., Louis

SELECTO-CALL
Federal Telephone & Radio Co., A Div. of IT&T.

SELECT-O-PHONE
Kellogg Switchboard & Supply Co.

SELECTOVISION
Communication Measurements Lab. Inc.

SELECTRO-PLATERS
Green Electric Co., Inc.

SELEKTA
Associated American Trading Division

SELENIFER
American Rectifier Corp.

SELETRON
Radio Receptor Co.

SELECTION CHECKING
Sensitive Research Instrument Corp.

SELFLUBE
Keystone Carbon Co., Inc.

SELF SERVICE
American Scientific Development Co.

SELKAR
Sprague Electric Co.

SEL-LOK
Standard Pressed Steel Co.

SEL-REX
Bart-Messing Corp.

SEL-REX DOUBLE DUTY
Bart-Messing Corp.

SEL-REX JET PLATER
Bart-Messing Corp.

SEMINOLE
Sangamo Electric Co.

SEMITRON
Westinghouse Electric Corp.

SEMS
Lamson & Sessions Co.

SENCO
Service Instrument Co.

SENECA
Sangamo Electric Co.

SENNTRONIC
Senn Corp.

SENSATHERM
Mercoid Corp.

SENSICON
Motorola Inc.

SENSITROL
Weston Electrical Instrument Corp.

SENSITON
Scientific Specialties Corp.

SENSITRON
Weston Electrical Instrument Corp.

SEN TER CEL
Standard Telephones & Cables, Ltd.

SENTINEL
Johnson-Williams, Ltd.

SENTINEL
Photobell Company

SENTINEL
Westinghouse Electric Corp.

SEPIATONE
Frederick Post Co.

SERAMELITE
Good-All Electric Mfg. Co.

SERIES X
Astron Corp.

SERRASOID
Radio Engineering Labs., Inc.

SERVATRON
Raytheon Mfg. Co.

SERVICE SPOOL
Alpha Wire Corp.

SERVISLIDE
Remler Co., Ltd.

SERVICE-MIKE
Cornell-Dubilier Electric Corp

SERVE-A-UNIT
Alden Products Co.

SERVIT
Burdny Engineering Co., Inc.

SERVOBOARD
Servo Corp. of America

SERVOCON
Servo Corp. of America

SERVOFLASS
Servo Corp. of America

SERVOFLEX
Servo Corp. of America

SERVOFRAX
Servo Corp. of America

SERVOFLIGHT
Servo Corp. of America

SERVOGRAPH
Servo-Tek Products Co.

SERVO-MISSION
Airborne Accessories, Inc.

SERVOSCOPE
Servo Corp. of America

SERVO SPEED
Electro Devices, Inc.

SERVO SYNC
Servo Corp. of America

SERVO SYNTH
Servo Corp. of America

SERVOTHERM
Servo Corp. of America

SERVOTRON
Raytheon Mfg. Co.

SERV-RITE
Gordon Co., Claud S.

SESCO
Sessions Clock Co.

SETKO
Set Screw Mfg. Co.

SEVEN LEAGUES AHEAD
Thermador Electric Mfg. Co.

SHADOWCONTROL
Autotron Co., The

SHADOWCOUT
Autotron Co., The

SHADOWMASTER
Autotron Co., The

SHAKEPROOF
Illinois Tool Works

SHAWNEE
Sangamo Electric Co.

SHEARCUTTER
Shearcut Tool Co.

SHEARITE
Aircraft-Marine Products, Inc.

SHIELD BRAND
Mitchell-Rand Insulation Co., Inc.

SHOCK-BILT MAILERS
Corrugated Paper Products, Inc.

SHOCKPROOF
Industrial Transformer Co.

SHOK-LOK
Automatic Electric Sales Corp.

SHOP-PACK
Heli-Coil Corp.

SHU-ELD
Atmosphere Control Co.

SHUREHEAT
Kwikheat Mfg. Co.

SHURFLO
Anchor Metal Co.

SHUR-FLO
Hays Mfg. Co.

SHUR GRIP
Parker-Kalon Corp.

SHUT-OUT
JFD Mfg. Co., Inc.

SHURE-STAKE
Thomas & Betts Co.

SHUVEE
Entron Inc.

F. W. SICKLES
General Instrument Corp.

SICO
Superior Instrument Co.

SIE
Southwestern Industrial Electronics Co.

S.I.E.C.O.
Southwestern Industrial Electronics Co.

S.I.E.C.O.
Sherman Industrial Electronics Co.

SIGHT METER
Weston Electrical Instrument Co.

SIGNA FLO
Buffalo Electronics Corp.

SIGNA-GLOW
Industrial Development Labs., Inc.

SIGNALATOR
Kay Electric Co.

SIGNALINER
Feiler Engineering & Mfg. Co.

SIGNALMAX
Wilmar Mfg. Co., Inc.

SIGNAL-SPLITTER
McLaughlin Corp., J. L. A.

SIGNA-MATCHER
Centralab Div. of Globe Union, Inc.

SIGNATURE
Lansing Sound, Inc., James B.

- SILANEAL**
Dow Corning Corp.
- SILASTIC**
Dow Corning Corp.
- SILBESTOS**
Electro-Technical Products Div. of Sun Chemical Corp.
- SILCAD**
Yardney Electric Corp.
- SILCAZ**
Electro Metallurgical Co.
Unit of Union Carbide & Carbon Corp.
- SILCLOTH**
Jensen Industries, Inc.
- SILCOBEST**
Silicone Insulation, Inc.
- SILECTRON**
Arnold Engineering Co.
- SILENTBLOC**
General Tire & Rubber Co., The
- SILENT SENTINEL**
Westinghouse Electric Corp.
- SILERTEX**
Erie Resistor Corp.
- SILICOHM**
Dale Products, Inc.
- SILICOHM**
Sage Electronics Corp.
- SILIC-O-NETIC**
Heinemann Electric Co.
- SILCORO**
Western Gold & Platinum Works
- SILICONDUCTORS**
National Semiconductor Products Div. of Hoffman Electronics Corp.
- SILFLEX**
Varflex Corp.
- SIL-FOS**
Handy & Harman
- SILKENITE**
Acme Wire Co.
- SIL-THIN-BESTOS**
Electro Technical Products Div. of Sun Chemical Corp.
- SIL-THIN-GLASS**
Electro Technical Products Div. of Sun Chemical Corp.
- SILTUBE**
All-State Welding Alloys Co., Inc.
- SILVALOY**
American Platinum Works
- SILVALOY**
Linde Air Products Co.
Unit of Union Carbide & Carbon Corp.
- SILVER ARROW YAGI**
Fretco Inc.
- SILVERCEL**
Yardney Electric Corp.
- SILVERCOTE**
Little Falls Alloys, Inc.
- SILVER LINE**
Speedway Mfg. Co.
- SILVERLINE**
General Instrument Corp.
- SILVERITE**
Haydu Brothers Div. of Burroughs Corp.
- SILVER SOL-U-SALT**
Sel-Rex Precious Metals
Div. of Bart-Messing Corp.
- SILVERSTAT**
Westinghouse Electric Corp.
- SILVER WAND**
Peerless Products Industries
- SIMPAC**
Westinghouse Electric Corp.
- SIMPLEX**
Bludworth Marine Div., National-Simplex Bludworth, Inc.
- SIMPLEX**
Wenco Mfg. Co.
- SIMPLI-FLEX**
Radiart Corp., The
- SIMPLYTROL**
Assembly Products, Inc.
- SINCOMAX**
Murex, Ltd.
- SINTILON**
National Radiac Inc.
- SIoux**
Sangamo Electric Co.
- SISCO**
Scientific Instruments Service Co.
- 649**
Bentley-Harris Mfg. Co.
- SIXTY**
Shure Brothers
- SKAN**
G-M Laboratories
- SKL**
Spencer-Kennedy Labs., Inc.
- S. K. S.**
Paisley Products, Inc.
- SKY-CASTER**
Hy-Lite Antennae Inc.
- SKY CHAMPION**
Hallcrafters Co.
- SKYCHIEF**
Camburn, Inc.
- SKYCHIEF**
Hallcrafters Co.
- SKYFONE**
Hallcrafters Co.
- SKYGUIDE**
Phico Corp.
- SKY-HI**
Thomas Mold & Die Co.
- SKY-KING**
J. F. D. Mfg. Co., Inc.
- SKY-LITE**
Hy-Lite Antennae Inc.
- SKY-LOK**
J. F. D. Mfg. Co., Inc.
- SKYMASTER**
Communication Products Co., Inc.
- SKYPLY**
Skydyne, Inc.
- SKY RANGER**
Hallcrafters Co.
- SKY-STREAK**
J. F. D. Mfg. Co., Inc.
- SKY-TOP**
J. F. D. Mfg. Co., Inc.
- SKY TRAK**
Radio Merchandise Sales, Inc.
- SKY-WEIGHT**
Continental Electronics, Ltd.
- SLENDYNE**
Shure Brothers, Inc.
- SLIDEOHM**
Aerovox Corp.
- SLIMAIR**
Electro-Voice, Inc.
- SLIM-TRIM**
Electro-Voice, Inc.
- SLIM-X**
Shure Brothers, Inc.
- SLIPSYN**
Westinghouse Electric Corp.
- SLM**
Kistler Instrument Co.
- SLO-BLO**
Littelfuse, Inc.
- SLUG RETRIEVERS**
Hunter Tool Co.
- SMC**
St. Mary's Carbon Co.
- S-M UNITS**
Gorrell & Gorrell
- SMALL UNIDYNE**
Shure Brothers, Inc.
- SMART SET**
Calbest Engineering & Electronics Co.
- SMITH-NATHANIEL BALDWIN**
Consolidated Radio Products Co.
- SMOKGAGE**
Ess Specialty Corp.
- SMUTBATH**
Special Chemicals Co.
- SMZ**
Electro Metallurgical Co.
Unit of Union Carbide & Carbon Corp.
- SNAP-ACTION**
Buchanan Electrical Products Corp.
- SNAPIT**
Cable Electric Products, Inc.
- SNAP-LOCK**
National Acme Co.
- SNAPOUT**
Hy-Lite Antennae Inc.
- SNAPPER**
Mueller Electric Co.
- SNAPPER**
Thermal-Devices Div. of Curtiss-Wright Corp.
- SNAP RINGS**
Eaton Mfg. Co.
- SNIFFER**
Johnson-Williams, Ltd.
- SNIFFER**
Nuclear Instrument & Chemical Corp.
- SNIPPER**
Johnson-Williams, Ltd.
- SNOOPER**
Precision Radiation Instruments, Inc.
- SNORKEL**
Radion Corp.
- SNS**
Special Products Co.
- SNUPEC**
Centralab Div. of Globe Union, Inc.
- SNYDERMATIC**
Snyder Mfg. Co.
- SODEREZE**
Phelps Dodge Copper Products Co.
- SOIL-O-CATOR**
Nuclear Instrument & Chemical Corp.
- SOLARSCOPE**
Solartron Electronic Group, Ltd., The
- SOLARSPOTS**
Mole-Richardson Co.
- SOLAVOLT**
Sola Electric Co.
- SOLDALOT**
Mallory & Co., Inc., P. R.
- SOLDALOY**
Mallory & Co., Inc., P. R.
- SOLDERALL**
Brach Mfg. Corp.
- SOLDERFORMS**
Kester Solder Co.
- SOLDER MASTER**
Hexacon Electric Co.
- SOLDERLITE**
Weller Mfg. Co.
- SOLDERSEAL**
General Ceramics Corp.
- SOLISTRAND**
Aircraft-Marine Products Inc.
- SOLITAIRE**
Videon Electronic Corp.
- SOLOTRON**
Modern Hearing Aids Laboratories, The
- SOL-REX**
Herzog Miniature Lamp Works, Inc.
- SOLU-BRIDGE**
Industrial Instrument, Inc.
- SONACTOR**
Kay Electric Co.
- SONAFONE**
Sonar Radio Corp.
- SONAGRAM PAPER**
Kay Electric Co.
- SONA-GRAPH**
Kay Electric Co.
- SONALATOR**
Kay Electric Co.
- SONARMETER**
Raytheon Mfg. Co.
- SONA-STRETCHER**
Kay Electric Co.
- SONA-SWEEP**
Kay-Electric Co.
- SONAX**
Electro-Voice, Inc.
- SONISCAN**
Television Equipment Corp.
- SONOBAOND**
Aeroprojects Incorporated
- SONOCLE**
Sonotone Corp.
- SONODYNE**
Shure Brothers, Inc.
- SONOGEN**
Branson Ultrasonic Corp.
- SONO-PAD**
Sonotone Corp.
- SONO-PROBE**
Advance Electronics, Inc.
- SONORAY**
Branson Instruments, Inc.
- SONOTONOR**
Sonotone Corp.
- SONOWEAR**
Sonotone Corp.
- SOUND-ABSORB**
Bill Jack Scientific Instrument Co.
- SOUND CELL**
Brush Electronics Co.
- SOUNDCRAFT**
Reeves Soundcraft Corp.
- SOUND ISOLATION BLANKET**
Johns-Manville
- SOUNDMIRROR**
Brush Electronics Co.
- SOUNDREEL**
Simpson Mfg. Co., Inc., Mark
- SOUNDS OF OUR TIMES**
Cook Laboratories
- SOUNDTRAP**
Miles Reproducer Co., Inc.
- SOUND-ZORBER**
Finn & Co., Inc., T. R.
- SOUTHCAST**
Minnesota Mining & Mfg. Co.
- SOUTHCO**
South Chester Corp.
- SPACELINE**
Rego Insulated Wire Co.
- SPADE-LOK**
Aircraft-Marine Products, Inc.
- SPARK ADVANCE**
Photocon Research Products
- SPARK PROTRACTOR**
Photocon Research Products
- SPARKFLASH**
Triumph Mfg. Co.
- SPAULDITE**
Spaulding Fibre Co., Inc.
- SPAULDO**
Spaulding Fibre Co., Inc.
- SPECIAL**
Precision Radiation Instruments, Inc.
- SPECIAL SERIES**
United Transformer Co.
- SPECO**
Pfanstiehl Chemical Co.
- SPECO**
Special Products Co.
- SPECORAK**
Special Chemicals Co.
- SPECPLATER**
Special Chemicals Co.
- SPEC-POWER**
National Spectrographic Labs., Inc.
- SPECTABLE**
Special Chemicals Co.
- SPECTAPHONE**
Sonotone Corp.
- SPECTRACORD**
Warren Electronics, Inc.
- SPECTRIFIER**
Special Chemicals Co.
- SPECTROGAMMEOMETER**
Radiation Counter Laboratories, Inc.
- SPECTROMET**
Baird Associates, Inc.
- SPECTROMETER**
Perkin-Elmer Corporation, The
- SPECTROPHOTOMETER**
Central Scientific Co.
- SPECTROPHOTOMETER**
Perkin-Elmer Corporation, The
- SPECTRUM**
Fretco Inc.
- SPEECHMASTER**
Jensen Mfg. Co.
- SPEED**
Speedway Mfg. Co.
- SPEED-CHASSIS**
Specific Products
- SPEED CLAMPS**
Tinnerman Products Inc.
- SPEED CLIPS**
Tinnerman Products Inc.
- SPEEDCRAFT**
Wire Stripper Co.
- SPEE-DEE**
Peck & Harvey Mfg. Corp.
- SPEE-DEE**
Radiart Corp.
- SPEEDEX**
General Cement Mfg. Co.
- SPEED GRIPS**
Tinnerman Products, Inc.
- SPEED IRON**
Weller Mfg. Co.
- SPEEDMASTER**
Peck & Harvey Mfg. Corp.
- SPEEDMOUNT**
Brach Mfg. Co.
- SPEED NUTS**
Tinnerman Products Inc.
- SPEEDOMAX**
Leeds & Northrup Co.
- SPEEDSORT**
Associated Research, Inc.
- SPEED TOOLS**
Speedway Mfg. Co.
- SPEED-X**
Johnson Co., E. F.
- SPEEDY-CAL**
North Shore Nameplate Inc.
- SPEEDY-MARX**
North Shore Nameplate Inc.
- SPEER**
Helwig Co.
- SPEKALUMINITE**
Special Chemicals Co.
- SPEKLEEN**
Special Chemicals Co.
- SPEKWITE**
Special Chemicals Co.
- SPEKYELLO**
Special Chemicals Co.
- SPENCER**
American Optical Co.
- SPERRY DUPLEX**
Sperry Gyro-cope Co.
Div. of The Sperry Corp.
- SPERRY REFLECTOGAGE**
Sperry Products, Inc.
- SPERRY REFLECTSCOPE**
Sperry Products, Inc.
- SPHEREX**
Electro-Voice, Inc.
- SPICE CHEST**
Guild Radio & Television Co.
- SPICO**
Spirling Products Co.
- SPINCO**
Beckman Instruments, Inc.
- SPINFORM**
Boro Engineering & Tool Corp.
- SPIN-HEX**
Vaco Products Co.
- SPINLAB**
Special Instruments Laboratory, Inc.
- SPIN-LOCK**
Russell, Burdull & Ward Bolt & Nut Co.
- SPIN-PIN**
Bruno-New York Industries Corp.
- SPINTITE**
Stevens-Walden Inc.
- SPIRACTOR**
Permutit Co.
- SPIRAL**
Dzuz Fastener Co., Inc.
- SPIRAL**
Phelps Dodge Copper Products Co.
- SPIRALENE**
Surprenant Mfg. Co.
- SPIRALINE**
Rego Insulated Wire Co.
- SPIRALOCK**
Product Engineering Co.
- SPIRALON**
Surprenant Mfg. Co.
- SPIRALPOT**
Giannini & Co., Inc., G. M.
- SPIRAL TUBING**
Continental-Diamond Fibre Div. of The Budd Co.
- SPIRAMEG**
Sprague Electric Co.
- SPIRASHIELD**
Muter Co.
- SPIROTALLIC**
Johns-Manville
- SPLAC**
Westline Products Div. of Western Lithograph Co.
- SPLICE CAP**
Buchanan Electrical Products Corp.
- SPONGEX**
Sponge Rubber Products Co.,
Div. of B. F. Goodrich Co.
- SPORTSMAN**
Marathon Battery Co.
- SPOTLAY**
Makepeace Co., D. E., Div. of Union Plate & Wire Co.
- SPOT-LITE**
Canadian Radium & Uranium Corp.
- SPOT-O-GRAPH**
Audio-Master Corp.
- SPOT-SEAL**
Sherman Paper Products Corp.
- SPRACO**
Sprague Electric Co.
- SPRAINT**
Waldom Electronics Inc.
- SPRAY**
Palsley Products Inc.

SPRING-LIFE
Cook Electric Co.

SPRING-LOCK
Simmons Fastener Corp.

SPRING-O-MATIC
Industrial Electrical Works

SPRINGTITES
Eaton Mfg. Co.

SQUEEZE-LOCK
Buchanan Electrical Products Corp.

SR
Shallite, Inc.

SRHT
Boston Insulated Wire & Cable Co.

STABELEX
Industrial Condenser Corp.

STABIFLO
Foxboro Co.

STABILINE
Superior Electric Co.

STABILOG
Foxboro Co.

STABILOVOLT
Marconi's Wireless Telegraph Co., Ltd.

STABLVOLT
Magnetic Research Corp.

STACKMASTER
Stacor Equipment Co.

STACKOHM
Sprague Electric Co.

STACO
Standard Electrical Products Co.

STA-KON
Thomas & Betts Co.

STANCOR
Chicago Standard Transformer Corp.

STANDARD
New York Solder Co.

STANDARD
Precision Radiation Instruments, Inc.

STANDARD
Shure Bros. Inc.

STANDARD ARROW
Bludworth Marine Div.,
National-Simplex-Bludworth, Inc.

STANDARD BINNACLE
Bludworth Marine Div.,
National-Simplex-Bludworth, Inc.

STANDARD-ROYAL
Standard Electric Time Co.

STANDARD SIX
Bludworth Marine Div.,
National-Simplex-Bludworth, Inc.

STANDATROL
Bailey Meter Co.

STANDCO
Sticht Co., Inc., Herman H.

STANDEE
Clarostat Mfg. Co., Inc.

STANDLAC
Standard-Toch Chemicals, Inc.

STANDOHM
Model Engineering & Mfg. Inc.

STANELCO
Standard Telephones & Cables Ltd.

STAN-GARD
JFD Mfg. Co., Inc.

STANTEL
Standard Telephones & Cables Ltd.

STANTOX
Standard-Hoch Chemicals, Inc.

STAN-TRAN
Stanwyck Winding Co.

STA-PUT
Consolidated Wire & Associated
Companies

STAR
Duotone Co., Inc.

STAR COMPOUND
Acme Wire Co.

STAR-HELIX
JFD Mfg. Co., Inc.

STAR J
Haynes Stellite Co.
Unit of Union Carbide & Carbon Corp.

STATI-CLEAN
Electrovox Co., Inc.

STATIFLUX
Magnaflex Corp.

STATION MASTER
Communication Products Co., Inc.

STATOMIC
Motorola Inc.

STAN-TRAN
Stanwyck Winding Co.

STAT-TRAN
Pulse Engineering

STAVOLT
McColpin-Christie Corp.

STBIL-THERM
Blue M Electric Co.

STEACAP
Micamold Radio Corp.

STEDIVOLT
Kelk & Co., G. F.

STEELAGE
Corry Jamestown Mfg Co.

STEEL-SET
Paisley Products, Inc.

STEMAG
Arnhold Ceramics, Inc.

STEMCO
Stevens Mfg. Co., Inc.

STENAFAX
Times Facsimile Corp.

STENO
Crescent Industries, Inc.

STENOVIX
Berlant Associates

STENTORIAN
Barker Sales Co.

STEP-SERVO
Bergen Laboratories

STERILAMP
Westinghouse Electric Corp.

STERILZONE
Dallons Labs.

STEREO-MAGNEMITE
Amplifier Corp. of America

STERLINE
Cossor (Canada) Ltd.

STERLING CABLES
Beam Instruments Corp.

STERLING CABLES
Cossor (Canada) Ltd.

STETHETRON
Maico Co., Inc.

STEWVOX
Berlant Associates

STIBNALON
Green Rectifier Co.

STIKON
Ruge-De Forest, Inc.

STILBEST
Linick Chemical Co.

STIMSONITE
A'G'A' Division of Elastic Stop Nut
Corp. of America

STOKATIMER
Mercoind Corp.

STOLLBERG
Associated American Trading Division

STONEHART
Titelflex, Inc.

STRAIN ANALYZER
Brush Electronics Co.

STRAINALYZER
Electronic Tube Corp.

STRAITFLO
Hays Mfg. Co.

S-TRAN
General Instrument Corp.

STRATE-LINE
Pyle-National Co.

STRATE-LINE
Radiart Corp.

STRATFORD
Telequip Radio Co.

STRATOGRAPH
Panoramic Radio Products, Inc.

STRAT-O-LITE
Strat-O-Seal Mfg. Co.

STRATOLLNET
Shure Brothers

STRATO-MATCHED
Remler Co.

STRATOPAX
Cook Electric Co.

STRATO RAY
Fretco Inc.

STRATOSCOPE
Panoramic Radio Products, Inc.

STRATOVISION
Westinghouse Electric Corp.

STREAMLINER
Ozalid Div.
General Aniline & Film Corp.

STREAMLINER
Precision Scientific Co.

STRING-A-LITE
Joy Mfg. Co.

STRIPLINE
Airborne Instruments Lab., Inc.

STRIPMASTER
Ideal Industries, Inc.

STRIPOHM
Ward Leonard Electric Co.

STRIPSOL
Paisley Products, Inc.

STROBOCONN
Conn. Ltd., C. G.

STROBODYNE
Sperry Gyroscope Co. Div. of
The Sperry Corp.

STROBOFLASH
General Radio Co.

STROBO-LITE
Wilcox Research Co.

STROBOLUX
General Radio Co.

STROBO-SYNC
Winkler Laboratories

STROBOTAC
General Radio Co.

STROWDER
Automatic Electric Co.

STRU
Tru-Connector Corp.

STRUX
du Pont de Nemours & Co., Inc., E. I.

STUPALITH
Stupakoff, Div. of The Carborundum Co.

STURDIBOLT
Stronghold Screw Products, Inc.

STURTEVANT
Westinghouse Electric Corp.

STYCAST
Emerson & Cuming, Inc.

STYMER
Monsanto Chemical Co.

STYRACON
Sprague Electric Co.

STYRALOY
Dow Chemical Co.

STYRAMIC
Monsanto Chemical Co.

STYROFLEX
Natvar Corp.

STYROFLEX
Phelps Dodge Copper Products Co.

STYROFOAM
Dow Chemical Co.

STYRON
Dow Chemical Co.

STYROPHANE
Standard-Toch Chemicals, Inc.

SUBMINAX
Amphenol Electronics Corp.

SUB-MINI-SHIELD
Staver Co., Inc.

SUBOWNER
United Transformer Co.

SUBURBAN
Radion Corp.

SUBOWNER
United Transformer Co.

SUNFLASH
Kemite Labs.

SUNSWITCH
Ripley Co., Inc.

SUPER
Union Electric & Mfg. Co.

SUPER
Precision Radiation Instruments, Inc.

SUPER AUTOBOOSTER
Industrial Television, Inc.

SUPER B
Ozalid Div.,
General Aniline & Film Corp.

SUPER-BEAM
JFD Mfg. Co., Inc.

SUPER-BECKACITE
Reichhold Chemicals, Inc.

SUPER-CAP
United Electronic Mfg. Corp.

SUPER 'CEPTER
Wells & Winegard

SUPER DAVOHM
Daven Co.

SUPER DODO
JFD Mfg. Co., Inc.

SUPER-DYLAN
Koppers Co., Inc.

SUPER EX.
Telrex Inc.

SUPERFAN
Channel Master Co.

SUPERFLAKE
Superior Graphite Co.

SUPERFLAKE
Superior Flake Graphite Co.

SUPERKIT
Superelex Electronics Corp.

SUPER MARKER
Scala Radio Co.

SUPER POWER-HELIX
JFD Mfg. Co., Inc.

SUPER POWERJET
JFD Mfg. Co., Inc.

SUPER ROYAL
Permoflux Corp.

SUPER SNIFFER
Nuclear Instrument & Chemical Corp.

SUPER STAR-HELIX
JFD Mfg. Co., Inc.

SUPER SURGE
Condenser Manufacturers, Inc.

SUPERIOR
Eagle Electric Mfg. Co., Inc.

SUPERIOR
Radiart Corp.

SUPERIOR
Wall Mfg. Co.

SUPERJET
J F D Mfg. Co., Inc.

SUPERMALLEY
Arnold Engineering Co.

SUPERMIX
X-Ray Dept. of General Electric Co.

SUPER PRO
Hammarlund Mfg. Co.

SUPERSEC
U. S. Rubber Co.

SUPERSHEATH
General Cable Corp.

SUPERSONIC
Dzus Fastener Co., Inc.

SUPERSONIC REFLECTOSCOPE
Sperry Products Inc.

SUPER SPECTROM
Fretco, Inc.

SUPER-STRUCTURE
Radiart Corp.

SUPER-SURGE
Condenser Manufacturers, Inc.

SUPERTEL
General Cable Corp.

SUPER TENNA
Tennalab

SUPERTESTER
Color Television Inc.

SUPER TRACER
Precision Electronics

SUPER TROL
Control Corp.

SUPERVAC
Central Scientific Co.

SUPERVIEW
Brach Mfg. Corp.

SUPER-VISION
Davis Electronics

SUPERWIRE
Audar Inc.

SUPER-X
Camburn, Inc.

SUPER-X
Telrex, Inc.

SUPER VEE
Radiart Corp., The

SUPRAMICA
Mycalex Corp. of America

SUPREME
Grant Pulley & Hardware Co.

SUPRO
Valco Mfg. Co.

SURCO
Surprenant Mfg. Co.

SURFINDICATOR
Brush Electronics Co.

SURFLENE
Surprenant Mfg. Co.

SURFLON
Surprenant Mfg. Co.

SURE FLUX
New York Solder Co.

SURFACE-ANALYZER
Brush Electronics Co.

SURFLEX
Surprenant Mfg. Co.

SURGYTHERM, JR.
Wappler, Inc.

SWEATLESS
Paisley Products Inc.

SWEEPALATOR
Decade Instrument Co.

SWEETMASTER
Manufacturers Engineering &
Equipment Co.

SWELTERPROOF
Roanwell Corp.

SWIFTOL
Southwest Products, Inc.

SWING-OVER
Tel-A-Ray Enterprises, Inc.

SWING-WA
Trumbull Dept. of General Electric Co.

SWITCH-LITE
Littelfuse, Inc.

SWITCHMAT
Recora Co.

SWIVEL BEAM
Radio Merchandise Sales, Inc.

SWIVEL BOW
Radio Merchandise Sales, Inc.

SWIVLTOP
Moody Machine Products Co., Inc.

SYLKYD
Dow Corning Corp.

SYLPHON
Fulton Siphon Div.,
Robertshaw-Fulton Controls Co.

SYLVALOY
Driver Co., Willbur B.

SYMBOSTAMP
Griffin Co., John

SYMPHONY MASTER
Monitor Products Co.

SYNASET
Telex, Inc.

SYNCHRO-METER
Bailey Meter Co.

SYNCO
Snyder Chemical Corp.

SYNCHRO-TIMER
Pratt & Whitney Div. Niles-Bement-
Pond Co.

SYNCHRON
Hansen Mfg. Co., Inc.

SYNCHRO TROL
Westinghouse Electric Corp.

SYNCHRO-VALVE
Bristol Co., The

SYNCHROVERTER
Bristol Co., The

SYNCRGARS
U. S. Electrical Motors, Inc.

SYNCRAGEN
Amplitronix Inc.

SYNCROLL DRIVE
Fairchild Recording Equipment Co.

SYNCHRO-MARKER
Electro Products Labs.

SYNCROUNT
Giannini & Co., Inc., G. M.

SYNCRPLEX
Television Equipment Corp.

SYNCRPRINTER
Anelex Corporation

SYNCHRO TIMER
Pratt & Whitney Div., Niles-Bement-
Pond Co.

SYNCHRO-TUNER
Woodwelding, Inc.

SYNCHRO-VALVE
Bristol Co., The

SYNCHROVERTER
Bristol Co., The

SYNCTRON
Dormitzer Electric & Mfg. Co., Inc.

SYNKOTE
Plastoid Corp.

SYNRUB
U. S. Rubber Co.

SYNTHEIZER
Collins Radio Co.

SYNTHINOL
Consolidated Wire & Associated
Companies

SYNTHINOL
Rome Cable Corp.

SYNTHOGRAPHIC
Synthane Corp.

SYNTHOLVAR
Varflex Corp.

260
Simpson Electric Co., Div., American
Gage & Machine Co.

TA
Thomas Associates

T-K
Tuttle & Kift

TABBY
Division Lead Co.

TABLITE
Technical Apparatus Builders

TABTRON
Technical Apparatus Builders

TACO
Technical Appliance Corp.

TACOPLEX
Technical Appliance Corp.

TAG
Weston Electrical Instruments Corp.

TAKCAL
Howell Instrument Co.

TAKK-TRON
Takk Corp.

TALKMASTER
Dalmotron Co.

TANGLEPROOF
Hobbs Mfg. Co.

TANNOY
Beam Instruments Corp.

TANTALEX
Sprague Electric Co.

TAP
Continental Screw Co.

TAPAK
Broadcast Equipment Specialties Corp.

TAP LITE
Minneapolis-Honeywell Regulator Co.

TAP-LOK
Groov-Pin Corp.

TAPE-MINDER
Cycle Equipment Co.

TAPE-O-GRAPH
Audio Industries

TAPE-O-MATIC
V-M Corp.

TAPE RECORDER
Ampex Electric Corp.

TAPER-TONE
Acton Co., H. W.

TAPE TITE
Paisley Products, Inc.

TAPOT
Howell Instrument Co.

TARRYTRON
Cook Electric Co.

TATTELITE
Littelfuse, Inc.

TAUTORK
Precision Paper Tube Co.

TCA
Thermistor Corp. of America

T.C.C.
Telegraph Condenser Co., Ltd.

TC-2
Continental Communications, Inc.

TCW
Tronic Coil Winding Co., Inc.

TEC
Television Equipment Corp.

TECHNILOG
University Loudspeakers, Inc.

TECHNILOY
Technic, Inc.

TECH-TIMER
Technic, Inc.

TECH-TIN
Technic, Inc.

TEECO
Trutone Electronics, Inc.

TEE-NUTS
United-Carr Fastener Corp.

TEFIFON
Audio-Master Corp.

TEFLACE
Gudebrod Bros. Silk Co., Inc.,
Electronics Div.

TEFLEX
Boston Insulated Wire & Cable Co.

TEFLITE
Boston Insulated Wire & Cable Co.

TEFLON
du Pont de Nemours & Co., Inc., E. I.

TEFSILON
Boston Insulated Wire & Cable Co.

T.E.I.
Thomas Electronics, Inc.

TEKNI
Walsco Electronics Corp.

TEKTOLOG
Fielden Instrument Div., Robertshaw-
Fulton Controls Co.

TEKTOR
Fielden Instrument Div., Robertshaw-
Fulton Controls Co.

TELACOL
Magnetic Core Corp.

TEL-A-COR
Magnetic Core Corp.

TELA-EAR
Telex, Inc.

TELAMP
Miles Reproducer Co., Inc.

TELCO
General Cement Mfg. Co.

TELCOARC
Western Union Telegraph Co.

TELCOHESIVE
Telegraph Construction &
Maintenance Co., Ltd.

TELCOMPOUND
Telegraph Construction &
Maintenance Co., Ltd.

TELCON
Telegraph Construction &
Maintenance Co., Ltd.

TELCOMAX
Telegraph Construction &
Maintenance Co., Ltd.

TELCONITE
Telegraph Construction &
Maintenance Co., Ltd.

TELCONNECTORS
Telegraph Construction &
Maintenance Co., Ltd.

TELCONSTAN
Telegraph Construction &
Maintenance Co., Ltd.

TELCOSEAL
Telegraph Construction &
Maintenance Co., Ltd.

TELCOTHENE
Telegraph Construction &
Maintenance Co., Ltd.

TELCOVIN
Telegraph Construction &
Maintenance Co., Ltd.

TELCUMAN
Telegraph Construction &
Maintenance Co., Ltd.

TELE-ATTEN
Vidaire Electronics Mfg. Co.

TELEBOOSTER
Television Equipment Corp.

TELECABLE
Whitney Blake Co.

TELECAP
Sprague Electric Co.

TELECONTROL
Teletronic Laboratories, Inc.

TELECORD
Dictaphone Corp.

TELECORD
Whitney Blake Co.

TELECORD SYSTEM
Dictaphone Corp.

TELECODER
Teletyping Corp.

TELECORDEX
Teletyping Corp.

TELECOUPLER
Television Equipment Corp.

TELE-COUPLER
Vidaire Electronics Mfg. Co.

TELECUE
Teletchrome Inc.

TELEDELTA
Western Union Telegraph Co.

TELEDIPHONE
Edison, Inc., Thomas A.

TELEDUCER
Teletyping Corp.

TELEDUCT
Whitney Blake Co.

TELEFAX
Western Union Telegraph Co.

TELEFILTER
Kay Electric Co.

TELE-FLEX
Teleraid Mfg. Corp.

TELEFRAME
Whitney Blake Co.

TELEFUNKEN
American Elite, Inc., (Telefunken)

TELEGLAS
Pittsburgh Plate Glass Co.

TELE-GUIDE
Teleraid Mfg. Corp.

TELEHOME
Webster Electric Co.

TELEKRYPTON
Western Union Telegraph Co.

TELEMASTER
Television Equipment Corp.

TELEMETROSCOPE
Tobe Deutschmann Corp.

TELEMIKE
Miles Reproducer Co., Inc.

TELEPAGE
Webster Electric Co.

TELEPHOTO
Acme Teletronic Div. of
NEA Service, Inc.

TELEPLATE
Whitney Blake Co.

TELE-PLEX
J. F. D. Mfg. Co., Inc.

TELEPLOTTER
Teletyping Corp.

TELEPOT
Paul & Stein Bros., Inc., F. H.

TELEPRENE
Whitney Blake Co.

TELEREADER
Teletyping Corp.

TELEREADEX
Teletyping Corp.

TELE-ROTOR
Radiart Corp.

TELESEAL
Whitney Blake Co.

TELESET
DuMont Laboratories, Inc., Allen B.

TELESET
Telex, Inc.

TELESONIC
U. S. Television Mfg. Corp.

TELESPATCH
Webster Electric Co.

TELESPEAKER
Telex, Inc.

TELESYMPHONIC
U. S. Television Mfg. Corp.

TELESYN
Ford Instrument Div.,
The Sperry Corp.

TELETALK
Webster Electric Co.

TELE THERM
Westinghouse Electric Corp.

TELE-THERMOMETER
Yellow Springs Instrument Co., Inc.

TELETORQUE
Kollsman Instrument Corp.

TELE-TROL
Teletronic Laboratories, Inc.

TELETRONS
DuMont Laboratories, Inc.
Allen B.

TELE-TWIN
JFD Mfg. Co., Inc.

TELETUNER
Mallory & Co., Inc., P. R.

TELEVAC
Fredericks Co., Geo E.

TELEVANES
Ward Products Corp., Div.
The Gabriel Co.

TELEVERTER
James Vibrapowr Co.

TELE-VIDER
Electro-Voice, Inc.

TELEVOICE
Edison Inc., Thomas A.

TELEVOLT
Sola Electric Co.

TELE-VOLTER
Jackson Electrical Instrument Co.

TELEVOX
Westinghouse Electric Corp.

TEL-EYE
DuMont Laboratories, Inc., Allen B.

TELNIC
Chase Brass & Copper Co., Inc.

TEL-O-AID
Fisher Research Lab., Inc.

TEL-OHMIKE
Sprague Electric Co.

TELOJECTOR
Gray Research & Development Co., Inc.

TELOP
Gray Research & Development Co., Inc.

TEL-ROD
Television Laboratories, Inc.

TELSTOR
Fieldon Instrument Div., Robertshaw-
Fulton Controls Co.

TEL-TENNA
Television Laboratories, Inc.

TELVAC
Television Accessories Co.

TELVAR
Audar, Inc.

TEMFLEX 105
Irvington Varnish & Insulator
Div. of Minnesota Mining & Mfg. Co.

TEMP-ALARM
Tempil Corp.

TEMPALL
Tobe Deutschmann Corp.

TEMP COP
Micro Switch

TEMPERATURE COMPENSATOR "30"
Carpenter Steel Co., The

TEMPILAR
Tempil Corp.

TEMPILSTIK
Tempil Corp.

TEMPO
Clear Beam Television Antenna Co.

TEMPROBE
Victory Engineering Corp.

TEMPROOF
Lord Mfg. Co.

TEMP-R-TAPES
Connecticut Hard Rubber Co.

TEMSTART
Synchro Start Products, Inc.

TENAROL
Rollan Electric Co.

TENNA-CLAMP
Mueller Electric Co.

TENNA CLIP
Industrial Television, Inc.

TENNA COUPLER
Industrial Television, Inc.

TENNAKITS
Tennalab

TENNA-PAK
JFD Mfg. Co., Inc.

TENNA-ROTOR
Alliance Mfg. Co.

TENNA-SCOPE
Alliance Mfg. Co.

TENNA-TIE
Channel Master Co.

TENNA-TOP
Electro-Voice, Inc.

TENNA-TUBE
Javex

TENNEYMITE
Tenney Engineering, Inc.

TENNEYZPHERE
Tenney Engineering, Inc.

TENSITE
Driver Co., Wilbur B.

TENSOLEX
Tensolite Insulated Wire Co., Inc.

TENSOLON
Tensolite Insulated Wire Co., Inc.

TENS-O-TROL
Dillon & Co., Inc., W. C.

TENSULATED
Tensolite Insulated Wire Co., Inc.

TEN-TENNA
Waldom Electronics Inc.

TERMALINE
Bird Electronic Corp.

TERMEND
Buchanan Electrical Products Corp.

TERMIN O SEAL
Wolfe Co., Inc., Franklin C.

TERVAN
Esso Standard Oil Co.

TESA
United Mineral & Chemical Corp.

TESCO
Eastman Specialty Co.

TESTLITE-FUSPUL
Dante Electric Mfg. Co.

TEST MASTER
Precision Apparatus Co., Inc.

TEST-MIKE
Cornell-Dubilier Electric Corp.

TEST-O-LITES
Brach Mfg. Corp.

TEST-MASTER
Precision Apparatus Co., Inc.

TETROC
Sprague Electric Co.

TEXAS
K-C-K Corp.

TEXCEL
Permacel Tapr Corp.

TEXTOLITE
General Electric Co.

THELCO
Precision Scientific Co.

THERECOUPLER
Marconi Instruments Ltd.

THERA-RAY
Edin Co., Inc.

THERATHERM
Marconi Instruments Ltd.

THERLO
Driver-Harris Co.

THERMALARM
Eastern Specialty Co.

THERMALEZE
Phelps Dodge Copper Products Corp.

THERM-A-NEERING
Westinghouse Electric Corp.

THERMATOOL
New Rochelle Tool Corp.

THERMATRON
Radio Receptor Co.

THERMEX
Girdler Co., Div. of National
Cylinder Gas Co.

THERMISTOL
Workman TV, Inc.

THERMOCAP
Niagara Electron Laboratories

THERMOCONTAX
Rahm Instruments, Inc.

THERMO-COUSTI
Thompson Co., H. I.

THERMOCUBE
Radio Engineering Labs., Inc.

THERMO-FLEX
Woodwelding, Inc.

THERMO-GRIP
Ideal Industries, Inc.

THERMOGUARD
Westinghouse Electric Corp.

THERMOHM
Leeds & Northrup Co.

THERMO-HUMIDIGRAPH
Bristol Co. The

THERMOIL-GRANODINE
American Chemical Paint Co.

THERMOLAIN
Star Porcelain Co.

THERMOLASTIC
Cox & Co., Inc.

THERMO-LO
Farrelloy Co.

THERMOLUGS
Burndy Engineering Co., Inc.

THERMOMETAL
Wilson Co., The, H. A.

THERM-O-METER
Simpson Electric Co., Div. of
American Gage & Machine Co.

THER-MONIC
Induction Heating Corp.

THERMOPATCH
Cox & Co., Inc.

THERMOPLAX
Cutler-Hammer, Inc.

THERMOPRENE
Whitney Blake Co.

THERMOSEN
Sorensen & Co.

THERMOSHEET
Cox & Co., Inc.

THERMATOOL
New Rochelle Tool Corp.

THERMO-SNAP
Spencer Thermostat Div. Metals &
Controls Corp.

THERMOSTAT
Fenwal, Inc.

THERMOSWITCH
Fenwal, Inc.

THERMO-TIP
Ideal Industries, Inc.

THERM-OTROLS
Barber-Colman Co.

THERMOVERTER
Bristol Co., The

THERMOWIRE
Cox & Co., Inc.

THERMYSTAL
Knights Co., James, The

THERVEL
Avien, Inc.

THESAURUS
Radio Corp. of America

THINPLATES
Park Nameplate Co., Inc.

3100
Eberhard Faber Pencil Co.

3110
Eberhard Faber Pencil Co.

THRED-LOCK
Continental Screw Co.

THREDMOUNT
National Union Radio Corp
3-IN-1
J F D Mfg. Co., Inc.

THREE-PHASE
Sciaky Bros., Inc.

THROTTLTROLS
Barber-Colman Co.

THRULINE
Bird Electronic Corp.

THRUPASS
Sprague Electric Co.

THRURAY
Sperry Products, Inc.

THUNDER BIRD
Telrex, Inc.

THYRITE
General Electric Co.

THYR-X
Liebel-Flarsheim Co.

TICO
Technical Instrument Co.

TI-CO
Thomas Instrument Co.

TIDLETRIK
American Lava Corp.

TIGER
American Steel & Wire Div.,
U. S. Steel Corp.

TI-MATCH
Camburn, Inc.

TI-MATIC
Westinghouse Electric Corp.

TIME AID
Paragon Electric Co.

TIME-ALL
International Register Co.

TIMEFAX
Times Facsimile Corp.

TIME-IT
Precision Scientific Co.

TIME-MASTER
Dictaphone Corp.

TIME-MINDER
International Register Co.

TIME-O-GRAF
Borg Equipment Div.,
George W. Borg Corp.

TIME-O-LITE
Industrial Timer Corp.

TIME-O-SWITCH
Minneapolis-Honeywell Regulator Co.

TIM-O-WELD
First Electronics Corp., The

TIM-U-LATOR
Gorrell & Gorrell

TINOL
American Solder & Flux Co.

TINYFORMER
Gramer-Halldorson Transformer Corp.

TINY-GLOW
Industrial Devices, Inc.

TINYMAX
Torwico Electronics, Inc.

TINYMIKE
Cornell-Dubilier Electric Corp.

TINY TEN
Daystrom Pacific Corp.

TINYMITE
Renbrandt, Inc.

TINY TIM
Shure Brothers

TINYTRAN
Standard Transformer Corp.

TINY TRIM
Daystrom Pacific Corp.

TIOLEKTRIC
American Lava Corp.

TIPS
Electronic Products Co.

TIP-TOP
General Cable Corp.

TIREX
Simplex Wire & Cable Co.

TITAN
Sonotone Corp.

TITE-BIND
Thomas & Betts Co.

TITEGRIP
Dante Electric Mfg. Co.

TITE-TUFF
Shoe Form Co., Inc.

TITONE
Sonotone Corp.

TITRIMETER
Fisher Scientific Co.

TITROMETER
Precision Scientific Co.

TMC
Technical Materiel Corp.
T. W.
Paisley Products Inc.

TOBE
Tobe Deutschmann Corp.

TOBEMITE
Tobe Deutschmann Corp.

TOCCO
Ohio Crankshaft Co.

