## RADIO TELEVISONZ ELECTRONICS



## Gou Mre Days Closer to b-a in the Heart of Cmerica

## BURSTETNAAPPLEEEE

 ompamy 1012-1.4 McGEE ST., KANSAS CITTY 6, MO

16 INCH MOIDEIL 519
I15 SULARE INCH PICTURE Big Picture Television without Big Picture Pric more sensitivity in tringe signal oreas The new funing.
The new Skyrider 519 provides more of everything desired in television yet at Lower Price
Big 145 sq. in. picture with rounded sides and flat top and bottom utilizes full width of the picture tube. Completely normal proportion is maintained between width and height so that the picture appears in its natural form-without distortion
Large 8-inch PM Speaker for rich tone Large 8-inch PM Speaker for rich tone
New simplified tuning-- only 4 knobs instead of The usual 7 extro power automatically takes over functions of the eliminated controls as for
exomple, improved circuits pull the picture into synchronization without even minor adiustment of any manual control. The Brightness and Cantrast Controls ore combined by increased video amplification to give greater picture detail of lower
brighiness levels brighiness levels
Other teatures include improved AF control on the sweep circuit for more stable synchranization; there is horizontal drive to permit use of higher detinition. Audio output has been boosted to more fovoring of the video signal at point where the audio is taken off. Improved automatic wein control maintains constant brightness and controst when switching from one channel to another ond to reduce such iypes of interference os "Oirplane Hlutter "
CONTROLS: IFront| Picture control regulates brightness and contrast On/Oft swith. Vegulates 12-channel Station Selector. Non-operating cantrols on rear are Focus. Brightness. Horizontal Synchronizofion, Vertical Synchronizotion. Height Verfical Linearity. Horizontal Drive, Width, and Horizontal Linearity.
PHYSICAL DATA: Smartly designed Mahogony Veneer cabinet in simple modern sivle selected striped grain veneers are rubbed to a smooth lustre. tool design. Size 20 in . wide, 231 , in high, by $211 / 2$ in. deep. Shipg. wh. approximately 80 lbs CONNECTIONS: Flat $300-\mathrm{hm}$ twin-wire lead for connection of ony standard television antenno, inin your area. Power cord. For 105-125 volts. 60 17 TUBES PLUS PICTURE TUBE AND 2 RECTIFIERS: 616 RF Amp, 616 Osc. 616 Mixer, three 6AUG IF Amps, $12 A \cup 7$ 2nd Det. and 1 st Video Amp., $12 A \cup 7$ 2nd Video Amp. and Ist Snyc. Sep12SN7 Vertical Osc. Separator and Sync. Amp.; Horizontal Osc. and Horizontal Audio Frea. Control 6BQ6 Horizontal Output, OW4 Domper, 6AU6 Sound Limiter. 6AL5 Sound Discriminator, 6AV6 Ist AF Amp. GAQS Output, I6AP4 Picture Tube, P 2 high voltage Rect.. and $5 Y 3$ low voltoge Rect. For $105-125$ volts 60 cycle AC

## B-A Stock No. 39A21.

Complete os obove NET EACH
$\$ 289.50$
MOIDE'L 520- $16^{\prime \prime}$ CHASSIS
FOR CUSTOM INSTALI.ATION
Provides big-picture television from installations to exactly suit individual requirements.
It's the identical chassis with every feoture as described in Modet 519 complete set obove needs only cobinet or mounting place in wall or bunt-ins. 8 PM speaker supplied with wood boll $171 / 2$ ming
Size overoll $171 / 2 \mathrm{in}$. wide, 21 in . high by 22 in . deep. Complete instructions and folder of sugFor $105-125$ volt 60 cycle AC.
No. 39A18. Shpg. wit 65 lbs. Net Eo. $\$ \mathbf{2 4 9 . 5 0}$ Complete front pamel as
skyrirler TELEVISION
mode by o world fomous monufocturer whose nome you'd recognize immediotely if we were permitted to tell you.
It's o nome you con depend on --- toke it from us - for smort precision engineering ond dependable performance . for the "know how" thot hos for over 15 yeors mode it o leoder in short wove ond television equipment.


Modrl $521-121 / 2 "$ (HASSIS arith 92 SUU ARE INC:H PIC:TURH: for CUSTOM INSTALILATIONE Complete TV Chassis - needs only cabinet mounting place in wall or built-ins - installs easily
"just it" for the huge demand for television installations "customized" to specitic space or requirements
Has every feoture of the Model ; 20 chassis of left and is Model 519 except the picture tube "12LP4
is 1212 instead of 16 " Size overall 14 in wide is in high, by 1912 in . deep Size overall 14 in . wicie. plied with wood bottle for separate mounting Complete instructions and tolder of suggested 60 cycle AC
No. 39 Al7. 5 hipg. $w t .60 \mathrm{bs}$. NETEACH Complete tront panel, ovailable separotely


FRONT PANEL FOR MODELS 524. 520 OR 521 CHASSIS

Complete frant ponel ossembly including sofety glass mounted in wood trame of unfinished ook pok vencer"। or stained either Mohorany or Wed ook vencer 1 or stained either Mohogany or WalFrame has holes for tuning knobs and covers chassis just like front panel of a regular set-makes it simple for built-ins either wall or
cabinets.
No. 36 A105 NET EACH $1 / 4 \mathrm{H}, \times 1 \ldots$ Wt. 7 lbs
For Model 520-20. W
$\$ 10.95$
No. 36 A106, NET EACH $\$ 19.50$
No. $36 A 107$, NET EACM
CABINETS
For 524 chassis, some as 513
For 521 , some as 518


121/2 INEH MODEL 5/8
IN GLEAMING PLASTIC. CABINET 92 SU. INCH PICTURE

AN OUTSTANDING TV VALUE: A 1212 inch tube with a $10 D$ performing chassis in a beautiful siurdy plastic cabinet $\qquad$ priced comporable to irat of many 10 inch se
Has every feature of the Modet 519 described of left except the picture tube $112 \mathrm{LP4} 4$ is 1212 ,
insicod of 16 Sleek plastic cobinet has smart eye cotching beauty Size 16 in wide. $171^{2}$ in.
high by $19 \mathrm{i}_{4}$ in decp Shpg wt approx. $90^{2}$ ibs.

For $105-125$ volis, 60 cycle AC
No. 39A19. Net Eoch Complete
\$214.50

$10^{\prime \prime}$ PLASTIC CABINET

## MODEL. 513

## EXCEPTIONAI. VALUE:! LOW PRICE!

61 square inch picture area with rounded sides and Smart, eye cotching dark brown plastic cabinet. Convenient rotary tuner provides instant station selection on any of the 12 pretuned channels.

Chassis features: 19 tubes. plus Picture Tube and 3 Rectifiers-6AG5 RF Amp.0 6C4 Osc., 6AG5 Mixer, four GAU6 IF Amps., GAL5 Video Det. VAU6 Video Amp., 6AQS Video Amp., 6SN7GT 6BG6G Horizontal Amp 6AL5 Sync Disc Osc. Sync. Seporator and phase Inve iobpi Picture Tube, 6AU6 45 Mc Amp 6 Al 5 ' FM Det Picture AF Amp GKGGT OUTDU, 5 VAG Ret, Dep ., OAU IB3GT Hugh Voltage Rectifier 5U4G Low Voltage

CONNECTIONS: FIat 300 -ohm fwin-wire lead for using any stondard television antenna, indoor or outdoor as determined by the signal strength in your area. Power cord. For 105-125 volts, 60 cycle AC.
Modernly designed plastic cobinet with light green rim. Size 16 in . wide, $17 / 2 \mathrm{in}$. high, by 197/8 in deep. Shipping weight approximately' 98 lbs
No. 39A15
\$174.50
$10^{\prime \prime}$ CHASSIS MODEL 524
FOR CUSTOM INSTALLATION

It's the identical chassis with every feoture as described in Model 513 above... needs only cobinet or mounting ploce in wal
$\$ 159.50$

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## The Cuto RadioBuy of ALL TIME!

$\mathbf{\$ 8 4} \mathbf{4 5 5}$


## PHILCO MODEL CR-9 for FORD and MERCURY CARS

 Also Easy to Install in Other Make Cars and TrucksBEAUTIFULLY STYLED_POWERFUL

$$
\text { - DroLurr } \text { Iralurrs- }^{\text {and }}
$$

- Continuously Variable Tone Control-Bass Compensation-Automatic Volume Conirol. - Six Push Buttons, for Automatic Tuning of five stations and Manual Tuning.
- Powerful Superher with five super-efficient Minialure Tubes, plus rectifier
- Philco Tuning Syslem makes slation indexing accurate, positive.
- Three-Gang Permeability Tuner on Manual Tuning
- Stabilized, Permeability I.F. Transformers
- New Buill in Interference Filtering.
- Selting of Push Buttons is easily adjusted by merely furning the adjustment screws located under the push-button caps.
- Permeability funed Oscillator and Antenna Circuits used on five Push-Button positions.


## SEPARATE SPEAKER


$6 \times 9^{\prime \prime}$ Oval Dynamic Speaker, conceals be hind instrument panel grille of car, gives wonderful clarity and richness of tone.

Compact chassis is enclosed in protective metal case with shock-cushioned mounting. Control head is an integral part of set.

Custom Fits instrument panels of 1942, 1946, 1947, 1948 Ford and Mercury Cars: Fits 1949 Ford Models by cutting out slight additional portion of instrument panel (template and complete instructions included with set).
Adapis itself for simple under dash mounting in Many Make Trucks. (Speaker can be mounted in simple baffle.) Also can be adapted for in or under dash mounting of many makes passenger cars.

Can be installed in instrument panels of Any Make Car that can provide in its instrument panel an opening size overall $81 / 2^{\prime \prime}$ long $\times 25 / 32^{\prime \prime}$ high. Overall depth required behind panel $712^{\prime \prime}$.


## Owner Push-Button Adjustment

 Setting of push-buttons is easily adjusted by owner or service man by merely furning the adjustment screws located under push-hutton caps.

"TOP" VALIE CONSOLETTE HITH I2 $1 / 2$ INCH TUBE A popular lorge screen model with powertul 22
tutse circuit lincludes 2 rectitiers ond domper tube' in a beautifully designed modern hand rubbed cobinet in mahogany veneer
Features: All chonnel coverage, Extra-high brilliance. High Pidelify speaker, Bolanced 300 ohm input, Improved stgnol to noise rotio. Tuned RF stage on all channels. Stabilizedering. Six simple holds picture steody without lickering. Six simple
tuming controls. Full FM Audio circuit. Fixed Focus odjustment
Oversize tronsformer plus many other electronic refinements make this quality consolette o "top" value Backed by a maker known for quality products since 1922
Size $38^{1} 2^{\prime \prime} \times 20^{1} \mathrm{H}^{\prime \prime} \times 20^{3}{ }^{\prime \prime}$ deep. For 105-125 volts 60 gycle AC
No. $40 A 77$
$\$ 264.50$


ROTATING TOP TABIE:
The Ro-Tele-Toble has full rototing fod floofing on a ball beoring unit. Ball bearings run in o capturning through 360 degrees so that television set will face oudience wherever they sit
Shipped knocked-down but easily assembled without tools. Size $24 \times 21 \times 27^{\prime \prime}$ high. Shpg. wf. 26 No. 40A80
$\$ 13.50$


POHEERFLI. CIRCUIT 16-IVCH TLIBE CONSOILE The product of a maker with proven ability in the production of television receivers of outstanding auality.
Here you get 145 square inches of brilliant television together with superb sound reoroduction. The licensed RCA 630-Type chassis with 27 tubes Dlus 3 rectitiers and $16^{\circ "}$ picture tube is well
known tor its superiority, particularly so in iringe areas.
Features all channel coverage, Extra high brilliance, High-fidelity speoker, Balanced 300 ohm indut. Improved signal-to-noise ratio, Tuned RF Stoge on all channels, Simplitied Audio-Video adiustment controls. Sateiy righ-voltage supply, Full FM Audio circuit Fixed Focus adiustment, all colls permeability tuned, Illuminated tuning chonnel indicator New stablized syncronous Lock-in cir cuit holds picture steady without tlickering
The attractive console cobinet of Mohagony veneer is designed to take a minimum of floor space. dimensions $41 \times 25^{\prime} \times 23^{4}$ " deep

For $105-125$ volt 60 cyc
No. 40A78, Lis? $\$ 479.95$.
$\$ 379.40$
NET EACH
$\$ 379.40$


Skyrider Model 514
7-In Portable Television Set The ideal all purpose television receiver. Corries casily from place to place, operotes trom its own
ontenna-no connecpions required except plugging in power cord. Antenno is odiustable for length and direction for maximum picture brightness.
The chossis is from the popular, proven Skyrider 7 -inch models redesigned and improved for increased brightness and clarity ond odapted to portoble requirements. 18 Tubes plus Picture Tube and 4 Rectifiers. 23 sa . in. rectangular picture on face of the 7 -inch fube. The well known pushbutton funing provides instont station selection on ony of the 12 funing chonnels.
Sturdy wood cobinet covered with ton leotherette. Cover with carrying handle hinges and snaps to tuning side. Matched antenna extends from top of cobinet. Size overall 20 in . wide, $101 / 2 \mathrm{in}$. high by $183 / 4 \mathrm{in}$. deep. Shpg. wi. approx. 53 lbs . For $105-125$ volt 60 cycle $A C$ onlv
No. 39A20. EACH
$\$ 119.50$


REMINGTON COVTOLR SIX Improved Blue Streak twin shoving heods on a Contour . . 240 cutting blodes Diomond-Honed to o keen edge . . . All whisker openings always in contoct with beord. Precision teotures no othe ument can ofter Model 648 . Retails for $\$ 23.50$
$\$ 16.45$ No. 208644. Net Eoch See page 122 for other Remington Models also
Electric Mixers, Toosters and other appliances
$\frac{\text { Electric Mixers, Toosters and other a }}{\text { Casro } T()())^{9} N^{9} R . \|}$
102
\|wooo
METAL
GIBRE
PLASTICS
LEATHER
IT DRILLS!
It saws:
it carves!
it SANDS!
IT SMARPENSI
it POLISHES!
IT ETCHES!
IT GRINDS

## T EUFFS!

 IT CUTSI
Tool'N'Rak takes the clutter oft a work bench hangs up out of the way with other essential poois. Consists of solid hardware rack $73 / 4 \times 12^{\prime \prime}$ Cosco 110 volf $A C-D C$ power fool and 38 occes No. 3 3844. List Price $\$ 17.95$
Dealers Price Each
$\$ 11.67$
3 Lots
$\$ 10.77$
See pages 81 to 91 for more Casco ond other $\frac{\text { popular tools. }}{T M E S E: 3(1 N L Y ~} \$ 3.99$


TELEVISION TURNTABLE


Designed for use on ony table or shelf io accom madate from the smallest to the largest TV table set. Rotaies noiselessly on 6 boll bearings with oriy slight rouch. Non-skid rubbersilation for sel Sturdily buil of metal, nicely tinished $\$ \mathbf{5 0}$
No. $\mathbf{3 7 A} 119$. Shpg. Wt. 8 lbs. Net Each $\$ \mathbf{5}$

# TELEVISION SIGNAL BOOSTERS 



FOR IMPROVED PICTURES IN POOR SIGNAL AREAS

## REGENCY MODEL DB-213

The booster bargain of the year! Actually two boosters in one giving peok performance on all channeers. Hos proper design to receive the full Dicstation without distortion.

Uses a separote dual $6 J 6$ triode tube in an iron core tuned, push-pull RF amplifier circulf for both the "low" channels and the "high" channels, giving high stability ond high goin With the best signol-to-nalse rotio, Single contral tuning allows "peaking" of each channel. Internal impedance modotes either 300 ohm twin lead or 73 ohm coox line. With the booster turned "ooff", the antenno leod is connected straight through to the TV set. In a beautiful grey hammertone finished metal cobinet with non-serotching rubber feet. Wize ${ }^{4}$ lbs. Operartes on $1100 \mathrm{~V} .60 \mathrm{cycle} A C$. Complete with | simple instructions. |
| :--- |
| No. $37 A 110, ~ N e t ~ E a c h ~$ | $\mathbf{1 7 . 6 1}$

## JERROLD MODEL TV-FM

## For improving reception of both telefor improving recepion of both tele- vision and FM broodcasts. Widely ac-

 loimed for long distonce reception increases signal strength 20 to 30 increoses signal strength 20 to 30 out distartion.Comes with the new "Match-A-Tran" variable impedance motching transformer assuring that all the gain of the booster is delivered to the TV receiver. Uses a 6AK5 tube in a funed grid, tuned plate RF amplifier circuit with proper grid and plote inductances switched into the circult for each channel, achieving top performance in both the, "low" ond the "high" bonds. Can be "peaked" for eoch channel by means of a thumb operoted vernier dial. Either 300 ohm twin lead or coax line may be used. When the booster is oft the ontenno is switched to

The cobinet is wolnut molded plastic size $71 / 4^{\prime \prime}$ wide, $61 / 7^{\prime \prime}$ deep. $41 / 2^{\prime \prime}$ high. Wh. 4 lbs. For 110 V. 60 cycle
No. 33814
No. 33814
Net Each
\$22.05

## ANCHOR MODEL ARC-101-50 MASCO MODEL MTB-13X

Operotes with any television receiver to give cleorer, brighter, sharper pictures anywhere. Recommended by a leading research organization and accepted by users as one of the best boosters available.
Corefully engineered for uniform high gain in signal strength and full video and audio band width across oll chanRF omplifier with simultaneous 6AK5 of grid and with simultaneous tuning of grid and plate for "peaking" each station. Wil amplify weak TV signals without generating noise or interference ond helps prevent snow" patcars, etc. Also prevents inter-channet interterence of other TV. FM, broad cast or amateur stotions. A system of impedance matching tronsfers full output of booster to TV set.
The cobinet is steel, handsomely finished in brown-tone leatherette. Size $83 / \mathbf{g}^{\prime \prime}$ wide, $5^{\prime \prime}$ deep, $4^{\prime \prime}$ high. Wt. 6 lbs. Operotes on 110 V .60 cycle AC.
With fult instructions. \$22.05
No. 33 B16, Net Eoch

Equally effective on "low" and "high" bands due to an exclusive gain and sensitivity" "peaking" control for chonnels 7 to 13. Operates with any television receiver and eliminates need for outdoor antennas in mony locations.
Features: Extremely stable, wide-band RF amplifier circuit using 2-6AK5 tubes; Variable funing for maximum signo on each channel; additianal 13. reduces TV int for channels to 13; reduces TV inter-channel interference os well as FM, short wove and on" and chonnel selector switch cuts boaster out of circuit for regular reception: pilot light shows when booster is operating; has self-contained power supply using a selenium rectifier Furnisted Furnished in attractive walnut cobinet. Size $51 / 2^{\prime \prime}$ wide, $5^{\prime \prime}$ deep, $51 / 2^{\prime \prime}$ high. V. AC. Instolls seasily 60 simple instructions included.
\$20.58


ELECTRO-TECH TELEVISION KITS
TOD notch receiver kits with instructions so clear ond simper that the most inexperienced beginner with instructions so elear ond simpie that the most TV engineers around high quality port's ond backed by the monufocturer's guarontee of performonce. Kits include new pre-ossembled and odjusted 13choonnel turner, pre-tuned IF colls, new high valtoge tronsformer, chassis and absolutely all parts and hordware. Sound is high fidelity FM. For 110 -volt, 60 cycle AC operation.

MODEL 7B 7-INCH TELEKIT Employs 18 tubes including 7JP4 piclure tube. Circuit uses wide band IF
line-up with $6 A G 5$ tubes ond RF high voltoge supply with 2 nd onode potentiol of 5500 volts. Also provides a bright, clear, 52 square inch picture on $10 \mathrm{HP} 4{ }^{\prime \prime \prime}$ tube with no changes whotever. Instruction Manual included.
No. 34A163. 7"' Telekit. Less Tubes ond Cobinet. Shpg. Wt. \$59.50 No. 34A164. Kit of 18 Tubes, includNET EACH. Wr. 10 lbs . $\$ 40.08$ No. $34 A 165$. Walnut Cabinet for 7"
Kit Above. Wt. 11 lbs. $\$ \mathbf{2 4 . 5 0}$

MODEL $10 B$ 10-INCH TELEKIT Similar to above with additional cir cunt refinements including AFC Hori back hold Circult, Horizontal Fly rram, 10.000 -volt Power Supply. Elec19 tubes ancling and facusing. Uses picture tube. Simple, eosy to follow insiruction manual included.
No. 31A234. $10^{\prime \prime}$ Telekit. Less Tubes NET $\$ 82.99$
No 31 A235. Kit of 19 Tubes includ No. 108235 . Kit of 19 Tubes, includNET EACH Kit Above. Wh. 16 ibs. $\$ 24.50$

DESIGNED FOR 16-INCH PICTURE TUBE (145 SQ. INCHES)


PRE-ALIGNED 16-INCH TV KIT WITH SIMPLE STEP-BY-STEP INSTRUCTIONS
Turner, video and sound channels are completely wired and pre-oligned. All components are maunted to chassis When campleted, results will be equa to the best custom-bunt television reelver ovo most. The circuil employed is of the most modern and efficient desig 830TS which are acclaimed os the finest long range sets ovailable todoy All mojor range sens avoilable today 12 -channel front end tuner are gen 2-channel front end tuner are genu ine
The KP-300 kit contains the chassis with all components mounted; 30 RCA tubes including rectifiers, 14,000 volt power supply mounting brackets, plasinch picture tube; $5^{\prime \prime} \times 7^{\prime \prime}$ oval PM speaker with 3.2 ohm voice coil; al hordware and wire; plus simplified step-by-step instructions. Less picture tube.
No. 39423, Your Cost... \$179.95

CUSTOM-BUILT 16-INCH TV CHASSIS FOR LONGDISTANCE RECEPTION Brilliantly lighted, big-piciure ielevision and high fidelity FM soundstollotion to exactly suit your reauire stallation to exactly suit your require ments-at a big soving in cost
Wired complete, aligned and tested, and ready to aperate except for the 16-inch picture iube. Uses the same high grade components as the KP-30D cut with oll its he some ramous circurl with alis outstanding feotures, stabilized Are horizontol hold ond pictures. full 4 hold for steady pictures, fult 4 me. band widin for zard high voltage supply to operote zope 16Ap4 picture tube op operote type 16 AP4 picture tube of full bril liancy
Chossis size $191 / 2^{\prime \prime}$ wide, $163 / /^{\prime \prime}$ deep. Overall height with $16^{\prime \prime}$ tube $20^{\prime \prime}$. Wt 64 lbs. Operates on 115 V .60 cy . AC. With speaker and all tubes except
16 AP4 picture tube Madel CP-30D No 39422 Model CP-30D No. 39A22,
$\$ 194.50$



MODEL P-52HF-SD
DE LUXE MAHOGANY CABINET MOOEL P-52HF-SD 2-WAY SYSTEM Illus. lett abovel A complete, ready to use high fidelity music reproduction system, housed in a Mahogany cobinet of experior design to "fit" in ony surroundings in Home, Club, funeral Parlar. Dance Schoal, Hotel Launge, suffice! Specifications: Designed ta handle up ta 20 -watts of audia power input with frequency response of $\pm 5 \mathrm{db}$ from 40 to $14,000 \mathrm{cps}$. Companents input with frequency response of $\pm 5 \mathrm{Db}$ from 40 to $14,000 \mathrm{cps}$. Companents:
magnet; $1-\mathrm{P}-15$ High Frequency Driver Unit "Tweeter") caupled ta an 8. celi cellular high frequency harn $12 \times 4$ canfiguratiani, praviding $40^{\circ} \times 80^{\circ}$ dispersion. "Waoter" and "Tweeter" speakers inter-cannected by the required Type $800 x$ low-loss electrical crossaver dividing netwark-all components properly connected with 2 -leads brought out to bock of cabinet, ready to cannect to any 16 -ohm oudio power saurce. Cobinet is acoustically treated on interiar to bring resonant paint ta 37 cycles. Size is $283 / 4^{\circ 1} \mathrm{w}$., $361 / 2^{" 1} \mathrm{~h}$., on interiar ta bring resanant paint ta 37 cycles. Size is $283 / 4 \mathrm{w}_{\text {.e }} 361 / 2 \mathrm{~h}$.,
19." d.; wt. 140 lbs CHOICE, EACH No. 40A29/P52HF, Dark Mahogony 2-Woy Speaker System $\$ 258.72$ MODEL 411 COMPLETE 2-WAY SPEAKER SYSTEM, UTILITY CABINET lllus. right abovel Designed for custom installations where results must cobinet is finished in beautiful Silver Hammertane with wine calar flacked grille; provides deluxe appearance, unusually wide trequency range and low intermadulated distortion. Hos some components as listed above for Moder P52HF-SD. High frequeniy aftenuotar on back of cobinet far bolonce of room



MODEL 409 COMPLETE 2-WAY SPEAKER SYSTEMS
Spectlications of component parts of Model 409 2-woy speaker systems:"A" Illus. center obovel $15-1 n c h, 20-$ Watt "Waofer" Speaker, powerful generator of deep fundamental bass tones. Hos 4-1b. Alnico-V magnet, 2inch, 16 -ohm voice call and 125 sq . in. effective area af the curvilinear, seamless and moisture resistont cane, pramating an ideal pistan-like action of the diaphram. Flux density of 14,000 lines per sq. inch. Frequency range


"B" illlus. top center obavel $1 \times 4$ configurotion cellulor horn; for use with P-15 driver unit-pravides wide dispersian af high frequency portian af vaice
 "'C" |lllus. lawer center above) Type P-15 "Tweeter" PM Driver Unit; has requency range of 500-15,000 cps; designed for up to 20-worts of audio
 cellular harn. and type P-52XL "Wooter" speaker listed abave, ar any gaad PM type speaker with 16-ahm voice call.
No. 32B204; Model P-15 "Tweeter" Driver Unit only, Net
 good "waofer" law frequency speaker. Wi. 4 Ibs.

## "ECONOMY" COMPLETE 2-WAY SPEAKER SYSTEMS

TLeft abovel, Model 409-8 Assembly, 1 -each of ALL the camponents as $27^{\prime \prime} \mathrm{h} . \times 141 / 2^{\prime \prime} \mathrm{d}$. Tweeter and Waafer speakers are cannected ta Crassover ready to cannect to ony 16 -orm output. An ideal 2 -way speaker system for custom mounting in cobinet or wall. Wi. 40 lbs.
No. $40 B 5$ : Model $409-B$ 2-WAY SPEAKER SYSTEM. Net $\$ 117.60$
 Consists of 409-B components listed abave, completely installed in a beauti-
ful high-fidelity, ocoustically carrect cobinet! A complete wide-ronge, high fidelity speaker system assuring the finest of musical reproduction from AM-FM Rodio, Television Sound, or Records. Cabinet is of chaice Mahagony veneer ${ }^{3}$." woad, fully enclased and with interiar "sound canditioned" by proper use of ocaustic materials. Resonont frequency of cabinet is 42 cps ;
release part prevents objectionable "baom." Diamand desion, heavy brass release port prevents objectionable "boom." Diamand design, heavy brass plated metal welded grille backed by special ald gald grill clath. Size is
$24^{\prime \prime}$ w. $32^{\prime \prime} \mathrm{h}, 17^{\prime \prime} \mathrm{d}^{\prime} 6^{\mathrm{cu} . ~ f t . ~ c a n t e n t . ~ O n l y ~ t w a ~ s i m p l e ~ c a n n e c t i o n s ~ t o ~}$ Noke $40 B 6$; MAHAGONY 2-Woy Speaker System, Choice No. 40B7; Bleoched BLONDE 2-Woy Speoker System, Each
$\$ 194.04$

## 'TRU-SONIC' DE LUXE SPEAKER CABINETS ONLY

The identical cobinet as described in detall obove in chaice af highly palished Dork Mahagany ar Bleached Blande finishes. Supplied camplete with baffle cut for ony standord 15 -Inch Speaker. Release part in bat fle eliminates 102FR Co-spiral and Model 106AX 2-Wey Speat passible cabinet for Model scribed at left of this page. Wt. 60 lbs. No. 40A17; Dork Mahogony Cabinet only Choice. $\$ 76.44$

## MASCO 12-WATT HI-FIDELITY PHONO AMPLIFIER

## MASCO MODEL MA-12HF-"'tops" in Hi-Fidelity

 omplifiers; far use with any of the speakers or systems on this page-or ony good wide-rangespeaker. The perfect amplifier for home use with speaker. The perfect amplifier for home use with
Radia or Recard Changer-especially odapted far use by Recording Studios and Radio Stations far recarding and bridging applicafions-a fine distribulion amplifier for wired music use! Feofures: Compensated inputs for ALL types of phono pickups-"GE" " "Pickering", or crystal-rodio Tuner Input. i2- Watts output ot less than $5 \%$ distortion 19 -wotts at less thon 20 ,') Frequency respanse is $\pm 2 \mathrm{db} 50$ to 15.000 cps ; tane cantrals of Allec, ar mast ony other good speaker! Hum level is 65 db belaw 12 -watts Altec, ar mast ony other good speaker! Hum level is 65 db belaw 12 -watts
output level. Input sensitivity ond gain, GE, Pickering or other magnetic reluctance pickups, 008 volts (90db): high level crystal pickup, 1.5 valts valts (75dbl. Seporate Boss and Treble Cantrals provide: $H$, $F$, boost 4 , io 16 db ond 16 db ottenuotion of $15,000 \mathrm{cps}$; Boss boost to 14 db of 50 cps . bass and treble cantrols hove little etfect of middle register. Tubes: $1-6 S C 7$, at 117 valts, for use on $105-125$ valt, 60 cy ; AC. Steel cabinet is $12^{\prime \prime} \times 8^{\prime \prime} \times$ . Stock No. "MASCO" MODEL MA-12HF Net
Ea.
\$55.86
30C13 Mi-Fidelity Phono-Rodio Amplifier


Additional listings of Phono Amplifiers ore on Page 11 of this catalog.
For Record Changers, F.M. Tuners, Radio Chossis, see Poges 8 , 142 .


FEATURES: 3 SPEED MOTOR- 78 RPM, $33^{1}:$ RPM, 45 RPM

- FOOLPROOF-JAMPROOF CHANGER
- SIMPLE TO OPERATE
- SINGLE TONE ARM-PLAYS ALL THE RECORDS - ATTRACTIVE—FITS IN ANYWHERE

HERE'S TONE QUALITY comparable only to that of large consale Radios and at a Price One Can Aftord. In the living room ineir In the rumpus record entertainment complete the or winter home to use. Automatic changer, 3 lube amplifier (Including Rectifier), ond " " $\times 6^{\prime \prime}$ Speoker ore combined in one unit.
CHANGER PLAYS conventional 78 RPM $10^{\prime \prime}$ and $12^{\circ \prime}$ records and Columbio $331 / 3$ RPM LP $10^{\prime \prime}$ and $12^{\prime \prime}$ records automatically; $7^{\prime \prime}$ Columbia $331 / 3$ RCA 45 RPM Records

SINGLE TONE ARM with dual-needle reversible Cartridge has finger-tip controlled lever for cosy converting to elther type record. Speed-selector switch
with 4 positions-78 RPM, 331 3 RPM, 45 RPM, ond "OFF"-adjusts motor to carrect speed. Has both tone and volume controls.

PORTABLE MODEL 8025
It's Light-weight-Carry it Anywhere-In Auto, Bus, Train or Plane. In at as performance. Weight-only 23 lbs. Overoll'size $9 \times 15 \times 2.0$ operates on 110 volt 60 cycle AC or DC. List Price $\$ 69.95$.
No. 308 125
COMPLETE, YOUR COST EACH
$\$ 46.66$
TABLE MODEL 8022
Attroctively Siyled throughout. It's a notural for any home. It's sturdy, compoct, and easy to move around. Perfect also for commercial sound installation Nuch as dance schools, clubs, sch
No. 30853 . YOUR COST EACH
$\$ 39.99$


- Continuous Full Hour of Recording or Playbock
- Simple to Operote - Completely Foolproot
- Self-contoined AM Radio
- Con be used os PA System

A completely foolproof and dependable magnetic tape recorder with a builtIn AM radio. Records from microphone, self-contaned rodio or phono. Has addifional facilities for use as a PA system. An ideal unit for home, school, church - anyplace desiring a good tape recorder combination
Simple to Operate. Slow tape speed 13.75 inches per second) provides a continuous full hour of recording and playback on a reel roled $1 / 2$ hour when used on other recorders. Tape can be used over and over agoin - Unit eroses previous recordings as it records - Sotety feature prevents occidental erasure when in rewind. "Fast forward speed" control permits skipping of unwanted portions of recording during ploybock or editing. Rewind lime for full hour reel-212 minutes.
Quality Performance - Records in one direction on a single track. Frequency Response: $+3 \mathrm{db} .100-6000 \mathrm{cps}$. Heavy flywheel on copston drive prevents tlutter and wow. Heavy duty motor has "Oilite bearings." Modernly Designed Super controls. output lacks for use of external speaker speaker. Vo
Completely assembled in an affractive two-piece brown simulated alligator covered carrying case. Has storage spoce for microphone and tape reels. No. $32 A 55$
Nodel R3. WET EACH No. 32 A55 Model R3. NET EACH

## Mosco Model 375 TAPE RECORDER

Has oll the features and specs. of Model R3 described above except less the rodio. Amplifier consists of 4 tubes plus rectifier. Furnished complete with tubes, mike with cable and plug and built-in speaker as in R3. List Price $\$ 189.50$.
No. 31 B227 Model 375. NET EACH
$\$ 123.80$


## 3-SPEED TABLE MODEL

Plays 331/3-45-78 RPM Records A sleek beouty in its wolnut molded plostic cobinet. Ploys the new 45 stondard 78 RPM records with its awn built-in amplifier and speaker. Pickup arm is equipped with dual needlesone for the stondard-groove -. the other for the micra-graave records. A flip of the finger choonges fram one to the other. 3 -position lever selects proper speed. It's as simple as that. Bokelite spucer is supplied for the large hale in the 45 RPM recards. Size $11^{\prime \prime}$ wide, $4^{\prime \prime}$ high ond $15^{\prime \prime}$ deep. Operates on 110 V. 60 cycle AC. NO. 34 A187
$\$ 17.95$
SINGLE SPEED TABLE MODEL Plays Stondard 78 RPM Records Walnut Plastic Cabinet identical to No. 30A168
$\$ 14.95$


3-SPEED PORTABLE MODEL
Plays Them All
Low Price, Trouble-free performance and 3 -speed operation combine to moke this, a real volus. Plays all $331 / 3$ RPM. Extremely compact for easy portability - carry it anywhere. simple to operote. Slide switch instantly regulates speed of the precision built mator, while fingertip cantralled lever on tane arm selects praper needle for record being played -stondard or microgroove. Single rone orm provides dual needie reversible type cartridge for playing all type records.
Smart, sturdy partable cose cavered in two-tone leatherette. Complete with all size $17^{\prime \prime \prime} \times 13^{\prime \prime} \times 7^{\prime \prime}$. W". $131 / 2 \mathrm{lbs}$. No. 34A188. Net E
In Lots of


SINGLE-SPEED PORTABLE World's Smallest
Portable in the full sense of the term 710 only $9 \times 10 \times 5 \frac{1}{2}$-weighs only $71 / 2$ lbs. No bligger than o waman's make up box, yet it cantains a full size phonograph to play bath 10 and 12 inch stondord 78 RPM records with - superb tone-quality, mode possible with its balanced amplifier and Alnico Na. 5 speaker. Cabinet of sturdy wood covered with on ottractive leatherette for pleasing oppearance and lang life. No. 31 A233 $\quad \$ 16.85$ Your Cost, Each
$\$ 16.05$
Lots of
3, Each

## 3 SPEED PORTABLE

Plays all recards 78,33 1/3 and 45
RPM. Has dual needie reversible cort ridge. Smart luggage type cabinet, ridge. Smart luggage type cabinet,
size
$61 / 4^{\prime \prime} \times 121 / 2^{\prime \prime} \times 1012^{\prime \prime}$. lbs

No. 308131 . Cpte.
with 2 neediles. Net Each $\$ 19.97$
"Magnetope" Twin-Trex
TAPE RECORDER CHASSIS


For use with ony existing amplifier by making only minor changes, or with special amplifier easily constructed A modern precision built unit that provides a cantinuous full hour of recording and playback on a standard 7" sound trocks rape. Records on two reverse-with automatic switch and solenoid far instantly reversing direction of tope. Tope threads easily. Records of $71 / 2$ inches per second without slippage, flutter or wow. Dynomically and electrically bolanced heavy duty motar is quiet and will not overheat. Camplete supersonic or DC erasure is provided by twin electranic erase head. One tape chonnel can be used for compression-expansion contral. Can also be used for twin-channel sterophonic recording.
Chossis size, $131 / 2^{\prime \prime}$ long, $101 / g^{\prime \prime}$ wide, extends $5^{\prime \prime}$ below and $11 / 2^{\prime 9}$ above panel. 110 -valt 60 cycle $\mathrm{AC}^{1 / 2}$. Wt. $191 / 2$ lbs.
No. 34417
No. 34A174. Model 808 Chassis with empty tope reel and 32-page instruc-
tian book. 10-TUBE TWIN-TRAX AMPLIFIER. Far use with abave chossis for magnetic fecording and playbock. With 50 KC supersanic erase and bias ascil-

No. 34A182. Each with Tubes $\$ 149.50$

## RECORDERS and RECORDER COMBINATIONS



Portuble HIRE RECORDER RADIO \& PHONO

A B-A teature volue the product of o to compact unit a quality wire recorder, superhet radio and 78 RPM pecord ployer with erystal pickup. Ideal for home, schaal, church or affice. Records up to o full hour on wire direct from micraphone ,built-in radia ar phanagraph. Autamafically erases as if recards-wire can be used over and aver again. Simple even for the most inexperienced to operate. Threading is made easy by plastic leaders on end of wire. Autamatic shutoft af end of wire on boih forword and reverse prevents wire entanglement. Nean bulb indicistes proper volume level during recordina. Sychronized fiming meter indexes recording for quick locorion of specified parts to be replayed-
wark. Has a high speed rewind.

The superhet rodio uses six tubes plus rectifier features high selectivity and superlative tane. Frequency response. 75 to 7500 eps panel jacks pravides outlets for extra speoker and omplifier, input for recording from on FM iuner Smart, sturdy, luggoge type corrying cose, covered in top quality simulated leother Complete witt ubes, built-in laop antenna, crystal mike with 6 life phono needle. Size $145_{\mathrm{B}} \times 191_{\mathrm{B}} \times 95^{\prime \prime}$ high Wt. 35 lbs. Operates on $105-120 \mathrm{~V}$. 60 cycle AC . No. 318219 NET EACH
$\$ 149.50$


Portable TAPE RECORDER
A top quality moke tor less
con't mention the maker's
Features recording and ployback on tope with superb tone quality and excellent operoting performonce. Ideal for home church. schoal. office, etc can be used also os a small caverage PA system
Recards up to a full hour an a standard 7' reel of tope direct fram mieraphone, radio or recard plaver. Simple to operate All cantrals are clearly marked. The correct volume level for recording is indicated by o neon bulb indicator. Synchranized timing meter indexes all recordings-enables the Hos both ing of any specific part ol recarding ot 4 fimes the recarding or ploybock speed Autamatically erases as its recards-tape can be used over and over ogain
Well built lape recorder mechanism with twin edge while aperoting in farward the ather while edge while operoting in forward. ithe ofher While wheel type capstan drive eliminates "waw" and wotts power aupput for PA use. Outlet pocks ore pravided for exira speaker and external amplitier. Freauency response-50 to 7000 cps .
Sturdy handsame leatherette covered carrying case. Furnished complete with tubes. builtin speoker. reel of tope take-up reel, high goin crystal mic-
raphane with 6 ft. card size 213 . $\mathrm{W} \times 91$, $\mathrm{H} \times 12, \mathrm{D}$. Operotes an $105-120 \mathrm{~V}, 60$ evele $\mathrm{A}^{2} \mathrm{C}$
$\$ 127.50$


AIR KING
P()RTABLE प"IRE RECORDER

- Complete with Amplifier
- Records from Microphone, Radio or Phono
- Compoct-in Smort Luggáge Type Corrying Case Maderately priced recarder, designed to give dependable long lasting service. Recards up ta a full hour of voice or music from microphone, radio of phonagraph
Simple to operate. Na complicated cantrals to adiust. Recarding at carrect valume level ossured by neon indicator. Erases ald recording as new recording is being mode. Safety lock prevents occi dental erasure of recording while being ployed Rewind speed: six times the farward speed. In handsome leatherette cavered carrying case clug for recording direct fram rodia or phoro blug for recarding direct from radia or phono with -in With rour tubes plus rectifier. Size $133 / 4$ " lang by $10-125 \mathrm{~V} .60 \mathrm{Cy}$. AC. List Price $\$ 99.95$

No. 314249, Model A-725. NET EACH
$\$ 68.80$ AIR KING
Portable WIRE RECORDER PHONO COMBINATION
Has all the features and specs. of the Model A-725 listed obove PLUS provision for playing 78 RPM $10^{\prime \prime} \mathrm{G} 12^{\prime \prime}$ recards. Also records on wife direct fram the disc records.
Leotherettc covered luggoge type carrying case. Complete with crystal mike and pickup, iubes, speaker. Cable for radio ottochment, and two 15 minute spools of wire. Wt. 30 lbs. List Price $\$ 139.50$
No. 3 OB 19
$\$ 90.81$


A four-in-one unit covering a wide variely or uses. Combines rugged canstructian with aperating simplicity. Makes standard recardings up to $10^{\prime \prime}$ at groph. Nean bulb indicates carrect valume level when recording. Ploys at groph. Nean buib indicates correct valume tevel when recording. Pioys at Superhet radia with builtin loap ontenno provides smooth rodia reception with excellent sensitivity and selectivity. In oftractive luggage type carrying case. Complete with fubes plus rectifier. in lid; and comporiment for micraphane ond cable furnished, in cobinet. Size $191 / 2^{\prime \prime} \times 191 / 2^{\prime \prime} \times 91 / 4^{\prime \prime}$ high. Wt. 40 lbs. List Price $\$ 174.50$.
Stock No.
NETEACH
RECORDING TELEPHONE CONIERSATIONS IS NOH POSSIBLE Bath sides of a telephane conversation or "Tele-Prckup" in place of microphone simple to use - no of microdirect connection to phone is required. Must be used in occordance with FCC TELEDUCER-Model 1175 -Fits under
$\$ 111.28$
coble is supplicd
No. $17 B 680$. Your cost $\$ 10.29$


TELE-PICKUP—Model 1125 For wall ft. shiclded cable is supplied $\$ 4.12$

RECORDING ACCESSORIES

Recordise Super Tone RECORDING HIRE


Siainless steet recording wire, designed for superior performonce, outstanding durability, ultro-high fidel ity, and easy erasing. Spooled on RMA stondard wire recorder. Plastic leaders ore supplied on end of wire-can be are suppliped of with scissors where not snipped of with scissors where not
needed. In three convenient lengths. $14 A 656-1 / 4$ HOUR SPOOL
$14 A 657-1 / 2$ HOUR SPOOL 14A658-1 HOUR SPOOL ....... 3.15 EMPTY RMA STANDARD WIRE SPOOL Metal spaal-fits standard wire re-
carders.
No. 14A655. NET EACH

Recordisc Quality Home RECORDING DISCS
Record on both sides.
Paper base tape designed far matched performance in ony mag netic tope recarder. Hos high fidelity with freedom from bockground nalse and made 1250 it of tape aeveloped and made. 1250 ft of tape an stand tes of recarding reel oives 33 minu secand speed and ime of $1 / 2^{2}$ per 3.75 inches per secand. No 18 A 416 per second Each $\$ 3.00$
${ }^{\text {Each }} 12$ Reels
$\$ 2.70$
Fop Professional Tape, Wehster Re
Fop Professional Tape, Webster Re-
cording Wire $G$ othep Recordim Ac-

Oronge Labet-Band Base
For home and prociice use where o low price dise is required. Thick
compo bose. 6 to Pkg. Per 10 Pkg.
Sixe No.



V-M "TRI-O-MATIC" RECORD CHANGERS PLAYS ALL RECORDS-78, $331 / 2$ or 45 RPM.

## features single tone arm

 mixed of either the standard $78^{\circ}$ RPM or the Columbio $331 / 3$ RPM and stacks of 12 of the $7^{\prime \prime}$ Columbia $331 / 3$ or RCA 45 RPM.
Single Tonc Arm has dual-needle reversible cartridge with tingertip cantralled lever for odjusting it ta correct positian far recard being played - . 001 tipped lecards.
Positive Record Pratection. Recards are lawered, nat dropped an spindle shelf and air cushian drapped ta iurntable assuring positive recard pratectian. Recards are changed quickly and quietly. Three-speed heavy-duiy matar is cantralled by a speed selectar switch with 4 positians - $78,331 / 3,45$ and "Ott" Motor Autamatically shuts off and pickup arm cames ta rest positian after last recard has been ploved. 12
plied tor playing RCA 45 RPM Recards.

1) MODEL 4060

## (2) MODEL 406

Far quick and simple canneciron to Far mounting in Cansales, Table Model ony Radio or Phono Amplifier. Re- Rodia-Phona Combinations, or Builtlead furnished ta radia. Attractive tians having single or dual speed metal base is at o hammertane finish. changers ar use in custam installametal in onywhere. Size of base $12^{1 / 2}$
 $\times 1058 \times 23 / 4$
No. 32 B 40
Each
$\$ 34.99{ }_{\text {foch }}^{\text {lbs }}$ No. 32839
$\$ 33.22$
Also Availoble with GE Stondord $G$ Also Avoiloble with GE Stondard $G$ Microgroove Voriable Reluctance Mieragraave Variable Retuctance Cort Microgroove Voriable Reluctance Micragroave Vorioble Reluctance Cort-
Cortridges. Mounted in special heads ridges. Mounted in special heads which Cortridges. Mounted in special heads No. 30 BlO Ca Cam -
$\$ 38.91$
ridges. Mounted in special No. 31 B 10 Com-
$\$ 37.14$

## General Instruments



RECORD CHANGER PLAYS THEM ALIL AUTOMATICALLY

1. JUST ONE CHANGER UNIT.
2. THREE SPEEDS - $331 / 3,45$ AND 78 RPM
3. PLAYS 7, 10 OR $12^{\prime \prime}$ RECORDS-ALL AUTOMATICALLY

## 4. SIMPLE TO OPERATE

A qualty built low priced changer that plays all recards on the market outomatically. Ploys at one loading, twelve 10 -inch or ten 12 -inch, $331 / 3$ or 78 RPM records; Fourteen $7 \prime, 331 / 3$ or 45 RPM recards.
Plays them all simply and easily. Na camplicated cantrals to adjust - all odiustments are in front oreo of changer, clearly marked. Single Tore Arm with dual needle reversible cartridge plays both Siandard and Micragroove recards - Can be lifted at any point during play. Withaut damaging mechanism. Has a fast change cycle- $31 / 2$ secands at 78 RPM; praportianally faster at $331 / 3$ and 45 RPM. Utitizes plastic snap inserts far large center hale of 45 RPM records.
Modernly styled. Perfect for custam installatians; replacements in cansoles, radio-phano cambinatians, etc. Size-matar plate $12^{\prime \prime} \times 1213 / 16^{\prime \prime}$ "Maunting space required: $143 / 4^{\prime \prime} \mathrm{W} . \times 133 / 4^{\prime \prime} \mathrm{D}$ : $61 / \mathrm{B}^{\prime \prime}$ above matar plate $33 / 16^{\prime \prime}$ belaw. Operates on $105-125$ valts 60 cycles $A C$. Wt. $191 / 2$ lbs. No. 30892 . EACH

## SPEED AUTOMATIC RECORD CHANGER



Cabinet is beautifully styled and finished in select figured mahogony veneer. Size $15^{\prime \prime}$ W. x $1912^{\prime \prime} \mathrm{D}$. $\times 912^{\prime \prime} \mathrm{H}$. Shpg. Wt. 35 lbs . For 110.125 V .60 eycle AC. Underwriters Lab. Tesied.
No. 32A59. NET EACH COMPLETE
$\$ 55.88$


WEBSTER-CHICAGO TRI-SPEED CIIANGERS

- PLAYS ALL TYPE RECORDS - $331 / 3,45,78$
- PLAYS ALL SIZES - $7^{\prime \prime}, 10^{\prime \prime \prime}, 12^{\prime \prime}$, - AUTOMATICALLY
- SIMPLE, FOOLPROOF OPERATION

FEATURES: Long dependable service with superiar perfarmance. Autamatically plays any $7^{\prime \prime}$. $10^{\prime \prime}$. or 12 ," record that mixed , in the morket. Oopertes of three speeds: 78 KPM for standord $10^{\prime \prime \prime}$ or $12^{\prime \prime \prime}$, records ${ }^{\text {K }} 33$ 1,3 RPM for Columbio 7, iO, or $12^{\prime \prime}$ recards; 45 RPM for RCA 7" Records. Record copocity for orne looding - up to 1 inch'.
SINGLE TONE ARM - Has Special Cortridge with tandem-iip needle which pravides dual tips for playing either standard or microgroove recards. Simple to adjust - Fingertip lever cantral an tane arm selects praper tip.
CHANGER IS QUIET, JAMPROOF. Velocity trip mechanism assures smooth handling af all records. TQne arm travels freely in cither directian providing accurate tracking. Has "Reject-Manual-Stap" cantral for outamatic ar manuol play
SIMPLE TO OPERATE. All contrals ore clearly marked. Tane arm cames ta rest after last 10 " ar 12 " recard has been played an "Autamatic"-repeats last $7^{\prime \prime}$ recard. Plostic snop inserts are utilized for ploying of 7" 45 RPM Records.
(3) DELUXE MODEL 356 (3) MODEL 356-27 Size: 14 inches square; $9^{\prime \prime}$ overall Far use with GE Variable Reluctonce meight, 8 above and 8 . Wt. 16 lbs. $\mathbf{8} 2 \mathbf{9 1}$ with interchongeable plug-in heods motor plate. Wt. 16 lbs. \$32.91 with interchongeable plug-in heads
No. $\mathbf{3 4 A 1 7 7}$. Eoch No. 34 AI77. Eoch MODEL 346 Micragraove. Size $14^{\prime \prime}$ square: $9^{\prime \prime}$ Size: $12^{\prime \prime} \times 12^{\prime \prime} 8^{\prime \prime}$; Overall herght $8^{\prime \prime}$ overall height, $5^{5} 58^{\prime \prime}$ abave, and " $31 / 8$ $\begin{array}{ll}458^{\prime \prime} \text { above and } 31 / 8^{\prime \prime} & \text { below motor below motor } \\ \text { plate. Wt. } 15 \text { lbs. } & \mathbf{5 2 9 . 6 1}\end{array}$

WEBSTER-CHICAGO MODEL 77 CHAVGER
PLAYS $331 / 2645$ RPM 7 -INCH RECORDS AUTOMATICALLY

- SINGLE TONE ARM
- 3-SECOND CHANGE CYCLE
- SIMPLE, FOOLPROOF

Small-Compact-designed for simple, foolproof operation with super45 RPM 7" Records automatically.


Center oction type chonger has a 3 second chonge cycle. Recards ure dropped by pasitive acting record release in spindle. Single Tone Arm is properly balanced tar playing both $331 / 3$ and 45 RPM records- May be moved at anytime during play without damaging mecho
Its Extreme Smoll Size mokes it ideal for adding to existing equipment-mount in record storage compartment of consoles, in builtans, record cobinets, erc. For 115 volts 60 cycle AC.
$\$ 17.52$
No. 33A101. EACH
th above
$\$ 1.98$

## changer. No. 31 A100, EACH

Snops in the large hole of a 45 RPM Recard 45 RPM RECORDS
Snaps in the large hole of a 45 RPM Recard to adapt it far use on stand ard spindles of Three Speed changers or ather players that hove been adapied for 45 RPM aperation.
No. 17 A814. TEN FOR

Webser-Chicago ACCESSORIES
REPLACEMENT CARTRIDGES TyPE FLACEMENT NEEDLES
EOR Chongers EOCh Stk.No.

with Plug-in Heads for use of GE Variable Reluctance Cartridges.
ADAPTOR ARMS-For Use of GE VARIABLE RELUCTANCE
ADAPTOR ARMS-For Use of GE VARIABLE RELUCTANCE
PICKUP CARTRIDGES In Webster Chongers (Less Cortridges)

$\begin{array}{llr}14 A 699 & 56,156 & \$ 1.18 \\ 144698 & 70 & 1.18 \\ 154495 & 2246,256 & 4.85\end{array}$
15A495 Piece Pickup Arm cansisting of Pickup and Twa Interchangeable Plug-in heads, ane designed far Standard GE Cartridge, the other for the GE Micragroove Cortridge.

CONVERSION KIT
Cantains necessary ports to canvert ald madels 256-1 and 256-27 for outamatic playing of 7 -inch $331 / 3$ and 45 RPM recards. Includes instructians, 10 snap adapters far large hale af 45 RPM recards, and matar shaft
drive far furnishing a steady 45 RPM purniable speed, quickly and easily.
$\begin{array}{ll}\text { Na. } 15 A 511 . \\ \text { Complete Kit } & \$ 2.28\end{array}$
Complete Kit
2.28

Kit for Manual Ploying of 7" 45 RPM records an madels 246 and 256. 24C
No. 17A791. EACH

# Everything in RADIO-TELEVISION - ELECTRONICS 

For Dealers, Servicemen, Broadcasters, Schools, Factories, Public Utilities, Laboratories, Engineers, Amateurs, Experimenters.

144 pages, a complete guide to the very latest products of the top makers in Radio, Video, Sound and Recording fields . . . complete units, kits, components . . . test apparatus, books, tools, supplies for the Shop or Lab . . . everything, on down to the little things usually too troublesome for others to list and stock-B-A is in the full sense of the term...a"One Stop" source for any Radio and Electronic need.

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## Detailed Index and "How to Order" information on Pages 134, 135.



Kansas City, Mo.

## General RECORDERS and Industries PLAYBACK UNITS <br>  <br> (1) <br> (2)


#### Abstract

No. 30A95. Model CI-RCI30L. NET No. 30A110. Model CI-R9OL. NET 


(1) Recorder and record changer combination in a single unit. Crystal recording head cuts up to $10^{\prime \prime}$ diameter records at 110 lines per inch. Plays up to $12^{\prime \prime}$ manuaily and automatically $1210^{\prime \prime}$ or $1012^{\prime \prime \prime}$ records. Dynamically balanced motor drives $10^{\prime \prime}$ weighted rim drive turntable at 78 RPM. Low pres-sure crystal cartridge for standard replaceable needles. Base plate $14 \times 14^{\prime \prime}$ $57 / 16^{\prime \prime}$ above and $23 / 4^{\prime \prime}$ below base plate. Brown iridescent finish. With
$\$ 43.50$
(3) Dual Speed Recorder and Playback cuts records up to $10^{\prime \prime}$ diameter; plays up to $12^{\prime \prime}$ diameter at 78 or $331 / 3$ RPM with crystal cutter and pickup with standard replacement needles. Quick speed change dial. Lowering of cutting arm over disc starts recording at 120 fines per inch. Cut depth adjustment: Dynamically balanced rim drive, induction motor, recessed $10^{* \prime}$ weighted turntable, pickup and cutter arm rests. Steel base plate finished in wainut grain, plastic trim on pickup and cutter arms. $315 \times 11 /{ }^{\prime \prime}$. extends $23 / 4$ above and
$\$ 28.95$
NEWI "G.I." DUAL SPEED RIM DRIVE PHONO MOTORS
(1)

(2)

(3)
(1) New "C.I." Model "TS" Three-Speed Phono Motor. 331/3, 45, 78 RPM for playing any brand of records. 78 RPM direct from motor shaft: Neoprene belt drive for $331 / 3$ and 45 RPM. Simple speed indicator lever changes speeds
instantly on $8^{\prime \prime}$ turntable. Affords top reproduction of the new $331 / 3$ and 45 Rintantly on 8 " turntable. Affords top reproduction of the new $331 / 3$ and 45
 (1) Model "DM" Dual Speed Phono Motor. For playing 78 RPM amd "LP",
records; choice of $331 / 3$ RPM for "LP" or 78 RPM for standard 10 " or 12 " discs on $9^{\prime \prime}$, Mrntable. Mounting plate $31,8 \times 21^{\prime \prime}$, extends $25 /{ }^{\prime \prime} \mathrm{below}$ Weight, 4 lbs. AC motor leads for 110 -volt. 60-cycle AC.
No. 34A166. "C.I." Model DM Turntable. NET.
$\$ 6.75$
(2) 78 and $331 / 3$ RPM, Recording-Playback Motors. Extra quiet, rim drive, heavy duty motor, $10^{\prime \prime}$ weighted turntable, rubber cushion installed on plate No. 34A178. "C.1." Model RM-4 78 RPM. NET............ S9. 9 No. 34A179. "C.I." Model RM4-3 $331 / 3$ RPM. NET.
$\$ 10.80$
(3) Creen Flyer "D" 2-Speed Motor, $331 / 3$ and 78 RPM governor controlled speeds for recording of "LP" or standard 10 " or 12 " records on $10 "$ weighted
furntable. Has speed change lever and regulator. No. 31 A59. Model "D" Motor with $10^{\prime \prime}$ turntable. NET..... . 5.91 No. 31 A97. Model "D" Motor with $12^{\prime \prime}$ turntable. No, 16A593. Automatic Stop for above motor. 87 c

## ALLIANCE 45 RPM PHONO MOTOR

Ideal low cost way for adding a 45 RPM player to existing equipment. 61/2 turntable, rim driven by heavy duty motori Shock mounted on rubber bush-
ings: extends $2^{\prime \prime}$ below motor board. $110 / 20$-volt, $60-\mathrm{cycle} \mathrm{AC}$. No. 33 A102.

## "BALLENTINE" PHONO MOTOR

Quiet 78 RPM heavy duty, single speed phono motor, quality construction: rubber cushion motor mounting; fan cooled; sealed bearings. Positive friction drive on ${ }^{\prime \prime}$ turntable. Mounting space $6^{\prime \prime}$ square; depth $21 / 4^{\prime \prime}$. ${ }^{\text {Hocycie }}$ Weight, No. 5A144. "Ballentine" Quiet Phono Motor. NET
$\$ 4.29$

## ASIAHIC $\begin{gathered}\text { Replacement } \\ \text { Recording Heads }\end{gathered}$ <br>  <br> (B)

Astotic Model M-41-8 Mognetic driving voitoge, 30 V . RMS; upper oz; size 13/8 oz; size $13 / 8 \times 11 / 16 \times 33 / 4^{\prime \prime}$. Oxi
dized finish. Imped. 8 ohms. Not interchangeable with crystal No. 1415668 , Yove. $\$ 7.53$ No. 144568 . Your Cost....
Astatic Model $X-26$ Crystal. Driving Astatic Model X-26 Crystal, Driving
voltage, 75 V . RMS; upper frequency voltoge, 75 . RMS; upper frequency $13 / 8 \times 5 / 8 \times 31 / 4{ }^{\text {"t. Oxidized }}$. Oninish No. 14A532. Your Cost.... $5 \boldsymbol{5}$

BRUSH MODEL "RC-20" CRYSTAL CUTTER


For high quol ity, low cost the home school and studio. Cuts lateral type records in virtually all hard or soft disc materials. Design is simple and compact and readily adaptable to all types
of transcription equipment. A 3 -watt
 amplifier furnishes sufficient drive
Frequency response_flat within plus Frequency response-flat within plus Cuts "Constont Amplitude" withou equolizotion, ond "Constont Velocity" or other desired frequency charocteristics with suitable equalizotion.
No. 14A593. Cutter
(less stylus) Net Eoch. \$14. 70

##  <br> 2 <br> RECORDING <br> EQUIPMENT



## REK-O-KUT "CHALLENGER"

## 12" PROFESSIONAL Portable Recorder

 QUALITY performance at the "Challenger" moderate price is assured by these QUAL ITY SPECIFICATIONS: DUal Speed $12^{\prime}$ urntable, driven by quiet, long life motor, Speed change from 78 to $331 / 3$ RPM in a"fitfy". Overhead Feed Cutting Mechan"Jiffy". Overhead Feed Cutting Mechanism, has stainless steel lead screw with constant mesh feednut - cutter raises automatically when feednut reaches end of lead screw; Magnetic Cutter, 8-ohm, cuts outside-in at 108 lines per inch Cast Aluminum, precision lathe turned Turntable. High Fidelity 6-Tube Record ing and Playback Amplifier, frequersy 50 to $15,000 \mathrm{cps}+1$. Power Output, 12 watts, 6 tubes, push-pull 6V6GT outputs: provide Microphone Gain 125 db . Output wired for 8-ohm cutter and speaker, changeable internally to 4,15 or 500 ohms. 3 -position Output Selector for Recording, Playback and Public Address. Hi-impedance Phono or Radio Input. Recopding Level Meter for monitoring recordings. Treble and bass equalizer. Monitor Switch provides two monitoring levels "Challenger" will play $16^{\prime \prime}$ "platters": $s t a n d a r d ~ 10 " ~ a n d ~ 12 " ~ r e c o r d s, ~ o f ~$ record up to $131 / 4$ " recordings. Housed in heavy duty carrying case with $8^{\prime \prime}$ MM Dynamic Speaker mounted in removable cover. Size, $27 \times 24 \times 15^{\circ}$. Weigh 80 lbs. 115 -volt, 60 -cycle AC
"REK-O-KUT" MODEL R5A RECORDING AMPLIFIER Moderate cost; professional type facilities for making the finest disc; wire of tape recordings. 6 TUBES
provide 12 watts power output at less than $3 \%$ distortion into resistive load. Frequency Response $\pm 1 \mathrm{db} .50$ to 15,000 cps. 3 Input channels, Microphone, Phono, and Radio. Out -
 put, 8 ohms for cutter and speaker, may be manually changed internally to 4, 15 , 500 ohms. Output selector has positions for "Recording" "Playback" and "Public Address." 2 -position monitor switch. Recording Level Meter. Treble and bass equalizer switch type, provides 14 db attenuation at 50 CDS. TUBES: $165 J 7.2$ 6SL7, 2 GV6CT, 1 5Y3GT (rectifier). 80 watts at $05 / 125$ volts. $50 / 60 \mathrm{cPs}$. ÁC. Size, $17 \times 83 / 4^{\prime \prime}$; panel, $19 \times 61 / 4^{\prime \prime}$ No. 31 ibsi. "Rek-O-Kut" R5A Recording Amplifier. NET.
$\$ 89.95$

## "REK-O-KUT" RECORDING TURNTABLES

Model "MV" $16^{\prime \prime}$ Standard $331 / 3$ and 78 RPM professional recording furntable. Designed to meet all requirements for a $16^{\circ}$ table. is 41.11 No. 50A287. Weight, 28 lbs. NET

## UREK-O-KUT' OVERHEAD CUTTERS

Model "MS-S" MASTER-PRO deluxe 16 " overhead recording mechanism with 8 -ohm magnetic cutter. Cuts 120 lines per inch. outside-in.
No. $30 \mathrm{~B} 109-\mathrm{M}$. Weight, 11 lbs. NET..................... 1.10 Model "M16" Overhead cutter for 16 " discs. Cives professional results at a Price within the feach of the average user. Cuts 120 lines per inch outside-
No. weint
No. 50 AR88. NET................................. $\$ 119.50$ No. 50A288. NET. $\qquad$ Model "M12" Overhead cutter for 12 " discs. Same specification No. 3iA68. NET

## "REK-O-KUT" TRANSCRIPTION TURNTABLES

Model "C2" Professional 16" Transcription turntable designed for playback of all $331 / 3$ and 78 RPM records with instant starting heavy duty constant
speed induction motor. Weight. 26 Ibs.
No. 30 A115. NET........................................
Model "C2" Deluxe. The best in 16" Transcription tables for $331 / 3$ and 78 RPM records. Meets all NAB standards, having a speed regulation less than $1 / 2$ of $1 \%$ and "wow" content less than $1 / 10$ of $1 \%$. Equipped with No. 31 A88. NET
$\$ 165.45$
MODEL LP-743 THREE-SPEED TURNTABLE. Instantaneous speed selector, $331 / 3.45$, or 78 RPM. $12^{\prime \prime}$ Cast aluminum turntable driven by a 4 -pole in 10 lbs.
No. 3iB53. MODEL LP-743. NET EACH.
$\$ 49.95$
MODEL LP-12 DUAL-SPEED $78 / 33^{1 / 3}$ RPM Turntable with instantancous speed shift. Length $15^{\prime \prime}$, width $12^{\prime \prime}, 13 / 8^{\circ}$ above motor panel and ${ }^{\circ}$ below.
Weight, 10 lbs.
No. 31C54. MODEL LP-12. NET EACH
\$39.95
For complete information on all "Rek-O-Kut" recording equipment please write for catalog and prices.
We can supply on fast delivery any Rek-O-Kut product including new micro groove lead screws for their cutters and 45 RPM idlers for any turntable.