TOCCOTROL
Ohio Crankshaft Co.

TOCCOTRON
Ohio Crankshaft Co.

TOM THUMB
Automatic Radio Mfg. Co., Inc.

TOMAHAWK
Sangamo Electric Co.

TOMAHAWK
Stevens-Walden, Inc.

TONETEX
Electro-Voice, Inc.

TONG TEST
Columbia Electric Mfg. Co.

TONG TEST
Martindale Electric Co.

TONOTRON
Hughes Products Division, Hughes
Aircraft Co.

TOP HAT
Times Facsimile Corp.

TOP-LAY
Metals & Controls Corp., General Plate
Div.

TOPHET
Driver Mfg. Co., Wilbur B.

TOPPER
Camburn, Inc.

TOPPERS
Saxton Products Inc.

TORKMASTER
Tork Clock Co., Inc.

TORKOTHERM
Tork Clock Co.

TOROYD
Associated American Trading
Division

TOROYD
Universal Mfg. Co., Inc.

TORPOT
Electro-Mec Laboratory

TORQUE DRIVE
Electro-Voice, Inc.

TORQUE WATCH
Waters Mfg. Inc.

TORSYN
Control Components Co.

TOUCH-TIMER
Kay Electric Co.

TR2 ROTOR
Radiart Corp.

TRACEMASTER
Stacor Equipment Co.

TRADIO
Trad Electronics Corp.

TRADIOPHONE
Trad Electronics Corp.

TRADIOVISION
Trad Electronics Corp.

TRADITION
Staedtler Inc., J. S.

TRADITION-CHROMA
Staedtler, Inc., J. S.

TRAFF-O-MATIC
Automatic Signal Div.,
Eastern Industries, Inc.

TRAILBLAZER
Channel Master Co.

TRAILBLAZER
Sangamo Electric Co.

TRAILER-TENNA
Clear Beam Television Antenna Co.

TRAIN EAR
Maico Co., Inc.

TRAK
C.G.S. Laboratories, Inc.

TRAN-COR
Armco Steel Corp.

TRANSCAL
Transonic, Inc.

TRANCORS
Lenkurt Electric Co., Inc.

TRANOLSEAL
Johns-Manville

TRANS-DEX
Watson Mfg. Co., Inc.

TRANS-TEL
Calbest Engineering & Electronics Co.

TRANSALYZER
Kay Electric Co.

TRANSALOID
Haloid Co., The

TRANSAMP
Electronic Research Associates, Inc.

TRANSCENDENT
Brociner Electronics Corp.

TRANS-CITER
Multi-Products Co.

TRANSEALS
Johnson Research Corp.

TRANSFAX
Eastman Kodak Co.

TRANSFILTER
Brush Electronics Co.

TRANSFLEX
Irvington Varnish & Insulator
Div. of Minnesota Mining & Mfg. Co.

TRANSI-MAG
Magnetic Amplifiers, Inc.

TRANSIST-EAR
Maico Co., Inc.

TRANSITE
Johns-Manville

TRANSITONE
Philco Corp.

TRANS-LITE
Plasteck, Inc.

TRANSLUCTANCE
Remler Co.

TRANS-O-METER
Westinghouse Electric Corp.

TRANSPAC
Electronic Research Associates, Inc.

TRANS-PIX
Kay Electric Co.

TRANOLSEAL
Johns-Manville

TRANSTAT
Standard Electronics Corp.

TRANSVERTER
Hertner Electric Co.

TRAPPER
Technical Appliance Corp.

TRAV-ELECTRIC
Terado Co.

TRAVELLER
JFD Mfg. Co., Inc.

TRAVERTONE
Armstrong Cork Co.

TRAVIS TAPAK
Broadcast Equipment Specialties Corp.

TR CO
Richardson Co., The

TREEPLEX
Rome Cable Corp.

TRELCO
Transitron Electronic Corp.

TRENTWELD
Crucible Steel Co. of America

TRENTWELD
Trent Tube Co.

TRIAKON
Sieler Design Products

TRIAxIAL
Jensen Mfg. Co.

TRI-CORE
Alpha Metals, Inc.

TRIFLUX
Redmond Co., Inc.

TRIG
Rostan Corp.

TRIG-R-HEAT
Wall Mfg. Co.

TRI-IND-X
Triplet & Barton, Inc.

TRI-LOK
Boots Aircraft Nut Corp.

TRIMOUNTS
United-Carr Fastener Corp.

TRIMR
Bourns Laboratories

TRIM TROL
Airborne Accessories, Inc.

TRIMPOT
Bourns Laboratories

TRIMTHERM
General Controls Co.

TRI-NON
Perkin-Elmer Corporation, The

TRI-O-MATIC
V-M Corp.

TRIONIC
Pacific Transducer EBG Corp.

TRIONODE
Walkirt Co.

TRIONIZED AIR
Trion, Inc.

TRI-O-SPEED
V-M Corp.

TRIONIC
Clarkstan Corp.

TRI-PLATE
Sanders Associates, Inc.

TRIPLAX
Plax Corp.

TRIPLCHEK
Fox Products Co.

TRIPLE-TIE
Channel Master Co.

TRIPLEX
Jensen Mfg. Co.

TRIPLOC
Pyle-National Co.

TRI-SNAP
Westinghouse Electric Corp.

TROMBONE
Ward Products Corp.,
Div. The Gabriel Co.

TRONEX
Wheaton Co., T. C., Electronic Div.

TRUARC
Waldes Kohinoor Inc.

TRUE-BRAND
Carbonneau Industries, Inc.

TRU-FLANGE
American Brass Co.

TRUFLEX
Metals & Controls Corp.,
General Plate Division

TRU-FLEX
Peerless Photo Products, Inc.

TRU-GRAF
Peerless Photo Products, Inc.

TRU-GROUND
Allen Mfg. Co.

TRU-GUIDE
Model Engineering & Mfg., Inc.

TRU-LAY
American Chain & Cable Co., Inc.

TRULUME
Reeves Soundcraft Corp.

TRU-MATCH
Quam Nichols Co.

TRU-OHM
Model Engrng. & Mfg. Co.

TRU-PASS
Sprague Electric Co.

TRU-RIB
Model Engineering & Mfg., Inc.

TRUSCON
Republic Steel Corp.

TRUSHADE
Technic, Inc.

TRU-SONIC
Stephens Mfg. Corp.

TRUSPEC
Scovill Mfg. Co.

TRU-TORK
Resinite Corp., Sub. of
Precision Paper Tube Co.

TRU-VAC
Continental Electric Co.

TRYLON
Wind Turbine Co.

TUBE-MASTER
Precision Apparatus Co., Inc.

TUBE-U-LAR
Pyramid Electric Co.

TUCK
Technical Tape Corp.

TUCK-AWAY
J F D Mfg. Co., Inc.

TUFFERNELL
Westinghouse Electric Corp.

TUFFY
Insulation Manufacturers Corp.

TUFLEC
Laminated Plastics Inc.

TUF-ON
Brooklyn Paint & Varnish Co., Inc.

TUNE-O-MATIC
Electro-Voice, Inc.

TUNE-O-MATIC
J. F. D. Mfg. Co., Inc.

TUNE TAPE
Miller Electronics

TUNERCLEAN
Walsco Electronics Corp.

TURBO
Brand & Co., Inc., William

TURBOGLAS
Brand & Co., Inc., William

TURBOLAC
Brand & Co., Inc., William

TURBOLENE
Brand & Co., Inc., William

TURBOLEX
Brand & Co., Inc., William

TURBOSIL
Brand & Co., Inc., William

TURBO PRENE
Brand & Co., Inc., William

TURBOTHERM
Brand & Co., Inc., William

TURBOTRANS
Brand & Co., Inc., William

TURBOTUF
Brand & Co., Inc., William

TURBOZONE
Brand & Co., Inc., William

TURQUOISE
Eagle Pencil Co.

TV DUETTE
Jensen Mfg. Co.

TWEEZER WELD
Federal Tool Engineering Co.

23 CLIPPER
Centralab Div. of
Globe-Union, Inc.

TWILT
Electro-Voice, Inc.

TWIN BLOK
United Mfg. & Service Co.

TWIN FAST
Blake & Johnson Co.

TWIN-LEVER
Shure Brothers, Inc.

TWINPOT
Bourns Laboratories

TWIN-SCREEN HI-LITE
DuMont Laboratories, Inc., Allen B.

TWINTACTS
Weston Electrical Instrument Co.

TWIN-300
Microlab

TWIN-TRAX
Amplifier Corp. of America

TWIN-TILT
Electro-Voice, Inc.

TWINKLER
Television Accessories Co.

TWINKORD
Ansonia Wire & Cable Co.

TWINSET
Telex, Inc.

TWINSULATION
U. S. Rubber Co.

TWIN-VISO
Sanborn Co.

TWISTAGUIDE
Airttron, Inc.

TWIST-LOCK
 Harvey-Hubbell, Inc.
TWIST-LOK
 Sprague Electric Co.
TWIST-MOUNT
 Pyramid Electric Co.
TWIST-TITE
 Harvey Hubbell, Inc.
 215
 Hartley Co., Inc., H. A.
TWOFOLD
 Mitchell Industries, Inc.
TWO-TIMER
 Bristol Motor Div.
 Vocaline Company of America, Inc.
TY-DOWN
 Air Associates, Inc.
TYGON
 U. S. Stoneware Co.
TYGORUST
 U. S. Stoneware Co.
TYGOTHENE
 U. S. Stoneware Co.
TYGOWELD
 U. S. Stoneware Co.
TY-LOK
 Air Associates, Inc.
TYNISWITCH
 Sessions Clock Co.
TYMIT
 Tork Clock Co.
TYNEE-DRY
 Pyramid Electric Co.
TYNI-COUPLE
 Detroit Controls Corp.
TYPOTRON
 Hughes Products Division,
 Hughes Aircraft Co.
TYPE-O-WRITER
 Kellogg Switchboard & Supply Co.
TYPE "R" RESISTOR
 Telewave Labs., Inc.
TY-PLY
 Marbon Corp.
TZUCOPY PHOTO
 General Photo Products Co., Inc.

U-238
 Goldak Company, Inc., The
UASCO
 Mitchell Industries, Inc.
UBABOND
 Union Bay State Chemical Co.
UBAGRIP
 Union Bay State Chemical Co.
UBAPOL
 Union Bay State Chemical Co.
UCINITE
 United Carr Fastener Corp.
U CON
 Mucon Corp.
U-GRIP
 Aircraft-Marine Products, Inc.
U-LINE
 Illumitronic Engineering
ULTI-MEG
 Electrovert Inc.
ULTRA
 Camburn, Inc.
ULTRA-BEAM
 Camburn, Inc.
ULTRABOOSTER
 Blonder-Tongue Laboratories, Inc.
ULTRA-CAL
 Cubic Corp.
ULTRACOMPACT
 United Transformer Co.
ULTRA-FORMER
 Kay Electric Co.
ULTRA-GEN
 Alcar Instruments, Inc.
ULTRA LINEAR
 Acro Products Co.
ULTRA-MARKER
 Kay Electric Co.
ULTRA-PIX
 Kay Electric Co.
ULTRASCALER
 Nuclear Instrument & Chemical Corp.
ULTRASIL
 Amersil Co., Inc.
ULTRASONORATOR
 Crystal Research Labs., Inc.
ULTRA-SWEEP
 Kay Electric Co.
ULTRA-TIE
 Channel Master Co.
ULTRATONE
 Audio Industries, Inc.
ULTRATUBE
 Plastoid Corp.
ULTRAVERTER
 Blonder-Tongue Laboratories, Inc.
ULTRA V-BEAM
 J F D Mfg. Co., Inc.
ULTRA-VISGOSON
 Bendix Aviation Corp., Cincinnati Div.
ULTRA VISCOSON
 Rich-Roth Laboratories
ULTRON
 Monsanto Chemical Co.
UMP
 Illinois Condenser Co.
UNBRAKO
 Standard Pressed Steel Co.
UNDARK
 U. S. Radium Corp.
UNECAP
 United Electronic Mfg. Corp.

UNERAC-RREP
 Rosen Engineering Products, Inc.
 Raymond
UNI-BRIDGE
 Industrial Electronics, Inc.
UNICAST
 Redmond Co., Inc.
UNI-CHASSIS
 Uni-Products Div. of Uni-Science, Inc.
UNICLOSED
 U. S. Electrical Motors, Inc.
UNICON
 United Condenser Corp.
UNI-CORE
 Alpha Metals, Inc.
UNI-CRIMP
 Sherman Mfg. Co., H. B.
UNIDYNE
 Shure Brothers, Inc.
UNIFLARE
 Scovill Mfg. Co.
UNI-FLEX
 Dumore Co., The
UNIGRAIN
 Somers Brass Co.
UNILECTRIC
 United Mfg. & Service Co.
UNILOK
 Burndy Engineering Co., Inc.
UNIFLEX
 Miskella Infra-Red Co.
UNI-FLO
 Barber-Colman Co.
UNIFORMITY ANALYZER
 Brush Electronics Co.
UNILINE
 Cascade Research Corp.
UNIMATIC
 Calbest Engineering & Electronics Co.
UNIMATIC
 Unitek Corp.
UNIMATION
 Manning, Maxwell & Moore, Inc.,
 Aircraft Products Div.
UNIMAX
 Maxson Corp., W. L.
UNION
 Jefferson Electric Co.
UNIONMELT
 Linde Air Products Co., Unit of
 Union Carbide & Carbon Corp.
UNIPAK
 Sprague Electric Co.
UNIPLEX
 Burgess Battery Co.
UNIPLEX
 Shure Brothers, Inc.
UNIPUG
 Applegate & Co., C. J.
UNIPOINT
 Shure Brothers, Inc.
UNIPOLE
 Andrew Corp.
UNIREG
 Universal Electronic Co.
UNISEAL
 Johns-Manville
UNI-SHAFT
 Mallory & Co., Inc., P. R.
UNITACT
 Bristol Co., The
UNIT BREAKER
 Cutler-Hammer, Inc.
UNITONE
 Duotone Co., Inc.
UNITROL
 Cutler-Hammer, Inc.
UNIVERSAL
 Johns-Manville
UNIVERSAL
 Mueller Electric Co.
UNIVERSAL
 Brush Electronics Co.
UNIVERSAL BRIDGE SWITCH
 Brush Electronics Co.
UNIVERSAL MASTER
 Hovis Screwlock Co.
UNIVERTER
 Boonton Radio Corp.
UNIVERSAL
 Telecomputing Corp.
UNIVERSAS
 Hovis Screwlock Co.
UNIVAC
 Remington Rand Univac
UNIVIS
 Esso Standard Oil Co.
UNIVOLT
 Esso Standard Oil Co.
UPDOWN
 Service Instruments Co.
UPPCO
 United Pressed Products Co.
UPSON
 Republic Steel Corp.
URAC
 American Cyanamid Co.
URBANETTE
 Videon Electronic Corp.
URELITE
 I-T-E Circuit Breaker Co.
USA
 Pratt & Whitney Div., Niles-
 Bement-Pond Co.
USC
 U. S. Components Inc.
U.S.E.
 U. S. Electronics Corp.

USG
 U. S. Graphite Co. Div. of
 The Wickes Corp.
USRC
 U. S. Relay Co.
UST
 U. S. Television Mfg. Corp.
USALITE
 Stupakoff Ceramic & Mfg. Co. Div. of
 The Carborundum Co.
USCOLITE
 Chicago Die Mold Div. of U. S.
 Rubber Co.
USECO
 U. S. Engineering Co.
USEMENT
 U. S. Rubber Co.
USEX
 U. S. Rubber Co.
USEX ABBOSEALED
 U. S. Rubber Co.
USKORNA
 U. S. Rubber Co.
USPREME
 U. S. Rubber Co.
USRUB
 U. S. Rubber Co.
USS
 United States Steel Corp.
U.S.S. AMERICAN
 American Steel & Wire Co.
UTC
 United Transformer Corp.
UTE
 Sangamo Electric Co.
UTILASTIC
 Paisley Products, Inc.
UTILICON
 Diamond Power Specialty Corp.
UTILIPHONE
 National Electronic Labs., Inc.
UTILISCOPE
 Diamond Power Specialty Corp.
UTILITURE
 Aluminum Co. of America
UTILIVUE
 Diamond Power Specialty Corp.
UVINUL
 Antara Chemicals Div. of General
 Aniline & Film Corp.
UYCOR
 Corning Glass Works

V-2
 Fretco Inc.
V-4
 Fretco Inc.
V-CAP
 Bright Radio Labs., Inc., Div. of
 Howell Mfg. Corp.
V-HEAT
 Electric Eye Equipment Co.
VAARO
 Davis Electronics
VACDAC
 Technical Apparatus Builders
VACOMBO
 Vaco Products Co.
VAGABOND
 Shure Brothers, Inc.
VALENCO
 Valley Engineering Co.
VALRATORS
 Fischer & Porter Co.
VALSEAL
 Richardson Co., The
VAMISTOR
 Ruckelshaus Labs., Inc., John G.
VAN-AMP
 General Apparatus Co.
VAN de GRAAFF
 High Voltage Engineering Corp.
VAPO
 Post Co., Frederick
VAPOFLASH
 Manning, Maxwell & Moore Inc.
VARALOID
 Haloid Co.
VAREC
 Vapor Recovery Systems Co.
VARFLO
 Varflex Corp.
VARGLAS
 Varflex Corp.
VARIAC
 General Radio Co.
VARIATEN
 Shalcross Mfg. Co.
VARICELL
 Superior Electric Co., The
VARI-CHOKE
 Superelex Electronics Corp.
VARICON
 Elco Corp.
VARICON
 Variable Condenser Corp.
VARIDOT
 Simpson Electric Co., Div. of
 American Gage & Machine Co.
VARIDRIVES
 U. S. Electrical Motors, Inc.
VARIETY
 Electron Enterprises
VARIFILE
 Photographic Products, Inc.
VARIJUST
 Anton Electronic Laboratories, Inc.
VARI-LOOPSTICK
 Superelex Electronics Corp.

VARIMATCH
 United Transformer Corp.
VARIOGON
 Nilsen Mfg. Co.
VARIOHM
 Mallory & Co., Inc., P. R.
VARI-OHM
 Norden-Ketay Corp.
VARI/PHASE
 Clorostat Mfg. Co., Inc.
VARI/PHASE
 Dubrow Development Co.
VARI/LOTTER
 Electronic Associates, Inc.
VARI-PLUG
 Consolidated Resistance Co. of
 America, Inc.
VARIPOLE
 Califone Corp.
VARIPOWER
 United Transformer Corp.
VARISPEED
 Audio-Master Corp.
VARI-SPLITTER
 McLaughlin Corp., J. L. A.
VARI-SWEEP
 Kay Electric Co.
VARITRAN
 United Transformer Corp.
VAR-O-POWER
 Eclipse-Pioneer Div., Bendix Aviation
 Corp.
VAR PAK
 Tobe Deutschmann Corp.
VARRO
 Davis Electronics
VARSIL
 New Jersey Wood Finishing Co.
VARSLOT
 New Jersey Wood Finishing Co.
VASCO
 Mitchell Industries, Inc.
VARTEX
 New Jersey Wood Finishing Co.
VAW
 Fluke Mfg. Co., Inc., John
VDA "100"
 Eastern Precision Resistor Corp.
VECO
 Victory Engineering Corp.
VECTORGRAPH
 DuMont Laboratories, Inc., Allen B.
VECTORLYZER
 Advance Electronics Co.
VECTROHM
 Vector, Inc.
VECTROL
 Brownthorn Electronics, Inc.
VECTROLYER
 Advance Electronics Co.
VECTROMATIC
 Vector, Inc.
VECTRONIC
 Vector, Inc.
VEECO
 Vacuum Electronic Engineering Co.
VEGETOL
 Cornell-Dubilier Electric Corp.
VEGIMAL
 Paisley Products, Inc.
VELOMETER
 Illinois Testing Labs, Inc.
VENDLITES
 Drake Mfg. Co.
VENTILAIRE
 Electric Trading Co.
VENTISEL
 Electronic Devices, Inc.,
 Precision Rectifier Div.
VENUS
 JFD Mfg. Co., Inc.
VENTURI-FLO
 Barber-Colman Co.
VERICON
 Remington Rand, Inc.
VERI-TELL
 West Instrument Corp.
VERITHERM
 Kelk & Co., G. F.
VERITHIN
 Eagle Pencil Co.
VERNIER-SET
 Automatic Temperature Control Co., Inc.
VERNISTAT
 Perkin-Elmer Corporation, The
VERSACONE
 Radio Merchandise Sales
VERSA-LINER
 Peck & Harvey
VERSALITE
 U. S. Rubber Co.
VERSATEX
 Shure Brothers
VERSA-TOOL
 Phillips Mfg. Co., Inc.
VERSATROL
 Assembly Products, Inc.
VHS
 Assembly Products, Inc.
VIBESTON
 U. S. Rubber Co.
VIBRAGLASS
 Glass Fibers, Inc.
VIBRALLOY
 Arnold Engineering Co.
VIBRALYZER
 Kay Electric Co.
VIBRAPAK
 Mallory & Co., Inc., P. R.

VIBRASENDER
Motorola Inc.

VIBRA-SHOCK
Robinson Aviation, Inc.

VIBRASPONDER
Motorola Inc.

VIBRASWITCH
Beta Corp.

VIBRATAB
Telecomputing Corp.

VIBRATROL
Pneumafil Corp.

VIBROGROUND
Associated Research Inc.

VIBROMETER
Televiso Products, Inc.

VIBROMIKE
Brush Electronics Co.

VIBROPACK
Mallory & Co., Inc., P. R.

VIBROTEST
Associated Research, Inc.

VICALLOY
Arnold Engineering Co.

VICTOR
Radio Corp. of America

VIC-DAR
Victor Adding Machine Co.

VICTROLA
Radio Corp. of America

VICTRON
Victor Electric Products, Inc.

VICTORIA
Fretco Inc.

VIDALIGNER
Kay Electric Co.

VIDEO BEAM
Camburn, Inc.

VIDEO DESIGNS
Yonkers Industries

VIDEOCOUPLER
Mallory & Co., Inc., P. R.

VIDEOFILM
General Precision Laboratory, Inc.

VIDEOGRAM
General Precision Laboratory, Inc.

VIDEOLUX
Video Corp. of America

VIDEOMETER
Hickok Electrical Instrument Co.

VIDEOPTICS
Burke & James, Inc.

VIDEOSTIGMAT
Burke & James, Inc.

VIDEOTRON
National Union Electric Corp.

VIDIGAGE
Branson Instruments, Inc.

VIDI MASTER
Communication Measurements Lab., Inc.

VIEWLITE
Viewlex, Inc.

VIEWMATIC
Viewlex, Inc.

VIEWTALK
Viewlex, Inc.

VIKANE
Cornell-Dubilier Electric Corp.

VIKING
Jensen Mfg. Co.

VIKING
Johnson Co., E. F.

VIKING I
Hudson American Corp.

VIKING II
Hudson American Corp.

VIMLITE
Celanese Corp. of America

VINALAK
Reichhold Chemicals, Inc.

VINAPEX
Apex Coated Fabrics Co.

VINEX
Union Plastics Corp.

VINPAK
Protective Coatings Corp.

VINYL
Alpha Wire Corp.

VINYL-CLAD
Paul & Stein Bros., Inc., F. H.

VINYLITE
Bakelite Corp., A Div. of Union Carbide & Carbon Corp.

VINYSEAL
Bakelite Corp. A Div. of Union Carbide & Carbon Corp.

VINYON
Bakelite Corp. A Div. of Union Carbide & Carbon Corp.

VIPOWER
Cornell-Dubilier Electric Corp.

VIPOWER
Radiart Corp.

VISIBLE PROOF
Electric Heat Control Co., The

VISAFLAME
Mergold Corp.

VIS-A-GLOW
Brach Mfg. Corp.

VISCOFILM
Industrial Condenser Corp.

VISCONOL
Telegraph Condenser Co., Ltd.

VISCOR
Weston Electrical Instruments Co.

VISICODE
Westinghouse Electric Corp.

VISIFOCUS
Paillard Products Inc.

VISION MASTER
Antennex Co.

VISITRON
Rauland Corp.

VISO-CARDIETTE
Sanborn Co.

VISUTAC
Boulin Instrument Corp.

VITAMIN Q
Sprague Electric Co.

VITAVOX
Radionic Transformer Co.

VITREOSIL
Thermal Syndicate, Ltd., The

VITRICON
Welwyn International Inc.

VITROHM
Ward Leonard Electric Co.

VITROLAIN
Star Porcelain Co.

VITRON
LOF Glass Fibers Co.

VIZ
Molded Insulation Co.

V M
Harmon, Lichtenstein & Co.

VOCAL-AIRE
Dilks Co., The

VOCATRON
Vocaline Company of America, Inc.

VOICE OF MUSIC
V-M Corp.

VOICE OF THEATRE
Altec Lansing Corp.

VOICEWRITER
Edison Inc., Thomas A.

VOICON
Radio Frequency Labs., Inc.

VOLAN
du Pont de Nemours & Co., Inc., E. I.

VOLOCITROL
Barbar-Colman Co.

VOLOMETER
Electronic Measurements Corp.

VOLSEAL
Johns-Manville

VOLTABLOC
Saff Corp. of America

VOLTALAC
Standard-Toch Chemicals, Inc.

VOLT-AMP
Industrial Devices, Inc.

VOLTASCOPE
Polarad Electronics Corp.

VOLTBOX
Superior Electric Co.

VOLTBOX A-C
Superior Electric Co.

VOLT-OHMATIC
Bergen Laboratories

VOLTOHMYST
Radio Corporation of America

VOLTROL
Acme Electric Corp.

VOLTSTAT
Industrial Transformer Co.

VORCO
Vorac Co., The

VORLAC
Vorac Co., The

VORNAME L
Vorac Co.

VO-TRON
Vokar Corp.

VOYCALL
Lake Mfg. Co.

V & S
Volkers & Schaffer Mfg. Corp.

V-2
Fretco Inc.

VUELITE
Monsanto Chemical Co.

VUEPAK
Monsanto Chemical Co.

VULCATEX
Horn Co., Inc., A. C.

VULCOID
Continental-Diamond Fibre Div. of The Budd Co.

VU MAGNEMITE
Amplifier Corp. of America

VXER
Eldico of New York, Inc.

YYCOR
Corning Glass Works

WAHLQUIST
Nilsson Electrical Laboratory, Inc.

WALCO
Electrovox Co., Inc.

WALDEN
Stevens-Walden, Inc.

WALDES TRUARC
Waldes Kohinoor, Inc.

WALKIE-RECORDALL
Miles Reproducer Co., Inc.

WALLOY
Wall Mfg. Co.

WALSCOFLEX
Walsco Electronics Corp.

WAMCO
Walnut Machine Co.

WARRIOR
Sangamo Electric Co.

WATCHMASTER
American Time Products, Inc.

WATERWITE
Bache & Co., Semon

WATSON
Burke & James, Inc.

WATTERSON
Davis & Co., J. W.

WAVEFLEX
Titeflex, Inc.

WAX S 1167
Glyco Products Co., Inc.

WAYNE-KERR
Marconi Instruments

W. D. C.
Paisley Products Inc.

WEAREVER
Daniels, Inc., C. R.

WEATHER MASTER
Jensen Mfg. Co.

WEBB
Carpenter Steel Co.

WEBCOR
Webster-Chicago Corp.

WEDGE-GRIP
Sherman Mfg. Co., H. B.

WEDGE-ON
Thomas & Betts Co.

WEDGIE
Insulation Manufacturers Corp.

WEIGER-WEED
Fansteel Metallurgical Corp.

WELDAL
Enthone, Inc.

WELDMATIC
Unitek Corp.

WELDMASTER
Unitek Corp.

WELDRAWN
Superior Tube Co.

WELDOMATIC
Westinghouse Electric Corp.

WELD-O-TIMER
Westinghouse Electric Corp.

WELD-O-TROL
Westinghouse Electric Corp.

WELDOX
Hardman Co., Inc., H. V.

WELDPPOWER
Raytheon Mfg. Co.

WELMEG
Welwyn International Inc.

WELMET
Welwyn International Inc.

WEMCALLOY
Westinghouse Electric Corp.

WES CO
West Coast Electrical Mfg. Corp.

WESGO
Western Gold & Platinum Co.

WESGO AL-300
Western Gold & Platinum Co.

WESGO AL-1009
Western Gold & Platinum Co.

WESLAB
Weston Laboratories, Inc.

WESTACH
Westberg Mfg. Co.

WEST-CAP
San Fernando Electric Mfg. Co.

WESTLINE
Western Lithograph Co.

WEST TEST
Automatic Electric Sales Corp.

WETOIL
Farrelloy Co.

WHARFEDALE
British Industries Corp.

WHC
Waltham Horological Corp.

WHIPPET
JFD Mfg. Co., Inc.

WHIRLCLAD
Polymer Corporation, The

WILCO
Wilson Co., The, H. A.

WILCOLEC
Wilcox Electric Co.

WILKOR
Aerovox Corp.

WILLIAMSON "HALLMARK"
British Radio Electronics Ltd.

WILTOMATIC
Wilton Tool Mfg. Co.

WINCO
Hudson Wire Co.

WINCO
Wincharger Corp.

WIN-TRONIX
Winston Electronics, Inc.

WIPERMALLOY
United Transformer Corp.

WIRECOM
Cook Electric Co.

WIRE-NUT
Ideal Industries, Inc.

WIREFHONE
Molded Insulation Co.

WIRETONE
Molded Insulation Co.

WIREWATT
Ohmrite Mfg. Co.

WIRTCO
Wirt Co.

WATCHMASTER
Workman TV, Inc.

WONDER-BOW
Channel Master Co.

WONDERFLUX
American Silver Co., Inc.

WONDERLING
Rego Insulated Wire Co.

WOOD GLU
Paisley Products Inc.

WOOD-RAY
Woodwelding, Inc.

WORBUD ASSOCIATES
Dubrow Development Co.

WORK CENTER
Alden Systems Co.

WRINLAY
Photo Chemical Products, Inc.

WYD-ANGLE
Ess Specialty Corp.

XACTEMP
Gordon Co., Claud S.

XACTLINE
Gordon Co., Claud S.

XCEL
Xcelite, Inc.

XELA
Klein & Sons, Mathias

XELON
Times, Wire & Cable Co.

XENON
Hanovia Chemical & Mfg. Co.

XERNIT
Haloid Co.

XEROX
Haloid Co., The

XPANDIT
Photo Chemical Products, Inc.

X-PRESS
Cook Electric Co.

XRD
X-Ray Dept. of General Electric Co.

XTALATOR
Kay Electric Co.

XTE
Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co.

X-VAR
Fidelity Chemical Products Corp.

X-WASHERS
Standard Locknut & Lockwashers, Inc.

XY
Stromberg-Carlson Co., Div. of General Dynamics Corp.

YAGI-HELIX
JFD Mfg. Co., Inc.

YANKEE
Stanley Tools Div., Stanley Works

YARDARM
Radio Merchandise Sales, Inc.

YELLOW HANDLE
Aircraft-Marine Products, Inc.

YIBRATROL
Pneumafil Corp.

YORKMESH
York Co., Inc., Otto H.

Z ANGLE
Technology Instrument Corp.

ZAHODIAKIN
Scovill Mfg. Co.

ZEO-DUR
Permutit Co.

ZEO-KARB
Permutit Co.

ZENO-KOTE
Zenith Optical Lab.

ZERO READER
Sperry Gyroscope Co. Div. of the Sperry Corp.

ZERO-START
Phillips Mfg. Co., Inc.

ZIFOR
Collins Radio Co.

ZIP
JFD Mfg. Co., Inc.

ZIPCORD
U. S. Rubber Co.

ZIP-GRIP
Set Screw Mfg. Co.

ZIP-IN
Amphenol Electronics Corp.

ZIPOHMS
Muter Co.

ZIPPER
Centralab Div. of Globe-Union, Inc.

ZIRMET
Foote Mineral Co.

ZOOMAR
Television Zoomar Corp.

ZOOM UP
Camburn, Inc.

ZOOM-UP
JFD Mfg. Co., Inc.

ZYROX
Bakelite Co. A Div. of Union Carbide & Carbon Corp.

ZYTEL
du Pont de Nemours & Co., Inc., E. I.

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MANUFACTURERS INDEX

A listing of the companies engaged in the manufacture of all types of electronic components and complete electronic equipment. They are alphabetically arranged for convenient use and quick reference.

A

- AA Metal Products, Inc., 154 Elliott St., Box 716, Brattleboro, Vt.
A. C. Transformer Corp., 89 Madison St., Newark, N. J.
ACF Electronics, 800 N. Pitt St., Alexandria, Va.
A/G/A Div. of Elastic Stop Nut Corp. of America, 1029 Newark Ave., Elizabeth 3, N. J.
A. P. W. Co., 72 W. Main St., Rockaway, N. J.
A. R. F. Products, Inc., 7627 Lake St., River Forest, Ill.
A-V Mfg. Corp., 730 Fifth Ave., New York 19, N. Y.
Abalon Precision Mfg. Corp., 540 Casanova St., Bronx 59, N. Y.
Abrams Instrument Corp., 600-620 E. Shiawassee St., Lansing 1, Mich.
Accurate Electronics Corp., 169 S. Abbe Rd., Elyria, Ohio.
Accurate Insulated Wire Corp., 23 Fox St., New Haven, Conn.
Accurate Mfg. Co., 44 Hepworth Place, Garfield, N. J.
Accurate Paper Tube Co., 801 N. Peoria St., Chicago 22, Ill.
Accurate Spring Mfg. Co., 3811 W. Lake St., Chicago, Ill.
Ace Coil & Electronics Co., 912 Lincoln Highway, Metuchen, N. J.
Ace Electronics Associates, 99 Dover St., Somerville 44, Mass.
Ace Engineering & Machine Co., Inc., 3644 N. Lawrence St., Philadelphia 40, Pa.
Ace Plastic Co., 91-54 Van Wyck Expressway, Jamaica 35, N. Y.
Ace Spring Mfg. Co., 77 W. Houston St., New York 12, N. Y.
Acheson Colloids Co., 1950 Washington Ave., Port Huron, Mich.
Ackerman Engravers, 458 Broadway, New York, N. Y.
Ackerman-Gould Co., 92 Blecker St., New York, N. Y.
Ackerman-Johnson Co., 625 W. Jackson Blvd., Chicago 6, Ill.
Acme Battery Co., 200 Henry St., Stamford, Conn.
Acme Electric Corp., 21 Water St., Cuba, N. Y.
Acme Electric Heating Co., 1217 Washington St., Boston, Mass.
Acme Telectronic Div. of NEA Service, Inc., West Third & Lakeside, Cleveland 13, Ohio.
Acme Tool & Specialties Co., 224 N. Loomis St., Chicago 7, Ill.
Acme Wire Co., New Haven 14, Conn.
Acme Wire Machine Co., 234 E. 3rd St., New York, N. Y.
Acoustica Associates, Inc., Shore Rd., Glenwood Landing 2, N. Y.
Acro-Mu Switch Div., Acro Mfg. Co., Columbus, Ohio.
Acro Products Co., 369 Shurs Lane, Philadelphia 28, Pa.
Acro Transformer Mfg. Corp., 26-02 Fourth St., Astoria 2, N. Y.
Acromark Co., Inc., 323 Morrell St., Elizabeth 4, N. J.
Actioncraft Products, 8 Sagamore Hill Drive, Port Washington, N. Y.
Acton Laboratories, Inc., Acton, Mass.
Adams & Westlake Co., The Michigan St., Elkhart, Ind.
Adel Precision Products Div. of General Metals Corp., 10777 Vanowen St., Burbank, Calif.
Adler Electronics, Inc., 1 Le Fevre Lane, New Rochelle, N. Y.
Admiral Corp., 3800 Cortland St., Chicago 47, Ill.
Admiral Tool & Mfg. Co., 2354 N. Clybourn, Chicago, Ill.
Admittance, Inc., 9 Alan Court, Farmingdale, N. Y.
Advance Electric & Relay Co., 2435-L N. Naomi St., Burbank, Calif.
Advance Electronics Co., 451 Highland Ave., Passaic, N. J.
Advanced Electronics, Inc., 95 Silas Deane Highway, Rocky Hill, Conn.
Advanced Vacuum Products, Inc., Div. of General Ceramics Corp., 122 Liberty St., Stamford, Conn.
Aemco, Inc., 62 State St., Mankato, Minn.
Aermotive Equipment Corp., 1632-B Central St., Kansas City 10, Mo.
Aero Instrument Co., 11423 Vanowen St., North Hollywood, Calif.
Aero Research Instrument Co., 315 N. Aberdeen St., Chicago 7, Ill.
Aero Specialties, Pleasant Valley Rd., Sutton, Mass.
Aerocoil, Inc., 24 Cliff St., Jersey City, N. J.
Aerolab Development Co., 330 W. Holly St., Pasadena, Calif.
Aerolite Electronics Corp., 507-26th St., Union City, N. J.
Aerolux Lights Corp., 653 Eleventh Ave., New York 36, N. Y.
Aeronautical Communications Equipment, Inc., 3090 Douglas Rd., Miami 33, Fla.
Aeronautical Electric Co., 5656 Northwest Highway, Chicago 30, Ill.
Aeronautical Electronics Inc., Raleigh-Durham Airport, P. O. Box 6043, Raleigh, N. C.
Aeroprojects Incorporated, 310 E. Rosedale Ave., West Chester, Pa.
Aerotron Supply Co., 8504 S. Normandie Ave., Los Angeles 44, Calif.
Aerovox Corp., 740 Belleville Ave., New Bedford, Mass.
Aerovox Corp., Pacific Coast Div., 2724 Peck Rd., Monrovia, Calif.
Ahrendt Instrument Co., The, 4910 Calvert Rd., College Park, Md.
Ainslie Corp., 312 Quincy Ave., Quincy 69, Mass.
Air Associates, Inc., Electronic Equipment Div., 511 Joyce St., Orange, N. J.
Air Control Installations, Ltd., Ruislip, Middlesex, England.
Airborne Accessories Corp., 1414 Chestnut Ave., Hillside, N. J.
Airborne Electronics Co., 6813 Troost Ave., North Hollywood, Calif.
Airborne, Inc., 1733 N. Milwaukee Ave., Chicago 47, Ill.
Airborne Instruments Lab., Inc., 160 Old Country Rd., Mineola, N. Y.
Aircorn Inc., 354 Main St., Winthrop 52, Mass.
Aircraft Armaments, Inc., Cockeysville, Md.
Aircraft-Marine Products, Inc., 2100 Paxton St., Harrisburg 10, Pa.
Aircraft-Marine Products, Inc., Chemicals & Dielectrics Div., 155 Park Ave., Elizabethtown, Pa.
Aircraft Radio Corp., Boonton, N. J.
Aircraft Transformer Corp., 234 Creek Rd., Keansburg, N. J.
Airdesign, Inc., 241 Fairfield Ave., Upper Darby, Pa.
Aireco, Inc., 2315-10 Second Ave., Carmen, Schenectady, N. Y.
Airflyte Electronics Co., 535-9 Avenue "A", Bayonne, N. J.
Air-Marine Motors, Inc., 369 Bay View Ave., Amityville, N. Y.
Airmec, Ltd., High Wycombe, Buckinghamshire, England.
Airpax Products Co., Middle River, Baltimore 20 Maryland.
Airtron, Inc., 1101 W. Elizabeth Ave., Linden, N. J.
Ajax Condenser Corp., 10905 Chandler Blvd., North Hollywood, Calif.
Aladdin Radio Industries, Inc., 711 Murfreesboro Rd., Nashville 2, Tenn.
Alcar Instruments, Inc., 17 Industrial Ave., Little Ferry, N. J.
Alco Electronics Mfg. Co., 3 Wolcott Ave., Lawrence, Mass.
Alcon Metal Products, Inc., 1750 N. Kimball Ave., Chicago 47, Ill.
Alcor Electronics Corp., 180 Lafayette St., New York 13, N. Y.
Alden Electronic & Impulse Recording Equipment Co., Box 125, Westboro, Mass.
Alden Products Co., 112 N. Main St., Brockton, Mass.
Alden Systems, Inc., Alden Research Center, Westboro, Mass.
Alectric Mfg. Co., 7842 39th Avenue, Kenosha, Wis.
Alfax Paper Engineering Co., Washington St., P. O. Box 125, Westboro, Mass.
Alford Mfg. Co., Inc., 299 Atlantic Ave., Boston, Mass.
Alfred Electronics, 897 Commercial St., Palo Alto, Calif.
Algo, Inc., 251 West St., South Hackensack, N. J.
All American Tool & Mfg. Co., 8027 Lawndale, Skokie, Ill.
All Star Products, Inc., Defiance, Ohio.
All-State Welding Alloys Co., Inc., 249 Ferris Ave., White Plains, N. Y.
All-Tronics, Inc., 45 Bond St., Westbury, N. Y.
Allard Instrument Corp., 146 E. Second St., Mineola, N. Y.
Allegheny Instrument Co., Inc., Cumberland, Md.
Allegheny Ludlum Steel Corp., H. W. Oliver Bldg., Pittsburgh 22, Pa.
Allen Co., L. B., Inc., 6751 Bryn Mawr Ave., Chicago 31, Ill.
Allen-Bradley Co., 136 W. Greenfield Ave., Milwaukee 4, Wis.
Allen Mfg. Co., Hartford 2, Conn.
Alliance Mfg. Co., Lake Park Blvd., Alliance, Ohio.
Allied Allegri Inc., 141 River Rd., Nutley 10, N. J.
Allied Control Co., Inc., 2 East End Ave., New York 21, N. Y.
Allied Electronic Equipment Co., 425 Brannan St., San Francisco 7, Calif.
Allied Industries, Inc., 2500 Woodland Ave., Louisville 10, Ky.
Allied Products Div., Hamilton Watch Co., Lancaster, Pa.
Allied Radio Corp., 100 North Western Ave., Chicago 80, Ill.
Allied Recording Products Co., 32-32 Greenpoint Ave., Long Island City 1, N. Y.
Allied Research & Engineering Div., Allied Record Mfg. Co., 6916 Santa Monica Blvd., Hollywood 38, Calif.
Allies' Products Corp., 1028 Connecticut Ave., N. W., Suite 1221, LaSalle Bldg., Washington 6, D. C.
Allis-Chalmers Mfg. Co., 935 South 70th St., Milwaukee 1, Wis.
Allison Laboratories, Inc., 14185 Skyline Drive, Puente, Calif.
Allmetal Screw Products Co., Inc., 821 Stewart Ave., Garden City, N. Y.
Alloy Metal Wire, Div. of H. K. Porter Co., Inc., Prospect Park, Pa.
Alloy Precision Casting Co., E. 45th St. & Hamilton Ave., Cleveland 14, Ohio.
Alloy Tube Div. of The Carpenter Steel Co., Union, N. J.
Alpar Manufacturing Corp., 2910 Spring St., Redwood City, Calif.
Alpha Metals, Inc., 60 Water St., Jersey City, N. J.
Alpha Wire Corp., 200 Varick St., New York 14, N. Y.
Atec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
Alto Scientific Co., 855 Commercial St., Palo Alto, Calif.
Aluminum Co. of America, 1501 Alcoa Bldg., Pittsburgh 19, Pa.
Ambroid Co., Weymouth 88, Mass.
Amelco, Inc., 2040 Colorado Ave., Santa Monica, Calif.
Amerac, Inc., 116 Topsfield Rd., Wenham, Mass.
American Aluminum Co., Sheffield St.,-C, Mountainside, N. J.
American Brass Co., 414 Meadow St., Waterbury 20, Conn.
American Chain & Cable Co., Inc., 601 Stephenson Bldg., Detroit 2, Mich.
American Chronoscope Corp., 316 W. First St., Mount Vernon, N. Y.
American Condenser Co., 4410 Ravenswood Ave., Chicago 40, Ill.
American Cyanamid Co., 38 Rockefeller Plaza, New York 20, N. Y.
American Diathermy Products, Inc., 11858 Mississippi Ave., Los Angeles 25, Calif.
American Electrical Heater Co., 6110 Cass Ave., Detroit 2, Mich.
American Electronic Labs., Inc., 641 Arch St., Philadelphia 6, Pa.
American Electronics Co., 1203-05 Bryant Ave., New York 59, N. Y.
American Electronics, Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
American Elite, Inc. (Telefunken), 7 Park Ave., New York 16, N. Y.
American Gas Furnace Co., 130 Spring St., Elizabeth, N. J.

- American Hard Rubber Co., 11 Mercer St., New York 13, N. Y.
- American Hinge Corp., 206 Wallabout St., Brooklyn 6, N. Y.
- American Instrument Co., Inc., 8030 Georgia Ave., Silver Spring, Md.
- American Laubscher Corp., 250 W. 57th St., Fisk Bldg., New York 19, N. Y.
- American Lava Corp., Chattanooga 5, Tennessee.
- American Leonic Mfg. Co., Amber & Hagert Sts., Philadelphia 25, Pa.
- American Machine & Foundry Co., Defense Products Group, 1101 N. Royal St., Alexandria, Va.
- American Machine & Foundry Co., Electronics Div., 1085 Commonwealth Ave., Boston 15, Mass.
- American Metal Co., Ltd., 61 Broadway, New York 6, N. Y.
- American Metrix Corp., 15 Exchange Place, Jersey City, 2, N. J.
- American Mica Insulation Co., Manasquan, N. J.
- American Microphone Co., 370 S. Fair Oaks Ave., Pasadena 1, Calif.
- American Molded Products Co., 2727 W. Chicago Ave., Chicago 22, Ill.
- American Molding Powder & Chemical Corp., 703 Bedford Ave., Brooklyn 6, N. Y.
- American Optical Co., Instrument Div., Box A, Buffalo 15, N. Y.
- American Páncor, Inc., Havertown, Pa.
- American Perfit Crystal Corp., 653 Eleventh Ave., New York 36, N. Y.
- American Photocopy Equipment Co., 1920 W. Peterson, Chicago 26, Ill.
- American Platinum Works, N.J.R.R. Ave. at Oliver St., Newark 5, N. J.
- American Printed Circuits Co., Forrest St., Metuchen N. J.
- American Products Mfg. Co., Inc., 8127-33 Oleander St., New Orleans 18, La.
- American Radar Components, Inc., Route 10, Whippany, N. J.
- American Rectifier Corp., 95 Lafayette St., New York 13, N. Y.
- American Research Corp., 11 Brook St., Bristol, Conn.
- American Research & Mfg. Corp., 4914 Delray Ave., Bethesda, Md.
- American Scientific Development Co., 334 S. Main St., Atkinson, Wis.
- American Screw Co., Willimantic, Conn.
- American Silver Co., Inc., 36-07 Prince St., Flushing 54, N. Y.
- American Solder & Flux Co., 19th & Willard Sts., Philadelphia 40, Pa.
- American Speedlight Corp., 63-01 Metropolitan Ave., Middle Village 79, N. Y.
- American Steel & Wire Div., U. S. Steel Corp., Rockefeller Bldg., Cleveland 13, Ohio.
- American Super-Temperature Wires, Inc., W. Canal St., Winooski, Vt.
- American Television & Radio Co., 300 E. Fourth St., St. Paul 1, Minn.
- American Thermo Electric Co., 7269 Santa Monica Blvd., Los Angeles 46, Calif.
- American Time Products, Inc., 580 Fifth Ave., New York 36, N. Y.
- Amersil Co., Inc., 685 Ramsey Ave., Hillside 5, N. J.
- Ampro Corp., 2037 W. Division St., Chicago 22, Ill.
- Amperex Electronic Corp., 230 Duffy Ave., Hicksville, N. Y.
- Amperite Co., 561 Broadway, New York 12, N. Y.
- Ampex Corp., 934 Charter St., Redwood City, Calif.
- Amphenol Electronics Corp., 1830 S. 54th Ave., Chicago 50, Ill.
- Amplifier Corp. of America, 396 Broadway, New York 13, N. Y.
- Ampl-Vision Div. of The International Telemeter Corp., 2000 Stoner Ave., Los Angeles 25, Calif.
- Ampro Corp., 1345 Diversey Parkway, Chicago 14, Ill.
- Amthor Testing Instrument Co., 45-53 Van Sinderen Ave., Brooklyn 7, N. Y.
- Anaconda Wire & Cable Co., 25 Broadway, New York 4, N. Y.
- Analogue Controls, Inc., 39 Roselle St., Mineola, N. Y.
- Analytical Measurements, Inc., 585 Main St., Chatham, N. J.
- Anasae Corp., 80 Wall St., New York 5, N. Y.
- Anatran Engineering Corp., 165 California St., Pasadena, Calif.
- Anchor Metal Co., 244 Boerum St., Brooklyn 6, N. Y.
- Anchor Industrial Co., Div. of Anchor Plastics Co., Inc., 36-36 36th St., Long Island City 6, N. Y.
- Andersen Laboratories, Inc., 39 Talcott Rd., West Hartford 10, Conn.
- Anderson Associates, H. V., 239 Park Ave., Berkeley Heights, N. J.
- Andrea Radio Corp., 27-01 Bridge Plaza North, Long Island City 1, N. Y.
- Andrew Corp., 363 E. 75th St., Chicago 19, Ill.
- Anelix Corporation, 150 Causeway St., Boston 14, Mass.
- Annis Co., R. B., 1101 N. Delaware St., Indianapolis, Ind.
- Ansley Mfg. Co., Arthur, New Hope, Pa.
- Ansonia Wire & Cable Co., The, 63 Main St., Ansonia, Conn.
- Antara Chemicals Div. of General Aniline & Film Corp., 435 Hudson St., New York 14, N. Y.
- Antennex Co., 4060 Ocean Park Ave., Venice, Calif.
- Anti-Corrosive Metal Products Co., Castleton-on-Hudson, N. Y.
- Antlab, 4950 N. High St., Columbus 14, Ohio.
- Anton Electronic Laboratories, Inc., 1226 Flushing Ave., Brooklyn 37, N. Y.
- Anton Machine Works, 1226 Flushing Ave., Brooklyn 37, N. Y.
- Apex Coated Fabrics Co., 12 E. 22nd St., New York 10, N. Y.
- Apex Machine Co., 14-13 118th St., College Point 56, N. Y.
- Apex Wire & Cable Corp., 237 37th St., Brooklyn 32, N. Y.
- Applegate & Co., C. J., 1816 Grove St., Boulder, Colo.
- Applied Electronics Co., Inc., 1246 Folsom St., San Francisco 3, Calif.
- Applied Physics Corp., 362 W. Colorado St., Pasadena 1, Calif.
- Applied Radiation Corp., 1210 Spring Brook Rd., Walnut Creek, Calif.
- Applied Research Inc., 163-07 Depot Rd., Flushing, N. Y.
- Applied Research Labs., 3717 Park Place, Glendale 8, Calif.
- Applied Resins Corp., 304 Oraton St., Newark 4, N. J.
- Applied Science Corp. of Princeton, 45 Wallace Rd., Princeton, N. J.
- Arch Gear Works, Inc., 97 Holmes St., North Quincy (71), Mass.
- Arco Electronics Inc., 64 White St., New York 13, N. Y.
- Arco Transformer & Electric Corp., 1602 S. Hanna St., Fort Wayne, Ind.
- Aremac Associates, 50 S. San Gabriel, Pasadena 10, Calif.
- Arenberg Ultrasonic Laboratory, 94 Green St., Jamaica Plain 30, Mass.
- Arga Div., Beckman Instruments, Inc., 220 Pasadena Ave., South Pasadena, Calif.
- Arles Laboratories, Inc., 270 Park Ave., New York 17, N. Y.
- Ark-Les Switch Corp., 51 Water St., Watertown 72, Mass.
- Arma Div. of American Bosch Arma Corp., Old Country Rd., Garden City, N. Y.
- Armo Steel Corp., 703 Curtis St., Middletown, Ohio.
- Armel Electronics, Inc., 840 Fifth Ave., Brooklyn 32, N. Y.
- Armstrong Cork Co., Lancaster, Pa.
- Arnold Ceramics, Inc., 1 E. 57th St., New York 22, N. Y.
- Arnold Engineering Co., Marengo, Ill.
- Arnold Magnetics Corp., 5962 Smiley Drive, Culver City, Calif.
- Arnoux Corp., Box 34628, Los Angeles, Calif.
- Arro Expansion Bolt Co., 1522 Boone Ave., Marion, Ohio.
- Arrow-Hart & Hegeman Electric Co., 103 Hawthorn St., Hartford 6, Conn.
- Arrowhead Rubber Co., 2350 Curry St., Long Beach 35, Calif.
- Art-Lloyd Metal Products Corp., 2973 Cropsey Ave., Brooklyn 14, N. Y.
- Art Wire & Stamping Co., 227 High St., Newark 2, N. J.
- Artisan Metal Works Co., 11410 Madison Ave., Cleveland 2, Ohio.
- Artos Engineering Co., 2737 S. 28th St., Milwaukee, Wis.
- Arvey Corp., 3500 N. Kimball Ave., Chicago, Ill.
- Arvin Industries, Inc., Electronics & Appliance Div., Columbus, Ohio.
- Arwood Precision Casting Corp., 75 Washington St., Brooklyn, N. Y.
- Asco Wire & Cable Co., 2 Burroughs St., Bridgeport 7 Conn.
- Asheville-Schoonmaker Mica Co., 900 Jefferson Ave., Newport News, Va.
- Askania Regulator Co., 240 E. Ontario St., Chicago 11, Ill.
- Assembly Products, Inc., Chesterland 6, Ohio.
- Associated American Trading Division, 8010 Empire State Bldg., New York 1, N. Y.
- Associated Commodity Corp., Woolworth Bldg., New York 7, N. Y.
- Associated Engineering Corp., 65 Kent St., Brookline 46, Mass.
- Associated Engineering & Mfg. Corp., Glen Ridge, N. J.
- Associated Research, Inc., 3788 W. Belmont Ave., Chicago 18, Ill.
- Associated Specialties Co., 1751 Main St., Orefield, Pa.
- Astac Corporation, The, Conneaut, Ohio.
- Astron Corp., 255 Grant Ave., East Newark, N. J.
- Atlantic India Rubber Works, Inc., Dept. EL, 571 Polk St., Chicago 7, Ill.
- Atlantic & Pacific Wire & Cable Co., Inc., 112-01 Northern Blvd., Corona, N. Y.
- Atlantic Research Corp., 901 N. Columbus, Alexandria, Va.
- Atlantic Wire & Cable Corp., 119-14 14th Rd., College Point, N. Y.
- Atlas Coil, Inc., Cottage St., Derby, Conn.
- Atlas E-E Corp., Bedford Airport Terminal Bldg., Bedford, Mass.
- Atlas Engineering Co., 176 Blue Hill Ave., Roxbury, Mass.
- Atlas Precision Products Co., Castor & Kensington Aves., Philadelphia 24, Pa.
- Atlas Resistor Co., Main & Cotton Sts., Philadelphia 27, Pa.
- Atlas Screw & Specialty Co., Inc., 450 Broome St., New York 13, N. Y.
- Atlas Sound Corp., 1443 39th St., Brooklyn 18, N. Y.
- Atmosphere Control Co., Inc., 5315 Chester Ave., Philadelphia 43, Pa.
- Atomic Instrument Co., 84 Massachusetts Ave., Cambridge 39, Mass.
- Atomic Research Corp., P. O. Box 205, Colorado Springs, Colo.
- Attleboro Refining Co., Inc., Attleboro, Mass.
- Auburn Button Works, Inc., Auburn, N. Y.
- Auburn Mfg. Co., Pease Ave. & Stack St., Middletown, Conn.
- Audak Co., 500 Fifth Ave., New York, N. Y.
- Audar, Inc., P. O. Box 438M, Pasadena 18, Calif.
- Audio Development Co., 2833 13th Ave., S., Minneapolis 7, Minn.
- Audio Devices, Inc., 444 Madison Ave., New York 22, N. Y.
- Audio Equipment Co., Inc., 805 Middle Neck Rd., Great Neck, N. Y.
- Audio Industries Inc., Michigan City, Ind.
- Audio Instrument Co., Inc., 133A W. 14th St., New York 11, N. Y.
- Audio-Master Corp., 17 E. 45th St., New York 17, N. Y.
- Audio Products Corp., 2265 Westwood Blvd., Los Angeles 64, Calif.
- Augat Bros., Inc., 33 Perry Ave., Attleboro, Mass.
- Aurex Corp., 1117 N. Franklin St., Chicago 10, Ill.
- Austenal Laboratories, Inc., Microcast Div., 224 E. 39th St., New York 16, N. Y.
- Austin Co., The, Special Devices Div. 76 Ninth Ave., New York 11, N. Y.
- Autel Electronics Co., 1946 Farmingdale Rd., Westfield, N. J.
- Auto Engraver Co., Ridgefield, Conn.
- Autocrat Electronics Co., 5024 Elm St., Skokie, Ill.
- Automatic & Precision Mfg. Co., 252 Hawthorne Ave., Yonkers, N. Y.
- Automatic Electric Sales Corp., 1033 W. Van Buren St., Chicago 7, Ill.
- Automatic Mfg. Corp., 65 Gouverneur St., Newark 4, N. J.
- Automatic Metal Products Corp., 315 Berry St., Brooklyn 11, N. Y.
- Automatic Processing Corp., 121 S. Cowan St., Garrett, Ind.
- Automatic Radio Mfg. Co., Inc., 122 Brookline Ave., Boston, Mass.
- Automatic Signal Division Eastern Industries, Inc., Regent St., East Norwalk, Conn.
- Automatic Switch Co., 391 Lakeside Ave., Orange, N. J.
- Automatic Temperature Control Co., Inc., 5212 Pulaski Ave., Philadelphia 44, Pa.
- Autocrew Co., 216-222 W. 18th Street, New York, N. Y.
- Autotron Co., P. O. Box 722-H, Danville, Ill.
- Avery Adhesive Label Corp., 1616 S. California Ave., Monrovia, Calif.
- Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
- Avien, Inc., 58-15 Northern Blvd., Woodside 77, N. Y.
- Avion Instrument Corp., A Sub. of A.C.F. Industries, Inc., 299 State Highway #17, Paramus, N. J.
- Avionex Electronics Corp., 2838 N. Naomi St., Burbank, Calif.
- Avon Tube Div., Higbie Mfg. Co., Wagner Rd., Rochester, Mich.
- Axel Bros. Electronics Div., 134-20 Jamaica Ave., Jamaica, N. Y.
- Axler Associates, 102-42 43rd Ave., Corona, N. Y.

B

- B & C Insulation Products, Inc., Lincoln Highway, Iselin, N. J.
- B & F Instruments Inc., 4732 N. Broad St., Philadelphia 41, Pa.
- BJ Electronics Div. of Borg-Warner Corp., 3300 Newport Blvd., Santa Ana, Calif.
- B & M Electric Co., 838 Fourth Ave., Brooklyn 32, N. Y.
- Babcock Radio Engineering Co., 7942 Woodley Ave., Van Nuys, Calif.
- Bache & Co., Semon, 636 Greenwich St., New York 14, N. Y.
- Baer Co., N. S., 9 Montgomery St., Hillside, N. J.
- Bailey Meter Co., 1050 Ivanhoe Road, Cleveland 10, Ohio.
- Baird Associates, Inc., 33 University Rd., Cambridge 38, Mass.
- Bakelite Co., A Div. of Union Carbide & Carbon Corp., 30 East 42nd St., New York 17, N. Y.
- Baker & Adamson Products, General Chemical Div. of Allied Chemical & Dye Corp., 40 Rector St., New York, N. Y.
- Baker & Co., Inc., 113 Astor St., Newark 5, N. J.
- Baker Chemical Co., J. T., Phillipsburg, N. J.
- Balco Research Laboratories, 49-53 Edison Place, Newark 2, N. J.
- Baldwin Piano Co., 1801 Gilbert St., Cincinnati 2, Ohio.
- Ballantine Laboratories, Inc., Boonton, N. J.
- Ballastran Corp., Fort Wayne, Ind.
- Baltic Metal Products Co., 120 Sutton St., Brooklyn, 22, N. Y.
- Barber-Colman Co., Dept. 766, Rockford, Ill.
- Barber Labs., Alfred W., 32-44 Francis Lewis Blvd., Flushing, N. Y.
- Barco Chemical Products Co., 701-703 S. La Salle, Chicago 5, Ill.
- Barium & Chemicals, Inc., Willoughby, Ohio.
- Barker & Williamson, 235 Fairfield Ave., Upper Darby, Pa.
- Barker Sales Co., 996-8 Edgewater Ave., Ridgefield, N. J.
- Barnes Co., Wallace, Div. of Associated Spring Corp., Bristol, Conn.
- Barnes Development Co., 213 W. Baltimore Pike, Lansdowne, Pa.
- Barnes-Gibson-Raymond Division, 40300 Plymouth Rd., Plymouth, Mich.
- Barnes Metal Products Co., 4425 W. 16th St., Chicago 23, Ill.
- Barnstead Still & Sterilizer Co., Inc., 2 Lanesville Terrace, Boston 31, Mass.
- Bar-Ray Products, Inc., 209 25th St., Brooklyn 32, N. Y.
- Barrett Co., Leon J., 1776 Grafton Rd., Worcester 1, Mass.
- Barrett Division, Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
- Barrett Varnish Co., 1532 S. 50th Court, Cicero 50, Ill.
- Barry Controls, Inc., 711 Pleasant St., Watertown 72, Mass.
- Bart Laboratories, Div. of Bart Mfg. Corp., 227 Main St., Belleville, N. J.
- Bart-Messing Corp., 229 Main St., Belleville, N. J.
- Barwood Electronics Inc., 546 W. Garfield Ave., Glendale 4, Calif.

Barwood Mfg. Co., Inc., L. J., 22 Williams St., Everett 49, Mass.
Basic Tool Industries, Inc., Electronic Div., 1621 S. Maple Ave., Los Angeles 15, Calif.
Basler Electric Co., 605 Fifth St., Highland, Ill.
Basler Electronics, Inc., 13th & Broadway, Highland, Ill.
Bassett Inc., Rex, 1314 N. E. 17th Court P. O. Box 7127, Fort Lauderdale, Fla.
Bausch & Lomb Optical Co., 614 St. Paul St., Rochester 2, N. Y.
Beach-Russ Co., 50 Church St., New York 7, N. Y.
Bead Chain Manufacturing Co., The, 110 Mountain Grove St., Bridgeport 5, Conn.
Beaver Gear Works, Inc., 1034 Parmele St., Rockford Ill.
Becker Electronics Mfg. Corp., Horton & Rockaway Aves., Valley Stream, N. Y.
Beckman Inc., Arnold O., 1020 Mission St., South Pasadena, Calif.
Beckman Instruments, Inc., 2500 Fullerton Rd., Fullerton, Calif.
Beckman & Whitley, Inc., 913 San Carlos Ave., San Carlos, Calif.
Beck's Inc., 298-300 E. Fifth St., Saint Paul 1, Minn.
Beebe Electrical Instrument Co., Inc., Penacook, N. H.
Behlman Engineering Co., 114 S. Hollywood Way, Burbank, Calif.
Bel Fuse Inc., 311 Mountain Road, Union City, N. J.
Belden Mfg. Co., 4647 W. Van Buren St., Chicago 44, Ill.
Bellaire Electronics, Inc., 62 White St., Red Bank, N. J.
Belock Instrument Corp., 111-01 14th Ave., College Point 56, N. Y.
Beltone Hearing Aid Co., 2900 W. 36th St., Chicago, 32, Ill.
Bendix Aviation Corp., Cincinnati Div., 203 W. Third St., Cincinnati 2, Ohio.
Bendix Aviation Corp., Pacific Division, 11600 Sherman Way, North Hollywood, Calif.
Bendix Aviation Corp., York Div., York, Pa.
Bendix Computer Division, Bendix Aviation Corp., 5630 Arbor Vitae St., Los Angeles 45, Calif.
Bendix Radio Division, Bendix Aviation Corp., Baltimore 4, Md.
Bennett Co., Inc., R. P., Frederick, Md.
Bennett Mfg. Co., Alden, N. Y.
Bennett Products Mfg. Co., P. O. Box 1055, Palo Alto, Calif.
Benson-Lehner Corp., 11930 W. Olympic Blvd., Los Angeles 64, Calif.
Bentley-Harris Mfg. Co., Conshohocken, Pa.
Berg Mfg. Corp., 142 Reno Ave., New Cumberland, Pa.
Bergen Laboratories, 11 Godwin Ave., Fair Lawn, N. J.
Bergen Wire Rope Co., 456 Gregg St., Lodi, N. J.
Berkeley Division, Beckman Instruments, Inc., 2200 Wright Ave., Dept. G-13, Richmond 3, Calif.
Berkshire Laboratories, 580 Bank Village, Greenville, N. H.
Berlant Concertone-Audio Div. of American Electronics Inc., 655 W. Washington Blvd., Los Angeles 15, Calif.
Bernco Engineering Corp., P. O., Box 8238, Indianapolis 24, Ind.
Berndt-Bach, Inc., Auricon Div., 6924 Romaine St., Hollywood 38, Calif.
Beryllium Corp., The, Reading, Pa.
Best Manufacturing Co., Inc., 1200 Grove St., Irvington 11, N. J.
Beta Corp., P. O. Box 8625, Richmond, Va.
Beta Electric Corp., 333 E. 103rd St., New York 29, N. Y.
Beva Laboratory, 1640 Olden Ave., Ext., Trenton 9, N. J.
Biddle Co., James G., 1316 Arch St., Philadelphia 7, Pa.
Bigelow Mfg. Corp., 225 W. Bigelow St., Newark 8, N. J.
Biggs Co. Carl H., 2225 Barry Ave., West Los Angeles 64, Calif.
Bill Jack Scientific Instrument Co., P. O. Box C-3, Solana Beach, Calif.
Bingham Mfg. Co., J. F., 69 Bay State Rd., Lawrence Mass.
Bird Co., Richard H., 1 Spruce St., Waltham, Mass.
Bird Electronic Corp., 1800 E. 38th St., Cleveland 14, Ohio.
Birdsell Mfg. Co., Inc., 750 San Antonio Rd., Palo Alto, Calif.
Birnback Radio Co., Inc., 145 Hudson St., New York 13, N. Y.
Bircher Corp., 4371 Valley Blvd., Los Angeles 32, Calif.
Bischof Die & Engraving, 1405 16th St., Racine, Wis.
Bishop & Co., J., Platinum Works, Malvern, Pa.
Bishop Mfg. Corp., 10 Canfield Rd., Cedar Grove, N. J.
Biwax Corp., 3445 Howard St., Skokie, Ill.
Blackstone Corp., 1111 Allen St., Jamestown, N. Y.
Blake & Johnson Co., 1495 Thomaston Ave., Waterville 48, Conn.
Blaw-Knox Co., Farmers Bank Bldg., Pittsburgh 22, Pa.
Bliley Electric Co., Union Station Bldg., Erie, Pa.
Bliss Electronic Corp., Box 366, Sussex, N. J.
Blockson & Co. Michigan City, Ind.
Blonder-Tongue Laboratories, Inc., 526-536 North Ave., Westfield, N. J.
Bludworth Marine Div., National-Simplex-Bludworth, Inc., 92 Gold St., New York 38, N. Y.
Blue M Electric Co., 138th & Chatham St., Blue Island, Ill.
Bodine Electric Co., Ohio St. & Oakley Blvd., Chicago 12, Ill.
Bodnar Industries, Inc., 19 Railroad Ave., New Rochelle, N. Y.
Boehme, Inc., H. O., 915 Broadway, New York 10, N. Y.
Boesch Mfg. Corp., Danbury, Conn.
Bogart Mfg. Corp., 315 Siegel St., Brooklyn 6, N. Y.
Bogen Co., Inc., David, 29 Ninth Ave., New York 14, N. Y.
Bogue Electric Mfg. Co., 52 Iowa Ave., Paterson 3, N. J.
Bomac Laboratories, Inc., Salem Rd., Beverly, Mass.

Bond Electronics Corp., 60 Springfield Ave., Springfield, N. J.
Bone Engineering Corp., 701 W. Broadway, Glendale 4, Calif.
Boonton Electronics Corp., 738 Speedwell Ave., Morris Plains, N. J.
Boonton Molding Co., Boonton, N. J.
Boonton Radio Corp., Boonton, N. J.
Booth Co., Arthur E., 265 S. Alexandria Ave., Los Angeles, Calif.
Boots Aircraft Nut Corp., Newton Ave., Norwalk, Conn.
Borden Co., The, Chemical Div., 350 Madison Ave., New York 17, N. Y.
Borden Engineering Co., Div. of M. J. Johnson Aircraft Engineering Co., 39 E. Hanover Ave., Morris Plains, N. J.
Borg Equipment Division, The George W. Borg Corp., Janesville, Wis.
Borg-Warner Corp., Pesco Products Div., 24700 North Miles Rd., Bedford, Ohio.
Boro Engineering & Tool Corp., 67 Mechanic St., Attleboro, Mass.
Borthig Co., Inc., George C., P. O. Box 11A, East Rutherford, N. J.
Boston Insulated Wire & Cable Co., 65 Bay St., Boston 25, Mass.
Boulin Instrument Corp., 65 Madison Ave., New York 16, N. Y.
Bourns Laboratories, 6135 Magnolia Ave., Riverside, Calif.
Bow Solder Products Co., Inc., 251 Freeman St., Brooklyn 22, N. Y.
Bowers Battery & Spark Plug Co., Box 1262, Reading, Pa.
Bowmar Instrument Corp., 2400 Pennsylvania Ave., Fort Wayne, Ind.
Bowser Technical Refrigeration Div. of Bowser, Inc., Eagle St., Terryville, Conn.
Boyle Metalcraft Corp., 150 Sullivan St., Brooklyn 31, N. Y.
Bozak Mfg. Co., R. T., The, Box 966, Darien, Conn.
Brach Mfg. Corp., 200 Central Ave., Newark 4, N. J.
Bracke-Seib X-Ray Co., Inc., 16 Pelham Bay Parkway, Pelham Manor, N. Y.
Bradford Components, Inc., Bradford, Pa.
Bradley Industries, 1650-58 N. Damen Ave., Chicago 47, Ill.
Bradley Labs., Inc., 170 G Columbus Ave., New Haven 11, Conn.
Brady Co., W. H., 727 W. Glendale Ave., Milwaukee 12, Wis.
Brainard Electronics, 8586-90 Santa Monica Blvd., Los Angeles 46, Calif.
Brainin Co., C. S., 320 Washington St., Mt. Vernon, N. Y.
Bram Chemical Co., 820 65th Ave., Philadelphia 26, Pa.
Brand & Co., Inc., William, North & Valley Sts., Willimantic, Conn.
Brand Dielectrics, Inc., 57 North St., Willimantic, Conn.
Branson Corp., 113 Cornelia St., Boonton, N. J.
Branson Instruments, Inc., 1 Brown House Rd., Stamford Conn.
Branson Ultrasonic Corp., 1 Brown House Rd., Stamford, Conn.
Braun Tool & Instrument Co., Inc., H. 140 Fifth Ave., Hawthorne, N. J.
Breeze Corps., Inc., 700 Liberty Ave., Union, N. J.
Breon Laboratories, 1520 Evergreen Rd., Williamsport, Pa.
Brew & Co., Inc., Richard D., Concord, N. H.
Bridgeport Brass Co., 30 Grand St., Bridgeport, Conn.
Bridgeport Metal Goods Mfg. Co. The, 360 Cherry St., Bridgeport 5, Conn.
Bright Radio Labs., Inc., Div. of Howell Mfg. Corp., Denton Ave., & 4th St., New Hyde Park, N. Y.
Bright Star Industries, 600 Getty Ave., Clifton, N. J.
Brilhart Plastics Corp., Old Country Rd., Mineola, N. Y.
Brimmer Labs, Inc., E. W., 86 Fulton St., New York 38, N. Y.
Bristol Brass Co., 580 Broad St., Bristol, Conn.
Bristol Co., The, Waterbury 20, Conn.
Bristol Engineering Corp., Beaver Dam Rd. & Oak Lane, Bristol 1, Pa.
Bristol Motor Division, Vocaline Company of America, Inc., Old Saybrook, Conn.
British Industries Corp., 80 Shore Rd., Port Washington, N. Y.
British Radio Electronics Ltd., 1833 Jefferson Place, N. W., Washington 6, D. C.
Broadcast Equipment Specialists Corp., P. O. Box 149, Beacon, N. Y.
Brociner Electronics Corp., 344 E. 32nd St., New York 16, N. Y.
Browning Laboratories, Inc., Main St., Winchester, Mass.
Brubaker Mfg. Co., Inc., 9151 Exposition Drive, Los Angeles 34, Calif.
Bruning Co., Inc., Charles, 4700 Montrose Ave., Chicago 41, Ill.
Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.
Brunswick Instruments, P. O. Box 813, New Brunswick, N. J.
Brush Beryllium Co., The, 4301 Perkins Ave., Cleveland 3, Ohio.
Brush Electronics Co., 3405 Perkins Ave., Cleveland 14, Ohio.
Buchanan Electrical Products Corp., 223 U. S. Route 22, Hillside, N. J.
Buck Engineering Co., Inc., 37-41 Marcy St., Freehold, N. J.
Buckbee Mears Co., Lindeke Bldg., St. Paul 1, Minn.
Buckeye Bobbin Co., 12200 Sprecher Ave., Cleveland 11, Ohio.
Bud Radio, Inc., Dept. BG, 2118 E. 55th St., Cleveland 3, Ohio.
Buda Div., Allis-Chalmers Mfg. Co., Milwaukee 1, Wis.
Budd-Stanley Co., Inc., 43-01 22nd St., Long Island City 1, N. Y.

Budelman Radio Corp., 376 Fairfield Ave., Stamford, Conn.
Buffalo Electronics Corp., 37 Franklin St., Buffalo 2, N. Y.
Buggie, Inc., H. H., P. O. Box 817, Toledo 1, Ohio.
Buhl Optical Co., 1009 Beech Ave., Pittsburgh 33, Pa.
Bulova Research & Development Labs., Inc., 62-10 Woodside Ave., Woodside, N. Y.
Bulova Watch Co., Quartz Crystal Division, Valley Stream, N. Y.
Burgess Battery Co., Freeport, Ill.
Burke & James Inc., 321 S. Wabash Ave., Chicago 4, Ill.
Burken Lamination Corp., 811 Whittier St., Bronx 59, N. Y.
Burndy Engineering Co., Inc., Norwalk, Conn.
Burnell & Co., Inc., 45 Warburton Ave., Yonkers 2, N. Y.
Burnley Battery & Mfg. Co., Clay St., North East, Pa.
Burroughs Corp., Computer Section, 1616 Walnut St., Philadelphia 3, Pa.
Burroughs Corp., Electronic Instruments Div., 1209 Vine St., Philadelphia 23, Pa.
Burton Mfg. Co., 2520 Colorado Ave., Santa Monica, Calif.
Business Machines Division, Electronic Corp. of America, 10 Potter St., Cambridge 42, Mass.
Bussmann Mfg. Co., St. Louis 7, Mo.
Butler Mfg. Co., Inc., B. B., 3150 Randolph St., Bellwood, Ill.

C

CBC Electronics Co., Inc., 2601 Howard St., Philadelphia 33, Pa.
CBS-Hytron, a Division of Columbia Broadcasting System, Inc., 100 Endicott St., Danvers, Mass.
C.G.S. Laboratories, Inc., 391 Ludlow St., Stamford, Conn.
C & H Supply Co., 415 E. Beach Ave., Inglewood 3, Calif.
C-W Mfg. Co., Box 2065, El Monte, Calif.
Cable Specialist of Conn., 474 Prospect Ave., Hartford, Conn.
Caddell-Burns Mfg. Co., 40 E. Second St., Mineola, N. Y.
Cadre Industries Corp., Box 150, 19 Delaware Ave., Endicott, N. Y.
Caig Cosmopolitan, 200 W. 34th St., New York 1, N. Y.
Calbest Engineering & Electronics Co., 4801 Exposition Blvd., Los Angeles 16, Calif.
Cal-Connector Co., 7414 Varna Ave., North Hollywood, Calif.
Caledonia Electronics & Transformer Co., Caledonia, N. Y.
Calidyne Co., The, 120 Cross St., Winchester, Mass.
Califone Corp., 1041 N. Sycamore Ave., Hollywood 38, Calif.
California Bent Glass Corp., Torrance, Calif.
California Computer Products, 3927 W. Jefferson Blvd., Los Angeles 16, Calif.
California Magnetic Control Corp., 11922 Valerio St., North Hollywood, Calif.
Calresin Corp., 4543 Brazil St., Los Angeles 39, Calif.
Caltron Products Co., 1310-12 S. Hobart Blvd., Los Angeles 6, Calif.
Cal-Tronics Corp., 11307 Hindry Ave., Los Angeles 45, Calif.
Cambridge Instrument Co., Inc., 3035 Grand Central Terminal, New York 17, N. Y.
Cambridge Pattern Works, Inc., 55 First St., Cambridge 41, Mass.
Cambridge Thermionic Corp., 445 Concord Ave., Cambridge 38, Mass.
Camcar Screw & Mfg. Corp., 600 18th Ave., Rockford, Ill.
Camera Mart Inc., 1845 Broadway, New York 23, N. Y.
Camloc Fastener Corp., 22 Spring Valley Rd., Paramus, N. J.
Campbell Co., Inc., Colin, Westville Ave., Danbury, Conn.
Campbell Industries, Inc., Sub. of Clarostat Mfg. Co., Inc., 3806 St. Elmo Station, Chattanooga 9, Tenn.
Canadian Marconi Co., 2442 Trenton Ave., Montreal 16, Quebec.
Canadian Radium & Uranium Corp., 630 Fifth Ave., New York 20, N. Y.
Cannon Co., C. F., Springwater, N. Y.
Cannon Electric Co., 3209 Humboldt St., Los Angeles 31, Calif.
Cannon-Muskegon Corp., 2885 Lincoln St., Muskegon, Mich.
Canoga Corp., 5955 Sepulveda Blvd., Van Nuys, Calif.
Capcon, Inc., 25 Willett St., New York 2, N. Y.
Capehart-Farnsworth Corp., 3700 E. Pontiac, Fort Wayne 1, Ind.
Capitol Machine Co., The, Switch Div., 36 Balmforth Ave., Danbury, Conn.
Capps & Co., Inc., 20 Addison Place, Valley Stream, N. Y.
Carad Corp., 2850 Bay Rd., Redwood City, Calif.
Carboloy Dept. of General Electric Co., Box 237, Roosevelt Park Annex, Detroit 32, Mich.
Carbonneau Industries, Inc., 100 Lexington Ave., S. W., Grand Rapids, Mich.
Carborundum Metals Co., Inc., The, P. O. Box 32, Akron, N. Y.
Cardwell Mfg. Corp., Allen D., 97 Whiting St., Plainville, Conn.
Cargo Packers, 37-20 14th Ave., Brooklyn, N. Y.
Carling Electric Inc., 499 New Park Ave., West Hartford 10, Conn.
Carlson & Nicholson, Inc., 497 Maynard Drive, Buffalo 21, N. Y.
Carol Cable Div. of Crescent Co., Inc., 20 Central Ave., Pawtucket, R. I.

Carol Electronics Corp., 315 W. Stephen St., Martinsburg, W. Va.
 Carpenter Steel Co., 142 West Bern St., Reading, Pa.
 Carpenter Steel Co., Webb Wire Div., New Brunswick, N. J.
 Carroll Pressed Metal Co., 133 Dewey St., Worcester, Mass.
 Carron Mfg. Co., 415 S. Aberdeen St., Chicago, Ill.
 Carstedt Research, Inc., 2501 E. 68th St., Long Beach 5, Calif.
 Carter Mfg. Corp., 23 Washington St., Hudson, Mass.
 Carter Motor Co., 2742 W. George St., Chicago 18, Ill.
 Carter Parts Co., 213 Institute Place, Chicago 10, Ill.
 Cascade Research Corp., 53 Victory Lane, Los Gatos, Calif.
 Cass Machine Co., 691 Antoinette St., Detroit 2, Mich.
 Cast Optics Corp., 123-125 Newman St., Hackensack, N. J.
 Catalin Corp. of America, 1 Park Ave., New York 16, N. Y.
 Cavitron Electron Oscillator Co., Div. of Short Wave Plastic Forming Co., 2921 W. Alameda Ave., Burbank, Calif.
 Cedar Engineering Inc., 5806 W. 36th St., Minneapolis 16, Minn.
 Celanese Corp. of America, 180 Madison Ave., New York 16, N. Y.
 Celco Constantine Engineering Laboratories Co., Island Ave., Mahwah, N. J.
 Celluuede Products, Inc., 540 N. Madison St., Rockford, Ill.
 Central Coil Co., 1720 N. Luett St., Indianapolis 22, Ind.
 Central Research Laboratories, Inc., Red Wing, Minn.
 Central Sales & Mfg. Co., 2 Richwood Place, Denville, N. J.
 Central Scientific Co., 1700 Irving Park Rd., Chicago 13, Ill.
 Central Screw Co., 3501 Shields Ave., Chicago 9, Ill.
 Central Transformer Co., 910 W. Jackson Blvd., Chicago, Ill.
 Centralab Div., Globe-Union Inc., 914Y E. Keefe Ave., Milwaukee 1, Wis.
 Century Electric Co., 1806 Pine St., St. Louis 3, Mo.
 Century Electronics & Instruments, Inc., P. O. Box 6216, Pine Station, Tulsa 10, Okla.
 Ceramaseal Co., The, Box 25, New Lebanon Center, N. Y.
 Cerro de Pasco Corp., 300 Park Ave., New York 22, N. Y.
 Channel Master Co., Ellenville, N. Y.
 Chase Brass & Copper Co., Inc., 236 Grand St., Waterbury 20, Conn.
 Chassis Trak Corp., 6250 E. Iona Rd., Indianapolis, Ind.
 Chatham Electronics Div. of Gera Corp., 630 W. Mt. Pleasant Ave., Livingston, N. J.
 Chatillon & Sons, John, 85 Cliff St., New York, N. Y.
 Chemical Electronics Corp., Gillespie Field, Santee, Calif.
 Chemical Products Corp., King Philip Rd., East Providence, R. I.
 Chesapeake Instrument Corp., Shadyside, Md.
 Chester Cable Corp., Hill St., Chester, N. Y.
 Chicago Aerial Industries, 1980 N. Hawthorne, Melrose Park, Ill.
 Chicago Condenser Corp., 3255 W. Armitage Ave., Chicago 47, Ill.
 Chicago Die Mold Div. of U. S. Rubber Co., 4300 New Haven Ave., Fort Wayne 4, Ind.
 Chicago Electronic Engineering Co., 3223 W. Armitage Ave., Chicago 47, Ill.
 Chicago Electronic Laboratories, 1214 W. Madison St., Chicago 7, Ill.
 Chicago Expansion Bolt Co., 1338 W. Concord Place, Chicago 22, Ill.
 Chicago Magnetic Control Co., 1616 Damon Ave., Chicago, Ill.
 Chicago Miniature Lamp Works, 1500 N. Ogden Ave., Chicago 10, Ill.
 Chicago Rivet & Machine Co., Bellwood, Ill.
 Chicago Screw Co., Bellwood, Ill.
 Chicago Standard Transformer Corp., 3580 Elston Ave., Chicago 18, Ill.
 Chicago Telephone Supply Corp., 1142 W. Beardsley Ave., Elkhart, Ind.
 Churchill Lighting Corp., 344 Franklin St., Melrose 76, Mass.
 Ciba Co., Inc., 627 Greenwich St., New York 14, N. Y.
 Cima Corp., 119 Brintree St., Allston 34, Mass.
 Cinch Mfg. Corp., 1026 S. Homan Ave., Chicago 24, Ill.
 Cinema Engineering Co., 1100 Chestnut St., Burbank, Calif.
 Cinema-Television, Ltd., Worsley Bridge Rd., London, S. E. 26, England.
 Circon Component Co., 17544 Raymer St., Northridge, Calif.
 Circuit Instruments, Inc., 1927 First Ave., S., P. O. Box 355, St. Petersburg 1, Fla.
 Clairex Corp., 50 W. 26th St., New York 10, N. Y.
 Clare & Co., C. P., 3101 Pratt Blvd., Chicago 45, Ill.
 Claremont Tube Corp., 36-02 35th Ave., Long Island City, N. Y.
 Clark Controller Co., 1146 E. 152nd St., Cleveland 10, Ohio.
 Clark Crystal Co., Farm Rd., Marlboro, Mass.
 Clark Electronic Labs., Box 165, Palm Springs, Calif.
 Clarostat Mfg. Co., Inc., Dover, N. H.
 Clary Multiplier Corp., Electronics Div., San Gabriel, Calif.
 Clauss Cutlery Co., Fremont, Ohio.
 Clear Beam Antenna Co., 21341 Roscoe Blvd., Canoga Park, Calif.
 Clegg Laboratories, Inc., Hanover & Ridgedale Aves., Morristown, N. J.
 Cleveland Container Co., The, 6201 Barberton Ave., Cleveland 2, Ohio.
 Cleveland Electronics, Inc., 1974 E. 61st St., Cleveland 3, Ohio.
 Cleveland Metal Specialties Co., 1783 E. 21st St., Cleveland 14, Ohio.
 Cleveite Transistor Products, A Div. of Cleveite Corp., 241-257 Crescent St., Waltham 54, Mass.
 Clifford Mfg. Co., Grove St., Waltham, Mass.
 Clifton Precision Products Co., Inc., Broadway at Marple Ave., Clifton Heights, Pa.
 Cline Electric Mfg. Co., 3405 W. 47th St., Chicago, Ill.
 Clippard Instrument Laboratory, Inc., 7350-90 Colerain Rd., Cincinnati 24, Ohio.
 Clough-Brengle Co., 6014 N. Broadway, Chicago, Illinois.
 Coast Coil Co., 5333 W. Washington Blvd., Los Angeles 16, Calif.
 Coaxial Connector Co., 37 North 2nd Ave., Mt. Vernon, N. Y.
 Cobehn, Inc., 100 Passaic Ave., Caldwell, N. J.
 Cohan-Epner Co., Inc., 142 W. 14th St., New York 11, N. Y.
 Cohn Corp., Sigmund, 121 S. Columbus Ave., Mt. Vernon, N. Y.
 Coil Company of America, Inc., 207 Washington St., Northvale, N. J.
 Coil Winders, Inc., 100 New York Ave., Westbury, N. Y.
 Coil Winding Equipment Co., 109 Audrey Ave., Oyster Bay, N. J.
 Colcraft, Inc., Cary, Ill.
 Coils-Electronics Co., 2939-49 N. 2nd St., Philadelphia 33, Pa.
 Colber Corp., The, 26 Buffington St., Irvington, N. J.
 Cole Radio Works, 86 Westville Ave., Caldwell, N. J.
 Coleman Engineering Co., Inc., 6040 W. Jefferson Blvd., Los Angeles 16, Calif.
 Coleman Instruments, Inc., 318 Madison St., Maywood, Ill.
 Collaro, Ltd., (Rockbar Corp.), 215 E. 37th St., New York 16, N. Y.
 Collectron Corp., 216 E. 45th St., New York 17, N. Y.
 Collins Audio Products Co., P. O. Box 368, Westfield, N. J.
 Collins Electronics Mfg. Corp., Stevensville, Md.
 Collins Radio Co., Cedar Rapids, Iowa.
 Collyer Insulated Wire Co., 249 Roosevelt Ave., Pawtucket, R. I.
 Color Television, Inc., 973 E. San Carlos Ave., San Carlos, Calif.
 Colortone Electronics, Inc., 100 Frank Rd., Hicksville, N. Y.
 Columbia Electric Mfg. Co., 4519 Hamilton Ave., N. E., Cleveland 14, Ohio.
 Columbia Metal Box Co., 260 E. 143rd St., New York, N. Y.
 Columbia Technical Corp., 61-02 31 Ave., Woodside 77, N. Y.
 Columbia Wire & Supply Co., 2850 Irving Park Rd., Chicago 18, Ill.
 Columbian Carbon Co., Mapico Color Div., 380 Madison Ave., New York 17, N. Y.
 Colvin Laboratories, Inc., 364 Glenwood Ave., East Orange, N. J.
 Comar Electric Co., 3349 W. Addison St., Chicago 18, Ill.
 Combustion Control Div., Electronics Corp. of America, 718 Beacon St., Boston 15, Mass.
 Commercial Plastics Co., 2814 W. North Ave., Chicago 47, Ill.
 Commercial Products Div., Aircraft Armaments, Inc., 4003 Seven Mile Lane, Pikesville 8, Md.
 Communication Accessories Co., Red Bridge Rd., Hickman Mills, Mo.
 Communication Measurements Lab. Inc., 350 Leland Ave., Plainfield, N. J.
 Communication Products Co., Inc., Marlboro, N. J.
 Communications Co., Inc., 300 Greco Ave., Coral Gables 34, Fla.
 Computer Co. of America, Div. of Bruno-New York Industries Corp., 460 W. 34th St., New York 1, N. Y.
 Computer Control Co., Inc., 92 Broad St., Babson Park 57, Mass.
 Computer Instruments Corp., 1964 Utica Ave., Brooklyn 34, N. Y.
 Computer-Measurement Corp., 5528 Vineland Ave., North Hollywood, Calif.
 Computing Devices of Canada, Ltd., P. O. Box 508, Ottawa, Ontario.
 Conant Labs., 6500 O St., Lincoln 5, Nebraska.
 Concord Control Inc., 205 Broadway, Cambridge 39, Mass.
 Condenser Machinery Co., Stamford, Conn.
 Condenser Manufacturers, Inc., 1018 Pearl St., Nashville, Tenn.
 Condenser Products Co., 140 Hamilton St., New Haven, Conn.
 Condor Radio Mfg. Co., 4068 E. Paseo Grande, Tucson 12, Ariz.
 Conn Ltd., C. G., Elkhart, Ind.
 Connecticut Hard Rubber Co., 407 East St., New Haven 9, Conn.
 Connecticut Telephone & Electric Corp., 70 Britannia St., Meriden, Conn.
 Connector Corp. of America, 3223 Burton Ave., Burbank, Calif.
 Conrac, Inc., Glendora, Calif.
 Conrad, Inc., 141 Jefferson St., Holland, Mich.
 Conrad & Moser 2 Borden Ave., Long Island City 1, N. Y.
 ConRay Corp., 29 W. Apple St., Dayton 2, Ohio.
 Consolidated Avionics, Inc., Stamford, Conn.
 Consolidated Diesel Electric Corp., Stamford, Conn.
 Consolidated Electrodynamics Corp., 300 N. Sierra Madre Villa, Pasadena 15, Calif.
 Consolidated Molded Products Corp., Scranton 2, Pa.
 Consolidated Radio Products Co., 350 W. Erie St., Chicago 10, Ill.
 Consolidated Resistance Co. of America Inc., 44 Prospect St., Yonkers, N. Y.
 Consolidated Vacuum, Rochester 3, N. Y.
 Consolidated Wire & Associated Companies, 1635 S. Clinton St., Chicago 16, Illinois.
 Constantin & Co., L. L., Route #46, Lodi, N. J.
 Continental Can Co., Inc., 100 E. 42nd St., New York 17, N. Y.
 Continental Carbon, Inc., 13900 Lorain Ave., Cleveland 11, Ohio.
 Continental Communications, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Continental Connector Corp., 30-30 Northern Blvd., Long Island City, N. Y.
 Continental-Diamond Fibre Div. of The Budd Co., Inc., Newark 100, Del.
 Continental Electric Co., Geneva, Ill.
 Continental Electric Co., Inc., 334 Ferry St., Newark 5, N. J.
 Continental Electronics Mfg. Co., 4212-20 S. Buckner Blvd., Dallas 27, Texas.
 Continental Wire Sales Corp., Wallingford, Conn.
 Control Components Co., 1 Holden St., Brookline 46, Mass.
 Control Corp., 718 Central Ave., Minneapolis 14, Minn.
 Control Devices, Inc., 8299 E. Nine Mile Rd., Van Dyke, Mich.
 Control Electronics Co., Inc., 1925 New York Ave., Huntington Station, N. Y.
 Control Products, Inc., 306 Sussex St., Harrison, N. J.
 Cook Ceramic Mfg. Co., 501 Prospect St., Trenton 1, N. J.
 Cook Electric Co., 2700 Southport Ave., Chicago 14, Ill.
 Cook Laboratories, 101 Second St., Stamford, Conn.
 Co-Operative Industries, Inc., 100 Oakdale Rd., Chester, N. J.
 Cooper & Sons, Inc., Joseph B., 25 W. 47th St., New York 36, N. Y.
 Cooper Co., Clark, 349 N. Market St., Palmyra, N. J.
 Copperweld Steel Co., Wire & Cable Div., Frick Bldg., Pittsburgh 19, Pa.
 Coradio, Inc., 196 Albion Ave., Paterson, N. J.
 Corbett Science Laboratories, F. W., 3115 Venice Blvd., Los Angeles 19, Calif.
 Cords Ltd., Div. of The Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.
 Cornell-Dubilier Electric Corp., South Plainfield, N. J.
 Corning Glass Works, Corning, N. Y.
 Cornish Wire Co., 50 Church St., New York 7, N. Y.
 Corrugated Paper Products, Inc., 2233 Utica Ave., Brooklyn 34, N. Y.
 Corry-Jamestown Mfg. Co., Corry, Pa.
 Corson Electric Mfg. Corp., 540 39th St., Union City, N. J.
 Cortland Industries, Inc., 4545 Cortland St., Chicago 39, Ill.
 Cosa Corp., 405 Lexington Ave., New York 17, N. Y.
 Cosmic Radio Corp., 853 Whittier St., New York 59, N. Y.
 Cossor (Canada) Ltd., 301-303 Windsor St., Halifax, N. S., Canada.
 Coto-Coil Co., Inc., 65 Pavilion Ave., Providence 5, R. I.
 Couch Co., Inc., S. H., North Quincy 71, Mass.
 Cox & Co., Inc., 115 E. 23rd St., New York 10, N. Y.
 Coxhead Co., Ralph C., Newark, N. J.
 Craft Laboratories, P. O. Box 606, Westfield, N. J.
 Craig Systems, Inc., Danvers, Mass.
 Cramer Co., Inc., R. W., Box 13, Centerbrook, Conn.
 Crane Packing Co., 1800 Cuyler Ave., Chicago 13, Ill.
 Crescent Communications Corp., P. O. Box 709, New London, Conn.
 Crescent Engineering & Research Co., 11632 McBean St., El Monte, Calif.
 Crest Transformer Corp., 1834-36 W. North Ave., Chicago 22, Ill.
 Crestwood Recorder Div., Daystrom Electric Corp., 221 N. La Salle, Chicago 1, Ill.
 Crittenden Transformer Co., 1220 Nadeau St., Los Angeles, Calif.
 Croname, Inc., 3701 Ravenswood Ave., Chicago, Ill.
 Cro-Plate Co., Inc., The, 747 Windsor St., Hartford 1, Conn.
 Crosby Labs., Inc., Box 233, Robbins Lane, Hicksville, N. Y.
 Crosley Division, Avco Mfg. Corp., 1329 Arlington St., Cincinnati 25, Ohio.
 Cross Co., H., 15 Beekman St., New York 38, N. Y.
 Crowley & Co., Inc., Henry L., 1 Central Ave., West Orange, N. J.
 Crown Electronics Corp., 2306 Beloit Ave., Los Angeles 64, Calif.
 Crown Industrial Products Co., 713 Amsterdam Ave., Woodstock, Ill.
 Crucible Steel Co. of America, Henry W. Oliver Bldg., P. O. Box 88, Pittsburgh 30, Pa.
 Cryco, Inc., 1138 Mission St., South Pasadena, Calif.
 Crystal Laboratories, 640 N. Main St., Wichita, Kansas.
 Crystal-X Corp., 403 Lenni Rd., Lenni Mills, Pa.
 Cubic Corp., 5575 Kearny Villa Rd., San Diego 11, Calif.
 Cudner & O'Connor Co., 4035 W. Kinzie Ave., Chicago 24, Ill.
 Cunningham Son & Co., Inc. James, 33 Litchfield St., Rochester, N. Y.
 Curtis Development & Mfg. Co., 3226 N. 33rd St., Milwaukee 16, Wis.
 Curtis-Wright Corp., Electronics Div., 631 Central Ave., Carlstadt, N. J.
 Custom Components, Inc., Caldwell, N. J.
 Custom Electronics Corp., 738 Speedwell Ave., Morris Plains, N. J.
 Custom Gear Co., 648 College St., South Bend 28, Ind.
 Cutler-Hammer, Inc., 411 N. 12th St., Milwaukee 1, Wis.
 Cutler Metal Products Co., 1025 Line St., Camden, N. J.
 Cycle Equipment Co., 420 Market St., San Francisco, Calif.
 Cycle Transformer Corp., 354 Glenwood Ave., East Orange, N. J.
 Cyclotron Specialties Co., Moraga 8, Calif.
 Cymac Corp., The, 535 Ramona St., Palo Alto, Calif.