## TRANSCRIPTION PLAYERS-_PORTABLE DISC RECORDERS——NEW "LP" TYPES <br> TRUE HIGH FIDELITY PHONO AMPLIFIERS FOR ALL TYPES OF PICKUPS

## 25-WATT MA-25EX HIGH FIDELITY AMPLIFIER THE ULTIMATE IN "HI-F!" AMPLIFIERS! Criti-

 cally engineered to assure, the finest High Fidelity Amplifier for the "critical" music lover as a RadioPhono Amplifier-or for the Broadcast and Re-cording Studio as a top-notch bridging, Monitorcording Studio as a top-notch bridging,
ing or Transcription Playback Amplifier!
ing or Transcription Playback Amplifiert
FEATURES: Four inputs, scparately controlled for G.E., Pickering. High and Low Output Crystal PickG.E., Pickering, Magh and Low Pickups, Radio Tuner, and High Impedance Microphone - separate controls allow Nither Radio or Phono! Controlled Expander either Radio or Phono! Controlled Expander Circuit performs true expander function in allowing expansion on only "above average", passages of a record - oxpander is variable zero to 15 db ., is entirely free from time lag, thump mir.rophonics! Output impedances provided for Stephens, Altec, Jensen and SPECIFICATIONS: Power output of 25 SPECIFICATIONS: Power output of 25 watts at less than $5 \%$ : 20 watts at less than 2\% RMS harmonic content over frequency range of 30/20,000 cps. Frequency response (tone controls at normall is $\pm 1 \mathrm{db} .30$ to $20,000 \mathrm{cps}$
Input sensitivity and gains: Magnetic pickup, .008 volts ig0 db.). Input sensitivity and gains: Magnetic pickup, .008 volts 190 db .) : High Level Crystal, 1.5 volts $(60 \mathrm{db}$ ) ; Low Level Crystal, .45 -volt ( 70 db .) : Radio Tuner, bridging . 3 volts $(175 \mathrm{db}$.); Microphone, .005 volts ( 120 db .). Hum Level: 80 db . below output level of 25 watts! Output Impedances are 4,8 ,
16,250 and 500 ohms. Expander circult and control. separate 16, 250 and 500 ohms. Expander circuit and control; separate Gain-Mixing
controls for Microphone-Magnetic pickup; Radio-Crystai Pickup; Bass Control provides low frequency boost of 11 db. at 50 cps ; Treble Control provides high frequency boost of 10 db . with attenuation of 18 db at $15,000 \mathrm{cps}$.! Tubes are: 1 i2SC7, 1 12SJ7, 2 6SN7CT, 2 6SL7CT, 2 6L6C, 1 5V4C (recti-
fier). In Blue-Grey Hammertone enameled steel cabinet, size $14 \times 10 \times 85$. fier). In Blue-Grey Hammertone enameled steel cabinet, size $14 \times 10 \times 85 / 8$ "
high. Weight, 34 lbs. Power required is 140 watts at " $115 / 125$ volts, 60 . cycle $A C . U / L ~ A p p r o v e d!~$
No. $30 B i l$.
No. 30BiI. Masco Model MA-25EX Controlled Expander Amplifier. NET EACH.
$\$ 99.08$
"MASCO" DUAL SPEED RECORDER-P.A. SYSTEM Complete, self-contalned, port=
able $331 / 3$ and 78 ppm . Disc able $331 / 3$ and 78 rpm . Disc Rein Amplifier and 6 -Inch "PM" in Amplifier and 6-Inch "PM" speaker.
SCHOOLS, COLLECES, TEACHERS, LECTURERS, ACTORS, MIN. ISTERS - ALL will find these FEATURES to their liking! *Electronic "dubbing"—or electronic phono-permits exany elecof choice records! $\$$ Direct re-
 disc on recorder, through input jack on panel. *Direct recording from any microphone. DUAL SPEEDS permit a 12 -minute recording on a 10 -inch disc at $331 / 3 \mathrm{rpm}$. speed! "Dubbing" at same speed permits recording of a standard 12 -inch record on a 10 -inch blank! Separate Volume and Tone Controls
permit any desired volume or tone setting-Volume Indicator Neon Eye assures accurate recording level. Separate Input Channels for "Mike", Phono and Radio-any standard radio set may be used and adjusted for direct electronic radio recordings. High quality Crystal Cutting Head for recording and low pressure Crystal Pick-up for playing back recordings or playing any make of standard record up to 12 inch. Complete with 5 TUBES in handsome Portable Case, drop front lid over controls, covered with Brown
alligator fabricoid. Size, $16 \times 191 / 4 \times 81 / 24$ high. Weight, 40 lbs. For $110 / 125$ alligator fabricoid. Size, $16 \times 191 / 4 \times 81 / 2^{\prime \prime}$ high. Weight, 40 lbs. For $110 / 125-$
volt, $60-c y c l e$ AC.
No. 30 3 37. "Masco" Model RK-5 Portable Recorder. Net Each MASCO 16-INCH TRANSCRIPTION PLAYER-TLS-16
 * TRANSCRIPTION PLAYER-PA AMPLIFIER! * DUAL PICKUP ARMS - DUAL SPEED! $\star$ "C.E" VARIABLE RELUCTAN

* BUILT-IN PRE-AMPLIFIERI太 PLAYT-IN PRE-AMPLIFIER! ${ }^{\star}$ PR" RECORDS ULTRA MODERN: Specially designed for Audio-Visual Education needs of Schools; ideal for Lecturers, Thearrical Agencies, Broadcast Studios, Advertising Agencies, Sales Execu-
tives. Plays these records: $16^{\prime \prime}$ Transcription, $331 / 3$ tives. Plays these records: 16 "Transcription, $331 / 3$
RPM; $12^{\prime \prime}$ and $10^{\prime \prime}$ Microgroove "LPs" at $331 / 3$ RPM; $10 "$ Microgroove "LPs" at $331 / 3$ RPM;
and 10 " or 12 " "standard" 78 RPM. and 10 or ${ }^{\text {Separate pickups, each with "C.E." }}$ Variable Reluctance Cartridge, and Sapphire Stylus provide for "Lp" rec-
ords requiring .001 stylus, and standords requiring .001 stylus, and standard records requiring . 003 stylus? Phono Input have individual gain controls. 5 -Waft, wide frequency range trols. 5-Waft, wide frequency range
amplifier provides ample power. Scparate Bass and Treble Tone Controls. Heavy duty duaf speed phono motor has lever speed control and Speed Shift ed in removable carrying case cover and provided with 12 ft . cable and plug. Microphone connector speaker jack, Motor and Amplifier power switches. Bass and Treble controls and Microphone and Phono Gain controls on sloping front pane. Tubes are: Brown Alligator Fabricoid covered case is $173 / 4 \times 22 \times 103 / 4{ }^{\prime \prime}$. high. With Tubes, Instructions, less microphone. Requir cycle AC. Weight, 43 lbs . U/L Approved!
No. 30 B 8 . Masco TLS-16 Transcription Player. NET
$\$ 119.29$
MASCO TP-16A STANDARD TRANSCRIPTION PLAYER





SUPER VALUE 10-WATT HI-FI PHONO AMPLIFIER
 10 watts power output at less than $5 \%$ distortion; frequency response, $\pm 1 \mathrm{db}$. 40 . 15 .000 eps. I Inputs for Crystal Pickup or Radio Tuner; voltage supply socket for external pre-amplifier; power supply socket on chassis for record changer. 4-way Tone Compensator provides Deep Bass, Medium Bass, Normal, Treble boost. Response is flat, with tone control on No. 3 position, from 40 to $15,000 \mathrm{cps}$. Cain and sensitivity, 9 volts, 70 b. Combination On-Off swltch and volume fused. Tubes: 1 6SL7CT, 26 V 6 GT , I 5 Y 3 GT (rectifier). Hum Level 80 db below output of 10 watts. Peak power, 14 watts. Gray Hammertone chassis $115 / 125-$ volt, 60 -cycle AC.
No. 34A190. Masco Model MHP-110 Phono Amplifier. NET. . 28.65

MODEL MHP-IIO-RC REMOTE CONTROL PHONO AMPLIFIER Same as above with controls on 4 ft . extension cables. No. $34 A 191$. Masco Model MHP-110-RC. NET

SUPER FEATURE 1O-WATT HI-FI PHONO AMPLIFIER 10 WATTS OF HUM-FREE POWER! Provides EVERY feature desired by the Built-in compensated Pre-Amplifier for C.E., Pickering and other magnetic and reluctance type pickups! 4 Inputs: No. 1 Magnetic, 01 volts $92 \mathrm{db}, ~ a \uparrow ~$
No. 2, Magnetic, .08 volts 78 db . at 1000 . No. 2, Masnetic, 08 volts 78 db . at 1000 cps. ; No. 3 , Crystal Input, .5 volts, 70 db . gain; No. 4, Radio Input, 5 volts, 70 db $20,000 \mathrm{cps}$. Response is flat, $\pm 1 \mathrm{db}$. 40 )
 entire frequency range with control at "normal". Four-way individual tone compensafor provides: No. 1, Deep bass with high cut; No. 2, Medium bass No. 3. Normal: No. 4, Treble (normal bass wifh treble boost). Variable -no chopping, no time lafl Healed from xero to 10 db ; instantaneous ance taps of $2,4,8,16,500$ ohms for most any type of Coaxial or Hi-Fidelity speaker. Hum Level is 70 db . below rated output of 10 watts! AC power receptacle on chassis for plug-in of Record Changer or Radio Tuner, rubes: are 1 6SC7, 3 6SL7CT, 2 6V6GT, 1 5Y3GT (rectifier) for power out pur of 10 watts at less than $5 \%$ distortion; peak power is 14 watts! Heavy tone dials base is $12 \times 7 \times 2 \frac{1 / 2}{}$ high, gray Hammertone enamel Nower required is $\qquad$ NET.

MODEL MA-IOEXC. For cabinet mounting. Identical in all features to the model described above, except is provided with $6^{\prime \prime}$ extensions on all control
shafts to permit out-of-sight installation.
No. $\mathbf{3 2 8 4 9}$. Masco Model MA-10EXC Remote Control Amplifier

MASCO UNIVERSAL HI-FREQ. TWEETER SPEAKER
 MASCO MODEL HFT- 100 TWEETER. Quickly converts ANY ${ }^{12 "}$ "PM" type speaker into a High Fidelity, 2-way speaker system! Extends trequency range from a normal of about 6,000 cps. to beyond 15,000 eps. Inssalis with a minimum of efforf and no and actually and actually becomes a part of the exist ing $12^{\prime \prime}$ speaker! Supplied complete with a HFT-100 Tweeter (as shown at left) is mounted; then the entire assembly is mereIy placed over the front rim of the existing
 above). two simple connections are made, and the $12^{\prime \prime}$ speaker is returned to its origina! position! Specifications of HFT- 100 High Frequency (Tweeter) Impedance, $6 / 8$ ohms; Dispersion angles, (hor, and vert.) 700 . Doubles the Impedance, 6/8 ohms; Dispersion angles, hor. and vert.) 100 . Doubles the enjoyment of musical programs, Whether by radio or records! Size, $51 / 4 "$
diameter $\times 25 / \mathrm{g}^{\prime \prime}$ overall depth. Complete with mounting screen and instruc-


## 8-WATT "BALLYHOO" <br> PORTABLE SOUND SYSTEM



Low in cost! Complete "Ballyhoo" sound with 8 watts of undistorted power output! Needed by Orchestras, Carnivals, Window
Salesmen, Auctioneers, Churches! ElecSalesmen, Auctioneers, Churches! Electronic mixing of Microphone and Phono in25 db . below rated output. Frequency response is $t^{2}$ db. 50/10,000 cps. ${ }^{4}$ Tubes (rectifier). Output impedances of 3.2 and ohms. Split type carrying case houses with 4 . distance from amplifier. Entire system in case is only $13 \times 7 \times 15^{\prime \prime}$ high; weighs phone, 7 ft. cord and plug. 115 -volt, 60 -cycle AC.
No. 31 C4. Masco MAS-808 Ballyhoo Sound System. NET.... 51,51

# IGsed Public Address Amplifiers and complete soyyp sistive <br> Public Address Amplifiers SOUND SYSTEMS 

25-WATT AC AMPLIFIERS AND PORTABLE SYSTEMS Fills the majority of all amplifier requirements. Area coverage up to 8000 sq. ft. for auditoriums, balirooms, churches, ourdoor meetings, night clubs,


25-WATT MA-25N AMPLIFIER

## 25-WATT AMPLIFIER SPECIFICATIONS

Class ABI-Four inputs: Three microphone, gain 133 db , and one phono, 79 db . Response, $\pm 2 \mathrm{db}, 50 / 15,000 \mathrm{cps}$. Hum level, 64 db . below pated output. 8 tubes: $45,250,50$ ohms. Separate bass and treble equalizer. Power' requirement 145 watts. 115 -volt, 60 -cycle. Blue and grey hammertone steel case. Lighted recessed panel.

DE LUXE 25-WATT AMPLIFIERS—With or Without Phono Model MA-25N. 25-watt amplitier without Phono ToD, as shown in illustraion at left above. Size, $15 \times 81 / 2 \times 83 / 8^{\prime \prime}$. Complete with instructions, matched set of
30 lbs No, 30B50. MASCO Model MA-25N Amplifier Only. Complete. 368.24 Model MA-25PN. 25-watt Phono-Amplifier Combination. All circuit features as described above in "Specifications" with the addition of constant speed 78 RPM phono motor and featherweight crystal phono pickup; has additional plugs, AC cord, for 115 -volt. 60 -cycle AC. Size, $14 \times 11 \times 83$ /4". Weight, 32 lbs No. 324271 . MASCO"s Model MA-25PN Phono Amplifier.
(As shown in Portable System at right above.) Net..
$\$ 80.85$
"MASCO" 25-Watt Complete Public Address Systems Model MAS-25PN. Complete 25-Watt Deluxe Poptable P.A. System, with Phono. As shown in illustration above. Includes MA-25PN Amplifier, Tubes, TWO with "Slide-Easy" with 25 -ft. cables and mounted in Deluxe carrying case with "Slide-Easy" mounting board for amplifier; Astatic JT-30 crystal micro Whone with cable and plugs.
No. 39A13. MAS-25PN Complete Phono Top Amplifier System. 513.62 Model MAS-25N. Complete 25-watt Deluxe Portable P.A. System, less Phono. Consists of Model MA-25N Amplifier, with speakers and Deluxe Portable carrying case, with all connecting cables, plugs, tubes, Astatic JT-30 Microphone, instructions. For 115 -volt, 60 -cycle AC. Wt. 60 Ibs. S126. 39
No. 39A14. Masco Model MAS-25N P.A. System. Net.... 12.
17-WATT AC AMPLIFIERS AND PORTABLE SYSTEMS
 cluxe Amplifiers, Models MA-I7N and MA 17PN. Specifications: 17 Watts class A output: 5 tubes, 5 C each, types $216 \mathrm{C} ; 2$ Mike inputs, 132 db . gain; 1 Phono input, 78 db. gain; Frequency Range, rated output. Tapped output impedances of 4 $8,15,125,250$, 500 ohms; separate Bass and Treble controls. 'Less than $5 \%$ distortion at full 17 watts output-peak, 26 watts! Two-tone blue hammertone steel cabinet, $13 \times 8 \times 83 /{ }^{\prime \prime}$ Weight No. 30B35. MASCO Model MA-17N Deluxe Amplifier (Less S54.65 MASCO Model MA-17PN Deluxe 17-Watt Phono-Amplifier. Specifications exactly as above for Model MA-17N, except includes heavy duty, quict running 78 RPM phono motor and crystal pickup. $14 \times 10 \times 83 / 8$ No. 30B48. MA-17PN Complete Deluxe Phono-Amplifier. NET EACH

## 17-WATT PORTABLE SYSTEMS

Deluxe complete systems-ready to plug in. Choice of 17-watt regular or Phono-Top amplifiers as listed below-together with 2 jensen $10^{\prime \prime}$ PM Speakers in deluxe carrying case with space for amplifier, and accessories. Complete with two 25-ft. speakers, cables and plugs: Astatic JT- 30 microphone and cable. Case is $17 \times 153 / 8 \times 181 / 8^{\prime \prime}$ high, blue deluxe fabricoid covered. With sinde-out No. 39A10. Model MAS-17N. 17. Watt System, Without Phono. ${ }^{\text {Notipletent }} \mathrm{S} 108.72$
"MASCO" Model MAS-17PN. Complete 17-W att Portable Phono-Amplifier cables and deluxe carrying case. Weight, 56 lbs.

MASCO DELUXE AMPLIFIERS feature heavy duty components for long periods of continuous use; full rated power output at $5 \%$ or less distortion simple, fool-proof operation, ease of installation and ONE YEAR guarantee against defective component parts! All are U/L Approved!

## 35-WATT DE LUXE ALL-PURPOSE AMPLIFIER

Provides ample coverage for 1500 to 4000 sq. $\mathbf{t t}$. of bleacher or grandstand Stadium seating, or 4000 to 12000 sq . ft. of Indoor Auditorium or Dance Hall; drives 2 to $412^{\prime \prime}$ PM wall speakers or 2 to 4 Re-entrant horns SPECIFICATIONS, 35-W att Amplifier: 35 Watts Class AB-2 output at response of $\pm 2 \mathrm{db} ., 50 / 15.000 \mathrm{cps} .$, at less than $5 \%$ distortion! 3 Mike inputs at gain of 135
db .; one Phono at 80.5 db . gain db.: One Phono at 80.5 db . gain. Hum
level is 65 db . below output level of 35 watts; peak power is 50 watts. Tapped 500 ohms. Individual gain controls for 4 Input Channels with Electronic Mixing overall. Individual Bass and Treble equal-
izers. Overall negative feedback! II Tubes include: 165C7, $36 J 7,365 N 7 G T, 26 L 6 C, 15 U 4 G, 16 \times 5 G T$. Safety fused; power required, 190 watts at 117 -volt AC. Dial-Clo indirect lighting, UJL Approved. No. 30C6. MASCO Model MA-35N Deluxe 35-Watt Amplifier. S93.23
Complete with Tubes, Connectors, Instructions. NET. .......

MA-50N 50-WATT DE LUXE HI-POWER AMPLIFIER
 Masco Model MA-50N 50-Wart Amplifiep. Specifications: Full 50 Watts Class ABI power output at less than $5 \%$ distortion! ${ }^{\text {Peak power, }} 70$ watts! Five
inputs, 4 Microphone at 136.5 db . and Phono at 82 db gain. Frequency Re sponse is $\pm 2 \mathrm{db} .50 / 15,000 \mathrm{cps}$. Individual panel controls for 4 Microphone and Phono inputs plus Bass, Treble controls. Electronic mixing of all channels:
Hum level is 67 db . below rated Hum level is 67 db . below rated output Tapped output impedances, choice of 4 .
$8,15,125,250,500$ ohms; standard plug-in speaker sockets, with selector switch on rear terminal panci of ampli Negative feedback circuit fully fused U/L approved throushoul linat Negative feedback circuit, fully fused, U/L approved throughout! Ideal tor Auditoriums, Banquet, Ball Rooms $17000 / 24000 \mathrm{sq}$. heavy duty 12" PM speakers in wall baffles, or the equal number of reent 60 cycle AC finish so-cycle Ac. No. 30C28. MASCO Model MA-50N 50-Watt Amplifier. Complete with Tubes, Connectors, Instructions, NET.
$\$ 111.60$

## 75-WATT DE LUXE SUPER-POWER AMPLIFIER

Model MA-75N has same appearance as MA-50N shown at left above. Features full 75 WATTS, CLASS AB-2 pure power output at less than $5 \%$ dis rortion! Overall electronic mixing of 4 Microphone and Phono channels separare plare and screen power supplies, separare controls for each inpur number of $12^{\prime \prime}$ pM speakers in wall baffles to thoroughly cover areas from 10,000 to 50,000 sq. 4 t., Indoors or Outdoors! Specification features: 15

 $5 \mathrm{Y} 3 \mathrm{CT}, 25 \mathrm{~V} 4 \mathrm{C}$ rectifiers. 4 Mike inputs at 138 db . gain each, ${ }^{2}$ Phono input at 83.5 db . gain. Frequency response, $\pm 2 \mathrm{db}$. from $50 / 15,000 \mathrm{cps}$. Selective output impedances of 8, $15,60,125,250$ ohms. Hum level is 68 db. below rated output of 75 watts: peak output is 125 watts! Power required is 260 watts at 1 -volt $A C$, for operation on any standard 105/125control panel in two-tone blue-grey. Fused, "Dial-Glo" illuminated sloping Size, $17 \times 12 \times 83 / 8$ " high. Weight, 63 lbs. Complete with mathecabinet | speaker connector plugs, easily understood instructions. |
| :--- |
| No. 30B2. MASCO Model MA-75N Super-Power Amplifier. 13.12. |
| 12 |



MM-4 MICROPHONE MIXER
Four channel, high impedance Microphone Mixer, simply connect cable to hi-impedance Mike input of ANY amplifier and prestol . you have far mike inpurs that may be mixed and faded af will! Four independent gain controls and 4 microphone connectors allow for overall mixing and fading! Has 4 -ft. cabie and connector, completely shielded all metal cabinet, size No. $34 A 144$. Model MM-4 Microphone Mixer. NET.

## LOW IMPEDANCE INPUT FOR ANY MASCO AMPLIFIER

 Converts any hi-impedance friput to low impedance ( 50 ohms unbalanced linc) for use of long mike cable runs. Multi-alloy shielded, swivel mount for l-hole mounting on chassis. Rotates and filts to attain hum-free operation. No. $\mathbf{3 7 4 9}$. Model $\mathbf{I N}-525$ Low Impedance Transformer NET EACH$\$ 12.35$

## COMPLETE FIXED P.A. SYSTEMS FOR SCHOOLS, HALLS, CLUBS

 All models of Masco Deluxe Amplifiers, 17-watt to 75 -waft, as listed on this page are ideally suited for installation as a Fixed System of either indoor or Outdoor Stadium type with the addition of PM Speakers and Baffles, Outdoor Trumpets and Microphones of your choice-all of these accessories are listed on pages 16 to 22 of this catalog."B-A" SOUND ENCINEERINC SERVICE—For detailed information and prices address your letter giving basic details to for your particular needs, merely

DUAL-POWER 6-VOLT DC OR 110-VOLT AC

## OUTSAMDNG MOBILE EOUPMENT

U/L Approved-Low Battery Drain-"Stand-by" Switches!


#### Abstract

DE LUXE 25-WATT MOBILE AMPLIFIER SPECIFICATIONS: 25-Watts Power Output Class AB-1, peak power, 40-watts, 3-Microphone inputs at 133.5 db gain, 1 -Phono Input at 79 db gain. Frequency response $\begin{array}{ll}50-15,000 & \text { cps. } \\ \pm 2 \mathrm{db} \text {. i Hum Bever on } \mathrm{AC} \text { Power is } \\ \text { output of } 25-w a t t s, ~ o n ~ D C ~ B a t t e r y ~ P o w e r, ~ r i p p l e-f r e c!~ B a t t e r y-s a v e r ~\end{array}$ output of 25 -watts, on DC Battery Power, ripple-frec! Battery-saver switch, shuts off vibrators during intermissions-saves battery powerswitch, shuts off vibrators during intermissions-saves battery power- Dual Vibrators maintain steady voltage and frequency for both amDual Vibrafors maintain steady voltage and frequency for both amCrystal Phono Pickup; selective output impedances of 4, 8, 15, 125 250, 500 ohms. Controls, 3 -Microphone Gain, Phono Gain, separate Bass and Treble attenuators; Panel Switches for Phono Motor, Amplifier Bass and Treble attenuators; Panel Switches for Phono Motor, Amplifier Power and "Battery-Saver". Power Consumption, 145 watts at 117 Power and "Battery-Saver". Power Consumption, 145 watts at 117 volts $\mathrm{AC}_{1}$ or 23 -amperes on 6 -vol battery power, including phono motor! Tube complement: 4/6.77, 2/6SC7, 2/6L6C, Separate cables with heavy duty plugs and receptacles for AC and Battery Power. Available in choice of heavy steel cases, with or without locking hinged cover as listed below; blue-grey Hammeroid cnamel finished


25-WATT MOBILE OUTDOOR SOUND SYSTEM
 For Sound Truck use or an Outdoor Service - includes Model MC-25PC 25-Wat Molt AC Amplifier as per specifications above, plus TWO "University" $31 / 2-\mathrm{ft}$ weatherproof trumpers com Ulete with 25 -watt Drive cable, and plug; "Turner" Han-D Dynamic hand mieroPhone with $7-f t$. cable and
plugs. Phono-Amplifier has plugs. Phono-Amplifier has
rouble free, heavy-duty 6 -volt Srucks, Carnivals, stadiums. Sound prucks, Carnivals, Stadium
No. 50A221. MCO-25PN Mobile Outdoor Sound System, Net MODEL MC-25PN MOBILE AMPLIFIER ONLY-without hinged cover; The identical amplifier as used in our No. 39A11 Portable System, with speci-
fications exactly as described at top of this column. Case size is $14 \times 11 \times$ fications exactly as described at top of this column. Case size is $14 \times 11 x$
$83 /$ 月 $^{\prime \prime}$ high. Weight, 44 lbs . Complete with Battery and AC cables, heavy duty
 No. 30B49. "MASCO" Model MC-25PN Mobile Amplifier Onl
Model MC.25PC Mobile Amplitier only, Hinged Lid Case; Allows playing of
$10^{\prime \prime}$ or $12^{\prime \prime}$ records with lid closed, "stay" holds lid open, snug fitting draw $10^{\prime \prime}$
or $12^{\prime \prime}$
bolts hold lid in place when closed. "Case size. $114^{\prime \prime} \times 11^{\prime \prime} \times 107 / \mathrm{m}^{\prime \prime}$
high with closed. Complete as above described, wt. $46^{\prime} \mathrm{lbs}$.

DE LUXE CASED 25-WATT MOBILE SOUND SYSTEM

outdoors. Can be quickly set up for power source easily changed from one to the other with no delay. En tire system packs securely in the at tractive Deluxe carrying case fo
easy portability. Well suited fo traveling shows, athletic events, large auditoriums and skating rinks where music and voice are both used. For detailed amplifier specifications see

COMPLETE MOBILE PORTABLE AMPLIFIER SYSTEM
Consists of Model MC-25PN Amplifier and tubes; heavy duty TWIN SPEAKER carrying case with TWO $12^{\prime \prime}$ PM SPEAKERS complete with 25-ft, cables and plugs and Turner" Model 9-D Dynamic Mand Microphone with 7-ff. derachable cable and plug. Case size, $171 / 4 \times 175 / 8 \times 221 / 8^{\prime \prime}$ high No. 39Ali. Model MAC-25PN, Complete Mobile System. Net 5173.74 10-WATT MOBILE SOUND SYSTEM

6-Volt Battery or 117 Volt $A C$ Compact, single-hole mounted amplifier easily instalied under the dash of any car or truckand just as easiy removeable tor wise in other locations on EITHER 6 -Volt battery or 115 volt AC power! MC-10 SPECI FICATIONS: 10 -watts Class A power output at less than 5\%
distortion at frequency response of +3 db at frequency response
of $\pm 300-8000 \mathrm{cps}$; hum ievel is 60 db , below full output
of 10 -watts. Two Inputs, MicroPhono at gain of 75 db ; Tubes are, 1 6SF5, 1 6SL7CG, $26 \mathrm{GVGGT}, 17 \mathrm{Z4}$. Separate Cain Controls for Mike and Phono, Stand-by Battery Saver Switch, On-Off switch. Output impedances of $3.28^{8}$ and 15 ohms. Power conWt. 16 lbs. No. $34 A 142$; Masco Model MC-10 Mobile Amplifier only, Net No. 34A143; Model RCM ... Remote Control Unit Only, Net 10-WATT MOBILE SOUND SYSTEM, exactly as shown above, Amplifier,

MASCO DE LUXE STRINGED INSTRUMENT


5-WATT


15-WATT


18-WATT

5-WATT MODEL MAP-105N STRING-INSTRUMENT AMPLIFIER (lllus. left above.) Features: 5 Watts power output at less than $5 \%$ harmonic distortion; frequency response is $\pm 2 \mathrm{db} 100-8,000 \mathrm{cps}$; low hum leve 60db below 5 -watt output level. TWO INPUTS, for Microphone or Musical Instrument Pickup, each with 105 db gain. Dual channel input permits mix6SL7CT. 6V6CT and 6X5CT (rectifier). Power used is 30 watts at 117 volts, 60 cy . AC. Carrying case is 2 -tone blue-grey fabricoid covered with matching flocked speaker grille on front. 8-Inch PM speaker. Ideal low-
cost amplifier for Singer, Stringed Instrument Players, or for low-power P.A. cost amplifier for Singer, Stringed Instrument Players, or for low-power
Ballyhoo" system. U/L Approved, complete with power "Ballyhoo" system. U/L Approved, complete with
tubes; size, $113 / 4 \times 81 / 2 \times 13{ }^{\prime \prime}$ high. Weight, 15 lbs .
No. 30 Cl . Masco Model MAP-105N Stringed Inst. Amplifier. Net 32,34
15-WATT MODEL MAP-15 STRING-INSTRUMENT AMPLIFIER for realistic reproduction of reeds and strings-inputs for 3 instruments, or for 2 Instruments and Microphone! Suitable for instrumental solos and for combination of voice and instruments. Output variable from 15 watts full power to lowest volume without distortion. Acoustically engineered case, fin ished in Brown alligator fabricoid with tan saddle strap and musical insignia on speaker gritle, houses amplifier and 12", heavy duty P.M. Speaker; sloping panel back has controls and ventilators for amplifier. Note these additional fea tures: Frequency response, plus or minus $3 \mathrm{db}, 50$ to $12,000 \mathrm{cDs}$. Power Gain 110 db . Tubes, 2 6SL7CT 2616 C 15 Y3CT (rectifier) Two control for Master Volume and Tone, plus "On-Off" AC switch on sloping control panel. Power Rating, 15 watts Class " $A$ " power output at less than $5 \%$ dis tortion. Power consumption, 95 watts at 117
No. $33 A 71$. Model MAP-15 Stringed Instrument Amplifier, N
$\$ 58.50$
18-WATT MODEL MAP-18 STRING-INSTRUMENT AMPLIFIER Three instruments or microphones, or any combination may be used separately or slmultaneously; separate Input Controls, Individual Bass and Treble Tone Controls-Hinest stringed instrument reproduction through massive, built-in 12"' P.M. Dynamic Speaker! Improved, exclusive circuit provides full 18 WATTS power output at less than $5 \%$ distortion. Hum level 62 db , below
 Power Gain, all inputs, 110 db . Sloping control panel, protected by hinged cover, permits adjustment of controls by playing artist. Voice and instrument may be combined with bass and treble controls varying the overtones from crisp, clear melody, to rich, mellow bass! U/L Approved throughout! In grille. Size. $153 / 4 \times 95 / \mathrm{m} \times 183 / /^{\prime \prime}$ high. Weight, 36 lbs .140 watts at 117 volts
$60-$ cycle AC. Safety fused. B-A Super-Value Stringed Instrument Pick-Ups "Musical Contact Microphones"-top quality and results at a new low in price! Operate with all instruments and all makes of amplifiers-easy to inin and wil not mar finest sur of tone exceeding the power of ment alone! 8-ft. flexible cable.
No. 20A616. Contact Microphone, with Volume Control. Special, Each
$\$ 6.71$
No. 20A617. Contact Microphone, without Volume Control. Each
MS-24 SCHOOL SYSTEM All Models U/L Approved! Provides 2-way communication and faci ities for "Broadeasting" by means of
Microphone, Radio or Record Player or Changer to ANY PART OR ALL Rooms or Speakers connected to the Master Con-
sole! For Schools, Offices, Industrial sole! For Schools, Offices, Industrial Systems are the Low Cost answer to communications problems-H add to the effi-
ciency of any School, Hospital, Office, or industrial Plant. Available in capacities of $6,12,18$ or 24 rooms! Easy to install, ductor cable for connections between Con sole and each speaker in system. Speakers type, or University Type IB-8 Speakers

speaker requiring a multiple line to V.C. transformer. Constant Voltage Output pius efficient circuit with 15 db . feedback in output stage assures nonvarying volume at all speakers. Features: 28 -watt Class $A B-1$ output; frequency response, $\pm 2 \mathrm{db} .50 / 15,000 \mathrm{cps}$. Hum level, -64 db . at output 3 Inputs. Hi-Imped. Mike, Phono, Radio. Monitor spea, dm , on Phono versations and monitoring of radio or phono music. Push-button room selector switches. Separate incoming and outgoing volume controls, Magic Eye level indicator. With 7 tubes and instructions, in steel cabinet $16 \times 91 / 2 \times$
$13^{\prime \prime}$ high. Weight, 37 lbs. 145 watts at 117 volts, 60 -cycle AC. Four room capacities as listed below:
Stk. No. Model Facilities fo
MS-24-1 6 Rooms Complete with Tubes
50 A 225 MS-24-2 12 Rooms Complete with Tubes
$50 A 226$ MS-24-3 18 Rooms Complete with Tubes
50 S227 MS-24-4 24 Rooms Complete with Tubes
List Price
$\$ 184.50$
189.50
194.50
199.50
$\$ 108.49$
1114.42
1117.30 "Economy" AMPLIFIERS AND COMPLETE SOUND SYSTEMS
GUARANTEED QUALITY AND SATISFACTORY PERFORMANCE AT MODERATE COST!

ECONOMY 6-V. DC/115-V. AC MOBILE AMPLIFIERS Proven QUALITY AT LOW COST, ModeI MC-25P provides coverage for audian AMPLIFJER ONLY or in choice of SOUND TRUCK or PORTABLE MOBILE systems as listed and priced below 25-Watt Model MC-25P Amplifier features are: Universal service, instant operation on either 6-volt battery or 115 -volt AC power; constant speed, heavy duty Phono Motor and Crystal pickup, ripple free in operation on plugs for BOTH power sources all component parts designed for cables and service without breakdown or heating.
Output 25 watts. Frequency response, $50 / 10,000$ cps.
Hum level, 55 db . below Hum level, 55 db. below
output. Input, two micro phone and one phono. Cain microphone 125 db ., phono
78 db . Standard tone con78 db . Standard tone con 2 7N7. 265 F5, 26 L6C, SV4C. Hum free operation. 500 ohms. Power Requirements, 20 watts, 117 -volt AC, 60-cycle; 22 amps. $6-$ case $12 \times 10 \times 8^{\prime \prime}$, Wt., 40 lbs .


MODEL MC-25P AMPLIFIER AND TUBES ONLY Has all features descr
weatherproof trumpet. weatherproof trumpet.
No. 30A1. MASCO M
No. 30A1. MASCO MODEL MC-25P AMPLIFIER. NET
$\$ 88.79$
25-Watt COMPLETE MOBILE SOUND TRUCK SYSTEM Consists of MC-25P Amplifier described above, two University $31 / 2-\mathrm{ft}$. Trum-
 No. SOA269. COMPLETE SYSTEM

## COMPLETE 25-WATT MOBILE PORTABLE SYSTEM

 25-Watt portable system for universal use on sound Truck or Automo-biles where 6 volts DC is the only source of power or in any location where 115 -volt AC power is available. Can be quickly set up either way. Entirely contained in a leatherette covered carrying case for convenient handling. Case is divided and serves as speaker baffles when system is in use. An ideal combination for orchestras, camp meetings, carnivals, speech making, churches, etc. The complete 25 -watt system consists of MC-25P Amplifier and tubes, sturdy twin speaker carrying case, two heavy duty PM speakers complete with $25-\mathrm{ft}$. cables and plugs. IT-30 Astatic Microphone with cord and connector. Case dimensions, No. 32A294. NET EACH


LOW COST 25-WATT AC AMPLIFIER OR SYSTEM
 Masco Model MA-25 Amplifier. Complete as described above. 54.63 COMPLETE 25-WATT PORTABLE P.A. SYSTEM A complete portable-packaged P.A. system. Ample power for audiences to 2,000 persons! Consists of Model MA-25 Amplifier as described above, complete in rugged dual speaker baffle carrying case with TWO mounted heavy cuty $12^{" \prime}$ PM Speakers, each with 25 -ft. cable and plug; Astatic JT-30 high sturdy leatherette covering wable plagic, No. $31 \mathrm{B225}$. Masco MAS-25 Portable P.A. System. NET.... 9.94 .81


TREMENDOUS SAVINGS ON THIS FAMOUS NAME-U/L APPROVED RECORD CHANGER-AMPLIFIER! 25 WATTS, 115 -VOLT, 60-CYCLE AC? $\star 4$ Inputs: 2 Microphone, 2 Phono. Selector-Switch Outputs. 7 TUBES including rectifier. Automotic Chonger ploys $1012^{\prime \prime}$ or $1210^{\prime \prime} 78$ RPM records! (Complete description, Page 137) No. 32A56. NET EACH.

ECONOMY 50-WATT AMPLIFIERS \& FIXED SYSTEMS


MA-50 AMPLIFIER! QUALITY HI-POWER AT VERY LOW COST

MA-50, 50-WATT AMPLIFIER SPECIFICATIONS
50 watts undistorted output for driving from 2 to 6 SPEAKERS to satisfactorily cover to $15,000 \mathrm{sq}$. ft. Indoor area, or up to 10,000 sq. ft, of Stadium Bleacher or Grandstand seatingl Peak Output is 64 Watts. FEATURES: Exclusive MASCO circuit; Inverse Feedback; full electronic mixing of all channels-2 Microphone channels at 130 db . gain, 1 Phono channel at 80 db . gain; Frequency response is $50 / 10,000 \mathrm{cps}$. , $\pm 2 \mathrm{db}$.; Hum level below zero level - 22 db .; Individual gain controls for ali channels, Bass and Treble controls; Tapped output impedances of $2,4,8,15,500$ ohms. 4 $6 \mathrm{L6C}$ 's in push-pull parallel-Tubes used are 21273 , 1 7F7, $17 \mathrm{N7}, 46 \mathrm{~L} 6 \mathrm{C}$, 2 5U4G (rectifiers). Completely fused, designed to provide high quality, high
volume and long hour usage! In ventilated steel cabinet $16 \times 10 \times 10^{\%} 240$ watts, 117 volts, 60 -cycle AC. Weight, 40 Ibs.
No. 30C16. Masco Model MA-50 Hi-Power AC Amplifier Only $\$ 75.85$ SO-WATT COMPLETE AUDITORIUM SOUND SYSTEM Consists of MA-50 amplifier described above, 4 heavy duty $12^{\prime \prime}$ PM Speakers, 4 Walnut Wall Baffles, Astatic JT- 30 Microphone and desk stand with connector (wiring from amplifier to speakers need be only simple 2 -conductor unshielded telephone wire or equal). Weight, 100 lbs . A fine system eapable of covering most any Indoor area up to $15,000 \mathrm{sq}$. ft.
No. 50B7. MA-50CA, Complete Auditorium System. NET. . 122.82

## 50-WATT COMPLETE OUTDOOR SOUND SYSTEM

 Consists of MA-50 amplifier described above, THREE University $31 / 2-f t$. Weatherproof Trumpets and 25 -watt Driver Units; Turner Model 9-D "Han-D Dynamic Mierophone with built-in "On-Off" switch with 7-ft, cable and connector. (Wiring to Trumpets of this system may be ordinary 2-conwill casily cover Stadium or ofher outdoor audiences to 3,000 persons! No. 50B8. MA-50CS, Complete Outdoor Sound System. NET EACH.$\$ 187.30$

## ECONOMY 35-WATT MEDIUM POWER AMPLIFIER

 Ample power to cover audiences up to 2,500 persons indoors, or 2,000 outdoors-will handle or $241 / 2$-ft. Outdoor Trumpets! wEATURES: $\begin{array}{ll}\text { or } 2 & 31 / 2-f t \text {. Outdoor Trumpets! FEATURES: } \\ 35 \text { watts power Output with hum level } & \text { 20 }\end{array}$ 35 watts power output with hum level - 20 db. below zero level; Frequency response is$50 / 10.000 \mathrm{cps} . ~$
$2 \mathrm{db} . ; 2$ Mike inputs at gain of 125 db .: Phono Input gain, 78 db . Separate Gain Controls for all inputs, Dual-tone control;
 selective outputs tapped at 2
ohms; Tubes are: 45517 , 1 NN7,' 26 L 6 C , 15 SUC tronic Mixing; power consumption is
Steel cabinet is $15 \times 8 \times 8^{\prime \prime}$. Weight. 30 lbs. Steel cabinet is $15 \times 8 \times 8^{\prime \prime}$. Weight -30 lbs.
No. 33 B88. Masco Economy Model MA- 35

17-WATT AMPLIFIERS \& COMPLETE PAA. SYSTEMS
 Specifications of 17-Watt AC Amplifiers, Models MA-17 and MA-17P (Phono Top): FEATURES: Full 17 watts output, Beam Power using 2 6L6G's; inverse feedback circuit; Mierophone Input Gain 118 db. : plug-in Phono Input Gain 74 db. ; 2 Gain and 1 Tone controls: electronic mixing overall; tapped outputs of
500 ohms; hum level, ${ }^{2}$ 4.
82 zero level; frequency, response, +2 dow zero level; frequency response, $\pm 2 \mathrm{db}$.
$50 / 10,000$ cycle AC. Phono or plain models as listed.
 No. 30A86. Model MA-17. NET EACH.
\$36.78
MODEL MA-17P. 17-Watt AC Amplifier, With Phono Top. Complete with Phono, 5 tubes, steel case $12 \times 10 \times 8^{\prime \prime}$. Weight, 28 lbs.
No. 30A3. Masco Model MA-17P Amplifier. NET EACH.... $\mathbf{S} \mathbf{3} \mathbf{3} 5$
17-WATT PORTABLE-CASED SYSTEMS (With or Without Phono) Complete, ready to use. Has sufficient power for indoor audience coverage of up to 1.000 persons and outdoor area coverage of up to $3,000 \mathrm{sq}$. $\ddagger$. Ideal for Small Orchestras, Lecturers, Clubs, and Ballrooms.
Illustrated above. Consists of Amplifier and Two 10". PM Speakers each with $25-\mathrm{ft}$ cable and plug mounted in heavy-duty carrying case Astatic JT-30
Microphone with $15-\mathrm{ft}$, cable and plug. Overall size, $141 / 2 \times 13 \times 18^{\prime \prime}$. Weight, 55 lbs.
No. 31B226. MAS-17 Complete Less Phono Top............... S77-94
No. 31B221. MAS-17P Complete as Above But With Phono Top... \$84.41
17-WATT FIXED SYSTEM (With Speokers in Woll Boffles) Amplifier as above; Two Jensen P1OS $10^{* \prime}$ PM Speakers each with $25-\mathrm{ft}$. cable and plugs; Two $10^{\prime \prime}$ wall baffles; Astatic IT-30 Microphone with 15-4i cable and connector
No. 50A267. Complete With Phono Top
$\$ 80.09$
No. 50A268. Complete as Above But Less Phono Top.
$\$ 73.51$

## 414301 m

THE ONLY SIX AND TWELVE STATION CAPACITY MASTER INTERCOM STATIONS FOR UNIVERSAL USE IN - MASTER-TO-REMOTE - MASTER-TO-MASTER - MASTER-TO-MASTER-TO-REMOTE INTERMIX SYSTEMS


Six Station Master


Twelve Station Master
"CON-FER-PHONE" MASTER STATION FEATURES: * 6-Station Master permits from one to six other stations (7-Station total). - 12-Station Master permits one to fwelve other stations (13-Station total). * Push-button station selectors, finger-fitting, easy operating. Press-to-talk switch has dictating position. * Individual or group conversations alyailable at will. Output; 1 each $14 \mathrm{F7}$, 50L6, 50 Y6.

- Volume Control with On-Off Switch; Indicating Pilot Light!
*" "Alnico-V'A PM Speakers, 13 -ohm voice coils.
Cast Aluminum cabinets, size $125 / 1 \times 71 / 2 \times 51 / 2^{\prime \prime} ;$ weight, only 8 lbs . All cabinets finished in pleasing Walnut Hammertone baked enamel * All "Con-fer-phone" Master and Remote units are U/L APPROVEDi


## "CON-FER-PHONE" SYSTEM SELECTION GUIDE

 For Master-Remote Systems: Minimum system, 1 each Master and Remote, or 1 Master JMP-6 and as many as six JL, JS or JS-6 Remotes, or I Master JMP-12 and as many as twelve JL, JS or JS-6 Remotes. Remotes connected to Master station by 2 -wire twisted unshielded cable, plus an additional wire twisted shielded cable for each JS Remote used in system. For All-Master Systems: Minimum system, 2 JMP-6 Masters. Seven Masters may be used in a JMP-6 System. 13 Masters in a JMP-12 System. All connected in parallel by a cable with twisted pairs of conductors equal to total number of Master Units in system.Combination Master-fo-Master-to-Remote Sysfems: Any combination of Masters and Remotes from two to seven for a JMP-6 System, or two to thirteen for a JMP-12 System. Wiring requires 1 pair unshielded twisted for each Master in system, the same for each Remote to Master; plus a shielded twisted pair from each Master to each type JS or JS-6 Remote connected to it in system. 12 Masters require two unshielded twisted pairs, PLUS cables described above to connect them to their private or shared-with-other-Master Remotes.)
"CON-FER-PHONE" 6 AND 12 STATION MASTERS MODEL JMP-6. For use with SIX or less other stations to complete any of the systems described under "System Selection Cuide" above. Complete with lubes, installation chart, instructions; ample power for operation of stations hundreds of feet apart!
No. 32B229. Masco Model JMP-6 "Con-Fer-Phone" Master.. 34 MODEL JMP-12. For use with TWELVE or less other sfations to complete any of the systems described under "System Selection Cuide" above. Complete with tubes, installation chart, instructions. Has all features described above under "Master Station Features".


JL Remote


JS Remote


JS-6 Remote Junction Box

* All have $4^{4}$ "Alnico-V" magnet PM Speakers.

All have Cast Aluminum cabinets, size $65 / 8 \times 71 / 8 \times 51 / 4$ "; weight, $31 / 4$ lbs. All may be used in any combination with JMP-6 or JMP-12 Masters. * Model JL Remotes connect to one Master by 2-wire twisted unshielded cable! Can answer Masters from a distance; cannot initiate calls

* Model JS Remotes connect to one Master by 2-wire unshielded cable and a common 2-wire shielded cable connecting all JS Remotes in system to Masters; have press-to-talk switch permitting initiation of calls to one Master.
* Model JS-6 Remotes connect to and may initiate calls to as many as six Masters; require a 2 -wire shielded cable to each Master to be called, plus a 2-wire unshielded cable to each Master for privacy talking circuit. can be wired for "privacy" or "non-privacy" to their Master Stations.

REMOTE STATIONS FOR JMP-6; JMP-12 MASTERS MODEL. JL REMOTE. Less call switch, with installation instructions. $\mathbf{5 7 . 5 0}$
No. 32B236. Masco Model JL Remote Station. Net Each...... $\$ 8.23$ MODEL JS REMOTE. With call switch and installation instru
No. 32 B250. Masco Model JS Remote Station. Net Each.
MODEL JS-6 REMOTE. With 6-position Master Station Selector and Call Switch, complete with installation inst, and wiring diagram.
No. 32 B256. Masco Model JS-6 Remote Station. Net Each.. (Note: The JS-6 Remote may be connected to more than one Master Station) JUNCTION BOX: (lllustrated at right above.) MODEL BJ- 12 JUNCTION BOX has 14 pairs of terminal lugs mounted on metal chassis, with dust cover, simplifies wiring of systems and eliminates "'splice troubles" and inconvenience. One BJ-1 2 should be
Nemote Station in system.
N2B205. Masco Model BJ-12 Junction Bax. Net Each
$\$ 4.25$
WIRING CABLES FOR "CON-FER-PHONE" SYSTEMS
No. 2A94. 2-wire, unshielded twisted, with braid overall
No. 2A89. 2-wire, shielded twisted, with braid overall
No. 2A95. 2 2-wire twisted pairs, cotton braıd covering overall
No. 2A96. 3 2-wire twisted pairs, braid covering overall.
No. 2A97. 62 -wire twisted pairs, cotton braid covering overall.
No. 2498. 92 -wire twisted pairs, braided covering overall
No. 2A99. 13 2-wire twisted pairs, braided covering overall.
$\qquad$
$\star \star \star$ MASCO "ECONOMY"——STAR VALUE G-STATION CAPACITY INTERCOM SYSTEMS * * * 117-VOLT AC/DC . . . WALNUT HAMMERTONE CAST ALUMINUM CABINET . . U/L APPROVED


JM5 MASTER REMOTE SYSTEM
Consists of one IM5 Master unit and one to five "IIR." Remote units. Provides instant communication from Master to any remote or to all at once. Remote stations may call Master. $21 / 2$ watts power provides ample volume even at long distance to remote. Selector switch has one position for each remote, all call position to contact all remotes at once and stand-by position to insure quiet at Master. Combined volume control and off-on switch and talk-listen switch. Remote has "press to talk" switch for originating calls. Weight, Master, 6 lbs .; Remote, $31 / 4 \mathrm{lbs}$. Requires three conductor unshielded cable


## IM5 ALL MASTER SYSTEM

Consists of identical units. Any number from two to six. May be used in a system. Provides communication between any two units with complete privacy and no cross talk or interference. The "all call" position of selector switch permits talking to all stations at once. Has volume control and "press to taik and permits lang tubes this eration between units with good volume. Connecting cableng Requires cable with one more conductor than number of units. Complete with instructions.
No. 36449 . IMS UNITS ft. apart! Life-like tone quality, ample power to make voices heard easily af least 25 reet from "Slaveor remote station! Tailor-made for Physician, Dentist, Lawyer, Restauranf, HOMES. MASTER UNIT feat tures heavy duty $21 / 2$-watt amplifier using 14F7, $50 L 6$ and $50 Y 6$ tubes. "Ori-Off switch, combined with Volume Control, permits adjustment of volume to suit location. Both Master and Remote Units have "Press-to-Talk"' switches; Remote may initiate calls to Master Unit, Remote Station can be used for twoway conversation, WITHOUT use of press-to-talk switch. Both Units housed in Cast Aluminum cases,



## Reflex TRUMPETS and high power driver units


(1)

HIGH EFFICIENCY

## REFLEX TRUMPETS

All metal, weather-proof projector Famous rubber rim eliminates ratused with University hermetically sealed driver; a continuous, long assured. All metal non-corrosive finish limits poossibilities of deterioration. "U"\% Brackets permit mounting in any position.

(2) (1) MODEL "CH" SUPER REFLEX TRUMPET- 6 -FOOT AIR COLUMN; 30" Ciameter bell, low frequency cut-off of 85 cps .i for finest music and voice reproduction. Made of Aluminum; 25 long (without driver). lbs. $90^{\circ}$ dispersion. Stock No. 40A37. MODEL "CH" TRUMPET ONLY. NET
\$35.28 (1) MODEL "LH" REFLEX TRUMPET-4 $1 / 2$-FOOT AIR COLUMN; very satisfactory for BOTH VOICE AND MUSIC; low frequency cut-off, 120 cps . Bell Stock No. 40A24. MODEL "LH" TRUMPET ONLY. YOUR COST $\$ 26.16$ (1) MODEL "PPH" REFLEX TRUMPET- $31 / 2$-FOOT AIR COLUMN, ideal for
 (1) MODEL "SMH" REFLEX TRUMPET- $21 / 2$-FOOT AIR COLUMN; made of aluminum with $151 / 2^{\prime \prime}$ diameter bell. $12^{\prime \prime}$ long: wt. 6 lbs . Low frequency cut-orf is 200 cps. $75^{\circ}$ dispersion. Stock No, 40A22. MODEL "SMH"" TRUMPET ONLY. NET
\$14.41
(3) "University" RADIAL REFLEX Prolectors-of exceptiona! merit for reproduction of CHIMES in CHURCH TOWERS, and widely used in all installations requiring clear sound dispersion in ALL DIRECTIONS! For use with ANY of the University Driver Units listed at right. above. Two Driver Units may be used on a single projector by the addition of " $2 \mathrm{YC}^{\prime}$ dual trumpet connector (3) MODEL "RLH" RADIAL REFLEX PROJECTOR. Low frequency cut-off, 120
 Stock No. 40A31. "RLH" Radial Reflex Projector. Net. .
(3) MODEL "RPH" RADIAL REFLEX PROJECTOR, designed for BOTH speech



## NEW UNIVERSITY POWRMIKE

For the first time a complete sound system without an amplifier operating direct from mike to speaker sound system for Ballyhoo from autos, auctions, an nouncing, police and fire vehicles. The sysfem draws nouncing, police and fire vehicles. The system draws then it will actually deliver 1.5 watts of audio pow er which cannot be overloaded under any conditions. er which cannot be overioaded under any conditions. operated from any 6-volt battery. Where wider sound pattern is desired two PS4 speakers may be connected in parallel. Speaker. Hot Shot battery adapter plate, Cigarette lighter adapter plug. Battery drain $3 / 8$-amp. Output impedance 2-4 ohms. Frequency Weight 6 lbs. (Less battery)
\$35.28
Model PC66. Completely assembled and wired with Powrmike, PS4 speaker volume control, hot shot battery adapter plate. (Less battery.) . . . . . . . . . . . . . . . . . . . . .
$\$ 2.50$
Stock No. 37484 . Eveready No. 1461. NET.


UNIVERSITY PAGING and TALK BACK SPEAKERS

(1)
(1) MODEL "IBR" 12-Watt, 8-Ohm Voice coil, $360^{\circ}$ dispersion complefe amplifiers for music and voice reproduction. Hermetically sealed Driver Unit Waterproof construction and finish with rubber "damping" stock No, 34A133. Net
$\$ 22.93$
P) MODEL "MIL" Complefe 3-Wart Reflex Paging and Intercomm Speaker. Frequency response is $400 / 9,000$ cos. 8 -Ohm V $V$. Adjustable wall bracket mounting: weight, $31 / 2$ lbs.
$\$ 14.70$
(3) MODEL 188 12-Watt Directional Reflex Speaker. Dispersion angle, 900: frequency Response, $300 / 6.000 \mathrm{cps}$; 8 -Ohm V.C.; adjustable wall bracket mounting. For continuous duty at 12 watts power input.
Stock No. 34A132. Dia., $9^{\prime \prime}$; depth, $9^{\prime \prime}$; weight, 5 lbs. Net...
 UNAMVEREITMR
DRIVIR UNTVE ALNICOV PM 25-MATT UNMTS BREAKDOWN PROOFI 1-YEAR CUARANTEE Dural Voice Coil Suspension Bakelite Diaphragm


MODEL SA-HF 25-Watt Wide Frequency Range Driver Unit. Ideal for com bination voice-music use due to extended frequency range of $90 / 10,000 \mathrm{cps}$. Will "stand up" under continuous 25 -watt input; completely weatherproof; scheduled for wide usage in PA. $43 / 4^{\prime \prime}$ high; weight, 5 lbs. A brand NEW unit scheduled for wide usage in P.A. work! (lllus. right above.)
Stock No. 348134 . University Model SA-HF Driver Unit. Net. MODEL MA-25. NEW LOW-COST 25-WATT DRIVER UNIT. Similar in appearance to lllus. at right above, this new unit has ALL the fine features of "University" Drivers. Continuous service; Breakdown proof construction; Frequency Range is $90 / 6,000 \mathrm{cps}$. for Voice or Music work; Voice Coil Imped.
16 -ohms. Size, $41 / 2^{\prime \prime}$ dia.; $33 / 4^{\prime \prime}$ high. 16-ohms. Size, $41 / 2^{\prime \prime}$ dia.; $33 / 4 "$ high.
Stock No. 31825 . University Model MA-25 Driver Unit. Net.. 41 NEW! PA-30 HEAVY DUTY, COMPLETELY WATERPROOF 3O-WATT DRIVER
The FIRST Hi-power continuous duty driver capable of handling full 30 watts undistorted output without blasting or overloading with the ADDITIONAL FEATURE OF BUILT-IN line matching transformer providing taps for $165,250,500,1000$, and 1500 ohms at voltages of $30,20,10,5,21 / 2$ watts plus standard 16 ohm V.C. tap. Tops in electrical design, efficiency and mechanical strength-has complete immunity to temperature and humidity change unaffected by chemical fumes. Constant voltage taps permit approx. 3 db. change in volume level at each step.eliminating complicated figuring when used with 70 volt constant voltage outputs. NEW Model PA-30 and $70-60,000$ cps. on Model PA-30C. Either Driver unit delivers clean, undistorted clear reproduction of high signal level low fre-quencies-and faithful reproduction over its entire rated range at continuous full loading of 30 watts. Model PA- 30 . ALL-PURPOSE; DRIVER Range $80-10,000 \mathrm{cps}$ Size : $63 / \mathrm{x}$ $63 / 4^{\prime \prime}$. Wt. 6 lbs. cycles. For high impact passages encountered in Chime reproduction. Size and wt. as above.
No. 37 A 86 . NET
\$32.34

## NEW UNIVERSITY COBRA REFLEX SPEAKERS

Recommended for wide range music systems, theatres, concert halls, airports, efc. For maximum horizonta and a maximum of volume without feedback. It provides a uniform sound pattern in both frequency and intensity over a horizontal angle of $120^{*}$ and a vertical angle of only $60^{\circ}$. Comparatively little energy is dissipated in the vertical plane. Sound can be di-
 where it is needed. Will effect more satisfactory coverage than a greater number of conventionally designed speakers. Used advantageously as a wide range tweeter in conjunction with a low frequency cone speaker in a suitable baffle. Trouble-free, completely weatherproof, gunmetal finish and supplied with a bracket for tilting and locking in any vertical plane. Frequency range $300 / 10,000$ cycles, 12 watts output, 8 -ohm voice coil. wide: $8^{\prime \prime}$ high; $16^{\prime \prime}$ deep. Weight, $51 / 2 \mathrm{Ibs}$.
Stock No. 34A183. Cobra 12. NET
$\$ 26.46$

## CO-AXIAL TRUMPETS

"UNTVERSITY" MODEL WLC
25-Watt, High Fidelity, Completely Weatherproof Co-Axial Speaker. Consists of a highily bination with a unit-driven 25-Watt "Tweeter" unit, coupled by built-in Crossover network at frequency of , from $50 / 10,000 \mathrm{cps}$. FEATURES: /int 0 cps. FEAT URES
 ture-proof cone $12^{\prime \prime}$ Woofer Speaker in large volume, sealed enclosure, reentrant design of housing assuring maximum protection to cone. Adjustable $90^{\circ}$ dispersion for wide-angle coverage of large areas. For fusted and locked. reproduction of Voice and Music, Model WLC is "IT" for use in Band Shalls Auditoriums-many oufdoor or indoor installation where high quality reproduc: tion of music and voice are essential! Will "Carry" full 25 watts continuously without a trace of blasting or overloading. Size, diameter, 33 , continu$18 \prime$ : weight, 70 lbs. 8 -ohm V.C.
No. 40A30. Model WLC Complete Coaxial Trumpet. Net.. 19

## LOW COST 100-WATT QUADRAFLEX TRUMPET

Model 4A4 "University" Super-Power Reflex Trumpet - accommodates FOUR standard 25watt Driver Units, each feeding into individual reflexed air columns, adapted to broadcasting from aeroplanes, or transmission of Chime and Organ music from church towers. When equipped with Four type SA-HF 25 -watt wide frequency range driver units Model $4 A 4$ will provide clear projection for ONE MILE at $80^{\circ}$ dispersion! Size, $16^{\prime \prime}$ in diameter; $17^{\prime \prime}$ Iong; weight, 23 lbs. LESS Driver Units. Sturdily constructed, oven baked finish to stand con-
tinuous exposure in any weather. Adjustable Stock No, 40838 . Model $4 A 4$ Reflex position.
 Stock No, 40B38. Model 4A4 Reflex Trumpet Only. NET
$\$ 54.68$

HIGH FIDELITY "TWEETER" UNITS Extend the high frequency response of existing equipand connected through Model 4405 , a simple, inexpensive high pass filter which includes a high frequency volume control for balance of lows and high frequency

## WIDE RANGE HI-FREQUENCY "TWEETER" UNITS

 FOR USE WITH ANY GOOD CONE SPEAKERPROVIDES TRUE HIGH FIDELITY AT LOW COST. Frequency response, 2,000/15,000 cycles; Input mpedance 12 ohms; Power rating 6 watts. Ideal for installation in Console Radio Cabinets or radiophono combinations in conjunction with existing reproduction. Size, $41 / 2^{\prime \prime}$ wide, $25 / 8^{\prime \prime}$ high and $5^{\prime \prime}$ reproduction. Size, $41 / 2^{\prime \prime}$ wide, $25 / 8$
No. $34 A 151$. MODEL 4401 . NET.

 Ready-made modernization Tweeter Speaker, complet with steel adapter ring to fir ANY $2^{\circ}$ PM speaker frame. Consists of Model 4401 Single Tweeter Unit with ALL necessary screws, boits, etc., for mounting to the frame of speaker. Merely remove speaker from baffle-board, attach steel ring to speaker, and re-mount entire assembly to baffle board; requires only $31 / 2^{\prime \prime}$ additional depth space! Requires Model 4405 Hi-Pass Filter Unit listed below. Simple installation instructions supplied. No. 34A156. Single Unit Tweeter Speaker. Complete With Mounting Ring. NET
$\$ 14.70$
HICH PASS FILTER AND VOLUME CONTROL UNIT-MUST be installed with ANY of the above "Tweeter" units; "routes" hi-frequencies to Tweeter Unit and bass or low frequencies to cone speaker. Volume control permits "building up" or suppression of high frequencies as desired. Easily connected to Tweeter Unit and Cone Speaker by merely attaching two
wires to existing speaker.
Stock No. 34 A152. Model 4405 High Pass Fitter Unit. NET. . . . .

## NEW UNIVERSITY TWEETER

University tweeters, 4408 and 4409 are designed for wide range reproduction requiring a low cut-off of insist on the highest quality for concert halls, theatres and auditoriums. The bakelite diaphragms and Alnico 5 magnet account for the wide range and power handling capacity of these units. Model 4408. unit was perfected compact design 6 -watt tweeter speaker cabinets, sound movies and other systems where high fidelity is essential. Frequency response $600 / 15.000$ cycles i impedance 16 ohms. Size, $53 / 4^{\prime \prime}$ high, $73 / 8^{\prime \prime}$ wide, $11 / 8^{\prime \prime}$ deep. Stock No. 37A87. MODEL 4408. NET Model 4409 has same characteristics as above unit except for capacity of 25 watts. Size, $53 / 4^{\prime \prime}$ high, $73 / 8^{\prime \prime}$ wide, $111 / \mathrm{s}^{\prime \prime}$ deep. Stock No. 37A88. MOD Model 4410 . Compact 600-cycle cross over for either of above.
 Stock No. 37A89. NET

## "UNIVERSITY" LINE MATCHING TRANSFORMER Housed in rubber gasketed, water-tight housing; for use with "Universit

 Speakers in outdoor or indoor locations. Model 5402 has bracket for direct mounting to "U", brackets of any University trumpet. 25 -watt; primary imp.,

## $360^{\circ}$ Radial Cone Projector

"UNIVERSITY" MODEL RBP-12. RICH TONE QUALITY equal to large wall speaker enclosures! Large acoustic chamber with rubber cushioned opening correctly loads rear of cone speaker for FULL RANCE reoroduction of VOICE or MUSIC! Frequency uniform down to 50 cycles. Diameter
Stock No. 32A22. MODEL RBP-12 PROIECTOR ONLY
FOR 12 -INCH CONE SPEAKERS; YOUR COST
MODEL RBP-8; SAME AS ABOVE FOR $8^{\circ \prime}$ CONE SPEAKERS. 1 Stock No. 32A23. YOUR COST
$\$ 20.58$
$\$ 11.52$


REFLEX TRUMPET ADAPTERS Illus. "A": "University" PMA Adapter Bolts securely to "U": bracket of trumpets and has $1 / 2$-inch I.P.T. female threaded socket for secure fastening to $1 / 2$ pipe $51 / 2^{\prime \prime}$ wide, $23 / 4^{\prime \prime}$ high; wt. 12 oz. 888
No. 31 A26. "PMA" Adapter. Net. 88 Illus. "B": "University" 2YC DUAL DRIVER UNIT CONNECTOR. Heavy threaded casting with acoustically correct design, permitting use of TWO driver units on a single Reflex Trumpet. Male threads fit all trumpets.


## PARABOLIC BAFFLE



For
12-Inch
Speaker
20" Bell
Heavy
Steel

Vibration and WEATHER-PROOF for most severe field service; NEW inter locking WATER-TICHT SEAL between sections. Mounting holes drilled fit any $12^{\prime \prime}$ speaker-mounting bolts sup plied. Hanging loops supplied to sup port baffle in position desired. Baked BLUE-CRAY weather resistant enamel finish.
Stock No. 32 A 24. Model SM-12. Your Cost

## 2uality Baffles \& Cabints

Illus. A: Super DeLuxe Wall Baffle. The finest baffle possible to build! "Spot Welded" Construction by Electronic Meat-no parting at (not veneered) with sides of solid $5 /{ }^{\prime \prime}$ thick Inot veneered), with sides of solid $5 / 8^{\prime \prime}$ thick gum-wood; reinforced by $1 / 2 \times 11 / 4^{\prime \prime}$ braces top alts drom: Front drilled for speaker mounting together with hook and bolt for wall mount.