D

DX Radio Products Co., Inc., 2300 Armitage Ave., Chicago 47, Ill.

Daco Machine Tool Co., 202 Tillary St., Brooklyn 1, N. Y.

Dage Electric Co., 67 N. Second St., Beech Grove, Ind.

Dage Television Div. of Thompson Products, Inc., W. 10th St., Michigan City, Ind.

Dahlstrom Metallic Door Co., Jamestown, N. Y.

Dale Products, Inc., Box 136, Columbus, Neb.

Dallons Laboratories, Inc., 5066 Santa Monica Blvd., Los Angeles 29, Calif.

Dalmo Victor Co., 1414 El Camino Real, San Carlos, Calif.

Dalmotor Co., 1375 Clay St., Santa Clara, Calif.

Dalmotron Co., 534 Laurel St., San Carlos, Calif.

Danbury-Kundsens, Inc., P. O. Box 170, Danbury, Conn.

Dane Electronic Labs., Inc., P. O. Box 209, Salem, Mass.

Daniels, Inc., C. R. Daniels, Md.

Dano Electric Co., Main St., Winsted, Conn.

Dante Electric Mfg. Co., Bantam, Conn.

Darco Industries, Inc., Gyro Dynamics Div., 2151 E. Rosencrans Ave., El Segundo, Calif.

Datran Engineering Corp., 3613 Aviation Blvd., Manhattan Beach, Calif.

Daubert Chemical Co., 333 N. Michigan Ave., Chicago 1, Ill.

Daven Co., Route 10, Livingston, N. J.

Davies Laboratories, Inc., 4705 Queensbury Rd., Riverdale, Md.

Davies Molding Co., Harry, 1428 N. Wells St., Chicago 10, Ill.

Davis Electric Co., Cape Girardeau, Mo.

Davis Electronics, P. O. Box 1247, 4002 Burbank Blvd., Burbank, Calif.

Davis-K Products Co., 135 W. 29th St., New York 1, N. Y.

Daystrom Electric Corp., 807 Main St., Poughkeepsie, N. Y.

Daystrom Instrument, Archbald, Pa.

Daystrom Pacific Corp., 3030 Nebraska Ave., Santa Monica, Calif.

Daytronic Corp., 216 S. Main St., Dayton, Ohio.

Dearborn Electronic Laboratories, Inc., 231 S. LaSalle St., Chicago 4, Ill.

Decade Instrument Co., Box 153, Caldwell, N. J.

Decatur Electronics Industries Corp., 203 Orinco Drive, Brightwater, N. Y.

Decca Records, Inc., 50 W. 57th St., New York 19, N. Y.

De Coursey Engineering Lab., 11828 W. Jefferson Blvd., Culver City, Calif.

Dee Electric Co., 1101 N. Paulina St., Chicago 22, Ill.

Defiance Engineering & Microwave Corp., 81 Albion St., Box 151, Wakefield, Mass.

Dietz Co., S. J., 9 Wesley St., South Hackensack, N. J.

DeJur-Amsco Corp., Northern Blvd. at 45th St., Long Island City 1, N. Y.

Del Electronics Corp., 39 N. MacQueston Parkway, Mt. Vernon, N. Y.

Delaware Products Co., 300 Broadway, Camden 3, N. J.

Delco Radio Div., General Motors Corp., Kokomo, Ind.

Delmhorst Instrument Co., 601 Cedar St., Boonton, N. J.

Deltron Inc., P. O. Box 192, Glenside, Pa.

Deltron Corp., 1507 Riverside Drive, Los Angeles 31, Calif.

DeLuxe Coils, Inc., Wabash, Ind.

DeMornay-Bonardi, Inc., 780 S. Arroyo Parkway, Pasadena, Calif.

Denson Electronics Corp., Ellington, Conn.

Design Tool Corp., 80 Washington St., New York 6, N. Y.

Despatch Oven Co., Minneapolis, Minn.

Detectolab, Inc., 6544 N. Sheridan Rd., Chicago 26, Ill.

Detectron Corp., The, 5528 Vineland Ave., North Hollywood, Calif.

Detroit Controls Corp., 1650 Broadway, Redwood City, Calif.

Detroit Diesel Engine Div. of General Motors Corp., 13400 W. Outer Drive, Detroit 28, Mich.

Development Engineering Co., 9 Cross St., Norwalk, Conn.

Devenco Inc., 150 Broadway, New York 38, N. Y.

Devtron Engineering, 1 Winslow St., Redwood City, Calif.

DeWitt Development Co., 3008 W. 127th St., Blue Island, Ill.

Dial Products Co., 9 Avenue E, Bayonne, N. J.

Dialight Corporation, 60 Stewart Ave., Brooklyn 37, N. Y.

Diamond Drill Carbon Co., The, 244 Madison Ave., New York 16, N. Y.

Diamond Microwave Corp., 7 North Ave., Wakefield, Mass.

Diamond Power Specialty Corp., Lancaster, Ohio.

Diamond-Union Stamp Works, 81 Washington St., Boston 8, Mass.

Diamond Wire & Cable Co., Sycamore, Ill.

Diamonite Products Div. of U. S. Ceramic Tile Co., 221 Fourth St., N. E., Canton 2, Ohio.

Dice Co., J. W., Englewood, N. J.

Dictaphone Corp., 420 Lexington Ave., New York 17, N. Y.

Diehl Manufacturing Co., 1129 FINDERNE AVE., Somerville, N. J.

Dielectric Materials Co., 5315-17 N. Ravenswood Ave., Chicago 40, Ill.

Dielectric Products Engineering Co., Inc., Raymond, Maine.

Dietz Co., Henry G., 12-16 Astoria Blvd., Long Island City 2, N. Y.

Dietz Design & Mfg. Co., Grandview 6, Mo.

Dietzgen Co., Eugene, 2425 Sheffield Ave., Chicago, Ill.

Digital Products, Inc., 7643 Fay Ave., La Jolla, Calif.

Dilectrix Corp., Allen Blvd. & Grant Ave., Farmingdale, N. Y.

Dilectron Div. of The Gudeman Co., 2669 S. Myrtle Ave., Monrovia, Calif.

Dilks Co., The, Seymour, Conn.

Dillon & Co., Inc., W. C., 14620 Keswick St., Van Nuys, Calif.

Dimco-Gray Co., 207 E. Sixth St., Dayton, Ohio.

Dit-Mco Inc., Electronics Div., 505 W. 9th St., Kansas City 5, Mo.

Division Lead Co., 7742 W. 61st Place, Summit, Ill.

Dixon Corporation, Bristol, R. I.

Dmeter Mfg. Co., Inc., 22-24 Larkin Plaza, Yonkers, N. Y.

Doelcam Div. of Minneapolis-Honeywell Regulator Co., 1400 Soldiers Field Rd., Boston 35, Mass.

Doepke Mfg. Co., Inc., Chas. Wm., 1956 Emerald Ave., Rossmoyne, Ohio.

Dolin Metal Products, Inc., 315 Lexington Ave., Brooklyn 16, N. Y.

Dolinko & Wilkins, Inc., 1901-7 Summit Ave., Union City, N. J.

Dollin Corp., 600 S. 21st St., Irvington 11, N. J.

Dondar Devices, 321 E. 6th St., Medford, Ore.

Donnelly Mfg. Co., Div. of The Indian Co., 3050 Washington St., Boston 19, Mass.

Donner Scientific Co., 2829 Seventh St., Berkeley 10, Calif.

Dormeyer Industries, 3418 N. Milwaukee Ave., Chicago 41, Ill.

Dormitzer Electric & Mfg. Co., Inc., 5 Hadley St., Cambridge, Mass.

Dorne and Margolin, Inc., 30 Sylvester St., Westbury, N. Y.

Dorphone Div. of Republic Electronic Industries Corp., 31 W. 27th St., New York 1, N. Y.

Double "E" Products Co., 216 Standard St., El Segundo, Calif.

Douglas Microwave Co., Inc., 252 E. Third St., Mt. Vernon, N. Y.

Douglas Radio Labs., 176 Norfolk Ave., Boston 19, Mass.

Dow Chemical Co., Midland, Mich.

Dow Corning Corp., Midland, Mich.

Drake Electric Works, 3656 Lincoln Ave., Chicago 13, Ill.

Drake Mfg. Co., 1713 Hubbard St., Chicago 22, Ill.

Dremel Mfg. Co., 2300 18th St., Racine, Wis.

Dressen-Barnes Corp., 250 N. Vinedo Ave., Pasadena 8, Calif.

Dresser Electric Co., 942 E. Larned St., Detroit 7, Mich.

Dresser-Ideco Co., 875 Michigan Ave., Columbus 8, Ohio.

Driver Co., Wilbur B., 1875 McCarter Highway, Newark 4, N. J.

Driver-Harris Co., 201 Middlesex St., Harrison, N. J.

Dubrow Development Co., 235 B Penn St., Burlington, N. J.

Du-Co Ceramics Co., Box 587, Butler 8, Pa.

Dudek & Bock Spring & Mfg. Co., 4018 W. Grand Ave., Chicago 51, Ill.

Dukane Corp., St. Charles, Ill.

Dumont-Airplane & Marine Instruments, Inc., 15 William St., New York 5, N. Y.

DuMont Laboratories, Inc., Allen B., Cathode-Ray Tube Div., 750 Bloomfield Ave., Clifton, N. J.

DuMont Laboratories, Inc., Allen B., Technical Products Div., 760 Bloomfield Ave., Clifton, N. J.

DuMont Laboratories, Inc., Allen B., Television Receiver Div., 35 Market St., East Paterson, N. J.

Dunlap Electronics, 764 9th St., Des Moines, Iowa.

Dunlee Corp., 4560 W. Congress St., Chicago 24, Ill.

Dunn Engineering Associates, Inc., 186 Massachusetts Ave., Cambridge 39, Mass.

Dunton Co., M. W., 7 Goff St., Providence, R. I.

Duotone Co., Inc., Keyport, N. J.

du Pont de Nemours & Co., Inc., E. I., Wilmington 98, Del.

Durakol, Inc., 1010 N. Main St., Elkhart, Ind.

Duramark, Inc., 2 Secatoag Ave., Port Washington, N. Y.

Durant Mfg. Co., 1912-A N. Buffum St., Milwaukee 1, Wis.

Durez Plastics Div. of Hooker Electrochemical Co., 1921 Walck Rd., North Tonawanda, N. Y.

Duro Specialty Co., Inc., 8 Bennett St., Lynn, Mass.

Dwyer Engineering Co., Inc., P. O. Box 483, Nashua, N. H.

Dyna-Empire, Inc., 1075 Stewart Ave., Garden City, N. Y.

Dynalysis Development Labs., Inc., 11941 Wilshire Blvd., Los Angeles 25, Calif.

Dynamic Air Engineering Inc., 7412 Maie Ave., Los Angeles 1, Calif.

Dynamic Gear Co., 20 Merrick Rd., Amityville, N. Y.

Dzuz Fastener Co., Inc., Box 185, Babylon, N. Y.

Eastern Smelting & Refining Corp., 107-109 W. Brookline St., Boston 18, Mass.

Eastern Specialty Co., Philadelphia 40, Pa.

Eastern Tool & Mfg. Co., 1 Montgomery St., Belleville 9, N. J.

Eastman Kodak Co., 343 State St., Rochester 4, N. Y.

Eaton Associates, Inc., Moodus, Conn.

Eaton Mfg. Co., Reliance Div., 25 Charles Ave., S. E., Massillon, Ohio.

Eberline Instrument Division, P. O. Box 279, Santa Fe, N. M.

Eberhard Faber Pencil Co., 37 Greenpoint Ave., Brooklyn 22, N. Y.

Ebert Electronics Corp., 212-26 Jamaica Ave., Queens Village 28, N. Y.

Eby Co., Hugh H., 4700 Stenton Ave., Philadelphia 44, Pa.

Ecco High Frequency Corp., 7020 Hudson Blvd., North Bergen, N. J.

Eckstein Radio & Television Co., 2601 E. Franklin Ave., Minneapolis 6, Minn.

Eclipse-Pioneer Div., Bendix Aviation Corp., Teterboro, N. J.

Economy Fuse & Mfg. Co., 2717 Greenview Ave., Chicago 14, Ill.

Edcliff Instruments, 383 N. Foothill Blvd., Pasadena 8, Calif.

Eder Engineering Co., 219 E. Becher St., Milwaukee 2, Wis.

Edin Co., Inc., 207 St., Worcester, Mass.

Edison, Inc., Thomas A., Instrument Div., 81 Lakeside Ave., West Orange, N. J.

Edmund Scientific Corp., 502 E. Gloucester Pike, Barrington, N. J.

Edo Corp., College Point, N. Y.

Eichner Instruments, L. C., 19 Sebago St., Clifton, N. J.

Eicor, Inc., 1501 W. Congress St., Chicago 7, Ill.

Eidson Electronic Co., 1902 N. Third St., Temple, Texas.

Eisler Engineering Co., Inc., 740 S. 13th St., Newark 3, N. J.

Eitel-McCullough, Inc., San Bruno, Calif.

Elastic Stop Nut Corp., 2330 Vauxhall Rd., Union, N. J.

Elco Corp., St. below Erie Ave., Philadelphia 24, Pa.

Eldema Corp., 9844 Remer St., El Monte, Calif.

Electonic Mechanisms, Inc., P. O. Box 1156, Greenwich, Conn.

Electra Mfg. Co., Resistor Div., 4051 Broadway, Kansas City, Mo.

Electralab, Inc., Sub. of Farrington Mfg. Co., Needham Heights 94, Mass.

Electran Mfg. Co., 1901 N. Clybourn, Chicago 3, Ill.

Electric Cords & Supply Co., 413 E. Third St., Los Angeles 13, Calif.

Electric Design & Mfg. Corp., Burlington, Iowa.

Electric Eye Equipment Co., 16 W. Fairchild St., Danville, Ill.

Electric Furnace Co., Salem, Ohio.

Electric Indicator Co., Inc., Camp Ave., Springdale, Conn.

Electric Machinery & Equipment Div. of American Electronics, Inc., 2112 N. Chico Ave., El Monte, Calif.

Electric Motor & Specialties, Inc., King & Hamsher Sts., Garrett, Ind.

Electric Regulator Corp., Pearl St., Norwalk, Conn.

Electric Soldering Iron Co., W. Elm St., Deep River, Conn.

Electric Specialty Co., 300 South St., Stamford, Conn.

Electric Trading Co., 313 Canal St., New York, N. Y.

Electrical Communications Co., 765 Clementina St., San Francisco, Calif.

Electrical Industries, 44 Summer Ave., Newark 4, N. J.

Electrical Insulation Co., Inc., 1245 Marconi Blvd., Copiague, N. Y.

Electrical & Physical Instrument Corp., 42-19 27th St., Long Island City 1, N. Y.

Electrical Products Corp., 1100 N. Main St., Los Angeles 12, Calif.

Electrical Refractories Co., 50 Clark St., East Palestine, Ohio.

Electrical Service Co., 1271 Mission St., San Francisco, Calif.

Electrical Tower Service, Inc., 325 S. Washington St., Peoria, Ill.

Electrical Windings, Inc., 2015 N. Kolmar St., Chicago 39, Ill.

Electrochemical Industries Inc., 35 Armory St., Worcester, Mass.

Electro Circuits, Inc., 401 E. Green St., Pasadena, Calif.

Electro-Coatings, Inc., 1662 W. Fullerton Ave., Chicago 14, Ill.

Electro Craft Industries, Inc., 68 Jackson St., Stamford, Conn.

Electro Data Corp., 460 Sierra Madre Villa, Pasadena, Calif.

Electro Development Co., 14701 Keswick St., Van Nuys, Calif.

Electro Devices Co., Inc., 580 Main St., Wilmington, Mass.

Electro Engineering Products Co., 609 W. Lake St., Chicago, Ill.

Electro Engineering Works, 401 Preda St., San Leandro, Calif.

Electro-Flex Heat Inc., 516 Asylum St., Hartford, Conn.

Electro Impulse Labs., 208 River St., Red Bank, N. J.

Electro Instruments, Inc., 3794 Rosecrans, San Diego 10, Calif.

Electro-Lab Processes, Inc., 1116 Carmen St., Tampa, Fla.

Electro-Measurements, Inc., 4312 S. E. Stark St., Portland 15, Ore.

Electro-Mec Laboratory Inc., 47-51 33rd St., Long Island City 1, N. Y.

Electro-Mechanical Div. of General Riveters, Inc., 785 Hertel Ave., Buffalo 7, N. Y.

E

EEco Production Co., 506 E. 1st St., Santa Ana, Calif.

EPM Corp., 570 Van Siclen Ave., Brooklyn, N. Y.

ESC Co., 534 Bergen Blvd., Palisades Park, N. J.

E-Z Templates, 1321 19th St., Santa Monica, Calif.

Eagle Electric Mfg. Co., Inc., 23-10 Bridge Plaza S., Long Island City, N. Y.

Eagle Pencil Co., 703 E. 13th St., New York, N. Y.

Eagle Signal Corp., Moline, Ill.

Eastern Air Devices, Inc., 385 Central Ave., Dover, N. H.

Eastern Industries, Inc., 100 Skiff St., Hamden, Conn.

Eastern Precision Resistor Corp., 675 Barbey St., Brooklyn, N. Y.

Electro-Mechanical Research, Inc., Ridgefield, Conn.
 Electro-Mechanical Specialties Co., Inc., 6819 Melrose St., Los Angeles 38, Calif.
 Electro-Medical Lab., Inc., South Woodstock 8, Vt.
 Electro Metallurgical Co., A Div. of Union Carbide and Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Electro-Miniatures Corp., 1060 Elm Ave., Ridgefield, N. J.
 Electro Motive Mfg. Co., South Park & John St., Willimantic, Conn.
 Electro Precision Products, Inc., 139-30 34th Rd., Flushing 54, N. Y.
 Electro Products Labs., 4501 N. Ravenswood Ave., Chicago 40, Ill.
 Electro-Pulse, Inc., 11861 Teale St., Dept. EB, Culver City, Calif.
 Electro-Science Industries, Box 10066 International Airport, Los Angeles 45, Calif.
 Electro-Seal Corp., 946 North Ave., Des Plaines, Ill.
 Electro-Snap Switch & Mfg. Co., 4218 W. Lake St., Chicago 24, Ill.
 Electro Switch Corp., 167 King Ave., Weymouth 88, Mass.
 Electro-Switch & Controls, Inc., 5755 Camille Ave., Culver City, Calif.
 Electro Tec Corp., South Hackensack, N. J.
 Electro-Technical Products Div. of Sun Chemical Corp., 113 E. Centre St., Nutley 10, N. J.
 Electro Voice Mfg. Co., Inc., Buchanan, Mich.
 Electro-Wire Service, 5 Beekman St., New York 7, N. Y.
 Electrocraft Div. of Hamilton-Pax, Inc., 3743 N. Kedzie Ave., Chicago 18, Ill.
 Electrodyne Co., Endicott St., Norwood, Mass.
 Electromath Corp., 190 Henry St., Stamford, Conn.
 Electromec, Inc., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electrometric, Inc., P. O. Box 107, Woodstock, Ill.
 Electron Enterprises, 6917-19-21 Stanley Ave., Berwyn, Ill.
 Electron Products, Inc., 430 N. Halstead St., Pasadena, Calif.
 Electron-Radar Products, P. O. Box 50, Route #30, North Aurora, Ill.
 Electronic Assembly Co., Inc., 5 Prescott St., Boston 19, Mass.
 Electronic Associates, Inc., Long Branch, N. J.
 Electronic Batteries, Inc., Bush Terminal Bldg. No. 4, 28-34 35th St., Brooklyn 32, N. Y.
 Electronic Coils, Inc., P. O. Box 1665, 33 Lyman St., Springfield, Mass.
 Electronic Computer Div., Underwood Corp., 35-10 36th Ave., Long Island City 6, N. Y.
 Electronic Control Corp., 1573 E. Forest St., Detroit 7, Mich.
 Electronic Control Systems, Inc., 2136-38 Westwood Blvd., Los Angeles 25, Calif.
 Electronic Devices, Inc., Precision Rectified Div., 429 12th St., Brooklyn, N. Y.
 Electronic Engineering Associates, Ltd., 1048 Brittan Ave., San Carlos, Calif.
 Electronic Engineering Co. of California, 180 S. Alvarado St., Los Angeles 57, Calif.
 Electronic Enterprises, Inc., 65 7th Ave., Newark 4, N. J.
 Electronic Fabricators, Inc., 682 Broadway, New York 12, N. Y.
 Electronic Instrument Co., Inc., 84 Withers St., Brooklyn 11, N. Y.
 Electronic Machine Parts, Inc., 204-206 Lafayette St., New York 12, N. Y.
 Electronic Mfg. Co., 20 Orange St., Newark, N. J.
 Electronic Measurements Co., Lewis St. & Maple Ave., Eatontown, N. J.
 Electronic Measurements Corp., 280 Lafayette St., New York 12, N. Y.
 Electronic Mechanics, Inc., 101 Clifton Blvd., Clifton, N. J.
 Electronic Parts Mfg. Co., Inc., 508-10 25th St., Union City, N. J.
 Electronic Processes Corp., 2190 Folsom St., San Francisco 10, Calif.
 Electronic Products Co., 111 E. Third St., Mt. Vernon, N. Y.
 Electronic Products Corp., 322 State St., Santa Barbara, Calif.
 Electronic Protection, Inc., 452 W. Chicago Ave., Chicago 10, Ill.
 Electronic Research Associates, Inc., 67 E. Centre St., Nutley 10, N. J.
 Electronic Research Labs., 85 Surrey St., Brighton 35, Mass.
 Electronic Service Corp., 221 W. Lake St., Oak Park, Ill.
 Electronic Specialty Co., 5121 San Fernando Rd., Los Angeles 39, Calif.
 Electronic Transformer Corp., 70 Washington St., Brooklyn 1, N. Y.
 Electronic Tube Coil Co., 274 N. Day St., Orange, N. J.
 Electronic Tube Corp., 1200 E. Mermaid Ave., Philadelphia 18, Pa.
 Electronics & Avionics Div. of the Emerson Electric Mfg. Co., 8100 Florissant Ave., St. Louis 21, Mo.
 Electronics Corporation of America, 77 Broadway, Cambridge 42, Mass.
 Electrons, Inc., 127 Sussex Ave., Newark 3, N. J.
 Electrovert Inc., 489 Fifth Ave., New York 17, N. Y.
 Electrovox Co., Inc., 60 Franklin St., East Orange, N. J.
 Elycyme Motor Products Corp., Genoa, Ill.
 Elektro-Serv Co., 480 Johnson Ave., Brooklyn 37, N. Y.
 Elgin Metalformer Corp., 901 N. Liberty St., Elgin, Ill.
 Elgin National Watch Co., Electronics Div., Elgin, Ill.
 Ellanar Chemical Co., 2308 Oakton St., Evanston, Ill.
 Ellis Associates, Box 77, Pelham, N. Y.
 Ellis & Sons, Inc., George D., 4002 N. American St., Philadelphia 40, Pa.
 El Mec Laboratories, Inc., 730 Boulevard, Kenilworth, N. J.
 Elm Laboratories, 18 South Broadway, Dobbs Ferry, N. Y.
 Eltran Corp., St. Anne, Ill.
 El-Tronics, Inc., 1420 Walnut St., Philadelphia, Pa.
 Elzee Metal Products Co., Inc., 775 39th St., Brooklyn 32, N. Y.

Embassy Engineering Corp., 673 Elton Ave., New York 51, N. Y.
 Emeloid Co., Inc., 1239 Central Ave., Hillside 5, N. J.
 Emerson & Cuming, Inc., 869 Washington St., Canton, Mass.
 Emerson Plastics Corp., 564 Third Ave., New York 16, N. Y.
 Emerson Radio & Phonograph Corp., 111 Eighth Ave., New York, N. Y.
 Empire Devices Products Corp., 38-15 Bell Blvd., Bayside 61, N. Y.
 Empire Electronics Co., Inc., 166 River St., Paterson 1, N. J.
 Endevo Corp., 161 E. California St., Pasadena, Calif.
 Endicott Coil Co., Inc., 24 Charlotte St., Binghamton, N. Y.
 Enflo Corp., Route 38 at Airport Circle, Pennsauken, N. J.
 Engineered Magnetics Div. of Gulton Mfg. Corp., 11818 Teale St., Culver City, Calif.
 Engineered Precision Casting Co., Matawan Rd., Morganville, N. J.
 Engineering Associates, 434 Patterson Rd., Dayton 9, Ohio.
 Engineering Co., 27 Wright St., Newark, N. J.
 Ensign Coil Co., 2516 S. Pulaski Rd., Chicago, Ill.
 Enthone, Inc., 442 Elm St., New Haven 2, Conn.
 Entron Inc., 4902 Lawrence St., Bladenburg, Md.
 Environmental Equipment Co., 371 Linden St., Brooklyn 27, N. Y.
 Eppo Products, Inc., 2500 Atlantic Ave., Brooklyn 17, N. Y.
 Epic, Inc., 154 Nassau St., New York 38, N. Y.
 Eppley Lab., Inc., The, Newport, R. I.
 Epsco, Incorporated, 588 Commonwealth Ave., Boston 15, Mass.
 Epsylon Research & Development Co., Ltd., The Barons, St. Margarets, Middlesex, England.
 Equipment & Service Co., 6815 Oriole Drive, Dallas 9, Texas.
 Erca Tool Die & Stamping Co., 19 Ash St., Brooklyn 22, N. Y.
 Erco Radio Labs., Inc., 637 Stewart Ave., Garden City, N. Y.
 Erco Engineering Corp., Addison, Ill.
 Erie Resistor Corp., 639 W. 12th St., Erie, Pa.
 Erwood Inc., 1770 Berceau Ave., Chicago 13, Ill.
 Ess Specialty Corp., 96 S. Washington Ave., Bergenfield 10, N. J.
 Essex Connector Corp., Div. of Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 Essex Electronics, Berkeley Heights, N. J.
 Essex Wire Corp., 1601 Wall St., Fort Wayne 6, Ind.
 Esso Standard Oil Co., 15 W. 51st St., New York 19, N. Y.
 Esterline-Angus Co., P. O. Box 596, Indianapolis 6, Ind.
 Etched Products Corp., 39-01 Queens Blvd., Long Island City 4, N. Y.
 Ethylene Chemical Corp., 245 Broad St., Summit, N. J.
 Eugene Engineering Co., Inc., 1217 Hyde Park Ave., Hyde Park 36, Mass.
 Ewald Instruments, 99 Nassau St., New York 38, N. Y.
 Exact Engineering & Mfg. Co., P. O. Box 668, Ocean-side, Calif.
 Exacto Industries, Inc., 8730-36 Santa Monica Blvd., Los Angeles 46, Calif.
 Excellex Electronics, Inc., 475 Chestnut St., Cedarhurst, N. Y.
 Executone, Inc., 415 Lexington Ave., New York 17, N. Y.
 Extruders, Inc., 3232 W. El Segundo Blvd., Hawthorne, Calif.

F

F & M Sales, Inc., 1054 Cahuenga Blvd., Hollywood 38, Calif.
 F-R Machine Works Inc., 26-12 Borough Place, Woodside 77, N. Y.
 Faber Mfg. Co., Merle, 35 Stillman St., San Francisco 7, Calif.
 Factory Enterprises, Inc., 3431 Butler St., Pittsburgh 1, Pa.
 Fada Radio & Electric Co., Inc., 525 Main St., Belleville, N. J.
 Fafnir Bearing Co., New Britain, Conn.
 Fairbanks Wire Co., Inc., 2287 Hollers Ave., New York 69, N. Y.
 Fairchild Camera & Instrument Corp., Industrial Camera Div., 88-06 Van Wyck Expressway, Jamaica 1, N. Y.
 Fairchild Controls Corp., Components Div., 225 Park Ave., Hicksville, N. Y.
 Fairchild Controls Corp., Electronics Div., 200 Hudson St., New York, N. Y.
 Fairchild Electrotechnics Division, 118 E. 16th St., Costa Mesa, Calif.
 Fairchild Industries Division, Burlington, Vt.
 Fairchild Recording Equipment Corp., 154th St. & 7th Ave., Whitestone, N. Y.
 Falcon Electronics Corp., 308 William St., Harrison, N. J.
 Falls Metal Works, Ltd., 414 Main St., Little Falls, N. J.
 Falstrom Co., 44 Falstrom Court, Passaic, N. J.
 Fansteel Metallurgical Corp., 2200 Sheridan Rd., North Chicago, Ill.
 Farley & Loetscher Mfg. Co., Plastics Div., Dubuque, Iowa.
 Farmer Electric Products Co., Inc., 2300 Washington St., Newton Lower Falls 62, Mass.
 Farnsworth Electronics Co., Div. of IT&T, 3700 E. Pontiac St., Fort Wayne 1, Ind.
 Farrand Optical Co., Inc., Bronx Blvd. at 238th St., New York 70, N. Y.
 Fasco Industries, Inc., Rochester 2, N. Y.

Fast & Co., John E., 3179 N. Pulaski Rd., Chicago 41, Ill.
 Fastex Div. of Illinois Tool Works, 195 Algonquin Rd., Des Plaines, Ill.
 Federal Mfg. & Engineering Corp., 1055 Stewart Ave., Garden City, N. Y.
 Federal Pacific Electric Co., 50 Paris St., Newark 5, N. J.
 Federal Screw Products Inc., 3917 N. Kedzie Ave., Chicago 18, Ill.
 Federal Shock Mount Corp., 1060 Washington Ave., New York 56, N. Y.
 Federal Telecommunication Labs., A Div. of IT&T, 500 Washington Ave., Nutley 10, N. J.
 Federal Telephone and Radio Co., A Div. of IT&T, 88 Kingsland Rd., Clifton, N. J.
 Federal Tool Engineering Inc., 1386 Pompton Ave., Cedar Grove, N. J.
 Federal Tool & Mfg. Co., 3600 Alabama Ave., Minneapolis 16, Minn.
 Federated Metals Div., American Smelting & Refining Co., 120 Broadway, New York 5, N. Y.
 Feedback Controls, Inc., 1332-34 N. Henry St., Alexandria, Va.
 Feiler Engineering & Mfg. Co., 8026 N. Monticello Ave., Skokie, Ill.
 Felsenthal & Sons, Inc., G., 3500 N. Kedzie, Chicago 18, Ill.
 Felt Products Mfg. Co., 1504 W. Carroll Ave., Chicago 7, Ill.
 Felters Co., 210 South St., Boston, Mass.
 Fenwal Electronics, Inc., Ashland, Mass.
 Fenwal, Inc., 60 Pleasant St., Ashland, Mass.
 Ferguson Perforating & Wire Co., 130 Ernest St., Providence 5, R. I.
 Ferranti Electric, Inc., 30 Rockefeller Plaza, New York 20, N. Y.
 Ferrara, Inc., 8106 W. Nine Mile Rd., Oak Park 37, Ill.
 Ferricore, Inc., 303 Railroad Place, Orange, N. J.
 Ferris Instrument Co., 110 Cornelia St., Boonton, N. J.
 Ferroxcube Corp., of America, 125 E. Bridge St., Saugerties, N. Y.
 Fidelitone, Inc., 6415 Ravenswood, Chicago 26, Ill.
 Fidelity Amplifier Co., 703 Willow St., Chicago 14, Ill.
 Fidelity Chemical Products Corp., 472 Frelinghuysen Ave., Newark, N. J.
 Fidelity Instrument Corp., 1320 W. Market St., York, Pa.
 Field Electrical Instrument Co., 8 N. Manheim Blvd., New Paltz, N. Y.
 Fielden Instrument Div. of Robertshaw-Fulton Controls Co., 2920 N. Fourth St., Philadelphia 33, Pa.
 Film Capacitors, Inc., 3400 Park Ave., New York 56, N. Y.
 Filters, Inc., 30 Sagamore Hill Drive, Port Washington, N. Y.
 Filtron Co., Inc., 131-05 Fowler Ave., Flushing, N. Y.
 Finn & Co., Inc., T. R., 200 Central Ave., Hawthorne, N. J.
 Finney Co., 4612 St. Clair Ave., Cleveland 3, Ohio.
 Fireye Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 First Electronics Corp., The, 117 Blue Hill Ave., Boston 19, Mass.
 Fischer & Porter Co., 476 Warminster Road, Hatboro, Pa.
 Fischer & Co., R. A., 517 Commercial St., Glendale 3, Calif.
 Fisher & Crome, 109 N. Camac St., Philadelphia 7, Pa.
 Fisher Engineering, Inc., 2060 U. S. 24 East, P. O. Box 327, Huntington, Ind.
 Fisher-Pierce Co., 170 Pearl St., South Braintree (Boston 85), Mass.
 Fisher Radio Corp., 21-21 Forty-fourth Drive, Long Island City 1, N. Y.
 Fisher Research Lab., Inc., 1961 University Ave., Palo Alto, Calif.
 Five Star Co., 10 West Main St., Plantsville, Conn.
 Flexaust Co., The, 100 Park Ave., New York 17, N. Y.
 Flexo Wire Div. of Copperweld Steel Co., Oswego, N. Y.
 Flexonics Corp., 1315 S. Third Ave., Maywood, Ill.
 Flexrock Co., 3608 Filbert St., Philadelphia 1, Pa.
 Flight Research, Inc., P. O. Box 1-F, Richmond 1, Va.
 Flock Process Co., Inc., 373 Main Ave., Norwalk, Conn.
 Fluke Mfg. Co., Inc., John, 1111 W. Nickerson St., Seattle 99, Wash.
 Flush Wall Radio Co., 1012 Cleveland St., Clearwater, Fla.
 Foote Brothers Gear & Machine Corp., 4545 S. Western Blvd., Chicago 9, Ill.
 Foote Mineral Co., 452-18 W. Chelton Ave., Philadelphia 44, Pa.
 Ford Engineering Co., Inc., 129 East "A" St., Upland, Calif.
 Ford Instrument Co., Div. of the Sperry Corp., 31-10 Thomson Ave., Long Island City 1, N. Y.
 Ford Radio & Mica Corp., 536 63rd St., Brooklyn, N. Y.
 Fordham Mfg. Co., 2220 Pearsall Ave., New York 69, N. Y.
 Foredom Electric Co., 27 Park Place, New York 7, N. Y.
 Forest Electric Co., 7216 Circle Ave., Forest Park, Ill.
 Formatic Co., 178 Bridge St., Naugatuck, Conn.
 Formica Co., The, 4616 Spring Grove Ave., Cincinnati 32, Ohio.
 Formica Metal Products Co., Corporation Way, Medford 55, Mass.
 Fort Wayne Metals, Inc., Fort Wayne 6, Ind.
 Forter-Teichmann Co., Clark Bldg., Pittsburgh, Pa.
 Fortiphone Ltd., 247 Regent St., London W. 1, England.
 Foster Transformer Co., 3820 Colerain Ave., Cincinnati 23, Ohio.
 Fostoria Pressed Steel Corp., Fostoria, Ohio.
 Foto-Video Laboratories, Inc., Eagle Rock Bldg., 25 Amity St., Little Falls, N. J.
 Fox Products Co., 4720 N. 18th St., Philadelphia 41, Pa.
 Foxboro Co., The, Foxboro, Mass.
 Franke Gear Works, Inc., 1932 W. Columbia Ave., Chicago 26, Ill.

Frankel Connector Co., 27 Vestry St., New York, N. Y.
 Franklin Electronics, Inc., E. Fourth St., Bridgeport, Pa.
 Franklin Fibre-Lamitex Corp., 411 E. Front St., Wilmington, Del.
 Freed Transformer Co., Inc., 1736 Weirfield St., Brooklyn 27, N. Y.
 Frenchtown Porcelain Co., Trenton 9, N. J.
 Frequency Standards, Inc., P. O. Box 504, Asbury Park, N. J.
 Fretco Inc., 406 N. Craig St., Pittsburgh 13, Pa.
 Friden Calculating Machine Co., Inc., 2350 Washington Ave., San Leandro, Calif.
 Friez Instrument Div., Bendix Aviation Corp., Baltimore 4, Md.
 Fugle-Miller Laboratories, Inc., 398 Main St., Metuchen, N. J.
 Fulton Siphon Div., Robertshaw-Fulton Controls Co., Knoxville 1, Tenn.
 Furst Electronics, Inc., 3324-A W. Lawrence Ave., Chicago 25, Ill.
 Furzehill Laboratories, Inc., 57 Clarendon Rd., Watford, Herts., England.
 Fusite Corp., 6000 Fernview Ave., Cincinnati 13, Ohio.

G

G & M Equipment Co., Inc., 7309-7327 Varna Ave., North Hollywood, Calif.
 G-M Laboratories, Inc., 4336 N. Knox Ave., Chicago, Ill.
 G-V Controls Inc., 28 Hollywood Plaza, East Orange, N. J.
 G. W. Associates, 108 Standard St., El Segundo, Calif.
 Gabriel Electronics Div. of The Gabriel Co., Needham Heights, Mass.
 Gaertner Scientific Corp., 1239 Wrightwood Ave., Chicago 14, Ill.
 Gahan, Inc., 11 W. Fourth St., Bethlehem, Pa.
 Gair Co., Inc., Robert, 155 E. 44th St., New York, N. Y.
 Gamewell Co., The, 1238 Chestnut St., Newton Upper Falls 64, Mass.
 Gamma Instrument Co., Inc., 378 Great Neck Rd., Great Neck, N. Y.
 Gar Electrical Instrument Corp., 92-15 172nd St., Jamaica 33, N. Y.
 Gar Precision Parts, Inc., 703 Pacific St., Stamford, Conn.
 Garde Mfg. Co., 588 Eddy St., Providence 3, R. I.
 Gardiner Electronics, 2545 E. Indian School Rd., Phoenix, Ariz.
 Gardner Lab., Inc., 4723 Elm St., Bethesda 14, Md.
 Garfield Wire Div. of The Overlakes Corp., 142 Monroe St., Garfield, N. J.
 Garlock Packing Co., Palmyra, N. Y.
 Garrard Sales Corp., 80 Shore Rd., Port Washington, N. Y.
 Garrepy Platers, Inc., 17-19 Bartlett St., Worcester 8, Mass.
 Gaston Power Tools, Inc., P. O. Box 312, Harvey, Ill.
 Gates Electronic Co., 611 Morris Park Ave., Bronx, N. Y.
 Gates Radio Co., Quincy, Ill.
 Gear Specialties, Inc., 2635 W. Medill Ave., Chicago 47, Ill.
 Gee-Lar Mfg. Co., 418 S. Wyman St., Rockford, Ill.
 Gem Ear Phone Co., Inc., 50 W. 29th St., New York 1, N. Y.
 Gemex Corp., The, Industrial Products Div., 1200 Commerce Ave., Union, N. J.
 General Apparatus Co., 1344-6 E. 32nd St., New York 16, N. Y.
 General Aviation & Electronics Mfg. Co., Inc., 179 Berger St., Wood-Ridge, N. J.
 General Bronze Corp., 711 Stewart Ave., Garden City, N. Y.
 General Cable Corp., 420 Lexington Ave., New York 17, N. Y.
 General Cement Mfg. Co., Electronic Div., 919 Taylor Ave., Rockford, Ill.
 General Ceramics Corp., Keasbey, N. J.
 General Chemical Div., Allied Chemical & Dye Corp., 40 Rector St., New York 6, N. Y.
 General Coil Products Corp., 43 Roselle St., Mineola, N. Y.
 General Communication Co., 681 Beacon St., Boston 15, Mass.
 General Components Co., 233 E. 146th St., New York 51, N. Y.
 General Control Company, 1212 Soldiers Field Rd., Boston 34, Mass.
 General Controls Co., Glendale 1, Calif.
 General Cybernetics Corp., 1751 N. Coronado St., Los Angeles 26, Calif.
 General Devices, Inc., P. O. Box 253, Princeton, N. J.
 General Dry Batteries, Inc., 13000 Athens Ave., Cleveland 7, Ohio.
 General Electric Co., Apparatus Sales Div., 1 River Rd., Schenectady 5, N. Y.
 General Electric Co., Broadcast Equipment Dept., Electronics Park, Syracuse, N. Y.
 General Electric Co., Chemical Materials Dept., Pittsfield, Mass.
 General Electric Co., Clock and Timer Dept., Ashland, Mass.
 General Electric Co., Communication Equipment Dept., Electronics Park, Syracuse, N. Y.
 General Electric Co., Construction Materials Div., 1285 Boston Ave., Bridgeport 2, Conn.
 General Electric Co., Distribution Assemblies Dept., 41 Woodford Ave., Plainville, Conn.
 General Electric Co., Electronic Components Dept., W. Genesee St., Auburn, N. Y.