Stk. No. Fos Speaker High Wide D


A
B

| Stk. No. For Speaker High | Wide | Deep | Weight | Your Cost |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | ---: |
| 32843 | $12^{\prime \prime}$ | $16^{\prime \prime}$ | $15{ }^{\prime \prime}$ | $91 / 2^{\prime \prime}$ | $61 / 2 \mathrm{lbs}$. | 7.20 |

Illus. B: "B-A Plus Value Wall Baffles". Beautifully designed, rugged construction reinforced corners and finished with heavy two-tone walnut veneer

| Stk. No. | For Speaker | High | Wide | Deep | Weight | Your Cost |
| :--- | :---: | :---: | :---: | :---: | :---: | ---: |
| 33811 | $5^{\prime \prime}$ | $71 / 2^{\prime \prime}$ | $51 / 2^{\prime \prime}$ | $41 / 2^{\prime \prime}$ | 1 | lb |
| 34 A 103 | $6^{\prime \prime}$ | $81 / 2^{\prime \prime}$ | $71 / 2^{\prime \prime}$ | $5^{\prime \prime}$ | $11 / 4 \mathrm{lbs}$ | $\$ 1.95$ |
| 34 A 102 | $8^{\prime \prime}$ | $101 / 2^{\prime \prime}$ | $91 / 4^{\prime \prime}$ | 6 | 6 | $11 / 2 \mathrm{lbs}$. |
| 34 A 101 | $10^{\prime \prime}$ | $113 / 4^{\prime \prime}$ | $101 / 2^{\prime \prime}$ | 7 | 2.40 |  |
| 34 A 100 | $12^{\prime \prime}$ | $133 / 4^{\prime \prime}$ | $14^{\prime \prime}$ | $9{ }^{\prime \prime}$ | $21 / 4 \mathrm{lbs}$ | 3.70 |

## DE LUXE STEEL SPEAKER CABINETS

Ideal for portable "PA" speakers; NON-RATTLE construc tion in streamline design, rounded corners, ornamental grille, carrying handle; well baffled. Gray wrinkle enamel finish.
Stk. No. Dimensions For Speaker Hole Size Net Ea.
$\begin{array}{lllll}5 A 127 & 10 \times 10 \times 6^{\prime \prime} & 6-\operatorname{lnch} & 43 / 4^{\prime \prime} & \$ 3.00 \\ 5 A 128 & 12 \times 12 \times 7^{\prime \prime} & 8-\operatorname{lnch} & 61 / 2^{\prime \prime} & 3.59 \\ 5 A 129 & 16 \times 16 \times 8^{\prime \prime} & 12-\operatorname{lnch} & 11^{\prime \prime} & \mathbf{8 3}\end{array}$
$5 A 129$


## HI-FIDELITY BASS-ACOUSTIC SPEAKER CABINETS

Rugged plywood BASS-REFLEX CABINETS, engineered for Hi-Fidelity reproduction with any COOD speaker. Ideal for Co-axial speakers, or "Tweeter"."Woofer" wide range speaker systems. Rich Leatherette cov-
ered, complete with all necessary hardware. FINE ered, complete with all necessary hardware. FINE
CABINETS AT EXTREMELY LOW COST! CABETS AT EXTREMELY LOW COST
$\begin{array}{llll}\text { Stk. No. For Speaker Dimensions } & \text { Wt. } & \text { Net Each } \\ 40 A 14 & 12^{\prime \prime} & 27 \times 21 \times 111 / 2^{\prime \prime} & 37 \# \\ 40 \text { \# } & 518.28\end{array}$ 40 A1 4
40 A1 5
$32 \times 24 \times 14$
43
518.28

## RECORD CHANGER AND PHONO MOTOR BASES


lllus. A: "Webster" Record Changer Base. FOR MODELS 156,256 or 356 CHANCERS -provides room for $5^{\circ \prime}$ or $6^{\prime \prime}$ speaker and small Phono Amplifier. Solidly built of heavy plywood, covered with good quality Leatherette, matching speaker grille cloth. Size, $16 \times 151 / 8 \times 73 / 8{ }^{\prime \prime}$ high. Wt. 7 lbs.
Stock No. 34A104. "WEBSTER" CHANCERAMPLIFIER BASE. Ne Each
\$5.65
lllus. B: "Webster" Record Changer Base (Without Speaker Crille). EXACTLY CUT TO FIT MODEL 156,256 OR 356 CHANCERS-sturdily made of Wt. 5 ibs.

Illus. C: POLISHED VENEER RECORD CHANCER BASE, Easily cut to fit ANY Record Changer-sturdy plywood has highly polished finish; pleasing Waterfall design. Room for phono oscillator, or may be used with single record phono motor and amplifier. Size $17 \times 141 / 2 \times 4$ high. Wt. $41 / 2 \mathrm{lbs}$. Stock No. 30A133. Walnut Veneer Record Changer Base. Net Each
llius. D: Polished Veneer PHONO MOTOR BASE. Neat, Waterfall WALNUT veneer LOW COST base for ANY PHONO MOTOR-sturdy construction of plywood; size, $121 / 2 \times 107 / 8 \times 37 / 8^{\prime \prime}$ high. Wt. 21/2 lbs.
Stock No. 30A132. Walnut Veneer
Phono Motor Base. Net Each

## PORTABLE <br> RECORD CHANGER CARRYING CASE

Accommodates ANY make of Record Changer; plywood construction with quality Leatherette covering double clasps and carrying thandle. Motor mounting board is $153 / 4^{\prime \prime}$ square, inside lid depth $61 / 4^{\prime \prime}$; depth below motor board is $43 / 4^{\prime \prime}$. Overall size is $16 \frac{1}{2}$ square, $113 / 4^{\prime \prime}$ deep. Weight, $161 / 2 \mathrm{lbs}$.
Stock No. 30A90. Record Changer Carrying Case. NET EACH
\$10.21

## d/ensen <br> Standard Series SPHAKHRS

"ALNICO-5" Replacement "PM" Dynamic Speakers
 MONEY CAN BUY!
Tops" in performance-long magnet Hfe-DUSTPROOF. "Less Transformer"

| Speaker Size | Dimensions |  | Foice Coil |  |  | Jensen Model | Stock No. | Your <br> Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | O. D. | Depth | Diam. | Ohms. | Watts |  |  |  |
| 4-inch | 5 " | $2^{\prime \prime}$ | It" | 3-4 | 2.0 | P4-X | 148600 | \$2.44 |
| 5-inch | 5 " | 21/4" | +"* | 3-4 | 2.5 | P5-X | 148601 | 2.53 |
| $51 / 4$-inch | 51/4 | 21/" | 10 | 3-4 | 4.0 | P525-V | $14 C 619$ | 3.23 |
| 6-inch | $6{ }^{\prime \prime}$ | 3" | \% | 3-4 | 3.0 | P6-X | 148602 | 2.94 |
| $6 \times 9$-inch | 6x9" | 31/4 | \% | 3-4 | 5.0 | P69-V | 344116 | 4.65 |
| 7 -inch | 7 \% | 31/4" |  | 3-4 | 5.5 | P7-U | 34 A117 | 4.67 |
| 8-inch | 8 | 3\%" |  | 3-4 | 7.0 | P8-T | $34 A 108$ | 6.59 |
| 8 -inch | 8\% | 31/2" |  | 6-8 | 8.0 | P8-S | 348115 | 7.20 |
| 10-inch | 10\% ${ }^{\prime \prime}$ | 514. | 1 | 6-8 | 8.0 | P10-T | $34 \mathrm{A109}$ | 6.26 |
| 10-inch | 101\% | $51 / 4$ | 1 " | 6-8 | 9.0 | P10-S | 34A131 | 8.97 |
| 12-inch | 121\% | $6{ }^{1 / 2}$ | 1 " | 6-8 | 9.0 | P-12T | 34 A110 | 6.97 |
| 12-inch | $1213^{\prime \prime}$ | $6{ }^{10}$ | 1* | 6-8 | 10.0 | P12-8 | 30423 | 9.70 |

## Jensen Standard Series Field Coil Dynamics

 These NEW and MODERN DESICN Speakers are of the highest possible quality; DUSTPROOF; and all have bucking coils. 3 to 4 Ohm Voice Coil.

| Size |  |  | Dia. | Res. | Watts | Model | No. | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | O.D. | Depth |  |  |  |  |  |  |
| 4 -inch | 5 " | $21 / 4$ " | $1{ }^{\prime \prime}{ }^{\prime \prime}$ | 450 | 2.0 | F4-X | 144718 | \$3.15 |
| 4 -inch | $5 \%$ | 21/4" | ${ }^{18}$ | 1000 | 2.0 | F4-X | 148603 |  |
| 5 -inch | $5 \cdots$ | $2{ }_{16}{ }^{\text {a }}$ | $10^{\prime \prime}$ | 1000 | 2.5 | F5-X | 148604 | 3.18 |
| 5 -inch | 5 \% | $2{ }^{1 / \prime \prime}$ | 18: | 450 | 2.5 | F5-X | 148605 | 3.14 |
| 6 -inch | $611^{\prime \prime}$ | $2{ }^{\text {\% }}$ | 1\%" | 1000 | 3.0 | F6-X | 148606 |  |
| 6 -inch | 611 | $213^{\prime \prime}$ | 180* | 450 | 3.0 | F6-X | 144689 |  |
| 8 -inch | $81 /{ }^{\prime \prime}$ | $31{ }^{\prime \prime}$ | $3 / 4{ }^{\prime \prime}$ | 1000 | 4.0 | F8-W | 344124 | 3.9 |
| 10-inch | 101/8" | 55\%" | 1" | 1500 | 9.0 | F10-S | 348123 |  |
| 12-inch | 121/8* |  | 1" | 1500 | 10.0 | F12-S | 344129 | 58 |
| 12-jnch | 121/8" |  | 1" | 1000 | 10.0 | F12-S | 348128 | 8.73 |



Wall, desk or rack mount ing. recommended for police and aviation fields. police and aviation fields proof construction.
(A) Jensen Model AP-10 Speechmaster Projector. Beautiful gray, chrome sure crisp speech reprodure crion, tone better than duction, tone better than
the average small radio.
sturdy construction. fitted to mount transforme
$51 / 8^{\prime \prime}$ deep. $5^{\prime \prime}$ diameter bell. Weight. $51 / 4 \mathrm{lbs}$.
$\qquad$ $\$ 9.70$ No. 34A119, 4-Ohm. Complete with tilt adjustment. NET....
(A) MODEL AP. 11 SPEECHMASTER PROJECTOR (A) MODEL AP- 11 SPEECHMASTER PROJECTOR. Identical to AP-10 de-
scribed above except WITHOUT base or swivel and designed for PANEL scribed above except WITHOUT base or swivel and designed for PANEL
MOUNTING. Front rim has eyelets for mounting screws, fits $427 / 64^{\prime \prime}$ cutMOUNTINC. Front rim has eyelets for mounting screws, fits $427 / 64^{\prime \prime}$ cutWeight, $31 / 4 \mathrm{lbs} .4$-OHM VOICE COIL—a dandy for rack mounting; gray No. 34A118. PANEL MOUNT PROJECTOR. Your Cost..
$\$ 8.17$ (B) MODEL VH-91 HYPEX SPEECHMASTER PROJECTOR. Delivers CLEAR, intelligibie speech with plenty of "punch". 15 WATTS power capacity. angle-clever MTC. BRACKET points projector in ANY direction, securely LOCKS into position with a single wing nut. Two-wire R.C. cable for connections. Bell diameter, $87 / 8^{\prime \prime}$; bell length. $73 / 8^{\prime \prime}$. Wt.. $41 / 2 \mathrm{lbs}$.
No. $34 \mathrm{Al38}$. VH-91 HYPEX PROJECTOR. Your Cost...... phous plensen Corect Series


These famous "PM" speakers all have $\mathbf{A l}$. nico-5 magnets - are heavy duty, highly efficient speakers for public address or fin. est quality radio or phono uses. They are designed for use with BASS REFLEX CAB. INETS.
(Note: Transformers are NOT included in prices quoted below.)

| - Speaker Size | Dimensions |  | Voice Coil |  |  | Jensen Mondel | Stock No. | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 0 | I epth | I) is | Inped. | Wia |  |  |  |
| 8-inch | 81/ ${ }^{\prime \prime}$ |  | $1{ }^{\prime \prime}$ | 6 | 9.0 | P8- | 348125 | \$8.97 |
| 10-inch | 101\%" |  | 1" | 6-8 | 10.0 | P10-R | $34 \mathrm{B126}$ | 10.88 |
| 12-inch | 121/8 |  |  | 8 | 140 | P12-Q | 30 A24 | 16.32 |
| 12-inch | 12 亲" | 6 星" |  | 8 | 18.0 | P12-N | 30425 | 28.80 |
| 15-inch | 151/3" | $7 \%$ | 11 | 8 | 20.0 | $1{ }^{1} 50-$ N | 32 A44 | 32.34 |

## - Cnsen "Caaxial Series

SPEAmHRS

(A)

(B)

(C)

## JENSEN HI-FIDELITY COAXIAL LOUDSPEAKERS

Created for superior reproduction and even distribution of sound over the entire room, a new acoustic lens in conjunction with the H-F horn disSmoothness of response, high power rating, Alnico $V$ PM, and efficiency due to advance design, make a better two-way speaker than ever before offered at any price. Recommended for custom home systems and broadcast monitoring. IIfss. (A) JENSEN H-5iO. Unusual clearness and thriliing realism of repro duction in the $15^{\prime \prime}$ coaxial speaker makes it a pleasure for your listening. Features built-in divider network. 30-watt maximum signal input, $16-0 h m$ impedance to assure the best in the coaxial speaker line. Size, $151 / 80$. No, 34B154. Model H-510. NET EACH
Illus. (B) JENSEN R-310. For custom installation at the lowest cost, yet the quality of reproduction is excellent. This $15^{\prime \prime}$ coaxial speaker with built-in divider network, 20 -watt input and 16 -ohm impedance will out perform many higher priced speakers. Size, $151 / 8^{\prime \prime}$ O.D., $81 / 8^{\prime \prime}$ deep. Weig
List, \$56.25.
No. 34A121. Model K-310. NET EACH.
$\$ 33.08$
Iflus. (C) JENSEN K-210. Provides a compact, low cost, $12^{\prime \prime}$ two-way speaker system of high fidelity, ideal for modernization of radio, phono or television. Equipped with single radiator cone and new high frequency unit, has 8-0hm min min No. 34 Bis5. Model K-210. NET EACH:
CONTROL NETWORK and TRANSFORMERS

(1) JENSEN MODEL A-1 10 . CONTROL NETWORK. Adjustable level and high frequency control for $\mathrm{H}-510$ and $\mathrm{K}-310$ speakers. Mounts directly to speaker
 No. 37 A98. Model A-110. NET.
(2) JENSEN IMPEDANCE-ADJUSTINC TRANSFORMERS. To provide varied
input impedance for model H-510 and K-310 speakers. Ideal performance input impedance for model H-510 and K-310 speakers. Ideal performance and efficiency for high fidelity. Complete with plug-in connections and mounts directly to speaker frame, choice of impedance by switch. may be No. 13B64. Model T-101. 4/8 Ohms.
No. 13B59. Model T-102. 250/500/600 Ohms. NET
No. 13863 . Model T-103. $10,000 / 5000$ Ohms C.T. $\}$ NET

## Special Seried spyakyis

## NEW EXTENDED RANGE <br> HIGH FIDELITY SPEAKERS

"Special Series" high fidelity speokers provide excellent response up to 10,000 cps.-from o single rodiotor PM Speoker. They are ideal for "FM"; WIRED MUSIC; RADIO-PHONO COMBINATIONS; and are highly qualified for BROADCAST STATION monitors. Used with Boss Reflex Cobinets they provide HIGHEST QUALITY reproduction!
 All the following are "Alnico-5" PM Dynamics; priced LESS fransformer.



MODEL Q8P Frequency Speaker Unit; for use with A40-1 Network below together with a suitable low (standard) frequency speaker of $12^{\prime \prime}$ or $15^{\prime \prime}$ size as found in most Reproduces frequencies from 2,000 to $15,000 \mathrm{cDs}$. voice Reproduces frequencies from 2,000 to 15,000 cps. : voice
coil impedance, 16 -ohms. "PM" design eter, $5 \frac{1}{2 \prime \prime}$. depth. $35 / 8^{\prime \prime}$. Wt. $31 / 2 \mathrm{lbs}$.
No. 34Alll. Model Q8P H.F.
Speaker Unit. Your Cost
$\$ 7.64$


Model A40-1 Frequency Dividing Network provides the means of converting the speaker of any Radio or Phono (having a good $12^{\prime \prime}$ or $15^{\prime \prime}$ standard speaker) to a modern 2-way speaker system; combining LOW and HICH frequency speakers to produce WIDE RANCE tonal response, with 4-position control of the high frequencies. A40-1 Network frequency division is at 3,500 cps. with attenuation of $10-12 \mathrm{db}$. per octave outside of pass band on each filter. L.F. Channel for any good 8-ohm, ${ }^{12^{\prime \prime}}$ or $15^{\prime \prime}$ speaker. using 16,8 or 4 -ohm taps. INPUT $500-600$ ohms, Unit-built in heavy steel case, complete with H-F Range Control, escutcheon and knob. Wt. 6 lbs . Stock No. 33A94. "JENSEN" MODEL A40-1. Two-Channel Network. Your Cost $\$ 20.58$

"IENSEN" H-F LEVEL CONTROL, Model ST-606; a simplified system of fidelity control easily added to any 8 -ohm coaxial speakers to control the level of the H-F section or may be used as a general purpose 16 -ohm, 15 -watt level control. $3 / 8^{\prime \prime}$ bushing, $1^{\prime \prime}$ long: with Bronze plate and bakelite knob.
No. 13A193. NET
$\$ 1.76$
L.PAD, Model ST411; 8-ohms res., for up power. Complete with dial plate and knob. No. 14A518. Net
L-PAD, Model ST $276 ; 6$-ohms. $\%$ - watts. No. 14A517 Stock No. 14B515. L-PAD ST-761; 500-600 ohms, is watts. . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . S1.76 31.29

## TRANSTORMERS

? 0 पण0ण
60000
-70 "7x" ment to impedance value desired. Mounting centers fit fensen speakers. HIGH QUALITY, moisture protected. 4,500, $7,000,10,000$ and 14,000 ohms, all excedt voice coil C.T.

| Stock No. | $\begin{aligned} & \text { Jensen } \\ & \text { No. } \end{aligned}$ | Core | $V \mathrm{C}$. | For Jensen Spenkers | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $13 \mathrm{B185}$ | 2-1007 | 1"x1" | 8 | 5. | 35. |
| 13 A183 | $7 \times 1005$ | x? | 6-8 | P12Q; P126H; P10R; JCP-40 | 4.23 |
| $13 \mathrm{B188}$ | 2x1002 | $3 / 4$ " $\times 1 / 4$ " | 6-8 | P12T; P10s; P10T; P8R; P8S14; | 2.94 |

Type "ZY"" Line Matching Transformers, Same style as " 2 X" above except have "Line" impedances of 500, 1,000, 1,500, 2,000 ohms and Voice Coil.

| Stock No. | Jensen No. | Core | V.C. | For Jensen Speakers' | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13B189 | ZY2005 | $1^{\prime \prime} \times 1$ " | 8 | P15N, P15NH, P12N | \$5.73 |
| 134186 | 2Y2003 |  | 6-8 | PI2Q, I'I2Q1I, P12S, P10R, | 4.23 |
| $13 \mathrm{B187}$ | 7,5004 |  | 3-4 | 1'40 | 2.94 |
| 134302 | 7Y: ${ }^{\text {P02 }}$ | 䘖" | 6-8 | P12T, P10T, I'KR, P8S, I'8SH | 2.94 |
| 13 A303 | 7) 4002 |  | 3-4 |  | 1.97 |
| 13 A291 | 2Y4005 | 8,8"x8/8" | 6-8 | Vllat "llypex" | 1.97 |

 Sign to Pin Adjustment types "ZX" and ", ZY" EXCEPT ${ }_{8}^{6}$ \% 8 \% in instead of pin and lack adjustment, have SOLDER connecand have terminal boards clearly marked with impedance values. Type "ZP" Plate Matching Transformers; Models ZP1023, ZP1024, and Coil Model 2 P1025 for $50 \mathrm{~L} 6,25 \mathrm{~L} 6,25 \mathrm{B6}$, ete. tubes have impedances of $1,500,2.000$. 2.500 ohms and Voice Coil. Models ZP1024 and ZPIO26 have Center Tapped primaries.

| Stock No. | Jensen No. | Core Size | V.C. | For Speakers | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 138178 | 7P1023 | 1/""x ${ }^{1 / 2}$ " | $3-4$ | P6X, P5x; P4X | \$1.26 |
| 138179 | ZP1024 | \%"x\%" | 3-4 | 1'6T 1'6TH | 1.47 |
| 138180 | ZP1026 |  | 6-8 |  | 1.47 |
| $13 \mathrm{B181}$ | ZP1025 | $1 / 2^{\prime \prime} \times 1 /{ }^{\prime \prime}$ | 3-4 | P6X; P5X; P4X | 1.26 |

Type "ZL" Line Matching Transformers; All have selective LINE impedances

| Stock No. | $\begin{aligned} & \text { Jensen } \\ & \text { No. } \end{aligned}$ | Core Sizo | V.C. | For Speakers | $\begin{aligned} & \text { Net } \\ & \text { Each } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $\begin{aligned} & 138182 \\ & 138184 \end{aligned}$ | $\begin{aligned} & \mathrm{Z1.2021} \\ & \mathrm{Z1.2022} \end{aligned}$ |  | $\begin{aligned} & 3-4 \\ & 6.8 \end{aligned}$ | P6X; P5X P4X <br> vilig1 "Hypex" | $\begin{array}{r} \$ 1.26 \\ 1.47 \end{array}$ |

## UTC UNIVERSAL INTERSTACE EQUALIZER

Designed for connection between two audio stages or drop or boost of highs and lows, hum shielded. Con tinuous equalization 15 db . up to 15 db . down. Circuit insertion loss, 6 db . plus combined low guency settings. 23 /64" panel.
No. 20A610. Type CCE-1 NET
$\$ 14.70$

## densen Base Rellex caimsens



## A <br> (2)


(3)
(1) "CuSTOMODE" Model M-252 Bass Reflex Cabinef for 15 " Speakers—New, modern design, of selected veneered woods over a $3 / 4^{\prime \prime}$ thick base combine strength and beauty in a striking, yet dignified decorative touch. Fully effec-
tive BASS REFEX performance with ANY geod $15^{\prime \prime}$ speaker is tive BASS REFLEX performance with ANY good $15^{\prime \prime}$ speaker is assured by acoustically coordinated design and baffling. Symmetrical, modern design allows cabinet to be used either in horizontal or vertical position-base rails are supplied unattached to permit choice of positions. FOUR concealed cutouts in front cross bars are easily removed for installation of Coaxial speaker "level" controls. Size, $36^{\prime \prime}$ high, $24^{\prime \prime}$ wide, $18^{\prime \prime}$ deep, highly polished natural BLONDE finish. Shipping weight, 75 lbs.
Stock No. 40A12. Bass Reflex Speaker Cabinet.
"Customode" Model M-252. NET EACH.
Stock No. 40A73. CORDOVAN MAHOGANY Bass Reflex
Speaker Cabinet. Model M-352. NET EACH
$\$ 74.48$
(3) MODEL "D" Imperial Bass Reflex Cabinets for 12 " and 15 " SpeakersHandsome styling and solid construction of heavy backed, beautiful veneers, PLUS "sound" engineered design for full range reproduction of the output of ANY COOD 15" or 12"' SPEAKER - especially recommended for use with COAXIALS. Choice of Blonde or Walnut finishes. Overall sizes are $311 / 4^{\prime \prime}$ high, $273 / 4^{\prime \prime}$ wide, $133 / 8^{\prime \prime}$ deep. Shipping weight, 50 lbs.

No. 40A11. Model D221 BLONDE Cabinet for $12^{\prime \prime}$ Speakers. Choice S51.
No. 40A10. Model D251 BLONDE Cabinet for $15^{\prime \prime}$ Speakers. Each. No. 40A3. Model D121 WALNUT Cabinet for $12^{\prime \prime \prime}$ Speakers. Choice $\mathbf{5} 5 \mathbf{5} \mathbf{5} \mathbf{5}$
No. 40A4. Model D151 WALNUT Cabinet for $15^{\prime \prime}$ Speakers. Each.
(3) MODEL "B" Utility Bass Reflex Cabinets for 8 ", 12 " or 15 " SpeakersAll the benefits of the BASS REFLEX principle of construction in which exact acoustical balance of port and cabinet volume provides extended I.f. response by controlled use of speaker energy otherwise wasted. Solidly constructed of impregnated composition board finished in hammered brown lacquer-grille openings trimmed in aluminum, removable aluminum finished ball feet.

| Jensen Model | For Speaker | High | Wide | Deep | Shipping Weight | Stock No. | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| B 81 | $8{ }^{\prime \prime}$ | $2 \overline{23 / 4}{ }^{\prime \prime}$ | 18 " | " | 10 lbs . | 32 A 35 | \$20.58 |
| B121 | 12" | $281 /{ }^{\prime \prime}$ | 223/4"' | $117 /{ }^{\prime \prime}$ | 13 lbs. | 40 Al | 29.06 |
| B151 | 15" | 303/4' | $271 / 4^{\prime \prime}$ | $121 / 4^{\prime \prime}$ | 14 lbs . | 4042 | 34.47 |

## PORTARLE SPEAKER BAFFLE-CARRYING CASES


(1)



(4)
(1) PORTABLE DUAL SPEAKER-AMPLIFIER CASE. Divided case, each half with carrying handle, for TWO $12^{\prime \prime}$ speakers and amplifier space of $14 \times 8 \times 8^{\prime \prime}$ deep; overall size, $16 \times 141 / 2 \times 20$ high, weight, 16 lbs . Heavy reinforced ply-
wood with quality leatherette covering.
Stock No. 30A127. Dual Speaker-Amplifier Case. Net Each. $\$ 14.99$ (1) Porfable Dual Speaker-Amplifier Case. For T'
fier space of $15 \times 91 / 4 \times 8 \cdot \mathrm{high}$. Weight, 17 lbs. fier space of $15 \times 91 / 4 \times 8^{\prime \prime}$ high. Weight, 17 lbs.
Stock No. 30A128. Speaker-Amplifier Case. Net Each
(2) PORTABLE SINCLE SPEAKER-AMPLIFIER CASE. Designed for the smaller P.A. or Phono amplifiers and mounting, baffle for ONE
Outside dimensions are, $183 / 4^{\prime \prime}$ high, $1478^{\prime \prime}$ wide, $97 / 8^{\prime \prime}$ deep.

Stock No. 30A136. AMPLIFIER-SPEAKER CASE. NET EACH
$\$ 9.92$
(3) PORTABLE SPEAKER BAFFLE. Strong, $3 / 8^{* *}$, plywood DUAL $12^{\prime \prime}$ SPEAKER BAFFLE, divided diagonally-each section serving as a baffle assuring COOD TONE QUALITY. Grills protected by strong screen; rattle-proof snap locks; strong leather handle-meta high, $16^{\prime \prime}$ wide, $10^{\prime \prime}$ deep.
Stock No. 30A137. PORTABL
Stock No. 30A137. PORTABLE DUAL SPEAKER BAFFLE. EACH
\$12.79
(4) DELUXE DUAL $12^{\prime \prime}$ SPEAKER BAFFLE. COMPLETELY ENCLOSED, designed for HEAVY DUTY SPEAKERS and will contribute considerable to the quality of reproduction of ANY sound system! Acting as "Infinite" baffles, quality of reproduction of ANY sound system. Acting as infinite baffies, ness" or cavity resonance. Built of heavy $3 / s^{\prime \prime}$ plywood with reinforced corners, rubber bumper feet, and NON-RAT ette covering. Outside dimensions, closed, $221 / 2^{\prime \prime}$ high, $18^{\prime \prime}$ wide, $121 / 2^{\prime \prime}$ deep. Stock No. 30A138.
DELUXE DUAL SPEAKER BAFFLE. EACH
For VALUABLE INFORMATION on Church Tower, P.A. or Intercomm in=
stallations-AT NO COST-write us for: No. 60A1. "Design Bulletins on Sound Installations" - Free On Request!

(A) MODEL 611 "MERCURY" DYNAMIC
A great new value! Cives the most in quality features at this price. Features smooth response over a wide range,
$50 / 8000$ cD5.; and high output, 53 db. The exclusive Electro-voice acoustalloy diaphragm withstands high humidity and temperature and mechanical shock. "ON-OFF"' sliding switch shorts mike in "OFF", position but can be connected for relay control. Tilt adjustment is firm and smooth. Case size, $23 / 8 \times 31 / 8 \times 1 / 4^{\prime \prime}{ }^{\prime \prime}$
including stud. Finish satin chrome. including stud. Finish, satin chrome.
With 20 - ft . detachable cable. High impedance. Standard $5 / \mathrm{B}^{\prime \prime \prime} / 27$-thread. Weight, 30 tbs ibs. Net Each. $\$ 18.23$ (A) MODEL 911 "MERCURY' CRYSTAL
Same mechanical features as Morel G11 except equipped with moisture glass cartridge grille. Diaphragm is duralumin. Range $50 / 8000 \mathrm{cps}$. High ft. cable. Weight, 3 lbs, 513,23
No. 20B887. Net Each.

## (B) MODEL 950 CARDIOID

 CRYSTAL CARDAXDual frequency response for high fidelity sound or exprancrisp speecch selector on back adjusted with screw rising response - "Out" position for wide and flat response with full, natural reproduction. An ideal "Mike" or group work Indoors or Out! Output - 57 db. in Out position, 48 angle pick-up at front-dead at rear; tilting head. Satin Chrome finish. Size, $21 / 2 \times 27 / 8 \times 61 / 4^{\prime \prime}$. Weight, 3 lbs. Stand-
ard $5 / 8{ }^{\circ} / 27$-thread. ON-OFF" switch. $20-\mathrm{ft}$. cable. Hi-lmp. Stock No. 20 A100.
523.23

MODEL 630 DYNAMIC


Versatile high fidelcrophone, ruggedly built for heavy duty service: unusually
high oupput for high output for indoars or outdoors: grille design minimizes wind noise. Frequency response 40/9,000 ratine $90^{\circ}$ are tilting head for directional or non-directional pickup: "On-Off" slide switch. Standard 5/"'/27-thread. Satin Chromium finComplete with $20-\mathrm{ft}$. Weight, 2 lbs. pedance. No. 20A895. Your Cost $\$ 21.45$

## MODEL V-1 VELOCITY

 MICROPHONE

Small size. Provides suup of voice and music for indoor public address and recording. Response 40/ db. Cradle allows $90^{\circ}$ tilt. Supplied with ON. ing slide switch in houssorber and detachable 20-foot shielded cable. High impedance output. all. Satin Chrome finish.
No. 20A897. Your Cost

TURNER CRYSTAL AND DYNAMIC MICROPHONES
For "certified performance", modern design, ruggedness and dependability in recording, public oddress, call systems, amateur and commerciol work.

"A":-MODEL U. 95 VARIABLE IMPEDANCE DYNAMIC-ONE MICRO PHONE FOR ALL NEEDS; impedances of 50-200-500 OHMS or HICH IMPEDANCE available by the twist of a switch on the back! ADJUSTABLE for semi or non-directional use, Model U-9S is completely free from peaks
and holes over its frequency range of $40-9,000$ cycles and holes over its frequency range of $40-9,000$ cycles. Output level at high impedance is minus 52 db . Professional in construction and appearance, Stock No. 20A888. MODEL U-9S DYNAMIC cable; gun metal finish. YOUR COST
\$23.52
"B":-MODEL 33-D DYNAMIC; LOW IN COST and built to withstand hard usage and bad climatic conditions. Smooth, high level dynamic cartridge 54 db . High Impedance.
Stock No. 20A884. MODEL 33-D DYNAMIC. YOUR COST.... 5158.8 .8 Stock No. 20A884. MODEL 33-D DYNAMIC. YOUR COST
$\$ 15.88$
"B"":MODEL 33-X CRYSTAL; IDEAL LOW COST "MIKE" FOR RECORDhas response of $50-9.000$ C.P.S., tree from peaks, output level of minus 52 db : low feedback. Crystal impregnated against moisture; blastproofed. Ruggedly built, tilting head, satin chrome finish. Complete with 20 ft . shielded cable set.
Srock No. 20A883. MODEL 33-X CRYSTAL, YOUR COST ..... . Ta. I
"C":-MODEL 9-D "Han-D" MIKE DYNAMIC hand microphone. HANC IT
-HOLD IT-OR FIT IT to any standard microphone stand-engineered for maximum voice response, and natural music pick-up; specially recommended for bad climatic conditions, intense heat and rough handing uses. "ON-OFF" Satin Chrome finish with 7 ft . detachable cable. High Imped- $54{ }^{2}$ ance. Stock No. 20A886. MODEL 9-D "Han-D". YOUR COST , 3.8 "D":-MODEL 22X HICH IMPEDANCE CRYSTAL; TOPS in performance at very low cost-clear, clean, sharp reproduction win reedion. IMPRECN absolute minimum. Built-in wind gag permits outdoor operation: MMPRECNATED
CRYSTAL guards against moisture; automatic barometric compensafor. High level minus 52db. RANCE 50-9.000 cycles. $90^{\circ}$ tilting hensarm High position from horizontal to vertical. With 7 ft . cable set.
 and case construction to Model 22-X; has HICH LEVEL dynamic unit for SMOOTH reproduction indoors or out at all trequencies. RANCE, 50-9,000
 "E""-_"CHALLENCER" MODEL BX LOW COST CRYSTAL MIKE-ideal for home recording, AMATEURS, and PUBLIC ADDRESS. HIGH IMPEDANCE proof cartridge, wind gag. Bronze enamel finish, complete with 7 tt attached shielded cable. "E": "CHALLENCER" MODEL CD HICH IMPEDANCE DYNAMIC; rugged and dependable for all uses on voice or music-clear cut reproduction: RANCE, $50-7,000$ cycles; OUTPUT, minus 52 db . Chrome type finish; 7 ft.
removable cable set.
Stock No. 20A880. MODEL "CD" DYNAMIC SPEAKER. COST
Stock No. $\frac{20 A 880 . \text { MODEL "CD" DYNAMIC SPEAKER. COST }}{\text { HEARINC AID CRYSTAL MICROPHONE MODEL HA125 }}$
HEARINC AID CRYSTAL MICROPHONE MODEL HAI2S
A small crystal carfridge, light in weight, designed
A small crystal cartridge, light in weight, designed for flush or in experimental sound or vibration pick-up devices. Output level, minus 50 db . Frequency response $40-9,000$
sealed. Case 13,8 dia, over all $\times 1 / 4^{\prime \prime}$ thick. sealed. Case 13/8
hole has connecting leads.
Stock No. 20A160. Net Each
$\$ 4.70$

## ELECTRO-VOICE "CENTURY" SERIES MIKES

 FOR ALL LOY-COST APPLICATIONS Brilliantly et sineered and styled. Can be used in any
position-stands by itself on table, rests on its back can be comfortably hand held or mounted on any stand or fitting with $5 / 8^{\prime \prime} / 27$-thread. Unmatched for low-cost PA, paging, recording and communications work. Case
Model 915 Century Crystal. Frequency response, 60/ 7500 cps . Oułput - 50 db . Has moisture sealed crysta and $71 / 2$-ft. attached cable. High impedance output. Stock No. 14B621. Less Stand.
$\$ 5.88$
ON 415 STAND Stock No. 14
YOUR COST.
Model 615 Century Dynamic. Recommended where temperature and humid-
ity are higher than normal. Will withstand severe service. Equipped with ity are higher than normal. Will withstand severe service, Equipped with exclusive acoustalloy diaphragm. Frequency response, 55/
-57 db ., high impedance. With $71 / 2-\mathrm{ft}$. attached cable.
Stock No, 14B622. Less Stand. YOUR COST.
$\$ 9.70$ MODEL 415 RECLINING DESK STAOND Mounts Century Mike at $15^{\circ}{ }^{\text {til }}$
Stock No. 14B623. YOUR COST

Brush
VM-1 VIBROMIKE
Highly sensitive, high impedance, miniature, contact
type crystal pick-up for musical instruments and industrial applications re-
quiring detection quiring detection and faithful reproduction of any type mechanical vibration within 30/6000 cps. Output voltage from .05 to il
volt or higher. Hermetically sealed in black rubber case. Size, $1 / 8 \times 3 / 4 \times 5 / 8$."
With mounting clamp and $25-100$. cable, Weight, 6 ozs.
No. $14 B 529$. NET EACH 1.47

## SPECIAL VALUE CONTACT MIKES



Fig. 2 MUSICAL INSTRUMENT PICKUP. Operates with special music om plifier or public oddress types. Brill ont tone, range 80-5000 cps. Easy to install without defacing instrument. Up to 12 may be connected to one high impedance amplifier input. Size
 volume contro
No. 20A617.
Special, Net Each.
\$5.14
Fig. 3 MUSICAL INSTRUMENT PICK. UP WITH VOLUME CONTROL. Up to 5 moy be connected to one high impedance amplifier input. Size $31 / 16 x$ $1 \times 3 / 4^{\prime \prime}$. Otherwise same as above. With 8-ft. cable, List $\$ 13.75$.
20A616. Special Net Each 5.71

## BRUSH CRYSTAL

 MICROPHONE MODEE BA-106. Unexcelled for home re-cording, public adcording, public ad-
dress ${ }_{\text {systems, }}$ ham dress systems, ham.

shacks and monitoring. Pickup is uniform in all directions. Re| sponse |
| :---: |
| 40 to |

$\qquad$ put level-52 cps. Out8 ft . shielded coble and desk stand with
 removable base No. 14A668. Net Eac

## Microphone Bargains!



SHURE VERSATEX HALF PRICE!
A truly versatile crystal mike to be used "as is" on a desk, on a regular stand or hand-held. Rich maroon plastic case. Output, - 53 Thousands were sold at Regular Net Price of $\$ 6.76$. No, 20A657. Whi
$\$ 3.38$

## CARBON HAND MIKE

## Type T17B, 200-Ohm. Has press-

 to-talk switch in handle. Sturdy good looking bakelite case. Has 5-ft. rubber cord with PL68 plug. Can be connected to most radio ideal for PA mobile and needs.No. 18A368. EACH
$\$ 1.59$
Lots of 10. Each.
\$1.45



Easily attached to the instrument Magnetic induction principle. Gives full, rich, distortion-free reproduction. for use with any musical instrument amplifier and all regular high gain amplifier. Up to 5 mikes may be attached to one input. High impedance. Frequency response 40/9000 cps. $25-4 t$. Has soft rubber case and 25-ft. cord attached.
(A) Model SKH Mike without volume control.
No. 20A874. Net Each
(B) Model KKH Mike
$\$ 7.06$ vol


No. 17A724
NET EACH
cuitars.

Model KF Foot pedal volto Model SKH
$\$ 10.58$
59c
 FEEDBACK to lowest point of all dia phragm microphones. IDEAL FOR EITHER SPEECH OR MUSIC! TILTING HEAD, ON-OFF SWITCH! True dynamic ruggedness; not affected by temperature, altitude, or humidity. HI-IMPEDANCE, connector. "PCAH" Dy No. 204900
YOUR COST
$\$ 14.70$


## givit

CARDIOID DYNAMIC and CRYSTAL MICROPHONES
Known the world over for the finest per formance. A specific design for every application to give the best possible service

DYNAMIC MICROPHONES

(1) MODEL 200 CRYSTAL "VELVET VOICE". A general purpose microphone and stand with detachable base to use for recording, PA, etc. Beautiful rich gold finish with chrome grille. High impedance, smooth frequency response $30 / 10,000 \mathrm{cps}$. -50 db. Threaded for 5/8"/27 stand. Overall height, $8^{\prime \prime}$.
attached.
No. 20A611. NET EACH. 8.20
(2) MODEL N-30 HICH IMPEDANCE CRYSTAL. HIGH FIDELITY; WIDE RANGE. Response, $30 / 10,000 \mathrm{cps}$. substantially flat and free from peaks OUTPUT - 52 db. Tilting head is gray with chrome grille. Size, 5 1/16", high, $21 / s^{\prime \prime}$ diameter and
deep. Weight, 2 lbs . $15-\mathrm{ft}$. cable.
No. 20A648. Model
Mike.
YOUR COST
$\$ 11.26$
MODEL DN-HZ DYNAMIC MICROPHONE

## Withstands high tem

perature and humidity
Widely used by ama-
teurs and for communi-
cations. Semi-directional and substantiatly flat from 50 to 7000 cps . Output level, - 55 db
Finished in beautiful


Finished in beautiful opalescent gray and bright chrome. Supplied with 15 : tt. cord and adapter to fit $5 /$ /a' $^{\prime \prime} / 27$ threaded stand or plugs directly into Astatic Crip-to-talk Desk Stand.
No. 20A618. With Cord and Adapter Less Stand.
EACH.
\$14.46
MODEL DN-HZ. With type C grip-
to-talk stand and $8-\mathrm{ft}$. Shielded cable
attached.
No. 33A104. Your Cost
$\$ 17.70$

## THE AMATEUR FAVORITE

## Model D104. The first

 practical crystal microand still the Amateur's favorite the world over. Crystal element is shockproof mounted and has a high output level of -48 db . Possesses definitely reduced RF feedback tendencies Chrome plated overall. With $7-\mathrm{ft}$. $5 /: / 27$ threaded stand, or plugs di rectly into Astatic Grip-to-talk Desk Stand.
No. 20A619. Astatic DIO4 with Cord Only $17 / 8^{\prime \prime}$ diameter, weighing $11 / 2$ oz. Especially designed for speech reproduction. Simply clips onto lapel, is inconspicuous, and allows user to move frecly about. Response
$40 / 6,000$ eps., output 57 db . below 1 volt bar. Grey finish ase with clip and attached $25^{\prime}$ cable. Moisture-sealed crystal. High impedance.
Stock No. 204652.
\$15.88


## ASTATIC JT30 CRYSTAL MICROPHONE

The Top Favorite Mike for Amateur, Home Recording and Public Address Scrvice. It is low in cost and excellent in
performance. Response $30 / 10,000 \mathrm{cps}$. output level - 52 db. Comes complete with two-piece desk stand; handle may be removed and mike used on floor stand. Overall height $8^{\prime \prime}$, has detachable 15-ft. shielded cable. Attractive gray finish with chrome grille.
No. 20A877. Complete with Stand. Your Cost
and Adapter. Less $\$ 14.46$
Stand NET EACH
Model Dio4. With type
talk stand and 8-ft. shielded cable $\left.\begin{array}{l}\text { attached. } \\ \text { No. 33A105. Your Cost }\end{array}\right]=70$

## GRIP-TO-TALK DESK STAND

Grip bar operates ON-
OFf switch for control of transmitter. Socket in top of stem fits plug-in connector on type D104 and
$\mathrm{DN} \cdot \mathrm{HZ}$ Astatic DN-HZ Astatic microphones. Tube and grip
bar finished in chrome with gray wrinkle base. Supplied with 8-ff. twoconductor shielded rubber cable. Overall height, $81 / 4$ No. 31 A58. Astatic
Model C Stand. Net

## MICROPHONE STANDS \& P.A. ACCHSSORITS FOR EVERY NHYD


(1)

(2) (3)


(1)

(2)

(3)

(5)

(1) "ATLAS" AUTOMATIC SLEEVE-ACTION STAND. Cannot "crecp" or change position without deliberate pressure on the "Sleeve-Action" control-slight down ward pressure LOWERS telescoping section; to RAISE stand, telescoping tube is grasped at ANY point and simply extended. Model MS-11S-De Luxe All Chrome with $10^{\prime \prime}$ weighted base with $7 / 8^{\prime \prime}$ lower lube and $5 / 8^{\prime \prime}$ upper section-height adjustment is $35^{\prime \prime}$ to $65^{\prime \prime}$. Wt 12 lbs.
De Luxe Floor Stand. Net Each
\$10.58

## ATLAS" FULL-GRIP VELVET ACTION MICROPHONE STANDS

(3) "Velvet Action" 24-POUND, STUDIO DE LUXE FLOOR STAND. Adjustable $42^{\prime \prime}$ to $72^{\prime \prime}$-BRASS TRIPLE CHROME PLATED oversize tubes, $11 / 8^{\prime \prime}$ outer and $7 / 3^{\prime \prime}$ inner. 4-INCH CLUTCH with bakelite collet defies wear Rubber cushioned semi-tripod base, $17^{\prime \prime}$ dia. $5 / 8^{\prime \prime}-27$ thread.
(3) Professional Floor Stand, Model MS-20. Cast base, $12^{\prime \prime}$ dia. with Triple Chrome oversize telescoping tubes, adjustable from 42" to $72^{\prime \prime \prime}$ height; lower tube $11 / 8^{\prime \prime}$ dia., upper tube $7 / /{ }^{\prime \prime}$ dia. $5 / /^{\prime \prime}-27$ thread. Weight, $15 \mathrm{lbs} . ~ \$ 7.94$ "Volvet Action" ALL CHROME ADIUSTABLE FLOOR STAND. NON-TIP BASE has "anti-tip" points between rubber leveling pads! BRASS TUBES are TRIPLE CHROME plated, outer tube $7 / 8^{\prime \prime}$ and inner tube $5 / 8^{\prime \prime}$ in diameter TRIPLE CHROME Dlated, outer tube els and inner tube ${ }^{5 / 8}$ in diameter.
Bakelite collet" clutch mechanism-easily adjusted with ONE HAND after Bakelite colve clutch mechanism-easily adjusted with 0." HANO after ard 5/8"-27 thread
Stock No. 34A8. MODEL MS-11C FLOOR STAND. NET
$\$ 6.47$
"B-A LEADER VALUE FLOOR STAND". A top-notch quality stand with heavy high-gloss double chrome plated Brass Tubes. Easily adjustable from $35^{\prime \prime}$ to $68^{\prime \prime}$ in height by simple, damage-proof one-hand clutch, without mar or scratch on the chrome tubes! Weighted $10^{\prime \prime}$ dia. base is finished in baked
wrinkle enamel, has padsto prevent floor mars. Clean $5 / 8^{\prime \prime}-27$ threads. wrinkle enamel, has pads to prevent floor mars. Clean $5 / 8^{\prime \prime}-27$ threads. S4.
Stock No. 3243 . Leader Value Floor Stand. Wt., 1 l $1 / 2 \mathrm{lbs}$. Net Each.
(4) SPEAKER'S OR ORCHESTRA "DESK-RACK". Metal and Fibre "Rack" is 15 " wide $\times 20^{\prime \prime}$ long with botfom "Ilp" for holding music or Speaker's notes-locking tilt device positions rack qulckly. $5 / 8^{\prime \prime}-27$ thread on Rack fits ANY standard floor or desk type microphone stand! COMPLETE unit as shown consists of Rack PLUS high quality 2 -piece adjustable floor stand with double Chrome Plated Brass Tubes and $10^{\prime \prime}$ dia. weighted base; stand adjustable from 35" to 68". Weight Complete, 16 lbs.
No. 32A17. Orchestra Music Rack and Stand, Complete. Net Each. S10 15
SPEAKER'S OR ORCHESTRA "DESK-RACK" ONLY. $15 \times 20$ " Rack with locking adjustable tilt device, $5 / 8^{\prime \prime}-27$ thread collar for quick attachment to any stand ard microphone stand. Model DA-1. Weight, 5 lbs. Stock No. 32B36. Desk-Rack Attachment Only. Nef Each
$\$ 5.88$
(3) COLLAPSIBLE TRIPOD TYPE MICROPHONE STAND. Dandy portable but substantial stand that folds up to a mere $23^{\prime \prime}$ overall length. Two Chrome Plated brass tube sections adjust in height to $62^{\prime \prime}$. Tripod Base is of cadmium plated steel, has locking device. Welght, 5 tbs. $5 / 8^{\prime \prime}-27$ thread. 111010
Stock No. 32 Al6. Collapsible Tripod Type Stand. Net Each... 10
(6) "FLEXO" MIKESTER FLOOR STAND. Consists of 40" high floor stand with $31 / 2$ dia. base topped. by the NeW Flexo Mikester Universally adjust abic Patented "Flexo" spring controlled floating arms each arm is $18^{\circ}$ ong in any direction! "Stays-put" in any position, without loosening and tighten ing screws-carries up to a 4-lb. microphone. Built for heavy service of shock-proof, noise-reducing materials throughout-finished in beautiful Royale Cray. Weight, 23 lbs. Model No. 3 .
Stock No. 32B9. "FLEXO" Floor Mikester Stand. Net Eac

"READY-MADE" MIKE CABLES AND ADAPTORS
(All cable fittings and adaptors listed below are Brass with double Chrome Plate.)
204609. Adaptor, 5/8"-27 Male to 1/8" 1.P.T. Female (RCA) Each 29 204608. Adaptor, $1 / 8^{\prime \prime}$ I.P.T. Male to $5,8^{\prime \prime}-27$ Female (RCA) 204607. Adaptor, $1 / 2^{\prime \prime \prime}$ 1.P.T. Male to $5 / 8^{\prime \prime}-27$ Female. 204606. Adaptor. $5 / 8^{\prime \prime}-27$ Male to $1 / 2^{\prime \prime 1}$.P.T. Female.

204605 . Adaptor. $78-27$ Male to $1 / 2$ Each 59 . Female.
20A605. Shock Absorber. 5/8"-27 Male to 5/8"-27 Female. Each St 59
20A604. 25-4t. Std. Microphone Cable. $5 / 8^{\prime \prime}-27$ M. ©F. Connectors. Each 3
20A603. 25-ft. Mike Ext. Cable. $25 / 8^{\prime \prime}-27$ Female Connectors. Each $\$ 3.23$

## Selected PHONO PICKUPS for BROADCAST; P.A. or HOME


(1) UPA-004 Arm for records up to $12^{\prime \prime}$. Equipped with the famous C.E. placeable sapphire tipped stylus. Provides noise free high fidelity reproduction. Adjustable stylus pressure preset at one ounce, minimum tracking error no undesirable resonance. Blive gray hammertone finish. Complete with template, arm rest and No. 14A715. Your Cost. N. . 5 . 5 (3) UPX-004 Tone Arm specifically designed for long playing (Micro-groove) grams. Uses RPX=041 removable stylus cartridge. Other details as described No.

PICKUP CARTRIDGES


## (1) Variable reluctance

CARTRIDGE
Two new improved types with removable stylii are small, light in weight. Feature very low mechanical impedance due to high stylus arm compli-
ance and low stylus mass. Size and ance and low stylus mass. Size and appearance of the two types are idenlical, the only difference being in the stylii. Frequency response is uniform
over entire usable range. Unaffected by temperature or humidity condiTIons. Mounting centers $1 / 2$. Jewel Stylus for Standard 78 RPM
Records. Records.
No. 14A590. NET EACH. W5. 35 MODEL RPX-041 with replaceable RPM and 45 RPM Ricrogroove $331 / 3$ RPM and 45 RPM Records.
No. 20A781. NET EACH.
(2) REPLACEABLE NEEDLES No. 184378 . For Standard Cartridge
 No. 18 A 379 . For Microgroove CarTridge RPX-041. .001-
Sapphire. EACH........ (3) PHONO PRE-AMPLIFIER Matches the variable reluctance pick up to ordinary radio or phono amplifier and compensates to provide the radioor amplifier. With tube. TO No. 14A591. Net Each... Wi-2 C.E. AC Powered Phono-Pre-Amplimodel above. With 6SC7. No. 20835. Net Each... N $_{3} 38$

NEN PROFESSIONAL
MODEL CARTRIDGE
(1) RPX-046. Designed for Broadcast and Professional users. Has wide range frequency response. Light weight and high compliance, minimum surface noise. Supplied less stylus assembly,
Uses any C.E. replacement stylus. Diamond Tipped units listed below are recommended. Finished chrome.
No. 20A559. Net Each.. 5
(2) DIAMOND TIPPED STYLUS RPJ-002. Diamond . 0025 stylus for conventional recordings. No. 20A560. Each. . . . $^{2} 7$ PPJ-004. Diamond Microgroove LP records.
No. 20A561. Each....


QUALITY PICKUPS FOR LONG PLAYING AND STANDARD RECORDS UP TO 12 INCHES
 double needle crystal cartridge. Switches from long playing to standard 78 RPM with a simple turn of the knob at front end of tone arm. Requires no weight adjustment. Plays all records at 8 grams needle pressure with excellent frequency response. Uses LQD-I J cartridge which has separate replaceable needies. Frequency response $50 / 7000 \mathrm{cps}$. Mounts $7: \%$ from turntable center. Brown Hammerlin finish. No. 20A5SO. Your Cost (B) HICH OUTPUT " $510^{\prime \prime}$. For 78 RPM. Ideal for portable or compact equipment because of the short mounting center of only $7^{\prime \prime}$. Employs the sponse 50 to 4000 cycles per second. Needle pressure, $11 / 2 \mathrm{oz}$. . 4,4 No. 14A564. Your Cost, Each.
(C) ECONOMY MODEL ${ }^{\prime} 507$."
$\$ 4.41$
neered crystal pickup extremely popular for replacements to improve existing equipment. Employs the L-40 cartridge. Correctly curved for needle tracking. Light brown enamel finish. Covers 50 to 4500 cps . Needle pressure,
$11 / 2$ oz. Qutput, 0.6 -volt. $11 / 2$ oz. Output, 0.6 -volt.
No. 14 A563. Your Cost, Each
$\$ 3.23$
(D) A FAVORITE with all who KNOW pickups! Frequency, 50/4000 cps. $23 / 4$ oz. needle pressure. B-2 bakelite enclosed cartridge! Vibration insulated
arm, ball bearing swivel base. Distortion-free, WIDE RANGE reproduction with high output of 2.5 volts. $12^{\prime \prime}$ lead. Black wrinkle finish. Has $8^{\prime \prime}$ Nounting center, $91 / 2^{\prime \prime}$ long.
$\$ 6.56$

## THE FINEST IN TRANSCRIPTION PICKUPS


(A) The 106SP Tone Arm designed for highest quality reproduction of both LP and Standard recordings. Has removable plug-in cartridge clip for a simple, quick change from LP to Standard cartridges. Uses a precise stylus pressure adjustment easily set for LP or Standard records. May be used with any turntable. The fine balance, low vertical inertia with low pivot friction No. 37 A99. Less Cartridge. Your Cost. . . . . . . . . . . . . . . . . . . . . . . 5 ASTATIC STUDIO MASTER PLAYS ALL TYPES RECORDINGS (B) 400LQD Transcription Pickup equipped with the Turn-over LQD doubleneedle crystal cartridge. Any type recording, long playing or standard, can
be played by simply turning the knob at the end of the arm to proper posibe played by simply turning the knob at the end of the arm to proper position, no further arm assembly design assures perfect tracking and absence of arm resonance. arm assembly design assures perfect tracking and absence of arm resonance. Has adjustable mounting height. Frequency range 50/7000 cp proximately 1 -volt. Cray Hammerlin finish
No. 20A554. Your Cost. . . . . . . . . . . . . .
$\$ 14.70$

GRAY 602 EQUALIZER


The 602 equalizer and Standard recordings. When used with C.E. cartridge, position No. I is mended equalization for LP records. Ond positions for NAB transcriptions records. Insertion type, loss 20 db . pedance 250 ohms.
No. 37A100. Your Cost 4.4 .51

VIBROMASTER TYPE K PROFESSIONAL ARM


For any lateral recording up to and including 16 inch, 78 or $331 / 3$ R.P.M. 22 grams pressure when used with the
C.E. cartridge. Universal "one hole" mount permits installation in any turntable with hairline height adjust ment. Precision made, finished in
brushed aluminum and black to match existing turntables. Also works with Pickering cartridge.
No. 14A592. Less
$\$ 33.82$

## PROFESSIONAL PICKERING CARTRIDGE

Accepted as the top pertorming reproducer in the indus
try. Has permanent stylus-response $\pm 2 \mathrm{db} .40$ to 10,000 cps. Output 70 millivolts. $1 / 2-0 z$. needle pressure. Mounts 2 spacing.
 Model S-140S with. 001 " Sapphire stylus for microgroove ecordings. No. 14B21. EACH
Model D-120M Cartridge with $0025^{\circ \prime}$ *................... 1 han sapphire tip
No. 20B22. NET EACH
Model D-1405 with .001" diamond stylus for microgroove recordin No. $20 A 782$.

15.00 $\$ 24.90$ $\$ 36.00$

## SHUR <br> VERTICAL DRIVE CRYSTAL


(A) 901D TURNOVER TYPE for the critical listener where true
fidelity is necessary. Will track stand ard records at 7 grams as well as the new fine groove LP types. Knob at end of arm positions needles. Has $.0027^{\prime \prime}$ osmium tip for standard and $001^{\prime \prime}$ sapphire tip for LP types. Both needles are replaceable. Output level -volt. Frequency to 6,000 cDs. Arm is light weight curved design with No. 2 Ress.

## (A) 901 MG PICKUP ARM

 The same type arm described above, except with single vertical drive car lage using .001 sapphire tipped re 45 RPM needle. Plays new $331 / 3$ and quency range to $10,000 \mathrm{cDS}$. Output level 1-volt.No. 20A555. Your Cost. . 901A PICKUP ARM Plays standard 78 RPM records. The arm is described under 901D. Uses vertical drive single crystal cartridge with $.0027^{\prime \prime}$ sapphire tipped replace. Output level l.1-volt.
No. 20A557. Your Cost.

## ECONOMY PICKUP FOR

 STANDARD RECORDS(B) Model 93A. Extremely light weight, needle pressure only $11 / 0-0 z$ Frequency response 60 to 6000 cps Output 6 volts. Has curved accu rately balanced aluminum tone arm
For records up to $12 \%$
No. 20A866. Net Each..

LIVINGSTON ADJUSTABLE PICKUP ARM


For Microgroove and conventional 12 and $16^{\prime \prime}$ recordings. Excellent tracking, due to curved construction, ball bearing pivots and two adjustable, removable counterweights. Stylus pressures range from 6 to 30 grams. For with $1 / 2^{\prime \prime}$ centers. Height is adjustable. No. 32B210. Your Cost \$14, 5 Model A-16. A straight arm with all other features
No. 32 ab206.
Less Cartridge
$\$ 12.95$

## AUDAX MICRODYNE MAGNETIC PICKUPS

Moving inductor principle for smooth frequency response 50 to 6500 cps. Needle pressure $13 / 4$ oz. Black with silver finish. Madel L-17. FOR REC
No. 32A200. Mod

16.5

No. 32A201. Model L-18. FOR RECHICH IMPEDANCE.
Net Each .......... Net Each
$x$ productsWe can supply all Audax
Send us your inquiries.

## Recording Discs-Phono and Recording Needles

## WALCO "400" SERIES

LONG LASTING PHONO-NEEDLES


By the originator of the first jewe tipped needie to be marketed commercially. Scientifically designed to re produce with the highest fidelity screening out hiss and scratch noisetreating records gently. Pack
WS-400 FLOATING JEWEL SAPPHIRE NEEDLE
10,000 Plays-Refails for $\$ 2.50$ Made for replacement in 78RPM record players and changers us accurately ground and polished to fit record groove 1.003 radius). Assures true reproduction
No. 18A329. NET EACH.... $\$ 1.50$ No. 18A330. Display of $12 . \$ 15.00$ MGS-400 SAPPHIRE NEEDLE

For Microgroove L.P. Records Same as above except sapphire tip is ground and polished for grooves of ecords $1.001^{\prime \prime}$ tip radius
No. 18A414. NET EACM .... $\$ 1.50$ No. 18A415. Display of $12 . \$ 15.00$ WR-400 RUBY JEWEL NEEDLE Up to 6,000 Plays-Retails for $\$ 2.00$ Made of Ruby slightly less durable than sapphire. Precision ground, high y polished. For standard
No. 18A496. NET EACH. . . . $\$ 1.20$ No. 18A497. Display of 12.512 .00 WA-400 PRECIOUS METAL NEEDLE
Up to 4,000 Plays-Refalls for $\$ 1.50$ Has all "extra" features of jewel tipped needies above, except 78 RPM life. For playing standard No. 18 A498. NET EACH....900 MALCO "Groove Master" needle, tipped with precious meta alloy rated at 1,000 record plays Filter type shank screens out sur face noise and scratch. Hand pol ished micro-inspected point rides lightly in the groove. A fine needle for all-purp
No. 188335 . Each
No. 188335 . Each $\ldots . .35 \mathrm{c}$

## WALCO "Encore"

 4,000 Plays_Refails at $\$ 1.00$ Precious metal rounded point with the usual Walco shank bend-resulting in needles that track exactly with negligible friction groove, reduces needle talk and groove, reduces needle talk and scratch.No. 16A491. Net Each ... 70 C No. 16A492. Card of $12 \$ 5.88$

## FOR COIN MACHINES <br> pphire Model WS-900

AT LAST - A sapphire designed especially for use in the new coin phonographs. Tested and approved by leading coin machine makers, this needle provides the uttimate in tone fidelity and record treat-
ment. Rafed at 5,000 plays when used in the new light weight tone arms.
100 Lots, Each Pkg of 5...\$2.95

## Precious Metal

## Tipped WA700

A superior all-purpose, long-life high fidelity coin needle. Has ex ceptional wearing quality with a Priced to give operators substantial savings on their needle costs. No. 16A490. Pkg. of 5.. 51.50


## FAMOUS MAKE

 RECORDING DISCS For Professional, Home, or Commercial NeedsHighest quality aluminum base recording blanks, uniformly coated with exing blanks, uniformly coated with ex-
clusive Audiodisc recording lacquer clusive Audiodisc recording lacquer having brilliant frequency response, manent resistance to humidity. Sold manent in case lots.
MASTER DISCS-DOUBLE FACE The choice where quality pressings are desired. . $065^{\prime \prime}$ thickness. Packed 25 to the case.
4A3. $131 / 4 "$, Net Price Each. . $\$ 1.83$ 4A4. $171 / 4^{\prime \prime}$. Net Price Each.. 3.06
"RED LABEL" DOUBLE FACE RED LABEL -DOUBLE FACE The standarsion. Quality fully meets cording protession. Quality fully meets, sound and movie studios. Packed 25 to the case.

"RED LABEL"_-SINGLE FACE Both sides coated, recordable side identified by label. Packed 25 to case. $\begin{array}{ccc}\text { Stock Size Thick- } & \text { Net Price } \\ \text { No. } & \text { Dia. } & \text { ness }\end{array}$
$\begin{array}{lllr}4 A 11 & 10^{\prime \prime} & .040^{\prime \prime} & \$ 0.61 \\ 4 A 12 & 12^{\prime \prime} & .050^{\prime \prime} & .84 \\ 4 A 13 & 16^{\prime \prime} & 050^{\prime \prime} & 1.41\end{array}$
4A13 $16^{\prime \prime}$
YEL. LABEL"
-DOUBLE FACE The popular choice for commercial studios, broadcasters, educational work, quality home recording, etc Packed 25 to the case.

| Stock | Size | Thick- | Net Price |
| :---: | :---: | :---: | ---: |
| No. | Dia. | ness | Each |
| 184304 | $8^{\prime \prime}$ | $.040^{\prime \prime}$ | S0. |
| 184305 | $10^{\prime \prime}$ | $.040^{\prime \prime}$ | .54 |
| $4 A 5$ | $12^{\prime \prime}$ | $.050^{\prime \prime}$ | .90 |
| $4 A 6$ | $16^{\prime \prime}$ | $.050^{\prime \prime}$ | $1^{\prime \prime}$ |

'BLUE LABEL"_-DOUBLE FACE For schools, demonstration work, home recording. Same materials as profes-
sional Audiodiscs- except .027 alusional Audiodiscs-except $.027^{\prime \prime}$ alu-
minum base. Supplied in multiples of ${ }_{10}$ minum only.
10 only
Stock
Stock Size
No. 10 Lots 50 Lots
Dia.
18 A389
168318
168319
$60 \mathrm{c}-45 \mathrm{c}$

## PAPER BASE DISCS

Give excellent reproduction. Light and flexible. Can be mailed. Record on both sides.
No. 184307. 61/2" Disc.