General Electric Co., Laminated & Insulating Products Dept., Coshocton, Ohio.
 General Electric Co., Lamp Div., Lamp Leads & Bases Dept., 17825 St. Clair Ave., Cleveland 12, Ohio.
 General Electric Co., Lamp Div., Lamp Wire & Phosphors Dept., 1331 Chardon Rd., Cleveland 17, Ohio.
 General Electric Co., Lamp Div., Miniature Lamp Dept., Nela Park, Cleveland 12, Ohio.
 General Electric Co., Plastics Dept., Pittsfield, Mass.
 General Electric Co., Semiconductor Products Dept., Electronics Park, Syracuse, N. Y.
 General Electric Co., Silicone Products Dept., Waterford, N. Y.
 General Electric Co., Tube Dept., 1 River Rd., Schenectady 5, N. Y.
 General Findings & Supply Co., Industrial Div., Attleboro, Mass.
 General Hermetic Sealing Corp., 99 E. Hawthorne Ave., Valley Stream, N. Y.
 General Industries Co., Taylor and Olive Sts., Elyria, Ohio.
 General Instrument Corp., 65 Gouverneur St., Newark 4, N. J.
 General Insulated Wire Works, Inc., 69 Gordon Ave., Providence 5, R. I.
 General Laminated Products, Inc., 2857 S. Halstead St., Chicago 8, Ill.
 General Machine & Instrument Co., Caldwell, N. J.
 General Magnetic Corp., 10001 Erwin Ave., Detroit 34, Mich.
 General Magnetics, Inc., 135 Bloomfield Ave., Bloomfield, N. J.
 General Metal Products Co., 1010-14 Centre St., Easton, Pa.
 General Nuclear Corp., 550 Fifth Ave., New York 28, N. Y.
 General Photo Products Co., Inc., General Photo Bldg., 15 Summit Ave., Chatham, N. J.
 General Plastics Corp., P. O. Box 1236, Paterson, N. J.
 General Precision Laboratory Inc., 63 Bedford Rd., Pleasantville, N. Y.
 General Radio Co., 275 Massachusetts Ave., Cambridge 39, Mass.
 General Research & Supply Co., 572 S. Division Ave., Grand Rapids 3, Mich.
 General Resistance Products Corp., 42-11 192nd St., Flushing 58, N. Y.
 General RF Fittings, Inc., 702 Beacon St., Boston 15, Mass.
 General Testing Labs., Div. of Electronic Mfg. Corp., 227 W. Chestnut, Monrovia, Calif.
 General Tire & Rubber Co., The, Akron, Ohio.
 General Tire & Rubber Co., Bolta Products Div., Lawrence, Mass.
 General Transformer Co., 18240 Harwood Ave., Homewood, Ill.
 General Transistor Corp., 130-11 90th Ave., Richmond Hill 18, N. Y.
 Genisco, Inc., 2233 Federal Ave., Los Angeles 64, Calif.
 Georator Corp., Manassas, Va.
 George Co., P. D., 5200 N. Second St., St. Louis, Mo.
 Gerber Scientific Instrument Co., 89 Spruce St., Hartford 1, Conn.
 Gering Products Inc., N. Seventh St. at Monroe Ave., Kenilworth, N. J.
 Gerly Engineering Co., 2151 N. Damen Ave., Chicago 47, Ill.
 Germanium Products Corp., 26 Cornelison Ave., Jersey City 4, N. J.
 Gertsch Products, Inc., 11846 Mississippi Ave., P. O. Box 25856, Los Angeles 25, Calif.
 Giannini & Co., Inc., G. M., 918 E. Green St., Pasadena 1, Calif.
 Gibson Co., William D., The, 1800 Clybourn Ave., Chicago 14, Ill.
 Gibson Electric Co., 8361 Frankstown Ave., Pittsburgh 21, Pa.
 Gilfillan Bros., Inc., 1815 Venice Blvd., Los Angeles 6, Calif.
 Gilmore Industries, 5713 Euclid Ave., Cleveland 3, Ohio.
 Girard-Hopkins, 1000 40th Ave., Oakland 1, Calif.
 Girdler Company, The, Thermex Div., A Div. of National Cylinder Gas Co., 224 E. Broadway, Louisville 1, Ky.
 Glaser Lead Co., Inc., 31 Wyckoff Ave., Brooklyn 37, N. Y.
 Glaser-Steers Corp., 2 Main St., Belleville 9, N. J.
 Glass Engineering Labs., 601 O'Neil Ave., Belmont, Calif.
 Glatic Corp., The, 4321 Glenridge Rd., Cleveland 21, Ohio.
 Gleason-Avery Co., Auburn, N. Y.
 Glenco Corp., Metuchen, N. J.
 Global Division, Carborundum Co., Niagara Falls, N. Y.
 Globe Electrical Mfg. Co. Dept. J, 1729 W. 134th St., Gardena, Calif.
 Globe Industries, Inc., P. O. Box 101, North Dayton Station, Dayton 4, Ohio.
 Glyco Products Co., Inc., Empire State Bldg., New York 1, N. Y.
 Goat Co., Inc., Fred, 308 Dean St., Brooklyn 17, N. Y.
 Godfrey Mfg. Co., 2642 S. Michigan Ave., Chicago 16, Ill.
 Goldak Co., Inc., The, Dept. E, 1544 W. Glenoaks Blvd., Glendale 1, Calif.
 Goldsmith Bros. Smelting & Refining Co., 111 N. Wabash Ave., Chicago 2, Ill.
 Gombos Co., Inc., John, 103 Montgomery Ave., Irvington 11, N. J.
 Gonset Co., 801 S. Main St., Burbank, Calif.
 Good-All Electric Mfg. Co., 112 W. First St., Ogallala, Neb.
 Goodline Corp., 309 Date Ave., Alhambra, Calif.
 Goodmans Industries, (Rockbar Corp.), 215 E. 37th St., New York 16, N. Y.

Goodrich Chemical Co., B. F., 3135 Euclid Ave., Cleveland 15, Ohio.
 Goodyear Aircraft Corp., 1210 Massillon Road, Akron 15, Ohio.
 Goodyear Tire & Rubber Co., Inc., Chemical Div., 1144 E. Market St., Akron 16, Ohio.
 Gordon Co., Claud S., 3000 S. Wallace St., Chicago 16, Ill.
 Gordon Enterprises, 5362 N. Cahuenga Blvd., North Hollywood, Calif.
 Gordos Corp., 250 Glenwood Ave., Bloomfield, N. J.
 Gorn Electric Co., Inc., Stamford, Conn.
 Goslin Electric & Mfg. Co., 2921 W. Olive St., Burbank, Calif.
 Gotham Audio Development Corp., 1657 Broadway, New York 19, N. Y.
 Gotham Television Corp., 123 W. 64th St., New York 23, N. Y.
 Gould-National Batteries, Inc., 35 Neoga St., Depew, N. Y.
 Gow-Mac Instrument Co., 100 Kings Rd., Madison, N. J.
 Graef Engineering Co., P. O. Box 416, Paramount, Calif.
 Grafo Colloids Corp., Sharon, Pa.
 Graham Mfg. Co., Inc., 47 Bridge St., East Greenwich, R. I.
 Gramer-Halldorson Transformer Corp., 2734 N. Pulaski Rd., Chicago 39, Ill.
 Granco Products, Inc., 36-17 20th Ave., Long Island City, N. Y.
 Grand Ra-Tronics, Inc., Hey St., Grand Haven, Mich.
 Grand Transformers, Inc., Hey St., Grand Haven, Mich.
 Grant Gear Works, Inc., 154 W. Second St., South Boston, Mass.
 Grant Pulley & Hardware Corp., 31-85 Whitestone Pkwy., Flushing, N. Y.
 Graphik Circuits Div. of Cinch Mfg. Corp., 221 S. Arroyo Parkway, Pasadena, Calif.
 Graphire Corp., 190 W. 237th St., New York 63, N. Y.
 Yonkers, N. Y.
 Grason-Stadler Co., West Concord, Mass.
 Grass Instrument Co., 101 Old Colony Ave., Quincy, Mass.
 Graver Water Conditioner Co., 216 W. 14th St., New York, N. Y.
 Gray Instrument Co., 200 E. Church Lane, Philadelphia 44, Pa.
 Gray Radio Co., 501 Forest Hill Blvd., West Palm Beach, Fla.
 Gray Research & Development Co., Inc., 685 Hilliard St., Manchester, Conn.
 Grayhill, 537 Hillgrove Ave., La Grange, Ill.
 Great Lakes Electric Mfg. Co., 17 S. Desplaines St., Chicago 6, Ill.
 Green Instrument Co., 363A Putnam Ave., Cambridge, Mass.
 Green Rectifier Co., 83-3 Murray St., New York 7, N. Y.
 Greenleaf Mfg. Co., The, 7814 Maplewood Industrial Court, St. Louis 17, Mo.
 Greer Stop Nut Co., 2620 W. Flournoy St., Chicago 12, Ill.
 Greibach Instruments Corp., Metuchen, N. J.
 Gries Reproducer Corp., 151 Beechwood St., New Rochelle, N. Y.
 Grieve-Hendry Co., Inc., 1401-17 W. Carroll Ave., Chicago 7, Ill.
 Griffin Co., John, 2157 James Ave., St. Paul 5, Minn.
 Griffiths Electronics, Inc., 155 Summit St., Newark 3, N. J.
 Grigsby-Allison Co., Inc., 407 N. Salem Ave., Arlington Heights, Ill.
 Groov-Pin Corp., 1125 Hendricks Causeway, Ridgefield, N. J.
 Guardian Electric Mfg. Co., 1621 W. Walnut St., Chicago 12, Ill.
 Guastavino Co., R., 660 Main St., Woburn, Mass.
 Gudebrod Bros. Silk Co., Inc., Electronics Div., 225 W. 34th St., New York 1, N. Y.
 Gudeman Co., 340 W. Huron St., Chicago 10, Ill.
 Gudeman Co. of California Inc., 9200 Exposition Blvd., Los Angeles 34, Calif.
 Guided Missiles Div. of Fairchild Engine & Airplane Corp., Wyandanch, N. Y.
 Guild Radio & Television Co., 460 N. Eucalyptus Ave., Inglewood, Calif.
 Gulton Mfg. Corp., Metuchen, N. J.
 Guthman Div. of Essex Wire Corp., 15 S. Throop St., Chicago 7, Ill.
 Gyro Electronics Co., 325 Canal St., New York, N. Y.
 Gyromechanisms Div. of Norden-Ketay Corp., Hale site, N. Y.

H

H. & H. Products Co., 766 Ramsey Ave., Hillside, N. J.
 Haddam Heating Co., Haddam, Conn.
 Hadley Co., Robert M., 5112 S. Hoover St., Los Angeles 37, Calif.
 Hagen Mfg. Co., Inc., 202 20th St., Moline, Ill.
 Halax Corp., P. O. Box 425, Los Gatos, Calif.
 Haledy Electronics Co., 57 William St., New York 5, N. Y.
 Hall Mfg. Co., 3901 Wesley Terrace, Schiller Park, Ill.
 Hall-Scott, Inc., Electronics Div., 2950 N. Ontario, Burbank, Calif.
 Hallamore Electronics Co., A Div. of The Siegler Corp., 2001 E. Artesia, Long Beach 5, Calif.
 Haller, Raymond & Brown, Inc., State College, Pa.
 Hallett Mfg. Co., 1601 W. Florence Ave., Inglewood, Calif.

- Hallcrafters Co., 4401 W. Fifth Ave., Chicago 24, Ill.
- Halogen Insulator & Seal Corp., 10121 Franklin Ave., Franklin Park, Ill.
- Haloid Co., The, 6 Haloid St., Rochester 3, N. Y.
- Hamilton Mfg. Co., Two Rivers, Wis.
- Hamilton-Pax, Inc., 3739 N. Kedzie Ave., Chicago 18, Ill.
- Hamlin, Inc., 1316 Sherman Ave., Evanston, Ill.
- Hammarlund Mfg. Co., Inc., 460 W. 34th St., New York 1, N. Y.
- Hamner Electronics Co., Inc., Box 531, Princeton, N. J.
- Handy & Harman, 82 Fulton St., New York 38, N. Y.
- Hanover Developments, 401 E. 74th St., New York 21, N. Y.
- Hanovia Chemical & Mfg. Co. Special Products Div., 100 Chestnut St., Newark 5, N. J.
- Hansen Electronics Co., 7117 1/2 Santa Monica Blvd., Los Angeles 46, Calif.
- Hansen Mfg. Co., Inc., Princeton, Indiana.
- Harder Co., Donald C., 3710 Midway Drive, San Diego 10, Calif.
- Hardman Co., Inc., H. V., 571 Cortlandt St., Belleville 9, N. J.
- Hardwick Hindle, Inc., 40 Hermon St., Newark 5, N. J.
- Harmon, Lichtenstein & Co., 25 Beaver St., New York 4, N. Y.
- Harnett Electric Corp., Lincoln & Hallett Aves., Riverhead, N. Y.
- Harper Co., The, H. M., 8200 Lehigh Ave., Morton Grove, Ill.
- Harper Electric Furnace Corp., 48 River St., Buffalo 2, N. Y.
- Harper-Leader, Inc., 1046 S. Main St., Waterbury 20, Conn.
- Harrington & King Perforating Co., 5653 Fillmore St., Chicago 44, Ill.
- Harris Transducer Corp., The, Woodbury, Conn.
- Harrison Laboratories, Inc., 45 Industrial Rd., Berkeley Heights, N. J.
- Hart Mfg. Co., 242 Bartholomew Ave., Hartford 1, Conn.
- Hartford City Paper Co., Hartford City, Ind.
- Hartley Products Co., 521 E. 162nd St., New York 51, N. Y.
- Harvey Hubbell, Inc., State St. & Bostwick Ave., Bridgeport 2, Conn.
- Harvey-Wells Electronics, Inc., North St., Southbridge, Mass.
- Harwood Co., Div. of Avia Products Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
- Harworth Mfg. Co., 409 El Camino Real, Menlo Park, Calif.
- Hassall, Inc., John, P. O. Box 2242, Westbury, N. Y.
- Hastings Instrument Co., Inc., Hampton 9, Va.
- Hathaway Instrument Co., 1315 S. Clark St., Denver 10, Colo.
- Hauman Instruments Co., Inc., 70 Coolidge Hill Rd., Watertown 72, Mass.
- Hawley Products Co., St. Charles, Ill.
- Haydon Co., A. W., The, 238 N. Elm St., Waterbury, Conn.
- Haydon Mfg. Co., Inc., 2400 Elm St., Torrington, Conn.
- Haydon Switch Inc., 536 S. Leonard St., Waterbury 20, Conn.
- Haydu Brothers Div. of Burroughs Corp., P. O. Box 1226, Plainfield, N. J.
- Haynes Stellite Co., Division of Union Carbide & Carbon Corp., 725 S. Lindsay St., Kokomo, Ind.
- Hays Mfg. Co., 818 W. 12th St., Erie, Pa.
- Heath Co., A Sub. of Daystrom, Inc., Benton Harbor 14, Mich.
- Hedin-Te-Technical Corp., 87 Dorsa Ave., Livingston, N. J.
- Heiland Div. of Minneapolis-Honeywell Regulator Co., 5200 E. Evans Ave., Denver 22, Colo.
- Heinemann Electric Co., 150 Plum St., Trenton 2, N. J.
- Heintz & Kaufman Equipment Div. of The Robert Dollar Co., 50 Drumm St., San Francisco 11, Calif.
- Heinze Electric Co., 685 Lawrence St., Lowell, Mass.
- Helco Products Corp., 7832 Balboa Blvd., Van Nuys, Calif.
- Heldor Mfg. Corp., 238 Lewis St., Paterson, N. J.
- Heli-Coil Corp., Shelter Rock Rd., Danbury, Conn.
- Helipot Corp., 916 Meridian Ave., Spath Pasadena, Calif.
- Helwig Co., 2544 N. 30th St., Milwaukee 10, Wis.
- Heminway & Bartlett Mfg. Co., 500 Fifth Ave., New York 36, N. Y.
- Henry and Miller Industries, Inc., 675 Garfield Ave., Jersey City 5, N. J.
- Heppner Mfg. Co., P. O. Box 612, Round Lake, Ill.
- Hercules Powder Co., Inc., 900 Market St., Wilmington 99, Del.
- Hermaseal Co., Inc., 1101 Lafayette St., Elkhart, Ind.
- Hermes Plastics, Inc., 13-19 University Place, New York 3, N. Y.
- Hermetic Connector Corp., 176 Walnut St., Bloomfield, N. J.
- Hermetic Seal Products Co., 29-37 South 6th St., Newark 7, N. J.
- Hermetic Seal Transformer Co., 555 N. 5th St., Garland, Texas.
- Hermetite Corp., 702 Beacon St., Boston 15, Mass.
- Herrnfeld Engineering Corp., Frank, 5716 Camille Ave., Culver City, Calif.
- Hertner Electric Co., 12690 Elmwood Ave., Cleveland 11, Ohio.
- Herzog Miniature Lamp Works, Inc., 12-23 Jackson Ave., Long Island City 4, N. Y.
- Hetherington, Inc., Sharon Hill, Pa.
- Hewlett-Packard Co., 275 Page Mill Rd., Palo Alto, Calif.
- Hexacon Electric Co., 130 W. Clay Ave., Roselle Park, N. J.
- Heyman Mfg. Co., Kenilworth 2, N. J.
- Hick Electrical Instrument Co., 10514 Dupont Ave., Cleveland 8, Ohio.
- Hieatt Engineering Co., 2228 N. Hollywood Way, Burbank, Calif.
- Hi-G Inc., Bradley Field, Windsor Locks, Conn.
- High Fidelity Products, Box 131, Owensboro, Ky.
- High Speed Hammer Co., Rochester, N. Y.
- High-Vacuum Equipment Corp., Hingham, Mass.
- High Voltage Engineering Corp., 7 University Rd., Cambridge 38, Mass.
- Highland Engineering, 1732 Berkeley, Santa Monica, Calif.
- Highland Engineering Co., 91 Magnolia St., Westbury, N. Y.
- Hill Electronic Engineering & Mfg. Co., Inc., New Kingstown, Pa.
- Hillburn Electronic Products Co., 55 Nassau Ave., Brooklyn 22, N. Y.
- Hillyer Instrument Co., Inc., 54 Lafayette St., New York 13, N. Y.
- Hinde & Dauch, Sandusky, Ohio.
- Hindle Transformer Co., Inc., Woods Church Rd., Flemington, N. J.
- Hitchiner Manufacturing Co., Inc., P. O. Box 232, Milford N. H.
- Hitemp Wires, Inc., 26 Windsor Ave., Mineola, N. Y.
- Hi-Test Chemical Corp., 722 64th St., Brooklyn 20, N. Y.
- Hobbs Mfg. Co., 26 Salisbury St., Worcester, Mass.
- Hobson Bros., 4940 W. Lawrence Ave., Chicago 30, Ill.
- Hoffman Co., P. R., Carlisle, Pa.
- Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
- Hoffman Engineering Corp., Anoka, Minn.
- Hoffman Laboratories, Inc., Sub. of Hoffman Electronics Corp., 3761 S. Hill St., Los Angeles 7, Calif.
- Hofmann Needle Works, Inc., Alfred, 7310 Hudson Ave., Union City, N. J.
- Hogan Laboratories, Inc., 155 Perry St., New York 14, N. Y.
- Holl Audio Inc., 5014 N. Encinta Ave., Temple City, Calif.
- Holland Electronics, 2133 Central Drive S., East Meadow, N. Y.
- Hollingsworth Co., Solderless Terminal Div., Phoenixville, Pa.
- Holtzer-Cabot Motor Div. of National Pneumatic Co., Inc., 125 Amory St., Boston 19, Mass.
- Holub Industries, Inc., 414 DeKalb Ave., Sycamore, Ill.
- Holyoke Wire & Cable Co., 720 Main St., Holyoke, Mass.
- Homelite, A Div. of Textron American, Inc., Port Chester, N. Y.
- Hoover Electric Co., 2100 S. Stoner Ave., Los Angeles 25, Calif.
- Hoover Electronics Co., 3640 Woodland Ave., Baltimore 15, Md.
- Hopkins Engineering Co., 2082 Lincoln Ave., Altadena, Calif.
- Hopp Press, Inc., 460 W. 34th St., New York, N. Y.
- Hoskins Mfg. Co., 4445 Lawton Ave., Detroit 8, Mich.
- Houghton Laboratories, Inc., 322 Houghton Ave., Olean, N. Y.
- Houlihan Co., T. J., 2508-14 W. Lawrence Avenue, Chicago 25, Ill.
- Howard Industries, Inc., Divisions: Cyclohm Motor Corp., Electric Motor Corp., Racine, Wis.
- Howe International, 431 Danforth, Dept. E-7, Jersey City 5, N. J.
- Howell Instrument Co., 3101 Trinity, Fort Worth 7, Texas.
- Hoyt Electrical Instrument Works, Inc., 42 Carleton St., Cambridge 42, Mass.
- Hubbard Scientific Labs., Inc., 1292 E. Third St., Pomona, Calif.
- Huck Mfg. Co., 2480 Bellevue Ave., Detroit 7, Mich.
- Hudson American Corp., 25 W. 43rd St., New York 36, N. Y.
- Hudson Associates, Inc., 50 Drumm St., San Francisco 11, Calif.
- Hudson Bay Co., Div. of Labline Inc., 3070 W. Grand Ave., Chicago 22, Ill.
- Hudson Lamp Co., 528 Elm St., Kearny, N. J.
- Hudson Tool & Die Co., Inc., 118 S. 14th St., Newark, N. J.
- Hudson Wire Co., Ossining, N. Y.
- Hufco Industries, 2815 W. Olive, Burbank, Calif.
- Huggins Laboratories, 711 Hamilton Ave., Menlo Park, Calif.
- Hughey & Phillips, Inc., 3300 N. San Fernando Blvd., Burbank, Calif.
- Hughes Products Division, Hughes Aircraft Co., Los Angeles 45, Calif.
- Hull Corporation, Abington, Pa.
- Hunt Co., Philip A., Palisades Park, N. J.
- Hunt Corp., The, 543 Lincoln St., Carlisle, Pa.
- Hunter Tool Co., 6608 S. Gretna Ave., Whittier, Calif.
- Hupp Electronics Co., A Div. of Hupp Corp., 743 Circle Ave., Forest Park, Ill.
- Hupp Instrumentation, 2119 Sepulveda Blvd., Los Angeles 25, Calif.
- Huppert Co., K. H., 6864 Cottage Grove Ave., Chicago 37, Ill.
- Hycon Eastern, Inc., 1360 Soldiers Field Rd., Boston 35, Mass.
- Hycon Mfg. Co., 2961 E. Colorado St., Pasadena, Calif.
- Hycor Div. of International Resistance Co., 12970 Bradley Ave., Sylmar, Calif.
- Hydraulic Press Mfg. Co., Mt. Gilead, Ohio.
- Hydro Molding Co., Inc., Plattsburgh, N. Y.
- Hy-Lite Antennae, Inc., 242 E. 137th St., New York 51, N. Y.
- I. E. Manufacturing, 325 N. Hoyle Ave., Chicago 12, Ill.
- I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.
- Ideal Industries, Inc., 5103 Park & Borden Avenues, Sycamore, Ill.
- Ilg Electric Ventilating Co., 2850 N. Crawford Ave., Chicago 41, Ill.
- Illinois Condenser Co., 1616 N. Throop St., Chicago 22, Ill.
- Illumitronic Engineering, 680 E. Taylor Ave., Sunnyvale, Calif.
- Ilco Corporation, Cincinnati 27, Ohio.
- Improved Seamless Wire Co., 775 Eddy St., Providence 5, R. I.
- Indiana Steel Products Company, The, Valparaiso, Indiana
- Indiana Steel & Wire Co., 700 Council St., Muncie, Ind.
- Induction Heating Corp., 181 Wytke Ave., Brooklyn 11, N. Y.
- Induction Motors Corp., 570 Main St., Westbury, N. Y.
- Industrial Condenser Corp., 3243 N. California Ave., Chicago 18, Ill.
- Industrial Control Co., Straight Path & Arlington Ave., Wyandanch, N. Y.
- Industrial Development Labs., Inc., 17 Pollock Ave., Jersey City 5, N. J.
- Industrial Development & Mfg. Corp., P. O. Box 48, Needham, Mass.
- Industrial Devices Inc., 982 River Rd., Edgewater, N. J.
- Industrial Electrical Works, 1509 Chicago St., Omaha 2, Nebraska.
- Industrial Electronic Controls Co., 2271 E. 14th St., Brooklyn 29, N. Y.
- Industrial Electronic Engineers, 3973 Lankershem Blvd., North Hollywood, Calif.
- Industrial Electronics Co., Inc., Hanover, Mass.
- Industrial Electronics, Inc., 8060 Wheeler St., Detroit 10, Mich.
- Industrial Engravers, Inc., 4103 Tenth Ave., Brooklyn 19, N. Y.
- Industrial Hardware Mfg. Co., Inc., 109 Prince St., New York, N. Y.
- Industrial Instruments, Inc., 89 Commerce Rd., Cedar Grove, N. J.
- Industrial Mica Corp., 223 S. Van Brunt St., Englewood, N. J.
- Industrial Products Co., Div. of Danbury-Knudsen, Inc., Danbury, Conn.
- Industrial Radio Corp., 428 N. Parkside Ave., Chicago 44, Ill.
- Industrial Retaining Ring Co., 8 W. Sidney Ave., Mount Vernon 9, N. Y.
- Industrial Systems Co., Matawan, N. J.
- Industrial Television, Inc., 369 Lexington Ave., Clifton, N. J.
- Industrial Test Equipment Co., 55 E. 11th St., New York 3, N. Y.
- Industrial Timer Corp., 1407 McCarter Highway, Newark 4, N. J.
- Industrial Transformer Corp., Gouldsboro, Pa.
- Industrial Tubes, Inc., Geneva, Ill.
- Industrial Winding Machinery Co., 120 Wall St., New York 5, N. Y.
- Industrial Wiring & Cable Co., 103 Foundry St., Wakefield, Mass.
- Industron Corp., 50 Brook Rd., Needham Heights, Mass.
- Industronics, Box 424 Arlington Heights, Ill.
- Inet Div. of Leach Corp., 4441 Santa Fe Ave., Los Angeles 58, Calif.
- Infra Electronic Corp., Roseland, N. J.
- Inland Electronics Corp., 500 Rathbone Ave., Aurora, Ill.
- Inco Co., Div. of Barry Controls, Inc., Hollis St., Groton, Mass.
- Insl-X Co., Inc., Water St., Ossining, N. Y.
- Instant Circuits Div. of Alfred W. Barber Labs., 32-44 Francis Lewis Blvd., Flushing, N. Y.
- Instrument Components Inc., Div. of Belock Instrument Corp., 14-34 112th St., College Point, N. Y.
- Instrument Development Laboratories, Inc., 163 Highland Ave., Needham Heights, Mass.
- Instrument Electronics Corp., 90 Main St., P. O. Box 830, Port Washington, N. Y.
- Instrument Laboratories, 315 W. Walton Place, Chicago 10, Ill.
- Instrument Resistors Co., 1036 Commerce Ave., Union, N. J.
- Instrument Specialties Co., Inc., 254 Bergen Blvd., Little Falls, N. J.
- Instrument Wire Co., 41 Kendall Ave., Maplewood, N. J.
- Instruments for Industry, Inc., 149 Glen Cove Rd., Mineola, N. Y.
- Insulated Circuits, Inc., 115 Roosevelt Ave., Belleville, N. J.
- Insulating Fabricators, Inc., 150 Union Ave., East Rutherford, N. J.
- Insulation Manufacturers Corp., 565 W. Washington Blvd., Chicago 6, Ill.
- Insuline Corp., of America, 186 Granite St., Manchester, N. H.
- Integrated Mica Corp., 202 Franklin Place, Woodmere, N. Y.
- Interellectronics Corp., 2432 Grand Concourse, New York 58, N. Y.
- Interference Measurement Lab., Inc., 907 E. 51st St., Brooklyn 3, N. Y.
- International Business Machines, 590 Madison Ave., New York 22, N. Y.
- International Crystal Mfg. Co., 18 N. Lee St., Oklahoma City, Okla.
- International Electronic Research Corp., 145 W. Magnolia Blvd., Burbank, Calif.
- International Electronics Corp., (Mullard Equipment), 81 Spring St., New York 12, N. Y.
- International Instruments, Inc., P. O. Box 2954, New Haven 15, Conn.
- International Nickel Co., Inc., 67 Wall St., New York 5, N. Y.
- International Pump & Machine Works, Inc., 81 Dorsa Ave., Livingston, N. J.
- I. D. E. A., Inc., 7900 Pendleton Pike, Indianapolis 26, Ind.

International Radiant Corp., 4 Manhasset Ave., Port Washington, N. Y.
 International Radio & Electronics Corp., Elkhart, Ind.
 International Rectifier Corp., 1521 E. Grand Ave., El Segundo, Calif.
 International Register Co., 2620 Washington Blvd., Chicago 12, Ill.
 International Research Associates, 2221 Warwick Ave., Santa Monica, Calif.
 International Research & Development Corp., 769 Thomas-Lane, P. O. Box 1707, Cleveland 16, Ohio.
 International Resistance Co., 401 N. Broad St., Philadelphia 8, Pa.
 Interstate Electronics Div. of Interstate Engineering Corp., 875 S. East St., Anaheim, Calif.
 Interstate Electronics, Inc., 227 Fulton St., New York 7, N. Y.
 Investment Casting Co., 60 Brown Ave., Springfield, N. J.
 Ippolito & Co., Inc., James, 401 Concord Ave., Bronx 54, N. Y.
 Iron Fireman Mfg. Co., Electronics Div., 2838 S. E. 9th Ave., Portland 2, Ore.
 Irvington Varnish & Insulator Div. of Minnesota Mining & Mfg. Co., 6 Argyle Terrace, Irvington 11, N. J.
 Islip Transformer & Metal Co., Inc., Beech St., Islip, N. J.
 Isocyanate Products, Inc., P. O. Box 1681, Wilmington, Del.
 Isolantite Manufacturing Co., Stirling, N. J.

J

J-B-L Instrument Co., Sycamore & Mill Rds., Clifton Heights, Pa.
 J-B-T Instruments, Inc., 431 Chapel St., New Haven 8, Conn.
 JFD Manufacturing Co., Inc., 6101 16th Ave., Brooklyn 4, N. Y.
 J-V-M Engineering Co., 8846 W. 47th St., Brookfield, Ill.
 Jack & Heintz, Inc., Cleveland 1, Ohio.
 Jackes-Evans Mfg. Co., 4427 Geraldine Ave., St. Louis 15, Mo.
 Jackson Electrical Instrument Co., 16 S. Patterson Blvd., Dayton 2, Ohio.
 Jacobs Instrument Co., 4718 Bethesda Ave., Bethesda, Md.
 Jacobson Nut Mfg. Corp., Kenilworth 2, N. J.
 James Vibration Co., 4050 N. Rockwell St., Chicago 18, Ill.
 Jan Hardware Mfg. Co., Inc., 75 N. 11th St., Brooklyn 11, N. Y.
 Jan Corp., 3111 Winona Ave., Burbank, Calif.
 Janette Electric Mfg. Co., Morton Grove, Illinois
 Jarrell-Ash Co., 26 Farwell St., Newtonville, Mass.
 Jarvis Electronics Corp., 6058 W. Fullerton Ave., Chicago 39, Ill.
 Javex, P. O. Box 646, Redlands, Calif.
 Jeffers Electronics Div. of Speer Carbon Co., Du Bois, Pa.
 Jefferson, Inc., Ray, 40 E. Merrick Rd., Freeport, N. Y.
 Jelliff Mfg. Corp., C. O., 200 Pequot Ave., Southport, Conn.
 Jennings Radio Mfg. Corp., 970 McLaughlin Ave., P. O. Box 1278, San Jose 8, Calif.
 Jensen Industries Inc., 329 S. Wood St., Chicago, Ill.
 Jensen Mfg. Co., 6601 S. Laramie Ave., Chicago 38, Ill.
 Jerrold Electronics Corp., 26th & Dickinson Sts., Philadelphia 46, Pa.
 Jersey Specialty Co., Inc., Burgess Place, Mountainview, N. J.
 Jobbins Electronic Enterprises, 771 Hamilton Ave., Menlo Park, Calif.
 Jodee Plastics Co., 7510 Rockaway Blvd., Woodhaven 21, N. Y.
 Johanson Mfg. Co., Box 329, Boonton, N. J.
 Johns-Manville, 22 E. 40th St., New York 16, N. Y.
 Johns-Manville Dutch Brand Division, 7800 Woodlawn Ave., Chicago 19, Ill.
 Johnson & Hoffman Mfg. Corp., 31 E. Second St., Mineola, N. Y.
 Johnson Co., E. F., Waseca, Minn.
 Johnson Mfg. Co., Inc., Mount Vernon, Iowa.
 Johnson Research Corp., Bethpage, N. Y.
 Johnson-Williams, Inc., 2526 Park Blvd., Palo Alto, Calif.
 Johnston Foil Mfg. Co., 6100 S. Broadway, St. Louis 11, Mo.
 Jones Div., Howard B., Cinch Mfg. Corp., 1026 S. Homan Ave., Chicago 24, Ill.
 Jones Electronics Co., Inc., M. C., 185 N. Main St., Bristol, Conn.
 Jordan Electronics, Inc., 3025 Mission Rd., Alhambra, Calif.
 Jowil Electronics, Inc., Belfield & Wister, Philadelphia 44, Pa.
 Joy Mfg. Co., Dept. 39, Oliver Bldg., Pittsburgh 22, Pa.
 Joyro Associates, 488 Latham Rd., Mineola, N. Y.
 Judd Co., J. L., 87 Chambers St., New York 7, N. Y.

K

K-C-K Corp., 922 S. 75th St., Houston, Texas
 K. F. Development Co., 2606 Spring St., Redwood City, Calif.
 K-V Transformer Corp., 20 E. Franklin St., Danbury, Conn.

K-W Engineering Works, 3145-A N. 48th St., Milwaukee 16, Wis.
 Kaar Engineering Co., 2995 Middlefield Road, P. O. Box 1320, Palo Alto, Calif.
 Kahle Engineering Co., 1307-Seventh St., North Bergen, N. J.
 Kahn and Co., Inc., 541 Windsor St., Hartford 1, Conn.
 Kahn Research Labs., Elizabeth Bldg., 22 Pine St., Freeport, N. Y.
 Kaiser Aluminum & Chemical Sales, Inc., 1924 Broadway, Oakland 12, Calif.
 Kaiser Manufacturing Engineers, Inc., Summit, N. J.
 Kanthal Corp., Amelia Place, Stamford, Conn.
 Karp Metal Products Co., Div. of H & B Machine Co., 215 63rd St., Brooklyn 20, N. Y.
 Kartron, Inc., Box 472, Huntington Beach, Calif.
 Kato Engineering Co., 1415 First Ave., Mankato, Minn.
 Kaupp & Sons, C. B., 32 Newark Way, Maplewood, N. J.
 Kay Electric Co., 25 Maple Ave., Pine Brook, N. J.
 Kay Lab, 5725 Kearney Villa Rd., San Diego 12, Calif.
 Kearfott Co., Inc., Engineering & Sales Div., 1378 Main Ave., Clifton, N. J.
 Kearfott Co., Inc., Western Div., 253 N. Vinedo Ave., Pasadena 8, Calif.
 Keim Precision Mirrors, 1346 E. Colorado St., Glendale 5, Calif.
 Keithley Instruments, 3868 Carnegie Ave., Cleveland 15, Ohio.
 Kelk & Co., G. F., 130 Willowdale Ave., Willowdale, Ontario, Canada.
 Keller Products Inc., 41 Union St., Manchester, N. H.
 Keller Tool Div., Gardner-Denver Co., Grand Haven, Mich.
 Kellogg Co., M. W., P. O. Box 469, Jersey City 3, N. J.
 Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3, Ill.
 Kelnor Mfg. Co., Inc., 1355 Market St., San Francisco 3, Calif.
 Kemet Co., A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Kemlite Laboratories, 1819 W. Grand Ave., Chicago 22, Ill.
 Kemode Mfg. Co., Inc., 161 W. 18th St., New York 11, N. Y.
 Kentron Electron Products, Inc., 5 Prince Place, Newbury Port, Mass.
 Kennedy & Co., D. S., Cohasset, Mass.
 Kennedy Industries, 6808 Vista Del Mar, Playa Del Rey, Calif.
 Kent Co., F. C., 64 Howard St., Irvington, N. J.
 Kenwood Engineering Co., Inc., 265 Colfax Ave., Kenilworth, N. J.
 Kenyon Transformer Co., Inc., 840 Barry St., New York 59, N. Y.
 Kepco Labs., 131-38 Sanford Ave., Flushing 55, N. Y.
 Kerr-Lakeside Industries, Inc., 21858 St. Clair Ave., Cleveland 17, Ohio.
 Kessler Co., Frank, 41-45 47th St., Long Island City 4, N. Y.
 Kester Solder Company, 4212 Wrightwood Ave., Chicago 39, Ill.
 Keuffel & Esser Co., Hoboken, N. J.
 Key Electric Corp., 287 Post Ave., Westbury, N. Y.
 Keystone Bolt & Nut Corp., 127 Church St., New York 7, N. Y.
 Keystone Carbon Co., Inc., Saint Marys, Pa.
 Keystone Electronics Co., 114 Manhattan St., Stamford, Conn.
 Keystone Electronics Corp., 423 Broome St., New York 12, N. Y.
 Keystone Products Co., 904-6 23rd St., Union City, N. J.
 Keystone Watch Case & Instruments, The Riverside Metal Co., Div. H. K. Porter Co., Inc., Riverside, N. J.
 Kidde & Co., Inc., Walter, 477 Main St., Belleville 9, N. J.
 Kinevox Div., Electromation Co., 116 S. Hollywood Way, Burbank, Calif.
 King Electric Equipment Co., 9123 Inman Ave., Cleveland 5, Ohio.
 King Laboratories, Inc., 127 Solar St., Syracuse 3, N. Y.
 Kings Electronics Co., 40 Marbledale Rd., Tuckahoe, N. Y.
 Kinney Mfg. Div. of The New York Air Brake Co., 3529 Washington St., Boston 30, Mass.
 Kip Electronics Corp., 29 Holly Place, Stamford, Conn.
 Kirchnerberger & Co., Inc., M., 250 Humphrey St., Englewood, N. J.
 Kirk-Michaels Labs., Inc., 215 Bergen Turnpike, Little Ferry, N. J.
 Kistler Instrument Co., 15 Webster St., Tonawanda, N. Y.
 Klein-Electronics, Leo, 2404 S. La Brea Ave., Los Angeles 16, Calif.
 Klein & Sons, Mathias, 7200 McCormick Rd., Chicago 45, Ill.
 Kleiner Metal Specialties, Inc., P. O. Box 185, Dunellen, N. J.
 Klincher Locknut Corp., 2153 Hillside Ave., Indianapolis 18, Ind.
 Kling Metal Spinning Co., 247 Centre Street, New York, N. Y.
 Knights Co., James, The, Sandwich, Ill.
 Knopp Inc., 4224 Holden St., Oakland 8, Calif.
 Knowles Electronics, Inc., 9400 Belmont Ave., Franklin Park, Ill.
 Kobzy Tool Co., 1535 N. Dayton Ave., Chicago 22, Ill.
 Koch & Sons, H., Corte Madera, Calif.
 Koh-I-Noor Pencil Co., Bloomsbury, N. J.
 Koiled Kords, Inc., Box K, New Haven 14, Conn.
 Kollman Show Case Corp., Fort Wayne 1, Ind.
 Kollsman Instrument Corp., Sub. of Standard Coll Products Co., Inc., 80-08 45th Ave., Elmhurst, N. Y.
 Kolton Electric Mfg. Co., 123 New Jersey Railroad Ave., Newark 5, N. J.
 Koppers Co., Inc., Koppers Bldg., Pittsburgh 19, Pa.
 Kreckman, Herb, 124 Greenwood Drive, Massapequa, N. Y.
 Krengel Mfg. Co., Inc., 227 Fulton St., New York 7, N. Y.
 Kreutzer Industries, 1835 N. Hoyne Ave., Chicago 47, Ill.

Krohn-Hite Instrument Co., 580 Massachusetts Ave., Cambridge 39, Mass.
 Kruger Instruments, Harold, Box 164, San Gabriel, Calif.
 Kuljian Corp., The, Electronics Div., 1200 N. Broad St., Philadelphia 21, Pa.
 Kulka Electric Mfg. Co., Inc., 638 S. Fulton Ave., Mount Vernon, N. Y.
 Kupfrian Mfg. Corp., 398 State St., Binghamton, N. Y.
 Kurman Electric Co., Inc., 35-18 37th St., Long Island City 1, N. Y.
 Kurz-Kasch, Inc., 1421 S. Broadway, Dayton 1, Ohio.
 Kuthe Laboratories, Inc., 730 S. 13th St., Newark 3, N. J.
 Kwikheat Mfg. Co., 3722 San Fernando Rd., Glendale 4, Calif.
 Kybernetes Co., 9 E. 40th St., New York 16, N. Y.

L

L. A. B. Corporation, Skaneateles, N. Y.
 L. M. Electronics, Inc., 5017 Exposition Blvd., Los Angeles 16, Calif.
 L & O Research & Development Corp., 134 N. Wayne Ave., Wayne, Pa.
 L-O-F Glass Fibers Co., 1801 Madison Ave., Toledo 1, Ohio.
 Labelon Tape Co., 450 Atlantic Ave., Rochester 9, N. Y.
 Laboratoire Industriel de Physique Applique, 67 Rue M.-A.-Columbiere, Bagnolet (Seine), France.
 Laboratory for Electronics, Inc., 75 Pitts St., Boston 14, Mass.
 Lacey Brothers Etched Circuits, 117 S. Lombard, Oak Park, Ill.
 Laconia Corp., 37 S. 6th St., Newark 7, N. J.
 Lake Chemical Co., 3052 W. Carroll St., Chicago 12, Ill.
 Lake Mfg. Co., 2323 Chestnut St., Oakland, Calif.
 Lambda Electronics Corp., 11-11 131st St., College Point 56, N. Y.
 Laminated Sheet Products Corp., 449 Neponset St., P. O. Box 390, Norwood, Mass.
 La Motte Chemical Products Co., Towson 4, Baltimore, Md.
 Lampkin Laboratories, Inc., Bradenton 1, Fla.
 Lamson & Sessions Co., 1971 W. 85th St., Cleveland 2, Ohio.
 Lancaster Lens Co., Lancaster, Ohio.
 Landis & Gyr, Inc., 45 W. 45th St., New York 36, N. Y.
 Landsverk Electrometer Co., 550 W. Garfield Ave., Glendale 4, Calif.
 Langevin Mfg. Corp., 47-37 Austel Place, Long Island City 1, N. Y.
 Langevin-Maxson Instruments, 47-37 Austel Place, Long Island City 1, N. Y.
 Lansdale Tube Co., Div. of Philco Corp., Church Rd., Lansdale, Pa.
 Lansing Sound Inc., James B., 2439 Fletcher Drive, Los Angeles 26, Calif.
 Lapp Insulator Co., Inc., Radio Specialties Div., 31 Gilbert St., LeRoy, N. Y.
 Larson Instrument Co., 24 Orchard St., Tarrytown, N. Y.
 Laughlin, Thomas, 199 Fore, Portland, Me.
 Laurehk Radio Mfg. Co., 3931 S. Wayne Rd., Wayne, Mich.
 Lavelle Rubber Co., 424 N. Wood St., Chicago 22, Ill.
 Lavoie Laboratories, Inc., Morganville, N. J.
 Lawn Electronics Co., East Freehold Road, Freehold, N. J.
 Leach Corp., 5915 Avalon Blvd., Los Angeles 3, Calif.
 Leach & Garner Co., Attleboro, Mass.
 Lear, Inc., 3171 S. Bundy Drive, Los Angeles 34, Calif.
 Lear, Inc., Grand Rapids Div., 110 Ionia Ave., N. W., Grand Rapids 2, Mich.
 Lear-Romec Div. of Lear, Inc., Abbe Rd., Elyria, Ohio
 Lectrohm, Inc., 5561 Northwest Highway, Chicago 30, Ill.
 Lee Electric & Mfg. Co., 2806 Clearwater St., Los Angeles 39, Calif.
 Lee Electronic Labs., Inc., 88 Evans St., Watertown, Mass.
 Lee Spring Co., Inc., 30 Main St., Brooklyn 1, N. Y.
 Leeds & Northrup Co., 4970 Stenton Ave., Philadelphia 44, Pa.
 Lehigh Structural Steel Co., 17 Battery Place, New York 4, N. Y.
 Leighton Labs, H. W., Sunset Lane & York Rd., Hatboro, Pa.
 Leitch Engineering Corp., 326 Lincoln St., Manchester, N. H.
 Lektra Laboratories, 154 11th Ave., New York 11, N. Y.
 Lei, Inc., 380 Oak St., Copiague, N. Y.
 Leland Electric Co., The, Div. of American Machine & Foundry Co., 1501 Webster St., Dayton 1, Ohio.
 Leland, Inc., G. H., 123 Webster St., Dayton 2, Ohio.
 Lemert Engineering Co., Inc., 185 E. Jefferson St., Plymouth, Ind.
 Lenk Mfg. Co., The, 30 Cummington St., Boston 15, Mass.
 Lenkurt Electric Co., Inc., 1105 County Road, San Carlos, Calif.
 Lennard Co., Inc., P. M., 196 DeGraw St., Brooklyn 31, N. Y.
 Lenz Electric Mfg. Co., 1751 North Western Ave., Chicago 47, Ill.
 Leonard Electric Products Co., Inc., 67 Thirty-fourth St., Brooklyn 32, N. Y.
 Lepel High Frequency Labs., Inc., 55th & 37th Ave., Woodside 77, N. Y.
 Lerco Electronics, Inc., 501 S. Varney St., Burbank, Calif.
 Lerner Plastics, Inc., 522 South Ave., Garwood, N. J.
 Leru Laboratories, Inc., Black Oak Ridge Rd., Paterson, N. J.
 Lettine Radio Mfg. Co., 62 Berkley St., Valley Stream, N. Y.

Leupold & Stevens Instruments, Inc., P. O. Box 5082 Portland 13, Ore.

Levin & Son, Inc., Louis, 3610 S. Broadway, Los Angeles 7, Calif.

Levinthal Electronic Products, Inc., 2760 Fair Oaks Ave., Redwood City, Calif.

Lewis Co., E. B., 11 Bragg St., East Hartford 8, Conn.

Lewis Engineering Co., 52 Rubber Ave., Naugatuck, Conn.

Lewis & Kaufman, Ltd., P. O. Box 337, Los Gatos, Calif.

Lewis Spring & Mfg. Corp., 2646 W. North Ave., Chicago 47, Ill.

Lewyt Mfg. Corp., 66 Broadway, Brooklyn, N. Y.

Liberty Industries, 107-37 71 Ave., Forest Hills, N. Y.

Librascope, Inc., 808 Western Ave., Glendale, Calif.

Licon Switch & Control Div. of Illinois Tool Works, 2501 N. Keeler Ave., Chicago 39, Ill.

Lico, Inc., 147 Ocean Ave., Lynbrook N. Y.

Lindberg Engineering Co., 2450 W. Hubbard St., Chicago, Ill.

Linde Air Products Co., Division of Union Carbide and Carbon Corp., 30 E. 42nd St., New York 17, N. Y.

Lindgren & Associates, Erik A., 4515 N. Ravenswood Ave., Chicago 40, Ill.

Link Aviation, Inc., Binghamton, N. Y.

Lion Fastener, Inc., c/o Southco, Lester, Pa.

Lipps Engineering, Edwin A., 5485 W. Washington Blvd., Los Angeles 16, Calif.

Liquidometer Corp., The, Dept. U, Skillman Ave. at 36th St., Long Island City 1, N. Y.

Littelfuse Inc., Des Plaines, Ill.

Little Inc., Arthur D., 30 Memorial Drive, Cambridge 42, Mass.

Little Falls Alloys, Inc., 190 Caldwell Ave., Paterson 1, N. J.

Litton Industries, 1025 Brittan Ave., San Carlos, Calif.

Litton Industries, Components Div., Beverly Hills, Calif.

Livingston Electronic Corp., Livingston, N. J.

Locke, Dept. of General Electric Co., P. O. Box 57, Baltimore 3, Md.

Loge Sound Engineers, J. M., 2171 W. Washington Blvd., Los Angeles 18, Calif.

Logistics Research Inc., 141 S. Pacific Ave., Redondo Beach, Calif.

London Chemical Co., 1535 N. 31st Ave., Melrose Park, Ill.

Longren Aircraft Co., 2576 W. Carson St., Torrance, Calif.

Loral Electronics Corp., 794 E. 140th St., New York 54, N. Y.

Lord Mfg. Co., 1635 W. 12th St., Erie, Pa.

Louis Laboratories, 1947 Broadway, New York 23, N. Y.

Louthan Mfg. Co., East Liverpool, Ohio.

Luma Electric Equipment Co., P. O. Box 132, Toledo 1, Ohio.

Lumenite Electronic Co., 407 S. Dearborn St., Chicago 5, Ill.

Lundey Associates, 694 Main St., Waltham 54, Mass.

Luther Electronic Mfg. Co., 5728 W. Washington Blvd., Los Angeles 16, Calif.

Luzerne Rubber Co., Muirhead Ave., Trenton, N. J.

Lyman Electronic Corp., 12 Cass St., Springfield, Mass.

Lynch Carrier Systems, Inc., 695 Bryant St., San Francisco 7, Calif.

Lynmar Engineers, Inc., 1432 N. Carlisle St., Philadelphia 21, Pa.

Magnasync Manufacturing Co., Ltd., 5546 Satsuma Ave., P. O. Box 707, North Hollywood, Calif.

Magnatran, Inc., P. O. Box 211, Kearny, N. J.

Magnavox Co., Fort Wayne 4, Ind.

Magnavox Research Labs., 2255 S. Carmelina Ave., Los Angeles, Calif.

Magne-Pulse Corp., 11 Godwin Ave., Fair Lawn, N. J.

Magnecord, Inc., 1101 S. Kilbourn Ave., Chicago 24, Ill.

Magnecraft Electric Co., 3352 W. Grand Ave., Chicago 51, Ill.

Magnet Wire Div. of Essex Wire Corp., 1601 Wall St., Fort Wayne, Ind.

Magnetic Amplifiers, Inc., 632 Tinton Ave., New York 55, N. Y.

Magnetic Analysis Corp., 42-44 Twelfth St., Long Island City 1, N. Y.

Magnetic Core Corp., 199 Main St., Ossining, N. Y.

Magnetic Devices, Inc., 712 East St., Frederick, Md.

Magnetic Metals Co., Hayes Ave. at 21st St., Camden, N. J.

Magnetic Powders Inc., 1000 Fairview Ave., Johnsonburg, Pa.

Magnetic Research Corp., 200 Center St., El Segundo, Calif.

Magnetic Windings Div., Essex Wire Corp., Freemansburg Ave. at Hobson Blvd., Easton, Pa.

Magnetics, Inc., P. O. Box 391, Butler, Pa.

Magnetics Research Co., 255 Grove St., White Plains, N. Y.

Magtrol, Inc., 38 Virginia Place, Buffalo, N. Y.

Maico Co., Inc., 21 North 3rd St., Minneapolis, Minn.

Maida Development Co., 214 Academy St., Hampton, Va.

Maigne Co., O. J., 321 Pearl St., New York 38, N. Y.

Majestic Aircraft Co., Moosup, Conn.

Makepeace Co., D. E., Div. of Union Plate & Wire Co., Attleboro, Mass.

Malco Tool & Mfg. Co., 4025 W. Lake St., Chicago 24, Ill.

Mallinckrodt Chemical Works, Second and Mallinckrodt Sts., St. Louis 7, Mo.

Mallory & Co., Inc., P. R., 3029 E. Washington St., Indianapolis 6, Ind.

Mandex Mfg. Co., Inc., 2608 W. 16th St., Chicago 8, Ill.

Manger Electric Co., Miller St., Stamford, Conn.

Manning, Maxwell & Moore, Inc., 250 E. Main St., Stratford, Conn.

Manning, Maxwell & Moore, Inc., Aircraft Products Div., Danbury, Conn.

Mansol Ceramics, 140 Little St., Belleville, N. J.

Manson Laboratories, 207 Greenwich Ave., Stamford, Conn.

Manufacturers Engineering & Equipment Corp., York & Sunset Lane, Hatboro, Pa.

Marathon Battery Co., P. O. Box 298, Wausau, Wis.

Marathon Electric Mfg. Corp., Randolph & Cherry Sts., Wausau, Wis.

Marblette Corp., 37-21 30th St., Long Island City 1, N. Y.

Marbon Chemical Div. of Borg-Warner Corp., 1926 W. Tenth Ave., Gary, Ind.

Marchant Research, Inc., Sub., Marchant Calculators, Inc., 1475 Powell St., Oakland, Calif.

Marco Industries Co., 207 S. Helena St., Anaheim, Calif.

Marconi Instruments, 44 New St., New York 4, N. Y.

Marconi's Wireless Telegraph Co., Ltd., 23/25 Beaver St., New York 4, N. Y.

Marion Electrical Instrument Co., 402 Canal St., Manchester, N. H.

Mark Products Co., 6412 W. Lincoln Ave., Morton Grove, Ill.

Markal Co., 3052 W. Carroll Ave., Chicago 12, Ill.

Markel & Sons, L. Frank, School House, Norristown, Pa.

Markem Machine Co., Keene, N. H.

Markite Corp., 155 Waverly Place, New York 14, N. Y.

Markwik Mfg. Co., Inc., 31 Sexton Rd., Clearview Village, Hicksville, N. Y.

Marlee Associates, Inc., Route 46, Parsippany, N. J.

Marlin-Rockwell Corp., Jamestown, N. Y.

Marma Electronic Co., 703 Willow St., Chicago 14, Ill.

Marsh Stencil Machine Co., 46 Marsh Bldg., Belleville, Ill.

Marshall Associates, Inc., John, Box 2463, Bridgeport 8, Conn.

Martindale Electric Co., Edgewater Branch, Box 617, Cleveland 7, Ohio.

Maryland Electronic Mfg. Corp., College Park, Md.

Maryland Lava Co., Ceramic Dept., Bel Air, Md.

Masonite Corp., 111 W. Washington St., Chicago 2, Ill.

Massa Laboratories, Inc., 5 Fottler Rd., Hingham, Mass.

Massachusetts Gear & Tool Co., 30 Nashua St., Woburn, Mass.

Master Appliance Mfg. Co., Fourth & Ontario Sts., Racine, Wis.

Master Etching Corp., 50 Honeck St., Englewood, N. J.

Master Mobile Mounts, Inc., 1306 Bond St., Los Angeles 15, Calif.

Matthews & Co., James H., 3942 Forbes St., Pittsburgh, Pa.

Maurer Inc., J. A., 37-01 31st St., Long Island City 1, N. Y.

Maurey Instrument Corp., 7924 S. Exchange Ave., Chicago 17, Ill.

Maxson Corp., W. L., 460 W. 34th St., New York 1, N. Y.

Maxson Instruments, A Div. of The W. L. Maxson Corp., 47-37 Austel Place, Long Island City 1, N. Y.

May Engineering Co., 6055 Lankershim Blvd., North Hollywood, Calif.

Measurement Engineering, Ltd., Arnprior, Ontario, Canada.

Measurements Corp., Boonton, N. J.

Mechanical Div. of General Mills, Inc., 1620 Central Ave., Minneapolis 13, Minn.

Mechanical Industries Production Co., 217 Ash St., Akron 8, Ohio.

Mectronics, P. O. Box 807, Ridgecrest, Calif.

Medal Mfg. Co., Inc., 194 E. Silver St., Sharon, Pa.

Mega Research, P. O. Box 371, Dover, N. J.

Melody Master Mfg. Co., 2842 N. Cicero Ave., Chicago 41, Ill.

Melpar, Inc., 452 Swann Ave., Alexandria, Va.

Mendelsohn Speedgun Co., Inc., Fourth Ave., Haskell, N. J.

Menlo Research Laboratory, Menlo Park, Calif.

Mepco, Inc., 35-37 Abnett Ave., Morristown, N. J.

Mercoid Corp., 4201 Belmont Ave., Chicago 41, Ill.

Mercury Contacts, Inc., P. O. Box 615-E, Far Hills Station, Dayton 9, Ohio.

Mercury Electronic Co., Box 450, Red Bank, N. J.

Meridian, Inc., 7 Mitchell Place, New York 17, N. Y.

Meridian Metalcraft, Inc., 8739 Millergrove Drive, Whittier, Calif.

Merit Coil & Transformer Corp., 4427 N. Clark St., Chicago 40, Ill.

Merit Plating Co., 216 E. 141st St., New York 51, N. Y.

Merit Short Wave Diathermy Co., 2758 Whittier Blvd., Los Angeles 23, Calif.

Metal Hydrides, Inc., Beverly, Mass.

Metal Textile Corp., 647 E. First Ave., Roselle, N. J.

Metalcraft Inc., 65-33 Austin St., Rego Park 74, N. Y.

Metals & Controls Corp., General Plate Div., Attleboro, Mass.

Metal & Thermit Corp., Rahway, N. J.

Metaplast Co., Inc., 34-51 56th St., Woodside, N. Y.

Metaplast Corp., 7931 Oxford Ave., Philadelphia 11, Pa.

Metavac, Inc., 45-68 162nd St., Flushing 58, N. Y.

Meters, Inc., 5353 N. Keystone Ave., Indianapolis 20, Ind.

Methode Mfg. Corp., 2021 W. Churchill St., Chicago 47, Ill.

Metro Inc., R. I. 230 Torpno Ave., Providence, R. I.

Metro Engineering Associates, Easthampton, Mass.

Metron Instrument Co., 432 Lincoln St., Denver 3, Colorado.

Metronix, Inc., P. O. Box 549, New London, Conn.

Metz Refining Co., 369 Mulberry St., Newark 2, N. J.

Meyercord Co., 5323 W. Lake St., Chicago 44, Ill.

Mica Fabricating Co., 53 Central Ave., Rochelle Park, N. J.

Mica Insulator Co., Schenectady 1, N. Y.

Micacraft Products Inc., 703 McCarter Highway, Newark 5, N. J.

Micamold Electronics Mfg. Corp., 1087 Flushing Ave., Brooklyn 6, N. Y.

Micarta Fabricators, Inc., 5324 Ravenswood Avenue, Chicago 40, Illinois.

Mico Instrument Co., 77 Trowbridge St., Cambridge 38, Mass.

Micro Balancing, Inc., 191 Herricks Rd., Garden City Park, N. Y.

Micro-Circuits Co., New Buffalo, Mich.

Micro-Wire Stranding Co., 252 Chestnut St., Passaic, N. J.

Microdot, Inc., 1826 Fremont Ave., South Pasadena, Calif.

Microlab, 71 Okner Parkway, Livingston, N. J.

Microphase Corp., P. O. Box 1166X, Greenwich, Conn.

Micro Switch Division of Minneapolis-Honeywell Regulator Co., 7 W. Spring St., Freeport, Ill.

Microtone Corp., The, 758 Mississippi River Blvd., St. Paul 1, Minn.

Microtran Co., Div. of Crest Labs., Inc., 84-13 Rockaway Beach Blvd., Rockaway Beach 93, N. Y.

Microtronics, Inc., Porete Ave., North Arlington, N. J.

Microwave Associates, Inc., 22 Cummington St., Boston 15, Mass.

Microwave Development Laboratories, Inc., 92 Broad St., Babson Park, Mass.

Mid-Century Instrumental Corp., 611 Broadway, New York 12, N. Y.

Midget Louver Co., 6 Wall St., Norwalk, Conn.

Midland Mfg. Co., Inc., 3155 Fiberglas Rd., Kansas City 15, Kansas.

Midland Paint & Varnish Co., 9115 Reno Ave., Cleveland 5, Ohio.

Mid-West Coil & Transformer Co., 1642 N. Halstead St., Chicago 14, Ill.

Midwest Molding & Mfg. Co., Gurnee, Ill.

Mid-West Spring Mfg. Co., Mentone, Ind.

Midwestern Instruments, 41st & Sheridan Rd., Tulsa, Okla.

Milburn, Inc., Alexander, 1241 Ridgley St., Baltimore 30, Md.

Miles Reproducer Co., Inc., 812 Broadway, New York 3, N. Y.

Millen Mfg. Co., James, 150 Exchange St., Malden, Mass.

Millen Mfg. Co., 90 Summit Ave., Brookline, Mass.

Miller Associates, P. O. Box 369, Lakeville, Conn.

Miller Electronics, 2840 Naomi St., Burbank, Calif.

Miller Labs., August E., 9226 Hudson Blvd., North Bergen, N. J.

Miller Co., J. W., 5917 S. Main St., Los Angeles 3, Calif.

Miller Instruments, Inc., William, 325 N. Halstead Ave., Pasadena 8, Calif.

Miller Mfg. Co., M. A., 4th & Church Sts., Libertyville, Ill.

Miller Research Laboratories, 5529 S. Fifth St., Milwaukee 7, Wis.

Miller-Robinson Co., 7007 Avalon Blvd., Los Angeles 3, Calif.

Millers Falls Co., Greenfield, Mass.

Millivac Instrument Corp., 444 Second St., Box 997, Schenectady, N. Y.

Milman Engineering Co., 957 Lillian Way, Hollywood, Calif.

Milwaukee Div. of Associated Spring Corp., 341 E. Erie St., Milwaukee 2, Wis.

Milwaukee Gas Specialty Co., 730 Jackson, Milwaukee 1, Wis.
 Milwaukee Resistor Co., 700 W. Virginia St., Milwaukee 4, Wis.
 Milwaukee Transformer Co., 5231 N. Hopkins St., Milwaukee 9, Wis.
 Minatron Corp., 14 Cliveden Place, Belle Mead, N. J.
 Minco Engineering and Manufacturing, 801 8th St., S. E., Minneapolis 14, Minn.
 Miniature Precision Bearings, Inc., Precision Park, Keene, New Hampshire.
 Miniature Switch Corp., 147 Ocean Ave., Lynbrook, N. Y.
 Minneapolis-Honeywell Regulator Co., 2753 Fourth Avenue S., Minneapolis 8, Minn.
 Minneapolis-Honeywell Regulator Co., Aeronautical Div., 2600 Ridway Rd., Minneapolis 13, Minn.
 Minneapolis-Honeywell Regulator Co., Industrial Div., Wayne & Windrim Aves., Philadelphia 44, Pa.
 Minneapolis-Honeywell Regulator Co., Transistor Div., 2753 Fourth Ave., S., Minneapolis 8, Minn.
 Minnesota Mining & Mfg. Co., 900 Fauquier Ave., St. Paul 6, Minn.
 Minnesota Rubber & Gasket Co., 3630 Wooddale Ave., Minneapolis 16, Minn.
 Minor Rubber Co., Inc., 49 Ackerman St., Bloomfield, N. J.
 Minute Man Products, Inc., 430 E. 102nd St., New York 17, N. Y.
 Misc. Precision Casting Co., Gibbs & Larsen Sts., Whitehall, Mich.
 Miskella Infra-Red Co., The, E. 73rd & Grand Ave., Cleveland 4, Ohio.
 Missouri Research Labs., Inc., 2019 Locust St., St. Louis 3, Mo.
 Mitchell Industries, Inc., P. O. Box 17, Mineral Wells, Texas.
 Mitchell Rand Insulation Co., Inc., 51 Murray Street, New York 7, N. Y.
 Mitronics Inc., 232 Thirteenth Ave., Newark, N. J.
 Mobil Electronics Mfg. Co., 1111 State Rd. 67 E., Anderson, Ind.
 Model Engineering & Mfg. Inc., Huntington, Ind.
 Model Rectifier Corp., 1065 Utica Ave., Brooklyn 3, N. Y.
 Modelectric Products Corp., 1500 Bangs Ave., Asbury Park, N. J.
 Modern-Aire Mfg. Corp., 4436 W. Roosevelt Rd., Chicago 24, Ill.
 Mohawk Business Machines Corp., 944 Halsey St., Brooklyn 33, N. Y.
 Mohawk Electronic Research Labs., Inc., Box 126-A, RD 4, Amsterdam, N. Y.
 Mohawk Mfg. Co., Middletown, Conn.
 Moisture Register Co., 1510 W. Chestnut St., Alhambra, Calif.
 Molded Fiberglass Co., Ashtabula, Ohio.
 Molded Fiberglass Sheet Co., Ashtabula, Ohio.
 Molded Insulation Co., 335 E. Price St., Philadelphia 44, Pa.
 Molding Corporation of America, 40 Church St., Pawtucket, R. I.
 Mole-Richardson Co., 937 N. Sycamore Ave., Hollywood 38, Calif.
 Moloney Electric Co., 5590 Bircher Blvd., St. Louis 20, Mo.
 Mona Industries, Inc., Paterson 4, N. J.
 Monitor Products Co., 815 Fremont Ave., South Pasadena, Calif.
 Monsanto Chemical Co., Plastics Div., Springfield, Mass.
 Montgomery Mfg. Co., 204 S. Main St., Owensville, Ind.
 Moody Machine Products Co., Inc., 42-46 Dudley St., Providence 5, R. I.
 Moog Valve Co., Inc., Proner Airport, East Aurora, N. Y.
 Mooradian High Frequency Labs., 13 E. Fort Lee Rd., Bogota, N. J.
 Moore Electronic Labs., Inc., 98 Front St., Worcester 8, Mass.
 Moran Electronic Components, Inc., 7660 Woodbury Drive, Silver Spring, Md.
 Moran Instrument Corp., 170 E. Orange Grove St., Pasadena 3, Calif.
 Morrow Radio Mfg. Co., Inc., 2794 Market St., Salem, Ore.
 Morse Co., Frank W., 1300 Soldiers Field Rd., Boston 35, Mass.
 Moseley Co., F. L., 409 Fair Oaks Ave., Pasadena 3, Calif.
 Mosley Electronics, Inc., 8622 St. Charles Rock Rd., St. Louis 14, Mo.
 Moser Jewel Co., Perth Amboy, N. J.
 Mosinee Paper Mills Co., Mosinee, Wisconsin.
 Mossman, Inc., Donald P., Brewster, N. Y.
 Motoresearch Co., 1600 Junction Ave., Racine, Wis.
 Motorola Communications and Electronics Inc., 4501 Augusta Blvd., Chicago 51, Ill.
 Motorola, Inc., Semiconductor Products Div., 5005 E. McDowell Rd., Phoenix, Ariz.
 Moulic Specialties Co., 1007 W. Washington St., Bloomington, Ill.
 Mt. Sopris Instrument Corp., 1320 Pearl St., Boulder, Colo.
 Mt. Vernon Precision Transformer Co., 201 S. Third Ave., Mt. Vernon, N. Y.
 Mountain Systems, Inc., 864 Franklin Ave., Thornwood, N. Y.
 Moyer, C. P., 8157 Monticello Ave., Skokie, Ill.
 Muckle Mfg. Co., Owatonna 55, Minn.
 Mucon Corp., 9 St. Francis St., Newark 5, N. J.
 Mueller Electric Co., 1582H E. 31st St., Cleveland 14, Ohio.
 Mueller Laboratory, 1052 N. Allen, Pasadena, Calif.
 Muirhead & Co., Ltd., Beckenham, Kent, England.
 Mullard Overseas Ltd., Equipment Div., Century House, Shaftesbury Ave., London W. C. 2, England.
 Mullenbach Div. of Electric Machinery Mfg. Co., 2100 E. 27th St., Los Angeles 58, Calif.
 Multicore Sales Corp., 80 Shore Rd., Port Washington, N. Y.

Multicore Solders Ltd., Multicore Works, Maylands Ave., Hemel Hempstead, Hertfordshire, England.
 Multi-Products Co., 21470 Coolidge Highway, Oak Park 37, Mich.
 Mundt & Sons, Charles, 53 Fairmount Ave., Jersey City 4, N. J.
 Murex Ltd., Rainham-Essex-England.
 Murphy & Miller Inc., 1322 S. Michigan Ave., Chicago 5, Ill.
 Murray Mfg. Corp., 1250 Atlantic Ave., Brooklyn 16, N. Y.
 Murray Plastics Co., 26 Cottage St., Poughkeepsie, N. Y.
 Muter Company, The, 1255 S. Michigan Ave., Chicago 5, Ill.
 Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 Mycalex Corp. of America, 125 Clifton Blvd., Clifton, N. J.
 Mycalex Electronics Corp., 125 Clifton Blvd., Clifton, N. J.
 Mycalex Tube Socket Corporation, 125 Clifton Blvd., Clifton, N. J.
 Myers & Sons, Inc., E. A., 306 Beverly Road, Radloear Building, Pittsburgh 16, Pa.
 Mykroy, Inc., Wheeling, Ill.
 Mystic Transformers Inc., 63 Swanton St., Winchester, Mass.
 Mytron Mfg. Co., 4528 Brazil St., Los Angeles 39, Calif.

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NJE Corporation, 345 Carnegie Ave., Kenilworth, N. J.
 NRD Instrument Co., 6425 Etzel Ave., St. Louis 14, Mo.
 NRC Equipment Corp., 160 Charlemont St., Newton Highlands 61, Mass.
 N. R. K. Mfg. & Engineering Co., 4601 W. Addison St., Chicago 41, Ill.
 NYT Electronics, Inc., 2979 N. Ontario St., Burbank, Calif.
 Nagog Associates, Inc., Littleton, Mass.
 Nameplates, Inc., 425 E. 101st St., Brooklyn 36, N. Y.
 Narda Corp., 160 Herricks Rd., Mineola, N. Y.
 Narrow Fabric Co., The, Reading, Pa.
 National Acme Co., 170 E. 131st St., Cleveland 8, Ohio.
 National Aeronautical Corp., 180 S. Main St., Ambler, Pa.
 National Aircraft Corp., 3411 Tulare St., Burbank, Calif.
 National Capacitor Co., 18 Webster St., Brookline, Mass.
 National Carbon Co., Division of United Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 National Cash Register Co., Dayton 9, Ohio.
 National Ceramic Co., 400 Southard St., Trenton 2, N. J.
 National Coil Co., P. O. Box 1237, Sheridan, Wyo.
 National Company, Inc., 61 Sherman St., Malden 48, Mass.
 National Electric Coil Co., Columbus 16, Ohio.
 National Electric Controller Co., 7070 Glenwood Ave., Chicago 26, Ill.
 National Electric Products Co., 140 Stanwix St., Pittsburgh 22, Pa.
 National Electronics, Inc., Geneva, Ill.
 National Electronics Laboratories, Inc., 1713 Kalorama Rd., N. W., Washington 9, D. C.
 National Engineering Products, Inc., 435 Washington Bldg., Washington 5, D. C.
 National Fabricated Products Div. of Hoffman Electronics Corp., 2650 W. Belden Ave., Chicago 47, Ill.
 National Inter-Communication Systems, Inc., 1130 N. Milwaukee Ave., Chicago 22, Ill.
 National Lead Co., 111 Broadway, New York 6, N. Y.
 National Lock Washer Co., 40 Hermon St., Newark 5, N. J.
 National Moldite Co., 1410 Chestnut Ave., Hillside 5, N. J.
 National Radiac, Inc., 475 Washington St., Newark, N. J.
 National Screw & Mfg. Co., The, Cleveland 4, Ohio.
 National Semiconductor Products Div. of Hoffman Electronics Corp., 930 Pitner Ave., Evanston, Ill.
 National Spectrographic Laboratories, Inc., 6300 Euclid Ave., Cleveland 3, Ohio.
 National Tel-Tronics Corp., 35 St. Casmirs Ave., Yonkers, N. Y.
 National Union Electric Corp., 350 Scotland Rd., Orange, N. J.
 National Video Corp., 4300 W. 47th St., Chicago 32, Ill.
 National Vulcanized Fibre Co., Wilmington, Del.
 Natvar Corp., Woodbridge, N. J.
 Naybor Laboratories, E. V., 30 Manorhaven Blvd., Port Washington, N. Y.
 Naz-Dar Co., 465 Milwaukee Ave., Chicago 10, Ill.
 Nebel Laboratory, R. E., 1634 E. 12th St., Brooklyn 29, N. Y.
 Neill Co., Inc., R. W., 4320 Montrose Ave., Chicago 41, Ill.
 Nelson Vacuum Pump Co., George F., 2133 Fourth St., Berkeley 10, Calif.
 Nems-Clarke, Inc., Silver Spring, Md.
 Neosil Products Div. of Rubber Associates, Inc., 1 E. 57th St., New York 22, N. Y.
 Nesor Alloy Products Co., 282 Halsey St., Newark 2, N. J.
 Network Mfg. Corp., 213 W. Fifth St., Bayonne, N. J.
 Neutronic Associates, 87-16 116th St., Richmond Hill, N. Y.
 Nevada Air Products Co., P. O. Box 2472, Reno, Nev.
 New Departure Div., General Motors Corp., Bristol, Conn.
 New England Electrical Works, Inc., Lisbon, N. H.
 New England Etching & Plating Co., 25 Spring St., Holyoke, Mass.

New England Laminates Co., Inc., 16 Dyke Lane, Stamford, Conn.
 New England Oven & Furnace Co., Inc., Orange, Conn.
 New England Transformer Co., 47 McGrath Highway, Somerville, Mass.
 New Hampshire Ball Bearings, Inc., Peterborough, N. H.
 New Hermes Engraving Machine Corp., 13-19 University Place, New York 3, N. Y.
 New Jersey Wood Finishing Co., Amboy Ave., Woodbridge, N. J.
 New Jersey Zinc Co., 160 Front St., New York 38, N. Y.
 New London Instrument Co., P. O. Box 189, New London, Conn.
 New Products Co., Box 66101, Los Angeles 66, Calif.
 New Rochelle Tool Corp., 320 Main St., New Rochelle, N. Y.
 New York Solder Co., 684 E. 133rd St., New York 54, N. Y.
 New York Transformer Co., Inc., Third Ave., Alpha, N. J.
 Newark Spinning & Stamping Co., 472 Bloy St., Hillside 5, N. J.
 Newcomb Audio Products Co., 6824 Lexington Ave., Hollywood 38, Calif.
 Newcomb Spring Corp., 72 E. Hawthorne Ave., Valley Stream, N. Y.
 Ney Co., J. M., 179 Elm St., Hartford, Conn.
 Niagara Electron Laboratories, Andover, N. Y.
 Nickel Cadmium Battery Corp., Easthampton, Mass.
 Nielsen Hardware Corp., 770 Wethersfield Ave., Hartford 14, Conn.
 Niemand Bros., Inc., 37-03 35th Ave., Long Island City 2, N. Y.
 Nilsen Mfg Co., Addison, Ill.
 Nilsson Electrical Laboratory, Inc., 103 Lafayette St., New York 13, N. Y.
 Noble & Westbrook Mfg. Co., 27 Westbrook St., East Hartford 8, Conn.
 Noel Mfg. Co., 3 W. 18th St., New York 11, N. Y.
 Non-Linear Systems, Inc., Del Mar Airport, Del Mar, Calif.
 Nonotuck Mfg. Co., Holyoke, Mass.
 Nopco Chemical Co., Plastics Div., Harrison, N. J.
 Norden-Ketay Corp., 99 Park Ave., New York 16, N. Y.
 Norden-Ketay Corp., Boston Electronics Div., Snow & Union Sts., Brighton, Boston 35, Mass.
 Norrman Laboratories, Ernst, Williams Bay, Wis.
 North American Electric Lamp Co., 1014 Tyler St., St. Louis 6, Mo.
 North American Instruments, Inc., 2420 N. Lake Ave., Altadena, Calif.
 North American Philips Co., Inc., Elmet Div., Lisbon Rd., Lewiston, Maine.
 North American Philips Co., Inc., 750 S. Fulton Ave., Mt. Vernon, N. Y.
 North American Research Labs., Inc., 725 Lexington Ave., Kenilworth, N. J.
 North Electric Co., 553 S. Market St., Gallion, Ohio.
 North Hills Electric Co., Inc., 203-18 35th Ave., Bay-side 61, N. Y.
 North Shore Nameplate, Inc., 214-27 Northern Blvd., Shore 61, N. Y.
 Northeast Electronics Corp., Municipal Airport Bldg., Concord, N. H.
 Northeast Scientific Corp., 617 Concord Ave., Cambridge 38, Mass.
 Northeastern Engineering, Inc., Manchester, N. H.
 Northern Electronic & Vacuum Industries, St. Sauveur Des Monts P. Q., P. O. Box 105, Canada.
 Northern Engineering Laboratories, Inc., 434 Wilmot Ave., Burlington, Wis.
 Northern Industrial Chemical Co., 7-11 Elkins St., South Boston 27, Mass.
 Northern Mfg. Co., 38 Spring St., Newark, N. J.
 Northern Metal Products Co., 9597 W. Grand Ave., Franklin Park, Ill.
 Northern Plastics Corp., Second & Market Sts., La Crosse, Wis.
 Northern Radio Co., Inc., 143-145 W. 22nd St., New York 13, N. Y.
 Norton Associates, Inc., P. O. Box 96, Garden City, N. Y.
 Norton Co., 1 New Bond St., Worcester 6, Mass.
 Norwood Controls Unit, Detroit Controls Corp., 934 Washington St., Norwood, Mass.
 Nothelfer Winding Labs., Inc., P. O. Box 455, Trenton 3, N. J.
 Nuclear Corp. of America, Inc., 350 Fifth Ave., New York 1, N. Y.
 Nuclear Development Lab., P. O. Box 7034, Kansas City, Mo.
 Nuclear-Electronics Corp., 2632-36 W. Cumberland St., Philadelphia 32, Pa.
 Nuclear Instrument & Chemical Corp., 223 W. Erie St., Chicago 10, Ill.
 Nuclear Magnetics Corp., Box A, 154 Boylston St., Boston 16, Mass.
 Nuclear Measurements Corp., 2460 N. Arlington Ave., Indianapolis 5, Ind.
 Nuclear Research Corp., Southampton, Pa.
 Nuclear Specialty Co., Center Moriches, N. Y.
 Nucleonic Company of America, 196 De Graw St., Brooklyn 31, N. Y.
 Nucleonic Products Co., 1601 Grande Vista Ave., Los Angeles 23, Calif.
 Nugent Electronics Co., New Albany, Ind.
 Numberall Stamp & Tool Co., Huguenot Park, Staten Island 12, N. Y.
 Nureco, Inc., 1100 Pontiac Ave., Cranston 10, R. I.
 Nylok Corp., Box 341, Elmira, N. Y.

O K Electronics Corp., 7 Hunt Place, Nutley, N. J.

O & S Research Inc., 1319 Admiral Wilson Blvd., Camden 1, N. J.
 Oak Mfg. Co., 1260 N. Clybourn Ave., Chicago 10, Ill.
 Oaktron Electric Co., Tinley Park, Ill.
 O'Brien Electric Corp., 5614 Santa Monica Blvd., Hollywood 38, Calif.
 Oerlikon Tool & Arms Corp. of America, Asheville, N. C.
 Offner Electronics, 5320 N. Kedzie Ave., Chicago 25, Ill.
 Ohio Carbon Co., 12508 Berea Rd., Cleveland 11, Ohio.
 Ohio Crankshaft Co., Tocco Div., 3800 Harvard Ave., Cleveland 1, Ohio.
 Ohio Div. of Associated Spring Corp., 1825 E. First St., Dayton 3, Ohio.
 Ohmite Mfg. Co., 3601 Howard St., Skokie, Ill.
 Ohmwave Co., 43 Darcy St., West Hartford 6, Conn.
 Okonite Co., The Canal Street, Passaic, N. J.
 Olesen Co., Otto K., 1534 Cahuenga, Hollywood 28, Calif.
 Olin Mathieson Chemical Corp., Electrical Division, New Haven 4, Conn.
 Olympic Metal Products Co., Inc., Third Ave., Alpha, N. J.
 Olympic Plastics Co., Inc., 5741 W. Jefferson Blvd., Los Angeles 16, Calif.
 Olympic Radio & Television Co., 34-01 38th Ave., Long Island City, N. Y.
 Omco, U. S. 93 & Las Palomas St., Kingman, Ariz.
 Omega Laboratories Inc., P. O. Box 264, Rowley, Mass.
 Onan & Sons Inc., D. W., University Ave., at 25th St., S. E. Minneapolis 14, Minn.
 O'Neil-Irwin Mfg. Co., 316 Eighth Ave., Lake City, Minn.
 Onondago Pottery Works, Electronics Div., 1858 W. Lafayette St., Syracuse, N. Y.
 Opad Electric Co., 69-5 Murray St., New York 7, N. Y.
 Optical Film Engineering Co., 2731-37 N. 6th St., Philadelphia 33, Pa.
 Oregon Electronic Mfg. Co., 2232 E. Burnside St., Portland 15, Ore.
 Orradio Industries, Inc., 120 Marvyn Rd., Opelika, Ala.
 Orsyd Co., 2421 Smith, Hamtramck 11, Mich.
 Ortho Filter Corp., 198 Albion Ave., Paterson 2, N. J.
 Osborn Products, Glen Ellyn, Ill.
 Osborne Electric Co., 712 S. E. Hawthorne Blvd., Portland 14, Ore.
 Oster Mfg. Co., John, Avionics Div., 1 N. Main St., Racine, Wis.
 Otis Elevator Co., Electronic Div., 35 Ryerson St., Brooklyn, N. Y.
 Owen Laboratories, 55 Beacon Place, Pasadena, Calif.
 Owens-Corning Fiberglass Corp., 598 Madison Ave., New York 22, N. Y.
 Owens-Illinois Closure & Plastics Div., P. O. Box 1035, Toledo 1, Ohio.
 Oxford Electric Corp., 3911 S. Michigan Avenue, Chicago 15, Ill.
 Ozalid Div. of General Aniline & Film Corp., 770 Anso Rd., Johnson City, N. Y.

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PCA Electronics, Inc., 2180 Colorado Ave., Santa Monica, Calif.
 P I C Design Corp., 160 Atlantic Ave., Lynbrook, N. Y.
 P M Industries, Inc., Stamford, Conn.
 PSP Engineering Co., 8608 Otis St., South Gate, Calif.
 Pace Electrical Instruments Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Pacific Automation Products, Inc., 1000 Air Way, Glendale 1, Calif.
 Pacific Electricord Co., P. O. Box 8805, Crenshaw St., Los Angeles 8, Calif.
 Pacific Electro-Nuclear Div. of Western Devices, Inc., 8930 Lindblade Ave., Culver City, Calif.
 Pacific Scientific Co., P. O. Box No. 22109, Los Angeles 22, Calif.
 Pacific Semiconductors, Inc., 10451 W. Jeerson, Culver City, Calif.
 Pacific Transducer EBG Corp., 11836 W. Pico Blvd., Los Angeles 64, Calif.
 Pacific Universal Products Co., 168 Vista Ave., Pasadena 8, Calif.
 Packard-Bell Co., 12333 W. Olympic Blvd., Los Angeles 64, Calif.
 Paisley Products, Inc., 630 W. 51st St., New York 19, N. Y.
 Palmer, Inc., M. V., 4002 Fruit Valley Rd., Vancouver, Wash.
 Painut Co., Inc., 77 Cordier St., Irvington 11, N. J.
 Palo Alto Engineering Co., 440 Olive Ave., Palo Alto, Calif.
 Pan American Trade Development Corp., 2 Park Ave., New York 16, N. Y.
 Pan-Electronics Corp., Box 404, Griffin, Ga.
 Panelyte Div., St. Regis Paper Co., 230 Park Ave., New York 17, N. Y.
 Panoramic Radio Products, Inc., 10 South Second Ave., Mt. Vernon, N. Y.
 Panseal Inc., 10 Main St., Little Ferry, N. J.
 Pantek Co., Box 212, El Segundo, Calif.
 Par-Metal Products Corp., 32-62 49th Street, Long Island City 3, N. Y.
 Paragon Electric Co., Two Rivers, Wisconsin.
 Paragon-Revolute Corp., 71 South Ave., Rochester 4, N. Y.
 Paramount Paper Tube Co., 614 Lafayette St., Fort Wayne, Ind.
 Paraplegics Mfg. Co., Inc., 10068 Franklin Ave., Franklin Park, Ill.
 Paravox, Inc., 2056 E. 4th St., Cleveland 15, Ohio.
 Parisian Novelty Co., 3510 South Western Ave., Chicago 9, Ill.

Parliser & Co., Maurice I., 1860 Broadway, New York 23, N. Y.
 Park Nameplate Co., Inc., 61-07 32nd Ave., Woodside 77, N. Y.
 Parker-Kalon Division of General American Transportation Corp., Clifton, N. J.
 Parsons Co., Ralph M., The, 617 S. Olive St., Los Angeles 14, Calif.
 Partridge Transformers, Ltd., Roebuck Rd., Tolworth, Surrey, England.
 Patton-MacGuer Co., 17 Virginia Avenue, Providence 5, R. I.
 Paul & Beekman, Inc., 1801 Cortland St., Philadelphia 40, Pa.
 Paul & Stein Bros., Inc., F. H., 235 Fifth Ave., New York 16, N. Y.
 Pearce-Simpson, Inc., 3023 Coral Way, Miami 34, Fla.
 Pearson Electronics, 895 Commercial St., Palo Alto, Calif.
 Pease Co., C. F., 2601 W. Irving Park Rd., Chicago 11, Ill.
 Peck & Harvey Mfg. Corp., 5650 N. Western Ave., Chicago 45, Ill.
 Pedersen Electronics Co., Mount Diablo Blvd., Lafayette, Calif.
 Peeco Corp., 2760 Whittier Blvd., Los Angeles 23, Calif.
 Peer, Inc., Benton Harbor, Mich.
 Peerless Electrical Products Div. of Altec Lansing Corp., 9356 Santa Monica Blvd., Beverly Hills, Calif.
 Peerless Machine Co., 5338 Alhambra Ave., Los Angeles, Calif.
 Peerless Photo Products, Inc., Shoreham, N. Y.
 Peerless Products Industries, 812 N. Pulaski Ave., Chicago 51, Ill.
 Pegasus Laboratories, Inc., 3692 Eleven Mile Rd., Berkley, Mich.
 Peirce Wire Recorder Corp., 5900 Northwest Highway, Chicago 31, Ill.
 Penfield Mfg. Co., 19 High School Ave., Meriden, Conn.
 Penn Engineering & Mfg., Corp., Box 311, Doylestown, Pa.
 Penn Fibre & Specialty Co., 2020 E. Westmoreland St., Philadelphia 44, Pa.
 Penn Precision Products, Inc., 501 Crescent Ave., Reading, Pa.
 Penn Tran Corp., Belefonte, Pa.
 Pennsylvania Testing Laboratory, Doylestown, Pa.
 Penta Laboratories, Inc., 312 N. Nopal St., Santa Barbara, Calif.
 Pentron Corp., 777 S. Tripp Ave., Chicago 24, Ill.
 Perfection Electric Co., 2635 S. Wabash Ave., Chicago 16, Ill.
 Perfection Mica Co., 1320 N. Elston Ave., Chicago 22, Ill.
 Performance Measurements Co., 15301 W. McNichols, Detroit 35, Mich.
 Perkin-Elmer Corporation, The, Main Ave., Norwalk, Conn.
 Perkin Engineering Corp., 345 Kansas St., El Segundo, Calif.
 Permacel Tape Corp., U. S. Highway 1, New Brunswick, N. J.
 Permag Corp., 214 Taaffe Place, Brooklyn 5, N. Y.
 Permo Inc., 6415 Ravenswood Ave., Chicago 26, Ill.
 Permoflux Corp., 4900 W. Grand Ave., Chicago 39, Ill.
 Permonite Mfg. Co., 4554 N. Broadway, Chicago 40, Ill.
 Permutit Co., 330 W. 42nd St., New York 36, N. Y.
 Peschel Electronics, Inc., 13 Garden St., New Rochelle, N. Y.
 Peter Partition Corp., 124 Boerum Place, Brooklyn 1, N. Y.
 Pfanstiehl Chemical Corp., 104 Lake View Ave., Waukegan, Ill.
 Pfeiffer Products, 3901 W. 54th St., Los Angeles 43, Calif.
 Phalo Plastics Corp., 25 Foster St., Worcester 8, Mass.
 Phoastron Instrument & Electronic Co., 151 Pasadena Ave., South Pasadena, Calif.
 Phelps Dodge Copper Products Co., 300 Park Ave., New York 22, N. Y.
 Phelps Dodge Copper Products Corp., Inca Mfg. Div., 4400 New Haven Ave., Fort Wayne, Ind.
 Phen-O-Tron, Inc., 455 Main St., New Rochelle, N. Y.
 Pheoil Mfg. Co., 5700 Roosevelt Rd., Chicago 50, Ill.
 Philadelphia Quartz Co., 1146 Public Ledger Bldg., Philadelphia 6, Pa.
 Philadelphia Scientific Glass Co., 4 Eckard Ave., Abington, Pa.
 Philamon Laboratories, Inc., 90 Hopper St., Westbury, N. Y.
 Philbrick Researches, Inc., George A., 230 Congress St., Boston 10, Mass.
 Philco Corp., C & Tioga Sts., Philadelphia 34, Pa.
 Philco Corp., Government & Industrial Div., 4700 Wisshackon Ave., Philadelphia 44, Pa.
 Phillips Control Corp., 59 W. Washington St., Joliet, Ill.
 Phillips & Hiss Co., Inc., 1155 N. McCadden Place, Hollywood 38, Calif.
 Phillips Mfg. Co., 3406 W. Touhy Ave., Chicago 45, Ill.
 Phillips Process Co., Inc., 192 Mill St., Rochester 14, N. Y.
 Philmore Mfg. Co., Inc., 113 University Place, New York 3, N. Y.
 Philson Mfg. Co., Inc., 60-66 Sackett St., Brooklyn 31, N. Y.
 Phosphor Bronze Corp., 25 Franklin St., Seymour, Conn.
 Photo Chemical Products, Inc., 479 Walton Ave., New York 51, N. Y.
 Photo Crystals, Inc., 15 S. First St., Geneva, Ill.
 Photobell Co., Inc., 43 Vesey St., New York 7, N. Y.
 Photocircuits Corp., Glen Cove, N. Y.
 Photocon Research Products, 421 N. Foothill Blvd., Pasadena, Calif.
 Photographic Products Inc., 1000 N. Olive St., Anaheim, Calif.
 Photoswitch Div., Electronics Corp. of America, 77 Broadway, Cambridge 42, Mass.
 Photovolt Corp., 95 Madison Ave., New York 16, N. Y.
 Photon Instrument Co., 6516 Detroit Ave., Cleveland 2, Ohio.