60 c
No. 18A309. $8^{\prime \prime}$ Disc.
Package of $6^{2}$. $\$ 1.00$
QUANTITY USERS OF WILCOX-CAY

## RECORDING AND

Audio Recording Needies
18A348. Sapphire type 14-87 ${ }^{\circ}$, short
dural shank
Net Each, 84.36 ; 3 Lots, Ea. S3. 83 8A349. Sapphire type 14-87\% long dural shank
Net Each, $\$ 4.35$ : 3 Lots, Ea. $\$ 3.63$ 20B46. Sapphire type 202, short brass

Nef Each, S3.16; 3 Lofs, Ea. S2. 83 84352. Stellite type 34, short dura

Nhank. Each, \$1.06: 12 Lofs, Ea. 88 c 18A376. Stellite type 34, long dura shank.
Nef Each, \$1.05; 12 Lots, Ea. 88 c 18A355. Steel ivpe 50 .
Net Package of 3 . ${ }^{2}$.......... 80 C
Audio Playback Needies
18A336. Sapphire type 113, dural shank. For original recordings and transcriptions.
Each.. \$3.80; 2 Lots, Ea... \$3.25 20B44. Red Circle Sapphire type 103, straight dural shank. All purpose. 2084. Si.20; 12 Lots, Ea. . $\$ 1.00$ 0845. Red Circle Sapphire type 303 ent dural shank. Useful in heav
pickups.

SOUNDCRAFT DISCS luminum bases of mirror-fike quality specially processed for flatness and uniformly coated with as near perfect recording lacquer as the state of the art provides. Sold only in case lots. "PLAYBACK"-DOUBLE FACE or average broadcasting standards. Packed 20 to case.

| Stock | Sixe | Thick- | Net Price |
| :---: | :---: | :---: | ---: |
| No. | Dia. | ness | Each |
| $15 A 2038$ | $8^{\prime \prime}$ | .025 | $\$ 0.48$ |
| $15 A 2039$ | $10^{\prime \prime}$ | .025 | .69 |
| $15 A 2040$ | $12^{\prime \prime}$ | .032 | 1.14 |
| 489 | $16^{\prime \prime}$ | .040 | 2.07 |

## "AUDITION"-DOUBLE FACE

 Packing $8^{\prime \prime}$ size, 10 to case; $10^{\prime \prime}$ $12^{\prime \prime}$ and $16^{\prime \prime}, 20$ to case.Stock Size Thick. Net Price

| Stock | Size | Thick | Net Price |
| :---: | :---: | :---: | :---: |
| No. | Dia. | ness | Each |
| $15 A 2041$ | $8^{\prime \prime}$ | .025 | $\$ 0.42$ |

$15 A 2041$
$15 A 2042$
$15 A 2043$
4 B10

## RECORDISC

## Home Recording Discs

 Coated with cellulose nitrate-proven best for high fidelity, life-like repro withstand ong wearing qualities, to cracking or peeting. Atl types listed record both sides.ORANGE LABEL-BOND BASE for home and practice use where low price is required


RED LABEL—ALUMINUM BASE Made on heavy 021 aluminum, the last word for recording and compare with those used by broadcasting sta-
tions and studios. All sizes packed 5 tions and stu

| Stock | Size | Per | , |
| :---: | :---: | :---: | :---: |
| No. | Dise | Pkg. | Lots@ |
| 184359 | $61 / 2^{\prime \prime}$ | 51.03 | 50.88 |
| 18 A360 | $8^{\prime \prime}$ | 1.37 |  |
| 18 A361 | $10 \%$ | 2.06 | 6 |
| 168320 | $12 *$ | 2.66 | 2.40 |

## HOME RECORDING DISCS

LIGHT ALUMINUM BASE DISCS
The tops in metal base discs for home recording. Record on both sides. Six to paper album.
No. 18A313. $8^{\prime \prime}$
Disc.
Album of 6. io ${ }^{6}$. Disc
$\$ 1.75$
Album of 6.
DISCS PLEASE WRITE FOR PRICES.
AYBACK NEEDLES
Presto Recording Needles 18A344. Sapphire, short dural shank Net Each …................ $\$ 4.80$ Net Each …............ $\$ 4.80$ 18A346. Sapphire, short brass shank 18437 Saphire iong bras $\$ 3.60$ Net E-ch …............... $\$ 3.60$ 8A351. Stellite, short shank. \$1.20 18A354. Steel, short shank. 1.20 $\$ 1.00$
$\$ 7.20$ 12 Pkgs. for

## Presto Playback Needle

 No. 184337. Sapphire, average life, 5 Lots. Each
## POPULAR PRICED

Recording Needles
No. 188357. Wilcox Gay steel record ing needle. Pkg. of 2 ........35c needle. Pkg. of 5................... No. 18 A350. Walco Sapphire semiprofessional short shank.
Net Each .................. 3.38

Jensen
PHONO


NEEDLES

## ROYAL JEWEL SAPPHIRE

 Shock absorber spring action minimizes scratch, assures longer record life. Flat construction reduces needle talk. Natural Sapphire tip gives permanence, extra smoothness, protects records. For playing standard 78 RPM recordings. Retail at $\$ 2.50$ eachNo. 18A327. Net Each..... $\$ 1.50$ "LP" ROYAL JEWEL SAPPHIRE for Columbia and RCA long playin records. Has precision sized I mil radius tip. Otherwise same as described above
No. 148561. Net Each. .... $\$ 1.50$
No. 148562. Card of $12 . . . \$ 15.00$

## JENSEN "CONCERT"

PRECIOUS METAL 5000 PLAY
Has famous Jensen "shocRabsorber" spring action and other features of "Royal osmium above except has Minimizes scious metal tip. vides clear undistorted pro production. For standard 78 RPM records. Retails for $\$ 1.00$.


No. 18A331. Nef Each .70 c
No. 18 A332. 12 For $\$ 6.00$

## JENSEN "SWEET"

 Precious MetalQuality at low price. Beryllium lang life pr with an extremely ong precious metal tip
No. 16A493. Net Each ....50c
No. 16A494. Card of $24 . .58 .82$

## Service Men's Packet

Contains 6 JENSEN needles. 3 each of the $\$ 1.00$ and $\$ 2.50$ in a handy carry along on service calls. $\$ 10.50$ Retail Value.
No. 18A364. Per Kit
$\$ 5.25$

## Gerett Miracle Point

Especially recommended for coin op wearing precious Long wearing precious metal ered, ground and pol
 ished to fit record
nore plays. 18A334. Ea...40c 12 Lots.. 38c

Shadograph Steel Needles Straight Shank for light p
No. 18A338. Pkg of 100
.75 c

## WALCO WD-90

Diamond Playing Needle
The first professional broad-cast-type diamond needle at this low price. Once inthe needle problem is end, ed. May be removed and replaced as often as desired without fear of desired record surfaces. Full frequency range reproduction is obtainable while surface noise and scratch are held a minimum Packaged in held luxe lucite container with outer gold-stamped gift box. RETAILS FOR \$12.50
No. 14A666. Net Each. . 88.45


Phona Accessaries-RECORDING WIRE and TAPE



## INDOOR ANTENNA



ICA "SUPER WASP". For jiffy installads telescope of set., Brass antenn rods telescope from 32 closed to 78 open-tune to all television channels ception. Has beautiful walnut bese ception. Has beautiful walnut base mar set. With 300 .ons lead. List Price \$6.05. No. 3889. Your Cost, Each 34.09 AMPHENOL "TELESTAR high channels. Rods are for low and aluminum - require are light weight Base is low-loss poiystyrene plastic with non-seratching rubber feet. Rec ommended for home ard portabie TV sets. Can be set up or moved in secList Price, $\$ 4.95$.
No. 3888. Your Cost, Each S2. 91

## FLEXIBLE TV ANTENNA



FOR LOW CHANNELS 2-6 II RUG-HANCS and insur With 10 ft . of 300 -ohm No. 37A109.
$\qquad$
$\$ 1.44$
TV ALL CHANNEL ANTENNA KIT FOR ATTIC, INDOOR OR OUTDOOR USE

Operates efficiently - installs casily with no special tools. Antenna is made lators and 60 ft of 300 -ohm lead at tached. Kit also includes special weather-resistant nylon supporting No. 37 Al07. Kir. Each. 3.50 Flexible All-Channel Antenna only, a supplied in above kit. Wing
lead-in.
No. $37 A 108$. Your Cost.. WINDOW ANTENNA FOR ALL TV CHANNELS


HOMES
HOMESS,
APTS. AND OFFICESWHEREVER
ROOF-TOP A ROOF-TOP MPRACTICAL
$30^{\prime \prime}$ to 50,410 Adiustable base spans $30^{\prime \prime}$ to $50^{\prime \prime}$ to fit any wood or casement window frame without the use of screws or
other fasteners. Does not mar frame. Aluminum folded dipole "tunes" eas lly for best all-channel reception. Adjustable support swings antenna both horizontally and vertically for maxi 300 -ohm lead. Shipping wt., $51 / 2$ lbs No. 38 B10. "INVISIBLE" TV AERIAL

ahead of TV set. Has $8-f t$ length of 300 -ohm twin lead with lugs for connecminals on set. Provides TV and FM reception in local | service areas. |
| :--- |
| No. 184418. |
| 2.3 |

## HOW TO CHOOSE THE BEST ANTENNA

in the Primary Service Area iclose to or in-line-of-sight of the television station), good pictures usually can be had using an indoor, window or attic antenna, but better results can be expected from a directional antenna mounted high on a chimney, poof-top or tower
In Fringe Areas lout of line-of-sight or in a spot where hills or high buildings might badly interfere), a highly directional "stacked or high antenna is generally required for consistent pictures. In extreme Fringe areas, or to take full advantage of unusual long dis-

DIRECTIONAL ANTENNAS Designed for reception in one direction and commonly used with a rotator where stations lie in different directions. Improves picfure, helps re-

(A) FOR ALL CHANNELS Rad-El-Co. Model RT-40LL Folded Dipoles and Reflectors. An outstanding alue. Strongly constructed - casily assembled. Uses $1 / 2^{\prime \prime}$ aluminum elo steel mast, zine plated inside and out The 8-ft. mast comes in two $4-\mathrm{ft}$ sections that lock together firmly. Included are guy wire ring, mast stand-off insulator. a wall bracket and a universal mounting base. Antenna Less 300 -ohm lead.
No. 38488 . Net Each...
(B) FOR LOW CHANNELS 2-6 Rad-El-Co. Model RT-42LL Folded Dipole and Reflector. Another remarkable value. Uses same materials and construction as above antenna. Sup-
plied with same 8 -foot mast and mounting accessories. Less 300 -ohm lead.
No. 38489. Net Each... 5.52

FOR ALL CHANNELS Rat-A-CO. Model RT $=44 L L$ "X"
Type with Reflecor. A great value on-channel anennas. Very popular in low signal areas. With 8-ft. mounting accesLess lead.
No. 38 A90 EACH \$7.35 COVERS ALL CHANNELS


Finest ail aluminum construction. Cives tremendous signal gain and high rejection of noise and ghosts. With
10 ft . of $1 / 1 / 4^{\prime \prime}$ diameter steel mast. Less lead. EACH..... 2 . 5.5

## AMPHENOL MODEL 114-005

 Same antenna as above with one bayand 5 -ft. mast. "In-line'4, flat construction makes mounting easy. Less
lead.

FRINGE AREA ANTENNAS
Engineered for more signal pickup in one direction and very high rejection of unwanted noise and ghost reflecHre not in the rotated where stations FOR LOW CHANNELS 2-6


Extra strong construction assures secure mounting in any weather. Spacing befween antenna bays is $1 / 2$ wave ength, proven by tests to give greatst signal pickup. Supplied with 2 $5-\mathrm{ft}$. sections of $11 / 4^{\prime \prime}$ diameter cor-rosion-proofed steel mast, mounting Weight, 21 lbs. Less 300 -ohm lead in . 3sAB3. Net Each. $\$ 24.99$

## STACKED ARRAY

 FOR HIGH CHANNELS 7-13 WARD MODEL TVS-48 Can be mounied as a separate antenna on its own 5-ff. mast and swivel baseor as an adaptor to convert a low or as an adaptor to convert a low array. Antenna elements are $3 / R^{\prime \prime}$ aluminum tubing. Furnished with guy ohm lead-in. Wt., 5 lbs. 98


Overall height is keot low by placing high band section between elements of the low band section, especially desirable when used on a rotator. Each array may be oriented separately for ghosts. Supplied with three 5-ft. sections of $11 / 4^{\prime \prime}$ diameter steel mast, guy wire rings, adjustable angle 22 lbs.
No. 38484 . Net Each. 29.11

## single channel ANTENNAS

## To be used under very extreme con

 ditions or at long distances from the TV station. Special design for maximum signal pickup increases directional effects and rejection of inter ference to the highest degree. How ever, basic theory of such design limits maximum performance to one channel. On the two adjacent channels performance still exceeds the all channel arrayDOUBLE STACKED TWINDRIVEN YAGI ARRAY


Engineered around basic theory to produce the very best single channel antenna. Each of the two sections is composed of four elements, two driven matching network for 300 -ohm line assures maximum signal transfer to the lead-in. Mechanical construction is arranged for easy assembly and strength to withstand heavy weather To take advantage of long distance reception this antenna should be mounted on a high tower with a tator. Supplied with a 15 -ft. mast less 300 -ohm lead-in. (When ordering. specify channel number of station to be received Otherwise channel 5 wil be supplied.
No. $39 A 1$. Net Each. 53490

## FOR SINGLE CHANNEL

 EXTREME DISTANCE RECEPTION

The "Tcletenna"-engineered with al the performance features required for consistent fringe area reception. Has very high forward gain, sharp direcbottom and rear noise and ghost rebottom and rear noise and ghost re-
flections. Brings television to areas where reception with ordinary antennas is intermittent or impossible. This unusual performance results from use as a modified parabolic reflector three as directors and one provided with a as directors and one provided with a matching 300 -ohm line. The elements are $5 / 0$ diameter dural tubing Insu are $1 / 8$ is loweter dural tubing. Insuand mast are $11 / \mathrm{s}^{\prime \prime}$ diameter hard dural tubing. Mast length is $24^{\prime \prime}$ for mount ing on top a tower or rotator Furnished with all assembly hardware and instructions. Shipping weight 15 ths Specify channel of TV station to be received when ordering.
No. 504309. For Low 48515
Channels 2-6. Net Each $45 \%$ No. 50A310. For High Channels $^{7}-13$. Net Each 4,
Chat

## TVAnten INSTALLATION



A neat appearing guyed tubing securely welded and weatherproofed. 10 FT. TOP SECTION. 10-ft. long to extend height to 18 ft . Has welded climbing supports and side brack5 10 FT. MID-SECTION. Uniform size. Couples tions for desired height waint, 20 is 12.75 HINCED BASE MOUNT. roof angle. Sdjusts to 36A10i. $\$ 7.50$ TOP ROTATINC BEAR INC AND COLLAR. Actating mast. Free turning.
No. 36A102. Your Cost.. ECONOMY 40-FT. TOWER Composed of 20 ft. of tower like above plus $20 \mathrm{ft}$. of forced steel mast. To be used with hinged base mount above. Shipped hinged base mount above. Shipped
from factory, Lancaster, Pa. Weight, 63 lbs. Less Base.
No. SOA292. YOUR COST 29.5

WINCHARGER SELFSUPPORTING TOWERS
 For TV-FM or Ama-
teur antennas. The
same same type rugged steel tower used suc-
cessfully for $m$ a $n$ y cessturs as a mounting for heavy wind-driven generators. Needs no guys. Can be safely with a hoider dia. extension pipe mast and a coupipe mast and a coupling for the antenna mat included. Shipped instruction sembied
Wh. 20 lbs. Net Each
$\$ 8.00$ No. Bis

## BAKER "MONITOR" TOWERS <br> For the heaviest TV and Amateur antennas . . neered to stay up - the safest of all towers. Three post $13 / 4^{\prime \prime}$ steel angle construction, hot dip galvanized. Towers up to 48 chors for dirt or gravel: 48 ft . and higher, with anchors for concrete. Base spread approximately onefitth of height. Shipped knocked down with full instructions, all fittings, hardware, ladder, plating adjustable for mast diameter $1^{\prime \prime}$ to $2^{\prime \prime}$. Prices <br> Stk. No. Helght Wt. Lbs. Your Cost $\begin{array}{llll}50 A 293 & 22 \mathrm{ft} . & 280 \\ 50 A 294 & 35 \mathrm{ft} . & 454\end{array} \quad 28.50$ <br> 504295 504296 <br> 504297 <br> 504297 $50 A 298$

Here are listed-at lowest costs-antenna towers and rotators to improve television reception. On the opposite poge is a wide variety of practical, safe mounting hardware for all antenna installations.
Should you need assistance in selecting just the right items, the B-A staff will be pleased to help. Your inquiries are invited.


## ROTATES <br> TV or FM ANTENNAS

FOR MAXIMUM SIGNAL INTENSITY CAN BE USED WITH LIGHTWEIGHT AMATEUR BEAMS
Swings antenna either direction through a full $360^{\circ}$ and stops right on the exact spot you choose, Direction of rotation is instantly reversible. Stops automatically at end of rotation to prevent fouling transmission line. Motor unit is permanently lubricated and enclosed in a weather-tight die-cast meral housing. Controt box at radio is an attrac-
tively designed plastic unit (\|llus. Al housing a step-down transformer, the rotator switch and an automatic signal light that indicates the end of rotation. The rotaror and control must be con-
acted with a 4 -wire cable. Control box pluss
 NEW! ALLIANCE TENNÄ-ROTOR WITH DIRECTION INDICATOR
Looks and operates exactly like the standard model rotator above, except control box (lllus. B) contains a calibrated meter type direction indicator automatically showing direction the antenna is pointed. Control and rotator requir necting caibe
No. 36,1000
$\$ 29.37$
THRUST BEARING BRACKET FOR ALLIANCE TENNA-ROTOR
A ball thrust bearing support for heavy TV an
tennas or 10 meter amateur beams. Clamps on mast below rotator and carries entire
antenna.
WIR ${ }^{37 A 81 . ~ N E T ~ E A C H . ~}$
$\$ 4.67$
4-WIRE CONTROL CABLE
For use with Tenna-Rot
No. 4A70. PER FOOT.

## KOENIG $=$

## ELE-BEAMER

$\$ 3.23$


## ANTENNA ROTATOR WITH REMOTE DIRECTION INDICATOR FOR TV-FM OR LIGHTWEIGHT <br> AMATEUR BEAMS



Points antenna in exact direction for best reception with perfect, effortless, finger-tip control while
watching picfure or listening. The calibrated meter watching picture or listening. The calibrated meter best spot for each station. Rotation speed is approximately I RPM through 3600
in either direction. A magnetically confrolled brake in either direction. A magnetically controlled brake
stops rotation instantly wherever desired. Also stops stops rotation instantly wherever desired. Also stops
automaticaily at end of full rotation to prevent automaticaily at end of full rotation to prevent The rotating mechanism is contained in a completely weather-proof cast aluminum housing equipped with universal clamps for mounting on any mast
trom $3 / 4$ to 2 " diameter and is powered by two interference-free 24-volt induction motors. All gears are quiet operating machine cut from stecl, brass
and special bakelite. The antenna mast clamp is and special bakelite. The antenna mast clamp is carried by a $11 / 16^{\prime \prime}$ diameter tool steel shatt and a
built-in oilite thrust bearing. All parts are permanently lubricated and rust-proofed. Develops a re-
serve of power, fully ample to frec itself from ice serve of power, fully ample to frec itself from ice and sleet.
ntrol box is nicely proportioned of cast aluminum, brown wrinkle finished and fitted with rubber feet. It contains the direction indicator, two
push-button direction switches and a 24 -volt stepdown transformer. Size, $37 /{ }^{\prime \prime}$ high. $4^{4 "}$ square. Operates on 110 -volt. 60 -cycle AC . Requires 5 -wire
tlat control cable to rotator mechanism. Shipping weight, both units, 9 bs
No. $37 A 80$. Less Control Cable.

## YOUR COST

$\$ 26.43$
5-WIRE FLAT CONTROOL CABBLE
For use with Tele-Beamer. Brown vinyl weather-proof insulation. S40.80
No. 2B128. Per Ft...5c 100 Ft... $\$ 4.50 \quad 1000$ Ft... ROTATING BEARING BRACKET FOR HEAYY ANTENNAS TO BE USED WITH KOENIG TELE-BEAMER
Takes strain of antenna mast side-sway off of rotator. Mounts three feet or more above rotator on same supporting mast. Adjustable for antenna No. $37 A 106$. NET EACH.

BAKER

## "MONITOR"

## HEAVY DUTY

 GUYED TOWERSOver double the strength required by U. S. government specifications for $11 / 4$ " hot dip galvanized steel angle, I $2^{\text {" }}$ triangu"X" cross braces that form a sturdy ladder. Mid sections are 15 feet long. Five toot top and potrom. Sections are taextra strong cast
extra strong cast iron
universal joint, self leveluniversal joint. self levelShipped knocked angle. Shipped knocked down with instructions, bolts tor assembly base, all guys and required hard ware, roof top or ground anchors and 1 " to $2^{\prime \prime}$ dia antcnna mounting. Prices are fify Evansville, Wis. Specify roof or ground mounting. 70 teet Stk. No. Height Wt. Lbs. Your Cost $\begin{array}{llll}504299 & 25 \text { ft. } & 157 \\ 50 A 300 & 40 \text { ft. } & 232 & 32.25 \\ 504301\end{array}$ $50 A 300$
$50 A 301$ $50 A 301$
$50 A 302$ 504303 $50 A 304$ $50 A 305$
$50 A 306$ 0A306

BAKER 30-FT. ECONOMY

## GUYED TOWER

Made like the heavy duty towers above. Corner posts are $]^{\prime \prime}$ steel angle Can be climbed and will support heavy antennas. Mast clamps adjust from $3 / 4^{* \prime}$ to $2^{\prime \prime}$ diameter. Base mount is heavy universal joint type, self leveling to any angle. Shipped flat. partially assembled-easily completed. Less guy wire and guy anchors. Wt..
100 lbs. List, $\$ 45.00$. 100 lbs. List, $\$ 45.00$.
No. 39A2. Your Cost. 29.11
$10-F T$. EXTENSION SECTION IO-FT. EXTENSION SECTION
One or two can be added to above tower to increase helght when propcrly guyed. Wt., 30 lbs. ST
No. 39 A 3 . Your Cost...

LEE 30-FT. TV MAST ASSEMBLY KIT
Makes three 10 - ft . pieces of thin wall conduit into one
rigid $30-\mathrm{ft}$. pole! Easy for one man set up in half an hour. Kit includes specia spacer cages for joining concuit, truss wire, cross arms
for holding wire trusses, special hardware, upper clamp and the heavy duty universal and the heavy duty universal root mount illustrated below Requires one length of each thin wall conduit which can be secured locally
No. 36 A104.
$\$ 7.32$
LEE UNIVERSAL MAST FOOT MOUNT
cast aluminum base masts. Will not loosen from vibration. Rubber gasket inside clamp helps quiet Weight, 5 lbs. List Price, $\$ 5$
$36 A 103$
$\$ 3.50$



AMPHENOL 300-OHM
RANSMISSION TRANSMISSION
LINE CABLES FOR TV OR FM Flat twin-lead
type 14.056. Brown polyethy. lene insula $2 A 157$.
Per Fi... $2 \frac{1}{2}$ 100 Ft... $\$ 1.92$ lead type 14 -271 Brown polyethylene. Minimizes wind 2B164. Per Ft.. $51 / 2 \mathrm{C} \quad 100$ Ft.. $\$ 4.92$

## SHIELDED 300-OHM

 CABLE—FEDERAL K-111

Minimizes noise, snow and ghosts due to transmission line pickup. Nearby objects do not affect line impedance. Can be installed in conduit or pipe. Conductors are polyethylene insulated, copper braid shielded and weatherprooted with overall vinylite jacket. Oval cross section size $1 / 2 \times 5$ No. 2 Al94
${ }_{100}$ Pr. Ft . $12 \frac{1}{2} \mathrm{C}$ 1000 Ft . $\begin{array}{r}11.25 \\ 105.00 \\ \hline\end{array}$

## SHIELDED 225-OHM CABLE

## ANACONDA ATV-225BS

Engineered for optimum impedance match between antenna and receiver Produces clearer, cleaner pictures. Can be installed in conduit or in the open. Conductors are 22-gauge copperweld, polyethylene insulated, copper braid shielded, weather-proof
 500 Ft. $\$ 56.55$

## LIGHTNING ARRESTORS


(A) JFD 'A) Type AT102. U/L approved for 300-ohm flat line. Requires no No. 178733.
Net Each

(B) ECA Type $206 \times 1$.... © $3 ?$ tact made by serewing cap down on U/L approved. No. 178241. Net Each 65c

## CERAMIC STAND-OFFS



Unglazed white porcelain. Furnished with wood serew, Clearance,
No. 18A441. For heavy oval twin-lead. No. 18A442. For $1 / 4$ " dia. coax line. No. 184443 For $3 / 8^{\prime \prime}$ dia. coax or tubuCHOICE, EACH.


(A) Baseboard insulator. Holds twin lead neat and secure. Single hole mig. | No. 178734. |
| :--- |
| Net Each....... $100 @$ | (B) Clear plastic stand oft loss design. Single hole mounting No. I7A1039.

Net Each....... 8 Each... Net Each. Two-piece twin lead connector. Molded black bakelite. Installs with-
out soldering. 82 F $10 @ \%$

## TV ANTENNA ACCESSORIES


(4)

(1) CHIMNEY MOUNT

Sturdy $1 / /^{\prime \prime}$ steel, ribbed, welded and bolted. Heavily plated. Brackets may be spaced ${ }^{\text {for }}$ "maximum strength.
Takes masts $5 / 8$ " to $11 / 2^{\prime \prime}$ diameter. Takes masts $5 / 8{ }^{\prime \prime}$ to $11 / 2^{\prime \prime}$ diameter.
Mast clearance from corner is $21 / 2^{\prime \prime}$. Complete with all hardware and 24 ft. banding straps. Installs without
special tools. 37A113. Pr..... \$1.91

(2) VENT PIPE MOUNT

Universal strap fits round or square
pipes, masts, timbers, cte., up to $6^{\prime \prime}$ pipes, masts, timbers, cte., up to $6^{\prime \prime}$ hardw rust resistant steel. With all masts 37 Mounting holes, $1 / 4$, diame clearance. 10 Pair@

(1) STEEL WALL BRACKETS Very rigid, heavy duty design, with plated. For masts up to $11 / 2^{2 \prime}$ dia No. 37All5. 8 clearance. $\$ 2.50$ 10.Pair@ No. 37A116. iz" clearance 10 Pair @
No. 37Al17. "is" clearance 10 Pair @
(8) ALUMINUM WALi BRACKETS Heavy gauge hard alloy. Takes masts up to $11,2^{\circ \prime}$. Boxed in pairs with cadmium plated hardware. PAIR No. 184446. $11 / 2^{\prime \prime}$ clearance. $\$ 0.59$ INTERLOCKINC MAST SECTIONS
 10. Pair

(3) ALL-PURPOSE MOUNT

Rigid cast aluminum. Takes masts up to $13 / 8^{\prime \prime}$ dia. Mounts with banding straps on chimney or witnout straps on corner or flat wall. Complete with 12 ft. straps and hardware. 37A111. Pair... $\$ 4.41 \quad 10$ Pr. @... $\$ 3.97$ BRACKETS ONLY as above, less 10 Pair @...................... $\$ 2.65$ (1) CORNER MOUNT

STRANDED GALVANIZED STEEL GUY WIRE


50-FT. CONNECTED COILS
Simplifies handling and measuring stk. No. Description Coil 10 Coils 3895 4 strands No. 2027 c c $\$ 2.43$ 381036 strands No. $2034 \mathrm{c} \quad 3.15$ 381076 strands No. 18 48c 4.32 3872 \#3 hollow cable 54 c

CUY WIRE ON SPOOLS
Stk. No. Description Length Spool $28147{ }^{\circ} 4$ strands No. $20 \quad 1000^{\prime} \$ 4.30$ 281486 strands No. $201000^{\prime}$, 5.54 281496 strands No. $18 \quad 500^{\prime} 3.98$ 28150 \#3 hollow cable 500' 4.55
GUYING ACCESSORIES


No. 188145 . Ea. 21 C : 10 Lots. 19 C (B) SCREW EYE GUY ANCHOR
 No. 198987 . Ea... 6 C : 10 For. 54 C No. $184384.4^{\prime \prime}$ to $51 / 2^{\prime \prime}, 3 / 16^{\prime \prime}$ dia. boit. Each. 14 c ; 10 For . $\$ 1.26$ No. 18A386. $51 / 2^{\prime \prime}$ to $75 / 8^{\prime \prime \prime}, 1 / 4^{\prime \prime}$ dia.
bolt. Each. $17^{\prime}$ : 10 For. $\$ 1.53$
 dia. bolt. Each .45 c ; 10 For. $\$ 4.05$

(A) CALVANIZED STEEL BANDING Strong and flexible Perforated Width, $3 / 4^{\prime \prime} .4 A 84,12^{\prime}$ Lgths. Ea. 39 C No. 4A85. 100 Ft. Lengths. $\$ 2.39$ For securing guys to masts up to 19B986. Ea....29c 10 For... $\$ 2.50$ (C) STEEL U-BOLTS For clamping masts to wood or metal. 19B983. Ea.... 18 c c 10 For. . . $\mathbf{\$ 1 . 6 2}$ (D) LAC SCREWS

Win Diameter. $1 / 4^{\circ \prime \prime}$; length, $11 / 2$
square head. . 5c 100 For.... $\$ 4.12$
18 B 147 . Ea....5c
STAR MASONRY FASTENERS

$\begin{array}{clll}(A) & \text { (B) } & \text { (C) } & \text { (D) }\end{array}$
(A) DRIVE-IN EXPANSION SHIELD Lead sheath is expanded to grip sides home. Head of sheath, not the nail, holds bracket. Sheath diameter, $1 / 4$ length, $11 / 2^{\prime \prime}$. With nail
19A299. 10 For. 60C 50 For. $\$ 2.84$ (B) EXPANSION SHIELD for SCREWS Used with size 10,12 or 14 wood length, 1 ". For 35 c 100 For s3.08 (C) EXPANSION SHIELD FOR BOLTS With $10-24$ thread. Requires $3 / 8^{\text {" dia., }}$
$5 / 88^{\prime \prime}$ deep hole. Less bolt. 19A311. 10 For. 50 C 50 For. $\$ 2.25$ With $1 / 4-20$ thread. Requires $1 / 2^{\prime \prime}$ dia. 18 " deep hole. Less bolt.
(D) 10 FRr. 70 C Cor. 53.30 for fastening to hollow wall tile, etc Furnished with $1 / 4-20 \times 3^{\prime \prime}$ bolt.
$19 A 310.10 \mathrm{For} .80 \mathrm{C} 50 \mathrm{For} . \mathbf{S 3 . 5 0}$ TAMP-IN TOOL FOR SHIELDS Required to "sef" anchor type (C)
No. 19 A304. $10-24$ size. Each. 25 c
No. 19 A305. $1 / 4-20$ size. Each. 25 C

# TV and FM Antennas and Accessories <br> Low Cost Taco "Lazy H" <br> SPECIAL VALUE TV ANTENNAS 

Antenna for Fringe Areas


Covers all TV channels and FM. Uses the newly developed wing type driven elements with individual high and low band reflectors, a type of con struction gaining popularity, "tough" areas -because of outstanding performance. Gives a true single lobe pattern on all channels and requires rotation to receive stations from dif ferent directions. With two 5 Wt. 8 lbs.
No. 38494 . Net Each.

Single Channel Antenna Taco Model 995

An economical stacked array for the "booster" areas where ordinary an tennos fail to deliver. Gives the ail ing TV signal a real lift because of single channel peaking at the fac finest materials. Supplied with 15 th finest materials. Supplied with 5 of $11 / 4^{\prime \prime}$ heavy aluminum mast, two and howe $W_{t} 14$ bs When ing, specify channel. $S ? 2$ DIRECTOR FOR MODEL 995 For still DIRECTOR FOR MODEL 995- For still higher gain and increased rejection channel when ordering.
No. $38 A 104$. NET EACH. 5,58

## ALL CHANNEL BAYS



Popular " $X$ " conical type with reflector. For construction of stacked arrays. Bays can be added to obtain desired signal. Highest quality construction of $1 / 2^{\prime \prime}$ aluminum tubing with castings and high impact insulation. costings and high impact insulation. loose parts. Mast clamp fits up to loose parts. Mast clamp fits up to complete with one pair of $1 / 4$ wave coupling bars. Wt. 11 lbs. No. $38 A 100$. Each 2 ... 65 @ Sch. 59
2 Each

LOW CHANNEL BAYS


Folded dipole and reflector. Otherwise same construction and use as "X" type above. Packed two bays per carton with one pair of $1 / 4$ wave

No. 38A101. S578 6 ( 3525

(1) Folded Dipole and Reflector. Covers low band, channels 2-6. Pre-assembled-no loose hardware to delay and confuse installation. Insulation is rugged bakelite. Complete with 5 ft . steel mast and all-angle base mount. Wt. $71 / 4$ lbs. Less lead.

No. 38A92. Each
$\$ 4.95$
$\$ 4.50$ 12) High and Low Band Folded Dipole and Reflector. For all channels 2-13 and FM. Ppe-assembled and easily set up. With 5 ft . steel mast, twin lead jumper and all-angle base. Sections orient separately. Wt. 8 lbs. Less lead.
(3) All Band Stacked Conical. Provides high signal pickup on all channels with minimum noise and less fading. Reduces ghost reflections. Used widely in fringe areas. Elements are aluminum, cross arms and brackets are plated steel. Can be assembled in a jiffy. Less mast and 300 ohm lead

No. 38491. Each
$\$ 12.83$
$\$ 11.66$


TELEX CONICAL TV ARRAYS HIGH GAIN-FOR FRINGE AREAS designed to cover all thigh efficiency on each channel. The unusual full high efficiency on each channel. The unusual acteristics of the " X " conical design.

MODEL 8X-TV STACKED ARRAY A super, high-gain, 4 bay system for the ultimate
in all-channel, fringe area, television reception. Consits of aluminum antenna elements, phasing links, booms, element clamps and universal mounting brackets to attach bays to mast. Supplied with full ft . mast is required for proper stacking. No. 38A96. NET EACH.
$\$ 44.10$

## MODEL 4X-TV STACKED ARRAY

 For good all-channel reception in the fringe areas Consists of aluminum elements, etc., as above for a2 bay system. With instructions, less mast and lead 2 bay system. With instructions, less mast and lead No. 38 A97.
$\$ 21.17$

## ANTENNA MAST SECTIONS

DURAL TUBING. $1 / 2$ da. with 065 wall thickness in 6 ft . lengths. For use with the Telrex arrays above yet light weight mast. Or any 2 lbs.
No. 38A98. NET EACH H.
$\$ 2.35$ MAST COUPLING. Ne c above. $\mathbf{N 8}$. NET EACH

53 c
NOE TUBING 38 TUN保 external coupling accessories. Wt. $21 / 2 \mathrm{lbs}$. No. 38 ASs. NET EACH.
$\$ 1.91$
FM ANTENNAS-FREQ. RANGE 88-108 MC

(A) WARD MODEL FMT-56 NON-DIRECTIONAL FOLDED TURNSTILE. Designed to pick up FM stations from all directions with equal high efficiency. Furnished with a 5 ft . steel mast $11 / 4^{\prime \prime}$ diag., universal mfg.
 No. 38B26. NET EACH.
(B) WARD MODEL FM-55 FOLDED DIPOLE WITH REFLECTOR. For single direction pick-up. Greatly improves FM reception and reduces interference.
 Ho. 38854. NET EACH
(C) FLEXIBLE FM ANTENNA. Made of 300 ohm twin lead. For use indoors element has flat insulators at ends and 10 t 300 . hex lead connected at center.
No. 3iA62. NET EACH.

(4)

(1) TWIN LEAD SPLICER Polystyrene solderless connector. Holds wires by tightening 2 set screws No. 14B17. Ea. 17 C 10 Lots Ea. 15 c 12) TWIN POLARIZED CONNECTOR Polystyrene. Designed for standard 300 ohm FM -TV leads.
No. 14 B 18. Pr. 53 c 10 Pairs Ea. 45 c (3) TWIN LEAD BASE MOUNT

For terminating antenna leads. Mates with half of polarized connector
No. 14819. Ea. 29e 10 Lots Ea. 250 (4) TWIN LEAD SOCKET PLUC Pins are spaced $1 / 2$ inch to fit crystal No. 14820. Ea. 28 c 10 Lots Ea. 24 c AMPHENOL COAXIAL FITTINGS


Stock Mfg. Dig. No. Descry. Each
No. For No. Fig. No. Descr. Each
18 Ali22 A 83-1SP Plug 3.82 $\begin{array}{lll}18 A 1122 & \text { A } 83-1 \text { SP Plug } \\ 18 \text { Al123 } & \text { A } & 83-776 \text { Plug } \\ 18 A 1124 & \text { B } 83-1 R \text { Rect. } & 1.32 \\ 18 A 1125\end{array}$
1841125 - 83-1R Recpt.
178193 83-1AP Angle
$18 A 1127$
$\begin{array}{lll}18 A 1128 & \text { F } & 83-1 T " T \\ 18 A 1129 & \text { C } & 83-1 H\end{array}$
18AII30 C 83-1H8U
BARGAIN SPECIALS
300 OHM TWIN LINE. TOP quality, brown polyethylene ins.
No. 4A67. Per $100 \mathrm{Ft} . . . \mathrm{s}$. 1.18 1000 FF. 73 OHM COAX. Top quail-
RG59/u- 10.49 ity-rresh, New. Na 4A68. Per 100 Ft. . .... $\$$. 45 1000 Ft. . ........................... 19A655. 1600 Lb. Tension..Ea. 10 c 19A655. 1600 Lb. Tension.. Ea. 10c
19 A656. 2100 Lb . Tension. .Ea. 15c 19A656. 2100 Lb. Tension.. Ea. 15c
19A657. 4600 Lb. Tension..Ea. RFc
AERIAL ACCESSORIES


## Piturve Theses and Mosutiens-TVPats <br> FILTERS AND MAGNIFIERS

FOR TV INSTALLERS
WHEELER SOUNDPOWERED HANDSET
 No batteries required.
Has remarkable speech fidelity. Operates over two conductor or single ground return circuit.
Durably constructed of moldedbsack phenolic, with $31 / 2 \mathrm{ft}$. rubber cable and rubber insulated clips for quick.

No. 37A50. Your Cost Each
(A)

(A) FOR ROTARY DRILLS

Carbide tipped and spiral fluted. Used 194301 ${ }^{\circ}$ " 1 No. 19A301. $1^{\prime \prime} 4^{\prime \prime}$ Dia., $4^{\prime \prime}$ Lgth. No. $191.41^{\text {No }} 1902.8^{\prime \prime}$ Dia., $4^{\prime \prime}$ Lgth. 1.70 No. 19A303. $1 / 2$ " Dia., 6" Lgth. 2.12 Drills straight sided hole. Much longer life than 4 -point type and can be resharpened. For use with handle Fig. (C)
19A306. $1 / 4^{\prime \prime}$ Dia., $31 / 4^{\prime \prime}$ Lgth. Sach 65 19 A307. $3 / 8 "$ Dia., 5 " 14 Lgth. .97 $19 A 308.1 / 2 "$ Dia.. $5{ }^{\circ}{ }^{\circ}$ " Lgth. 1.37
(C) RUBER CRIP DRILL HOLDER For use with Hammer Type Drills No. 19A300. Each. . . . ...... $\$ 2.70$ SCOTCH NO. 33
ELECTRICAL TAPE
 - installers to wrap Hit fransmission line joints Also serves to bind line to stand offs to prevent sagging of wire. Molds to any surface and with-
oils, water, acid, alkastands flame, oils, waicals. Remains texible at low temperafures. Diclec tric strength, 7000 volts per thick No. 20896 \$ 50 i Rolls $\$ 135$ MALLORY TV
SERYICE ENCYCLOPEDIA
 you get-com $\begin{gathered}\text { plete } t u b e\end{gathered}$ complements IF alignment data, circuit
references original $p a r$, numbers, replacement part Rider's refer-ences-a complete encyclopedia o ences-a complete encyclopedia of 35c No. 16 B403. A Big Value. TV FRONT END TUNER




## (2) <br> (1) TELEVISION GLARE FILTER

Scientifically tinted ${ }^{\text {to }}$ achieve maximum clarity.
heighten contrast and eliminate eye strain by reducing glare. Can be used with any TV set-fastens directly to screen of picture tube and can be cut to
exact size with scissors for exact size with scissors. For all screen sizes.
No. 20A851. 7-INCH.....S.98 No. 20A902. 12-INCH $\$ 2.45$ No. 20A852. $10-1$ NCH.... 1.71 No. 20A903. 15-16-INCH.. $\$ 2.45$ (2) WALCO TELE-VUE-LENS WITH REMOVABLE GLARE FILTER Cives bigger, brighter and clearer images without distortion-magnifies up
to 4 times if desired. Overhanging bracket is adiustable in all directions for centering and focusing. Installs on all types of cabinets without screws. Will not mar finish or inferfere with controls. Clare filter slides in or out in a liffy. Smart "decorator" styling actually adds beauty to any set $\begin{array}{llccc}\text { Stock No. } & \text { Picture Tube } & \text { Overall Size } & \text { Weight } & \text { Price } \\ 35 A 104 & \text { Up to } 7 \text { Inch } & 10^{\prime \prime} \times 13^{\prime \prime} & 10 \text { Lbs. } & \$ 11.97\end{array}$ $35 A 105$ Up to 10 Inch $12^{\prime \prime} \times 16^{\prime \prime} \quad 17$ Lbs. 511.97 $35 A 106$ Up to 12 Inch $13^{\prime \prime} \times 18^{\prime \prime} \quad 17.87$
(3) ATLAS "TEL-OPTIC" LENS ON FLOOR STAND FOR UP TO 12-INCH PICTURE TUBE
Adds pleasure and comfort to your television viewing. Enlarges pictures 2 to 3 times-gives clearer pictures with less eye strain-has no distortion at any angle-adjustable height accommodates all console and table model sers. Stand has chrome plated steel stem, "Velvet-action" adjustment and mahogany crackle finishe
No. 34B9. YOUR COST.

## TELEVISION PICTURE TUBES



We ship none but new, Nrices. Fully Guaranteed. $\begin{array}{lllllll}\text { No. } 36863 & 7 J P 4 & \text { Ea. } \$ 18.88 & \text { No. } 504273 & 12 L P 4 & \text { Ea. } \$ 32.30\end{array}$ No. 36854 EPP4 Ea. $20.85 \quad$ No. $504291 \% 12 \mathrm{KP} 4$ Ea. 36.45
 No. 50A290: IOFP4 Ea. 27.50 "Raytheon types 1OFP4 and 12KP4 with aluminized "daylight" sereen are interchang
ion trap.

## GENUINE RCA TV COMPONENTS



The major TV replacements in 214 sets of 38 manufacturers. Used by servicemen and builders. For direct view picture tubes including the 16 -inch 16AP4. Ask for the "RCA Component Directory for TV Receivers" No. 16B120. 10 C each or FREE with an order.
Stock No. RCA No.



Sola Model CVA Constant Voltage Transformer Banishes flicker and distortion from Television screen due to line voltage variations caused by home appliances Or other electric powered devices. outlet for the TV power cord. Turns on automatically-no extra switch. ing. Input line voltage may vary from 95 V . to 130 V but variation at output is less than $3 \%$. Power rating, W/t. 26 jbs.
No. 31831 . Your Cost.. 31801

12 CHANNEL FRONT END

"THE STANDARD TUNER" The exact turret tuner used in many Krand name Bendix, Capchart-Farnsworth, Kisher, Bendix, Olympic, Philco, Stewart-
Finter Warner, Packard Bell-and many others. An important profit item for "front end" for the builder. Features interchangeability of channel induc-tors-individual oscillator adi. for each channel-no tracking difficulties - GAG5 RF sensitivity. Complete with No. 36842.
Net Price............30.

VOLTAGE DOUBLER KIT A complete assembly kit for convert ing the RCA 630 type chassis for approx. 12000 volts to operate a $16{ }^{\prime \prime}$
16 AP4 tube. Includes $1 \mathrm{B3}$ tube plastic insulating sleeve and rim and set of brackets for the $16^{\prime \prime}$ metal tube No. 37 A1 20.
$\$ 23.52$
PLASTMC RIM \& SLEEVE
For insulating the metal 16 AP4 tube.
$\$ 4.17$

## RCA IF-VIDEO COILS

## Stock

No. RCA No. Descriptio
$14 A 344$ 201K1 Sound IF's $14 A 344$
$14 A 345$
$201 K$
201 SI Cound IF's
1443 $14 A 346$ 144347 $14 A 348$
44349 202K4 Cath. Trap
144350 203Kl Discr. Trans
$14 A 350$ 202Ll Picture IF
144352 203L2 Peaking Coil $\begin{array}{ll}14 A 353 & 203 L 3 \text { Peaking Coil } \\ 14 A 354 & 203 L 4 \text { Peaking Coil }\end{array}$

##  <br>  <br>  <br>  <br>  <br> HORIZONTAL TYPE (llustrated) MORIZONTAL TYPE " and 7" TV or scope tubes. To be used With diagram. Net Each............. . VERTICAL TYPE INo Mustrated Also supplies til voltage fore tubes Also supplies til. voltage for 1 B3 No. 168428 <br> Net Each $\$ 2.91$

[^0]
# Belden Quality MAGNET WIRE 



Exact B-S gauge, best quality, uniform insulation. Continuous length on each spool. You are safe with Belden for any need. Single cotton covered enamel replaces the old type double cotton covered. Single Nyltex is the '
covered.

- 1/2-Lb. Spools ( $\$ 1 / 4-$ Lb.)

| Bare Enamel |  |  | Single Cotton Covered Enamel |  |
| :---: | :---: | :---: | :---: | :---: |
| Size | No. | Each | No. | Each |
| 16 | 194601 | 1 41c | 194271 | 47 c |
| 18 | 19 A 02 | 2 41c | 19 A272 | 50 c |
| 20 | 194603 | 3 41c | 19A273 | 53 c |
|  | 194604 | 41 c | 19A274 | 58 c |
| 22 24 | 194605 | 5 42c | 19A275 | 82 c |
| 24 26 | 19 A606 | 6 45c | 19A276* | - 38 c |
| $\begin{aligned} & 26 \\ & 28 \end{aligned}$ | 19 A607 | 7 48c | 19A277* | - 42 c |
| 30 | 19A608 | 8 56c | 19A278* | * 61 c |
| * V/4-Lb. Spools Only |  |  |  |  |
| 32 | 19A609* | 9* 32c | $\begin{aligned} & \text { 19A279* } \\ & 19 A 280 * \end{aligned}$ | - |
| 34 | 19 A610 | 0\%38c |  | 80c |
|  | 19A611 | $1 * 44 \mathrm{c}$ | 19A281* | - 96 c |
| 8 | 19A612 | 2* 56 c |  |  |
| 40 | 194613 | 3* 81c |  |  |
| SINGLE NY |  | YLTEX C | OVERED ENA | AMEL |
| Size No. 2219 A282 |  | 1/2-Lb | $\begin{aligned} & \text { ine } 19 \text { No. } \\ & 419283 \end{aligned}$ |  |
|  |  | Each |  | $\begin{aligned} & \text { Each } \\ & \text { S. } 75 \end{aligned}$ |
|  | 1/4-Lb. Spools |  | pools |  |
|  | 19A284 | 47c | 219 A287 | 80 |
|  | 19 A285 | 54 c | 4 19A288 | 1.01 |
|  | 19 A286 | 88c | 3619 A289 | 1.50 |
| The | table b <br> per lb. | below te | ls the num | mber of et wire. |
|  | Size | amel | S.C.E. | S.N.E. |
|  | 14 | 80 | 78 |  |
|  | 16 | 134 | 122 |  |
|  | 18 | 200 | 194 |  |
|  | 20 | 320 | 308 |  |
|  | 22 | 500 | 482 | 496 |
|  | 24 | 800 | 752 | 780 |
|  | 26 | 1276 | 1180 | 1236 |
|  | 28 | 2020 | 1832 | 1948 |
|  | 30 | 3220 | 2840 | 3080 |
|  | 32 | 5080 | 4360 | 4808 |
|  | 34 | 8060 | 6424 | 7568 |
|  | 36 | 12800 | 9700 | 11416 |
|  | 38 20 | 20280 |  |  |
|  | 40 - | 32200 |  |  |

## ANTENNA WIRE

Enameled or Tinned
STRANDED BARE COPPER
14-Cauge, $7 \times 22$ Stranded
Stock Feet Wt. Your Cost
No. Per Coil Lb. Each 10 Lots $\begin{array}{cccc}18449 & 75^{\circ} & 1.05 \\ 18450.67 & 100^{\circ} & 1.48 \mathrm{c}\end{array}$ $18 A 50$
$2 A 141000^{\circ}$ Sp. $14.4 \quad$.8.89 $2 A 141000^{\prime}$ SD. $14 \quad 6.89$
16 -Cauge, $7 \times 24$ Stranded $\begin{array}{ccccc}18451 & 75^{\circ} & .064 & \$ 0.48 & 41 \mathrm{c} \\ 18452 & 100^{\circ} & .085 & .80 & 52 \mathrm{c}\end{array}$ $18452100^{\circ}$ STRANDED ENAMELED COPPER 12-Cauge, $7 \times 20$ Stranded 2A16. 100-Ft. Coil........... 1.78 SOLID BRICHT TINNED COPPER High quality wire excellent as busbar hookup.

| Cs. | 25-F | Coils | 100 | cois |
| :---: | :---: | :---: | :---: | :---: |
| No. | No. | Each | No. |  |
| 18 | 18436 | 20 c | 18437 | 0.45 |
| 16 | 18438 | 22 c | 18 A39 |  |
| 14 | 18440 | 24 c | 18 A41 |  |
| 12 | 18442 | 34 c | 2 A 10 | 14 |
| 10 | 18443 | 48 | 2 A 11 | 9 |

Low-Loss Wire used for permanent aerials and fo
Ca. 25 -Ft. Coils $100-$ Ft. Coils
No. No. Each No. Each
$\begin{array}{lllll}14 & 18 A 44 & 24 \mathrm{C} & 18 A 45 & 50.81 \\ 12 & 18 A 46 & 35 \mathrm{C} & 2 \mathrm{~A} 12 & 1\end{array}$ Solid tinned and solid enameled avail= able in continuous lengths over 100 ft. Add "C" to Stock No. and base

RECEIVING and TRANSMISSION LINE CABLES
For TELEVISION, FM and AMATEUR RADIO

## AMPHENOL TWIN TRANSMISSION LINE

Highly efficient weather resistant line with polyethylene
design.

## RECEIVING AND LOW POWER

## TRANSMITTING

(1) 300 OHMS STANDARD TYPE. For FM and Television receivers, also low power transmitters.
No. 2 A1 57 . PER FT.. (2) 300 OHMS NEE TUBULAR TYPE. For Television receivers in locations of low signal strength.

Tubular construction has low wind resistance, great strength, and resists the effects of moisture and dirt. Conductors are | 7 strands of \#28 copper wire. $5 / 16^{\prime \prime}$ O.D. |
| :--- |
| No. 28164. PER FT......................... $\frac{1}{2}$ \& FT. 100 |


(1) 75 OHMS. For applications requiring low impedance. Matches dipoles of 72 ohms.
No. 2A159. PER FT.
TRANSMITTING
(3) 75 OHMS. For amateur
transmitting antenn
kilowatt
No. 2A178. PER FT..
8 c ¢
(3) 300 OMMS TUBULAR TYPE. Conductors supported in wall of hollow tube of polyethylene. Tubular shape eliminates wind flutter and minimizes effects of moisture. Conductors are 7 strands No. 26 copper wire. Rated at full No. 2A192. PER FT.
 ductors. Desirable for flat top portion of amateur antenna and long down leads or other requirements wherestrength is needed.7
No. 2A193. PER FT........................... 100
2

## FEDERAL M-111 SHIELDED 3OD-ONM LINE SOLVES THE TV LEAD-IN PROBLEM BY IMPROVINC THE SICNAL-TO-NOISE RATIO

Minimizes noises, "snow" and "ghosts" due
to transmission line pickup. Protects against
electrical interference of auto ignition,
street-cars, fluorescent lights, neon signs, street-cars, fluorescent lights, neon signs,
etc.. Where antenna is up in the clear but lead-in must pass close to the noise source. Also guarantecs constant 300 -ohm line impedance and minimizes line loss as nearby objects do not affect line impedance. Capacitance per foot. 4.2 mmf . Attenuation per 100 ft , at 50 MC . 24 db . ; at 100 MC ,
3.4 db .; at $200 \mathrm{MC}, 4.6 \mathrm{db}$. Supplied in continuous lengths up to approxi-


ENAMELED COPPERWELD Antenna Wire


Being three times the strength of ordinary copper wire, it does not stretch nor sag. Copper coating provides low RF resistance, and enamel prevents corrosion. Available in continuous lengths of 100 ft . and over. Quanti-
ties up to 500 ft . based on $100-\mathrm{ft}$. ties up to 500 ft . based on $100-\mathrm{ft}$. price. No. 14 supplied bare copper only
Cat. BES Ft. Per Per
 $\begin{array}{lllll}2 A 160 & 12 & 54 & \$ 2.82 & 812.05 \\ 2 A 161 & 1.71 & 7.83 \\ 2 A 162 & 14 & 85 & 1.01 & 4.58\end{array}$

## ANTENNA HANKS

indoor Aerial Wire
EXTRA FLEXIBLE
 $x$
tranded
tr stranded
tinned cop-
per. 010
wall of
cheme


2A1. 500-Ft. Coil


Antenna Loop
Replaces antenna coil on most any tivpe No. 16ム246. Speclal, Ea. ... 4EC See Pages 29 and 30 for Antenna Accessorics used in TV, FM and Amateur installations.

## AUTO RADIO LEAD-IN <br>  <br> Consist of size 28 tinned steel solid polyethylene insulation, tinned copper braid shield: and black vinyl olastic jacket over-all. Nominal ca plastic jacket over-all. Nominal ca- pacitance 15 mmf . per foot.

 2A133. Per Ft., 6e: 100 Ft., $\$ 4.93$

For use on battery teads, auto radio and other installations which must be shielded from high tension syscopper stranded: cellulose wrapped and rubber insulated. Cotton braid; lacquer coating; and tinned copper braid shield over-all.
2A131. Per Ft., 5c: 100 Ft., 53.87


PHALO THERMOPLASTIC HOOK-UP WIRE

Underwriters' Approved high quality thermoplastic insulated hook-up wire for use in radio receivers, transmit ters, test instruments, and all other types of electronic equipment. Has high dielectric strength, resistance to acids, alkali, oils and moisture. Withstands $800^{\circ} \mathrm{C}$ temperature. Has tinned copper conductors. Strips easily and clean. Available in Black, Red, Blue, Green, Yellow and White. Specity color wanted.

5000-Volt Breakdown Voltage

SIZE 20-SOLID TYPE 12001 $\begin{array}{lrr}\text { No. } 21 \text { A1010. } & 25-\mathrm{Ft} \text {. Coll. . SO. } \\ \text { No. } 21 \mathrm{~A} 1011 . & 100-\mathrm{Ft} \text {. Coil. } \\ \text { No. } 2 \mathrm{~A} 2 . & .51 \\ \text { No00-Ft. Coll. } & 4.23\end{array}$ SIZE 20-STRANDED TYPE 12007 No. 21 A1012. $\quad 25-F t$. Coil. . 50.19 | No. 21A1013. 100-Ft. Coil.. |
| :--- | :--- |
| No. 2A32. |
| 68 | SIZE 18—SOLID TYPE 11803

No. 22836 25-Ft. Coil. .80.19 $\begin{array}{ll}\text { No. 22B37. 100-Ft. Coil.. } & .84 \\ \text { No. 2A36. 1000-Ft. Coil.. } & 5.37\end{array}$ SIZE 18-STRANDED TYPE 11810 No. 22B11. $\quad 25-F t$. Coil. 80.28 No. 22812. $\quad 100-F t . C o i l . . .88$
No. 287. $\quad 1000-F t$. Coil.. 7.72 10,000 -Voit Breakdown
SIZE 20-SOLID TYPE


Turbo-Spaghettl-Flexible Ideal All-Parpose Insulation


Spaghetti, Assorted

A neat bundle of 20 pleces, each 9 ong, varnished high grade tubing in assorted popular sizes. No. 18A69. Per Assortment. 55

## TWIN INTERCOM CABLE



For Systems where shielded conductors are required. Size 20 flexible stranded tinned copper conductors. Parallel in construction, color coded: each with vinyl plastic insulation and jacket overall . $135 \times .222$ O.D. plastic jacket overall . $135 \times .222$ O.D. S. $\left.\begin{array}{ll}100 \\ F t . . & 1000: 37 \\ F t . .\end{array}\right\}$

## MICROPHONE CABLES <br> FOR CRYSTAL, CARBON AND LAPEL MIKES

WITH PLASTIC JACKET

## Beldenf $=$

Stranded flexible conductor, polyethylene insulated with tinned copper braid shield and chrome vinyl plastic jacket over-all.
Type 8401. For crystal, ribbon and carbon mikes. Cap. 25 mmf . per ft . Type 8411 . For lapel mikes. Cap. 40 mmf. per $f$ t.
Type 8422. For carbon and low impedance mikes. Cap. 32 mmf . per ft . $\begin{array}{lll}\text { No. Stock } & \text { Per } & 100 \\ \text { Typend. O.D. No. Ft. } & \text { Ft. }\end{array}$ 84011 . 200 2A101 $51 / 2 \mathrm{C} \quad \$ 4.41$ $\begin{array}{lllllll}8411 & 1 & .140 & 2 A 102 & 4 \mathrm{C} & \mathbf{3 . 1 4} \\ 8422 & 2 & .225 & 2 A 104 & \mathbf{6} & \mathbf{5} & \mathbf{5} 29\end{array}$ WITH RUBBER JACKET

Rubber Jacket overall. 8410 cap. 33 $\mathrm{mmf}_{8423}$ per foot, 841263 mmf , and No. Stock Per 100 \begin{tabular}{lllll}
Type Cond. O.D. \& No. \& FF. \& <br>
8410 \& 1 \& .245 \& $2 A 78$ \& 7 C <br>
\hline 8412 \& $\$ 5.66$

 

8412 \& 2 \& .280 \& $2 A 79$ \& 7 C \& 5.44 <br>
8423 \& 3 \& .280 \& $2 A 105$ \& $\mathbf{8} \mathbf{C}$ \& $\mathbf{5 . 8 8}$ <br>
\hline
\end{tabular}

## MULTIPLE CONDUCTOR

For power and interconnecting cords on receivers, electronic devices, remote cont

RUBBER SHIELDED-

## 20

Stranded size 20 conductors; color coded rubber insulation; cotton wrap, tinned copper braid shield and rubber jacket over-all.
$\begin{array}{llll}\text { No. Stock Per } & 100 \\ \text { Type Cond. O.D. No. Ft. } & \text { Ft. }\end{array}$
 $84277^{7}$. 370 2Also used as microphone cable. 11.91 UNSHIELDED-
RUBBER JACKET OVER-ALL


All have stranded size 18 conductors except 5 conductor cable which has color coded, rubber insulated with cotton wrap and rubber jacket over-


COTTON BRAID OVER-ALL


All conductors are stranded size 22 , with the exception of 6,7,8 and 9 conductor cables in which 2 of the conductors are size 16; all are color
coded, vinyl plastic insulated, and cacoded, vinyl plastic insulated, and ca-
bled together with brown cotton braid bled toget
over-alf.

No.
Stock
Type Cond. O.D No Per 100 8443 3 $\quad 3.135 \quad 2 A 113$ 31/2c $\quad \$ 2.85$ $\begin{array}{llllrr}8444 & 4 & .148 & 2 A 114 & 31 / 2 \text { C } & \$ 2.85 \\ 8445 & 5 & 162 & 2 A 115 & 5 & 3.23\end{array}$ 8445 8446 $\begin{array}{llllll}8447 & 7 & .235 & 2 A 117 & 7 C & 5.68 \\ 8448 & 8 & .240 & 2 A 118 & 8 \mathrm{CA} & \mathbf{8 . 1 8}\end{array}$ $\begin{array}{llllll}8448 & 8 & .240 & 2 A 118 & 9 c & 6.61 \\ 8449 & 9 & .260 & 2 A 119 & 9 c & 7.08\end{array}$

INTERCOM AND PA SYSTEM CABLES
For station-to-station and extension wiring.


Conductors are size 22 solid tinned copper, color coded; and vinyl plastic braid over-all
No. Stock Per 100
Typ
874
$\begin{array}{lrlll}8742 & 4 & .175 & 2 A 95 & \text { 2c } \\ 87 & .195 & 2496 & 5 \mathrm{~F} & \mathbf{3 . 2 3} \\ 8743 & 12 & .275 & 2497 & \mathbf{7 c} \\ 87.12\end{array}$
87


## PUSH-BACK AND

 HOOK-UP WIREExcellent general purpose wire consisting of a tinned copper conductor. Please Specify Color wanted: Black Green, Blue, Red, White, and Yellow available.
WITH CELLULOSE ACETATE BRAID M正
Heavy Cellulose Acetate yarn wrap and braid overall. Lacquer coated 1000 -volt breakdown voltage.
o. 22A1 20-SOLID TYPE 8941

No. 22A1 25-Ft. Coil ....SS0.28 | No. $22 A 2$ | $100-F t$. Coil | .... |
| :--- | :--- | :--- |
| No. $2 A 3$ | .96 |  | No. SAZ 1000-Ft. Spool . 8. No. 22A5 25-Ft. Coil No. 2246 100-Ft. Coil ..... $\$ 0.30$ No. $2 A 5$ 1000-Ft. Spooi … 9.55 SIZE 20-STRANDED TYPE 8943 No. 22 A3 25-Ft. Coil . . . $\$ 0.29$

 IZE 18 -STRANDED TYPE 8947 No. $22 A 7$ 25-Ft. Coil .... $\$ 0.33$ | No. $22 A 8$ | $100-F t$. Coil |
| :--- | :--- |
| No. 246 | ... |
| $1000-F t$. | 1.20 | No. $2 A 6$ 1000-Ft. Spool

SIZE $14 —$ STRANDED TYPE 8938 Available in Black or Red Onl
No. 22A9 25-Ft. Coil .....s0. 49
No. 22A10 100-Ft. Coil
1.70

## LEAD-IN WIRE

UNSHIELDED TYPE 8200

Size 18 with 7 strands tinned copper wire and thick rubber sheath. Easy to strip and solder.
No. 22A19 100-Ft. Coil .... \$0.94 9 $1000-$ Ft. Spool 8.91 SHIELDED TYPE 8206
solid. Have heavy formvar ename coatinc and waxed cotton braid. Color coded. Cabled in pairs with tinned copper braid shield. Type 8739 has brown braid
$\begin{array}{lll}\text { Type Cond. O.D. No. Ner } & 100 \\ \text { Ft. Ft. }\end{array}$
$8738 \quad 2 \quad .125$ 2A90 3c $\$ 1.98$

| 8739 | 2 | .160 | 2489 | $4 c$ |
| :--- | :--- | :--- | :--- | :--- |



Conductor of solid size 18 bare copper. Heavy formvar enamel coated. Color coded. Tinned copper braid shield overall.
No.

|  |  |  |  |  |
| :--- | :--- | :--- | :--- | :---: |
| No. | Stock | Per | 100 |  |
| Type Cond. $0 . D$. | No. | Ft. | Ft. |  |
| 8799 | 2 | .165 | 24127 | $4 c$ |


| 87992.16524127 4C 52.79 |
| :---: |
| TELEPHONE MIRE |
| A "PARANITE" PRODUCT |

Fine for Inter-com and Public Address Hook-Up, either indoors or outside. No. 19 solid: 2 and 3 conductor twisted. DRY BRAID INSIDE TYPE $\begin{array}{llll}\text { No. Cond. Ft. } & 100 \mathrm{Ft} & 1000 \mathrm{Ft} \\ 2 \mathrm{~A} 139 & 2 & 3 \mathrm{c} & \$ 2.50\end{array} \$ 20.63$ $\begin{array}{lrrr}24140 & 3 & 4 \mathrm{C} & \$ 2.50 \\ 2.75 & \$ 20.63 \\ \text { Weatherproot Braid Outside Type }\end{array}$ No. Cond. Ft. 100 Ft . 1000 Ft . | $2 A 141$ | 2 | $3 c$ | $\$ 2.45$ | $\$ 20.18$ |
| ---: | ---: | ---: | ---: | ---: |
| $2 A 142$ | 3 | 4 c | 3.65 | 30.28 |

TEST PROD WIRE
Fiflumornin Gum
High-voltage lead wire for use where excellent dielectric properties of the insulation and extreme flexibility and limpness of the cable are essential consideration. Conductor is size 18
tinned copper stranded extra flexible tinned copper stranded extra flexible with cotton wrap and rubber insula-
tion over-all. Red or Black available.
Ratin
$\begin{array}{cccc}\text { Rating } & \text { Type } & \text { Stk. No. } & \text { Price } \\ 5000 & 8899 & 22 A 15 & 25 \text { ft. } 80.42\end{array}$
$500088899 \quad 22 A 16100 \mathrm{ft} .51 .47$
$\begin{array}{lllll}10000 & 8898 & 22 A 20 & 25 \mathrm{ft} . & .88 \\ 10000 & 8898 & 22 A 21 & 100 \mathrm{ft} . & 2.35\end{array}$
Conductor is size 18 tinned copper copper braid shield insulated
2A137. Per ft. 3c; 100 Ft. $\$ 2.12$

## SHIELDING



Forms perfect electrostatic and interference shield for wires. Very flextble. expands to nearly double its original diameter, reducing I ength radio installations.
Type $8660-13 / 64^{\prime \prime}$ dia. flat.
$2 A 134$. Per Ft. 3 c; 50 Ft. $\$ 1.03$ Type 8661-3/4 dia. flat. 8 . 81.82
$2 A 135$. Per Ff. 4 C ; 50 Ft. $\$ 1.82$ 2A136. Per Ft. $14 \mathrm{c} ; 50 \mathrm{Ft} . \$ 5.88$ SHIELDED LOOM


Type 8657 - $3 / 16^{\prime \prime}$ dia. Woven tinned copper shielding over im pregnated loom. Provides low capacity shielding for any auto wires or 2A138. Per Ft. 8c; 50 Ft . $\$ 3.23$ SHIELDED HOOK-UP WIRE

Used in circuits where shielded grid return is required and to shield a circuit conductor from stray fields. Con ductor is size 20 tinned coppe stranded and rubber insulated. Lacbraid and tinned copper braid shield are over-all. ${ }^{\text {No. } 22 A 17}$ 25-Ft. Coil | No. $22 A 18$ | $100-F t$. Coil | .... |
| :--- | :--- | :--- |

VOICE COIL WIRE
Type 8127. Bare copper braided with 32 strands of size 40 wire.
size 25. Very flexible.
No. 17 B726. 10 -Ft. Coil.
16c

TRANSMISSION
LINE CABLES
TELEVISION TWIN-LEAD

## [Bedemii.

## 300-OHM LINE CABLES

For use with TV and FM receiving antenna. Exceptionally low losses at high frequencies. Type 8225 has one conductor, size $7 \times 28$. Heavy duty type
cond 8235 has stranded bare copper conductors size $7 \times 26$. This type also rec ductors size $7 \times 26$. This type aiso recantenna. Both are polvethylene plas antenna. Both are polyethylene plastic insulated; weather resistant. No Type Size PerFt. 100 Ft. $\begin{array}{lllll}\text { 2A80 } & 8225 & .072 \times .400 & 3 \mathrm{ct} & \$ 2.08 \\ 2 A 81 & 8235 & .185 \times .520 & \text { Bc } & 4.85\end{array}$

## 100-OHM LINE CABLE

## FOR NOISY LOCATIONS

## Far use with TV and FM receiving

 antenna. Reduces noise-pickup. Size 20 stranded two Polyethylene insulated conductors-one bare and one tinned copper-with a tinned copper braid shield and black vinyl plastic jacket overall.No. Type Size Per Ft. 100 Ft. $2 A 858226.190 \times .3107 c$ TWISTED PAIRS
Twisted pair with weather resistan compound on overall braid. Stranded tinned copper conductors; size 18 in type 8204. and 820 , and size 22 in type 8205 ; are low-ioss rubber insu lated and color coded.