Physics Research Labs., Inc., 507 Hempstead Turnpike, West Hempstead, N. Y.
 Pick Laboratories, P. O. Box 1849, Grand Junction, Colo.
 Pickard & Burns, Inc., Needham, Mass.
 Picker X-Ray Corp., 25 S. Broadway, White Plains, N. Y.
 Pickering & Co., 309 Woods Ave., Oceanside, N. Y.
 Piezo Products Co., Whitney St., Sherborn, Mass.
 Pilgrim Screw Corp., 259 Dexter St., Providence, R. I.
 Pilot Radio Corp., 37-06 36th St., Long Island City, N. Y.
 Pimex, Inc., 2 E. 82nd St., New York 28, N. Y.
 Pioneer-Central Division, Bendix Aviation Corp., Davenport, Iowa.
 Pioneer Electronics Corp., 2235 S. Carmelina, West Los Angeles, Calif.
 Pioneer Gen-E-Motor Corp., 5841 W. Dickens, Chicago 39, Ill.
 Pioneer Machine Works, Inc., 6136 Adam St., West New York, N. J.
 Pitometer Log Corp., 237 Lafayette St., New York 12, N. Y.
 Pittsburgh Electrodryer Co., 300 32nd St., Pittsburgh 30, Pa.
 Pittsburgh Plate Glass Co., 632 Fort Duquesne Blvd., Pittsburgh 22, Pa.
 Pittsburgh Plate Glass Co., Industrial Glass Sales, 1 Gateway Center, Pittsburgh 22, Pa.
 Pix Mfg. Co., Inc., 81A Hudson St., Newark, N. J.
 Planet Mfg. Corp., 225 Belleville Ave., Bloomfield, N. J.
 Plasteck, Inc., Poteau, Okla.
 Plastic Capacitors, Inc., 2511 W. Moffat St., Chicago 47, Ill.
 Plastic Mold & Engineering Co., Inc., 157 Clifford St., Providence 3, R. I.
 Plastic Wire & Cable Corp., Jewett City, Conn.
 Plastics & Electronics Co., Inc., P. O. Box 58, Station J, Buffalo 8, N. Y.
 Plastilight, Inc., Box 214, Stamford, Conn.
 Plastoid Corp., 42-61 24th St., Long Island City 1, N. Y.
 Plastronics, P. O. Box 96, Winter Hill 45, Mass.
 Pneumafil Corp., Charlotte, N. C.
 Poinsettia Co., Inc., 112 Cedar Ave., Pitman 6, N. J.
 Polan Industries Inc., P. O. Box 1720, Huntington, W. Va.
 Pollak Corp., Joseph, 75-99 Freeport St., Dorchester 22, Mass.
 Polarad Electronics Corp., 43-20 34th St., Long Island City 1, N. Y.
 Pol Products Dept. of Kendall Co., 222 W. Adams St., Chicago 6, Ill.
 Polymer Corporation, The, Reading, Pa.
 Polyphase Instrument Co., 705 Haverford Rd., Bryn Mawr, Pa.
 Poly-Scientific Corp., Blacksburg, Va.
 Polytechnic Research & Development Co., Inc., 202 Tillary St., Brooklyn 1, N. Y.
 Polytro Engineering Inc., P. O. Box 124, Emala Ave., Middle River 20, Md.
 Pomona Electronics Co., Inc., 1126 W. Fifth Ave., Pomona, Calif.
 Popper & Sons, Inc., 300 Fourth Ave., New York 10, N. Y.
 Porcelain Products, Inc., Findlay, Ohio.
 Portchester Instrument Corp., 114 Wilkins Ave., Port Chester, N. Y.
 Ports Mfg. Co., 3265 E. Belmont Ave., Fresno 2, Calif.
 Positive Lock Washer Co., 181 Miller St., Newark 5, N. J.
 Post Co., Frederick, 3650 N. Avondale Ave., P. O. Box 803, Chicago 90, Ill.
 Post Machinery Co., Electronic Products Div., 140 Elliott St., Beverly, Mass.
 Potter Aeronautical Co., Route #22, Union, N. J.
 Potter & Brumfield, Princeton, Indiana.
 Potter Co., The, 1950 Sheridan Rd., North Chicago, Ill.
 Potter Instrument Co., 115 Cutter Mill Rd., Great Neck, N. Y.
 Poughkeepsie Coil Co., Inc., 24 Charlotte St., Binghamton, N. Y.
 Power Designs, Inc., 89-25 130th St., Richmond Hill 18, N. Y.
 Power Equipment Co., 5740 Nevada, East, Detroit 34, Mich.
 Power Industries Co., 2611 S. Indiana Ave., Chicago 16, Ill.
 Power Supplies, Inc., 1007 Olive St., Highland, Ill.
 Power Transformer Co., Inc., 532 Mulberry St., Newark 5, N. J.
 Pratt & Whitney, Charter Oak Blvd., West Hartford 1, Conn.
 Precious Metal Platers, The, P. O. Box 228, Fairfield, Conn.
 Precise Development Corp., 2 Nell Court, Oceanside, N. Y.
 Precise Instrument Parts Co., 4520 San Fernando Rd., Glendale 4, Calif.
 Precise Measurements Co., 942 Kings Highway, Brooklyn 23, N. Y.
 Precision Apparatus Co., Inc., 70-31 84th St., Glendale 27, N. Y.
 Precision Crystal Laboratory, 2223 Warwick Ave., Santa Monica, Calif.
 Precision Electronic Components (1956) Ltd., 50 Wingo Ave., Toronto 10, Ont.
 Precision Electronics, 7518 Melrose Ave., Los Angeles 46, Calif.
 Precision Electronics, Inc., 9101 King St., Franklin Park, Ill.
 Precision Electroplating Co., 519 S. Oakley Blvd., Chicago 12, Ill.
 Precision, Inc., 730 Lyndale Ave., N., Minneapolis, Minn.
 Precision Line, Inc., 63 Main St., Maynard, Mass.
 Precision Marking Co., 87 Dorsa Ave., Livingston, N. J.
 Precision Metal Products Co., of Malden, 41 Elm St., Stoneham 80, Mass.
 Precision Metalsmiths, Inc., 1081 E. 200th St., Cleveland 17, Ohio.
 Precision Paper Tube Co., 2041 W. Charleston St., Chicago 47, Ill.

- Precision Piezo Service, 427 Mayflower St., Baton Rouge, La.
- Precision Radiation Instruments, Inc., 4223 W. Jefferson Blvd., Los Angeles 16, Calif.
- Precision Resistor Co., 109 U. S. Highway #22, Hillside 5, N. J.
- Precision Scientific Co., 3737 W. Cortland St., Chicago 47, Ill.
- Precision Tube Co., Inc., North Wales, Pa.
- Preis Engraving Machine Co., H. P., 651 U. S. Highway 22, Hillside, N. J.
- Premax Products Div., Chisholm-Ryder Co., Inc., Highland & College Aves., Niagara Falls 2, N. Y.
- Premier Electronic Laboratories, 382 Lafayette St., New York 3, N. Y.
- Premier Metal Products Co., 337 Manida St., Bronx 59, N. Y.
- Premier Research Laboratories Inc., 83 Seventh Ave., New York 11, N. Y.
- Prescott Television Co., 7352 Beverly Blvd., Los Angeles 36, Calif.
- Press Wireless Laboratories, Inc., 25 Prospect Place, West Newton 65, Mass.
- Pressed Metal Div., The Stanley Works, New Britain, Conn.
- Presto Recording Corp., P. O. Box 500, Paramus, N. J.
- Price Electric Corp., Frederick, Md.
- Printed Cellophane Tape Co., 521 N. LaBrea Ave., Los Angeles 36, Calif.
- Printed Circuit Div., LaPointe Electronics Inc., Rockville, Conn.
- Printed Electronics Corp., 7 North Ave., Natick, Mass.
- Printloid, Inc., 93 Mercer St., New York 12, N. Y.
- Probescope Co., 44-05 30th Ave., Long Island City 3, N. Y.
- Process & Instruments, 15 Stone Ave., Brooklyn 33, N. Y.
- Prodelin, Inc., 307 Bergen Ave., Kearny, N. J.
- Production Instrument Co., 710 W. Jackson Blvd., Chicago 6, Ill.
- Production Research Corp., Thornwood, N. Y.
- Production Tool & Fixture Co., 37 W. Main St., Oyster Bay, N. Y.
- Progressive Mfg. Co., 50 Norwood St., Torrington, Conn.
- Protective Coatings Corp., 596 River Rd., Clifton, N. J.
- Pruyn-Moore, Inc., 1338 Cota Ave., Long Beach 13, Calif.
- Pulse Engineering, 2431 Spring St., Redwood City, Calif.
- Pulse Techniques, Inc., 1411 Palisade Ave., West Englewood, N. J.
- Pye Limited, Telecommunications Div., Newmarket Rd., Cambridge, England.
- Pyle-National Co., 1334 N. Kostner Ave., Chicago 51, Ill.
- Pyramid Electric Co., 1445 Hudson Blvd., North Bergen, N. J.
- Pyramid Instrument Corp., 630 Merrick Rd., Lynbrook, N. Y.
- Pyroferic Co., Inc., 621 E. 216th St., New York 67, N. Y.
- PyroFilm Resistor Co., Inc., 8 Whippany St., Morristown, N. J.
- Radiation Counter Laboratories, Inc., 5122 W. Grove St., Skokie, Ill.
- Radiation, Inc., Melbourn, Fla.
- Radiation Instrument Development Labs., 2337 W. 67th St., Chicago 36, Ill.
- Radio Apparatus Corp., 55 N. New Jersey St., Indianapolis 3, Ind.
- Radio City Products Co., Inc., Centre & Glendale Sts., Easton, Pa.
- Radio Condenser Co., Camden, N. J.
- Radio Cores, Inc., 9540 Tulley Ave., Oak Lawn, Ill.
- Radio Corp. of America, Consumer Products Div., Camden 8, N. J.
- Radio Corp. of America, Engineering Products Div., Camden, N. J.
- Radio Corp. of America, Tube Div., 415 S. Fifth St., Harrison, N. J.
- Radio Craftsman, Inc., 4401 N. Ravenswood Ave., Chicago 40, Ill.
- Radio Engineering Labs., Inc., 36-40 37th St., Long Island City 1, N. Y.
- Radio Essentials Inc., 152 S. MacQueston Parkway, Mt. Vernon, N. Y.
- Radio Frequency Co., 44 Park St., Medfield, Mass.
- Radio Frequency Labs., Inc., Boonton 2, N. J.
- Radio Industries, Inc., 5225 Ravenswood Ave., Chicago 40, Ill.
- Radio Mfg. Engineers, Inc., 501 Walnut St., Washington, Ill.
- Radio Materials Corp., 3325 N. California Ave., Chicago 18, Ill.
- Radio Merchandise Sales, Inc., 2016 Bronxdale Ave., New York 62, N. Y.
- Radio Receptor Co., 251 W. 19th St., New York 11, N. Y.
- Radio Specialty Mfg. Co., 2023 S.E. 6th Ave., Portland 14, Ore.
- Radioactive Products Inc., 2421 Wolcott, Ferndale, Mich.
- Radion Corp., 1130 Wisconsin Ave., Chicago 14, Ill.
- Radionic Transformer Co., 411 S. Sangamon St., Chicago 7, Ill.
- Radix Wire Co., 26260 Lakeland Blvd., Cleveland 32, Ohio.
- Rae Motor Corp., P. O. Box 291, Racine, Wis.
- Rahm Instruments, Inc., 12 West Broadway, New York 7, N. Y.
- Railway Communications, Inc., P. O. Box 67, Raytown, Mo.
- Ram Electronics, Inc., S. Buckout St., Irvington, N. Y.
- Ram Manufacturing Co., 7266 Beverly Blvd., Los Angeles 36, Calif.
- Ram Meter, Inc., 1102 Hilton Rd., Ferndale, Detroit 20, Mich.
- Randall, Inc., Douglas, 6 Pawcatuck Ave., Westerly, R. I.
- Rangertone, Inc., 73 Winthrop St., Newark 4, N. J.
- Ransom Research, P. O. Box 382, San Pedro, Calif.
- Rapid Electric Co., 2881 Middletown Rd., Bronx 61, N. Y.
- Rapid Specialties Co., 327 W. Huron Street, Chicago 10, Ill.
- Ratigan Electronics Inc., 3614 Maple Ave., Los Angeles 11, Calif.
- Ratray & Co., Inc., George, 116-08 Myrtle Ave., Richmond Hill, N. Y.
- Rauland-Borg Corp., 3515 W. Addison St., Chicago 18, Ill.
- Rawson Electrical Instrument Co., 111 Potter St., Cambridge 42, Mass.
- Rauland Corp., 4545 N. Knox Ave., Chicago 41, Ill.
- Raymond Manufacturing Co., Cory, Pa.
- Ray-O-Vac Co., 212 E. Washington Ave., Madison, Wis.
- Raybestos-Manhattan, Inc., 61 Willett St., Passaic, N. J.
- Raymond Engineering Laboratory, Inc., Smith St., Middletown, Conn.
- Raypar, Inc., 7800 W. Addison St., Chicago, Ill.
- Raytheon Mfg. Co., Ceramic Sales, Waltham 54, Mass.
- Raytheon Mfg. Co., Equipment Marketing Dept., 100 River St., Waltham 54, Mass.
- Raytheon Mfg. Co., Microwave & Power Tube Operations, Waltham, Mass.
- Raytheon Mfg. Co., Receiving & Cathode Ray Tube Operations, 55 Chapel St., Newton 58, Mass.
- Raytheon Mfg. Co., Television & Radio Div., 5921 W. Dickens Ave., Chicago 39, Ill.
- Rea Co., J. B., 1723 Cloverfield Blvd., Santa Monica, Calif.
- Rea Magnet Wire Co., Inc., E. Pontiac St., Fort Wayne, Ind.
- Ready Power Co., The Power Plant Div., 11231 Freud Ave., Detroit 14, Mich.
- Recora Co., Inc., 6100 S. Archer Rd., Summit, Ill.
- Recoton Corp., 52-35 Barnett Ave., Long Island City 4, N. Y.
- Rectico Inc., 963 Frelinghuysen Ave., Newark 5, N. J.
- Rectifier Engineering Co., Inc., 1803 E. Seventh St., Los Angeles 21, Calif.
- Red Bank Division, Bendix Aviation Corp., Eatontown, N. J.
- Red Point Products, Inc., 1907 Riverside Drive, Glendale 1, Calif.
- Redman Electronics Corp., P. O. Box 72, Thompsonville, Conn.
- Redmond Co., Inc., Owosso, Mich.
- Reed-Curtis Nuclear Industries, Inc., 307 Culver Blvd., Playa del Rey, Calif.
- Reeder & Co., Charles M., 173 Victor Ave., Detroit 3, Mich.
- Reeve Electronics, Inc., 609 W. Lake St., Chicago 6, Ill.
- Reeves-Hoffman Corp., 145 Cherry St., Carlisle, Pa.
- Reeves Instrument Corp., 215 E. 91st St., New York, N. Y.
- Reeves Soundcraft Corp., 10 E. 52nd St., New York 22, N. Y.
- Reflectone Corp., Post Rd., & Myano Lane, Stamford, Conn.
- Rego Insulated Wire Co., 830 Monroe St., Hoboken, N. J.
- Regulator Equipment Corp., 52 Iowa Ave., Paterson 3, N. J.
- Reichhold Chemicals Inc., 525 N. Broadway, White Plains, N. Y.
- Reilly Tar and Chemical Corp., 1615 Merchants Bank Bldg., 11 S. Meridian St., Indianapolis, Ind.
- Reiner Electronics Co., Inc., Centre & Glendale Sts., Easton, Pa.
- Rek-O-Nut Co., 38-01 Queens Blvd., Long Island City 1, N. Y.
- Relay Sales Inc., P. O. Box 186, West Chicago, Ill.
- Reliable Spring and Wire Forms Co., Fulton Rd. and Paris Ave., Cleveland 9, Ohio.
- Reliance Automatic Lighting Co., 1919 Mead St., Racine, Wis.
- Reliance Mica Co., Inc., 341 39th St., Brooklyn 32, N. Y.
- Rembar Co., The, 147 Main St., Dobbs Ferry, N. Y.
- Rem-Cru Titanium, Inc., Midland, Pa.
- Remler Co., 2101 Bryant St., San Francisco 10, Calif.
- Remington Rand Univac, 1902 W. Minnehaha Ave., St. Paul, Minn.
- Renbrandt, Inc., 98 Kirkland St., Cambridge 38, Mass.
- Reon Resistor Corp., 117 Stanley Ave., Yonkers, N. Y.
- Repath Inc., Paul R., 641 E. 61st St., Los Angeles 1, Calif.
- Republic Foil & Metal Mills, Inc., 55 Triangle St., Danbury, Conn.
- Republic Steel Corp., Republic Bldg., Cleveland 1, Ohio.
- Resdel Engineering Corp., 330 S. Fair Oaks Ave., Pasadena 1, Calif.
- Rese Engineering Corp., 731 Arch St., Philadelphia 6, Pa.
- Research Development Mfg. Inc., 429 E. Collom St., Philadelphia 44, Pa.
- Research Electronics Laboratories, Roslyn, Pa.
- Research Mfg. Co., 2115 W. 17th St., Long Beach, Calif.
- Resin Industries, P. O. Box 1589, Santa Barbara, Calif.
- Resinite Corp., Sub. of Precision Paper Tube Co., 2035 W. Charleston St., Chicago 47, Ill.
- Resistance Products Co., 914 S. 13th St., Harrisburg, Pa.
- Resistoflex Corp., Roseland, N. J.
- Resistors, Inc., 5226 W. 26th St., Chicago 50, Ill.
- Resitron Laboratories, Inc., 2908 Nebraska Ave., Santa Monica, Calif.
- Revere Camera Co., 320 E. 21st St., Chicago 16, Ill.
- Revere Copper & Brass Inc., 230 Park Ave., New York 17, N. Y.
- Revere Corporation of America, Sub. of Neptune Meter Co., Wallingford 2, Conn.
- Rex Corp., The, Hayward Rd., West Acton, Mass.
- Rex Rheostat Co., 3 Foxhurst Rd., Baldwin, N. Y.
- Reynolds Electric Co., 3000 River Rd., River Grove, Ill.
- Reynolds Metals Co., 2500 S. Third St., Louisville 1, Ky.
- Rhode Island Insulated Wire Co., 50 Burnham Ave., Cranston, R. I.
- Rhodes Inc., M. H., 30 Bartholomew Ave., Hartford, Conn.
- Richards Co., Inc., Arklay S., 38 Winchester St., Newton Highlands 61, Mass.
- Richardson-Allen Corp., 116-15 15th Ave., College Point, N. Y.
- Richardson Company, The, 2767 Lake St., Melrose Park, Illinois.
- Richmond Engineering Co., Inc., 19 Concord St., South Norwalk, Conn.
- Richmont, Inc., 922 S. Myrtle Ave., Monrovia, Calif.
- Riester & Thesmacher Co., 1510 W. 25th St., Cleveland 13, Ohio.
- Ripley Co., Inc., Middletown, Conn.
- Riverbank Laboratories, Dept. of Engineering, P. O. Box 65, Geneva, Ill.
- River Edge Sales Corp., 80 Shore Rd., Port Washington, N. Y.
- Roanwell Corp., 662 Pacific St., Brooklyn 17, N. Y.
- Robbins & Myers, Inc., 1345 Lagonda Ave., Springfield 99, Ohio.
- Robco Mfg. Co., Inc., 27-01 Bridge Plaza, N., Long Island City 1, N. Y.
- Robinette, Co., W. C., 802 Fair Oaks Ave., South Pasadena, Calif.
- Robins Industries Corp., 41-08 Bell Blvd., Bayside, N. Y.
- Robinson Aviation, Inc., Teterboro Air Terminal, Teterboro, N. J.
- Robinson Inc., Edward E., 95 Park Ave., Nutley 10, N. J.
- Robotron Corp., 21300 W. Eight Mile Rd., P. O. Box 4885, Detroit 19, Mich.
- Rochester Electronics Co., Inc., Box 275, Penfield, N. Y.
- Rockbar Corp., The, 650 Halstead Ave., Mamaroneck, N. Y.
- Rockbestos Products Corp., Nicoll & Canner Sts., New Haven 4, Conn.
- Rockwell Engineering Co., 4061 N. New Jersey St., Indianapolis 5, Ind.
- Roebling's Sons Corp., John A., 640 Broad St., Trenton 2, N. J.
- Roehrig Industrial Winding Machinery Co., Henry W., 120 Wall St., New York 5, N. Y.
- Roesch, Inc., Douglas, 2200 S. Figueroa St., Los Angeles 7, Calif.
- Roffan Co., Corner Route 1 & Camp Meeting Rd., Topsfield, Mass.
- Rogan Bros., 8031 N. Monticello Ave., Skokie, Ill.
- Rogers Corporation, Goodyear, Conn.
- Rohden Manufacturing Co., Inc., 4739 Montrose Ave., Chicago 41, Ill.
- Rohn Mfg. Co., 116 Limestone, Bellevue, Peoria, Ill.
- Rola Co., Inc., The, 2530 Superior Ave., Cleveland 14, Ohio.
- Rollan Electric Co., 8020 S. Park Ave., Chicago 19, Ill.
- Roller-Smith Corp., Instrument Div., 1825 W. Market St., Bethlehem, Pa.
- Rollin Co., 2010 Lincoln Ave., Pasadena 3, Calif.
- Romac Products Co., 48-01 25th Ave., Long Island City 3, N. Y.
- Romar Plastics, Inc., 1309 E. Main St., St. Charles, Ill.
- Rome Cable Corp., 330 Ridge St., Rome, N. Y.

- Rosen Engineering Products Inc., Raymond, 32nd & Walnut Sts., Philadelphia 4, Pa.
 Rosenau, Harris & Co., Ontario & "I" Sts., Philadelphia 34, Pa.
 Rostan Corp., 5660 59th St., Maspeth 78, N. Y.
 Rotating Components, Inc., 267 Green St., Brooklyn 22, N. Y.
 Rotron Mfg. Co., Inc., 7-9 Schoonmaker Lane, Woodstock, N. Y.
 Rowe Engravers, 492 E. 39th St., Paterson 4, N. J.
 Rowe Industries, 1702 Wayne St., Toledo 9, Ohio.
 Royal Electric Co., Inc., Pawtucket, R. I.
 Royal Metal Mfg. Co., 175 N. Michigan Ave., Chicago 1, Ill.
 Rubber & Asbestos Corp., 225 Belleville Ave., Bloomfield, N. J.
 Rubicon Co., Ridge Ave., at 35th St., Philadelphia 29, Pa.
 Ruby Chemical Co., 68 McDowell St., Columbus, Ohio.
 Ruckelshaus Labs., Inc., John G. Madison, N. J.
 Ruge Associates, Inc., Arthur, 733 Concord Ave., Cambridge, Mass.
 Rumble, Inc., 2308 Beloit Ave., West Los Angeles 64, Calif.
 Runzel Cord & Wire Co., 4723-31 W. Montrose Ave., Chicago 41, Ill.
 Rush Wire Stripper Division, The Eraser Co., Inc., 1068 S. Clinton St., Syracuse 4, N. Y.
 Russell, Burdshall & Ward Bolt & Nut Co., Port Chester, N. Y.
 Russell & Stoll Co., Inc., 125-6 Barclay St., New York 7, N. Y.
 Rust Industrial Co., Inc., 41 E. 42nd St., New York 17, N. Y.
 Rutherford Electronics Co., 3707 S. Robertson Blvd., Culver City, Calif.
 Rutico, Inc., 490 S. Fair Oaks Ave., Box 1151M, Pasadena 1, Calif.
 Ryerson & Son, Inc., J. T., 2558 W. 16th St., Chicago 16, Ill.
- S**
- S. N. C. Mfg. Co., Inc., Box 277, Oshkosh, Wis.
 Safeway Heat Element Inc., 680 Newfield St., Middletown, Conn.
 Saft Corp. of America, 2 Gregg St., Lodi, N. J.
 Sag Harbor Industries, Inc., Bay St., Sag Harbor, N. Y.
 Sage Electronics Corp., 302 N. Goodman St., Rochester 7, N. Y.
 Sage Laboratories, Inc., 30 Guinan St., Waltham 54, Mass.
 St. John X-Ray Laboratory, Califon, N. J.
 St. Marys Carbon Company, State Rd., St. Marys, Pa.
 Sanborn Co., 39 Osborn St., Cambridge 39, Mass.
 Sanders Associates, Inc., Nashua, N. H.
 San Fernando Electric Mfg. Co., 1509 First St., San Fernando, Calif.
 Sanford Miller Co., 691 Bedford Ave., Brooklyn 6, N. Y.
 Sangamo Electric Co., Capacitor Div., Marion, Illinois.
 Sangamo Generators, Inc., 2110 Clear Lake Ave., Springfield, Ill.
 Sargeant & Wilbur Heat Treating Corp., 170 York Ave., Pawtucket, R. I.
 Sargent-Raymont Co., The, 4926-28 E. 12th St., Oakland 1, Calif.
 Sarks Tarzian, Inc., Rectifier Div., 415 College Ave., Bloomington, Ind.
 Sarks Tarzian, Inc., Tuner Div., East Hillside Drive, Bloomington, Ind.
 Sauereisen Cements Co., Sauereisen Bldg., Pittsburgh 15, Pa.
 Saxton Products, Inc., 1661 Boone Ave., Bronx 60, N. Y.
 Scala Radio Co., 2814 19th St., San Francisco 10, Calif.
 Schaevitz Engineering, P. O. Box 505, Camden 1, N. J.
 Schauer Mfg. Corp., 4521 Alpine Ave., Cincinnati 36, Ohio.
 Schenectady Varnish Co., Inc., Schenectady, N. Y.
 Schutter Co., Carl W., 80 E. Montauk Pkwy., Lindenhurst, N. Y.
 Schuyler Mfg. Corp., 84 Porete Ave., North Arlington, N. J.
 Schweitzer Inc., Peter J., 261 Madison Ave., New York 16, N. Y.
 Sciaky Bros., Inc., 4915 W. 67th St., Chicago 38, Ill.
 Scientific Electric Corp., 105-119 Monroe St., Garfield, N. J.
 Scientific Electronic Labs., Inc., 866 Bergen St., Newark 8, N. J.
 Scientific Instruments Service Co., 44 Bromfield St., Boston 8, Mass.
 Scientific Radio Products Co., Inc., 215 South 11th, Omaha, Neb.
 Scientific Radio Service, 4301 Sheridan St., University Park, Md.
 Scientific Wood Cabinet Co., 88 Holmes St., Belleville, N. J.
 Scintilla Division, Bendix Aviation Corp., Sidney, N. Y.
 Scott Inc., Hermon Hosmer, 385 Putnam Ave., Cambridge 39, Mass.
 Scovill Manufacturing Co., Waterbury 20, Conn.
 Scruggs Co., Loyd, P. O. Drawer 232, Festus, Mo.
 Scully Machine Co., 62 Walter St., Bridgeport, Conn.
 Seaboard Coil Spring Division, 15001 S. Broadway, Gardena, Calif.
 Sealcorp Corp., 610 Fayette Ave., Mamaroneck, N. Y.
 Sealol Corp., Warwick Industrial Park, Providence 5, R. I.
 Sealtron Corp., Reading Road at Amity, Cincinnati 15, Ohio.
 Sears Co., M. J., Delaware County, Roxbury, N. Y.
 Seco Mfg. Co., 5015 Penn Ave., S., Minneapolis, Minn.
 Secon Metals Corp., 7 Intervale St., White Plains, N. Y.
 Seeburg Corp., 1500 N. Dayton St., Chicago 22, Ill.
- Seeley Electronics, 1060 S. La Brea Ave., Los Angeles 19, Calif.
 Segal, Edward, 72 Spring St., New York 12, N. Y.
 Sel-Rex Precious Metals Div. of Bart-Messing Corp., 229 Main St., Belleville, N. J.
 Semimetals, Inc., 130-11 90th Ave., Richmond Hill 18, N. Y.
 Senn Corp., New Augusta, Ind.
 Sensitive Research Instrument Corp., 310 Main St., New Rochelle, N. Y.
 Sequoia Process Corp., 871 Willow St., P. O. Box 1007, Redwood City, Calif.
 Serdex, Inc., 91 Cambridge St., Boston, Mass.
 Service Instruments Co., 422 S. Dearborn St., Chicago 5, Ill.
 Servo Corp. of America, 20-20 Jericho Turnpike, New Hyde Park, N. Y.
 Servo-Recording Instruments Inc., 917 Grand Ave., Phoenix, Ariz.
 Servo-Tek Products Co., 1086 Goffe Rd., Hawthorne, N. J.
 Servomechanisms, Inc., Post & Stewart Aves., Westbury, N. Y.
 Servonic Instruments, Inc., 1143 S. Fair Oaks Ave., Pasadena 2, Calif.
 Servospeed Div. of Electro Devices, Inc., 4 Godwin Ave., Paterson, N. J.
 Servotrol Co., 114 W. Illinois St., Chicago 10, Ill.
 Sessions Clock Co., Industrial Products Div., Forestville, Conn.
 Set Screw & Mfg. Co., 470 Main St., Bartlett, Ill.
 Setchell Carlson, Inc., 330 Fifth Ave., New Brighton, Minn.
 Shakeproof, Div. of Illinois Tool Works, St. Charles Rd., Elgin, Ill.
 Shallcross Mfg. Co., 10 Jackson Ave., Collingdale, Pa.
 Shallite, Inc., 10 Mill St., Paterson 1, N. J.
 Shamban & Co., W. S., 11617 W. Jefferson Blvd., Culver City, Calif.
 Shasta Div. of Beckman Instruments, Inc., P. O. Box 296, Station A, Richmond, Calif.
 Shaw Insulator Co., 160 Coit St., Irvington 11, N. J.
 Shearcut Tool Co., 7045 Darby Ave., Reseda, Calif.
 Sheffco Mfg. Co., Grand & Ruby Aves., Palisades Park, N. J.
 Sheffield Corp., The, Dayton 1, Ohio.
 Shell Chemical Corp., 380 Madison Ave., New York 17, N. Y.
 Sheltered Workshop, 2521 5th St., Santa Monica, Calif.
 Shepard Laboratories, 480 Morris Ave., Summit, N. J.
 Sherman Industrial Electronics Co., Inc., 505 Washington Ave., Belleville 9, N. J.
 Sherman Mfg. Co., H. B., 22 Barney St., Battle Creek, Mich.
 Sherdol Crystals, Inc., 1510 McGee St., Kansas City, Mo.
 Sherron Electronics Co., 1201 Flushing Ave., Brooklyn 6, N. Y.
 Shielding, Inc., Dept LB, Riverside, N. J.
 Shure Brothers, Inc., 222 Hartrey Ave., Evanston, Ill.
 Shurite Meters, 35-B Hamilton St., New Haven 8, Conn.
 Sibley Co., The, Haddam, Conn.
 Sickles, F. W., Div., General Instrument Corp., 165 Front St., Chicopee, Mass.
 Sieler Design Products, 10460 San Pablo Ave., El Cerrito, Calif.
 Sierra Electronic Corp., San Carlos, Calif.
 Sigma Instruments, Inc., 180 Pearl St., South Braintree 85, Mass.
 Signal Equipment Co., Inc., 2706 Third Ave., Seattle 1, Wash.
 Signal Transformer Co., 2518 Coney Island Ave., Brooklyn 23, N. Y.
 Signalite Inc., 37-41 Neptune Highway, Neptune, N. J.
 Silicone Insulation, Inc., 564 Third Ave., New York 16, N. Y.
 Silicone Seals, Inc., 3125 Milwaukee Ave., Chicago 18, Ill.
 Silicones Division, A Div. of Union Carbide & Carbon Corp., 30 E. 42nd St., New York 17, N. Y.
 Sillocks-Miller Co., Maplewood, N. J.
 Simmonds Accessories, Inc., Tarrytown, N. Y.
 Simmons Fastener Corp., 1752 N. Broadway, Albany 1, N. Y.
 Simplex Wire & Cable Co., 79 Sidney St., Cambridge 39, Mass.
 Simplicity Tool Co., 2850 N. Mississippi Ave., P. O. Box 3723, Portland 8, Ore.
 Simpson Electric Co., Div. of American Gage & Machine Co., 5218 W. Kinzie St., Chicago 44, Ill.
 Simpson Mfg. Co., Inc., Mark, 32-28 49th St., Long Island City 3, N. Y.
 Sims Casting Co., 2174 E. Erie Blvd., Syracuse 3, N. Y.
 Sinclair Mfg. Co., Chartley, Mass.
 Sittler Corp., 18 N. Ada St., Chicago 7, Ill.
 Skinner Electric Valve Div., The Skinner Chuck Co., Edgewood Ave., New Britain, Conn.
 Skottie Electronics, Inc., 204 Bridge St., Peckville, Pa.
 Skydyne, Inc., River Rd., Port Jervis, N. Y.
 Skysweeper Inc., McHenry, Ill.
 Slepian & Co., Arthur, 2 Burroughs St., Bridgeport 7, Conn.
 Small Motors, Inc., 2076 Elston Ave., Chicago 14, Ill.
 Smith, Inc., Herman H., 2326 Nostrand Ave., Brooklyn 10, N. Y.
 Smith Mfg. Co., Nathan R., 105 Pasadena Ave., South Pasadena, Calif.
 Sola Electric Co., 4633 W. 16th St., Chicago 50, Ill.
 Solar Mfg. Corp., E. 46th & Seville Ave., Los Angeles 58, Calif.
 Solartron Electronic Group Ltd., The, Thames Ditton, Surrey, England.
 Soldering Specialties Co., 19 Chatham Rd., Summit, N. J.
 Sonar Radio Corp., 3050 W. 21st St., Brooklyn 24, N. Y.
 Sonex, Inc., 245 Sansom St., Upper Darby, Pa.
 Sonic Recording Products, Inc., 58 Mill Rd., Freeport, N. Y.
 Sonneborn Sons, Inc., L., Building Products Div., 404 Fourth Ave., New York 16, N. Y.
 Sonotone Corp., Saw Mill River Road, P. O. Box 200, Elmsford, N. Y.
- Soreng Products Corp., 9555 Soreng Ave., Schiller Park, Ill.
 Sorensen & Co., Inc., 375 Fairfield Ave., Stamford, Conn.
 Sorensen Industrial Electronic So., Route 10, Dover, N. J.
 Sorgel Electric Co., 838 W. National Ave., Milwaukee 4, Wis.
 Sound Apparatus Co., Stirling, N. J.
 SoundScriber Corp., The, 146 Munson St., New Haven 9, Conn.
 South River Metal Products Co., Inc., 377-379 Turnpike, South River, N. J.
 Southco Division, South Chester Corp., 233 Industrial Highway, Lester, Pa.
 Southern Electronics Corp., 239 W. Orange Grove Ave., Burbank, Calif.
 Southern Instruments Ltd., Special Products Div., Frimley Rd., Camberly, Surrey, England.
 Southern Screw Co., P. O. Box 1360-EG, Statesville, N. C.
 Southwest Products, Inc., Alamo Downs, Box 85-D San Antonio, Rt. 4, Texas.
 Southwestern Industrial Electronics Co., 2831 Post Oak Rd., P. O. Box 13058, Houston 19, Texas.
 Spaulding Fibre Co., Inc., 310 Wheeler St., Tonawanda, N. Y.
 Special Chemicals Corp., 100 S. Water St., Ossining, N. Y.
 Special Products Co., P. O. Box 188, Rockville 3, Md.
 Specialties, Inc., Skunks Misery Rd., Syosset, N. Y.
 Specialty Automatic Machine Corp., 88 Gerrish Ave., Chelsea, Mass.
 Specialty Engineering Div. of Specialty Assembling & Packing Co., 79 Clifton Place, Brooklyn 38, N. Y.
 Specific Products, 14515 Dickens St., Sherman Oaks 13, Calif.
 Spectrol Div. of Carrier Corp., 1704 S. Del Mar, San Gabriel, Calif.
 Spectrum Instruments, Inc., 44-05 30th Ave., Long Island City 3, N. Y.
 Speedway Mfg. Co., 1834 S. 52nd Ave., Cicero 50, Ill.
 Speer Resistor Division, Speer Carbon Co., St. Marys, Pa.
 Spellman Television Co., Inc., 3029 Webster Ave., New York 67, N. Y.
 Spencer-Kennedy Labs., Inc., 1320 Soldiers Field Rd., Boston 35, Mass.
 Spencer Mfg. Co., 3253 N. Cicero Ave., Chicago 41, Ill.
 Spencer Thermostat Div., Metals & Controls Corp., 34 Forest St., Attleboro, Mass.
 Sperry Gyroscope Co. Div. of Sperry Rand Corp., Section E-1 Information Dept., Great Neck, N. Y.
 Sperti-Farraday Inc., Cooper Hewitt Electric Div., 720-732 Grand St., Hoboken, N. J.
 Sphere Co., Inc., P. O. Box 557, Short Hills, N. J.
 Spinco Division, Beckman Instruments, Inc., 535 O'Neil Ave., Belmont, Calif.
 Spivey Inc., James S., 4908 Hampden Lane, Washington 4, D. C.
 Sponge Rubber Products Co., Div. of B. F. Goodrich Co., Shelton, Conn.
 Sprague Electric Co., 125 Marshall St., North Adams, Mass.
 Sprague Electric Co., of Wisconsin, Inc., Sixth & Beech St., Grafton, Wis.
 Springer Aircraft Radio Co., Earl W., Rte. 11, Sky Harbor Airport, Indianapolis, Ind.
 Square D Co., 4041 N. Richards, Milwaukee 12, Wis.
 Stackbin Corp., 1255 Main St., Pawtucket, R. I.
 Stackpole Carbon Co., St. Marys, Pa.
 Stacor Equipment Co., 732 E. New York Ave., Brooklyn 5, N. Y.
 Staedtler Inc., J. S., 25 Dicarolls Court, Hackensack, N. J.
 Stainless, Inc., Third St., North Wales, Pa.
 Stamford Metal Specialty Co., 429 W. Broadway, New York 12, N. Y.
 Stanat Manufacturing Co., 47-22 37th St., Long Island City 1, N. Y.
 Stancil-Hoffman Corp., 921 N. Highland Ave., Hollywood 38, Calif.
 Standard Cabinet Co., 57 Washington Ave., Carlstadt, N. J.
 Standard Condenser Co., 3749 N. Clark St., Chicago 13, Ill.
 Standard Crystal Co., 1714 Locust St., Kansas City 8, Mo.
 Standard Electric Time Co., The, 97 Logan St., Springfield, Mass.
 Standard Electronics Corp., 287 Emmet St., Newark 5, N. J.
 Standard Electronics Research Corp., 2 East End Ave., New York 21, N. Y.
 Standard Locknut & Lockwasher Inc., 510 N. Capitol Ave., Indianapolis 4, Ind.
 Standard Metals Corp., Broad & Whiting St., North Attleboro, Mass.
 Standard Piezo Co., P. O. Box 513, Carlisle, Pa.
 Standard Pressed Steel Co., Box 775, Jenkintown 10, Pa.
 Standard Telephones & Cables Ltd., Connaught House, Aldwych, London, W. C. 2, England.
 Standard-Toch Chemicals, Inc., 2600 Richmond Terrace, Staten Island 3, N. Y.
 Standard Tool & Mfg. Co., Arlington, N. J.
 Standard Winding Corp., 44-62 Johns St., Newburgh, N. Y.
 Stanford Laboratories Co., P. O. Box 252, Menlo Park, Calif.
 Stanley Tools, New Britain, Conn.
 Stanley Transformer Co., 31-23 Vernon Blvd., Long Island City, N. Y.
 Stanpat, 150-42 12th Rd., Whitestone 57, N. Y.
 Stanwyck Winding Co., 137 Walsh Ave., Newburgh, N. Y.
 Star Expansion Products Co., 147 Cedar St., New York 6, N. Y.
 Star Porcelain Co., 61 Muirhead Ave., Trenton 9, N. J.
 Star Stainless Screw Co., 655 Union Blvd., Totowa, N. J.
 States Co., 19 New Park Ave., Hartford 6, Conn.

Statham Laboratories, Inc., 12401 W. Olympic Blvd., Los Angeles 64, Calif.

Stator Electric Corp., 46-25 58th St., Woodside, N. Y.

Staver Co., Inc., Box 431, Bay Shore, N. Y.

Steel Co., Herman D., Lafayette Bldg., Philadelphia 6, Pa.

Steel Protection & Chemical Co., Inc., Mooresville, Ind.

Steger Furniture Mfg. Co., Steger, Ill.

Steinen Mfg. Co., Wm., 43 Bruen St., Newark 5, N. J.

Steiner-Ives Co., Springfield Rd., Union, N. J.

Stelma, Inc., 389 Ludlow St., Stamford, Conn.

Stephens Mfg. Corp., 8538 Warner Drive, Culver City, Calif.

Sterling Bolt Co., 363-405 W. Erie St., Chicago 10, Ill.

Sterling Mfg. Co., 7201 Wentworth, Cleveland, Ohio.

Sterling Precision Corp., Instrument Div., 34-17 Lawrence St., Flushing 54, N. Y.

Sterling Transformer Corp., 297 N. Seventh St., Brooklyn 11, N. Y.

Stevens-Arnold Inc., 22 Elkins St., South Boston 27, Mass.

Stevens Mfg. Co. Inc., P. O. Annex 1007, Mansfield, Ohio.

Stevens Mfg. Co., Inc., Geo., 6022 N. Rogers Ave., Pulaski & Peterson, Chicago 30, Ill.

Stevens Paper Mills, Inc., Windsor, Conn.

Stevens Products Inc., 86-88 Main St., East Orange, N. J.

Stevens-Walden, Inc., 475 Shrewsbury St., Worcester 4, Mass.

Stevenson, Bro. & Co., 110 Race St., Philadelphia 6, Pa.

Steward Mfg. Co., D. M., 3600 Jerome Ave., Chattanooga 1, Tenn.

Stewart Corp., F. W., (A Sub. of The S. S. White Dental Mfg. Co.), 4311 Ravenswood Ave., Chicago 13, Ill.

Stewart Engineering Corp., Sequel, Calif.

Stewart Stamping Co., 630 Central Park Ave., Yonkers 4, N. Y.

Stewart-Warner Electronics Div. of Stewart-Warner Corp., 1300 N. Kostner Ave., Chicago 51, Ill.

Sticht Co., Inc., Herman H., 27 Park Place, New York 7, N. Y.

Stimpson Co., Inc., Edwin B., 74 Franklin Ave., Brooklyn 5, N. Y.

Stoddart Aircraft Radio Co., 6644 Santa Monica Blvd., Hollywood 38, Calif.

Stokes Machine Co., F. J., 5500 Tabor Road, Philadelphia 20, Pa.

Stone City Machine & Tool Co., Inc., P. O. Box 351, 1206 Seventh St., Bedford, Ind.

Stone Paper Tube Co., Inc., 900 Franklin St., N. E., Washington 17, D. C.

Stow Manufacturing Co., 101 Shear St., Binghamton, N. Y.

Strat-O-Seal Mfg. Co., 3039 W. Fullerton Ave., Chicago 47, Ill.

Streeter-Amet Corp., 4101 N. Ravenswood Ave., Chicago 13, Ill.

Stromberg-Carlson Co., Div. of General Dynamics Corp., 100 Carlson Rd., Rochester 3, N. Y.

Struthers-Dunn, Inc., Lamb's Road, Pitman, N. J.

Stueck, Inc., W. Whitney, Dept. E, Old Saybrook, Conn.

Stupakoff, Div. of The Carborundum Co., Latrobe, Pa.

Sturupp, Inc., 1 Factory St., Middletown, Conn.

Sturtevant Co., P. A., Addison, Ill.

Suffolk Products Corp., Woodbine & Scudder, Northport, N. Y.

Summers Gyroscope Co., 2328 Broadway, Santa Monica, Calif.

Summit Coil Co., 4 Claremont Rd., Bernardsville, N. J.

Summit Electronics, Inc., 7 Industrial Place, Summit, N. J.

Sun Dial Corp., E. Passaic Ave., Caldwell, N. J.

Sun Tube Corp., Washington, N. J.

Super Ear Products Co., 675 Merrick Rd., Lynbrook, N. Y.

Superior Electronics Corp., 4-6 Radford Place, Yonkers, N. Y.

Superior Carbon Products Co., 9115 George Ave., Cleveland 5, Ohio.

Superior Electric Co., The, 4000 Middle St., Bristol, Conn.

Superior Electronics Corp., 208 Piaget Ave., Clifton, N. J.

Superior Flux & Mfg. Co., 1302 Ontario St., Cleveland 13, Ohio.

Superior Graphite Co., 33 S. Clark St., Chicago 3, Ill.

Superior Instrument Co., 2435 White Plains Rd., New York 67, N. Y.

Superior Insulated Wire Co., Route 9W, Haverstraw, N. Y.

Superior Steatite & Ceramic Corp., 83-91 W. Forest Ave., Englewood, N. J.

Superior Tube Co., 2504 Germantown Pike, Norristown, Pa.

Suprenant Mfg. Co., 199 Washington St., Boston 8, Mass.

Swedlow Plastics Co., 6986 Bandini Blvd., Los Angeles 22, Calif.

Swift & Sons, M., 10 Love Lane, Hartford 1, Conn.

Swiss Jewel Co., Lafayette Bldg., Philadelphia 6, Pa.

Switchcraft, Inc., 1320 N. Halsted St., Chicago 22, Ill.

Symphony Radio & Television Corp., 925 South Western Ave., Los Angeles 6, Calif.

Synchro Start Products, Inc., 8151 N. Ridgway Ave., Skokie, Ill.

Syncor Products Co., 30 Eastern Ave., Malden, Mass.

Synthane Corp., Oaks, Pa.

Syntron Co., 243 Lexington, Homer City, Pa.

Syntronic Instruments, Inc., 100 Industrial Road, Addison, Ill.

Tablet & Ticket Co., 1021 W. Adams St., Chicago 7, Ill.

Takk Corp., The, Box 346, Newark, Ohio.

Talk-A-Phone Co., 1512 S. Pulaski Rd., Chicago 23, Ill.

Talk-O-Products, Inc., 163 St. Paul St., Rochester 6, N. Y.

Taller & Cooper Co., 75 Front St., Brooklyn 1, N. Y.

Tally Register Co., 5300 W. 14th, N. W., Seattle, Wash.

Ta-Mar, Inc., 11571 W. Jefferson Blvd., Culver City, Calif.

Tarc Electronics, Inc., 48 Urban Ave., Westbury, N. Y.

Taylor Fibre Co., Norristown, Pa.

Taylor Tubes, Inc., 2312 Wabansia Ave., Chicago 47, Ill.

Tech Laboratories, Inc., Bergen & Edsall Blvds., Palisades Park, N. J.

Techalloy Co., Inc., Box 34, Rahns, Pa.

Technic, Inc., P. O. Box 965, Providence 1, R. I.

Technical Apparatus Builders, 109 Liberty St., New York 6, N. Y.

Technical Appliance Corp., Sherburne, N. Y.

Technical Associates, 140 W. Providencia Ave., Burbank, Calif.

Technical Development Corp., 4060 Ince Blvd., Culver City, Calif.

Technical Devices Co., 2346 Centinela Ave., Los Angeles 64, Calif.

Technical Engineering Co., 2751 N. 4th St., Philadelphia 33, Pa.

Technical Instrument Co., 3732 Westheimer Rd., Houston 6, Texas.

Technical Materiel Corp., The, P. O. Box 142, Mamaroneck, N. Y.

Technical Measurement Corp., 140-142 State St., New Haven 11, Conn.

Technical Operations, Inc., 6 Schouler Court, Arlington 74, Mass.

Technical Service Corp., 1404 W. Market St., Louisville 5, Ky.

Technical Tape Corp., 177th St. & Harlem River, Bronx 53, N. Y.

Technicraft Inc., 1156 Commonwealth Ave., Boston 34, Mass.

Technicraft Laboratories, Inc., Thomaston-Waterbury Rd., Thomaston, Conn.

Techniques, Inc., 178-184 Central Ave., Hackensack, N. J.

Technograph Printed Electronics Inc., 185 Valley St., Tarrytown, N. Y.

Technology Instrument Corp., 533 Main St., Acton, Mass.

Technomatic Instrument Co., 1733 Flower St., Glendale, Calif.

Techron Corp., 254-256 Friend St., Boston 14, Mass.

Teiner Co., Inc., Roland, 134 Tremont St., Everett 49, Mass.

Teiner Engineering Corp., 116 Madison St., Malden, Mass.

Tektronix, Inc., P. O. Box 831, Portland 7, Ore.

Tel Autograph Corp., 1128 Crenshaw Blvd., Los Angeles 19, Calif.

Telechrome, Inc., 84 Merrick Rd., Amityville, N. Y.

Tele-Coil Co., Inc., 275 Saunders St., Camden 5, N. J.

Telecomputing Corp., 12838 Saticoy St., North Hollywood, Calif.

Telectro Industries Corp., 35-16 37th St., Long Island City 1, N. Y.

Teletron Co., The, 4019 Prospect St., Cleveland 3, Ohio.

Telegraph Condenser Co., Ltd., Wales Farm Rd., Acton, London, W. 3, England.

Telegraph Construction & Maintenance Co., Ltd., Telcon Works Greenwich, London S. E. 10, England.

Tele-Matic Industries, Inc., 16 Howard Ave., Brooklyn 21, N. Y.

Telemetering Associates, 494C Pine Forest Drive, Marietta, Ga.

Telephonics Corp., Park Ave., Huntington, N. Y.

Telequip Radio Co., 2559 W. 21st St., Chicago 8, Ill.

Telerad Mfg. Corp., 1440 Broadway, New York 18, N. Y.

Telegregister Corp., The, 445 Fairfield Ave., Stamford, Conn.

Teletest Instrument Corp., 31-05 Linden Place, Flushing, N. Y.

Teletronic Laboratories, Inc., 1835 W. Rosecrans Ave., Gardena, Calif.

Teletronics Laboratory, Inc., Kinkel St., Westbury, N. Y.

Television Accessories Co., Box 368, Scottsdale, Ariz.

Television Utilities Corp., 1315 Jericho Turnpike, New Hyde Park, N. Y.

Television Zoomer Corp., Room 2223, 500 Fifth Avenue, New York, N. Y.

Televisto Corp., 1415 Golf Rd., Des Plaines, Ill.

Televox Mfg. Co., 1307 Sansom St., Philadelphia 7, Pa.

Telewave Laboratories, Inc., 43-20 34th St., Long Island City, N. Y.

Telex Inc., Telex Park, St. Paul 1, Minn.

Tel-Instrument Electronics Corp., 728 Garden St., Carlstadt, N. J.

Tel-Labs, Inc., 1050 Second St., Manchester, N. H.

Telonic Industries, 73 N. 2nd Ave., Beech Grove, Ind.

Tel-O-Tube Corp. of America, 180 Van Riper Ave., East Paterson, N. J.

Telrex, Inc., Asbury Park, N. J.

Television Laboratories, Inc., Mill St., Wauconda, Ill.

Tempel Mfg. Co., 1939 Bryn Mawr Ave., Chicago 26, Ill.

Tempel Corp., 132 W. 22nd St., New York 11, N. Y.

Ten Bosch, Inc., M., 80 Wheeler Ave., Pleasantville, N. Y.

Tenna Mfg. Co., 7580 Garfield Blvd., Cleveland 25, Ohio.

Tennalab, Quincy, Ill.

Tenney Engineering Inc., 1090 Springfield Rd., Union, N. J.

Tensitron, Inc., Harvard, Mass.

Tensolite Insulated Wire Co., Inc., 198 Main St., Tarrytown, N. Y.

Tepro Electric Corp., 421 Burke Bldg., 5 St. Paul St., Rochester 4, N. Y.

Terado Co., Dept. 1, 1059 Raymond Ave., St. Paul 14, Minn.

Terpening Co., L. H., 16 W. 61st St., New York, N. Y.

Terrell Corp., 19 Lane St., Waltham 54, Mass.

Tetrad Co., Inc., 62 St. Mary St., Yonkers 2, N. Y.

Tevo Insulated Wire, 119 Prospect Ave., Burbank, Calif.

Texas Instruments Inc., 6000 Lemmon Ave., Dallas 9, Texas.

Texloid Products Co., 81 Rumford Ave., Waltham, Mass.

Ther Electric & Machine Works, 17 S. Jefferson St., Chicago 6, Ill.

Thermador Electric Mfg. Co., 5215 S. Boyle Ave., Los Angeles 58, Calif.

Thermal American Fused Quartz Co., Inc., 18-20 Salem St., Dover, N. J.

Thermal-Devices Div. of Curtiss-Wright Corp., 631 Central Ave., Carlstadt, N. J.

Thermistor Corp. of America, Durham Ave., Metuchen, N. J.

Thermosen, Inc., 361 W. Main St., Stamford, Conn.

Thermyte Inc., 414 Amory St., Boston 30, Mass.

Thiokol Chemical Corp., 780 N. Clinton Ave., Trenton 7, N. J.

Thomas Associates, 4613 Alger St., Los Angeles 39, Calif.

Thomas & Betts Co., 36 Butler St., Elizabeth 1, N. J.

Thomas Electronics, Inc., 118 Ninth St., Passaic, N. J.

Thomas Instrument Co., Phoenix, N. Y.

Thomas Mold & Die Co., Wooster, Ohio.

Thomas & Skinner Inc., 1122 E. 23rd St., Indianapolis, Ind.

Thomas & Sons, Inc., William, Slocum Ave., Ridgefield, N. J.

Thompson-Bremer & Co., 520 N. Dearborn, Chicago 10, Ill.

Thompson Co., A. J., The, Route #1, Box 812, Florissant, Mo.

Thompson Fiberglass Co., H. I., 1733 Cordova St., Los Angeles 7, Calif.

Thompson Products, Inc., Electronics Div., 2196 Clarkwood Rd., Cleveland 3, Ohio.

Thomson Industries, Inc., Manhasset, N. Y.

Thor Ceramics, Inc., 225 Belleville Ave., Bloomfield, N. J.

Thor Transformer & Electronics Co., 750 San Antonio Rd., Palo Alto, Calif.

Thordarson-Meissner Mfg. Co., 7th & Belmont Ave., Mt. Carmel, Ill.

Thwing-Albert Instrument Co., 5351 Pulaski Avenue, Philadelphia 44, Pa.

Tibbetts Industries, Inc., Camden, Maine.

Timely Instruments & Controls Corp., 1645 W. 135th St., Gardena, Calif.

Times Facsimile Corp., 540 W. 58th St., New York 19, N. Y.

Times, Wire & Cable Co., Wallingford, Conn.

Timken Roller Bearing Co., Canton 6, Ohio.

Tingstol Co., 1461 W. Grand Ave., Chicago 22, Ill.

Tinnerman Products, Inc., P. O. Box 6688, Dept. No. 16, Cleveland 1, Ohio.

Titan Metal Mfg. Co., Bellefont, Pa.

Titeflex, Inc., Aviation Products Div., Hende St., Springfield 4, Mass.

Tobe Deutschmann Corp., 921 Providence Highway, Norwood, Mass.

Todd Products, 156 Gramatan Ave., Mt. Vernon, N. Y.

Todd-Tran Corp., 156 Gramatan Ave., Mt. Vernon, N. Y.

Topflight Corp., 160 E. Ninth Ave., York, Pa.

Topp Industries, Inc., 5255 W. 102nd St., Los Angeles 45, Calif.

Topper Mfg. Co., Inc., 43 Roselle St., Mineola, N. Y.

Torit Mfg. Co., Walnut & Exchange Sts., St. Paul 2, Minn.

Tuck Clock Co., Inc., 1 Grove St., Mt. Vernon, N. Y.

Torgren Co., Inc., C. W. 236 Pearl St., Somerville 45, Mass.

Torocoil Co., 2615 Bristol Rd., Columbus 21, Ohio.

Torrington Co., Specialties Div., 37 Field St., Torrington, Conn.

Towaco Electronics, Inc., 1090 Morris Ave., Union, N. J.

Towaco Electronics, Pine Brook Rd., Towaco, N. J.

Tower Construction Corp., 2700 Hawkeye Drive, Sioux City, Iowa.

Tracerlab Inc., 130 High St., Boston 10, Mass.

Trad Electronics Corp., 1001 First Ave., Asbury Park, N. J.

Trans Electronics Co., 7243 Eton Ave., Canoga Park, Calif.

Transco Products, Inc., 12210 Nebraska Ave., Los Angeles 25, Calif.

Transformer Engineers, 161 E. California St., Pasadena 1, Calif.

Transformer Metal Products Corp., 36 York St., Brooklyn 1, N. Y.

Transformer Specialty Co., Inc., Bala Cynwyd, Pa.

Transformers, Inc., 200 Stage Rd., Vestal, N. Y.

Transicoil Corp., Worcester, Penna.

Transistor Components Co., 301 Oakwood Ave., East Aurora, N. Y.

Transitron Electronic Corp., 403-407 Main St., Melrose 76, Mass.

Transitron, Inc., 186 Granite St., Manchester, N. H.

Transline Associates, 57 State St., Newark, N. J.

Transonic, Inc., 808 Sixteenth St., Box 96A, Bakersfield, Calif.

Transradio Ltd., 138A Cromwell Rd., London SW 7, England.

Trans-Sonics, Inc., P. O. Box 328, Lexington 73, Mass.

Trent Tube Co., East Troy, Wis.

Trenton Transformer Corp., Box 568B, Trenton, N. J.

Tresco, Inc., 3824 Terrace St., Philadelphia 28, Pa.

Triad Portable Case Corp., 310-314 W. Lincoln Ave., Mount Vernon, N. Y.

Triad Transformer Corp., 4055 Redwood Ave., Venice, Calif.

Trico Fuse Mfg. Co., 2948 N. Fifth, Milwaukee 12, Wis.

Tricon Mfg. Co., 8012 S. Wallace St., Chicago 20, Ill.

Tricraft Products Corp., 1535 N. Ashland Ave., Chicago 22, Ill.

Tri-Dex Co., P. O. Box 1207, Lindsay, Calif.

Trimm Inc., 400 W. Lake St., Libertyville, Ill.

Trimm Mfg. Co., W. H., 1811 Johnston St., Los Angeles 31, Calif.

Trimount Instrument Co., 3119 W. Lake St., Chicago 12, Ill.

Trio Laboratories, Inc., 4025 Merrick Rd., Seaford, N. Y.
 Trio Mfg. Co., Griggsville, Ill.
 Trion, Inc., 1000 Island Ave., McKees Rocks, Pa.
 Triplett & Barton, Inc., 831 N. Lake St., P. O. Box 3128, Burbank, Calif.
 Triplett Electrical Instrument Co., Harmon Road, Bluffton, Ohio.
 Tri-Point Mfg. & Developing Co., 401 Grand St., Brooklyn 11, N. Y.
 Trionic Coil Winding Co., Inc., 161 Fairfield Ave., Waterbury, Conn.
 Tru-Connector Corp., 416 Union St., Lynn, Mass.
 Tru-Ohm Products Div., Model Engineering & Mfg. Co., 2800 Milwaukee Ave., Chicago 18, Ill.
 Trumbull Components Dept., General Electric Co., 41 Woodford Ave., Plainville, Conn.
 Truscon Steel Division of Republic Steel Corp., Youngstown, Ohio.
 Trutone Electronics, Inc., 812-14 N. Highland Ave., Los Angeles 38, Calif.
 Tubular Rivet & Stud Co., Weston Ave., Wollaston (Quincy) 70, Mass.
 Tung-Sol Electric Inc., 95 Eighth Ave., Newark 4, N. J.
 Tur-Bo Jet Products, Inc., 424 S. San Gabriel Blvd., San Gabriel, Calif.
 Turner Co., The, 909 17th St., N. E., Cedar Rapids, Iowa.
 Tuttle & Kift, 1823 N. Monitor St., Chicago 39, Ill.
 Twentieth Century Electronics, Ltd., Centronics Works, King Henry's Drive, New Addington, Surrey, England.

U

U M & F Manufacturing Corp., 10929 Vanowen St., North Hollywood, Calif.
 Uclinite Co., Division, United-Carr Fastener Corp., 459 Watertown St., Newtonville, Mass.
 Ulanet Co., George, 413 Market St., Newark 5, N. J.
 Ultradyne Engineering Labs., Inc., P. O. Box 8007, Albuquerque, N. M.
 Ultrasonic Corp., 640 Memorial Drive, Cambridge 39, Mass.
 Ultrasonic Engineering Co., 2402 Second St., Peru, Ill.
 Ungar Electric Tools, Inc., 4101 Redwood Ave., Los Angeles 66, Calif.
 Uniform Tubes, Level Rd., Colledgeville 2, Pa.
 Unimax Switch Div., The W. L. Maxson Corp., Ives Rd., Wallingford, Conn.
 Union Bay State Chemical Co., Inc., 491 Main St., Cambridge 42, Mass.
 Union Electric & Mfg. Corp., 1057 Summit Ave., Jersey City, N. J.
 Union Plastics Corp., 1630 Paterson Plank Rd., Secaucus, N. J.
 Union Switch & Signal Div. of Westinghouse Air Brake Co., General Apparatus Sales, Pittsburgh 18, Pa.
 Uni-Products Div. of Uni-Science, Inc., P. O. Box 460, Frederick, Md.
 United Aircraft Products, Inc., 1116 Bolander Ave., Dayton 1, Ohio.
 United Cable Corp., Div. of Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 United-Carr Fastener Corp., Cambridge 42, Mass.
 United Condenser Corp., 3400 Park Ave., New York 56, N. Y.
 United Control Corp., 4540 Union Bay Place, Seattle 5, Wash.
 United Electric Controls Co., 85 School St., Watertown 72, Mass.
 United Electrodynamics Div. of United Geophysical Corp., 1200 S. Marengo, Pasadena, Calif.
 United Electronic Mfg. Corp., 542 39th St., Union City, N. J.
 United Electronics Co., 42 Spring St., Newark 4, N. J.
 United Manufacturing & Service Co., 405 S. Sixth St., Milwaukee 4, Wis.
 United Mineral & Chemical Corp., 16 Hudson St., New York 13, N. Y.
 United Pressed Products Co., 741 W. Harrison St., Chicago 7, Ill.
 United Screw & Bolt Corp., 2514 W. Fullerton St., Chicago 8, Ill.
 United Shoe Machinery Corp., 140 Federal St., Boston 7, Mass.
 U. S. Components, Inc., 454 E. 148th St., New York 55, N. Y.
 U. S. Dynamics Corp., 1250 Columbus Ave., Boston 20, Mass.
 U. S. Electronics Corp., 276 Warren St., Lyndhurst, N. J.
 U. S. Electronics Corp. of America, 800 Slater Lane, Alexandria, Va.
 U. S. Engineering Co., A Div. of Litton Industries, Inc., 521 Commercial St., Glendale 3, Calif.
 U. S. Gasket Co., P. O. Box 93, Camden, N. J.
 U. S. Gauge Div., American Machine & Metals, Inc., Sellersville, Pa.
 U. S. Gear Corp., 71 Broadway, Wakefield, Mass.
 U. S. Graphite Co. Div. of The Wicks Corp., 1621 Holland Ave., Saginaw, Mich.
 U. S. Motors Corp., Oshkosh, Wis.
 U. S. Plastic Rope Co., 2581 Spring St., Redwood City 10, Calif.
 U. S. Plywood Corp., Electrical Structures Dept., 55 W. 44th St., New York 17, N. Y.
 U. S. Radium Corp., 535 Pearl St., New York 7, N. Y.
 U. S. Relay Co., 1740 Alblon St., Los Angeles 31, Calif.
 U. S. Rubber Co., 1230 Avenue of the Americas, New York 20, N. Y.
 U. S. Steel Corp., 525 William Penn Place., Pittsburgh 30, Pa.
 U. S. Stoneware Co., The Akron 9, Ohio.
 U. S. Time Corp., 500 Fifth Ave., New York 36, N. Y.

U. S. Wire & Cable Corp., Progress & Monroe Sts., Union, N. J.
 United Technical Laboratories, Box 425-V, Morristown, N. J.
 United Transformer Co., 150 Varick St., New York 13, N. Y.
 United Wire & Supply Corp., Providence 7, R. I.
 Unitek Corp., 275 N. Halstead Ave., Pasadena 8, Calif.
 Unitrronics, Inc., 472 Park Ave., Ferguson Station, St. Louis 21, Mo.
 Universal Atomic Corp., 19 E. 48th St., New York 17, N. Y.
 Universal Aviation Corp., Div. of Mutual Electronic Industries Corp., 85 Beechwood Ave., New Rochelle, N. Y.
 Universal Can & Condenser Co., Div. of McNaught Metal Products Co., Inc., 3435 N. Kimball Ave., Chicago 18, Ill.
 Universal Circuit Controls Corp., 3610 Oakton St., Skokie, Ill.
 Universal Drafting Machine Corp., 7960 Lorain Ave., Cleveland 2, Ohio.
 Universal Electric Co., 300 E. Main St., Owosso, Mich.
 Universal Electronics Co., 2012 S. Sepulveda Blvd., Los Angeles 25, Calif.
 Universal Mfg. Co., Inc., 410 Hillside Ave., Hillside, N. J.
 Universal Microphone Co., Box 55, Inglewood, Calif.
 Universal Winding Co., P. O. Box 1605, Providence 1, R. I.
 University Loudspeakers, Inc., 80 S. Kensico Ave., White Plains, N. Y.
 Univox-Eastern Corp., 102 Warren St., New York 7, N. Y.
 Utica Drop Forge & Tool Co., 2500 Whitesboro St., Utica, N. Y.
 Utility Brass & Copper Corp., 255 Conover St., Brooklyn 31, N. Y.

V

V-M Corp., Benton Harbor, Mich.
 Vacap Corp., 1905 Summit Ave., Union City, N. J.
 Vaco Products Co., 317 E. Ontario St., Chicago 11, Ill.
 Vacuum Electronic Engineering Co., 86 Denton Ave., New Hyde Park, N. Y.
 Vacuum Metals Corp., P. O. Box 977, Syracuse 1, N. Y.
 Vacuum Tube Products Co., Inc., 506 S. Cleveland St., Oceanside, Calif.
 Valco Mfg. Co., 4700 W. Walton St., Chicago 51, Ill.
 Valley Engineering Co., P. O. Box 2, Los Alamos, N. M.
 Valor Electronic Components Co., 5808 Marilyn Ave., Culver City, Calif.
 Valpey Crystal Corp., 1244 Highland St., Holliston, Mass.
 Vanguard Electronics Co., 3384 Motor Ave., Los Angeles 34, Calif.
 Vapor Recovery Systems Co., 2820 N. Alameda, P. O. Box 231, Compton, Calif.
 Varflex Corp., 506 W. Court St., Rome, N. Y.
 Varian Associates, 611 Hansen Way, Palo Alto, Calif.
 Vari-L Co., Inc., P. O. Box 1433, Stamford, Conn.
 Vario Mfg. Co., Inc., 2201 Walnut St., Garland, Texas.
 Vector Electronic Co., 3352 San Fernando Rd., Los Angeles 65, Calif.
 Vectrol Engineering Inc., P. O. Box 1089, Stamford Conn.
 Vectron, Inc., 1609 Trapelo Rd., Waltham 54, Mass.
 Veeder-Root, Inc., Hartford 2, Conn.
 Vega Electronics Corp. 1921 Pontius Ave., Los Angeles 25, Calif.
 Vemaline Products Co., P. O. Box 222E, Hawthorne, N. J.
 Vendo Co., 7400 E. 12th St., Kansas City 8, Mo.
 Ventrak Corp., 11 W. 42nd St., New York, N. Y.
 Vesto Co., Inc., 20th & Clay, North Kansas City, Mo.
 Vibration Research Labs., Inc., 97 Lake Ave., Tuckahoe, N. Y.
 Vibrex Fastener Corp., Mount Kisco, N. Y.
 Vibro Ceramics Corp., Metuchen, N. J.
 Vibroplex Co., Inc., 833 Broadway, New York, N. Y.
 Vic-Dar Division 823, Victor Adding Machine Co., 3900 N. Rockwell St., Chicago 18, Ill.
 Vickers Electric Division, Vickers, Inc., 1825 Locust St., St. Louis 3, Mo.
 Victor Electric Wire & Cable Corp., 8 Ackerman Ave., Clifton, N. J.
 Victor R. F. & Microwave Co., 36 W. Water St., Wakefield, Mass.
 Victoreen Instrument Co., 3800 Perkins Ave., Cleveland 14, Ohio.
 Victory Engineering Corp., 101 Springfield Rd., Union, N. J.
 Vidair Electronics Mfg. Corp., 576 W. Merrick Rd., Lynbrook, N. Y.
 Videon Electronic Corp., 902 E. Michigan St., Indianapolis 2, Ind.
 Viking Industries, Inc., 21343 Roscoe Blvd., Canoga Park, Calif.
 Vinson Co., E. R., 1401 Middle Harbor Rd., Oakland, Calif.
 Vitramon, Inc., Box 544, Bridgeport, Conn.
 Vitro Corp. of America, 261 Madison Ave., New York 16, N. Y.
 Vitroscop Corp., The, 709 E. 106th St., Box 6048, Indianapolis 20, Ind.
 Vocaline Co. of America, Inc., Old Saybrook, Conn.
 Vocatron Mfg. Div. of Vocaline Co. of America, Inc., Old Saybrook, Conn.
 Vokar Corp., 7300 Huron River Drive, Dexter, Mich.
 Volkars & Schaffer Mfg. Corp., P. O. Box 996, Schenectady, N. Y.
 Volkert Stampings, Inc., 222-34 96th Ave., Queens Village 8, N. Y.

Vorac Co., The, 147 Meadow Rd., Rutherford, N. J.
 Vulcan Electric Co., Danvers, Mass.

W

W & M Manufacturing Corp., 187 Lafayette St., New York 13, N. Y.
 Waage Electric, Inc., 720 Colfax Ave., Kenilworth, N. J.
 Wacline, Inc., 35 S. St. Claire St., Dayton 2, Ohio.
 Waco, Inc., 2032 Broadway, Santa Monica, Calif.
 Wade Electric Products Co., 400 Jacob St., Sturgis, Mich.
 Wagner Electric Corp., 6400 Plymouth Ave., St. Louis 14, Mo.
 Waldes Kohinor Inc., 47-16 Austel Place, Long Island City 1, N. Y.
 Waldom Electronics, Inc., 4625 W. 53rd St., Chicago 32, Ill.
 Waldorf Instrument Corp., Park Ave., Huntington Station, N. Y.
 Walker Co., George, 118 Amsterdam Ave., Passaic, N. J.
 Walkirt Co., 145 W. Kinzie St., Inglewood 3, Calif.
 Wall Mfg. Co. Grove City, Pa.
 Wallace & Tiernan, Inc., 25 Main St., Belleville 9, N. J.
 Wallson Associates Ltd., 963 Frelinghuysen Ave., Newark 5, N. J.
 Walnut Machine Co., 1529 S. Walnut St., South Bend 14, Ind.
 Walsco Electronics Corp., 3602 Crenshaw Blvd., Los Angeles 16, Calif.
 Walser Automatic Timer Corp., Graybar Bldg., New York 17, N. Y.
 Walsh Press & Die Co., Div. of American Gage & Machine Co., 47-09 W. Kinzie St., Chicago, Ill.
 Walter Co., Inc., S. 1400 Atlantic Ave., Brooklyn 16, N. Y.
 Walter Lee Chemical Corp., 564 Third Ave., New York 16, N. Y.
 Waltham Horological Corp., 395 Lynnway, Lynn, Mass.
 Waltham Screw Co., Waltham, Mass.
 Wang Laboratories, Inc., 37 Hurley St., Cambridge 41, Mass.
 Wappler, Inc., 27-10 Astoria Blvd., Long Island 2, N. Y.
 Ward Leonard Electric Co., 31 South St., Mt. Vernon, N. Y.
 Ward Products Corp., Div. of The Gabriel Co., 1148 Euclid Ave., Cleveland, Ohio.
 Warren Electronics, Inc., Bound Brook, N. J.
 Warren Mfg. Co., Inc., The Littleton, Mass.
 Warren Plastics Corp., Warren, Pa.
 Warren Wire Co., Pownall, Vt.
 Warrick Co., Charles F., 1964 W. Eleven Mile Rd., Berkley, Mich.
 Warsaw Coil Co., Warsaw, Ind.
 Washington Machine & Tool Works, 1001 Washington Ave., S., Minneapolis 15, Minn.
 Wasco Electric Products Corp., 126 W. Cass St., Joliet, Ill.
 Waterbury Pressed Metal Co., P-M Nut Div., 300 Chase Ave., Waterbury 14, Conn.
 Waterman Products Co., Inc., 2445-63 Emerald St., Philadelphia 25, Pa.
 Waters Conley Co., Inc., 501 First St. N. W., Rochester, Minn.
 Waters Manufacturing Inc., Boston Post Rd., Wayland, Mass.
 Watlow Electric Mfg. Co., 1376 Ferguson Ave., St. Louis 14, Mo.
 Watson Mfg. Co., Inc., 4700 Taylor St., Jamestown, N. Y.
 Waveforms, Inc., 333 Sixth Ave., New York 14, N. Y.
 Waveguide, Inc., P. O. Box 486, 14845 Oxnard St., Van Nuys, Calif.
 Waveline, Inc., Box 470, Caldwell, N. J.
 Wax Corporation of America, 21-29 Dunham Place, Brooklyn 11, N. Y.
 Wayne Engineering Corp., 26 Essex St., Hackensack, N. J.
 Weathers Industries, 66 E. Gloucester Pike, Barrington, N. J.
 Webber Mfg. Co., Inc., 2745 Madison Ave., Indianapolis 3, Ind.
 Webhart Corp., 33 W. Union St., Pasadena 1, Calif.
 Webster-Chicago Corp., 5610 Bloomingdale Ave., Chicago 39, Ill.
 Webster Electric Co., 1900 Clark St., Racine, Wis.
 Weckesser Co., 5261 Avondale Ave., Chicago 30, Ill.
 Weingarten Electronic Labs., Inc., 7556 Melrose Ave., Los Angeles 46, Calif.
 Weinschel Engineering Co., Inc., 10503 Metropolitan Ave., Kensington, Md.
 Welch Scientific Co., W. M., 1515 Sedgwick St., Chicago 10, Ill.
 Weller Electric Corp., Box 345, Easton, Pa.
 Wells Co., Gary, 149 Broadway, New York 6, N. Y.
 Wells-Gardner & Co., 2701 N. Kildare Ave., Chicago 39, Ill.
 Wells & Winegard, 3000 Scotten Blvd., Burlington, Iowa.
 Weltronic Co., 19500 W. Eight Mile Rd., Detroit 19, Mich.
 Welwyn International Inc., 3355 Edgecliff Terrace, Cleveland 11, Ohio.
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 Wenco Mfg. Co., 1133 W. Hubbard St., Chicago 22, Ill.
 West Coast Electrical Mfg. Corp., 233 W. 116th Place, Los Angeles 61, Calif.
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 West Instrument Corp., 4363 W. Montrose Ave., Chicago 41, Ill.

West Virginia Pulp & Paper Co., 230 Park Ave., New York 17, N. Y.
Westberg Mfg. Co., 144 S. Coombs St., Napa, Calif.
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Western Coil Products Co., 2989 Middlefield Rd., Palo Alto, Calif.
Western Electric-Acoustic Lab., 11789 San Vicente Blvd., Los Angeles 49, Calif.
Western Felt Works, 4029 Ogden Ave., Chicago, Ill.
Western Gear Corp., Electro Products Div., 132 W. Colorado St., Pasadena 1, Calif.
Western Gold & Platinum Works, 589 Bryant St., San Francisco, Calif.
Western Insulated Wire Co., 2425 E. 30th St., Los Angeles 58, Calif.
Western Radiation Lab., 1107 W. 24th St., Los Angeles 7, Calif.
Western Union Telegraph Co., 60 Hudson St., New York 13, N. Y.
Westinghouse Electric Corp., P. O. Box 868, Pittsburgh 30, Pa.
Westinghouse Electric Corp., Electronic Tube Div., P. O. Box 284, Elmira 1, N. Y.
Westlabs Inc., Dept. E, P. O. Box 1111, Palo Alto, Calif.
Westlake Plastics Co., 133 W. Lenni Rd., Lenni, Pa.
Westline Products Div. of Western Lithograph Co., 600 E. Second St., Los Angeles 54, Calif.
Weston Electrical Instrument Corp., A Sub. of Daystrom, Inc., 614 Frelinghuysen Ave., Newark 5, N. J.
Westrex Corp., 111 Eighth Ave., New York 11, N. Y.
Westronics, Inc., 3605 McCart St., Fort Worth, Texas.
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White Electron Devices, Inc., Roger, Fourth Ave., Haskell, N. J.
White Instrument Laboratories, 203 Riverside Drive, Austin, Texas.
White-Rodgers Electric Co., Armament Dept., 4407 Cook Ave., St. Louis 13, Mo.
Whitney Blake Co., New Haven 14, Conn.
Whitso, Inc., 9328 Byron St., Schiller Park, Ill.
Whittington Pump & Engineering Corp., 1126 Prospect St., Indianapolis 3, Ind.
Wickes Engineering & Construction Co., P. O. Box 590, Camden 1, N. J.
Wiedemann Machine Co., 4272 Wissahickon Ave., Philadelphia 32, Pa.
Wiegand Co., Edwin L., 7606 Thomas Blvd., Pittsburgh 8, Pa.
Wiegand Mfg. Co., 120 E. Hawthorne Ave., Valley Stream, N. Y.

Wilcox Electric Co., 1400 Chestnut St., Kansas City, Mo.
Wilcox Research Co., 2506 N. Ontario St., Burbank, Calif.
Wildberg Bros. Smelting & Refining Co., 742 Market St., San Francisco 2, Calif.
Willard Storage Battery Div., The Electric Storage Battery Co., 246-286 E. 131st St., Cleveland 1, Ohio.
Williams & Co., C. K., 640 N. 13th St., Easton, Pa.
Willson Camera Co., Inc., 1395 Lawrence Rd., Haverstown, Pa.
Willy Guenther K. G., 1138 Massachusetts Ave., Arlington 74, Mass.
Wilmad Glass Co., Inc., Landisville, N. J.
Wilmar Mfg. Co., Inc., 1110 Truman Rd., Kansas City 6, Mo.
Wilmington Fibre Specialty Co., New Castle, Del.
Wilrite Products, Inc., 3835 W. 150th St., Cleveland 11, Ohio.
Wilson & Co., G. C., 1915 Eighth Ave., Huntington, W. Va.
Wilson Co., H. A., The, 2655 U. S. Hwy. 22, Union, N. J.
Wilton Tool Mfg. Co., 925 Wrightwood Ave., Chicago 14, Ill.
Wincharger Corp., E. 7th & Division Sts., Sioux City, Iowa.
Winchester Electronics, Inc., Willard Rd., Norwalk, Conn.
Wind Turbine Co., E. Market St. & Penna. R. R., West Chester, Pa.
Winder Aircraft Corp., P. O. Box 2397, Lakeland, Fla.
Winkler Laboratories, 5225 N. 20th St., Phoenix, Ariz.
Winslow Co., Inc., 9 Liberty St., Newark 5, N. J.
Winston Electronics, Inc., 4312 Main St., Philadelphia 27, Pa.
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Wirt Co., 5221 Greene St., Philadelphia 44, Pa.
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Witelrad Electrical Mfg., Inc., 76 Pulaski St., Stamford, Conn.
Wolfe Co., Inc., Franklin C., 3644 Eastham Drive, Culver City, Calif.
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Worcester Pressed Aluminum Corp., 13-15 Hope Ave., Worcester 3, Mass.
Worcester Pressed Steel Co., 101 Barber Ave., Worcester 6, Mass.
Workman TV, Inc., 309 Queen Anne Road, Teaneck, N. J.
World Radio Laboratories, Inc., 3415 W. Broadway, Council Bluffs, Iowa.
Worner Electronic Devices, Rankin, Ill.
Wright Electronics, Inc., 1519 McGee St., Kansas City 7, Mo.
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Wright & Sons Co., William E., West Warren, Mass.

Wright-Zimmerman, Inc., New Brighton, Minn.
Wrought Washer Mfg. Co., 2264 S. Bay St., Milwaukee 7, Wis.
Wyco Metal Products, 6918 Beck Ave., North Hollywood, Calif.

X

Xcelite, Inc., 28 Bank St., Orchard Park, N. Y.
X-Ray Dept., General Electric Co., 4855 Electric Ave., Milwaukee 1, Wis.

Y


Yale & Towne Mfg. Co., Powdered Metal Products Div., 9335 Belmont Ave., Franklin Park, Ill.
Yardney Electric Corp., 40 Leonard St., New York 13, N. Y.
Yellow Springs Instrument Co., Inc., P. O. Box 106, Yellow Springs, Ohio.
Yonkers Industries, Inc., 28 School St., Yonkers, N. Y.
Young Brothers Co., 1831 Columbus Rd., Cleveland 13, Ohio.

Z

Z & W Machine Products Inc., Electronics Div., 30240 Lakeland Blvd., Wickliffe, Ohio.
Zacharias Co., Robert, 519 S. Oakley Blvd., Chicago, Ill.
Zagora Gears, Inc., 1327 S. Mint St., Charlotte 3, N. C.
Zell Products Corp., 276-280 Main St., P. O. Box 590, Norwalk, Conn.
Zenith Aircraft Div. of Zenith Plastics Co., P. O. Box 91, Gardena, Calif.
Zenith Electric Co., 152 W. Walton St., Chicago 10, Ill.
Zenith Optical Laboratory, 1940 Great Neck Rd., Copiague, N. Y.
Zenith Radio Corp., 6001 Dickens Ave., Chicago 39, Ill.
Zephyr Products Co., 129 E. 124th St., New York 35, N. Y.
Zero Mfg. Co., 1121 Chestnut St., Burbank 71, Calif.
Zierick Mfg. Corp., Beechwood & Rockdale Aves., New Rochelle, N. Y.
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COLOR-BAR GENERATOR — WR-61B
Generates signals for producing 10 different color-bars simultaneously; has four crystal-controlled oscillators.



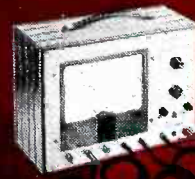
DC MICROAMMETER WV-84A
Ultra-sensitive; measures extremely "feeble" currents, unusually high resistances, completely portable; self-contained batteries.



JUNIOR VOLTOHMYST™ — WV-77B
"Best VTVM values" for general applications in industry, communications, electronics fields.



ELECTRON-TUBE MICROMHMMETER — WT-100A
Versatile tube tester with accuracy approaching that of tube-factory equipment for measuring true gm. Has many operational features especially suited for electronics equipment manufacturers, research and development, and maintenance groups... anyone desiring to test tubes under actual voltage and current conditions.



MASTER VOLTOHMYST™ — WV-87A
Current facilities; large meter (7 1/2"); excellent for TV, radar, pulse, and other lab applications.



SENIOR VOLTOHMYST™ — WV-98A
Rugged die-cast case; high accuracy; wide-vision meter (2" w.); for lab, production, general service.

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- SOUND SYSTEMS
- MILITARY ELECTRONICS
- INDUSTRIAL ELECTRONICS
- RADIOMARINE

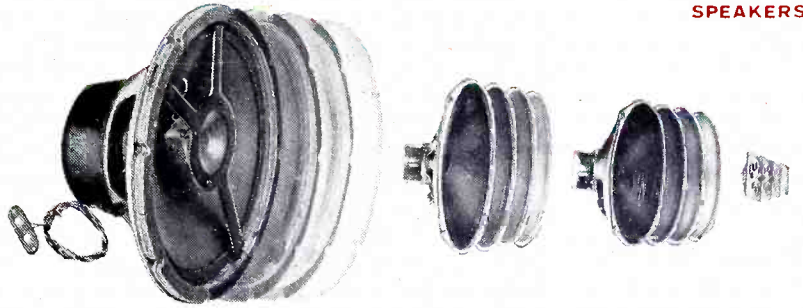
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SPEAKERS



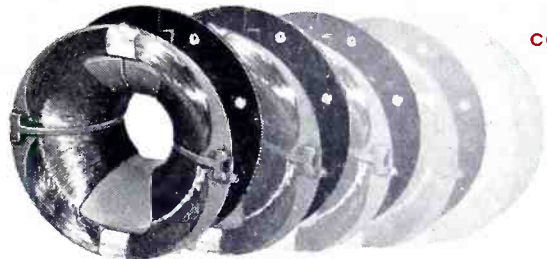
RCA produces a comprehensive line of speakers, including lightweight miniature types for transistorized portable radios; high-fidelity, theatre, and public address types; and military blast-proof types.

FERRITES



RCA designs and produces a wide variety of ferrite products including memory cores, matrices, transfluxors, magneto-strictive cores, flyback "C" frames, and deflecting yoke segments.

DEFLECTION COMPONENTS



RCA manufactures one of the most comprehensive lines of yokes and flybacks for direct-view and projection, color and black-and-white kinescopes; high, low, and intermediate inductances with ferrite cores; ppi, target designator, military-TV, and resolver-type yokes for radar applications; yokes for image orthicons, flying-spot scanners, iconoscopes, monoscopes, and vidicons; auto-type, isolated secondary, and universal-type deflection transformers.

RELAYS

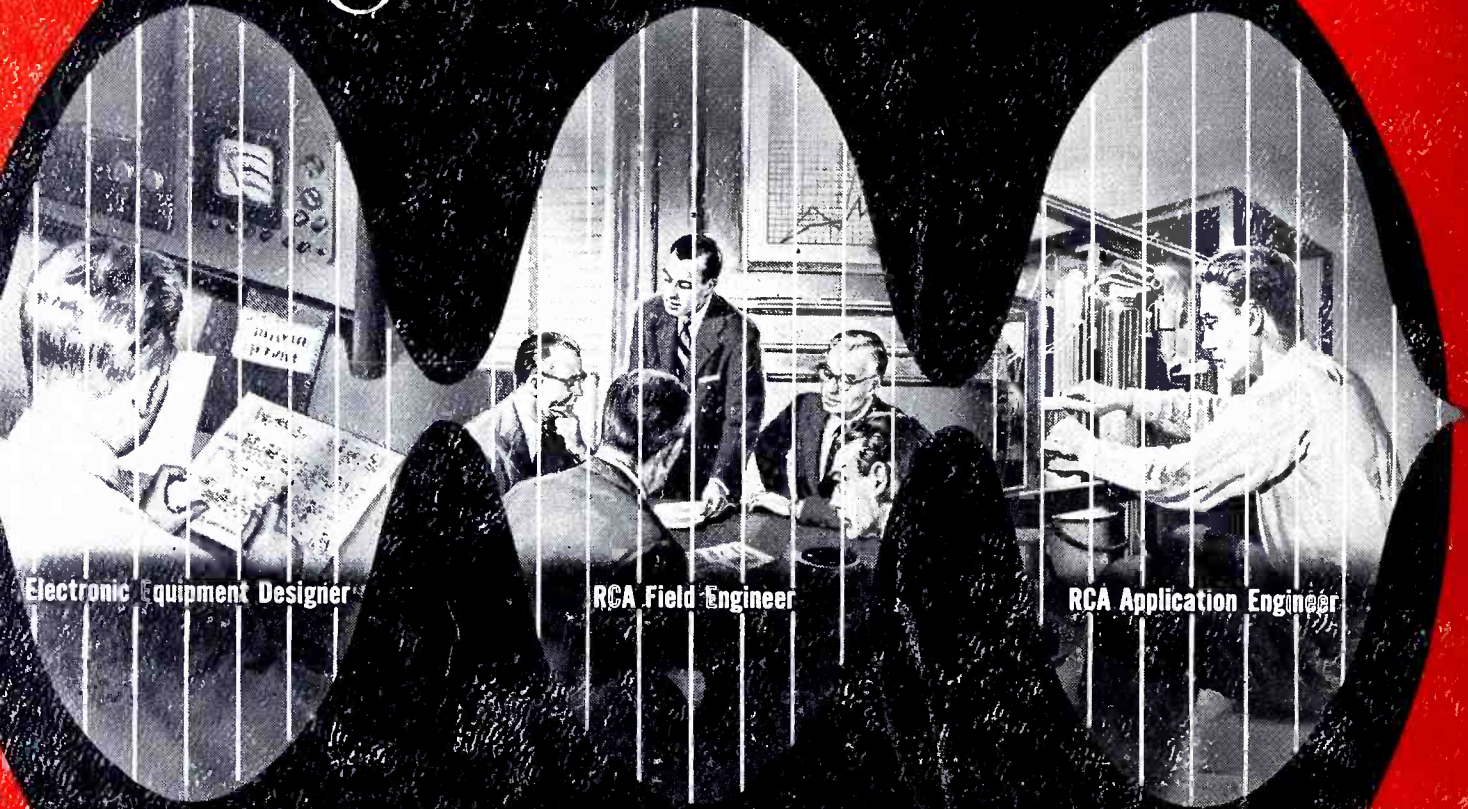


RCA applies manufacturing techniques similar to those used for electron tubes to produce relays for military and commercial applications—6pdt and 4pdt, rotary solenoid, hermetically sealed, miniaturized, high-speed types featuring welded construction; use of "getter" to absorb organic and metallic vapors for prevention of deterioration of contacts and to insure maximum insulation resistances.



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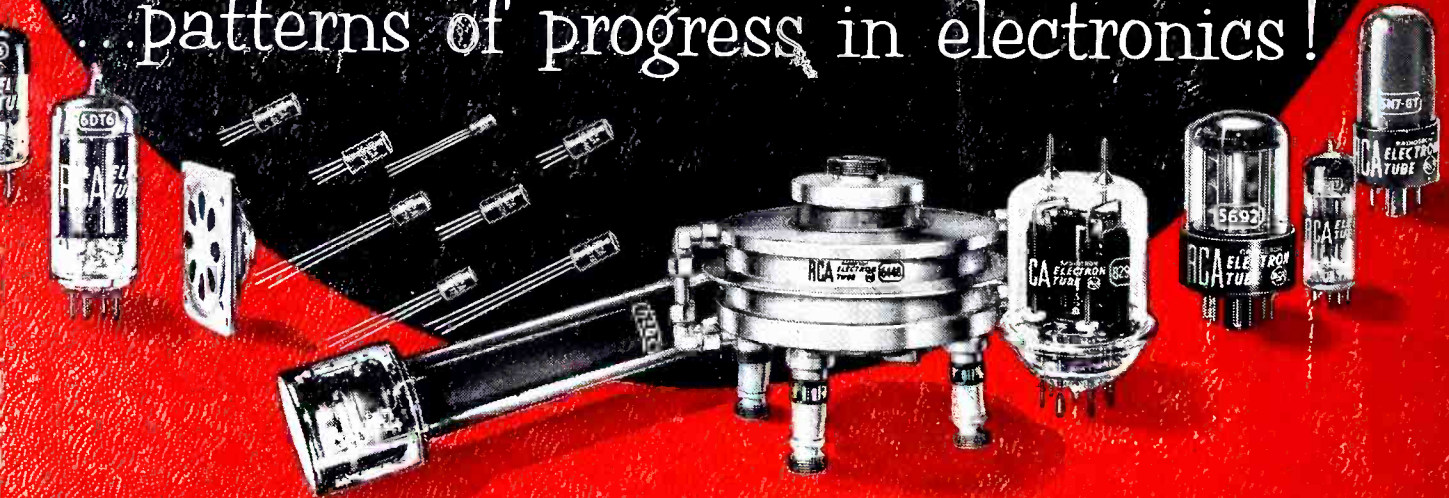


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RCA Field Engineer

RCA Application Engineer

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