Type 8204, 72 ohm impedance, capacitance 21 mmf. per $f t$. Over-al $2 A 124$. Per Ft. $3 c ; 100$ ft. 82.18


# TRANSMITITMG ANTENNAS and ACCESSORIES 

## ELINCOR BEAM ANTENNA KITS



10-METER 3-ELEMENT-MODEL 400-EA. Uses broad band folded dipole driven element,. I wave length spacing for director and . 15 wave length spacing for reflector, allowing direct feed with 52 -ohm coaxial cable. Elements are $3 / 4^{\prime \prime}$ aluminum tubing telescoping to $5 / 8^{\prime \prime}$, adjustable from 14 to $18 \mathrm{ft} .$, and supported on $21 / 2^{\prime \prime}$ steatite stand-offs. Furnished complete with $8 \mathrm{ft} .4^{\prime \prime}$ long x $13^{\prime \prime}$ wide ladder constructed of $1^{\prime \prime}$ aluminum angle. Shipped knocked down, neatly packed with hardware and complete assambly instructions. Less mast and transmission line. Weight assembled, approxim No. 3881. YOUR COST.
$\$ 34.10$
10-METER 3-ELEMENT-MODEL 400-RA. Same all-aluminum construction and element spacing as model 400-EA above, except driven element is straight dipole. Designed for $1 / 4$-wave matching stub using 520 ohm coax and 300 -ohm twin lead transmission line. Shipped knocked down, with ladder, hardware and instructions. Less mast, matching stub sion line, Weight assem
$\$ 29.40$
2-METER 5-ELEMENT-MODEL 200-EA. Pre-cut for middle of $144-148$ MC band. Elements are $3 / 8^{\prime \prime}$ dia. aluminum tubing. Design otherwise same as Model 300-EA with folded dipole driven element. Matched Shipped knocked down, with instructions. Less mast and transmission line. Wt., 3 lbs. .
No. 38 B70. YOUR COST. .................................

## MAST FOR 6-METER AND 2-METER BEAMS. Five ft. heavily enameled steel tube. Machined to fit swivel bracket on Antenna.

 No. 38872 . YOUR COST$\$ 2.06$

## AMPHENOL FOLDED DIPOLE ANTENNAS

Real DX Antennas, pre-cut to the amateur bands. Radiating section is 300 -ohm twin-lead made with copper-clad steel conductors for greater strength. . proof against high winds greater strength. . proof against high winds,
ice loading, etc. Each antenna supplied with 75 - ft . leading in of 300 -ohm standard twin-lead, $75-f t$. lead-in of $300-0 h m$ standard twin-lead,
attached to antenna with a weather-proof attached to antenna with a weather-proo molded polyethylene furnished for trimming to operating frequency furnished for trimming to op
End insulators not included.

| Stk. No. | Band | NetEach | Stk. No. | Band | Net Each |
| :--- | :---: | :---: | :---: | :---: | :---: |
| 31482 | 10 Mefers | 54.53 | 31484 | 40 Meters | M.84 |
| 31483 | 20 Meters | 5.84 | 31485 | 80 Meters | 12.20 |

## Microllatch

A DIRECT READINC INSTRUMENT FOR
MEASURINC STAND. INC WAVE RATIO


This amazing little instrument, when connected in a transmission line at any point will read standing wave ratio and when its terminals are reversed will read RF power in the line. An indispensable aid in adjusting beam antennas, and matching systems and for measuring R.F. resistance of an unk nown load. Model MMI for
3 to $30 \mathrm{MC}, 10$ to 1,000 watts Stock No. 33A81. Net Each
$\$ 29.50$
Model MM2 and coupler for 52 ohm coax line. Coupler unit can be placed in transmission line at any point, with indicator unit on operating desk or built into transmitter panel. Frequency range, 3 to 16
tock Nots.
coax coupler. Net Each...... above. Supplied with easy-fo-follow instructions and calibration curves for building an indicator using any $0-1 \mathrm{MA}$. meter.
$\$ 19.95$

## GORDON ROTARY BEAM CALCULATOR

or the amateur who has a beam or contemplates one, he professional engineer interested in antennas. Covers range of 10 to mathematics or computations in figuring element lengths, boom iengths, etc. In addition there are scales showing all values of capacity and inductance for resonance between 5 and 60 MC. Size $13^{\prime \prime}$ long, $5^{\prime \prime}$ wide, double faced. Si

## JAMES KNIGHT 1BC-3 IMPEDACOUPLER

 WO. 17A1075. NET EACH.For moistur definitely.
Stock No.

Makes a secure and weatherproof junction between coax line and any current fed antenna or array. Made of solid Mykroy machined to $7 / 8^{\prime \prime}$ diameter. Can be turned on a lathe to smaller diameter. Ends are drilied to take screws for clamping tubing, when Ased with dolhenol 83-1R coax fitting.

AMPHENOL SILICONE COMPOUND
 171074. Per 1 Ox. Tube.....

## WORKSHOP ASSOCIATES BEAM KITS

10-Meter 3-Element-Model 29. A thoroughly engineered 10-11 meter broad band antenna having very neat appearance and exceptional mechanical rigi Elements are multi wind and icing. Elements are mutisection $/ 4,8$ and $1 / 2$ telescop ing aluminum alloy tubing, adjust-
able from $130^{\prime \prime}$ to $214^{\prime \prime}$ and sealed able from $130^{\prime \prime}$ to $214^{\prime \prime}$ and sealed
at ends. Boom is weather-proofed steel tubing. A plastic head insulates
 driven element and provides weather-proof connection to coax feed line. Element spacing is adjustable and dimensions are given for matching 72 -ohm and 52 -ohm coax line for low standing wave ratio over entire band. Cast aluminum mounting clamp fits $11 / 4$ mast such as Model AM listed below Complete with all hardware and instructions.
Stock No. 38 A60. Less Mast and Feed Line. YOUR COST
$\mathbf{\$ 3 9 . 5 0}$ 6-METER 3-ELEMENT-MODEL 52-AB. Uses aluminum alloy elements and a weather-proofed steel boom with a durable plastic head to insulate driven with 72 -ohm coax and 1.4 with $52-0 h m$, over entire band. With all hard ware. Less mast and feed line.
Stock No. $38 A 61$. YOUR cost
spaced 2-METER 6-ELEMENT-MODEL $146-A B$. Two 3 -element arrays spaced $1 / 2$
wave length and fed in phase. Very sturdily constructed of $5 / 8$ to $1 / 2^{\prime \prime}$ telescoping aluminum elements sealed at ends with spherical tips and supported by two heavy-duty plastic heads. Power gain is $6(7.8 \mathrm{db}$.$) . Matched$
for 52 -ohm coax feed line. Mounts on any $11 / 4^{\prime \prime}$ dia. mast. With all hardfor 52 -ohm coax feed line. Mounts on any $11 / 4^{\prime \prime}$ dia. mast ware, less mast and feed line.
Stock No. 38A62. YoUR COST
$\$ 21.50$
Stock No. $38 A 62$. YOUR COST.
MAST AND MOUNT-MODEL.
MAST AND MOUNT-MODEL AM. Consists of two $11 / 4$ " dia. 4 ft . long
tubular steel sections and universal hardware for fixed mounting to the side
of building or tower.
$\$ 8.25$
EXTENSION MAST SECTIONS-MODEL
together for increasing height of above model AM mast.
Stock No. 38A64. YOUR COST, EACH
MANUAL ROTATINC ACCESSORIES.MODEL AM2. Converts model AM mas tions where necessary tions where necessary.
Stock No. $38 A 65$. YOUR COST, EACH
$\$ 5.00$

## AMPHENOL TWIN LEAD TRANSMISSION LINE <br> 300 OHMS <br> transmitters <br> No. 2A157. Per Ft. <br> $21 / 2 \mathrm{C} \quad 100 \mathrm{Ft}$ <br> $\$ 1.92$ <br> 300 OHMS-Copper Clad. Conductors are size 16 copper clad steel. Desir able for flat top portion of amateur antennas and long transmission lines No. 2A193. Per Ft................. $1 / 2 \mathrm{C} \quad 100$ Ft. <br> $\$ 7.06$ <br> No. 2A193. Per F. New Tubular Design. Conductors are supported in wall of hollow tube of polyethylene. Tubular shape eliminates flutter and minimizes effects of moisture. Conductors are 7 strands No. 26 copper wire. Rated at fult kilowatt at 30 MC. No. 2A192. Per Ft..............71/2c $100 \mathrm{Ft} . . . . . . . . . . . .$. 8  No. $2 A 178$. 8c 100 Ft .

## NEW JOHNSON ROTOMATIC ANTENNA

Built expressly for those who want the finest in two, three and four element parasitic arrays for 10 or 20 meters, as well as dual beams for these bands Rotator assembly is housed in light weight aluminum casting and will safely support up to 125 lbs. Gear ratio 1200 to HP . Antenna turns $11 / 2 \mathrm{RPM}$, instantly reversible and is driven by a interference". The elements are very close to theoretical values. May be set up on the ground as per instruction manual, and raised on the mast wet up on the ground as per insiruction manual, and raised on the mast For a complete assembly use rotator, boom assembly and elements as listed ROTATOR UNITS
No. 50A276. Rofator, complete. Including motor drive, mounting base selsyn and control box. .............. ........................... . $\$ 231.28$ No. 50A278. Rofator. Including high speed gear box for motor drive 133.77 BOOM ASSEMBLIES


No. 504279
No. 504281
$X$
ELEMENT KITS
10 Meter Stk. No.
2 Elementlstk.No

3 Elament Stk. No. | Elament | Stk. No. |
| :--- | :--- |
| S33.52 | 504286 |

4 Element 20 Meter 504282 50A283 \$24.11 504284 S33.52 50 S42 For other accessories needed to complete antenna installation see page 000 We can supply all antennas and assoclated equipment manufactured by the companies represented on this page. Please write for full details concerning companies represented on this page.

## ENAMELED COPPERWELD

ANTENNA WIRE
Being three times the strength of or dinary copper wire, it does not stretch nor sag. Copper coating provides low RF resistance, and enamel prevents corrosion. No. 14 supplied bare copper only
Stk. B E 5
No. Cauge
No. Cauge Per Pt, Per Per
$2 A 160$ IO $341 / 2$ S2.B2 si2. 12. $2 A 161$
$2 A 162$


XMITTING INSULATOR CENUINE PYREX
No. 18 A66.
Length $71 / 2$
$\$ 2.63$
No. 2A17. Length $121 / 4^{\prime \prime}$.
Net Each...... +25 Low-ioss Isolantite strain insulator. $11 / 2^{\prime \prime}$ long diamoterest Net bect 30 c

## AUTO RADIO ANTENNAS and ACCESSORIES

NEW ICA AUTO RADIO ANTENNAS

(1) NEW, IMPROVED "PIVOT-TOPPER"

Designed especially for the newest streamlined car models. Special type pivot permits a wide variety of angle mounts to conform with contour of any car Features: Top cowl or fender mounting: brass shim nut.
Features: Top cowl or fender mounting; brass shim contacts to prevent rattling and vibration; triple chrome plated Admiralty Brass, rustproof, dust and moisture proof; snug fitting tapered telescopie joints. Three sections extend from
No. 38B1I. NET EACH

\$2.54
(2) "PEERLESS" DISAPPEARING TYPE

Streamlined disappearing for use on all model cars. 10" exposed, extends to . Swivel base permits angle adjustment to match contour of ear. Triple chrome plated brass. Easy installation. With shielded lead-in cable. No. 38B12. NET EACH
$\$ 4.09 \xrightarrow{10} \mathrm{l}$ Lots.
$\$ 3.38$
(3) HEAVY DUTY UTILITY SIDE COWL

Designed for rugged wear and long distance reception, 4 sections telescopic type. Extends from $30^{\prime \prime}$ to $110^{\prime \prime}$. Extra large brass tubing, with heavy triple chrome plating. Ideal for Trucks, Pclice, Experimental. 6 and 10 meter usage. Also for Ranger, Farm and tractor use. With $36^{\prime \prime}$ shielded lead-in. No. $38 \mathrm{B13}$.
$\$ 3.79{ }^{\text {lo Liors. }} \mathrm{EACH}$
$\$ 3.30$

## (1) FOORD AND BUICK REPLACEMENTS

## Ford Replacement Tube and Rod Assembly

For closed Car Roof Antenna. Replaces the sliding mast for the Ford-Mercury Roof Antenna of 1941-42-46-47 that operates from behind dividing post o the windshield. Supplied with operating knob and set screw. No. 38833.
$\$ 1.35 \begin{gathered}\text { Lots of i } \\ \text { EACH. }\end{gathered}$
$\$ 1.22$
Buick Replacement Antenna Mast Section for No. 980-688. Standard Buick Roof Aerial. Fits Buick models 1940 through 1948. Replacement is quick and easy by the mere loosening of a set screw. Has four sections; an exact No. 38B34.
NET EACH
SIDE MOUNT AERIAL

Ward SB-2. Attractive low cost antenna. Made of high quality chrome plated brass. Two section telescoping design, extends to $42^{\prime \prime}$. Adjust able insulated mounting. Complete with shielded leadin and fittings for all type connections.

No. 3887.
Net Each....... \$2.09

## 48-INCH AERIAL LEAD



Finest coax type with polyethylene insulation, $100 \%$ shielded. Aerial end has pin plug with screw-on ferrule. Set end has combination pin-bayone No. 38

## LEAD EXTENSION

Often required to extend antenna leads, particularly when aerials are mounted on fenders.
No. 38A41. 12" Lead. Each. . . 44 c No. 38836. 24" Lead. Each... $855^{\prime \prime}$ No. 38B35. 36" Lead. Each...78c

## ANTENNA CONNECTOR

 ANTE2of auto antenna to to
set. Also has many
$\$ 1.65$

TCF-3 EIGHT BALL FOR TOP COWL or FENDER


Three Section. Telescopes to 56 . a smart universal
top cowl or fender type. Easy to mount for perfect and secure fit on No car. List. \$5.35.
$\$ 3.15$

## ANTENNA HARDWARE

 For Auto Aerials

A handy and complete kit of parts, hardware, etc., for use with all makes of aerials having s" dia tubing STRAICHT SIDE COWL MOUNTINC No. ItAi60. List Price $\$ 1.25 .76$ B SLOPINC COWL MOUNTINC No. I5A2032. List Price $\$ 1.25 .73 \mathrm{~F}$

LATEST WARD AUTO RADIO ANTENNAS - HEAVY WALL BRASS TUBINC TO WITHSTAND HARDEST USE HIGHEST QUALITY CHROME PLATING FOR SPARKLINC APPEARANCE PHOS BRONZE AND SILVER
SMART STYLING TO ENHANCE CAR BEAUTY MAX. CONDUCTIVITY.
SMART STYLING TO ENHANCE CAR BEAUTY.
$36^{\prime \prime}$ COAXIAL LEAD AND FITTINGS WITH EACH.

UNIVERSAL SIDE MOUNT


## SC-8 "LONG RANGER"

100". A 4 Sections strength areas where its extra Signal provides finer reception extra length provides finer reception. Side cowl
two stanchion mount. Ceramic insutwo stanchion mount. Ceramic insucaps. List Price, $\$ 6.95$. - 9 No. 38432. Nct Each... 4. 4 SC-6 "AIR KING". 3 " Sections $\$ 3.58$ Otherwise as above . iections, 66 No. 38431 NET EACH $\qquad$
Conversion parts are included in models SC- 6 and SC-8 for vertical position mounting on cars with extreme body contours.


DCF-3 "PHANTOM". 3 Sections. A disappearing antenna (telescopes from only $31 / 2^{\prime \prime}$ to $56^{\prime \prime}$ ). Cives that smart built-in appearance. $100 \%$ shielded from engine noises and completely water sealed. Easy to install, universal split ball design with universal bracket No. 38A40. Net Each.
$\$ 4.09$
DEF-4 "IMPERIAL" DISAPPEARING. 4 section. Telescopes from $81 / 2^{\prime \prime}$ to
$100^{\prime \prime}$. Its additional length provides maximum signal pickup and increased range, otherwise as above. List Price, $\$ 10.95$. No. 38B14. Net Each.
$\$ 6.44$

## PREMAX MOBILE ANTENNAS


(A) 96" SECTIONAL STEEL "WHIP" ROD

Sections are of high carbon steel rod, heat treated and tempered, perma= nently jained into a single graduated length with ball tip. Heavy .001" cadmium plated. Will tlex and return to original shape where most rods Bottom section is $1 / 4^{\prime \prime}$, to fit mounts illustrated above.
No. 38 22. NET EACH.

> Taper-ground chrome silicon spring steel alloy of exceptionally high tensile strength. Smoothly polished and finished in bright, heavy cadmium plate Basc diameter $1 / 4^{\prime \prime}$ tapering to $3 / 32^{\prime \prime}$ at top. Has ball tip to resist corone. Fits all mounts illus. above. For the most rugged mobile service. 3

For attaching (A) or (B) Whip Rods or, other $1 / 4^{" \prime}$ diameter antenna to any thite glazed car or horizontal surface regardiess of contour. insulators are $10^{\prime \prime}$ adjustment of antenna length.
$\$ 10.03$
No. 38A23. NET EACH
(Ki) BUMPER MOUNTING

$$
\stackrel{N G}{ }
$$

Attaches to bumper or bumper bracket. Provides single insulator mounting or (A) or (B) Whip Rods or any
No. 38A24. NET EACH
(ii BUMMPER MOUNXTING
$\$ 4.26$
Similar to type (K) above, except has two insulators separated $6^{\prime \prime}$ for somewhat greater strength. Bracket parts are cadmium plated steel
$\$ 6.08$
No. 38A25. NET EACH
(DSH-118) IS2-162 MC MOBBILE ROOFF ANTENNA
Improved design, easy to install. Base fitting has plastic insulator and waterproof gasket. Antenna rod is $18^{\prime \prime}$ stainless steel wire with ball tip and ing mounting. Supplied less coax line.
No. 38B15. NET EACH.
\$3.95
(R) UNIVERSAL ALL-ANCLE SPLIT-BALL MOUNTING

Made of solid cast bronze. Bolts directly to car panel or other through a disc of heavy plastic insulation, waterproof gasket and steel back plate. For use with (A) or (B) Whip Rods or any other $1 / 4$ " diameter antenna. Baked black wrinkle enamel finish.
No, 38Bi7. NET EACH.
(SAX) SPPRINC AODAPTER
$\$ 6.99$
To be used with TA, K, L or R Mounts and A or B Whip Rods or any other $1 / 4$ diameter antenna. Fittings are solid brass, electro-plated and will not cor against extreme impact. Overall height, $43 / 4^{\prime \prime}$; diameter, $15 / 8^{\prime \prime}$. 8

## AUTO RADIO NEEDS

For DISTRIBUTOR and SPARK PLUG NOISE SUPPRESSION

(1) (2) (3) (1) (5) (1) (1) No. 19 A204. Standard Spark Plugs. (i) No. 12A400. Universal for Spark Plugs or Distributor. Fitting at elbow fits terminal at Distributor or Spark Plug, other end screws to cut cable end. (1) No. 19A206. Universal Screw type for Ford V-8 Spark Piugs.
(5) No. 19A207. Distributor for Ford

- 8,1936 to 1940.
(8). 19A208. Snap-on Spark Plug. Your Choice Any of Above. NET EACH
LOTS OF 10.
EACH.
146


## MASTER DISTRIBUTOR

 NOISE SUPPRESSOR

For use on late type cars where only one Suppressor is needed. Hermetically sealed to prevent change in resistances under any condition. Impervious to heat, oil and moisture. The master is guaranteed to eliminate all motor noises, eliminating the use of individual suppres No. 19 A203. 41 Lots of 38 C
Your Cost. Ea. 40 Each

(A) Shielded Jack with sturdy steel flange and can be mounted with screws or rivets. Solder coated shell, fits antenna plus
No. 12A1404. 1/C Lots of 10 Each
Each. 10. (B) Like above, except no
May be soldered in position. No. 12 al405. Each.
c) Antenna plug Pin 10 . Each. 69 from cad. plated split shell. Makes positive grounded connection when inserted in either above lacks. No. 12A1406.
Each.......
Lots of
10 Each. $6 C$ (D) Adapter shell converts Motorola Ant. plug like above to Delco bayonet ype receptacle No. $\begin{aligned} & \text { Each. }\end{aligned}$ (E) Adapter (D) to Motorola type pin plug like No. 12 Bl 524. $186 \begin{aligned} & \text { Lots of } 10 . \text { Each } 165\end{aligned}$
Hub Cap Wheel Static Elimimator Eliminates static noise in
front wheel of car. Spring has metal point for sure contact. Each ..... 75
19A197. E Auto Radio By-Pass
 makes it ideal as a replacement by-
pass or hash fil ter, where standard tub
too large. 200 V olts No 18A624. 5 mfd . Each... 25

MALIOBYI
THE OUTSTANDING
IN VIBRATORS FOR AUTO RADIO NOISE SUPPRESSION


WIRE WOUND SUPPRESSORS
LOW RESISTANCE, 30 Ohms D.C. Due to this extremely low D.C. resistance they definitely spark or cut down the speed of the car. The inductance of the winding offers a high reSFFECTIVELY SUPPPRESSES ALE INUencies and
INTERFERENCE! Each sealed in a moisture-proof, heatresisting, insulated casing to fit all makes of spark plugs and cars. Ideal for quiet, noisespark plugs and carsi (A) No. 19A200. Bracket Type for plugs. (B) No. 19A201. For Distributor.



## ICA SUPPRESSOR SETS

In Handy Kits, the needed condensers, suppressors, etc., for a complete installation. Easy to follow instructions included.
$19 A 171$. For $8-C y l$. Cars (except
Fords). Per Kit............................... 19 A172. For 6-Cyi. Cars (except 19A173. For Ford Cars, i 939 to present.
$\$ 1.89$
$\$ 1.69$
$\$ 1.89$
GC ANTI-STATIC Wheel Powder
 wheels and tires. Easy to apply them and lasts as tong as tire tube. No. 14 A298. Kit with injector and Powder Packet sufficient for 5 tires. Sufficient
Per Kit. $14 \mathrm{~A} \mathbf{2} 99$.
No. 14 A299.
$\$ 1.47$
59 c
Auto Body Plug



## GENERATOR FILTER

## FOR AUTO RADIO

.5 Mfd., metal encased etc.
17A246. Each.....2Bc Lots of 10. Each...25c

$\underbrace{4}_{10})_{0}^{n}$ $\underbrace{\left(2 a_{0}^{9}\right.}_{11})^{n}$ (40 $\underbrace{8}_{16^{2}}$ $5{ }_{20}$
 $\frac{20}{20^{2}}$ (20) 3 $\frac{\left(57^{-5}\right.}{31^{n}}$ $=\left(\begin{array}{c}56 \\ 32\end{array}\right.$ " ${ }_{5}^{\circ}$ (6)




$\left(\begin{array}{c}5 \\ 0 \\ 0\end{array}\right.$

THESE MALLORY VIBRATORS MEET 95\% OF YOUR REPLACEMENT NEEDS
Listed here are the most popular of the new simplified line of Mallory replacement vibrators. Of these 12 basic types (marked will cover $90 \%$ of ANY OROER FOR VIBRATORS, otherwise 15 c . Specify No. $19 A 26$

| No. | Type | Diag. | EACH | No. | Type | Diag. | EACH |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19A1 | 222 | 20 | \$4.88 | 19 A15 | $725 \mathrm{C}$ | $32$ | \$4.58 |
| 19A2 | $=245$ | 21 | 4.12 | 19464 | 742 | 38 |  |
| 19A3 | 245 A | 21 | 4.12 | 19465 | 743 | 38 | 4.12 |
| 1944 | 245 C | 28 | 4.12 | 19A66 | 748 | 44 |  |
| 19A5 | *246 | 38 | 4.12 | 19416 | ${ }_{8}^{825 C}$ | 8 | 3.68 |
| 19A55 | 246A | 38 | 4.12 | 19467 | 826 C | 8 | 3.38 |
| 19A56 | 247 | 46 | 4.55 | $19 A 17$ | 883 | 14 | 3.38 |
| $19 A 7$ | $\% 248$ | 44 | 4.12 | 19 1918 | -852 | 14 | 2.62 |
| 19 AB | \% 249 | 32 | 4.12 | 19A19 | \%853 | 11 | 2.82 |
| 19A57 | 2708 | 23 | 4.88 | 19420 | \%854 | 18 | 2.62 |
| 19A9 | *273C | 29 | 4.88 | $19 A 21$ | -859 | 14 | 2.82 |
| 19A58 | 2730 | 31 | 4.88 | 19A68 | 8670 | 14 | 2.82 |
| 19A59 | 292 | 3 | 3.38 | 19A22 | \%870 | 14 | 2.62 |
| 19A10 | \% 294 | 8 | 2.62 | 19A69 | 952 W | 16 | 4.12 |
| 19 A60 | 298 | 51 | 3.38 | 19 A70 | 953W | 16 |  |
| 19A13 | 505P | 8 | 2.62 | 19A71 | 954 | 39 | 4.12 |
| 19A61 | 506P | 36 | 3.38 | 19424 | *1100 |  | 2.62 |
| 19A63 | 514 | 30 | 4.12 | 144295 | 1501 | 53 |  |
| 19A14 | * 716 | 30 | 4.12 | 19812 | 1502 | 54 | 3.67 |

## FREE CABINET!

 VIBRATOR DEAL Deal consists of Six most popular Vibrators and Twelve buffer con densers to cover $75 \%$ of your replacement needs-PLUS an attrac tive and useful metal slock cab inet that has 12 compartments and a drawer that provides space for additional smal parts. You paydensers at regular prices. With the Deal the cabinet comes FREE No. 33 B86No. 33 B86
Your Cost. Per Deal \$25.70

## 2-VOLT VIBRATORS

FOR C.E., ETC., PORTABLES
For GE. Models 250 and 260. use vibrator rype
No. 14 A296.
Net Each
$\$ 5.70$
For G.E. Models LB530 and 530X; RCA 65RB9, use type T4003, diagram 50 No. 144297.
No. Each
$\$ 5.23$


BUFFER CONDENSERS
Housed in hermetically sealed leakproof metal tubes. Externally insulated. Supplied with removable mount-

nical manual on the operation, selection, and application of vibrators and vibrator ply design.
$\$ 1.00$

## AUTO RADIO SHAFT \&

 CASING ASSEMBLY
## - Ehciculane

24" long to fit nearly any installation. Equipped one end with ${ }^{* \prime \prime}-20$ casing nut and spade shaft tip to fit Crowe Controls. Other end plain

16A177. Each .................... 82c
Without Fittings on Elther
${ }^{16 A 178-L e n g t h}{ }^{188^{\prime \prime}}$
16A179-Length 24"
16A180-Length 30"
18

Fend
.50 c
.696

# YOUR CHOICE OF BEST-ON-THE-MARKET TUBE AND TUBE-AND-SET TESTERS 



## HICKOK MODEL 600

AM, FM, TELEVISION Tube Tester For accuracy and speed this lightweight portable fube tester has no equal! Featuring DYNAMIC MUTUAL CONDUCT ANCE test of ALL types of receiving and television tubes-gas tests, future life rests, and readings directly in micromhos (3000-6000-15000), In combination with English reading "Cood-Bad" scale! Includes 9-pin socket for newest tubes arches fubes for PP amplifiers and tele tubes for clearer pictures! Has sam 533, but is smaller, lighter in weight and strictly a portable instrument Model a saving in cost? In sturdy removable hinged tid case, red leatherette covered. Size, $163 / 4 \times 1 / 3 / 4 \times 7 / 2$. Weight, 21 lbs . No. 35B47. HICKOK MODEL 600 AM, FM, TELEVISION
$\$ 126.00$
HICKOK 534B TUBE AND SET TESTERS


Dynamic Mutual Conductance principle test tubes accurately in a circuit equivalent to
operating conditions for each tube. Applies ndividual test to cach element and each sec. tion. Outstanding New Test Feafure show when tubes are about to fail, adding to tube sales. Meter calıbrated for accurate test in
"Micro-Mhos as well as Cood-?-Bad. Has "Micro-Mhos" as well as Cood-?-Bad. Has
Cas Test, Noise Test and Short Test. Will tes? all tubes with filament range to 117 -volt. Roller tube chart provides easy guide to control and switch settings.
41/2" Meter also calibrated for Multi-Metes tunctions sin set testing ACC or Mac volts: 0 voit Resisistance: : 0.1 ohm to too in three ranges, no batteries needed. DCMA: Capacitance: 0001 to 150 . 15 ld 10 to +50 .
to 100 hy. Portable leatherette covered carrying case, $17 \times 18 \times 81 /{ }^{\prime \prime}$ Has slip hinge lid. Weight, 31 lbs No. 32810 . Complete with test leads and instructions.
$\$ 169.20$
HICKOK MODEL 534BD Display Tube and Set Tester. Identical to Portable of ted in all electrical specifications. Installed in streamline DISPLAY case No. 50A233. Hickok Model 534BD Tube and Set Tester. NET 1220

HICKOK MODEL 533 PORTABLE TUBE TESTER MODEL 533. Porrable Model Tube Tester. Identical in TUBE TESTINC funetions to Model 534 deseribed above 1 does not have multimeter functions),
in portable case, $17 \times 18 \times 81 / 2^{\prime \prime}$. Weight, 31 lbs. In portable case, $17 \times 18 \times 81 / 2^{\prime \prime}$. Weight, 31 lbs.
No. 35 B34. Model 533 Portable Tube Tester. NET
\$133.20
Mooter 5330 . Theo Toster housed in scrice Bench Display Case, otherwise No. 35B1. Model 533D Display Tube Tester. NET......... \$1 36.30
DON'T MISS IT! "RCP" 8073 "SERVISHOP"
Every service need of AM or FM Radio Sets
is covered by the separafe and distinct in
Tube Tester: Has over 800 listing
ceiving tube tests, including all the newest types, has every feature needed in a good $0,10,50,500,1000$ AC and $D C$ Volis: 0 1, $10,100,1000 \mathrm{DC}$ M.A. ; 0 - 10 DC Amps $0,500,5000$ Ohms; $0,0.1,1,10$ Megohms Minus $8+0$ Plus 55 db , in four $10,50,500,1000$ Oufput Volts.
signal cenerator has fixed frequencies of 1500 KC and 550 KC for Broadcast band alignment; 456 KC and 465 KC for I.F. coi Four fixed frequencies with switch selection 108 IF of $10.7 \mathrm{MC}, 88 \mathrm{MC}, 98 \mathrm{MC}$ and limits . Condenser Tester reads "Cood
 Bad" directly on scale of $45 / 8^{\prime \prime}$ meter for testing leakage of electrolytic, mica or paper capacitors. . Audio Oscillator provides 400 -cycle audio output.
Complete in Oak case with all tubes, test leads, instructions; for use on
$105 / 135$-volt, $50 / 60$-cycle AC. Weight, $151 / 2 \mathrm{lbs}$.

"STAR" TE-1 TUBE TESTER A WHALE OF A "BUY" AT \$29.95! MORE FEATURES FOR YOUR MONEY PROvided at the minimum cost of this fine tube tester! Tests latest 7-and 9-pin mini ture types as used in Television and FM receivers in adcition to all other standard receiving tubes. Individual pin switching of square wide vision meter! "Shorts" check, square wide vision meter! "Shorts" check, panel. Steel case, $9 \times 7 \times 31 / 2^{\prime \prime}$. Weight, 6 lbs .



## PRECISION "ELECTRONAMIC"

 SERIES 10-12 TUBE MASTER TESTER Provides MORE than just Mutual Conductancemeets the requirements of exact quality tube tests on ALL types of receiving fubes, including newest FM, AM and TELEVISION types! Quick-tests ALI portable radio, dry A, B and C batteries on tri color scale of $45 / \mathrm{s}^{\prime \prime}$ full vision meter. Obsolescence eliminated by tree-point lever element se lection-locates every tube element regardless of base position! Tests 9 -pin, 7-pin Acorn: capped HF tubes, single ended TV and FM amplifiers, low power transmitters, sub-miniatures tubes having 12 -pin or less bases. Visible filamen continuity check on all filament voltages fromen $3 /$ o 117 volts! Micro line voltage adjustm $3 /$ Tests tuning indicators, ballasts. pilot lamps! Freepoint inter-element short check, noise and condenser tests; isolates and tests individual elements of multi-section tubes! In hardwood case, slip hinge lid, with tool compartment Roller Tube Chart (new charts free on request to factoryl. test compartment pletely isolated from power line; extractor fuse post on panel No. 32A8. Precision 10-12 Tube Tester. NET COST $\$ 94.18$ Precision Time Payment Plan: $\$ 32.10$ cash and $\$ 9.32$ monthly for 8 months.Precision Series 10-54 TUBE, BATTERY, SET TESTER Completely self-contained tube, battery, and SET ANALYZER. Combines tube testing functions described above for Series $10-12$ with $35-$ Range Multimeter with 6 Ranges of DC volts at 20.000 O.P.V. to 6,000 volis; 6 AC Ranges C volts: 7 DC Current ranges from; 60 Output Volts with samer ranges as ontained Resistance ranges from 6000 microamps to 12 amperes 20 to +70 db . Push-buffon selectors for all multimeter ranges. Complete

Precision Time Payment Plan: $\$ 44.66$ cash and $\$ 8.38$ mo


Precision fil2-MCP TUBE' TESTER Quickly tests as "Cood" or "Bad" all types of standard radio receiving tubes-7-pin Acorn, 7-pin "button" types, 9-pin Noval types, dual capped H.F. and "FM" and "TV" amplifier tubes! Brass cost direct Factory service kept up-to-date by no $41 / 2^{\prime \prime}$ Wide Vision Mefer indicates Line Voltage and "Cood-?-Bad" tests for Portable Radio Batterics and all tube types. Individual element tests of multi-section tubes; Ballast Tube Tests, Pilof and Signal lamp tests. Absolute Free-Point leve election for both "short" and "merit" tests Radio batteries tested under proper "load" for accuracy. Pin jacks for noise and condenser tests. Cabled wiring of plastic coated moisture-proof wire continuous line voltage adjustment; panel fused power cord. 115/125-volt aluminum . He
No. 35B87. MODEL 612-MCPTube Tester, Complete. Net Each... 54.52 Precision Time Payment Plan: $\$ 22.65$ cash and $\$ 7.72$ monthly Precision Instruments on Time Payments: Application forms will be forment orders are subiect to the approval of Precision Apparafus Company.
RCP 802N TUBE \& SET TESTER Complete fube festing of all receiving fube types headphone noise test-condenser tests; plus 25 range set tester! $41 / 2$-Inch Meter! Germanium rectifier for AC voltage measurements! 100,000 Ohm Resistance range is battery operafed-permits complete set tests without AC current connection! Set lester Ronges ore: 0-10-50-500-1000 AC-DC Volts
and Oupput Volts; $0-1-10-100-1000 \mathrm{DC} \mathrm{M.A} \mathrm{ond} 0-$.10 Amperes! Resistance Ranges: 0-500-5000 Ohms, O-
 torque movement for fost readings. In hordwood coser hos Alnico high
 Toke to the job tester, cpt. With botteries ond test leods.
Stock No. 35 A43; RCP Model 802 N Tube 6 Set Tester, Net, 58 RCP "ROLLIMDEX" ROLLER TUBE CHART for use with RCP 802N Tube and Set Trster, as listed above. (fits in tester cases). NET.... $\mathbf{~ N} 7.35$
No. 35A56. Model 103 Rollindex


SUPERIOR TV-10 TUBE TESTER Truly a super-value instrument for testing. ALL tubes used in AM, FM, TV receivers-providing a separate socket for each type of tube base, including sub-miniatures, novals, thyratrons, lockins, and all others, regardless of number of base pins! Self-cleaning lever action switches provide complete inter-element test plus true-tests of
tubes with tapped filaments! Tests for "shorts" tubes with tapped filaments! Tests for "shorts" reading meter shows emission test results. Roller case. Size, $6 \times 111 / 2 \times 12^{\prime \prime}$. Weight 14 . Portable oak No. 35 C 30 . Superior Model TV-10
Portable Tube Tester. Net Each... 38.71
At Once Delivery From B-A on These TUBE TESTERS Jackson Model 648-B. Dynamic Oufput Tube Tester. 4" meter, roller chart tests Ale tubes urey steel open face case, $151 / 2 \times 101 / 2 \times 41 / 4^{\prime \prime}$. Weight, 20 lbs Triplett Model 3413. Big 6" mefer: Speed Rall chart; sloping panel in dual purpose Portable-Counter steel case, $153 / 8 \times 11 \times 61 / \mathrm{s}^{\prime}$, removabla cover 2 -tone brown-tan hammeroid enamel finish. Wt., 20 lbs . No. 35 B 26 . Each . SB5.41 Simpson 330. Mutual Conductance Tube Tester. No. 504205. Net. $\$ 142.83$

##  TOP-NOTCH VALUE PER DOLLAR OF COST TO YOU!

HICKOK MODEL $288 \times$
CRYSTAL CONTROLLED! FREQUENCY MODULATED Provides hishly accurate and dependable test voitages and frequencies fors! Fundamentals: $100 \mathrm{kc}-110 \mathrm{mc}$ receivers! Fundamentals: $100 \mathrm{kc}-110 \mathrm{mc}$
for $A M$ in 7 ranges; $100 \mathrm{kc}-160 \mathrm{me}$ for for AM in 7 ranges; 100 kc -1
FM in 7 ranges! Frequency moduted RF FM in 7 ranges! Frequency modulated for ranges, narrow band ranges: wide band $0,150,450 \mathrm{kc}$ sweep for FM ranges-l mc to 160 mc in 7 ranges. Crystal controlied outputs of 100 kc and 1000 kc are accurate to $.01 \%$ : Cireuit refinements provide new high FM output and new low radiation! AIckok drum-scales provide over $100^{\prime \prime}$ of AM-FM scales-matching DB meter has 3 ranges power, voltage and resonance alignment. 3-step RF Output Control attenuates output all frequencies, X1. X10. X100! Deluxe panel and controls in Satin Chrome, steel case in Blue Lacquer; with cables and instructions. No. 35A37. HICKOK Model $288 \times$ Signal Generator. NET..
HICKOK MODEL $277 \times$ SIGNAL GENERATOR

## Identical to above described 288 X except does not have

 wise has Crystal Wrol, Frequen No. 35B12. HICKOK Model 277X. NET $\qquad$ \$150.36HICKOK MODEL 277 SIGNAL GENERATOR Low cost, frequency modulated, with all features of 288X have DB meter or Crystal controlled output. Weight, 28 lbs 3135.30 No. 35B13. HICKOK Model 277. NET

NEW! HICKOK 292X
 MICROVOLT SICNAL CENERATOR for AM, FM, TV, MOBILE BANDS! 125 ke to 220 mc. FUNDAMENTALS - the ONLY signal generator with all these ranges on 8 bands- Bands A through $G$ covering $125 \mathrm{kc}-110 \mathrm{mc}$; Band $\mathrm{H}, 150-$
220 mc . Output impedance: $\mathrm{XI}, \times 10$, $\times 100 \mathrm{mv} 5$
5
$\times 10 \mathrm{ohms}$, XIK, $0-100$ ohms. Modulation, fixed. 400 cDs.; AF Output, $0-2$ volts. Self contained Crystal oscillator circuit has front panel jack permitting crystal out-
puts at frequencies $250 \mathrm{kc}-20 \mathrm{mc}$ and puts at frequencies $250 \mathrm{kc}-20$ me-and oscillator unit for Mobile Band 152 162 me available, on order, complete
with $.005 \%$ accuracy crystal at net \$48.84.) Self-contained DB Meter covers 3 Ranges, 10 to $\pm 38 \mathrm{db}$. Other important features include Modulated and Unmodulated output, $1=100,000$ Microvolts; Measures both input and output of untsal modulation 15-10,000 Cps . Tubes are 1 6SN7, $2616,165 \mathrm{C7}$. $6 \times 5 \mathrm{CT}$. Tuning Dial provides over $100^{\prime \prime}$ of scale! Satin' Chrome panel, heavy steel blue lacquered cabinet. $14 \times 161 / 2 \times 8^{\prime \prime}$. Weight, 29 lbs. 35 watts at $115-$ volt AC. Complete with No. 35B14. HICKOK MODEL 292X. NET.
$\$ 195.00$

## TRIPLETT 3432-LIGHTED DIAL!



A "honey" of a new test oscillator in every respect! FREQUENCY RANCE: 165 ke to $120 \mathrm{mc}-B a n d s$ A through E cover ranges from 165 kc to 40 mc on FUN-DAMENTALS-two direct calibrated, strong harmonic ranges for $\mathbf{3 6 - 8 0} \mathrm{me}$ and $54-120 \mathrm{mc}$ ! Seven long scales of illuminated dial have easily read, wide-separated scale markings. Features: internal modulation variable $0-100 \%$ at 400 cps ; External modulation, variable amplitude 40-15.000 cps.; Unmodulated signal: variable audio $0-10$ volts at 400 eps. Minimum leakage assured by double shielded RF and audio circuits. Air trimmed capacitors, permeability adjusted coils and electron-coupled oscii lator circuit create op slability! shielded S-posifion range selector with ol into AC primary of power transformer. In tan hammered enamel finish stee and connecting cables.
No. 35 C 18 . TRIPLETT MODEL 3432. NET.
$\$ 67.11$
"EICO" MODEL 315 SIGNAL GENERATOR 75 KC
 TOP PERFORMANCE IN A RELIABLE, WIDE RANCE SICNAL CENERATOR - AT LOW COSTI New "Micro-Cycle" band spread vernier tuning permits accurate adjustment of any band width. ILLUMINATED DIAL has linear calibration-does not crowd up and assures accuracy of betfer than $1 \%$ on all
ranges from 75 kc to 150 me! 7 overlapping ranges are: $75 \mathrm{kc}-220 \mathrm{kc}, 200 \mathrm{kc}-600 \mathrm{kc}, 550 \mathrm{kc}-1700 \mathrm{kc}$ $1.6 \mathrm{mc}-5.0 \mathrm{mc}, 5.0 \mathrm{mc}-16 \mathrm{mc}, 10 \mathrm{mc}-50 \mathrm{mc}$, on fundamentals! $41 \mathrm{me}-150 \mathrm{me}$ on strong harmonic!
400 cy . audio output with microphone type connector on panel; 4-step multiplier, $\times 1 . \times 10$ $\times 1000$; ladder type attenuator; Signal output selec, RF or External modulation: Voltage regulator tube for for choice of Audio, Rfage variations from 95 to 135 volts! Illuminated dial and BAND SPREAD vernier, plus stable circuit and perfect shielding dial and BAND SPREAD vernier, plus stable circuit and perfect shieiding makes Model 315 ideal for AM-FM-TV work! In steel case vott, 60 -cycle AC. Weight. 21 lbs. No. 35848 . "EICO" MODEL 315 SICNAL CENERATOR. NET.. 3.45

## Popular E-200C 8-BAND AM-FM SIGNAL GENERATOR

 8 BANDS-88 ke to 120 mc ! Speedy, Dynamic signol Analysis by the exclusive "Precision" "Servicing by Signal Substitution" covered in easy-tounderstand manner by booklet furnished with each instrument. Individuolly hand calibroted, this fine instrument features: Moximum of $1 \%$ devi ation from calibrated frequency on ALL bandsceramic spoced band switth-silver plated con-tocts-zero drift silver mica loading condensers "Unit Oscillator" construction with positive freedom from effects of mechonical shocks $0-1000$ point Vernier Dial; $61 / 2^{\prime \prime}$ diometer; full vision; no glare; has Ball Bearing Planetary Drive-no backlash, nearly 8 ft of deep etched scales! Twin engraved hair-line indicators eliminate parallax. Four types of signals: Unmodulated RF; 400-cycle modulated RF; Externaily modulated RF (frequency or amplitude); and 400-cycle Audio Oútput. 400cycie Sine Wave Audio Oscillafor provides modulation and external test signal from zero to 50 volts-independently controlled. Direct reading variable modulation, $0-100 \%$ of RF signal at will. Direct reading AVC voltage. 0-50 volts at front panel. Black ripple steel case $101 / 2 \times 12 \times 6^{\prime \prime}$; with coaxial out put cable, tubes, and copy of "Scrvicing By Signal Substitution." Wt. 18 lbs No. 35A5. SERIES E-200C MULTI-BAND SICNAL
GENERATOR. YOUR COST
$\$ 65.90$
"Precision" Time Payments: $\$ 22.58$ cash and $\$ 7.84$ monthly for 6 months.)
"APPROVED" LOW COST SIGNAL GENERATOR 8 BANDS, 100 kc to 75 mc with
 quick reference. Large open-face frequick reterence. Large open-face frequency dial has multi-colored seales for 6 overlapping fundamental ranges
from 100 kc to 25 mc , with Band F2 from 100 kc to 25 mc , with Band F2
$18-50 \mathrm{mc}$, and Band $\mathrm{F3}$, $27-75 \mathrm{mc}$ on harmonics. Phase shift audio oscillator and internal modulator for 440 cps. internal or external-and continuously
variable from front panel from 0variable from front panel from 0 100\%; external modulation possible, 40-30,000 cps. Extremely low leakage on all bands; completely isolated from power line, Ceramic insulated, low drift, wide spaced variable condenser of "invar" metal used as frequency selector. 3 -step RF attenuator and
continuously variable RF-AF attenucontinuously variable RF-AF attenuator control-ultra stable 2-terminal
RF oscillator. 6 SH 7 tube as cathode RF oscillator, 6SH7 tube as cathode
follower output: Lucite dial pointer follower output: Lueite dial pointer indicator. With 4 tubes, cables, instructions. Steel cabinet is $8 \times 10 \times 12^{\prime \prime}$. for operation on "105/120-volt, 60-cycle AC. Weight, 25 lbs. $\mathbf{N a}$. 32 . 59.
'BUILD YOUR OWN' WITH MODEL A-200 PARTS KIT! Identical to factory-wired Model A-200 described above EXCEPT in KIT form! pictorial diagrams for, casy assembly No. 35C25. Model A-200 signal Cenerator Parts Kit. Net... S24,50

"EICO" 320 SIGNAL GENERATOR
7 BANDS! Range, 150 KC to 102 MC ! TREMENDOUS SICNAL GENERATOR VALUE! Features proven and highly stable Hartley oscillator providing calibrated frequency ranges from 150 kc to 34 mc on fundamentals-and to 102 mc on harmonics. Complete RF section features furret-type coil assembly, ceramic insulated variable condensers, can be aligned 400 -cycle audio sine wave available for audio testing and RF modulation. Hair-line indlcator and widespread Band and frequency markings for fast, accurate frequency selections. Band selector. Audio and RF attenuators and Audio and RF Outputs. Mate microphone connectors on front panel. Red lens panel indicaror ight. Steel cabinet is
operation on $105 / 125-$ volt, 60 -cycle AC power. Weight, 10 lbs . No. 35B42. "EICO" Model 320 Signal Generator.
NET EACH
$\$ 29.95$

EICO MODEL 320 SIGNAL GENERATOR IN KIT FORM Complete kit of parts, tubes. cabinet, panel-everything to complete the above described Signal Generator, with easy-to-follow schematic and pictorial
diagrams-easy to assemble in an evening!
No. 35831. "EICO"" Model 320 Signal Generator Parts Kit. Net
319.95


RCP 710 POCKET SIGNAL GENERATOR
Quick, complete alignment of any AM set by means of fixed end-of-band frequencies of 1550 kc and $550 \mathrm{kc}-$ plus If fixed frequencies of 456 kc and 465 kc ! Operates on 115 -volt AC or DC, has isolated power supply, no burn-out, shock or short-circuit! Accurate in calibrations. more than sufficient output! The ideal RF oscillator for in-the-shop or on-the-job alignments. Pocket size, $3 \times 6 \times$ $23 / 4^{\prime \prime} ;$ with tubes, output cable, line cord, instructions. Weight, 2 lbs.
No. 35A95. RCP Model 710 Poeket AM Signal Cenerator NET EACH
$\$ 17.59$

## OSCILLOSCOPES-TELEVISION MARKER-SWEEP GENERATORS



HICKOK 505A OSCILLOGRAPH USES NEW 5UPI 5-INCH C. R. TUBE FOR EVERY AM-FM-TV SERVICE NEED. When used as companion instrument with Hickok Model 292X Microvalt Generator as listed on page at left provides the finest combination for dynamic
visual analysis of all AM-FM and Television revisual analysis of all AM-FM and Television re-
ceivers possible! Model 505 has these EXCLUceivers possible! Model 505 has these EXCLU-
SIVE features: Wide and narrow band $F$. M. SIVE feafures: Wide and narrow band F. M. oscillator-separate FM oscillator unnecessary!
FM narrow band frequency is 1000 kc with FM narrow band frequency is toooke with
sweep width of $0-30 k c$, modulating frequency 60 cps. FM wide band freguency is 50 mc sweep width, $0-450 \mathrm{kc}$; modulating frequency 60cps. Lincar sweep range, 10 cycles to $25 k c$. 1 mc ; Horizontal, 10 cycles to 50 kc . Input ima 4-meg., 25mmf.: Horizontal, direct, 3-meg.-Vertical deflection sensitivity, 30 my per inch deflection to lmc; Horizontal, 0.2 volts (rms) /inch; hori modulated signal or will modulate the output of any good AM signal gen erator; demodulator permits viewing any RF signal. Return Trace Eliminator Signal Tracer Jack for listening to any signal on tube screen; Sinusoida sweep with phasing control; 3-range frequency compensated attenuator net work! Complete with 8-tubes and 5-inch type SUPI C.R. tube, in steel AC. Wt., 35 lbs. Stock No. 32A12; HICKOK Model 505A Oscillograph. Net.. 1010 HICKOK MODEL 1958 OSCILLOCRAPH-5-INCH C.R. TUBE. The practical equivalent of Model 505A described above except does NOT have built-in RF Sweep Generator. Model 195B has these important features: high gain wide band
sweep oscillator, 120 cps sweep; Sinusoidal sweep circuit; phasing control sweep oscilator, 120 cps sweep; Sinusoidal sweep circuit; phasing control furn Trace Eliminator. Model 1958 is designed as the "tod" oscillograph for turn Trace Eliminator. Model 1958 is designed as the "toD" oscillograph for Hickok Model 288 X shown on page at left. Complete with 6 -tubes pl $125 V, 60-70 \mathrm{cy}$ AC. Wt. 25 lbs.
Stock No. 32 BII ; HICKOK Model 195 B Oscillograph. Net. 5.1015

HICKOK MODEL G10A TELEVISION ALIGNMENT SIGNAL GENERATOR
MODEL 610A; 3-instruments-in-1! Vis-

curacy of $5 \%$; stand-by switch for for crystal control on any TV channel by addition of plug-in crystal as listed below. Satin Chrome panel in steel for 115 v . 60 cy . AC. power. PLUC-IN CRYSTALS FOR MODEL 610A; TV Channels 2 to 12 ; specify in-

## HICKOK 620 LINEARITY-PATTERN GENERATOR

 PROVIDES FACILITIES FOR COMPLETE
CHECK OF PICTURE CHANNEL OF TELEVISION RECEIVERS independent of actual TV station operation! Merely connect Model 620 to TV receiver antenna and presto! you have a clear picture receiver-no need for waiting for TV station pattern!
FEATURES: Crystal controlied output frequencies for 4-channels ( 2 through 5) icing any TV receiver to obtain perfect operation and alignment of its video circuits! Provides pattern on TV tube for vertical Linearity and Drive controls; Horizontal and Vertical Width: Height and Hold Controls; horizontal A.F.C. circuits: detects hum in horizontal deflection circuits, checks relative requencies crystal controlled. Horizontal lines, 8 or 9 . Vertical lines, 12 ; with selection of both simultaneously as a Cross Hatch pattern, or separately as desired! Output selector has "standby" position with red ruby panel indicators "Standby" and "Operate" to indicate to operator when "B" power to plates of tubes in "On"; separate master off-on power switch. tex steel case size $83 / 4^{\prime \prime} \times 111 / 4^{\prime \prime} \times 6^{\prime \prime \prime}$; wt. 15 lbs. Complete with test leads No. 35C3; HICKOK Model 620 TV Cross-Hatch Cenerator, $\mathbf{\$ 1 4 4 . 8 5}$ Net,
TELEVISION FIELD STRENCTH METER-TUTH to Page 125 for detailed description of this MONEY-MAKINC "MUST"—measures actual TV Station signal sfrength in any location; cinches sales of TV antennas and receivers

PRECISION SERIES E-400 TV MARKER-SWEEP 2 TO 480MC SWEEP SIGNAL GENERATOR-Mulpiple quartz crystal MARKER-CALIBRATOR oscil tafor BUILT-INI 5 -Ranges reading $2-240 \mathrm{me}$ on 61/2-Inch dia. efched dial in 3-colors; dial is high ratio rim driven, zero backlash! 280-480mc bands harmonically calibrated. Lucite hair-line indicato eliminates parallax in readings. High output and accuracy attained by true VHF components and circuits; Narrow and wide band sweep, O -Imc and 0 -l0mc. Wide range phasing control. Multiple crystal Marker-Calibrator oscillator built-in, has 4-crystal sockets on panel with rotary selection
 instrument. Simultancous AM crystals inciuded wirh instrument. Simultaneous AM and FM test facilities; dual RF attenuators plate shielded; double-pi quiet. Entire instrument is multi-section copper plate shielded; double-pi line filter. Tubes: 3 ea. $6 J 6$ G 6C4, I ea. VR- 105
and $6 \times 5$. Complete with coaxial test cables, quartz marker crystals, inStee case is $101 / 2 \times 12 \times 6^{\prime \prime}$. Weight, 20 lbs . S-500 Oscilloscope below.)
tock No. 35B49; "PRECISION" Model E-400, Net


## PRECISION ES-500 OSCILLOSCOPE

HICH SENSITIVITY 5-INCH OSCILLOSCOPE! for ALL
TV-FM-AM service needs and highly recommended for TV-FM-AM service needs and highly recommended for
use with Model E-400 described above as YOUR basic use with Model E-400 described above as YOUR basic
Television-FM Service Lab. FEATURES: Highly stable, Television-FM Service Lab. FEATURES: Highly stable,
extended range Vertical Amplifier, response to Ime; extended range Vertical Amplifier, response to 1 mc ;
2 -meg, input resistance; 20 mv vertical sensitivity; 3 -step 2 -meg, input resistance; 20 mv vertical sensitivity; 3 -step
vertical input attenuator, $\times 1, \times 10, \times 100$ with additional vertical input attenuator, $\times 1, \times 10, \times 100$ with additional
continuous vernier control-cathode follower input circuit! Extended range horizontal amplifier, response to $1 \mathrm{mc}-1 / 2-\mathrm{meg}$ input resistance. Linear multi-vibrator sweep circuit 10cyc-30kc, linear throughout entire range Amplitude controlted synch, selection: " $Z$ " axis modulation terminals for blanking, timing, etc. Line sweep phasing control; phone jack monitoring of signal as viewed on 5 -inch tube screen plus direct access to H . and V . deflection plates (on rear of cat-
inet.) $141 / 2 \times 18^{" \prime}$. Weight, 45 Ibs.

## LOW-COST TV TESTERS-""WIRE-YOUR-OWN" KITS

## MARKER-SWEEP GENERATOR

APPROVED" MODEL A. 400 COMBINATION Television and FM Marker-Sweep Cenerator, RANGE $0-227 \mathrm{mc}$ with variable sweep width from 0.12 mc ; crystal controlled output for any
frequency from $5-230 \mathrm{mc}$.; ample voltage output for stage-by-stage alignment; output impedance is $5-125$ ohms. Direct calibrated markers $20-40 \mathrm{mc}$ for trap, sound and video IF alignment; markers controllable as to output strength in the pip oscillator-unmodulated RF signal to pro-
vide marker pips simultaneously with main vide marker pips simultaneously with main
variable oscillator! Frequency range, FM modu-
 anism) $2-60 \mathrm{mc} ; 20-120 \mathrm{mc} ; 168-227 \mathrm{mc}$; sweep frequency at 60 cps , sweep dial directly calibrated in frequency, split stator sweep mechanism is stable,
non-jittery. Horizontal 60 cps sweep voltage. Phasing control: external crystal ack for if marker crystals, available at additional cost of $\$ 8.00$ each, $1.61 \%$ accuracy) - state frequency desired on order! 7-tubes, in grey hammertone steel cabinet $8^{\prime \prime} \times 10^{\prime \prime} \times 12^{\prime \prime}$; wt. 25 lbs. Complete circuit diagram and guarantee
No. 35B53;
$\$ 79.50$

## SWEEP SIGNAL GENERATOR KIT

 "APPROVED" Model A-300K; Range $2-227 \mathrm{mc}$ in 3-bands with no switching, 2-77mc; 40-154 mc $51-227 \mathrm{mct} 10 / 1$ ratio vernier tuning, horizonta sweep output, sweep width 500kc to approx. 10mc. Output useable asMax. output, 500.000 UV . Phasing control, switch for FM-RF-CAL: high frequency insulated
power line filter built-in. 105-125V. 60cy. AC. Al
parts, tubes, cabinet, panel, instructions. . . $\mathbf{N} \mathbf{2} 4.50$

"APPROVED" MODEL A-300; FACTORY ASSEMBLED. Complete FM and Television Sweep Signal Generator as described above except completely

$\$ 38.50$
"EICO" 5" OSCILLOSCOPE KIT BUILD-YOUR-OWN 5-INCH "SCOPE \$39.95. "EICO" provides you a complete, precision quality 5 -Inch scope with these high price features: Horizonta sweep linear frequency variable $15-30,000 \mathrm{cps}$; Decontrols on front panel, instant switching to CR tube deflection plates or amplifier. Full frequency response deflection plutes or amplifier. Full frequency response test voltage, external $s$ snch onization and intensity test voltage, external sy nch onization and intensity
modulation; 5 -tubes plus $5 B P 1$ CR tube; All tubes, modulation: 5 -tubes plus 5BP1 CR tube: All tubes
parts, panel, cabinet, size $81 / 2 \times 13 \times 17^{\prime \prime} ;$ photo-diagram instructions. wt. 30 lbs. Kit. Net,....S39.95


No. 35B63. "EICO"* MODEL $4005^{\circ \prime}$ OSCILLOSCOPE. Com- 969.95

## CONDENSER TESTERS-SIGNAL TRACERS-POCKET MULTI-METERS

8PRAGUE "TO-3" DE LUXE TEL-OHMIKE


TO-3 is a bridge type Resistance and Capacitance Analyzer with BUILT-IN DC Volt-Milliam-
meter! Tel-Ohmike locates "open", intermittent, metar! Tel-Ohmike locates "open", infermittent, or "shorted" condensers Chewithout removing condensers, and measures insulation resistance of Motors, Transformers. Capacity Ranges: .00001 to 2,000 MFD. in 4 Ranges; Power Factor Ranges of $0-50 \%$ at 60 cycles. insulation Resistance: $0-2500$ Megohms; Electrolytic Leakage: in MA at rated DC voltage; power factor of electrolytics with rated polarized voltage applied. Resistrance Ranges: 2.5 Ohms to 25 MEE. in 3 Ranges; DC Volts: $0,15,150,750$; DC MA: 0 , 1.5 , 15 , 75 . One pair of
marked binding posts, and 5 controls for "Speedy-Check", service on all func-
 YOUR COST
$\$ 58.51$ RCP "DYNATRACER"—AM-FM-TV SIGNAL TRACER


Provides high amplification to trace the signal, or any variation in its intensity, from the anor any variation in its intensity, from the anA.F. - without operating any switches or changing to different channels. Accurate Meter readings of "Cain" of any stage or of complete receiver with negligible disturbance to set under test due to input capacity of only 3 mmfds. Attenuation. 10,000 to 1 by ladder type, vernier control. Sensitivity, 10,000 Microvolts full scale! Frequency coverage Mhrough 150 me! Traveling Detector, probe housing for detector and amplifier at end of $50^{-2}$ lead. Alnico CPM Speaker, with switching for Meter or Speaker indication alone_or both 135 -volt, $50 / 60$-cycle AC. Tubes: 1 each, 6AT6, 7 A7, $7 \mathrm{~B} 5,6 \times 5$. $1.10,57$ No. 35B28. RCP DYNATRACER signal Tracer Complefe. NET $\$ 4.6$

## "FERRET" MODEL 721 SERVICE SPEEDER!



Provides: (1) Test Speaker, $6^{\circ \prime}$ PM with low resonant point. test fields of 500 , 1000,2500 Otms. Voice coil permits substitution of any output
transformer.
Rotating
Switches permit matching to any single or push-pull output tubes. (2) Selective substitute paper and electrolytic condensers; substitute resistors-600-volt Paper capacitors of $.001, .01, .02,05.10$
450 -volt Electrolytics in
.05 Mfd . 450 -volt Electrolytics in capacities of $30-50-80$
MFD. Resisfance substitutions of: $400-50,000$ -$100,000-500,000$ Ohms; 2.2 and 5 Megohms. Aluminum cabinet $101 / 4 \times 101 / 4 \times 51 / 2$
$\$ 29.95$
Stock No. 32A25. "Ferret" Model 721. Your Cost
MULTI-METERS

(Left above) PRECISION SERIES 40 .
pact, wide range circuit tester; $3^{3 \prime}$ meter; rotary. range selection; with all ranges, including 6,000 -volt and 5 -Meg. self-contained! 6 AC DC $/$ ith all Volts ranges of $0,3,12,60,300,1200,60001-4 \mathrm{DC}$ Current Ranges output 6. 6, $60,600 \mathrm{M}$. A. 3 Resistance Ranges of $0,500,500,000$ ohms and $0-5$ Megohms! 6 db . Ranges, -22 to +70 db . Anodized etched aluminum panel No. 35 B91. Precision Series 40 Multi-Mefer. Net Each
\$24.25 (Left cenfer above) TRIPLETT 666-R, NEW Pocket Volt-Ohm-M.A. New "short-proof" construction with all components in separate molded recepracies Totally enclosed selector switch, recessed knob! $3^{\prime \prime}$ lifetime meter provides these Ranges: $0,10,50,250,1000,5000 \mathrm{AC}$ and DC Volts; ${ }^{\text {, }} 10$,
100 DC M.A.; $0-1 \mathrm{DC}$ Amps. ; 0, 3000, 300,000 Ohms; $0-3$ Megohms! Uses 2 penlight and 1 \#1 flashlight cell for all ranges! $50^{\prime \prime}$ test leads with banana type plugs included. Pre-calibrated rectifier. Molded case is $31 / 16 x$ $57 / 8 \times 2$ 9/16". Weight. 2 lbs.
No. $35 A 103$. TRIPLETT MODEL 666-R, NET EACM.
(Right center above) TRIPLETT 666-HH "Hand size" Test Laboratory. 3" Lifetime meter, integral with panel, provides these Ranges: $0,10,50,250$, 1000,5000 AC and DC volts (at 1000 o.p.v.): O, 10, 100,500 DC M.A.; $0,2000,400,000$ Ohms ( 12 and 2400 center scales) ; 3 recessed banana jacks for all ranges. In molded case $31 / 6 \times 57 / 8 \times 29 / 16^{\prime \prime}$. Weight plete with batferies and $50^{\prime \prime}$ test leads.
No. 35A29. TRIPLETT MODEL 666-HH. NET EACH.
\$21.56 BLACK LEATHER CARRYINC CASE FOR MODELS 666-HH or 666-R. room for test leads and instruction book.) No. 35B69. Net.
. 34.85
(Shown at right above) SUPERIOR MODEL 770. $3^{\circ \prime}$ METER-LOW COST! D'arsonval type 1 -mil. mefer, $2 \%$ accuracy, provides these RANCES: $0,7.5$. 15,75 AC Volts: 0,1500 DC Volts at 1,000 0.p.V.! $15,15,30,150,300,1500$, $0-1$ Megohm, zero adjustment holds for BOTH resistance ranges! Rounded corner, molded case $31 / 8 \times 57 / 8 \times 21 / 4$, black etched panel with white depressed letters; with batteries, test leads. Weight, 3 Ibs.
No. $35 A 102$. SUPERIOR MODEL 770 V.O.M.A. NET EACH...

Here's the "CREAM OF THE CROP" in MULTI-METERS


TRIPLETT
MODEL 625NA (Mirror Scale)


## TRIPLETT 630

TRIPLETT MODEL 625NA (Illus. left above). Popular 39-Range Volt-Ohm-Milliammeter- 10,000 and 20,000 o.p.v. $D C$ sensitivity; 10,000 o.p.v. AC sensifivity. Resisfance to 40 Megohms -6" "Red Dof" 50 micro-amp. meter Meter Ranges are: $0,1.25,5,25,125,500,2,500 \mathrm{DC}$ Volts at 20,000 Ohms: per-volt; $0,2.5,10,50,250,1,000,5,000$ DC and $A C$ Volts at 10,000 ohms-per-volt; O-50 DC Micro-amps.; $0,1,10,100,1,000$ DC Mils.; 0-10 DC Amps.; O 2,000, 200,000 Ohms il 2-1,200 center scale); 0-40 Meg. (240,000 center scalel; six DB Ranges from - 30 db . to +69 db .; Six Output Ranges. $5^{\prime \prime}$ mirror meter scale. Two banana jacks and high voltage jack for 2,500 and 5,000 volts. In black molded case, size $21 / 2 \times 51 / 2 \times 6$." Weight, 3 lbs. With $50^{\circ \prime}$ test leads, detachable alligator clips, and batteries.
No. 35 A 22 . Triplett Model 625 NA Multimeter. Net Each.... 4. 1 . 11 No. 35B70. Leather Case for Model 625NA. Net Each.... ...... $\$ 5.39$ SENSATIONAL TRIPLETT MODEL 630 (Center above). 20,000 Ohms/Volt: 5,000 Ohms/Volt-32-Range V.O.M.A. has $51 / 2^{\prime \prime}$ Meter flush with case surface. Resisfors, shunts, selector switch, bafferies, housed in molded base, integral with selector switch! Each resisfor in sealed, molded compartment. All switch contacts sealed against dirt! RANGES: 0, 3, 12, 60, 300, 1,200 6,000 DC Volts at 20,000 ohms-per-volt! Same ranges for AC volits af 5,000 o.p.v. ; Condenser in series for Output Volts for five Output Volts
Ranges. Resistance Ranges are: $0,1,000,10,000(4,4$ and 44 center scale) Ranges. Resistance Ranges are: 0, 1,000, 10,000 (4.4 and 44 center scale) and $0,1,100$ Meg. Curvent Ranges: $0-60$ DC Miero-amps.; $0,1.2,12,120$ DC M.A. and $0-12$ Amperes. Six DB Ranges from - 30 to +70 db. Banana Jacks, $50^{\prime \prime}$ test leads with removable alligator clips. Size, $31 / 4 \times 51 / 2 \times 7 / 2^{2}$ No. 35 B67. "Triplett" Model 630 Volt-Ohm-Mil-Ammeter. Net $55-5$ Leather Carrying Case for Model 630. Model 639, fine black leather with room for 630 Tester, instruction book, and accessories, No. 35B68. Net Each
$\$ 5.63$ SUPREME MODEL 640 SHOCK-PROOF MULTI-METER (Right above). Just
the thing for the "service-car" $44^{*}$ METER-20,000 o.p.v. DC volts ranges of $0,5,25,100,500,1000,5000$ volts. 1,000 o.p.v. DC volts and $A C$ volts ranges of $0,5,25,100,500,1000,5000 \mathrm{AC}$ and DC volts! "Output volts" $\begin{aligned} & \text { with same ranges as AC volts. Resistance ranges of } 0,2000,200,000 \text { ohms } \\ & \text { and } 0-20 \text { Meg. on self-contained batteries! DC M.A. ranges of } 0,10,100 \text {. } \\ & 500 ~ M A . ~ P o c k e t ~ s i z e ~ s t e e l ~ c a s e ~ w i t h ~ h i n g e d ~ s t e e l ~ c o v e r ~ i s ~\end{aligned} \times 1 / 2 \times 3$. Weight, 4 lbs. With batteries and test leads. Weight, 4 lbs. With batteries and test leads.
No. 32 A33. SUPREME Model 640 Mult-Meter.
\$38.66


RCP GIANT METER MULTI-TESTER MODEL 462. HICH SENSITIVITY-LOW COST! $61 / 2^{\prime \prime}$ METER. 20,000 o.p.v. DC: 5,000 o.p.V. AC! Ranges:
$0,25,10,50,250,1000$
5000 DC Volts at 20,000 $0,2.5,10,50,250,1000,5000$ DC Volts at 20,000 O.P.V., and same ranges AC Volts at 5000 o.p.y!! 0. 200, 200,000 Ohms; 0-20 Megohms, all on self-contained, easily replaceable flashlight batteries! 0-100 Micro-amps. and $0,10,100,500 \mathrm{M} . \mathrm{A}$. (DC): 10 to
55 db . Extra long, clearly marked 55 db . Extra long, clearly marked meter scale together with 50 micro-amp. sensitivity permits checking deli"leate circuit values on AM-FM-TV sets with negligible "leading", particularly on AC! All shunts and multihardwood case is $41 / 4 \times 81 / 2 \times 101 / 8$. Weight, 5 lbs.
No. 35B64. RCP MODEL 462 . NET EACH. . . . . . . . . . . . . . . . . 4.

## 5,000 O.P.V. BARGAIN POCKET TESTER

 B-A special purchase makes possible this extra-value offering of famous RCP Model 449A, YOU SAVE $\$ 5.00$ ? Feafures: $3^{\prime \prime}$ wide vision meter has 5,000 ohms-per-volt sensitivity; 18 pinthese Ranges: $0,5,50,250,1000$ DC Volts at 5,000 o.p.v. $0,5,50,250,1000 \mathrm{AC}$ and Output Volts; 0, 2000, 20,000,200,000 Ohms; $0-2$ Megohms; -5 db. to $+46 \mathrm{db} ; 0,0.5,10$, 100, 1000 DC' M.A. In pocket size case, $31 / 16 \times 57 / 8 \times 21 / 8^{\prime \prime}$ Complete with batteries.
No. 37T1022. RCP Model 449A. B-A SPECIAL.

"EICO" MODEL 145 MULTI-SIGNAL TRACER KIT


All parts and step-by-step assembly instructions to tures complete audible signal tracing from antenna post to ground of IF, RF, FM, Audio and Video circuits. Has 3 -tube amplifier and output selector for "Test Amplifier". "Signal Trace" and"Test Speaker" functions. Amplifier may be used separately as small P.A. or Intercom system! Provision for external VTVM use for actual stage-by-stage gain comparison. Complete with diode probe, 6SJ7, 6K6. $6 \times 5$ tubes, panel, cabinet $10 \times 8 \times 43 / 4^{\circ}$ No. 35C61. "EICO" Model 145 Kit.
\$18.95
"EICO" MODEL 145 MULTT-SICNAL TRACER. Factory wired, tested. Has all


HICKOK MODEL 209A
 Laboratory type Electronic Nolt-Onm-Capa ${ }_{9}{ }^{\prime \prime}$ METER, Peak-to-peak Kilovolt range Optional Zero center or Zero left scale on certain ranges; $0 / 1200$-volt AC range-to make Model 209A the outstanding meas quality V.i.V.M. on the mapkritance. AF RF and IF voltages from 30 cycles to RF and IF voltages from 30 cycles to
300 mc ; measures DC voltages across AVC, discriminator and limiter circuits AVC, discriminator voltages) - polarity reversing switch eliminates changing leads on DC measurements! Input impedances are 15 Meg. on $D C C_{i} 12$ Meg. are: $0,3,12,30,120,300,1200 \mathrm{AC}$ Volts, DC Volts. DC Mils.; Cap.: O/ 10000 mmf . in 2 ranges and $0 / 1000 \mathrm{mf}^{\mathrm{m} .}$ in 5 ranges; Mnd. in 8 ranges! henries (via conversion chart); Ohms:. 1 Ohm to 10,000 Meg. Six tubes including 2 rectifiers and voltage regulator. Sate 18 . blue hammertex enamel steel case, size $9 \times 11 / 2 x$. ${ }^{\text {plete }}$ with probes and test leads, for $105 / 125$-volt, $50 / 70$-cycle AC current. No. 35C36. HICKOK MODEL 209A.
NET EACH
$\$ 119.40$

## HICKOK MODEL 203

ELECTRONIC VOLT-OHM-MILLIAMMETER Has same test ranges (except peak-to-peak-
function) as Model 209A illustrated and deseribed above, except has $41 / 2^{\prime \prime}$ METER! Has scribed impedance of 15 meg. on DC scales: 12 meg (shunted by 6 mmf .) input on $A C$ volts scales. Measures AC voltages to 300 vols scales. Mer $\mathbf{~ m o , 0 0 0 ~ D C ~ v o l t s , ~ i n c l u d e ~ t y p e ~ P R - 3 0 ~}$ DC probe listed below, in order. Steel case,
 No. 35A38. Model 203. Net. . 88.40

## 30,000 DC VOLTS PROBE FOR MODELS 203 and 2094

5 Essential for TV servicing Model PR-30 Migh Voltage DC Probe consists of $4-\mathrm{ft}$. high voltage cable with black bakelite probe housing for required multiplying resistance; has microphone type connector and two removable probe tips.
No. 35 A99. Probe for Models 203 or 209 . Each. $\$ 10.80$


HICKOK MODEL 435 V.O.M.A. 20,000 OpV DC: 5000 opv AC! Completely
BATTERY OPERATED-STURDY, COMPACT, PORTABLE! AC-DC Volts Ranges are 0, 2.5 $10,50,250,1000,5000$ DC volts at $20,-$ Ohms ranges, $0-10$ megohms! $0,2.5,10$ 250 , 1000 DC $M A$ and $0-10$ DC Amps. Output volts, same ranges olts. -30 to +55 db , in 5 ranges. $33 / 4^{\prime \prime}{ }^{\prime \prime} 50$-micro-amp meter with clearly
 Hses $\mathbf{1 5 B 5 2}$. HICKOK Model 435 Battery Operated V.O.M NET EACH
$\$ 37.50$ "PRECISION" Vacuum Tube Voltmeter-Megohmmeter
 Combines both V.T.V.M. and Standard Volts ranges measurements, with 8 Zero-center DC Volts ranges to 6,000 volts; 6 Circuit-probing zero center ances to $133-1 / 3$ meg, at 6,000 volts; 6 Ohm Megohm ranges from 2,000 ohms_to 2,000 megohms; plus 8 AC-DC. Output voltage ranges from
to 6,000 volts at 1,000 o.p.v.; 7 DC . Current Ranges to 6,000 volts at 1,000 o.p.v.; 7 DC. Current Ranges
from 600 micro-amps to 12 amps; 8 Decibel ranges from minus 26 to plus 70 db . 7 "r rectangu lar meter. Steel case 10 Complete with tubes, battery and Coaxial test probes.
$\$ 88.15$ Precision Time Precision Type TV-1 Super-High Voltage Test Probe for Modei EV-10-MCP. Extends voltage range of EV-10 instruments to $60,000 \mathrm{DC}$ volts. Positive ground and $H V$ connections, internal and external protective grounding-full handle-length grounded internal flash-over shield; heavy shielded cable No. $35 A 97$.
NET EACH.

## PRECISION SERIES 85

34-Range, High Sensitivity Test Set-Engineered for AM, FM, TV, Laboratory! $45 / \mathrm{s}^{\prime \prime}$, 50 -microamp. meter with long scales!
SERIES 85-20,000 0.p.v. DC; 1,000 o.p.v. AC Fea tures: Voltage Ranges are $0,3,12,60,300,1,200$, 6,000 Volts DC at 20,000 ohms per volt; same ranges at 1,000 ohms per volt for $A C$ and Output Volis! $D C$ Current Ranges of $0-120$ Mieroamps, 0, $1.2,12,120 \mathrm{MA}$; and $0,1.2,12 \mathrm{DC}$ Amperes! Re-
sistance Ranges, all on self-contained batteries are: $0,6,000,600,000$ Ohms, $0,6,60$ Megohms! DB Ranges of -26 to +70 db . Rotary selector switch and $45 / 8^{\prime \prime}, 50$ microampere meter-only 2 -fip jacks for all ranges and functions. 2\%
No. 35 B89. Series 85 -Multi-Tester.
With Batteries and Test Leads. Net Each 37 Series 85-Precision Payment Plan: $\$ 13.42$ cash and $\$ 4.45$ monthly for
6 months.

[^1]

Ca voritohmyst

RCA MODEL 195-A VOLTOHMYST AC ELECTRONIC MULTIMETER-Constant Accuracy! Provides in ONE instrument, electronic measurements of DC Volts, AC Volts-Decibels, AF Volts, Resistance, Output Volts, "FM" Alignment Indicators! Electronic overload protected meter has printed brass scales, anti-static treated plastic case. Electronic DC Volts Ranges of: (10-Meg, constant input) $0,5,10,50,100,500,1000$ AC Volts-Decibels, $0,5,10,50,100,500.1000$ by linear diode rectifier, direct reading on DC Volts scales! Resistance, 0.1 Omm to 1,000 Megohms, one setting for all ranges- 20 cy . to 100 kc . flat freq. response to 100 volts with input impedance of 200,000 ohms at 170 volts! Complete with tubes, ground lead, isolating probe, cable and instructions. Reverse etched brushed Chrom Panel. Size, $95 / 8 \times 63 / 8 \times 63 / 4^{\circ \prime}$
Weight, 16 lbs.
No. 35 A32. Model 195-A Voltohmyst. No. 35A101. RCA PROBE WC-288. Extends DC Volts range to S15
30,000 volts on Voltohmysts 195 and 195 A . Chanalyst 170A.
. Net
$\$ 79.50$ ALL RCA AM, FM, TV INSTRUMENTS AVAILABLE FROM B-A: Space does not permit of detailed, illustrated listing of the many RCA instruments avail able. Please write for special wastrared and you!

SIMPSON 390 VOLT-AMP-WATT METER Provides facilities for AC Voltage, Current, Wattage measurement- 8 ranges are: AC Volts, 0 , 150,$300 ;$ AC amps. Enables voltage and current use tests of practically all makes of Appliances, Radio Sets, Television Sets, Refrigerators, Small Motors! Recess etched panel has VoltAmpere combinations clearly indexed to the proper watt age range on meter scale. $3^{\prime \prime}$ meter has all ranges of the and error-proof meter readings! Meter normally easy Volts; panel push-button for Ampere and Watts readings. With break-in plug, test leads, manual. Size Weight, 2 lbs
No. 35B20. Simpson Model 390. Net.... S38.71

"Hickok" Mode! 900-A Volt-Ampere-Wattmeter. AC circuit analyzer: Reads AC Watts $0,20,100,500,1000,2000$; AC Amps. $0,1.3$,
Volts 0, 130, 260 ; AC Milliamps $0-260$. $33 / 4$ Meter scale. No. 35A41. "Hickok" Model 900-A Appliance Tester. Net Each S59.07
POPULAR SIMPSON 260 V.O.M.A. High sensitivity (20,000 0.0.v. DC volts; 1,000 o.p. vides $A C$ and $D C$ volts ranges of $0,2.5,10,50,250$, 1000,5000 volts; $A C$ output volts ranges of $0,2.5$ Microamps, 0, 10, 100,500 M.A. $0-10$ Amps , 5 DB ranges from 12 to 55 db .; Ohms, 0, 2000, 200,000 with center scales of 12 and 1200 ohms; Megohms, 0-20 Wependable resistance readings $1 / 5$ this high range! Dependable resistance readings $1 / 5$-ohm to 20 -Meg. ment for each resistor, permits short, direct connections! $5^{\text {ri }}$ Meter has extra clear markings-all ranges! $31 / 8^{\prime \prime}$. Weight, 5 lbs. Model 260. Net. . $5 \% .17$
No. 35460 . Simpson Mo


Simpson Model 260 in ROLL TOP SAFETY CASE. Heavy molded bakelite case way at a touch! Complete with test leads. Weight, 9 Jbs. No. 35A98, 25,000 -VOLT DC PROBE. Increases DC volts
range to 25,000 on any Simpson Model 260 instrument. Each

## "EICO" V.T. VOLTMETER KIT

 If's easy to build your own Model 221 Electronic AC/DCVoltmeter-Ohm-Megohm meter with this kit and SAVE lot of money ${ }^{-1}$ lo accuracy of $2 \%$ ! Ranges: $0,5,10,100,500,1000 \mathrm{AC}$ and C voits by Electronic measurement! Electronic Ohmmeter
 -20 to +55 db . Steel case is $91 / 2 \times 6 \times 5^{\prime \prime}$. Weight, 10 lbs . $110 / 125$-volt, 60 -cycle AC . All parts, photo-diagram, in-


SUPERIOR MODEL TV-20 20,000 O.P.V. MULTI-METER, TELEVISION KILO-VOLTMETERI Includes all accessories, facilities for
AM FM or
an service!
9 Ranges: $0,2.5,10,50,100,250,500$.
1008 5000, 50,000 DC Volts at 20,000 ohms-ser-volt! $A C$ Volts Ranges: 0 .
$2.5,10,50,100,250,500,1000,5000$ AC Voils at 1,000 o.p.v., Output AC
 20 Megohms! 7 DB panges, 4 to 62 db. sisfance: $0,2000,20,000$ ohms, 0, 2, 20 Megohms! 7 DB ranges, 4 to 62 db . Allicon VHF diode probe, test leads, and instructions. Oak case is $41 / 2 x$ $101 / 4 \times 111 / 2^{\prime \prime}$. Weight, 10 lbs. No. 35C2. "Superior" Model TV-20 Kilo-Voltmeter-Ohm-M.A
. $\$ 39.95$

# (@A) RECEIVING TUBES 

GUARANTEED BRAND NEW AND PERFECT
RECEIVING TUBES MAY BE ASSORTED FOR QUANTITY PRICE

| Tube <br> Type | List Each | $\begin{aligned} & \text { Net } \\ & 1.49 \end{aligned}$ | $\begin{gathered} \text { Net } \\ 50.99 \end{gathered}$ | 100 of Over | Tube <br> Type | List Each | $\begin{aligned} & \text { Net } \\ & 1-49 \end{aligned}$ | $\begin{gathered} \text { Net } \\ 50.99 \end{gathered}$ | 100 or Over | Tube <br> Type | List Each | Net $1.49$ | $\begin{gathered} \text { Nef } \\ 50.99 \end{gathered}$ | 100 ar Over | Tube Type | List Each | $\begin{aligned} & \text { Net } \\ & 1-49 \end{aligned}$ | $\begin{gathered} \text { Net } \\ 50-99 \end{gathered}$ | 100 op Over |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OY4 | \$4.80 | \$2.54 | \$2.35 | \$2.23 | GAK5 | \$3.90 | \$2.06 | \$1.91 | \$1.82 | 6527 | \$2.20 | \$1.16 | \$1.08 | \$1.02 | 14A7/12B7 | \$2.20 | \$1.16 | \$1.08 | \$1.02 |
| O24* | 1.65 | . 87 | . 81 | . 77 | 6AK6 | 2.40 | 1.27 | 1.18 | 1.12 | 6T7C/626C | 3.20 | 1.69 | 1.57 | 1.50 | 14AF7/XXD | 2.20 | 1.16 | 1.08 | 1.02 |
| 0246 | 1.65 | . 87 | . 81 | . 77 | 6AL5 | 2.00 | 1.06 | . 98 | . 93 | 6 T8 | 2.65 | 1.40 | 1.30 | 1.23 | 1486 | 2.20 | 1.16 | 1.08 | 1.02 |
| 143 | 2.20 | 1.16 | 1.08 | 1.02 | 6AL7CT | 2.65 | 1.40 | 1.30 | 1.23 | 6U5/6C5 | 2.00 | 1.06 | . 98 | . 93 | 1488 | 2.20 | 1.16 | 1.08 | 1.02 |
| 144 P | 3.90 | 2.06 | 1.91 | 1.82 | 6AQ5 | 2.00 | 1.06 | . 98 | . 93 | 6U6GT* | 2.00 | 1.06 | . 98 | . 93 | 14.85 | 2.20 | 1.16 | 1.08 | 1.02 |
| 1 A5GT | 1.80 | . 95 | . 88 | . 84 | 6AQ6 | 1.80 | . 95 | . 88 | . 84 | 6U7C | 1.80 | . 95 | . 88 | . 84 | $14 \mathrm{C7}$ | 2.20 | 1.16 | 1.08 | 1.02 |
| 1A7CT | 2.00 | 1.06 | 98 | 93 | 6AQ7CT | 2.20 | 1.16 | 1.08 | 1.02 | 6V6 | 3.20 | 1.69 | 1.57 | 1.50 | $14 E 6$ | 1.80 | . 95 | 88 | . 84 |
| 1B3CT/8016 | 3.20 | 1.69 | 1.57 | 1.50 | 6AR5 | 1.65 | . 87 | . 81 | . 77 | 6V6CT | 2.00 | 1.06 | . 98 | . 93 | 1457 | 2.20 | 1.16 | 1.08 | 1.02 |
| $1 \mathrm{B4P}$ | 3.90 | 2.06 | 1.91 | 1.82 | 6at6 | 1.50 | . 79 | . 74 | . 70 | 6W4CT | 1.80 | . 95 | . 88 | . 84 | $14 F 8$ | 2.65 | 1.40 | 1.30 | 1.23 |
| 1B5/25S | 3.20 | 1.69 | 1.57 | 1.50 | 6AU6 | 2.00 | 1.06 | . 98 | . 93 | $6 \times 4$ | 1.50 | . 79 | . 74 | . 70 | 14H7 | 2.20 | 1.16 | 1.08 | 1.02 |
| 187CT | 3.20 | 1.69 | 1.57 | 1.50 | 6AV6 | 1.50 | . 79 | . 74 | . 70 | $6 \times 5$ | 2.65 | 1.40 | 1.30 | 1.23 | $14 \mathrm{N7}$ | 2.65 | 1.40 | 1.30 | 1.23 |
| 1 CSCT | 2.20 | 1.16 | 1.08 | 1.02 | 6B4C | 3.20 | 1.69 | 1.57 | 1.50 | 6×5CT | 1.50 | . 79 | . 74 | . 70 | 14 Q 7 | 2.20 | 1.16 | 1.08 | 1.02 |
| 1C7C | 3.20 | 1.69 | 1.57 | 1.50 | 6B5 | 3.20 | 1.69 | 1.57 | 1.50 | 6Y66 | 2.40 | 1.27 | 1.18 | 1.12 | $14 \mathrm{R7}$ | 2.20 | 1.16 | 1.08 | 1.02 |
| 1 DSCP | 3.90 | 2.06 | 1.91 | 1.82 | 6B6C | 2.20 | 1.16 | 1.08 | 1.02 | 627C | 3.90 | 2.06 | 1.91 | 1.82 | 19 | 3.20 | 1.69 | 1.57 | 1.50 |
| 1 D7C | 3.20 | 1.69 | 1.57 | 1.50 | 687 | 3.20 | 1.69 | 1.57 | 1.50 | 6ZY5C | 2.20 | 1.16 | 1.08 | 1.02 | $19 J 6$ | 3.20 | 1.69 | 1.57 | 1.50 |
| 1 D8CT | 3.90 | 2.06 | 1.91 | 1.82 | 6B8 | 3.20 | 1.69 | 1.57 | 1.50 | 7A4/XXL | 1.80 | . 95 | . 88 | . 84 | 198C6C* | 6.00 | 3.17 | 2.94 | 2.79 |
| $1 E 5 C P$ | 3.90 | 2.06 | 1.91 | 1.82 | 6B8C | 3.20 | 1.69 | 1.57 | 1.50 | 7 A 5 | 1.80 | . 95 | . 88 | . 84 | $19 \mathrm{T8}$ | 2.65 | 1.40 | 1.30 | 1.23 |
| 1 F 4 | 2.65 | 1.40 | 1.30 | 1.23 | 6BA6 | 1.80 | . 95 | . 88 | . 84 | 7A6 | 1.80 | . 95 | . 88 | . 84 | 24A | 2.20 | 1.16 | 1.08 | 1.02 |
| 1F5C | 2.65 | 1.40 | 1.30 | 1.23 | 6BA7* | 2.40 | 1.27 | 1.18 | 1.12 | 7 A7 | 1.80 | -. 95 | . 88 | . 84 | $25 A 6$ | 3.20 | 1.69 | 1.57 | 1.50 |
| $1 F 6$ | 3.90 | 2.06 | 1.91 | 1.82 | 6BE6 | 1.80 | . 95 | . 88 | . 84 | 748 | 1.80 | . 95 | . 88 | . 84 | 25A7CT* | 7.40 | 3.91 | 3.62 | 3.44 |
| 1 F7C | 3.90 | 2.06 | 1.91 | 1.82 | 6BF6 | 1.65 | . 87 | . 81 | . 77 | $74 F 7$ | 1.80 | . 95 | . 88 | . 84 | 25AC5CT* | 2.90 | 1.53 | 1.42 | 1.35 |
| 1C4CT | 2.65 | 1.40 | 1.30 | 1.23 | 6BC6C | 4.80 | 2.54 | 2.35 | 2.23 | $7 \mathrm{AC7}$ | 2.20 | 1.16 | 1.08 | 1.02 | 25B8GT* | 3.90 | 2.06 | 1.91 | 1.82 |
| $1 \mathrm{C6CT}$ | 2.65 | 1.40 | 1.30 | 1.23 | 6BH6 | 2.00 | 1.06 | . 98 | . 93 | 784 | 1.80 | . 95 | :88 | . 84 | 25BQ6CT | 3.20 | 1.69 | 1.57 | 1.50 |
| IH4C | 2.20 | 1.16 | 1.08 | 1.02 | 6BJ6 | 2.00 | 1.06 | . 98 | . 93 | 785 | 1.80 | . 95 | . 88 | . 84 | 25C6C | 2.90 | 1.53 | 1.42 | 1.35 |
| 1HSCT | 1.65 | . 87 | . 81 | 77 | 6BQ6CT | 3.00 | 1.69 | 1.57 | 1.50 | 786 | 1.80 | . 95 | . 88 | . 84 | $25 \mathrm{L6}$ | 3.20 | 1.69 | 1.57 | 1.50 |
| 1 H6C | 3.20 | 1.69 | 1.57 | 1.50 | 6C4 | 1.65 | . 87 | . 81 | . 77 | 787 | 1.80 | . 95 | . 88 | -. 84 | 25L6CT | 1.65 | . 87 | . 81 | . 77 |
| 116CT | 3.20 | 1.69 | 1.57 | 1.50 | 6C5 | 1.65 | . 87 | . 81 | . 77 | 788 | 1.80 | . 95 | . 88 | . 84 | 25W4GT | 2.00 | 1.06 | . 98 | . 93 |
| 114 | 2.00 | 1.06 | . 98 | . 93 | 6C5GT | 1.65 | . 87 | . 81 | . 77 | $7 \mathrm{C5}$ | 1.80 | . 95 | . 88 | . 84 | 25Y5* | 2.90 | 1.53 | 1.42 | 1.35 |
| 1 LA 4 | 2.65 | 1.40 | 1.30 | 1.23 | $6 \mathrm{C6}$ | 2.00 | 1.06 | . 98 | . 93 | 7 76 | 1.80 | . 95 | . 88 | . 84 | 2525 | 1.50 | . 79 | . 74 | . 70 |
| ILA6 | 2.65 | 1.40 | 1.30 | 1.23 | 6C8C | 3.20 | 1.69 | 1.57 | 1.50 | $7 \mathrm{C7}$ | 1.80 | . 95 | . 88 | . 84 | 2526CT | 1.35 | . 71 | . 66 | . 63 |
| 1LB4 | 2.65 | 1.40 | 1.30 | 1.23 | 6D6 | 1.65 | . 87 | . 81 | . 77 | 7 ES | 2.65 | 1.40 | 1.30 | 1.23 | 26 | 1.80 | . 95 | . 88 | . 84 |
| 1LC5 | 2.65 | 1.40 | 1.30 | 1.23 | 6D8C | 3.20 | 1.69 | 1.57 | 1.50 | $7 \mathrm{E6}$ | 1.80 | .95, | . 88 | . 84 | 27 | 1.50 | . 79 | . 74 | . 70 |
| ILC6 | 2.65 | 1.40 | 1.30 | 1.23 | $6 E 5$ | 2.20 | 1.16 | 1.08 | 1.02 | $7 \mathrm{F7}$ | 2.20 | 1.16 | 1.08 | 1.02 | 30 | 2.00 | 1.06 | . 98 | 93 |
| 1205 | 2.65 | 1.40 | 1.30 | 1.23 | $6 F 5$ | 1.65 | . 87 | . 81 | . 77 | $7 \mathrm{F7}$ | 2.20 | 1.16 | 1.08 | 1.02 | 31 | 2.65 | 1.40 | 1.30 | 1.23 |
| $1 \mathrm{LE3}$ | 2.65 | 1.40 | 1.30 | 1.23 | 6F5GT | 1.65 | . 87 | . 81 | . 77 | 7 F 8 | 2.65 | 1.40 | 1.30 | 1.23 | 32 | 3.20 | 1.69 | 1.57 | 1.50 |
| $1 \mathrm{LC5}$ | 2.65 | 1.40 | 1.30 | 1.23 | 6F6 | 2.00 | 1.06 | . 98 | . 93 | 767/1232 | 2.65 | 1.40 | 1.30 | 1.23 | 32LTGT | 3.20 | 1.69 | 1.57 | 1.50 |
| 1LH4 | 2.65 | 1.40 | 1.30 | 1.23 | 6F6C | 1.65 | . 87 | . 81 | . 77 | 7H7 | 2.00 | 1.06 | . 98 | . 93 | 33 | 3.20 | 1.69 | 1.57 | 1.50 |
| ILNS | 2.65 | 1.40 | 1.30 | 1.23 | 6F6CT | 1.65 | . 87 | . 81 | . 77 | 717 | 2.65 | 1.40 | 1.30 | 1.23 | 34 | 3.20 | 1.69 | 1.57 | 1.50 |
| INSCT | 2.00 | 1.06 | . 98 | . 93 | $6 \mathrm{F7}$ | 3.20 | 1.69 | 1.57 | 1.50 | 7K7 | 2.65 | 1.40 | 1.30 | 1.23 | 35/51 | 2.00 | 1.06 | . 98 | . 93 |
| 1 P5CT | 2.65 | 1.40 | 1.30 | 1.23 | 6F8C | 3.20 | 1.69 | 1.57 | 1.50 | 7N7 | 2.20 | 1.16 | 1.08 | 1.02 | 3545 | 1.80 | . 95 | . 88 | . 84 |
| 105GT | 2.65 | 1.40 | 1.30 | 1.23 | 6G6C | 2.65 | 1.40 | 1.30 | 1.23 | 707 | 1.80 | . 95 | . 88 | . 84 | 35B5 | 2.00 | 1.06 | . 98 | . 93 |
| 1R4/1294* | 2.65 | 1.40 | 1.30 | 1.23 | 6H6 | 1.65 | . 87 | . 81 | . 77 | 7R7 | 2.20 | 1.16 | 1.08 | 1.02 | 35C5 | 2.00 | 1.06 | . 98 | . 93 |
| 1R5 | 2.00 | 1.06 | . 98 | . 93 | 6H6CT | 1.65 | . 87 | . 81 | . 77 | 757 | 2.65 | 1.40 | 1.30 | 1.23 | 35L6CT | 1.65 | . 87 | . 81 | . 77 |
| 154 | 2.40 | 1.27 | 1.18 | 1.12 | 615 | 1.50 | . 79 | . 74 | . 70 | $7 \times 7$ | 2.65 | 1.40 | 1.30 | 1.23 | 35W4 | 1.25 | . 66 | . 61 | . 58 |
| 155 | 1.80 | . 95 | . 88 | . 84 | 6J5CT | 1.50 | . 79 | . 74 | . 70 | 7W7 | 2.65 | 1.40 | 1.30 | 1.23 | 35 Y 4 | 1.80 | . 95 | . 88 | . 84 |
| 174 | 2.00 | 1.06 | . 98 | . 93 | $6 J 6$ | 2.90 | 1.53 | 1.42 | 1.35 | 7 $\times 7 / \mathrm{XXFM}$ | 2.65 | 1.40 | 1.30 | 1.23 | 3523 | 1.80 | . 95 | . 88 | . 84 |
| 1TSCT | 2.65 | 1.40 | 1.30 | 1.23 | 617 | 2.00 | 1.06 | . 98 | . 93 | $7 Y 4$ | 1.80 | . 95 | . 83 | . 84 | 3524GT | 1.50 | . 79 | . 74 | . 70 |
| 104 | 2.00 | 1.06 | . 98 | . 93 | 6J7CT | 2.00 | 1.06 | . 98 | . 93 | 724 | 1.80 | . 95 | . 88 | . 84 | 3525CT | 1.25 | . 66 | . 61 | . 58 |
| 105 | 1.80 | . 95 | . 88 | . 84 | 6J8C | 3.20 | 1.69 | 1.57 | 1.50 | 10 | 3.90 | 2.06 | 1.91 | 1.82 | 3526G* | 1.80 | . 95 | . 88 | . 84 |
| 1v | 2.20 | 1.16 | 1.08 | 1.02 | 6K5CT | 2.40 | 1.27 | 1.18 | 1.12 | 1246 | 2.40 | 1.27 | 1.18 | 1.12 | 36 | 2.65 | 1.40 | 1.30 | 1.23 |
| $1 \times 2$ | 2.90 | 1.53 | 1.42 | 1.35 | 6K6CT | 1.50 | . 79 | . 74 | . 70 | 1247 | 3.20 | 1.69 | 1.57 | 1.50 | 37 | 1.80 | . 95 | . 88 | . 84 |
| 243 | 3.20 | 1.69 | 1.57 | 1.50 | 6K7 | 1.65 | . 87 | . 81 | . 77 | 1248 CT | 2.00 | 1.06 | . 98 | . 93 | 38 | 2.20 | 1.16 | 1.08 | 1.02 |
| 2A4C | 3.20 | 1.69 | 1.57 | 1.50 | 6K7CT | 1.65 | . 87 | . 81 | . 77 | 12AH7CT | 2.65 | 1.40 | 1.30 | 1.23 | 39/44 | 2.65 | 1.40 | 1.30 | 1.23 |
| 245 | 2.20 | 1.16 | 1.08 | 1.02 | 6K8 | 2.40 | 1.27 | 1.18 | 1.12 | $12 A L 5$ | 2.00 | 1.06 | . 98 | . 93 | 41 | 1.65 | . 87 | . 81 | . 77 |
| $2 A 6$ | 2.65 | 1.40 | 1.30 | 1.23 | 6K8CT ${ }^{\circ}$ | 2.40 | 1.27 | 1.18 | 1.12 | 12 AT6 | 1.50 | . 79 | . 74 | . 70 | 42 | 1.65 | . 87 | . 81 | . 77 |
| 247 | 2.65 | 1.40 | 1.30 | 1.23 | 6L5C | 2.65 | 1.40 | 1.30 | 1.23 | $12 A T 7$ | 2.65 | 1.40 | 1.30 | 1.23 | 43 | 1.65 | . 87 | . 81 | . 77 |
| 287 | 2.65 | 1.40 | 1.30 | 1.23 | $6 \mathrm{L6}$ | 3.55 | 1.88 | 1.74 | 1.65 | $12 A \cup 6$ | 2.00 | 1.06 | . 98 | . 93 | 45 | 1.65 | . 87 | . 81 | . 77 |
| $2 E 5$ | 2.65 | 1.40 | 1.30 | 1.23 | 6L6C | 2.90 | 1.53 | 1.42 | 1.35 | 12 AU7 | 2.40 | 1.27 | 1.18 | 1.12 | 4523 | 1.80 | . 95 | . 88 | . 84 |
| 3A8CT | 4.80 | 2.54 | 2.35 | 2.23 | 6L6CA ${ }^{\text {a }}$ | 2.90 | 1.53 | 1.42 | 1.35 | 12AV6. | 1.50 | . 79 | . 74 | . 70 | 4525 CT | 1.80 | . 95 | . 88 | 84 |
| 387/1291* | 2.65 | 1.40 | 1.30 | 1.23 | 6 LT | 2.40 | 1.27 | 1.18 | 1.12 | I2AW6 | 2.65 | 1.40 | 1.30 | 1.23 | 46 | 2.65 | 1.40 | 1.30 | 1.23 |
| $3 \mathrm{C} / \mathrm{XXB}$ \$ | 3.20 | 1.69 | 1.57 | 1.50 | 6L7C | 2.90 | 1.53 | 1.42 | 1.35 | $12 \mathrm{AX7}$ | 2.40 | 1.27 | 1.18 | 1.12 | 47 | 2.40 | 1.27 | 1.18 | 1.12 |
| 306/1299* | 2.65 | 1.40 | 1.30 | 1.23 | 6N6C | 3.90 | 2.06 | 1.91 | 1.82 | $124 Y 7$ | 6.00 | 3.17 | 2.94 | 2.79 | 50 | 3.90 | 2.06 | 1.91 | 1.82 |
| 3E6 ${ }^{\text {² }}$ | 2.65 | 1.40 | 1.30 | 1.23 | 6N7 | 2.40 | 1.27 | 1.18 | 1.12 | 12BA6 | 1.80 | . 95 | . 88 | . 84 | 5045 | 2.20 | 1.16 | 1.08 | 1.02 |
| 3LF4 | 2.65 | 1.40 | 1.30 | 1.23 | 6N7CT | 2.40 | 1.27 | 1.18 | 1.12 | $12 \mathrm{BA7}$ | 2.40 | 1.27 | 1.18 | 1.12 | 50B5 | 2.00 | 1.06 | . 98 | . 93 |
| 304 | 2.20 | 1.16 | 1.08 | 1.02 | 6P5CT | 2.40 | 1.27 | 1.18 | 1.12 | 12BD6* | 2.00 | 1.06 | . 98 | . 93 | $50 \mathrm{C5}$ | 2.00 | 1.06 | . 98 | . 93 |
| 3Q5GT | 2.40 | 1.27 | 1.18 | 1.12 | 607 | 2.00 | 1.06 | . 98 | . 93 | 12BE6 | 1.80 | . 95 | . 88 | . 84 | 50L6CT | 1.65 | . 87 | . 81 | . 77 |
| 354 | 2.00 | 1.06 | . 98 | . 93 | 6276 | 1.80 | . 95 | . 88 | . 84 | 12BF6 | 1.65 | . 87 | . 81 | . 77 | $50 \times 6$ | 2.20 | 1.16 | 1.08 | 1.02 |
| 3 V 4 | 2.00 | 1.06 | . 98 | . 93 | 6Q7CT | 1.80 | . 95 | . 88 | . 84 | $12 \mathrm{C8}$ | 3.20 | 1.69 | 1.57 | 1.50 | 50Y6CT | 1.80 | . 95 | . 88 | . 84 |
| 5 AZ4 | 1.35 | -. 71 | . 66 | . 63 | 6R7 | 2.65 | 1.40 | 1.30 | 1.23 | 12F5CT | 1.80 | . 95 | . 88 | . 84 | 53 | 2.65 | 1.40 | 1.30 | 1.23 |
| 574 | 3.90 | 2.06 | 1.91 | 1.82 | 6R7CT | 2.65 | 1.40 | 1.30 | 1.23 | $12 \mathrm{H6}$ | 1.80 | . 95 | . 88 | . 84 | 55 | 2.20 | 1.16 | 1.08 | 1.02 |
| 5U4C | 1.50 | . 79 | . 74 | . 70 | 657 | 2.65 | 1.40 | 1.30 | 1.23 | 1215CT | 1.50 | . 79 | . 74 | . 70 | 56 | 1.80 | . 95 | . 88 | . 84 |
| 5V4C | 2.40 | 1.27 | 1.18 | 1.12 | 6S8CT | 2.65 | 1.40 | 1.30 | 1.23 | 12 JTGT | 2.00 | 1.06 | . 98 | . 93 | 57 | 2.00 | 1.06 | . 98 | . 93 |
| 5W4 | 2.65 | 1.40 | 1.30 | 1.23 | 6SAT | 1.65 | . 87 | . 81 | . 77 | 12K7CT | 1.65 | . 87 | . 81 | .77 | 58 | 2.00 | 1.06 | . 98 | . 93 |
| 5W4CT* | 1.65 | . 87 | . 81 | . 77 | 6SA7CT | 1.65 | . 87 | . 81 | . 77 | 12 K 8 | 2.40 | 1.27 | 1.18 | 1.12 | 59 | 3.55 | 1.88 | 1.74 | 1.65 |
| $5 \times 46$ | 1.80 | . 95 | . 88 | . 84 | 6SB7-Y | 2.40 | 1.27 | 1.18 | 1.12 | 1207 CT | 1.80 | . 95 | . 88 | . 84 | 70LTCT | 3.90 | 2.06 | 1.91 | 1.82 |
| $5 Y 3 C T$ | 1.05 | . 56 | . 51 | . 48 | 6SC7 | 2.00 | 1.06 | . 98 | . 93 | 1258GT ${ }^{\text {b }}$ | 2.65 | 1.40 | 1.30 | 1.23 | 714 | 2.00 | 1.06 | . 98 | . 93 |
| 5Y4CT | 1.50 | . 79 | . 74 | . 70 | 6SD7CT* | 2.90 | 1.53 | 1.42 | 1.35 | 12547 | 1.65 | . 87 | . 81 | . 77 | 75 | 1.65 | . 87 | . 81 | . 77 |
| 523 | 1.80 | . 95 | . 88 | . 84 | 6SF5 | 1.65 | . 87 | . 81 | . 77 | 125A7CT | 1.65 | . 87 | . 81 | . 77 | 76 | 1.65 | . 87 | . 81 | . 77 |
| 524 | 2.65 | 1.40 | 1.30 | 1.23 | 6SF5GT | 1.80 | . 95 | . 88 | . 84 | $125 C 7$ | 2.20 | 1.16 | 1.08 | 8.02 | 77 | 1.65 | . 87 | . 81 | . 77 |
| 6 63 | 3.20 | 1.69 | 1.57 | 1.50 | 6SF7 | 2.00 | 1.06 | . 98 | . 93 | 12 SF 5 | 1.80 | . 95 | . 88 | . 84 | 78 | 1.65 | . 87 | . 81 | . 77 |
| 6A5C* | 3.90 | 2.06 | 1.91 | 3.82 | 6SC7 | 2.00 | 1.06 | . 98 | . 93 | 12587 | 2.00 | 1.06 | . 98 | . 93 | 79 | 2.65 | 1.40 | 1.30 | 1.23 |
| 6 66 | 2.65 | 1.40 | 1.30 | 1.23 | 6SH7 | 2.20 | 1.16 | 1.08 | 1.02 | 12567 | 2.00 | 1.06 | . 98 | . 93 | 80 | 1.15 | . 61 | . 56 | . 54 |
| 647 | 2.00 | 1.06 | . 98 | . 93 | 6517 | 1.65 | . 87 | . 81 | . 77 | 12547 | 2.20 | 1.16 | 1.08 | 1.02 | 81 | 3.90 | 2.06 | 1.91 | 1.82 |
| 6A8 | 2.00 | 1.06 | . 98 | . 93 | 6S37CT | 1.65 | . 87 | . 81 | . 77 | 125.17 | 1.65 | . 87 | . 81 | . 77 | 82 | 2.65 | 1.40 | 1.30 | 1.23 |
| 6A8CT | 2.00 | 1.06 | . 98 | . 93 | 6SK7 | 1.65 | . 87 | . 81 | . 77 | 125J7CT | 1.65 | . 87 | . 81 | . 77 | 83 | 2.65 | 1.40 | 1.30 | 1.23 |
| 6AB4* | 2.00 | 1.06 | . 98 | . 93 | 6SK7CT | 1.65 | . 87 | . 81 | . 77 | $125 K 7$ | 1.65 | . 87 | . 81 | . 77 | 83 V | 3.20 | 1.69 | 1.57 | 1.50 |
| 6AB5/6N5 | 2.65 | 1.40 | 1.30 | 1.23 | 6SL7CT | 2.40 | 1.27 | 1.18 | 1.12 | 12SK7CT | 1.65 | . 87 | . 81 | . 77 | 84/624 | 1.80 | . 95 | . 88 | . 84 |
| 6AB7/1853 | 3.20 | 1.69 | 1.57 | 1.50 | 6SN7CT | 2.20 | 1.16 | 1.08 | 1.02 | $125 L 7 C T$ | 2.40 | 1.27 | 1.18 | 1.12 | 85 | 2.20 | 1.16 | 1.08 | 1.02 |
| 6AC5CT | 2.90 | 1.53 | 1.42 | 1.35 | 6507 | 1.50 | . 79 | . 74 | . 70 | 12SN7CT | 2.20 | 1.16 | 1.08 | 1.02 | 89 | 2.20 | 1.16 | 1.08 | 1.02 |
| 6AC7/1852 | 2.90 | 1.53 | 1.42 | 1.35 | 6SQ7CT | 1.50 | . 79 | . 74 | . 70 | 12507 | 1.50 | . 79 | . 74 | . 70 | 117L7/M7CT | 3.90 | 2.06 | 1.91 | 1.82 |
| 6AD7C | 3.20 | 1.69 | 1.57 | 1.50 | 6SR7 | 1.80 | . 95 | . 88 | . 84 | 12507CT | 1.50 | 79 | . 74 | . 70 | 117N7CT | 3.90 | 2.06 | 1.91 | 1.82 |
| GAE6C | 1.80 | . 95 | . 88 | . 84 | 6557 | 1.80 | . 95 | . 88 | . 84 | $125 R 7$ | 2.20 | 1.16 | 1.08 | 1.02 | 117P7CT | 3.90 | 2.06 | 1.91 | 1.82 |
| 6AF6C | 2.65 | 1.40 | 1.30 | 1.23 | 6ST7 | 2.65 | 1.40 | 1.30 | 1.23 | 1223 | 2.65 | 1.40 | 1.30 | 1.23 | 11723 | 1.50 | . 79 | . 74 | . 70 |
| 6 AC5 | 2.65 | 1.40 | 1.30 | 1.23 | 6SV7* | 2.90 | 1.53 | 1.42 | 1.35 | 1445 | 3.90 | 2.06 | 1.91 | 1.82 | 11724CT | 2.90 | 1.53 | 1.42 | 1.35 |
| 6AC7 ${ }_{\text {6AH6\% }}{ }^{\text {\% }}$ | 3.20 3.90 | 1.69 | 1.57 | 1.50 1.82 | *:- | MA | Y | CA". | RAY | EON SUP | D | TH | TY |  | $11726 C T$ FM-1000** | 2.40 3.20 | 1.27 1.69 | 1.18 | 1.12 1.50 |




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| 208635 | 1612 | 3.00 |
| 21442 | 1614 | 2.05 |
| 21850 | 1620 | 6.60 |
| 21851 | 1621 | 2.15 |
| 21852 | 1622 | 2.30 |
| 204759 | 1624 | 4.00 |
| 204760 | 1625 | 2.65 |
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| 20B 770 | 1629 | 1.40 |
| 20B 771 | 1631 | 2.50 |
| 208772 | 1633 | 1.95 |
| $20 B 788$ | 1635 | 2.15 |
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| 504124 | 1851 | 3.10 |
| 204743 | 2050 | 1.85 |
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| 324247 | 8000 | 14.50 |
| 204629 | 8005 | 7.40 |
| 208646 | 8008 | 8.20 |
| 204726 | 9001 | 3.10 |
| 204727 | 9002 | 2.50 |
| 204849 | 9003 | 3.10 |
| 204850 | 9004 | 2.30 |
| 204730 | 9005 | 3.45 |
| 20A731 | 9006 | 1.60 |


| $20 A 775$ | 2APIA | $\$ 10.55$ |
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| $20 A 776$ | 3APIA | 14.25 |
| $36 A 97$ | SBPIA | 22.50 |
| $50 A 168$ | $5 C P 7 A$ | 27.25 |
| $50 A 173$ | 5UP1 | 17.75 |
| $32 A 237$ | $902 A$ | 12.50 |

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|  | 20A700 | OA2 |
| :--- | :--- | ---: |
| $20 A 71$ | $0 A 3 / V R 75$ | $\$ 1.69$ |
| $20 A 732$ | $0 A 4 C$ | 1.40 |
| $20 A 151$ | 082 | 1.40 |
| 208712 | $083 / V R 90$ | 1.88 |
| $20 A 702$ | $0 C 3 / V R 105$ | 1.40 |
| $20 A 703$ | $003 / V R 150$ | 1.40 |
| $20 A 740$ | 874 | 3.10 |
| $20 A 630$ | 991 | .75 |


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| 204636 | 918 | 3.10 |
| 21854 | 919 | 3.50 |
| 204705 | 921 | 2.95 |
| 204706 | 923 | 2.05 |
| 208739 | 925 | 2.40 |
|  | 926 | 2.90 |
| 204707 | 927 | 2.50 |
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SUB MINIATURE TYPES
For pocket size radio receivers and transmitters. Features small flat construction with flexible leads to solder direct into circuit, or leads can be cut to $.20^{\prime \prime}$ length to fit co-plannar miniature sockets. Bulb size, $19 / 16^{\prime \prime}$ miniature sockets. Bulb size,
long, $0.3^{\prime \prime}$ thick, $0.4^{\prime \prime}$ wide.
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20 A1 402 E31/32 RF Pent.
204140 2E31/32 RF Pent. $\$ 1.40$
$20 A 1412$ E35/36 Output Pent $\$ 10$
$20 A 1412$ E35/36 Output Pent
$20 A 1422 E 41 / 42$ Diode Pent.
$20 A 142$ EE41/42 Diode Pent.
$20 A 143$ 2G21/22 Triode Hept.
$20 A 143$ 2G21/22 Triode Hept.
$20 B 166$ CK551AXA Diode Pent.
$20 B 167$ CK553AXA RF Pent.
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208171 CK512AX Pentode
208172 CK518AX Pentode
208176 CK524AX Pentode
208177 CK525AX Pentode 20B178 CK526AX Pentode 208179 CK527AX Pentode 208180 CK528AX Pentode
1.88
1.88
1.88
1.88
3.16
1.88
1.88
1.88
3.15
2.38
3.15
3.15
1.88

RADIATION

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20A191
$20 A 191$
$20 A 192$
204192
$20 A 193$
204193
204538
204538
204539
204539
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2


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## UNIVERSAL POWER TRANSFORMERS

All Are Type "Mr" Mounting, Supplled With Universal Brackete. ALL FIL. WINDINGS C.T. - \#FIL. 3 ALSO TAPPED 2.5 V.

| Btock No. | Stancor No. | $\begin{gathered} \text { Plate } \\ \text { V. MA } \end{gathered}$ |  |  | $\mathrm{No}_{\mathrm{A}} \mathbf{1}$ | Fil. | $\begin{gathered} \text { No. }{ }^{2} . \end{gathered}$ |  | $\begin{aligned} & \text { Fil. No. }{ }^{3} \\ & \text { V. } \end{aligned}$ | Mtg. Area | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 A 83 | P-6001 | 650 | 40 | 5.0 | 2.0 | 2.5 | 4.0 |  |  | 2312x3 | \$3.53 |
| 13A B4 | P-6002 | 700 | 50 | 5.0 | 2.0 | 2.5 | 7.25 |  |  | 21/2x3 | 4.12 |
| 13A B6 | P-6005 | 700 | 70 | 5.0 | 3.0 | 2.5 | 0.0 |  | 2.5-C.T. 3.5 | $2 \mathrm{~Hz} 3 \% / 8$ | 4.56 |
| 13A 88 | P-8004 | 700 | 90 | 5.0 | 3.0 | 2.5 | 12.5 |  |  | 31783\% | 4.56 |
| 13A 89 | P-6007 | 800 | 110 | 5.0 | 3.0 | 2.5 | 15.0 |  | 2.6-C.T. 3.5 | 318538/4 | 6.03 |
| 13 B 40 | P-8348 | 480 | 60 |  |  |  |  |  | 8.3-C.T. 2.75 | $2{ }^{1} \times 2 \times 2$ | 3.50 |
| 13 A 90 | P-6289 | 420 | 40 | 5.0 | 2.0 | 6.3 | 2.0 |  |  | $21 / 23$ | 4.12 |
| 13A 91 | P-8297 | 480 | 40 | 5.0 | 2.0 | 6.3 | 2.0 |  |  | $21 / 2 \times 3$ | 3.97 |
| 13A 92 | P-6010 | 650 | 40 | 5.0 | 3.0 | 6.3 | 2.0 |  |  | 21/2x3 | 3.38 |
| 13A 93 | P-6119 | 600 | 55 | 5.0 | 2.0 | 6.3 | 2.7 |  |  | 21/2x 3 | 4.06 |
| 13A 94 | P-6120 | 630 | 70 | 5.0 | 3.0 | 6.3 | 3.5 |  |  | $2 \mathrm{H} 3 \% 6$ | 4.53 |
| 13 A 95 | P-6011 | 700 | 70 | 5.0 | 3.0 | 6.3 | 2.5 |  |  | 21/2x3 | 4.29 |
| 13A 96 | P-6312 | 580 | 90 | 5.0 | 3.0 | 6.3 | 2.8 |  |  | $3818 \times 2$ H | 4.94 |
| 13A 97 | P-6012 | 700 | 90 | 5.0 | 3.0 | 6.3 | 3.6 |  |  | $2 \mathrm{Hz3} \mathrm{\%}$ | 4.53 |
| 13A 98 | P-6013 | 700 | 120 | 5.0 | 3.0 | 6.3 | 4.7 |  |  | 31/683/6 | 6.03 |
| 13A 99 | P-6313 | 580 | 125 | 5.0 | 3.0 | 8.3 | 4.5 |  |  | 41/131 | 5.59 |
| 134100 | P-6014 | 750 | 150 | 5.0 | 3.0 | 6.3 | 5.0 |  |  | 31/83\% | 6.17 |
| 13 A101 | P-6165 | 800 | 200 | 5.0 | 4.0 | 6.3 | 8.5 |  |  | 310x43 | 7.38 |
| 13 A102 | P-6314 | 700 | 200 | 5.0 | 3.0 | 6.3 | 6.6 |  |  | 41393\% | 7.23 |
| 13A103 | P-8315 | 740 | 275 | 5.0 | 3.0 | 6.3 | 7.0 |  |  | 43/23\%/ | 9.41 |
| 13 A104 | P-6293 | 600 | 60 | 5.0 |  | 6.3 | 2.5 |  | 2-C.T. $\quad 7.5$ | $2 H \times 31$ | 4.85 |
| 13A108 | P. 6008 | 750 | 180 | 5.0 | 3. | 6.3 | 3 |  | 2.5-C.T. 6.0 | 3 $\times 1418$ | 6.85 |

## 6-VOLT VIBRATOR POWER TRANSFORMERS

*Also Has 117 -Volt AC Primary and 6.3-Volt C.T. 2.25-Amp. Secondary

| Stock No. | $\begin{gathered} \text { Stancor } \\ \text { No. } \end{gathered}$ | DC Volts M. A. |  | Type Mtg. |  | W. | $\mathrm{D} .$ | Yout <br> Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13A67 | P4061 | 250 | 50 | N | 31/ | $21 / 4$ | 296 | \$3.09 |
| 13469 | P4063 | 285 | 75 | N | 31 | 21 | 20 | 3.82 |
| 134206 | P6131 | 330 | 100 | N | $31 /$ | 21 | 23 | 4.12 |
| 13 A71 | P6166* | 320 | 135 | C | $48 / 2$ | 4 | $35 / 8$ | 7.44 |

## INPUT TRANSFORMERS

Carbon Microphone to Single Grid - tFor Push-Pull Grids


Single or Double Button MICROPHONE OR LINE TO SINGLE GRID


$$
\frac{\text { DOUBLE BUTTON MICROPHONE OR LINE TO LINE }}{\text { SUS }}
$$

13A5
$50,125,200$,
333,500
$533,125,500$
300
Q $\left.\right|^{2} \quad 31 / 616 \mid 3.29$

## INTERCOM. INPUT TRANSFORMER

Stancor No. A4744, V.C. to Sgl. Grid; Pri, 4; Sec. 25,000 ohms. Mrg. "VE"
 Stock No. 13AI. NET EACH.
51.44

TRANSCEIVER INPUT (Mike and Plate to Grid)
Stancor A3833. Pri. 200/5,000 ohms: sec. 60,000 ohms. 5 Watts Max Stock No. 13 Billo. Net Each
\$2.00

## INTERSTAGE TRANSFORMERS

SCL. PL. ( 7,000 to 15,000 ohms) TO P.P., CL. "A" GRIDS


OUTPUT TRANSFORMERS
\#ndicates Sec. to match 500/250/15/8/4 ohms. tHas winding for 10\%

| Stock No. | $\begin{aligned} & \text { Stancor } \\ & \text { No. } \end{aligned}$ | Pri: ${ }^{\text {Impedance }}$ | - SeO | Suggested Tubee | $\stackrel{\text { Pris }}{\text { Ma }}$ | Maz: Watts | $\begin{gathered} \mathrm{Mtg} \\ \hline \text { Fig. } \end{gathered}$ | $\begin{aligned} & \mathrm{Mt}_{1} \\ & \text { Area } \end{aligned}$ | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 198634 | A-3332 | 2000 | 3.2 | 25 |  |  |  |  |  |
| 138128 | A-3876 | 2000 | 4 | 25L6; 50L6 | 60 | 6 | A | 136 | 1.03 |
| 198828 | A-3328 | 4000 | 3.5 | 184, 3S4 | 10 | 3 | A |  | . 88 |
| 188829 | A-3329 | 8000 | 3.5 | 1C5; 1G6 |  |  |  |  |  |
|  |  |  |  | 105; 154; 384 | 10 | 3 | A | 23/1 | 85 |
| 138127 | A-3877 | 5000 | 4 | $6 \mathrm{6}, 7 \mathrm{Cb}, 25 \mathrm{~A} 5$ | 40 | 6 | A | 231816 | 1.09 |
| 13 A34 | A-3878 | 7000 | 4 | 42, 6F6, 785 | 30 | 5 | A | $231 \%$ | 1.08 |
| 138128 | A-3879 | 10000 | 4 | 1J6, 3C5, 6N7 | 30 | 5 | A | $2 \% 14$ | 1.09 |
| 138129 | A-3881 | 15000 | 4 | 1T5, 1F4 | 10 | 5 | A | $2 \% 16$ | 1.09 |
| 198630 | A-3301 | 3000 | - | PP2A3, 6A3 | 55 | 30 | C | 3.314 | 4.63 |
| 138130 | A-3802 | 3800/3300 C.T. | - | PP Par. 6L6-A | 250 | 75 | C | $431 / 5$ | 6.78 |
| 13 A39 | A-5528 | $4000 \mathrm{C} . \mathrm{T}$. | - | PPPY 6, 25L6 | ${ }^{65}$ | 8 | C | $28 / 621 / 4$ | 3.88 |
| 13 133 | A-3851 ${ }^{+}$ | 4400 C.T. | : | PP8L6-AB-1 | 70 | 30 | C | $\begin{array}{lll}3 & 31 / 8\end{array}$ | 5.23 |
| 13 A36 | A-3800 | 5000 C.T: |  | PP8L6-AB | 80 | 30 | C | 32 | 4.85 |
| 138131 | A-3307 | 6000 C.T: | - | PP6F6, PP42 | 100 | 30 | C | 319 | 4.94 |
| 138132 | A-3801 | 8600 C.T. |  | PP6L6-AB-1 |  |  |  |  |  |
| 138133 | A-3885 | 9000 C.T: | - | PPPL6-AB-1 | 150 | 35 | C | 31/ 336 | 8.41 |
| $13 A 38$ | A-3304 | 10M/7M C.T: | - | PP45; PP6V6 | ${ }^{80}$ | 25 | C | 25/85\% | 4.23 |
| $13 \mathrm{B2}$ | A-3311 | 10000 | - | PP6F6.6V6 | 70 | 25 | C | 3 31/8 | 4.41 |
| 13 A32 | A-3831 | 10M C.T: | 8/4/2 | PP30; 49 | 40 |  | A | $27 / 811 / 2$ | 1.59 |
| 13 A33 | A-2312 | 14M C.T. | 4 | PP42; 6F6; 7B5 | 40 | 10 |  | 31/613 | 1.85 |
| $13 A 37$ | A-3303 | 14M C.T: | * | PP42, 6F6, 7B5 | 55 | 20 | C | $23 / 625$ | 4.12 |
| 13 A31 | A-3857 | 25M C.T. | 4 | PP1F4, 1FS, 1 T5 | 10 |  | A | 2\%\%1910 | 1.32 |

## UNIVERSAL OUTPUT TRANSFORMERS

Secondaries tapped to match any voice coil. "Current Each sid

| $\begin{aligned} & \text { Stancor } \\ & \text { No. } \end{aligned}$ |  | Primary | LC | $\begin{array}{\|l\|l\|} \text { Audio } \\ \text { Watts } \end{array}$ | $\begin{aligned} & \text { Mtg. } \\ & \text { Fig. } \end{aligned}$ |  |  | D. | Cont |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 A19 | A3856 | Sgl.-P | 35 |  |  |  |  |  |  |
| 13A30 | A3822 | Sgl. $7 \mathrm{M} / 10 \mathrm{M} \mathrm{Pl}$. | 35 | 4 |  |  |  | 11 | 1.29 |
| $13 A 20$ | A3823 | SEl. PP 4M1/14M Pl. | 40 | 8 | 8 | 1\% | 23. |  | 1.62 |
| 13A21 | A3850 | Sgl. PP 4M / 14M PL. | 40 | 8 | 3 |  | 23 |  | 1.73 |
| $13 A 27$ | A3849 | Sgl. 1.5M/10M PL. | 65 | 10 | Q | 1\% | $27 /$ | 13 | 1.63 |
| $13 A 25$ | A2855 | PP $4 \mathrm{M} / 14 \mathrm{MPL}$. | *50 | 15 | L | $2 \times$ | 258 | 12 | 2.47 |
| 13422 | A3852 | ${ }^{\mathrm{P} P} 4 \mathrm{M} / 14 \mathrm{M} \mathrm{P1}$. | * 40 | 18 | J | $2{ }^{\text {\% }}$ | $27 /$ | 1 | 2.48 |
| 13423 | A3870 | ${ }^{\text {PP }} 4 \mathrm{4} / 14 \mathrm{M} \mathrm{P1}$. | * 50 | 18 | 9 | 2 |  |  | 2.20 |
| 13 A26 | A3830 | PP 3M/10M Pl. | * 60 | 20 | 3 | $2 H$ | 31. | 21/4 | 2.88 |

## TUBE TO LINE TRANSFORMER

Type A-3250. Matches single 20M, 10M or 5M ohm plate or push-pull 20M Mounting area $31 / 4 \times 13 / 4^{\circ \prime \prime}$. No. 198631. Net Each.................. $\$ 2.65$

## LINE TO VOICE COIL TRANSFORMER

Type A-3820. Max. audio watts, 40. Matches 2000, 1500, 1000, 500 ohm line to $15,8,4$ ohm speaker. Fig. D mounting. Size $35 / 8 \times 41 / 2 \times 45 / 16^{\prime \prime}$ high Weight, 5 lbs. No, 13B12. Nef Each. ................................. 85.85 CRYSTAL RECORDER OUTPUT TRANSFORMERS
No. 13A211. Type A3854. Single 7M ohm plate to 70M ohm crystal cutter and 4 ohm voice coil, 10 watts. Fig. A mtg. Net Each..........S2.79 cutter and 4 ohm voice coil, 10 watts. Fig. A mig. Net Each....... 53.23

## HIGH FIDELITY OUTPUT TRANSFORMERS

Suitable for the most exacting professional ongineer and enthusiast. Frequency response flat within 1.5 db . from 30 to $15,000 \mathrm{cps}$. with extremely low intermodulation distortion over the entire frequency range at any power leve W. Size, $39 / 16 \times 41 / 4 \times 45 / 16^{\prime \prime}$ high. Weight, $6.5 \mathrm{lbs}^{\text {lit. }}$.


## DRIVER TRANSFORMERS

SINGLE DRIVERS-Single Plate to Push-Pull Grids

| Stock No. | $\begin{aligned} & \text { Btancor } \\ & \text { No. } \end{aligned}$ | $\begin{aligned} & \text { Primary } \\ & \text { Imped. } \end{aligned}$ | $\begin{aligned} & \text { i. }-\frac{3 / 2}{2 / 2} \text { Sec. } \\ & \text { Ratio } \end{aligned}$ |  | $\begin{aligned} & \text { Mtg. } \end{aligned}$ |  | mensio | D. | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 A | A4722 | 10.000 | $2: 1$ | 30 | TD | 2 H |  |  | \$3.18 |
| 13 A14 | A4752 | 10.000 | 2/1.5/1: | 40 | A | 2 | 3 | 11/1 | 2.35 |
| $13 A 15$ | A4713 | 10.000 | 2:1 | 30 | A | 15 | 27 | 13 | 1.53 |
| 13 A17 | A4292 | 10,000 | 2.5:1 | 20 | A | 15 | 27 | 115 | 1.53 |
| $13 \mathrm{B111}$ | ${ }^{4} 4723$ | 10,000 | 3:1 | 30 |  | 15: | $2 \%$ | 1319 | 1.53 |
| 138112 | A4721 | $10 \mathrm{M} / 22 \mathrm{M}$ | 3/2:1 | 25 | TD | 214 | 26 |  | 3.35 |
| 13B114 | A4210 | 1.5M-5M | 3:1 | 40 | C | 3 | 23 |  | 3.23 |
| 138115 | A4702 | 1.5M-5M | 6:1 | 80 | C | 3 | 25 | 25 | 3.41 |

PUSH-PULL DRIVERS-Push-Pull Plates to Push-Pull Grids.

| 13 A9 | A4208* | 20M /30M ${ }^{\text {b }}$ | 2.8:1 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $13 \mathrm{B117}$ | A4404 | 20M/5M | 2.8:1 | ${ }_{90}^{15}$ | C | 35/8 |  | 25/8 | 3.52 |
| $13 \mathrm{B118}$ | A4212 | $1.5 \mathrm{M} / 5 \mathrm{M}$ | 3.2:1 | 50 | C | 3 霛 | $2^{5}$ | 28 | 3.62 |
| $13 \mathrm{B120}$ | A4416* | 3M/10M | 5:1 | 40 | C | 3 | 29 | $25 \%$ | 3.88 |

## RELATED COMPONENTS  <br>  <br> SMOOTHING FILTER CHOKES

## FOR DC POWER SUPPLIES

| Stock No. | $\begin{aligned} & \text { Stancor } \\ & \text { No. } \end{aligned}$ | $\begin{array}{\|c\|} \hline \text { Rating } \\ \text { HYS at } \\ \text { MABC } \end{array}$ |  | DC Ohms | Volta Insula- tion | Mig. Type |  | $\begin{aligned} & \text { ens } \\ & \text {. } \end{aligned}$ |  | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 A 51 | C-1515 | 20 | 15 | 900 | 1500 | A | 180 | 276 | 11/2 | \$1.06 |
| 13A60 | C-1080 | 3.5 | 50 | 200 | 1500 | A | 1\%* | $27 /{ }^{\circ}$ | 112" | 1.00 |
| 13 A 41 | C-1706 | 4.5 | 50 | 300 | 1500 | A | 1\%' | $23{ }^{\circ}$ | 1\%" | . 94 |
| 13 A42 | C-1707 | 7 | 50 | 5.50 | 1500 | A |  | 2\%. | 1\%: | . 94 |
| 13A61 | C-1279 | 8.5 | 50 | 400 | 1500 | A | 1\%\% | $27{ }^{\prime \prime}$ | 1130 | 1.03 |
| 13 A62 | C-1215 | 9 | 50 | 500 | 1500 | A | 1\%' | 27/0 | 11/20 | 1.03 |
| 13 A 43 | C-1003 | 16 | 50 | 580 | 1500 | A |  | $31 /{ }^{\circ}$ | 12. | 1.26 |
| 13 A44 | C-1708 | 13 | 65 | 500 | 1500 | A |  | 3 M | 12 | 1.38 |
| 13 A 45 | C-1002 | 15 | 75 | 400 | 1500 | A | 23160 | 33 | 2\% | 1.73 |
| 13A 46 | C-1709 | 8 | 85 | 250 | 1500 | A |  | 31/2 | $2^{\prime}$ | 1.62 |
| 13 A 50 | C-2305 | 5 | 100 | 300 | 1500 | TD | $2 \%^{\circ}$ | 21/6 | 2 | 2.35 |
| 13 A 48 | C-1001 | 10.5 | 110 | 22.3 | 3000 | A | 25\% |  | 2\%: | 2.18 |
| 13 A 52 | C-2303 | 2.5 | 130 | 100 | 2000 | A |  | $31 /$ | 11 | 1.47 |
| 13 A 49 | C-1421 | 7 | 140 | 16.5 | 3000 | C | 3. | 25\% | 25\% | 3.12 |
| 13 A 47 | C-1710 | 7 | 150 | 200 | 1500 | A | 25\% |  | 21.4 | 2.06 |
| 13 A53 | C-1410 | 4 | 175 | 100 | 3000 | C | $3{ }^{3}$ | 2 $3^{\prime}$ | 25. | 3.00 |
| 13 A54 | C-1411 | 4.5 | 200 | 80 | 3000 | C | 35. |  | 31. | 3.70 |
| 13 A 55 | C-1412 | 8 | 250 | 60 | 3000 | C | 33: | $3^{\circ}$ | 312: | 4.53 |
| $13 A 56$ | C-2308 | 8 | 300 | 80 | 3000 | C | 4\% | 4 : | $37 \%$ | 5.82 |
| $13 \mathrm{B134}$ | C-1413 | 8 | 300 | 80 | 50 | D | 42: | $4^{\circ}$ | 41.0 | 6.76 |
| 13B135 | C-1415 | 16 | 500 | 75 | 7:00 | FS | 75\% | 61/2 |  | 19.29 |

SWINGING FILTER CHOKES
FOR INPUT SECTION OF DC POWER SUPPLIES

| Stock No. | StancorNo. | Inductance DC lange MA |  | $\begin{gathered} \text { I)C } \\ \text { Ohms } \end{gathered}$ | Volts Insul. | $\begin{gathered} \text { Mitg. } \\ \text { Fig. } \end{gathered}$ | H W |  |  | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | H. |  |  |  | D |  |
| $13 \mathrm{B136}$ | 1 | 12 | 20-200 |  | 80 | 3000 |  | 38 |  |  | 53. |
| $13 \mathrm{B137}$ | C-1403 | 20-4 | $130-300$ | 80 | 000 | I) |  |  | $1 / 8$ | 6. |
| 37490 | C-1405 | 16-4 | , 50--500 | 75 | 7500 | 1 H | 7 | 61/3 |  |  |

PLATE TRANSFORMERS

* Indicates 115-230 V., 60 cy. Primary. Others 115 V . only. D.C. outputs are after 2 -section choke input filter using 2 MFD condensers

| $\begin{aligned} & \text { Stock } \\ & \text { No. } \end{aligned}$ | Stuncur <br> No. | $\xrightarrow{11} \mathrm{C}$ | ${ }_{\text {ICAS }}{ }^{\text {MAA }} \mathrm{CCS}$ |  | ${ }_{\text {Mig. }}^{\text {M1g. }}$ |  |  | D. | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| . 37494 | P-8045 | $1000 / 750$ | 310 | 250 | FS | $7{ }^{3}$ |  | 8 | \$25.58 |
| 37495 | ${ }^{1} \mathrm{P}$-8027 | 1250/1000 |  | ${ }^{500}$ | Fs |  |  | 9 | 34.57 |
| - $37 \times 1968$ | $\underset{\substack{\text { P-8028 } \\ 1>-8031}}{ }$ | $1500 / 1250$ $1750 / 1500$ | ${ }^{375}$ | 300 500 | $\stackrel{\text { Fs }}{ }$ | 11 | 7 | $81 / 3$ | 32.93 <br> 52.04 |
| 31841 | 1-8032 | 2000/17:50 | 375 | 300 | Fs |  | $7 \%$ |  | 41.75 |
| 31 B39 | P-8035*\| | 2500/2000 | 575 | 500 | Fs | 113 | 73 |  | 65.86 |

FILAMENT TRANSFORMERS
All Primaries for 117 -Voit 60-Cycle operation. 2 Pri. tapped for $117 / 107$-Volt. For Mounting Figs. S and N see opposite page.

| Stock No. | Stascor No. | $\begin{aligned} & \text { Serondary } \\ & \text { Volts Amps. } \end{aligned}$ |  | Insulation T'rest V | $\begin{aligned} & \text { Mig. } \\ & \text { Hig. } \end{aligned}$ | Diturnsions |  |  | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | H. |  | W | D. |  |
| 138139 | P-6133 | 2.5 CT | 5 |  | 7500 | 5 | 213 | 3 , | 21 | \$2.65 |
| 138140 | P-3024 ${ }^{\text {¢ }}$ | 2.5 CT | 10 | 2500 | C | 31 | 25 | 25 | 3.67 |
| 138141 | P-3060 | 2.5 CT | 10 | 10000 | 13 | 317 | 27 | 21.6 | 3.35 |
| $13 \mathrm{B143}$ | P-4088 | 5 CT | 3 | 2500 | 13 | $31 / 8$ | $21 / 2$ | 215 | 2.82 |
| $13 \mathrm{B144}$ | P-6135 | 5 Cl | 10 | 2500 | N | $31 / 6$ | 21/7 | 27/8 | 3.53 |
| 138145 | P-5014 | 6.3 CT | 3 | 2500 | 13 | $31 /$ | 210 | 21 | 2.65 |
| 138146 | 1-3064 | 6.3 CT | 6 | 2500 | B | 31. | $21 / 2$ | 27 | 3.23 |
| $13 \mathrm{B147}$ | $\mathrm{l}^{-}-6308^{*}$ | 6.3 CT | 10 | 2500 | N | $31 / 2$ | 278 | 24 | 3.76 |
| 13 B 148 | P-6138 | 7.5 CT | 8 | 2500 | N | 3 ? | 31/6 | $2 \%$ | 4.47 |
| 138149 | P-5016 | 10 CT | 4 | 2500 | 13 | 318 | 27 | 25 | 3.53 |
| 13 B 150 | P-6139 | 10 CT | 8 | 2500 | N | 378 | 318 | 31/8 | 4.38 | MULTI-TAPPED TUBE CHECKER FILAMENT TRANSFORMER

$105 / 115 / 125 \mathrm{~V}, 60$ cy. Pri. with 19 TAP SEC. $1.1,1.4,1.5,2.0,2.5,3.0$,
$3.3,5.0,6.3,7.5,12,25,30,35,50,70,85,110,117 \mathrm{Sec}$. volts. $11 \mathrm{~A}^{\prime \prime} \mathrm{mtg}$.
25 '."' high $\times 4^{\prime \prime \prime}$ wide $\times 2^{\prime \prime \prime}$ deep. Weight, 2.4 lbs.
Stock No. $13 A 70$. Stancor P1834-3; With inst. Net Each.
$\$ 7.06$
MODULATION TRANSFORMERS

| Stock No. | Stancor No. | Suggested Mod. Tuives | $\begin{gathered} \text { Class "C" } \\ \text { Load } \end{gathered}$ | Audio Watts | Mtg. <br> Fig. | DimeusionsH. W. D. |  | Your |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  | Cost |
| 138121 | A-3845 | PP 6F66, 6V6 | $8 \mathrm{M} / 6.5 \mathrm{M} / 5 \mathrm{M} / 3 \mathrm{M}$ | 25 | C | 31818 | 24 | \$3.62 |
| 13 A205 | A-3843 | PP 6L6-A13 | 14.5M/7.5M/5M | 40 | D | $4 \frac{1}{4}$ | 47 | 7.00 |
| 138124 | A-2907 | $\begin{aligned} & \text { PP 10, T20 } \\ & \text { TZ20 } \end{aligned}$ | $\begin{gathered} 12.5 \mathrm{M} / 9 \mathrm{M} / 6.8 \mathrm{M} \\ 5 \mathrm{M} / 3.3 \mathrm{M} \end{gathered}$ | 90 | D | 41/14 | 51/4 | 8,56 |
| 138125 | A-2908 | $\begin{gathered} \text { PPT20,TZ20, } \\ 35 \mathrm{~T}, 50 \mathrm{~T} \end{gathered}$ | $\begin{gathered} 6.25 \mathrm{M} / 5.35 \mathrm{M} / 4.5 \mathrm{M}_{3} \\ 3 \mathrm{M} \end{gathered}$ | 120 | D | 43/6 4 | 55/6 | 9.03 |



## RAYTHEON VOLTAGE STABILIZERS holds varying ac line voltages constant WITHIN ONE-HALF PER CENT

Essentially a completely automatic transformer operating at line voltages that may vary between
95 and 130 volts and which delivers 115 volts held constant within $\pm 1 / 2 \%$, to any electrical device requiring line voltage stability. Ordinarily used on television sets, X-Ray machines, sound recording equipment, constant speed motors critical electronic devices, lighting circuits, laboratory testing and measuring instruments, etc. the output cannot be observed on an ordinary voltmeter. Contains no moving parts and cannot be damaged by accidental overload or even short circuit Stabilizers of like type can be paralleled for greater output. All units designed for singe phase 60 -cycle operation.



Variable autotormer type transformers fo 50/60-cycle operation. Control on panel calibrated in volts. Output independent of load. Provides smooth control. Ruggedly constructed and well ventilated.

| Stock | Input <br> No. | Output <br> Volts | Max. <br> Va. | Price <br> Each |
| :---: | :--- | :--- | :---: | ---: |
| 31 A42 | 115 | $0-140$ | 860 | 823.03 |
| 31443 | 115 | $0-140$ | 1500 | 44.59 |
| 31444 | 230 | $0-140$ | 860 | 27.83 |

## ISOLATION TYPE

Similar to above but with separate primary and secondary. Fuse protected. Recommended for service shops to check intermittant parts by increasing voltage on
No. 31 A45. 115 Volts Input. Each. $\$ 28.81$
NEW! RCA ISOLATION TRANSFORMER

Primary and secondary are completely isolated, eliminating shock hazard when servicing AC-DC sets. Also speeds up servicing by having a source of high line voltage-to show up unstable capacitors and other causes of inter mittents; normal voltage to service sets at rated circuit voltages; low voltage to check oscillator action. Primary ine voltage range, $105-130$ volt: six-position rotary switch provides adjustment in 5 -volt steps. Output conproviding 105,117 and 130 volts. Continuous rating, 100 watts, $10 \%$ regulation. Intermittent rating 150 watts.
Stock No. 138265 . NET EACH. 5 ft . primary cord. Wt., $61 / 2 \mathrm{lbs}$. 87
220 TO 110 VOLT STEP-DOWN TRAMSFORORNERS
For operation of 110 ., 60 Cy. A.C. devices in areas where 220 V., 60 Cy. A.C. is the standard supply voltage on side of transformer., Windings are not isolated, being of auto-former type. *Pri. tapped for 200, 220, 240-volt

| Stock | Wattage | Dimensions |  |  |
| :---: | :---: | :---: | :---: | :---: |
| No. | Rating | H. | W. | Y. |


| No. | Rating | H. | W. | D. | Cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 13 A295 | 80 | 35/8 |  | $31 / 4$ | 28 |
| $13 A 82$ | 150 | 48 | 35/8 | $35 / 8$ | 82 |
| $13 \mathrm{B151}$ | 300** | 43/4 | $4{ }^{1}$ | $41 / 8$ | 14 |
| $13 A 296$ | 500\% | 43/4 | 4 | $51 / 8$ | 3 |
| 37 A36 | 1000* | $53 /$ |  | $41 \%$ | - |



3736 1000*

RECEIVER REPLACEMENT TYPE (Mounting Fig. C)

| Stock No. | Merit No. | $\text { v. }^{\text {Plate }} \text { MA }$ |  | $\begin{aligned} & \text { Fil. No. } 1 \\ & \text { V. } \end{aligned}$ |  | $\text { Fil. No. }{ }^{2}$ |  | Mtg. Area |  | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 37 A 10 | P-2949 | 480CT | 40 | 5 | 2 | 6.3CT | 2 |  | $\times{ }^{1 / 211}$ | \$2.88 |
| $37 A 11$ | P-2950 | 650CT | 40 | 5 | 2 | 6.3CT |  |  | $\times 2$ |  |
| $37 A 12$ | P-2951 | 700CT | 70 | 5 | 3 | 6.3 CT |  |  | $\times 3$ |  |
| 37 A13 | P-2952 | 700CT | 90 | 5 | 3 | 6.3CT | 3.5 |  | $3 / 8 \times 33 / 4{ }^{\prime \prime}$ |  |
| $37 A 14$ | P-2953 | 700 CT | 120 | 5 | 3 | 6.3CT | 4.7 |  | 3/4×3 +3, |  |

## AMATEUR PLATE TRANSFORMERS (Mounting Fig. D)

| Stock No. | Merit No. | Sec. RMS Volfs | $\begin{aligned} & \text { DC } \\ & \text { MA } \end{aligned}$ | Dimensions | Your Cost |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 37A16 | -3157 |  |  | $318 \times 43 / 8 \times 45 / 8{ }^{\prime \prime}$ High | $\begin{array}{r} \$ 8.76 \\ 8.23 \\ 7.94 \end{array}$ |
| $37 \mathrm{Al7}$ | P |  |  | $\times 5 \times 45 / 8^{\prime \prime}$ High |  |
| 37 Al 8 | P-3159 |  |  | $318 \times 51 / 8 \times 45 / 8^{\prime \prime}$ High |  |
| -3 | 40-V. | , | for | aneous operating |  |

## (3) Thardarsan Transformers and Chakes

## mos mas <br>  <br> PUV

## AUDIO INPUT TRANSFORMERS

Stock No. 138159. Type T-20A00, 50 ohm single BUT MIC 200 ohm C DBL. BUT. MIC, or 600 ohm C.T. line to SGL. or PP grids.
$\$ 1.71$ Ratio $1: 10$. MTG. BAH, $2^{\prime \prime}$ centers. Net Each. Stock No. 138160 . Type T-20AOI. 50 ohm SGL. BUT. MIC. 200 ohm C.T.
DBL. BUT. MIC., or 600 ohm C.T. line to SGL. Brid. or 240,000 ohm MiC.
to 600 ohm C.T, line, Ratio $1: 20$. Shielded MTG. FGV, to 600 ohm C.T. line, Ratio $1: 20$. Shielded MTG. FGV,
$23 / 8 \times 27 / 8^{\prime \prime}$ centers. Net Each
5271
Stock No. 138161. Type T-20A02, 50 ohm SCOL. BUT. MiC. 200 DBL. BUT. MIC. or 600 ohm C.T. line to P.P. grids, Ratio $1: 20$. S2. 65 LOW IMPEDANCE MICROPHONE OF VOICE COIL TO GRID Stock No.
grid. Ratio $1: 80$. MTG. BAH, $2^{\prime \prime}$ centers.
Net Each Net Each

TRANSCEIVER (PLATE and/or Mić TÖ CRID)


AUDIO INTERSTAGE (PRI. CUR. 8 MA ALL TYPES) SINGLE 10,000 OHM PLATE TO SINGLE P.P. GRIDS


| Stock No. | Thord. No. | *Surgeated Tubes | Pri. MA. DC. | $\begin{gathered} \text { Ratio } \\ \text { Pri. to } 1 / 2 \mathrm{Sec} . \end{gathered}$ | Mtg. Fig. | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 138170 | T-20D75 | 30 or 1H4 to 19 or 1J6 | 3 | 2.4:1 | BAH | \$1.62 |
| 138171 | T-20D76 | 6 N 7 or 53 to 6 N 7 or 53 | 7 | 5.2:1 | BAII | 1.71 |
| 138172 | T-20D77 | 6 F 6 to P. P. 6 F 6 (AB-2) | 30 | 2.5:1 | FGV | 2.53 |
| 138173 | T-20D78 | PP 6F6 to PP 61.6 (AB-2) | 40 | 4:1 | GGV | 3.38 |
| 138174 | T-20D80 | PPP 6 L 6 to PP 100TH | 40 | 3.2:1 | GGV | 4.00 |
| 138175 | T-20D82 | PP 6L6 to PP 833 | 60 | 5:1, 3.2:1 | GGV | 4.41 |
| $13 \mathrm{B176}$ | T-20П83 | 500 ohms to P. P. Grids | 15 | 15 Watts | PUV | 15.65 |

REPLACEMENT OUTPUT TRANSFORMERS
Advanced compact design. Mig. centers for 3 watt types only $2^{\prime \prime}$; for 8 watt types $213 / 16^{\prime \prime}$. Fig. BAH. For single tubes. Others are for single or push-pull plates.

| Stock No. | Thord No. | Primary Impedance | Secondary Impedance | Pri. MA. | Watts | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 138177 | T.22S45* | 1500 to 3000 | 3.2 to 4 | 55 | 3 | \$1.21 |
| $13 \mathrm{B194}$ | T-22S46* | 3000 to 6000 | 3.2 to 4 | 35 | 3 | 1.35 |
| 138195 | T-22S47 | 6000 to 12000 CT | 3.2 to 4 | 35 | 3 | 1.62 |
| 138196 | T-22N48 | 12000 to 25000 CT | 3.2 to 4 | 10 | 3 | 1.65 |
| 138197 | T-22S56 | 8000 to 10000 CT | 3.2 to 4, 6 to 8 | 50 | 8 | 2.44 |
| 138198 | T-22S58 | 5000 to 7000 CT | 3.2 to 4, 6 to 8 | 50 | 8 | 2.44 |
| $13 \mathrm{B199}$ | T-22S80 | 2500 to 4000 CT | 3.2 to 4.6 to 8 | 60 | 8 | 2.53 |

HEAVY DUTY OUTPUT TRANSFORMERS
For singte or push=oull plates to line or voice coil. Mig. Fig. GGV. antg dim. $21 / 2 \times 27 / 16^{\prime}$ Others $2 \times 111 / 16^{\prime \prime}$. Secondary impedance all types 3.2 to 4,6 to $8-15-250-500$ ohms

| Stock No. | Tbord. No | Prinary Impedance | Suggested Tubes | Pri. Ma. | Watte | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 138201 | T-22S64 | 10,000 CT. | PP 2A5, 6V6, 7C5 | 50 | 25 | \$4.23 |
| 138202 | T-22S66 | 8,000 C' ${ }^{\circ}$. | PP 6.A6, 6V6,50,53 | 50 | 25 | 4.23 |
| 138203 | T-22S68 | 6,500 CT. | PP 6I.6, AB1, AB2 | 70 | 25 | 3.97 |
| 138204 | T-22S76 | 5,000 CT. | PP 2A3, 6A3, 45, 6L6 | 80 | 25 | 4.53 |
| 138207 | T-22S72 | 3,000 CT. | PP 2A3, 6A3, 48 | 90 | 25 | 4.53 |
| 138213 | T-22878* | 3,300 C'Г. | PP PAR 6I.6, AB2 | 180 | 60 | 6.44 |

## UNIVERSAL OUTPUT TRANSFORMERS



CHOKES_-UNIVERSAL SWINGING AND SMOOTHINE

| $\begin{aligned} & \text { Slock } \\ & \text { No. } \end{aligned}$ | Thord. No. $\substack{\text { a }}$ | Inductance Hys. Rated DC Max. DC |  | D.C.M.A. Rated Max |  | $\begin{aligned} & \text { DC } \\ & \text { RES } \end{aligned}$ | $\begin{aligned} & \text { Test } \\ & \text { Volte } \end{aligned}$ | $\begin{aligned} & \text { Mug } \\ & \text { Fig: } \end{aligned}$ |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 138225 | *T-20C50 | 350 | 75 | 5 |  | ${ }^{5500}$ | 2000 | BAH | 27/1 | \$2.03 |
| 138228 <br> 13827 <br> 1 | T-20C51 | - 35 | 15 | 15 | 25 | ${ }^{1850}$ | 1200 | BAB |  | 1.35 |
| - ${ }^{13382278}$ | - | ${ }^{8}$ | $\stackrel{4}{8}$ | 40 | ${ }_{100}^{65}$ | ${ }^{450}$ | 1200 | BAH |  |  |
| 138229 | T-20C54 |  |  | 150 | 200 |  |  |  |  |  |
|  | T-20C55 | ${ }_{6}^{6}$ | 2 | 200 | 300 | 75 | 2700 | GGV | 20168 | ${ }^{2.738}$ |
| ${ }^{138231}$ | T-20C58 |  |  | 300 |  |  | 35 |  |  |  |
| 77A92 | T-20C57 | 10 | 6 | 500 | 600 | 65 | 7500 | PUV | $2+87$ | 20.29 |

## PLATE TRANSFORMERS

For amateur and commercial transmitters, experimental and industrial ap plications. Equipped with electrostatic shields between primary and sec ondary. ©Indicates primary for $115-230 \mathrm{~V}$. All others for 115 V ., $50-60 \mathrm{cy}$
only. CCS ratings below may be exceeded by appromixate $40 \%$ for ICAS.


FILAMENT TRANSFORMERS

| All Pri *Re | mend | $866$ | $\begin{gathered} \text { A.C. } \\ \hline i \end{gathered}$ | Rating <br> ped s |  | $\begin{aligned} & \text { Co } \\ & +1 \end{aligned}$ |  |  | $y \text {. }$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock | Thord. | Secon |  | Volts | Mtg. |  | en |  | Net |
| No. | No. | Volts | Amps. | Insul. | Fig. | W. | D. | H. | Each |
| 138236 | T-21F00 | 2.5 C.T. | 5 | 1600 | BAV | $27 / 8$ | 1\%/ | 2 | \$2.12 |
| 138237 | T-21F01 | 2.5 C.T. | 10 | 1600 | BAV | 31 | 2 | 21 | 2.85 |
| 13A294 | T-21F02* | 2.5 C.T. | 10 | 7500 | CAV | 25 | $21 /$ | 31 | 3.65 |
| 138238 | T-21F03 | 5 C.T. | 3 | 1600 | BAV | $27 /$ | 12 | 2 E | 2.44 |
| 138239 | T-21F04 | 5 C.T. | 8 | 1600 | CAV | $21 / 2$ | $21 / 3$ | $3 \frac{1}{15}$ | 3.23 |
| 138241 | T-21F20 | 5 C.T. | 15 | 10000 | CAV | 33/4 | 3 | E | 5.66 |
| 138242 | T-21F03 | 5 C.T. | 3 | 10000 | CAV | $21 / 2$ | 21. | $3 \frac{1}{18}$ | 3.53 |
| 138243 | T-21F06 | 5 C.T. | 13 | 1600 | CAV | $21 / 2$ | 21 | 31 | 3.73 |
| 138244 | T-21F07 | 5 C.T. | 21 | 1600 | CAV | 31. | 31 | 31 | 5.09 |
| 138245 | T-21F08 | $6.3 \mathrm{C.T}$. | 1 | 1600 | BAV | 23/8 | $11 / 2$ | 2 | 1.85 |
| 138247 | T-21F10 | 6.3 C.T. | 3 | 1600 | BAH | 31/ | 13/1 | 2 | 2.44 |
| 138248 | T-21F11 | 6.3 C.T. | 6 | 1600 | CAV | 21. | 21. | 31 | 3.62 |
| 138249 | T-21F12 | 6.3 С.T. | 10 | 1600 | CAV | $21 /$ | 23 | 31 | 3.56 |
| 138250 | T-21F14 $\dagger$ | 6.3, 5, 2.5 | 2.5 | 1600 | 13AH | $31 /$ | $1 \%$ | 2 | 2.44 |
| 138251 | T-21F15 | 7.5 C.T. | 4 | 1600 | BAV | 318 | 2 | 24 | 2.70 |
| 138252 | T-21F16 | 7.5 C.T. | 8 | 1600 | CAV | 21/5 | 23/ | 31 | 3.56 |
| 138253 | T-21F17 | 7.5 C.T. | 12 | 1600 | CAV | 24 | 31 | 31 | 4.41 |
| 138254 | T-21F18 | $10 \mathrm{C} . \mathrm{T}$ | 5 | 1600 | CAV | $21 / 2$ | 21 | 3 | 3.56 |
| $13 \mathrm{B255}$ | T-21F19tt | 10-11 C.T. | 12 | 1600 | CAV | $31 /$ | $31 \%$ | 31 | 5.09 |

MODULATION TRANSFORMERS
Quiet, highly efficient transformers for use with tubes specified or other similar types


## MULTIMATCH MODULATION TRANSFORMERS

For quick and accurate matching of standard modulator tubes to practically any R.F. load, allowing use of same transformer by changing solder lug connections. Full data supplied with each transformer.
*Mtg. Fig. KTV, Others, Fig. PUV. T21M66 Matches 5000 to 10000 ohm R.F. load

| Stock No. | Thord. No. | Primary M.A. Each Side | Sec. M.A. Ser. Par | Audio <br> Watts | Dimensions |  | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |
| 13872 | T-21M60* | 50 | 50100 | 15 | 23/13/8 | 13/8 | \$10.50 |
| 13 A269 | T-21M61 | 125 | 125250 | 60 | 318 | 4 | 14.11 |
| 13 A270 | T-21M62 | 210 | 160320 | 125 | 4 1\% 6\% | 518 | 21.17 |
| 37 A93 | T-21 M64 | 250 | 250500 | 300 | 4 17 7\% | 6 | 33.81 |
| 31835 | T-21M65 | 320 | 320640 | 500 | 5 \% 11 | 678 | 54.10 |
| 13 A 272 | T-21.166* | (500) Ohm Linc) | 200 | 50 | $41851 / 3$ | 51 | 15.88 |

## UPRIGMT PONER TRANSFORMERS

To furnish plate and filament voltage requirements of amplifiers, receivers and exciter stages of transmitters. Mtg. Fig. GGV. All primaries 117 V
$50 / 60$ cycles. 1 H Has additional 6.3 V . CT. 3 . Fil. All fil. 2 are C.T. Stock 13A286
13 13287
$13 A 288$
$13 A 289$
$13 A 290$
$13 A 292$
$T$
$T$
$T$
$T$
$T$

Net $\$ 4.91$
5.59

(3)Audia Transfarmers

## "LINEAR STANDARD" AUDIO UNITS

## far Euery Purpose

HALF-SHELL POWER TRANSFORMERS
Supplied with adjustable mtg. brackets for flush, vertical or horizontal placement. Mtg. Fig. ACF. All Primaries for 117 V . $50 / 60 \mathrm{cy}$. All Fil. 2 are C.T.

| Stook No. | Thord. No. | $\text { H. H.C. } \stackrel{\text { Sec. }}{\text { MA.D.C. }}$ |  |  | A. |  | $\begin{aligned} & 2 \\ & \mathbf{A} . \end{aligned}$ | Mtg. Ares | $\begin{aligned} & \text { Net } \\ & \text { Price } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 13 1275 | T-22R00 | 500 C.T. | 40 | 5 | 2 | 6.3 | 2 | $21 / 1 \times 3$ | \$4.06 |
| $13 A 276$ | T-22R01 | 550 C.T. | 50 | 5 | 2 | 6.3 | 2.5 | $21 / 53$ | 4.12 |
| 134277 | T-22 R02 | 600 C.T. | 70 | 5 | 2 | 6.3 | 3 | $21 / 53$ | 4.91 |
| 13 A278 | T-22 R04 | 600 C.T. | 90 | 5 | 2 | 6.3 | 3.5 | $211 \times 3 \frac{1}{6}$ | 5.03 |
| 13 A279 | T-22 R05 | 600 C.T. | 120 | 5 | 3 | 6.3 | 5 | 31/6x33 | 5.59 |
| 13A280 | T-221206 | 6.io C.T. | 1.50 | 5 | 3 | 6. 3 | 5 | 31/533/4 | 5.88 |
| 134281 | T-22R07 | 700 C.T. | 200 | 5 | 3 | 6.3 | 6 | 38/841/2 | 7.29 |
| 134282 | T-22 R08 | 500 C.T. | 40 | 5 | 2 | 2.5 |  | $21 / 153$ | 4.06 |
| $13 A 283$ | T-22R09 | 5:0 C.T. | 50 | 5 | 2 | 2.5 | 7.5 | $21 / 123$ | 4.41 |
| 13 A284 | T-22R10* | 650 C.T. | 85 | 5 | 2 | 2.5 | 9 | 31/x $31 / 6$ | 5.76 |
| 13 A286 | T-22R11 $\dagger$ | $6.50 \mathrm{C} . \mathrm{T}$. | 120 | 5 | 3 | 2.5 | 12.5 | 31/8×32/4 | 6.44 |

## C.R. TUBE POWER TRANSFORMER

Type T-22R40 for high voltage, low current cathode ray tube and test equipment. All secondaries insulated at 7,500 V.R.M.S. test. Primary-117 V. A.C., 60 cy. H.V. Secondary, 1,800 V., A.C. at 2 MA. Fil. No. 1. at 1.8 A., Fil. No. $2.16 .3 \times 3$, at 6 A. tapped at 2.5 V . at Stock No. 13A293. Net Each $\$ 8.82$

## EXPANDER-COMPRESSOR FEEDBACK CONTROL

Type T20A26, Fig. RTV. The control element of a newly developed system
of expansion-compression much superior to the D.C. grid bias control method. or expansion-compression much superior to the D.C. grid bias control method. use. Technical details supplied with each unit
Stock No. 13B235. Net Each
$\$ 5.88$

## DUAL TONE CONTROL COMPONENTS

Type T20C74 Reactor Fig. RAV. For use with R1068 Dual Tone Control belaw. Coil and core of hum-backing type. Res. 220 ohms. Size, $19 / 16^{\prime \prime}$ diameter, 2" high. Stock No. 13B233. Net Each.
$\$ 2.79$ Type R1068 Dual Tone Control. For use with T2OC74 Reactor in tone compensating circuit to boost or attenuate bass or treble frequencies independently of ane another. System may be installed between two resistance cou-
pled stages. Instructions furnished.
Stock No. 138234. Net Each................................................. 85

## THORDARSON PHOTO-FLASH TRANSFORMERS

Type T-22R42 Power Transformer-Primary 117 V ., 60 cy
secondary $2,250 \vee$ at 1.5 MA , rectifier filament secondary 2.
Mounting type BAV , size $4 \times 25 / 8 \times 25 / \mathrm{g}^{\circ \prime}$ high. Weight, 2 lbs.
Stock No. 13A297. Your Cost
$\$ 4.26$
Type T-22R43 Power Transformer. Primary $117{ }^{\circ} \ddot{V}_{0}, 60 \mathrm{cy}$ or secondary $W$ eight 1,200
Stock No. 13A298. Your Cost
$\$ 6.17$
Type T-22R44 Ignition Transformer. Primary 200 V condenser discharge secondary 15,000 . Mtg. type BAH, size $21 / 4 \times 11 / 8 \times 11 / 2^{\prime \prime} \mathrm{H}$. Weight $1 / 4$
Your Cost
$\$ 3.18$
Thordarson Photo-Flash Power Supply Bulletin. Complete descriptive details
 Your Cost


## SPRAGUE PHOTOFLASH CAPACITORS

 Energy storage type. "Vitamin $Q$ " oil filled. Designed especrally for photo flosh service. Ratings are for maximum of 1800 flashes per hour. For continuous voltage application, decrease voltage roting by $20 \%$. Can also be used in flash welding circuits where a great amount of current is required momentarily.| No. | Type | Watt/Sec. | Mfd. | Volts | Size | Net Cost |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 19 A265 | PQ-315 | 67 | 15 | 3000 | $33 / 4 \times 3{ }^{3} \times 47 / 8^{\prime \prime} \mathrm{H}$. | \$14.41 |
| 19 A267 | PQ-2525 | 78 | 25 | $2500$ | $4 \% \times 33 / 4 \times 51 / 4.10 \mathrm{H}$. | 15.57 |
| 37844 | PQ-2535 | $\begin{gathered} 109 \\ \text { SPRACUE } \end{gathered}$ | $\begin{gathered} 35 \\ \text { PHOI } \end{gathered}$ |  | $418 \times 3$ /4x ${ }^{\prime \prime}{ }^{\prime \prime} \mathrm{H}$. | 19.1 |
|  |  |  |  |  | BROCHURE |  |

Gives comprehensive data on Photoflash with o discussion of its principles. Gives, details and diagrams of How to Build and use a simple, useful "Speedlight"' unit.
No. 16A326. YOUR COST, EACH

25c

## RAYTHEON CK-1013 RECTIFIER TUBE

Half wave, gas filled, cold cathode, miniature, rectifier for use in photoflash power supplies. 2800 Volts peak inverse, 6 MA overage current. Has Miniature base. Height $21 / 4$

## POWERFUL, COMPACT — MADE TO TAKE ITI

 ELECTRO PLATE SUPPLY TRANSFORMERS
Distinctive design and construction allows unbelievably small size and weight with high overload capacity. Coils are sealed against dirt and moisture and protected at ends by tough insulating boards. All leads are brought out to terminals. Secondary is split, two-section type, mica in-
sulated. Primary may be operated on either 115 -volt or sulated. Primary may be operated on either 115 -volt or
230 -voit 60 cycles. Core is made of high grade trans 230 -volt 60 cycles. Core is made of high grade trans-
former alloy. Equipped with grounded electrostatic shield former alloy. Equipped with grounded electrostatic shield
between windings. Type E5105 has tapped secondary.


The only audio units with a guaranteed uniform response, $\pm 1 \mathrm{db}$. from 20 to 20,000 cycles. Minimum hum pick-up is accomplished through use of a hum balanced semitoroidal coil structure. Low level units use a special alloy shield plus outer case.

| Case | Length | Width | Height | Mounti |
| :---: | :---: | :---: | :---: | :---: |
| LS-1 | $31 / 8$ | 278 | $31 / 4$ | $118 \times 2$ |
| LS-2 | $4{ }^{2}$ | $31 / 2$ | $4{ }^{1 /}$ |  |
| LS-3 | 515 | 5 | 415 | $4 \xrightarrow{3} \times 5$ |



LOW IMPEDANCE TO GRID TRANSFORMERS $/ 600$ ohms. Sec. 60,000 ohms Type LS-10 Pri. 50, $125,200,250,333,501$
over-all in 2 sections. Max. level, +15DB. Case LS-1. . . . . 14.10
Stock No. 19A94. Net Each ......................... 10 Stock No. 19A94. Net Each
sections. Case LS-1
Stock No. 19A95. Net Each
$\$ 16.46$
Type LS-26. Bridging line to single or P.P. grids. Pri. 5,000 ohms, Sec
60,000 ohms in two sections. Max. level $+200 B$. Case LS-1. Stock No. 19A96. Net Each

Type LS-19, 15,000 ohm single plate to P.P. grids. Split
Stock No. 19A97. Net Each
$\$ 18.23$ 80000 ohms ver-all Ratio 1.6:1 over-all Max level +26 DB . Case LS-2. Stock No. 19A98. Net Each

## MIXINC TRANSFORMERS

Type LS-30. Mixing, low imp, mike pick-up, or multiple line to multiple line. Pri. $50,125,200,250,333,500 / 600$ ohms. Sec. imped. same as pri.
Max. level +17 DB . Case LS-1.
Stock No. 19 A99. Net Each .....................................................
Type LS-31. Three isolated lines or pads to multiple line. Each pri. 30, 50,
200,250 ohms. Sec. $50,125,200,250,333,500 / 600$ ohms. Max. level +i5DB. Case LS-1. Stk. No. 19A100. Net Ea. W. © Type LS-32. Mixing low imped, mike or pick-up or parallel mixer to muitipie , Stock No. 19A101. Net Each
Sec imped all


 Type LS-151. Pri. 16,000 ohms for bridging 50 to 600 ohm
line. Level +22DB. Stock No. 19A104. Net Each........ OUTHYTY To To
Soc, Impod, ol thpes $1.2,2,25,5,5,5,5,10,15,20,30,50,125,200,250$, 333, 500 ohms.
Frequency range 25-20000 Cps plus or minus I db.
Type LS-55. Pri, 5000 and 3000 ohms C.T., P.P. 2A3's, 6A3's, 6L6's. Max. level 20 watts. Case LS-2.
stock No. $16 A 700$. NET EACH
Max. level is Watts. Cose LS-2
Socek Ne.
$\$ 24.70$
Socec No. 13324 . NET FACH

 15 watts. C'ase LS-2.
Stock No. $16 A 702$. NET EACH.
$\$ 16.46$
U.T.C. OUNCER AUDIO TRANSFORMER FREQUENCY RANCE 40/15,000 CPS.
Fully impregnated and sealed in drawn aluminum housing $7 / 8^{\circ}$
dia., $11 / 8^{\prime \prime}$ H. Mtg. opposite terminals. Weight only one ounce.
Max. operating level 0 db . No D.C. in pri. windings.
Type 0-1 Mike, pickup or line to single grid. Pri. 50, 200/250,
$500 / 600$ ohms. Sec. 50,000 ohms.
Stock No. 19B622. NET EACH
$\$ 7.79$
Type 0-3. Dynamic mike to single grid. Pri. $7.5 / 30$ ohms.
Sec. 50,000 ohms. stock No. 19B623. NET EACH.
Type 0.4 Single plate to single grid. Pri. 15,000 ohms.
Sec. 60,000 ohms. Stock No. 19B624. NET EACH..............
Type $0-8$ Single plate to line. Pri. 15,000 ohms.
See. $50,200 / 250,500 / 600$ ohms. Stock No. 198625 . NET EACH Type $0=12$ Mixing and matching. Pri. 50, 200/250 ohms. Sec. 50, 200/250, Stock No. 19B636. NET EACH.
.. MA DC 6000 . Type O-1
ohms. Stock No. 198637. NET EACH:

## UTC MICROPMONE CABLE TRANSFORMERS

For insertion in cable circuit, adapting low impedance microphone to tube grid. Pri. tapped at $30 / 50$ and $200 / 250$ ohms. strain relief to terminal boards inside the end caps, permitting universal choice of
 Type MC-1 S. Dia. $1 / 2$, No. 19A105. NET EACH.
Type MC-2 High fidelity, for high quality PA and broadcast No. $19 A 106$.
NET EACH

POPULAR "MINI-MAX" A-B BATTERY PACKS "Mini-Max" STANDARD $11 / 2-90$ VOLT A-B PACK FOR FARM SETS-No. 759 Size $1511 / 16 \times 45 / 32 \times 6$ 15/16". Weight, $181 / 2$ lbs. List, $\$ 5.95$. Stock No. IA6. "Mini-Max" A-B Pack, $11 / 2-90$ Volt. Net Each.

## "Mini-Max" No. 752 "A-B" PACK; 9-Volt "A", 90-Volt "

 EXACT REPLACEMENT FOR "ZENITH" Models 6C001 and 004; 6C501 and 505: 7C505 and 5C500R. Size, 4 1/16x2 11/16x4 1/16. wt. Has recessed 4-hole socket $1^{\prime \prime}$ in diameter Stock No. 1A9. "Mini-Max" No. 752. List, \$5.50. Net Each.$\$ 3.77$
"Minl-Max" No. 753 "A-B" PACK; $71 / 2-9$ Volt "A", 90-Volt "B" $668 \times$ ""Detrol" 591 "TTruetone" Models 03615-30-35. and many the size, $97 / 32 \times 223 / 32 \times 45 / 16^{\prime \prime}$; has diameter socket, 8 -hole with center guide hole. Weight, $51 / 4$ lbs. List, $\$ 5.50$.
Stock No. IA8. "Mini-Max" No. 753. Net Each
$\$ 3.77$

$$
\text { "Mini-Max" No. } 754 \text { "A-B" PACK: } 71 / 2-9 \text { Volt "A", } 90 \text {-Volt }
$$ Size, $101 / 2 \times 31 / 4 \times 4^{\prime \prime}$. Weight, $61 / 2$ lbs. List, $\$ 5.50$.

$\$ 3.77$ Stock No. 21A28. "Mini-Max" No. 754. Net Each

Mini-Max No. 752W 9-1 $1 / 2$-Volt (101/2-Volt) "A", 90 -Volt "B
 Mini-Max No. 755 6-71/2-Volt "A""; 75-Volt "B" Size, $89 / 16 \times 27 / 16 \times 33 / 4^{\prime \prime}$. Weight, $33 / 4$ lbs. List. $\$ 4.50$. Stock No. 3852. NET EACH $\qquad$ $\$ 3.09$
Mini-Max No. $75671 / 2$-Volt " $A$ " 90 - 90 olt " $B$ "
Weight, 4 lbs. List, $\$ 5.50$
$\$ 3.77$

Stock No. 3B55. NET EACH......................................... | $\begin{array}{c}\text { Stock } \\ \text { No. }\end{array}$ | $\begin{array}{l}\text { Fact. } \\ \text { No. Volts }\end{array}$ | L Dim |  |  |
| :---: | :---: | :---: | :---: | :---: |
| $21 B 71$ | 411 | 15 | 1 |  |
| 218 |  |  |  |  |
| $21 B 69$ | 413 | 30 | 1 |  |
| $21 A 17$ | 455 | 45 | $25 / 8$ |  |
| $21 B 67$ | 457 | $671 / 2$ | 211 |  |
| $21 B 20$ | 490 | 90 | Fits Em |  |
| $21 A 18$ | 467 | $671 / 2$ | $27 / 8$ |  |
| $21 A 19$ | 482 | 45 | $35 / 8$ |  |
| $21 A 21$ | 738 | 45 | 3 |  |
| $21 A 29$ | 487 | 45 | $51 / 8$ |  |
| $21 B 68$ | 493 | 300 | 218 |  |
|  |  |  |  |  |
| No. Fact.No. Connection |  |  |  |  |
| $21 A 6$ | 768 | Plug-in |  |  |

EVEREADY "C" BATTERIES

| No. |  |  |  | Fact.No. |
| :--- | :--- | :--- | :---: | :---: |
| $21 A 6$ | 768 | P |  |  |
| $21 A 8$ | 763 | S |  |  |
| $21 A 7$ | 771 | P |  |  |
| $21 A 23$ | 773 | S |  |  |
| $21 A 9$ | 781 | S |  |  |
| $21 A 27$ | 412 | E |  |  |


| Stk. No. | No. | Volts | L. | W. | H. |  | Wt. Lbs. List |  | $\begin{aligned} & \text { Net Ea. } \\ & \mathbf{S O . 7 2} \end{aligned}$ | Pkg. @ Ea. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 21870 | 717 | $71 / 2$ |  | $7_{2} \times 1+$ | $8 \times 3{ }^{\frac{1}{4}}$ |  | V | \$0.95 |  |  |  |
| 21410 | 718 | 6 |  | $\times 2$ | $\times 5$ |  | $31 / 4$ | 1.75 |  | 1 |  |
| 21866 | 724 | 6 |  | x | $1 \times 2$ |  | $31 / 4$ | . 50 | 8 | 12 |  |
| 21822 | 736 | 41 | Fits | Emer | rson 5 | 59A |  |  | 7 | 6 |  |
| 21411 | 741 |  |  |  |  |  |  | 1.65 |  | 1 |  |
| 21412 | 742 |  |  |  | + $\times 4$ |  | $21 / 4$ | 1.95 |  |  |  |
| 21413 | 743 744 | 1 |  | $1 \times 2$ | + $\times 3$ |  | $21 / 4$ | 1.25 | .72 | $\begin{aligned} & 3 \\ & 6 \end{aligned}$ |  |
| 21 A14 | 745 | 1 |  | $\times 3$ | $\times 1$ |  |  | 1.75 | .32 | 2 |  |
| 21415 | 746 | $41 / 2$ |  | $\times 1$ | 8 $\times 4 \mathrm{l}$ |  | $11 / 4$ | . 75 |  | 6 |  |
| 21416 | 747 | 6 | 10 | $4 \times 31$ | $3 \times 13$ |  | $31 / 4$ | 1.75 | 1.32 | 2 | 1.21 | No. 21A32. 4FH Burgess Square, 4

Net Each
$52 c$
No. 6.
39.11
(B) 3-prong for $41 / 2$-voit "C" batterNo. 12A575. Each............... 7 c (C) 4-prong large plug for combina-
tion $11 / 2$-volt " $A$ " and 90 -volt " $B$ " Packs (Eveready 759, etc.

(A) (A) 2 -prong, $3 / 4^{\prime \prime}$ centers for $41 / 2$ Volt "A" (Eveready 746,736 , etc.) ${ }^{2-}$ (C) 3 -wrong large plug for $45-8 \mathrm{c}$ No. 12A573. Each..............7c "B" portable batteries 隹veready 482, (A) 2-prong. $3 / 8$ " centers for 6 -Volt

 "A"0 ${ }^{\text {Eveready }} 741,742,743,745$.
No. $12 A 162$. (B) 3-prong "B" batteries "Éveready 738, 482, etc.)
No. 12A574. Each...............7c No. 18A24. 50 Asst. Plugs S2. 93
(D) SNAP FASTENERS. Fits Eveready 455, 457, 467, etc.
 trated Fits Eveready $455,457,467$, et
No. 14A717. Each. . .........................

18 C

## OHMITE

Ohmite "Little Devil" Resistors Individually Marked The Ohmite "Little Devils" are molded insulated composition resistors available in tiny in size but have exceptional ruggedness, stability and current carrying capacity. Not only are the "Little Devils" RMA color coded, but the resistance value and wattage are clearly marked on every unit for quick requirements of man-R-11s meet all tes water immersion and high' humidity tests. They have high insulation breakdown volt-
 age, a low noise level and low voltage co-pficient wattage ratings at $70^{\circ} \mathrm{C}\left(158^{\circ} \mathrm{F}\right.$ ) ambient temperature and dissipate heat rapidly. The standard RMA values, 10 ohms to 22 megohms can be furnished, alt $10 \%$ tolerance. Values as low as 2.7 ohms are available in the l-watt size.

STANDARD RMA CODE-Specify Resistance

| Ohms | Ohms | Ohms | Ohms | Ohms | Ohms | Megohms Megohms |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 10 | 82 | 680 | 5,600 | 47,000 | 0.39 | 3.3 |
| $\$ 2.7$ | 12 | 100 | 820 | 6,800 | 56,000 | 0.47 | 3.9 |
| $\$ 3.3$ | 18 | 120 | 1,000 | 8,200 | 68,000 | 0.56 | 4.7 |
| $\$ 3.9$ | 22 | 150 | 1,200 | 10,000 | 82,000 | 0.68 | 5.6 |
| $\$ 4.7$ | 27 | 220 | 1,500 | 12,000 | 0.1 Meg. | 0.82 | 6.8 |
| $\$ 5.6$ | 33 | 270 | 2,200 | 15,000 | 0.12 Meg. | 1.00 | 8.2 |
| $\$ 6.8$ | 39 | 330 | 2,700 | 18,000 | 0.15 Meg. | 1.2 | 10.0 |
| $\$ 8.2$ | 47 | 390 | 3,300 | 27,000 | 0.18 Meg. | 1.5 | 12.0 |
|  | 56 | 470 | 3,900 | 33,000 | 0.22 Meg. | 1.8 | 15.0 |
|  | 68 | 560 | 4,700 | 39,000 | 0.27 Meg. | 2.2 | 18.0 |
|  | 0.33 Meg. | 2.7 | 22.0 |  |  |  |  |

4-Watt Size Oniy.
$3 / 8 \times 9 / 64^{\prime \prime}$ Size
350 Max Volts
10 Ohms to 22 Meg

1-Watt
9/16×7/32"' Size 500 Max . Volts 128658. Net Each. . 1 Dc 12 B 659 ms 22 Megs. 10 Ohms to 22 Megs 100 Lots. Net Each. 6 c . 100 Lots. Net Each. $9 \mathrm{c} / 100$ Lots. Net Each. 12 c 100 Lot Prices Apply to Purchases of One Value, Not Assorted.

## OHMITE "BROWN DEVIL" RESISTORS

Small size wire wound units with pigtail leads for con-
venient mounting. Vitreous enamel coating provides
lasting protection from humidity and mechanical dam-
age. Tolerance is $10 \%$.
OHMS

|  |  | AVAILABLE | RESISTANCE | VALUES | IN OHMS |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | *35 | 200 | * 450 | 1.750 | 4.500 | 25,000 |
| 5 | 50 | \%225 | 500 | 2,000 | 5,000 | 30,000 |
| 10 | 75 | 250 | 750 | 2,250 | 7,500 | 35,000 |
| *15 | 100 | 300 | 1,000 | 2,500 | 10,000 | 40,000 |
| 20 | *125 | 350 | 1.250 | 3.000 | 15,000 | 45,000 |
| 25 | 150 | 400 | 1,500 | 4,000 | 20,000 | 50,000 |

When Ordering, Specify Stock Number and Resistance.
Stock No. 12B649. 10-Watt Brown Devil, Size $13 / 4 \times 5 / 16^{\prime \prime}$
1 to 1,000 Ohms. Each. $34 \mathrm{c} \quad 15,000$ to 20,000 Ohms. Each. 47 c
50 to 5,000 Ohms. Each. 7,500 to 10,000 Ohms. Each.. 42c 30,000 to 50,000 Ohms. Each... 61 . 6 Stock No. 128650 . 20-Watt Brown Devil, Size $2 \times 7 / 16^{2 \prime}$ All values in above resistance table are available in 20 -watt size except those marked with (*)

1 to 1,000 Ohms. Each. $44 \mathrm{c} \quad 15,000$ to 20,000 Ohms. Each. 56 c
50 to 5,000 Ohms. Each. 48 c 25,000 to 40,000 Ohms. Each. 84 c


NEW OHMITE LITTLE DEVIL RESISTOR ASSORTMENT IN MOLDED PLASTIC CABINET FOR REGULAR PRICE OF RESISTORS ONLY
A rugged smooth operating molded plastic cabinet. 125 selected $1 / 2$-watt resistors for 40 values from 10 ohms to 10 meg. ohm. Cabinet has five drawers and a total of 40 compartments, it is dovetailed top and bottom for perfect stacking. You can find resistor values quickly, have visual check straight. Size $9^{\prime \prime}$ long, $43 / /^{\prime \prime}$ high and $51 / 4^{\prime \prime}$ only, no charge for cabinet. \$1225
No. 33All1. Complete. .


DRY CELLS, FLASHLIGHT, LANTERN BATTERIES

| Cat. No. | Factory No. | Description | List Each | Net Each | Unit Pkg. | $\begin{aligned} & \text { Per } \\ & \text { Plkg. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2141 | 950 | Large Unit Cell | \$0.10 | \$ 0.08 | 48 | \$3.06 |
| 2142 | 935 | Small Unit Cell | . 10 | . 08 | 12 | . 76 |
| 2143 | 915 | Penlight Battery | . 075 | .06 | 12 | . 59 |
| 2144 | 409 | Lantern Battery | . 70 | . 52 | 1 | . 52 |
| 2145 | No. 6 | Ignitor Dry Cell | . 65 | . 50 | 12 | 6.47 |
| 37 A84 | 1461 | Hot Shot | 3.35 | 2.50 | 6 | 2.27 |


$1 / 2$-WATT BTS. Size, $13 / 32 \times 1 / 8^{\prime \prime}$. Available in values from 470 ohms to 22 megohms.
Stock No. 15A1002. 10\% Tolerance. Each..... 10 Each...... 100 Lafs. Stock No. 12A648. 5\% Tolerance. 20 c 1-WATT BTA. Size, $23 / 32 \times 1 / 4$ Available in values from 330 ohm megohms.
Stock No. 15A1004. $10 \%$ Tolerance. Each.... ES Each... 12c Stock No. 15A1004. 10\% Tolerance
Stock No. $12 \mathrm{~B} 651.5 \%$ Toierance. EACH. 29c 2-WATT
BT2. Size, $13 / 4 \times 21 / 64^{\prime \prime}$. Available in valu
. 15 A1006. $10 \%$ Tolerance. Each..... 20 c (Each 100 Lots Price Applies to Purchase of One Value Only.
$1 / 2-$ WATT BW $1 / 2$. Size, $5 / 8 \times 3 / 16^{\prime \prime}$. Available in values from 0.47 to 820 Stock No. $15 A 1001.10 \%$ Tolerance.
EACH.................................. . . . . . . . . 10 Each...... 5 . Stock No. 12 B652. $5 \%$ Tolerance in values 20c 12c

 Stock No. $128653.5 \%$ Tolerance. Available in 28100 Lats. 18 Each....
values trom 10 to 4700 ohms. EACH......... $\$$. 2-WATT BW2. Size, $13 / 421 / 64^{\prime \prime}$. Available in values 1.0 to 6800 ohms. Stock
EACH. 20 c liot ion: 12 c 100 oots price Applies to purchasa of one value only.


## IRC POWER WIRE-WOUND RESISTORS

These famous IRC resistors have a durable cement coating, non-hygroscopic ceramic core, careful winding and highest quality resistance wire. Built to stand overloads, intense heat, dampness, humidity, and even salt water immersion. Units of 25 -watt and up include mtg. brackets. Accuracy on all within $5 \%$. Units of 25 -watt and up include mig. brackets. Accuracy on all with
FIXED TYPE AB, 10-WATT, Size $5 / 16 \times 13 / 4$ "


250 1007. Specify Resistance Wanted. 1 to 1,000 ohm. Each.
1,250 to $5,000 \mathrm{ohm}$. Each.......37e 12,500 to 20,000 ohm. Each. 47 e 6,000 to 10,000 ohm. Each...42c 25,000 ohm. Each............ $61 \mathbf{c}$


ADJUSTABLE - FURNISHED WITH ONE BAND
25 to 200-Watt types now furnished with Positive Pressure Band-prevents oxidation and corrosion at point of contact-eliminates wire damage and breakage. Cannot be adjusted too tightly. Designed for high temperatures. TYPE ABA, 10-WATT, Size $5 / 16 \times 13 / 4$


TYPE DHA, 25-WATT, Size $9 / 16 \times 21 / 2$



Size $61 / 2 \times 11 / 8^{\prime \prime}$ in ranges shown below. Price includes mounting brackcts. Specify values wanted. Each complete with mounting brackets and one new type band.


CENTER TAP-INSULATED WIRE WOUNDS


Bakelite encased for high temperature. Ideal to balance circuits in sets and transmitters. $21 / 2^{\prime \prime}$ long, 5 watts.
No. 15A1081. 10, 20, 50, 100 or 200 ohm. Specify ohmage wanted. 21 C

Type HOA-Adjustable
size $101 / 2 \times 1 \psi^{\prime \prime}$ in ranges shown beow. Prices include mounting brack complete with mes wanted. Ekach and one new type band.

| Ohms $\left.\begin{array}{l}100 \\ 500\end{array}\right\}$ | $\begin{aligned} & \text { Ohms } \\ & 10,000 \\ & 15,000 \\ & 20,000 \end{aligned}$ | $\begin{array}{r} 3.30 \\ 2.42 \end{array}$ |
| :---: | :---: | :---: |
| 1,000 | 25,000 |  |
| 2,000) | 50,000 | 2.5 |
| 2,500 | - 75,000 | 2.8 |
| 5,000 J | - 100,000 | . 7 |
|  | Extra Sliders |  |

## 15A1015. for HAA HAOA…..... 12 Ec

COLOR CODE GUIDE
For Resistors


One of the most handy resistor Color Code Guides yet devised. The standard RMA range is automatically and accurately indicated. Everyone should have several on hand.
No. 16 All 6 . Each.


NEWEST COMPACT TUBULAR ELECTROLYTICS
Finest quality available, new, smaller size, ideal for all applications. Hermetically sealed in aluminum tube with external insulating sleeve. All Specify make wanted simply add to the stock number " $A$ " for Aerovox. " $M$ " for Mallory and

450 WORKINC VOLTS

| 450 | vorkinc | VOLTS | 150 | ORKINC | volts | 50 W | WORKING | Volts |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Cap. | Stock | Price | Cap. | Stock | Price | Cap. | Stock | Price |
| Mfd. | No. | Each | Mfd. |  | Each | Mfd. |  | Each |
| 4 | 15A201 | 5.53 | 8 | 15A222 | 5.44 | 5 | 15 A236 | \$.44 |
| 8 | 154202 | . 56 | 16 | 154224 | . 57 | 25 | 15A238 | . 57 |
| 10 | 15 A2 | . 82 | 20 | 15A2 | . 58 | 50 | 15A239 | 82 |
| 12 | 15 15204 | .68 | 30 | 154226 | . 69 | 100 | 15A240 | 88 |
| 20 | 15A206 | . 88 | 40 | $15 A 227$ | . | 25 W | WORKINC | Ts |
| 40 | 154207 | 1.18 | 50 | 15A228 |  | 10 |  | . 44 |
| 8-8 | 5 | 1.00 | 30-30 | 15A230 | 76 | 25 | 15A242 | 0 |
| 8-8 | SA209 | 1.23 | 50-30 | 15A401 | 1.88 | 100 |  | 1 |
| 15-15 | 15 A448 | 1.29 | 50-50 |  |  |  |  |  |
| * 4 Lea |  |  |  |  |  | 25-25 | 5A4 | 82 |



## WAX FILLED PAPER

## TUBULARS

Aerovox-Mallory-Sprague, compact, non-inductive wound, sealed in wax impregnated paper tubes with wax filled ends and bare wire leads. Standard quality. throughout. Specify make
wanted, adding to the stock number " $A$ " for Aerovox, "M" for Mallory, " $\$$ " for Sprague.
Average shipping weight, 3 oz. 600-VOLT

|  |  |  |  | 600-VOLT |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mid. | Stk. No. $15 A 304$ | Each $140$ | $\begin{aligned} & \text { Mfd. } \\ & .005 \end{aligned}$ | Stk. No. 15A311 | $\begin{aligned} & \text { Each } \\ & 14 \mathrm{c} \end{aligned}$ | $\begin{aligned} & \text { Mfd. } \\ & .04 \end{aligned}$ | Stk. No. $15 A 318$ | $\begin{aligned} & \text { Each } \\ & 19 \mathrm{c} \end{aligned}$ |
| . 00025 | 154305 | 14 c | . 006 | 154312 | 14 c | . 05 | 154319 | 22 c |
| . 0005 | 154306 | 14c | . 01 | 154313 | 18 c | . 06 | 154320 | 226 |
| . 001 | 154307 | 14 c | . 015 | 154314 | 16 c | . 1 | 154321 | 25 c |
| . 002 | 15 A308 | 14 c | . 02 | 154315 | 16 c | . 25 | 15 A322 | 29 c |
| . 003 | 154309 | 14 c | . 025 | 154316 | 19 c | . 5 | 15 A323 | 426 |
| . 004 | 15A310 | 14 c | . 03 | 154317 | 196 | 1. | 15 A324 | 68 c |
|  |  |  |  | 400-VOLT |  |  |  |  |
| . 05 | 15 A326 | 16 c | . 2 | 5A328 | 220 | . 5 | 15 A330 |  |
| . 1 | 15 A327 | 196 | . 25 | 15 A329 | 256 | 1. | 154331 | 48 c |

Sprague Triple Section
Tubular Electrolytics


## Servicemen Attention! SPRAGUE RESONANT CAPACITORS



A new type combination capacitor 455 KC the IF of most broadcast receivers. Connected from screen grid to ground or in AC/DC sets from Bto chassis ground permits on-the-nose They alignment without self oscillation. They are incorporated in the design
of many receivers and are now available as a regular replacement unit. All are $400=$ Volt DC and
Stk. No. Mfg. No. Size Mi, Each $\begin{array}{lllll}15 A 178 & 72 P 51 & 1 / 2 \times 11 / 8 & .05 & 30 \mathrm{c} \\ 15 A 179 & 72 P 52 & 1 / 2 \times 15 & 1 & 8\end{array}$


## AEROVOX

## Can Type Dry

## Electrolytics

Extremely compact etched roil dry electrolytics in be mounted in any position mounted in any posi-sub-panel. With standard threaded bushing, lock nut and insulated wire eads. Can is completely insulated from sections Shipping weight, 8 oz 450-Volt DC Working
Cap. $525-$ Volt Peak
San Map. Stk.
No.

75-Volt DC Working-600-Voli 2.06 For extra tough service such as PA $\begin{array}{llll}\text { power amplifiers, etc. } & \\ 8 & 15 A 257 & 136 \times 3 & \mathbf{1 . 3 2} \\ 16 & 15 A 258 & 138 \times 3 & \mathbf{2 . 0 6} \\ 8.8 & 15 A 259 & 13 / 8 \times 4 & \mathbf{2 . 1 5}\end{array}$

## AEROVOX HIGH VOLTAGE MIDGET TUBULARS



HIGH CAPACITY Low Voltage Tubulars
Compact like above, in aluminum tubes with external insulating covers.

Cap. DC Working Stock $\begin{array}{lccc}\text { Mfd. } & \text { Volts } & \text { No } & \text { Each } \\ 1000 & 3 & 15 A 1518 & \$ 1.08\end{array}$ | 1000 | 3 | $15 A 1518$ | $\$ 1.06$ |
| ---: | ---: | :--- | ---: |
| 1000 | 6 | $15 A 1519$ | 1.32 |
| 500 | 15 | $15 A 1520$ | 1.28 |
| 1000 | 12 | 158260 | 1.88 |
| 2000 | 6 | $15 B 261$ | 2.28 |

SPRAGUE TYPE AP HIGH VOLTAGE Can Types. 600 V. Wkg. 800 V. Peak Specially popular for PA.
theater and other applications where voltage is high and surges run over 600volts. Shipping weight, 8 oz.
Cap
Your Cap. Stock
Mfd. No.
 8 mfd., 800 volts 8 DC working, in Sq. with mtg. flange and insulated reads from bottom. SPRACUE No. RC 88,
No. 15A289. Net Each . 3.23

## MALLORY "FP" CONDENSERS

Highly dependable, compact dry electrolytics, hermetically sealed in aluminum cans. Specially designed for radio, felevision and other electronic circuits where ture are encountered. Internal design provides low RF impedance and minimum coupling between sections Twpedance and minimum coupling between sections. bakelite wafer provides insulated mounting when required. Has separate solder terminals to each section for the positive connection. Size, all are $1^{\prime \prime}$ diameter
 fortion units which are $13 /{ }^{\prime \prime}$. diame, all are $1^{\prime \prime}$ diameter $\times 2^{\prime \prime}$, except the four section units which are $13 / 8$ diameter, maximum length $3^{\prime \prime}$. Many popular
replacements for television receivers are included. See Mallon replacements for television receivers are included. See Mallory Television


## SPRAGUE TYPE "WR"" 500 Working- 600 Peak Volts DC

 AT NEW LOW PRICES! NOT SUBSTITUTES, but high voltage formation speifically designed for use wherever wet electrolytics stand high peak voltagen and $h$ andilo A-C ripplew
that might eanse ordinary \&50 volte drys to breals down.

| Cap. Mfd. | Stock No. | - | Your Cost |
| :---: | :---: | :---: | :---: |
| 8 | 15425t | $13 / 8 \times 3+\frac{5}{8}$ | Cos |
| 16 | 154252 | $13 / 8 \times 4{ }^{7}{ }^{7}$ | . |
| 25 | 154231 | $11 / 2 \times 5{ }^{\frac{1}{18}}{ }^{\prime \prime}$ |  |

## SPRAGUE

 MOLDED TUBULARS
## SPRAGUE

600 yed
Especlally suited for Television. Small size bakelite encased oil filled vacuum sealed tubulars at popular prices for high Temperature TV, Auto and AC/ DC receivers. Rugged, moisture resistant, non-inflammable and complefely insulated. Alf have $2^{\prime \prime}$ tinned leads that will not pull out. Average shipping weight,

| TM 600-VOLT |  |  |  |
| :---: | :---: | :---: | :---: |
| Mfd. | Size | Stk. No. | Each |
| . 001 | $8_{6} \times 1$ | 15445 | 15 |
| . 002 | $15 \times 1$ | 154455 | 15 |
| . 003 | * | 158369 |  |
| . 005 | $\times 11 / 4$ | 154456 | 5 |
| . 006 | $\times 11 /$ | $15 A 457$ | 5 |
| . 01 | $\times 11$ | 154458 |  |
| . 02 |  | 154459 | 18 c |
| . 03 |  | 158370 | 216 |
| . 05 | $1 / 2 \times 1$ | 154460 |  |
| . 1 | $17 / 8$ | 154461 | 28 c |
|  |  |  |  |
| for auto-vibrator and high voltage cir- |  |  |  |
| cuits. |  |  |  |
| . 002 | $\times 1$ | 158371 |  |
| . 003 | $3 / 8 \times 11 / 4$ | 158372 | 2 |
| . 005 | $\frac{7}{10} \times 11 / 4$ | 158373 | - |
| . 006 | ${ }^{1} 8 \times 11 / 4$ | 15 B 374 | 32 c |
| . 007 | $\times 11 / 4$ | 158375 | 32 c |
| . 0075 | 11 | 158376 | 32 c |
| . 008 | $\times 1$ | 158377 | 5 c |
| . 01 | $1 / 2 \times 1$ | 154497 | - |
| . 015 | $1 / 2 \times 11$ | 15 A498 | 356 |
| . 02 | , | 15 A499 | 5 c |
| TVM-TVQ 6000 AND $* 10,000-V O L T$ |  |  |  |
| Smallest size high voltage Television |  |  |  |
| capacitors. TVQ has special impreg- |  |  |  |
| nation and heavy outer wax coating. |  |  |  |
| . 0005 | $1 / 2 \times 11 /{ }^{\prime \prime}$ | 15A500 | 790 |
| . 001 5 $8 \times 17$ "15A501 |  |  |  |
| . 005 5 $5 \times 17 / 8{ }^{\prime \prime}$ [5A502 |  |  |  |
| .0005* $588 \times 178^{\prime \prime}$ 154503 |  |  |  |
| . 01 TVO | $\times 178$ | 15 A504 | 2 C |
| .05 TVQ | $18 \times 25 / 8$ | 154505 | 946 |
| Large Sales Volume - Fast Turnover assures you of an Ever Fresh Supply of Condensers at B-A. |  |  |  |
|  |  |  |  |
|  |  |  |  |

# NOISE FILTERS-MICA and GERAMIC CAPACIIORS 

General Purpose FILTERS SPRAGUE IF TYPES


Simple, effective suppressors of
Radio and Television interference. Designed for installations at the noise source. Small self-contained and easily applied to any electrical device. For connection across the power line, motor brushes, confacts, etc., maxiprovided with a mounting strap and two wire leads.

TYPE IF-SI
For use across make and break contacts, such as thermostars, efc. Length, $27 / 16^{\prime \prime}$; dia
$66 c$ TYPE IF-21
Dual type for use across brushes of fractional horsepower motors, also across line terminals of motors with can grounded to
$2^{\circ} 3 / 16^{\prime \prime}$; dia.,
No. 19A76. NET EACH
89 c

## TYPE IF-15

A filter for all small motor operated devices, mixers, fans, vacuum cleaners, etc. Len
No. $19 A 75$.
NET EACH
$\$ 1.11$

## TYPE IF-11

Dual high capacity filter for use on large motors over 1 horsepower and up to 220 -volt $A C$ or $D C$. Also used devices such as projectors, arc-welders. etc. Length, $51 / 2^{\prime \prime}$; dia No. 19 A77.
$\$ 2.56$

## HEAVY DUTY FILTERS SPRAGUE FILTEROL TYPE



Power type filters for series connecfion to power line with casing grounded to the frame of the offending demay be necessary to install a Filterol in each side of the power line, though one unit usually is sufficient.
fabs or flanges and two solder-ong screw terminals. All are safely insulated for at least 115 -volt AC or DC. Selection of type 1,2 and 3, Fig. A,
should be based entirely on current rating of appliance or motor being filtered.
Type 4, Fig. B, incorporates a Sprague Hy-pass Capacitor and provides exquencies above 5 MC and is effective up to 150 MC or more. Type 4 is rated at 220 -volt AC or of type 1 is 1 -amp., 2 is 10 -amp., 3 is 35 -amp. and 4 is 20 -amp.
5 th. Fitterol $\begin{array}{ccc}\text { Stk. Filterol } & \text { Overall } & \text { Net } \\ \text { No. Type Amps } & \text { Size } & \text { Each } \\ 19480 & 1 & 21 / 4 \times{ }^{7} / 8 \times 11 / 4\end{array}$ 19481
19482
$19 A 83$
MEISSNER LINE FILTERS


Highly efficient
grounded and shieldgrounded and shield-
ed interference filter of the inductorcapacitor type which filters both sides of
the line. Effectively to radio reception caused by razors, food mixers, vacuum cleaners, electric fans and any other motor within the 300 -watt rating, Connects to light No. 20A549. Your Cost..

Fluorescent Lamp Filters SPRAGUE TYPE IF-37


A simple compact filter for suppression of radio interference from single fluorescent fixtures. Connect directly in the fixture as outlined in the diagram. Also very effective on adding connected direct to the motor leads Use on 110 or 220 AC or DC lines. No. 19A79.

88c


Designed especially to suppress noises caused by Fluorescent Lamps. One of the most frequently needed suppressors now with the general acceptance of Fluorescent Lighting. Also may be used for correcting interference caused by electrically operated machines and
appliances. After installed, requires appliances. After installed. requires
no further attention.
No. 19A72. Net Each ......
Mallory Appliance Filter
 Heavy duty type "LC"
inductance capacity filter, recommended where severe noise interference to radio and television is
eneountered. Has line
cord and flug for outiet
onnection and a receptacle in the filter unit for plugging in the interfering appliance or motor. May be
used as a portable unit or permanentused as a portable unit or permanent-
ly mounted from base flange. Has provision tor ground lead connection
Rating $115 / 220 \mathrm{AC} / \mathrm{DC}$. Rating
No. $19 A 74$.
Type LC-5-5 Amp........ ©8.
No. 19 B 49.
Type LC $-10-10 \mathrm{Amp} . . .$.
PLUG-IN TYPE

## RADIO NOISE FILTER



No. 19A1209. . A.
INTERFERENCE FILTERS


Rejects interference on television, FM or AM Radio. Highly efficient
tunable wave trap, works tunable wave trap, works in any antenna line 50 to
400 ohms. Furnished with complete instructions.
frequencies. * Interfering frequencies.

No. Freq. Range\% No. Freq. Range* $20 A 544$ 6-13 $204547 \quad 54-108$ $\begin{array}{llll}20 A 545 & 13-27 & 20 A 548 & 108-216 \\ 20 A 546 & 27-54 & \end{array}$ 204546
CHOICE, NET EACH . . . . . . . 32.94

TELEVISION INTERFERENCE HANDBOOK. The first publication to heip identify and eliminate many of the sources of television interference. An invaluable aid No. 16B249. EACH

## MIDGET MICA CONDENSERS

Built of selected mica and foil: molded bakelite casing impervious to mois ture, heat or mechanical damage. Type " $A$ " is $25 / 32^{\prime \prime}$ square, " $B$ " $3 / 4 \times 1 / 2 \times$ 3/16" for both standard or silver micas.


Encased i


## CENTRALAB "HI-CAP" CERAMIC CAPACITORS

 Temperature Compensating

Specially designed precision ceramic capacitors that provide the ultimate in stability for frequency control of R.F. circuits, TV, $F M, A M$ and VFO.
Type "NPO" are zero temperature capacitors where no change with temperature is desired. Type N750 provide a uniform negative change with temperature, used to correct frequency drift. rate of change . $00075 \mathrm{mmf} /$ $\mathrm{mmf} /{ }^{\circ} \mathrm{C}$. Tubular ceramic construction with electro bonded silver plates and linned leads. 500 -volt DC working and
1500 -volt DC test. Size. CC20, $7 / 16 x$

 $15 A 152 \mathrm{CC} 20 Z \quad .5 \pm .25 \mathrm{mmf} .44 \mathrm{C}$

$15 A 153 \mathrm{CC} 20 Z \quad 1.5 \pm 25 \mathrm{mmf} 44 \mathrm{c}$ $\begin{array}{llll}15 A 154 & C C 20 Z & 3.3 & \pm .25 \mathrm{mmf} .44 \mathrm{c} \\ 15 A 155 & \text { CC } 20 Z & 4.7 & \pm .5 \mathrm{mmf} .35 \mathrm{c} \\ 15 A 156 & \mathrm{CC} 20 Z & 10.0 & \pm .5 \mathrm{mmf} .35 \mathrm{c}\end{array}$ | $15 A 158$ | $C C$ | $C 2$ | 24.0 |
| :--- | :--- | :--- | :--- | $\begin{array}{lllll}15 A 160 & C C 32 Z & 100 & \pm 21 / 2 \% & 290 \\ 15 A 161 & C C 35 Z & 150 & \pm 5 & \% \\ 290 \\ 15 A 162 & C C 45 Z & 220 & \pm 5 & \% \\ 290\end{array}$ TYPE N750 (Neg. Temp.) 29 C $15 A 16+$ CC2ON

$15 A 166$
$15 A 167$
$15 A 1$
$15 A 1$
15A1 $15 A 170$
$15 A 171$ $15 A 171$
$15 A 172$


No. 208641. For interference on 10 through 20 meters.
Your Cost, Each.
$\$ 2.94$
No. 20B642. For interference on 40 and 80 meters.
 and puncture proof. will not short or become intermittent: Very compact. higher voltage and higher capacitance in less space. Non-inductive, low dewer factor. A general purpose condenser for by-pass and coupling in non-resonant circuits for TV, FM, AF
VHF VHF and UHF. Use them for permanent replacement of old types.


## TELEVISION HI-CAP

 TVI-501 Ceramic Capacitor for filter or by-pass in high sion equipment. Solid brass terminals silver plated. Capacity 500 mmf ., working voltagediameter, $1 / 2^{\prime \prime}$ iong.
No. $15 A 141$
YOUR COST $\qquad$ $\$ 1.03$

## SPRAGUE DISC

CERAMIC CAPACITORS


For RF by-pass or Radio, Television and FM circuits. They conist of a round, high ceramic wafer with silvered electrodes on each surface. Leads silver surface and an overall moisture resistant coating is applied. Each capacitor value is cleary marked. Oper-
ating voltage $500-\mathrm{Volt} \mathrm{DC}$. Test 1000 . Max. size is $19 / 32^{\prime \prime}$ by $5 / 32^{\prime \prime}$ thick. stk. No. Cap. Mfd. Each Pkg. of 5 $15 A 173$
$15 A 174$ $15 A 175$ $15 A 176$
$15 A 177$
$-8088$

A very small control only $15 / 16^{\prime \prime}$ diameter available in full line of resistances, tapers and taps. New type
contact gives very smooth and quiet contact gives very smooth and quiet
operation. New type flat shaft $2^{\prime \prime}$ long easily cut to any length. Clips supplied with each control to permis use of sef screw, push-on or knurled knobs. No extra shafts

| SHk. No. | Type | R |
| :--- | :--- | :--- |
| $14 A 719$ | $U-12$ | 5 |
| $14 A 720$ | $U-14$ | 5 |
| $14 A 721$ | $U-18$ | 10 |
| $14 A 722$ | $U-19$ | 10 |
| $14 A 723$ | $U-20$ | 10 |
| $14 A 724$ | $U-21$ | $15 M$ |
| $14 A 725$ | $U-22$ | 15 |
| $14 A 726$ | $U-24$ | 20 |
| $14 A 727$ | $U-28$ | 25 |
| $14 A 728$ | $U-29$ | 25 |
| $14 A 729$ | $U-33$ | 50 |
| $14 A 730$ | $U-34$ | 50 |
| $14 A 731$ | $U-35$ | 50 |
| $14 A 732$ | $U-36$ | 75 |
| $14 A 733$ | $U-39$ | 100 |
| $14 A 734$ | $U-40$ | 100 |
| $14 A 735$ | $U-41$ | 100 |
| $14 A 736$ | $U-42$ | 150 |
| $14 A 737$ | $U-43$ | 200 |
| $14 A 738$ | $U-44$ | 250 |
| $14 A 739$ | $U-45$ | 250 |
| $14 A 740$ | $U-46$ | 250 |
| $14 A 741$ | $U-48$ | 500 |
| $14 A 742$ | $U-50$ | 500 |
| $14 A 743$ | $U-51$ | 750 |
| $14 A 744$ | $U-53$ | 1 M |
| $14 A 745$ | $U-54$ | 1 M |
| $14 A 746$ | $U-55$ | 2 M |
| $14 A 747$ | $U-57$ | 3 M |
| $14 A 748$ | $U-65$ | 5 M |

## Any of EACH.

## stk. No.

$14 A 749$
$14 A 750$

## 144751 <br> \section*{144752}

## 144753 144754

"MR" MIDGET CONTROLS


| Stock | Mallory | Ohms | Taper |
| :---: | :---: | :---: | :---: |
| No. | Type | Res. | No. |
| 14.63 | - MR14 | 5 M | 4 A |
| 11.164 | * M1218 | 10M | 1 |
| 14.165 | * M119 | 10 M | 2 |
| 14466 | - MR20 | 10 M | 4 |
| $11.16 \%$ | *MR21 | 15\% | 1 |
| 14.168 | * M1222 | 15 M | 2 |
| 11.169 | - MR24 | 20M | 1 |
| 11.170 | * MR28 | 25.1 | 2 |
| 14A\%1 | -MR23 | 25 M | 4 |
| 14.172 | MR33 | 50 M | 1 |
| 14.173 | *M134 | 50 M | 2 |
| 14.18 | MR35 | 50M | 4 |
| 14A75 | M1236 | 75 M | 1 |
| 14.176 | MR39 | 10031 | 1 |
| 14.17\% | MR40 | 1003 | 2 |
| 14.178 | MR41 | 10031 | 4 |
| 14.179 | MR42 | 150 M | 1 |
| 14.180 | MR44 | 25031 | 1 |
| 14.181 | MR15 | 250 M | 2 |
| 14.48? | MR48 | 50031 | 1 |
| 14.183 | MR50 | 500 M | 4 |
| 14.184 | MR51 | 75031 | 1 |
| 14.183 | MR53 | 1 Meg. | . 1 |
| 14.186 | MR55 | 2 Meg. | 1 |
| 14.187 | MR57 | 3 Meg . | 1 |
| Iny of the above. |  |  |  |
| J.ess S | itch, Fat | . . . . | 3 ) |

Heavy Duty
Type "M"'
Wire Wound
Rheostats and
Potentiometers


## Volume Control Fittings



No. 14A184; Mallory 178, wrench. centers mounting bracket. No. 14A186; Mallory RB249: $2 \psi^{*}$ centera mounting bracke ANS OF THE AIBOVE, NET EACH
No. 14A187; Mallory A11260/2, hex mhoulder nut for thice panels.
long. NACH ................ 888 No. 14A188: Mallory A11260/12. 1/2"
long hex shoulder nut.
Filin ...............................

EXTENSION SHAFTS
No. 14A189: Mallory RS242, 1/4"x4" With ${ }^{\text {y }}$ " 14 flat. 190 : Mallory RS243; ""x4"
 with $1 / 64^{\prime \prime}$ plat.
INY OH THE AHOVE,
NET EACH ............... 24 ©

MR CONTROL DEAL "Just it" for any service shop. 15 switches for same. The cabinet of
sfurdy steel construction is yours free. You pay only for the controls and switches.
No. 36A7. Mallory Control Kif with YOUR COST
\$14.55

## Carbon Control Cleaner

Repairs noisy volume controls, switches, etc. Removes oxidation coating contacts.
No. 16 contacts. 2-Oz. EACH
35 c
CARBON-X. For noisy carbon conspots and the job is done.
No. 11 A23. 2-Oz. Boffle.
59c
Disgipate 4 -wntfs, insnated for fact inftr. 2810 लfferfive 395 dial plate


TVPE "M" POTENTIOMETERS $\begin{array}{cccc}\text { Siock Mallory } & \text { Ohms } & \text { M.A. } \\ \text { No. } & \text { Type } & \text { Ites. } & \text { Cap. }\end{array}$ | 1 |
| :--- |
| 1 |
| 1 |
| 1 |
| 1 |
| 1 |
| 1 |
| 1 | 14.113 14A143

| 14 A 143 | $M 200 \mathrm{P}$ | 200 | 140 |
| :--- | :--- | :--- | :--- |
| 14.1146 | $M 400 \mathrm{P}$ | 400 | 100 |
| 14.1147 | 3500 P | 500 | 90 | Any of the above "Type "M" $73 C$


| $14 A 149$ | $M 1 M P$ | 1.000 | 63 |
| :--- | :--- | :--- | :--- |
| 14.1150 | $M 2 M P$ | 2.000 | 45 |
| 11.1151 | $M 3 M P$ | 3.000 | 37 |
| 11.1159 | $M 4 M P$ | 4.000 | 32 |
| 1158 | $M 5 M P$ | 5.000 | 28 |

Any of the nbove Type "M"" $8 \mathbf{C l}$ C
Potentiometerw, NFT E.ICH

| 14.1154 | $M 10 M P$ | 10.000 | 20 |
| :--- | :--- | :--- | :--- |
| 14.1155 | $M 15 M P$ | 16.000 | 16 |
| 14.1156 | $M 120 M P$ | 20.000 | 14 | $14.115 \%$ \$125 MP 25.000

Intentiometers. NETEANHC $\begin{array}{lll}14.158 & M 50 M P & 50.000 \\ 14.159 & M 50 \mathrm{MP} & 70.000\end{array}$ The aliove Type "M" © Etched Dial Plates proper degrees matching rotation of various rheostats.
"M" and "WW W. To controls.
No, 14A161: Type 396 for
No. 14.162; Type 39 for use with Fo. 14.1163: Type 398 for carbon controls with switc
lour Cholee, Fach

## Fader Control

14A169. TRP609 Fader control I Meg. tapped at 500,000 ohms. YOUR COST, EACH
$\$ 1.09$

## CENTRALAB ECONOMY AMPLIFIER

 CONTROLSDesigned primarily for inexpensive sound equipment, fading = = = = and mixing systems. Non-rubbing contact for smooth, quiet will dissipate I watt. All units 13 " diameter $9 / 16^{\prime \prime}$ deep, with $21 / 4^{\prime \prime}$ shaft and $3 /$ B $^{\prime \prime}$ bushing.

| Stock No. | CRL <br> Number | Resistance Ohms | Description | Net |
| :---: | :---: | :---: | :---: | :---: |
| 14 N288 | Number | Ohms | Cain Control | S1.03 |
| 14 A 289 | M-142 | 1 Meg. | Gain Control | 1.03 |
| 14 A 290 | MT-144 | 500 M | Straight Fader | 1.18 |
| 14 A291 | MT-145 | 1 Meg . | Straight Fader | 1.18 |
| 14 A292 | MX-147 | 200 | "Delta-T" Pad | 2.08 |
| 144293 | MX-148 | 500 | "Delta-T" Pad | 2.08 |

Switches. Mallory No. U-1485.
Nomplete
YOUR COST
\$14.55
EXPLANATION OF TAPERS
No. 1-Modified logarithmic left hand
No Antenna and Audio
No. 2-R. H. logarithmic - Cathode volage control.
shunt and series and right hand No. 4 LLinear.
No. 7-Left hand - Antenna shunt plus bias control.
bers on your order to our stock num
have attached $21 / 2^{\prime \prime}$ shatt, flatfed, MIDCET RADIOHMS are $3 / 32^{\prime \prime}$ in diameter. Attachable switches for Midget Radiohms available as listed Midge
below.

| Stock No. | Midge ${ }^{+}$ Fact No. | Ohms Res. | CRL Curve |
| :---: | :---: | :---: | :---: |
| $14 \mathrm{A214}$ | N-157 | 500 | 1 |
| 144215 | N-158 | 1,000 |  |
| 144216 | N-159 | 2,000 | 1 |
| 144217 | N. 160 | 3,000 | 1 |
| 144218 | N-161 | 4000 | 1 |
| 144219 | N. 162 | 5,000 | 6 |
| 144220 | $\mathrm{N}-163$ | 7,500 | 1 |
| 144221 | N-107 | 10,000 | 1 |
| 144222 | N-108 | 10,000 | 4 |
| 144223 | N-109 | 10,000 | 6 |
| 144224 | N-110 | 15,000 | 3 |
| 144225 | N-113 | 25,000 | 1 |
| 14 A226 | N-164 | 25,000 | 4 |
| 14 A227 | N-114 | 50,000 | 1 |
| 144228 | N-115 | 50,000 | 6 |
| 144229 | N-166 | 75,000 | 4 |
| 14 A 230 | N-116 | 100,000 | 1 |
| 14 A 231 | N-117 | 100,000 | 6 |
| 14 A 232 | N-168 | 200,000 | 1 |
| 14 A 233 | N-169 | 200,000 | 4 |
| 144234 | N-102 | 250,000 | 6 |
| 144235 | N-118 | 500,000 | 1 |
| 14 A236 | N-170 | 500,000 | 4 |
| 14 A 237 | $\mathrm{N}-103$ | 500,000 | 6 |
| 14 A238 | N-171 | 750,000 | 6 |
| 144239 | N-104 | 1 Meg. | 6 |
| 144240 | N-155 | 2 Megs. | 6 |
| 14 A 241 | N-156 | 3 Megs. | 6 |

MIDGET RADIOHMS

| Stock No. | Fact. No. | Resist. Max. Ohms | Tap. at Ohms |
| :---: | :---: | :---: | :---: |
| 14A242 | NT-147 | 250M | 125 M |
| 144254 | NT-148 | 350 M | 75 M |
| 144243 | NT-149 | 500 M | 250M |
| 144244 | NT-150 | 1 Meg . | 200M |
| 144255 | NT-152 | 2 Meg . | 400M |
| 144245 | NT-153 | 2 Meg. | Meg. |
| TAPPED | RADIOHM | MS. |  |
| Your Cho | ce, Nef | Each |  |

MIDGET RADIOHMS with Split Knurl Shafts

| Stock No. | Resistance Ohms Curve | Net Each |
| :---: | :---: | :---: |
| 144246 | 25 M 4 | 50.73 |
| 144247 | $50 \mathrm{M} \quad 6$ | .73 |
| 144248 | 250 M 6 | .73 |
| 144249 | $500 \mathrm{M} \quad 6$ | .73 |
| 144250 | 1 Meg. 6 | 73 |
| 144251 | 2 Megs. 6 | . 73 |
| 14 A 252 | 500M Tap 150M | 1.09 |
| 14 A 253 | 1 Meg. Tap 300M | 1.08 |

ATTACHABLE SWITCHES | Stk. No. | Fact. No. |
| :--- | :--- |
| 14A266 |  |
| K-155. |  |
| S.P.S.T. | Net Each |
| $-.35 \mathbf{c}$ |  | $14 A 266$

$14 A 267$ $14 A 268$

SHAFTS AND COUPLERS



A New Control engineered to meet the needs of modern television and radio replacements. Very compact, only $15 / 16^{\prime \prime}$
diameter with $1 /{ }^{\prime \prime}$ bushing. Complete diamefer with $1 / 4$ " bushing. Complete
with fixed $3^{\prime \prime}$ shaft which will take Wnurled fixed 3 shaft which will take knurled, flatted or slotted knobs and easily cut to any length. Extra fixed
shafts listed below. Switches quickly shafts listed below. Switches quickly attached. Stk. No. 1RC Type Ohms Res. Taper

\& 270-Ohm, $1 / 2-$ Watt Res. included.
YOUR CHOICE OF ABOVE.

## TAPPED CONTROLS LESS SWITCH



## NEW IRC SWITCHES

Specially engineered for the $Q$ controls. Bakelite base precision molded.
Easily attached. One-piece silver Easily attached. One-piece silver plated terminal has elongated hole.
Type $76-1$ S.P.S.T. Switch.
No. 148506. EACH.
Type $76-2$ D.P.S.T. Switch.... No. 148506 . EACH. Type 76-2 D.P.S.T. Sw
No. 148507 . EACH 35c

## TYPE "Q" INTERCHANGEABLE FIXED SHAFTS



BQ. Slotted or tongued. Includes $7 / 16^{\prime \prime}$ and $15 / 8^{\prime \prime}$ guide
and tongue $31 / 2^{\prime \prime}$ long, $1 / 4^{\prime \prime}$ dia. No. 14A384. Ea. 27 C and tongue $31 / 2^{\prime \prime}$ long, $1 / 4^{\prime \prime}$ dia. No. 14A384. Ea. 27 C
CQ. Slotted with hole in bottom. Slot $1 / 8 \times 3 / 16^{\prime \prime}$, $11^{\prime \prime}$ long, $1 / 4^{\prime \prime}$ dia. No. $14 A 383$. Each.... $186^{\prime \prime}$ long, $1 / 4^{\prime \prime}$ dia. No. 144382 . Each............. 18 c JQ. $1 / 8^{\prime \prime}$ dia. with $105^{\prime \prime}$ flat, for inside of other conKQ. Special $1 / 4^{\prime \prime}$ rd. with two concentric holes in end, Ke. Special $1 / 4^{\prime \prime}$ rd, with two concentric holes in end,
$13 / 8$ long. No. $14 A 380$. Each................ 18 c LQ. Short flat with groove and threaded hole. $1 / 32^{\prime \prime}$ deep 1 lat. $1 / 32^{\prime \prime}$ deep groove, $l^{\prime \prime}$ long, $1 / 4^{\prime \prime}$ diameter.
No. 14A379. Each. ........................... 21 c No. 14A379. Each............................. 21 c MQ. Double flat ${ }^{3 / 1 / /^{\prime \prime}}$ thread on end. 2 concentric
holes in end. $11 / 2^{\prime \prime}$ long. No. 14A378. Each...27c NQ. Universal flatted and slotted shaft $4^{4 \prime}$ long. PQ. Universal full round. For $1 / 4^{\prime \prime}$ or $3 / 8^{\prime \prime}$ bushing. 3/8, bushing included. No. 14 A376. Each. .i. 21 c RQ. Short screwdriver slot. $1 / 2^{\prime \prime}$ SQ. Knuried and screwdriver slot.
$1 / 4$ in $^{\prime \prime}$ diameter, $1 / 4^{\prime \prime}$ long. No. 14A374. Each

18 c

## "A": Uniform resistance chang IRC VOLUME CONTROL TAPERS

"A": Uniform resistance change over entire range. "B": Semi-logarithmic curve used as tone control or audio circuit control. "C": Has logarithmic curve for audio or antenna shunt. "H": A tapped logarithmic curve used as
audio level control for automatic bass compensation. "D": Tapered at both ends for grid bias and antenna control

NEW "Q" TYPE VOLUME CONTROL CABINET


Perfect for the serviceman, 18 new type " $Q$ " controls, switches and special shafts are in individual compartments for easy accessibility. Metal cabinet measures $41 / 2 \times 73 / 8 \times 141 / 2^{\prime \prime}$ with marked compartments plus three drawers for switches and small parts. Hinged door closes tightly to keep stock clean. You purchase only the controls and Cabinet is free. No. 36A99. NET EACH
$\$ 18.17$
No. 14A294 NEW CENTRALAB CONTROL CUIDE
No. 14A294. NEW 11 th Edition. Each......................

RHEOSTATS, KITS

## IRC ALL METAL RHEOSTATS

Unique, ali-metal aluminum construction halves operating temperafure. Rating based tire element of connector ent. Spiral connector gives posirive contach between rotor arm and center terminal. Can be used as either a potentiometer or rheostar. Diameter, $1 / 32$ for 25 watts and $23 / \mathrm{s}^{\prime \prime}$ for 50 watts. A dependable, long life unit.

| Ohms | $\begin{aligned} & \text { PR-25 } \\ & \text { Stk. No. } \end{aligned}$ | ( 25 Watts) <br> Max MA | Net Price |
| :---: | :---: | :---: | :---: |
| 6 | 19 A174 | 2,040 | \$3.06 |
| 10 | 194175 | 1,580 | 3.08 |
| 25 | $19 A 176$ | 1,000 | 3.06 |
| 50 | 19 A177 | 709 | 3.06 |
| 100 | $19 \mathrm{Al78}$ | 500 | 3.06 |
| 250 | $19 \mathrm{Al79}$ | 315 | 3.06 |
| 500 | 194180 | 222 |  |
| 1000 | 19 Al 181 | 155 |  |
| 2500 | $19 \mathrm{Al82}$ | 100 | 3.44 |
| 5000 | 194183 | 70 | 3.64 |
|  | PR-50 | (50 Watts) |  |
| 6 | 194184 | 2,880 | 33 |
| 16 | 19A185 | 1,770 | 3.44 |
| 50 | 19 A186 | 1,000 | 3.44 |
| 125 | 194187 | 630 |  |
| 225 | 19A188 | 470 | 44 |
| 500 | 194189 | 315 | 3.44 |
| 1000 | 19A190 | 223 | 3.64 |
| 2500 | 19A191 | 140 | 3.64 |
| 5000 | 194192 | 100 | 3.82 |
| 10000 | 194193 | 70 | 3.82 |

## RESIST-O-KITS



FLAT POCKET SIZE KITS OF $1 / 2$ - OR 1-WATT. BT insulated resistors of most popular values. All steel cabinets $11 / 16 \times 37 / 8 \times 65 /$ /' $^{\prime \prime}$. Ten compartments with snap on lid.
IRC Resist-O-Kit No. 7 consisting of 45 BTS 1/2-wat† Resistors in cabinet. No. 14A373.
$\$ 4.41$
IRC Resist-O-Kit No. 8 consisting of 30 BTA l-watt Resistors in cabinet. No. $14 A 372$.
YOUR COST.
$\$ 4.41$
RESIST-O-CABINET


Three New IRC all steel Cabinets complete with resistors of most popular values. 4 drawers with non-spill teature, and cabinets designed for
stacking. Cabinet size, $53 / 8 \times 515 / 16 x$ 107/8"
Resist-O-Cabinet No. 4 consisting of cabinet. $1 / 2$ and BT $1 / 2$ Resistors in No. 33A112. YOUR COST $\$ 9.80$ Resist-O-Cabinet No. 5 consisting of 83 BW-1 and BTA Resisfors in cabinet.
$\$ 12.20$
Resist-O-Cabinet No. 6 consisting of 91 insulated resistors and close tolerance Precistors 1 \% precision resistors). 44 1/2-watt. 351 -watt. 72 2watt, and 1 each $1 \mathrm{M}, 10 \mathrm{M}, .1$ Meg.
Precistors.
No. 33A114. Your cost $\$ 14,65$

## IF Transformers - Antenna and RF Coils - Wave Traps

## UNIVERSAL ADJUSTABLE COILS

 Permit EXACT duplication
of defcctive R.F., Ant., or Osc. coils in the broadcast or short wave band of
ANY receiver! Inductance variable over wide range driver adjustment for exact matching of inductance of
old coil. B. C. Osc. Coils adjustable for l.F. frequencies from 175 to 520 k.c. may be used in either
"cut plate" tuning condenser, or padded circuits. S.W. osc. coil for 292 mmf. condenser. Shields $13 / 4^{\prime \prime}$ square


## Economy Adjustable Coils

 a $\mathrm{Hi} Q$ powdered iron core. Ant. and RF coils have high impedance primaries and litz wire secondaries. BC SW $6 S A 7$ type tubes. BC coils $7 / 16 \times 2^{\prime \prime}$, SW coils $7 / 16 \times 15 / 8^{\prime \prime}$. Not shielded BROADCAST BAND COILSStock No. Meis. No. PRICE $\begin{array}{llll}\text { Stock No. } & \text { Meis. No. } & & \text { PRICE } \\ 17 A 1169 & 14-1056 & \text { ANT. } & 85 \mathrm{c} \\ 17 A 1170 & 14-1057 & \text { RF } & 850\end{array}$ $\begin{array}{llll}17 A 1170 & 14-1057 & \text { R.F. } & 85 \mathrm{c} \\ 17 \mathrm{~A} 1171 & 14-1058 & \text { OSC. } & 85 \mathrm{c}\end{array}$
 $\begin{array}{llll}17 A 1172 & 14-1061 & \text { ANT. } & \mathbf{7 9} \text { c } \\ 17 A 1173 & 14-1062 & \text { R.F. } & \mathbf{7 9} \mathbf{c} \\ 17 A 1174 & 14-1063 & \text { OSC. } & \mathbf{7 9} \mathbf{c}\end{array}$ $\begin{array}{lll}17 A 1175 & 14-1064 & \text { ANT. } \\ 179 \mathrm{c}\end{array}$ $\begin{array}{llll}17 A 1176 & 14-1065 & \text { R.F. } & 79 \mathrm{C} \\ 17 \mathrm{~A} 1177 & 14-1066 & \text { OSC. } & 79 \mathrm{c}\end{array}$ UNIVERSAL TYPE Oscillator Coil 456 Tou, $12 a 11$

## PHONO-OSC. COIL

 For easy building of EITHER "Wireless" or "DircetConnected" Ph on o. Osc. unit for record playing
through radio sets. Compact coil ( $13 / 8^{\prime \prime}$ sq, and either radio or record player. Knob adjusts for clear frequency in B.C. b a nd.


## B.F.O. Coil

For use with standard I.F.'s in supers. Supplies the "beat" note necessary to locating weak stations. Mica trimmed. Freq. Range $290-650 \mathrm{KC}$. Peaked at 456 KC . In $13 / 8^{\prime \prime}$ sq. $\times 31 / 2^{\prime \prime}$ can 16A218. Type 17-6753.
Each ........................... 4

Broadcast Wave Traps


## MEISSNER IF TRANSFORMERS



Standard


## STANDARD AIR CORE I.F.'

Popular for general replacement needs. All are double-tuned with ceramic base mica-dielectric trimmers. Windings of high grade Litz wire are fully impregnated. Black crackle finish can $13 / 8$ " square, $3^{\prime \prime}$ high.
456 KC
Stk. No. Meis. No. Net Ea. $\quad$ Stk. No. 175 KC Meis. No. Net Ea.
Input 164211 16-5712 $\$ 1.23$ Input 164209 l6-5700 $\$ 1.23$
$\begin{array}{llllllll}\text { Inter. } & 16 A 212 & 16-6133 & 1.23 & \text { Output } 16 A 210 & 16-5702 & 1.23 \\ \text { Output } & 16 A 213 & 16-5714 & 1.23 & \text { 1.23 }\end{array}$
$\begin{array}{lllllll}\text { Out CT. } 17 A 1124 & 16-3736 & 1.23 & \text { Out CT. } 17 A 1123 & 16-3731 & 1.23\end{array}$
STANDARD "FERROCART" IRON CORE I.F.'s
HICH "Q" Ferrocart powdered iron core provides inereased selectivity and gain for many "commercial" receivers with only a single stage I.F. channel, gompact (only $13 /$ " $^{\prime \prime}$ square and $3^{\prime \prime}$ high). double tuned with ceramic base mica-dielectric trimmers, with windings of impregnated Litz wire.
$\begin{array}{lllllll} & \text { Stk. No. Mels. No. Net Ea. } & & \text { Stk. No. Meis. No. Net Ea. } \\ \text { Input } \\ 16 A 198 & 16-5740 & \$ 1.65 & \text { Input } & 16 A 214 & 16-5728 & \$ 1.65\end{array}$ Output 16A200 16-5742 1.65 Output $16 A 216$ 16-5730 1.65

Minimum space with maximum performance! Only $11 / 4^{\prime \prime}$ square and $21 / 2^{\prime \prime}$ high-l-piece molded plastic trimmer base and coil form. Universal type windings of LITZ WIRE. Wide, stable, frequency range-double funedimmune to temperature, vibration, or humidity effects. 175 KC
$\begin{array}{llllllll} & \text { Stk. No. } & \text { Meis. No. } & \text { Net Ea. } & & \text { Stk. No. Meis. No. Net Ea, } & \text { Me. } \\ \text { Input } & 16 A 204 & 16-6658 & \text { S0.82 } & \text { Input } & 16 A 201 & 16-6649 & \$ 0.82 \\ \text { Inter. } & 164205 & 16-6659 & .82 & \text { Inter. } & 16 A 202 & 16-6650 & .82\end{array}$ $\begin{array}{lllllll}\text { Inter. } \\ \text { Output } & 16 A 206 & 16-6660 & .82 & \text { Inter. } & 164202 & 16-6650\end{array} \quad .82$ SMALL "PLASTIC" AIR CORE I.F.'s- 456 K.C.
Similar to larger type above. Shield size $11 / g^{\prime \prime}$ square, $21 / 2^{\prime \prime}$ high.
Input $17 A 1125$ Meis. No. Net Ea. Output 17 . No. Mes. No. Net Ea.
PLASTICBASE "EERROCART"IRON CORE F'
IRON CORE with unusually HICH CAIN and superior selectivity curves for improving performance of compact and auto sets having only a single I.F stase. Not recommended for 2-stage systems. Size $11 / 4$ square, $21 / 2$ high Input 164207 I6-6662 $\$ 1.23$ Output 16 A208 $16-6663$ \$1.23 "TWEET" FILTER OUTPUT I.F. -456 K.C.
For replacement in late model receivers that have a "tweet" filter enclosed in I.F.shield. "Pastic air core construction. Shield $11 / 4$ square, $21 / 2$ high. MIDGET IRON CORE I.F.'s- $456^{\circ}$ K.C.
The same as used in the popular "Carry" type sets and compact AC-DC models. "Battery" types are high gain. "AC-DC" type is designed for use as input or output. With $\mathrm{Hi}^{\text {i }}$, powdered iron cores and compression type Stk. No. Meis. No. Type Price Stk. No. Meis. No. Type Price $\begin{array}{lllllll}17 A 1179 & 16-6668 & \text { Bat. Input } \$ 1.03 & 17 A 1181 & 16-6678 & \text { AC-DC } \\ 17 A 1180 & 16-6669 & \text { Bat. Output } 1.03 & & \text { Universal } \$ 1.03\end{array}$ 'CARTWHEEL'" I.F. -456 K.C.
1-picce, molded plastic trimmer base, 456 KC dual trimmer unit only $13 / \mathrm{x}$ No. 16A233. Type 16-6661. Price each.......................... \$0. 82 Permeability tuned to 10.7 MC . Shield size $1 \quad 7 / 16 \times 7 / 8 \times 1$ 29/32" high No. 17A1139. Type 16-6665. Price each. DISCRIMINATOR COİL
No, 17A1140. Type 17-3484. Price each...................... $\$ \mathbf{S 2 . 2 9}$ AM-FM I.F. TRANSFORMER
Composite 456 KC AM and 10.7 MC FM Input or output. Each circuit tuned by a separate Hi Q powdered iron core. Can size $13 / 8^{\prime \prime}$ square, $21 / 2^{2}$ high. FM RATIO DETECTOR COIL
$\$ 2.35$
Companion to No. I7BII44 or may be used with straight 10.7 MC I. F. transformer to make popular "FM" converters. Iron core tuning. Shield size 13/8" square, $21 / 2^{\prime \prime}$ high.
No. 1781145 . Type $17-3$

455 KC N.B. FM DISCRIMINATOR COMOBL
S2.26
For use in adapters for converting regular communications receivers with
455 KC I.F. systems for reception of NBFM on amateur bands or for use in construction of complete FM receivers for ham use. Shield size $13 / 8^{\prime \prime}$ Square, 17 A1165. Type $17-3486$. Price each
$\$ 1.91$
REPLACEMENT I.F. WINDINGS
For repairing
mid
long; wound
"midget"
receivers.
dowels.
sliding primary coil. "Standard" types for input, interstage, or output; center tapped for full wave diode circuits.
No. 16A237-456 KC Standard Type 16-6601. Net each
No. 16 A239-456 kC Center Tapped Type 16-6603. Net each
No. 16 A2 $238-175 \mathrm{kC}$ Center Tapped Type 16-6602. Net each

STANDARD OSCILLATOR CoIls
High quality broadcast band oscillator coils requir-
ing 365 mmfd. condenser ing 365 mmfd . condenser.
Range, 545 to 1580 KC. Range, 545 to 1580 KC .
Mounted on bakelite base and thoroughly impregnated. Shielded types are $11 / 2^{\prime \prime}$ dia., $13 / 4^{\prime \prime}$ his
crackle finish

BROADCAST UNSHIELDED

$\begin{array}{lll}\text { IF Freq. } & \text { Stk. No. Meis. No. Price } \\ 175 \mathrm{KC} & 17 \mathrm{~A} 1134 & 14-3732 \\ 456 \mathrm{KC} & 16 A 225 & \text { S. } 82\end{array}$ |  | BROADCAST SHIELDED | .02 |
| :--- | :---: | :---: |
| $175 K C$ | $17 A 1135$ | $14-4242$ |
| $456 K C$ | $16 A 226$ | $14-4243$ |

 | 456KC |
| :---: |
| 6SA7 OSCILLATOR COILS | High quality, broadcast band, unshielded

No. 16A215. Type 14-1033. Tapped,
 No. 1741182 . Type i4-1053." For use
with 162 mmfd . "Cut" section condenser. EACH. . . . . . . . . . . . . . . 50c
UNIVERSAL OSCILLATOR COIL
Unshielded, for general replacement in sets using 456 KC IF. Will work with almost any tube.
Stock No. 17A1136. Type 14-1040.
Price Each Standard Ant. \& R.F. Coils broaddast band with a 365 mmfd. tuninge condenser.
Have high impedance primaries wound with Litz wire.
Impregnated against moisTmpregnated against moismagnetic cans 1/8 dia, $x$ 21/2" high BROADCAST UNSHIELDED
Stk. No. Meis. No. Price $\begin{array}{llll}\text { R.F. Coil } 16 A 223 & 14-1010 & \$ 0.56\end{array}$ Antenna BROADCAST SHIELDED
$\qquad$
Midget Ant. \& R.F. Coils

Super quality shielded semicompact broadcast band coils 3 requiring 365 mmfd. funing ondaries, primaries thoroughly impreg nated. Black crackle ished shield, $13 / 8^{\prime \prime}$ square, $2^{\prime \prime}$ high Antenna 17 A 1137 Meis, No. Price R.F. Coil 17All38 14-2436 \$0.73 COMPACT UNSHIELDED BROADCAST | Antenna | 17 Al 163 | $14-1022$ | 50 c |
| :--- | :--- | :--- | :--- |
| RF Coil | $17 A 1164$ | $14-1023$ | 50 C |

Aircraft Band Coils that will cover 195 to 410 KC with 365 mmfd. condenser. Ant. coil works
with loop or straight wire antenna. Osc. coll requires 325-100 mmed requires Shield size $13 / 8^{\prime \prime}$ dia.. $13 / 4 \prime$
 $\begin{array}{lll}\text { Ant. Coil } 17 A 1141 & 14-1030 & \$ 2.26 \\ \text { Mixer } & 17 A 1142 & 14-1031 \\ 2.26\end{array}$

## xer

Dowel Type Primary
maries in high impedance antenna coils. Universal wound on $1 / 2^{\prime \prime}$ dia. $\times 1 / 2^{\prime \prime}$
long dowels, moisture protected. Inductance 1700 16A234. Type 14-6865.
Slip-Over Primaries Easy and economical re-
placement for burnedplacement for burned-
out primaries on all types of R.F. and antenna coils. High impedance windoutside dia. of old coil.
Stk. No. Meis. No. :O.D. Net E
164240
$16 A 241$
$16 A 242$
16 A243
$16 A 243$
$16 A 244$

## Euses. Rean and Pilot Lamps. Indicators

## G-E Neon Lamps



For 105-125 volt AC-DC. All are clear glass


NE15 1/25-Watt Neon Only $11 / 8^{\prime \prime}$ long $x 1 / 6$
Starting voltage 9 Starting voltage 90 .
volt $D C$ or 65 -volt AC 2 at 3 meg for Requires series resistor, 2 meg. for $105 / 125$
volt, .5 meg, for 210 to 250 -volt Singie contact miniature bayonet base. No. 16A149. ? $P$ for... 8015
Each....... NE20 Neon Bulb
 NEON
PANEL
ASSEM-
BLIES
Fully enclosed for use on 110-220 volts. Built in resistor for NE51 neon
lamp. Visible from all angles. Extends lamp. Visible from all angles. Extends
$15 / \mathrm{B}^{\prime \prime}$ behind and $1 / 2^{\circ \prime}$ in front of panel. Requires $11 / 16^{\prime \prime}$ hole for mounting. Specify color: Red, Amber, or Clear. No. 12A666. Less, NE5!. 69 6
Net Each..................
NEON PILOT LAMPS

(1) Operates on 75 to 250 volts AC or
DC. Polished chrome. $17 / 16^{\prime \prime}$ long, DC. Polished chrome. $17 / 16^{\prime \prime}$ long, $7 / 16^{\prime \prime}$ wide, $3 / 8^{\prime \prime}$ deep. Mounts flush
on panel with two $3 / 8$ long studs, on panel with two $3 / 8{ }^{\prime \prime}$ long studs,
with 10,000 hour $1 / 10$-watt neon lamp. No. 20A125. Net Each. 50c (3) Slips on the prongs of any standard plug. Serves as a constant reminder to apparatus when not in use. For 110 220 volt AC-DC No. 20A126. Net Each.

40c


SCREW BASE TYPE SOCKETS 16A176. Bakelite Std... 140 12A1168. Porcelain Cand.8c I2A1169. Porcelain
BAYONET SOCKETS
 Double contact, bayonet metal shell socket for 2contact bayonet neon
lamps above. 12A1170. Each.

44 c

## Double Contact Socket

 Candelabra receptacle for
type 991 VR tube or neon lamps. Also fits standard auto lamps.
No. 12A1421. 458
Type 33991. Ea. 45

Type 8AG Littelfuses for Test Instruments


Designed especially for the protection of delicate test equipment, galvanometers, microameters, milliameters, oit meters, etc. Class enclosed; $1 \times 1 / 4$ " dia. accurareay ing up to 250 AC or DC.

| Amps Current Rating | Aver. Resist. 5 M.A. Load | Stock No. | Net Each | $\begin{aligned} & 100 \\ & \text { For } \end{aligned}$ | Used to Protect <br> Voltmeters Milliameters |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Ohms Per Volt | All Magnetic Types | Thermo Couples Types |
| 1/200 | 500 | 12A1100 | 18 | \$14.70 | over 1000 | Galv. | 0-5 |
| 1/100 | 110 | 12A1101 | 124 | 9.80 | 1000 | Up to 0- 1 |  |
| 1/32 | 20 | $12 A 1102$ | 124 | 9.80 | 500-1000 | O- 10 | 0- 25 |
| 1/16 | 5.0 | 12A1103 | 95 | 7.35 | 100-500 | 0- 25 | 0- 60 |
| $1 / 8$ | 3.0 | $12 \text { A1105 }$ | 94 | 7.35 |  | $0-75$ |  |
| 1/4 | 6.2 | 12A1106 | 85 | 6.86 | 10-20 | O-150 | 0-200 |
| $3 / 8$ | 3.0 | 12A1107 | 8 | 6.86 | 5-10 | O- 250 | O- 300 |
| $1 / 2$ | 2.5 | 12A1108 | 8 | 6.86 | 3-5 | O- 350 | O- 400 |
| $3 / 4$ | . 40 | 12A1109 | 8 ¢ | 6.86 |  | O-500 | 0-600 |
|  | . 24 | 12A1110 |  | 4.90 |  | 0. 750 | 0-1000 |
| $11 / 2$ | . 18 | 12A1111 | 64 | 4.90 |  | 0-1000 | 0-1500 |
| $2^{2}$ | .14 | 12AIII2 | 65 | 4.90 |  | 0-1500 | 0-2000 |

Auto and Radio Fuses
Type 3ag
11/4" long,
$1 / 4^{\prime \prime}$ dlam.

## FOR UP TO 250 VOLTS

| Stock | Amps. | Box | Box |
| :--- | :--- | :--- | :--- |
| No. | Rating | of | of 100 |
| $15 A 1083$ | $1 / 16$ | $S .55$ | 88.82 |
| $15 A 1084$ | $1 / 8$ | .47 | 7.35 |
| $12 A 1113$ | $1 / 4$ | .47 | 7.35 |
| $15 A 1086$ | $3 / 8$ | .47 | 7.35 |
| $12 A 1114$ | $1 / 2$ | .44 | 7.35 |
| $12 A 1115$ | $3 / 4$ | .44 | 7.35 |
| $12 A 1116$ | $11 / 2$ | .21 | 3.43 |
| $12 A 1117$ | $11 / 2$ | .21 | 3.48 |
| $12 A 1118$ | 2 | $.21 / 2$ | .21 |
| $12 A 1119$ | 2 | 3.483 |  |
| $12 A 1120$ | 3 | .21 | 3.43 |
| $15 A 1087$ | 4 | .29 | 4.90 |
| $15 A 1088$ | 5 | .28 | 4.90 |
| $15 A 1089$ | 6 | .29 | 4.90 |
| $15 A 1090$ | 8 | .59 | 9.80 |

## FOR UP TO 32 VOLTS

##  <br> Panel Lamp Assemblies <br>  <br> (1) <br> (1) DRAKE TYPE 50

Horizontal dressed up design. For panels up to $1 / 4^{\prime \prime}$. Extends only $11 / 8^{\prime \prime}$ back of panel. Bulbs removable from front. Mounts in $11 / 16^{\prime \prime}$ hole. Specify Red, Green, Amber
12A1162. Min. Screw Socket.... 41 c
$12 A 1163$. Min. Bayonet Socket. 12A1163. Min. Bayonet Socket. .41c (2) 110-VOLT GIANT PANEL LICHT All-purpose light with $1^{\prime \prime}$ frosted pearl glass jewel. Chrome finished "slip fit" bezel holds color disc behind jewel. Color shows when light is on. Mounts in panel up to $1 / 2$ thick. Available CORED, Green and Amber. STAT COLOR DESIRED
12A186 Base Bulb....78c (3) 110 -VOLT ENCLOSED PILOT LICHT Underwriter's approved, single unif socket assembly unaffected by heat. All porcelain and brass construction. Requires single $1^{\text {"t }}$ hole for mounting. Faceted jewel in choice of Red or Green. Uses S6 candelabra base buib.
$12 A 1 i 65$. Nef Each............. 94 C

## Fuse Mountings


(1) Use where connections are above chassis or panel.
12A1129. For 8AG, $1^{\prime \prime}$ fuse. Each 9 C 12A1130. For 3AG $11 / 4^{*}$ fuse. Ea. 96 $12 A 1131$. For 8AC ${ }^{\prime \prime}$ fuse. Ea. 150 12A1132. For 3AG $11 / 4^{\prime \prime} \mathrm{fu}$. Ea, 16 c (3) Mounts directly on meter termi12A1133. For 8AC $1^{\prime \prime}$ fuses only Each . .......................... $12 c$ diameter fuse.
12A1134. 12 to pkg. ........... 18 Be
81.20

## Handy Fuse Retainers



2 piece metal outer shell with fibre


12A1135. Ea. . 8 c; 10 (a) ... 8 c $21 / 3^{\prime \prime} \times 1 / 2 "$ Jumbo for 3AG
SFE14, SFE20, SFE30, etc

## SFE14, SFE20, SFE30, etc.

 All bakellte. Mounts in ${ }^{\circ \prime \prime}$ hole th panel orecessed extractor knob easily removed with screwdriver or coln. Underwriters approved. 12A1137. For 8AC 1" fuses.... 27 c Jeweled Pilot Brackets (\%) ©
(2)

(1) Well made with $1 / 2^{\prime \prime}$ faceted glass jewels. Mount in $7 / 16^{\prime \prime}$ hole. Specify color wanted. Red, Creen, Amber 12A1156. Min. Screw Socket.... 19e 12A1157. Min. Bayonet Socket.. 18c 3/" For 110 -Volt, Type S6 Lamp
$3 / 4^{\prime \prime}$ jewel in bracket like above. Mounts in 11/16" hole. Candelabra socket. Specify Red, Green, Amber.
12 A1158. Nef Each. . ...........42c 12A1158. Nef Each. …シ̈シí..42c $1 / 2^{\prime \prime}$ jewel on threaded shank with mounting nut. Requires $7 / 16^{\prime \prime}$ holes in panel. Red, Green, Amber. 12Al159. Choice Each.
(B) FRONT REMOVABLE jEWEL 13 C Mounts in $11 / 16^{\prime \prime}$ hole. $1 / 2^{\prime \prime}$ faceted jewel, bulb removable from front. Red, Green, Amber.
12A1160. Min. Screw Socket. . . 29c

(A) Tubular-Min. Screw Base

Cat. Mazda YOURCOST

| No. No. Volts Amps Each for 10 |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| 164151 | 41 | 2.5 | 0.50 | S. 10 |
| 10.88 |  |  |  |  |

$\begin{array}{llllll}16 A 151 & 41 & 2.5 & 0.50 & 5.10 & .88 \\ 16 A 152 & 42 & 3.2 & 0.35 & .12 & .80\end{array}$
16A
(B) Tubular. Min. Bayonet Base
$\begin{array}{llllll}16 A 158 & 44 & 6.3 & 0.65 & .10 & -68 \\ 16 A 159 & 45 & 3.2 & 0.35 & .10 & .68 \\ 16 A 154 & 49 & .12 & .80\end{array}$
$\begin{array}{lrllll}16 A 160 & 49 & 2.2 & 0.06 & 15 & .89 \\ 16 A 161 & 47 & 6.3 & 0.15 & .10 & -88\end{array}$

| $16 A 584$ | 1490 | 3.2 | 0.16 | .13 |
| :--- | :--- | :--- | :--- | :--- |

16A165 50 6.8 0.50 . 10 . 8 B

| $16 A 166$ | 51 | 6.8 | IC.P. 08 |
| :--- | :--- | :--- | :--- | $\begin{array}{lll}16 A 167 & 55 & 6.8 \\ \text { Types } 292 & \text { and } 291 & \text { are primarily de- }\end{array}$ signed for pin ball machines.

## E.R. Flashlight Bulbs

Round with miniature screw base like of No. 222, which is a pre-focused bulb for pen type flashlights and the PR types, which are pre-focused min. flange type.

## Stock Mazda

Stock Mazda Your Cost
No. No. Volts Amps Each for 10
$164460 \quad 112 \quad 1.1 \quad 0.22$ S.10 S.6

## 1

16
16
16
16


## 1

Note: $10 \%$ OFF from above 2.50 .82 prices by buying 100 or more 10 Lot type either Pilot or Flashlight bulbs.

## S6 Candelabra Base

110-120 V. Bulb
6 Watts, clear glass, candelabra base. For indica16at 16. Net Each...18c Lors 16 c
PILOT LAMP
SOCKETS <br> \title{

## Genuine <br> \title{ \section*{Genuine <br> <br> AMPHENOQSockets*PLUGS*Pittings 

 <br> <br> AMPHENOQSockets*PLUGS*Pittings}

MINIATURE TUBE SOCKETS and SHIELDS

(A) (B) (C) (D) (E)
BAKELITE - STEATITE SOCKETS Seven pin types mount in $5 / /^{\prime \prime}$ hole mounting centers $7 / 8^{\prime \prime}$; screw holes $1 / 8^{\prime \prime}$. Nine pin types mount in $\exists / 4^{\prime \prime}$ holes .095"
(A) Boftom Mount-No Shield Base Stk. No. Pins Dielectric Net Ea, 17 A768 $7 \quad$ Black Bakelite 17 A769 7 Steatite
$17 A 7709$ Black Bakelite
17 A771 9 Mica-Filled
(B) Top Mount-With Shield 24 c

17 A772 7 Black Bakelite
I7A773 7 Mica-Filled
17 A774 7 Steatite
17 A775 9 Black Bakelita
7 A776 9 Mica-Filled
ZIP-IN ETHYLON-A SOCKETS Molded of high dielectric material. Seven pin types mount in $27 / 32^{\circ}$ hole; Nine pin, in 15/16" hole. Mounting plate holes, $136^{\prime \prime}$ dia. on $15 / 16^{\prime}$ centers. Fig. with tube shield base. 7 Pin. Without tube shield base. Wo. 17A777. Each.
7 Pin. With tube shield base. No. 17A778. Each 9 Pin. Without tube shield bas No. 17A1061. Each.
9 Pin. With tube shield base.
No. 17A1062. Each.
(E) Shields and Springs

To be used with bakelite, steatite and zip-in miniature sockets equipped with tube shield base. Fits types B and D above.
$13 / 8$ "high, Fits 7 pin sockets.
No. 17A779. Each.
$13 / 4 "$ high. Fits 7 pin sockets.
No. 174780 . Each.
1/2" high. Fits 9 pin sockets.
$115 / 16^{\prime \prime}$ high. Fits 9 pin sockets.
No. 17A1064. Each.
$23 / 8^{\prime \prime}$ high. Fits 9 pin sockets.
No. 17A1063. Each

## MINIATURE SOCKETS AND PLUGS

## ( ) Ger (i) <br> (A) <br>  <br> RETAINER RINC MOUNTED

Mount in $5 / 8^{\prime \prime}$ dia. hole with push-on ing. Male plugs can be chassis mount ed or attached to cable and will mate with corresponding miniature socket o Fig. $C$ and $D$ shielded female plugs isted page 58. 5 and 6 hole sockets also fit amphenol miniature coil forms. 7 hole sockets fit standard 7 pin miniature tubes. Black Bakelite unless otherwise noted.

FIC. A SOCKETS

| Stk. No. | Description | Net Ea. |
| :---: | :---: | :---: |
| 12 Al40 | 3 hole | 10 c |
| 12 A141 | 4 hole | 0c |
| 12 A125 | 5 hole | 2 c |
| 194131 | 5 hole (mica filled) | 8 C |
| 12 A118 | 6 hole | 3 c |
| 194132 | 6 hole (mica filled) | 6 |
| 124123 | 7 hole | 2 c |
| 174783 | 7 hole (mica filled) | 7 c |
| $12 \mathrm{Al27}$ | 7 hole (polystyrene) FIC. B PLUGS | 25 c |
| 12 A138 | 3 -prong | Oc |
| 12 A139 | 4-prong | 0 C |
| 174781 | 5-prong | 2 c |
| 17 A782 | 6-prong | 12c |

BULB TESTER SOCKET
'S' type combination large and small seven-prong socket with center receptacle for testing screw or bayonet miniature lamps. Mounts in $121 / 64^{\prime \prime}$ hole with retainer ring.

## 

(1) "MIP" SOCKETS

Mounting plate permanently molded in body of high dielectric black bakelite. Mounts in 1 5/32" dia. hole. Plate has $5 / 32^{\prime \prime}$ holes on $11 / 2^{\prime \prime}$ centers. 2 A97 and 12A1523 mount in $19 / 32^{\circ}$ diameter hole.

| Contacts Stk. No. |  |  |
| :---: | :---: | :---: |
| 4 | 12493 ) |  |
| 5 | 12 A 94 | Choice, |
| 6 | 12495 | Net Each |
| 7 Small | 12496 |  |
| 7 Large | 12497 , | Choice, |
| 8 Octal | 12498 | Net Each |
| 9 | 12 A1440 |  |
| 11 | $12 \mathrm{Al441}$ |  |
| 12 | 12 A1442 |  |
| 20 | 12 A1523 |  |
|  | lystyrene | JHF Sock |
| Octal | 12 A 102. |  |
| Loctal | 124103. |  |

Identical Midget MiP Sockets except more compact (1 15/16" mounting centers mount in $11 / 8^{\prime \prime}$ hole.
Octal 12A100
Loctal 12A101................ 12 C
(2) "RS" BAKELITE SOCKETS

High dielectric black bakelite body as: sembled with retainer ring to steel mounting plate with slotted holes to fit mounting centers $11 / 2^{\prime \prime}$ to $17 / 8^{\prime \prime}$ Mounts with plate in $11 / 4^{\prime \prime}$ dia. hole, or without plate using retainer ring only in 1 11/64" dia. hole. Numbers 12A108, 12 A109 and 12AI 16 mount with plate in $13 / 8$ " hole or with retainer in 1 21/64' hole.
Contacts Stk. No.


Shielded Cable Connectors


Type PF-PM, made of

"S" sockets and cap $1^{\prime \prime}$ in height. A rubber grommet protects cable from abrasion. Small, sturdy, easy to take apart for assembly. Accommodates cables up to $7 / 16^{\prime \prime}$ diameter. Black japanned.
Contacts Male Female NetEa

| Contacts | Male | Female | Net Ea. |
| :--- | :--- | :--- | ---: |
| 4 | $12 A 72$ | $12 A 80$ | 19 c |
| 5 | $12 A 73$ | $12 A 81$ | 19 c |
| 6 | $12 A 74$ | $12 A 82$ | 19 c |
| 7 Small | $12 A 75$ | $12 A 83$ | 19 c |
| 7 Large | $12 A 76$ | $12 A 84$ | 19 c |
| 8 | $12 A 77$ | $12 A 85$ | 21 c |
| 9 | $12 A 78$ | $12 A 86$ | 23 c |
| 11 | $12 A 79$ | $12 A 87$ | 28 c |
| 20 | $17 A 784$ |  | 53 c |
| \%Shielded | female type not available. |  |  |
| Male plug fits 12A1523 socket above. |  |  |  |

Mountings for
"S" Sockets, "CP" Plugs and AC Units


Accommodate all except 7 Large and 7 Comb. plugs and sockets.
(A) Steel Mounting Plate. Slotted mounting hole centers $11 / 2^{\prime \prime}$ to $17 / \mathrm{g}^{\prime \prime}$. No. 12466.10 For.
(B) Above Surface Mount Raises nector top 13/16' above surface. Reverses for sub-surface mount. Has vide $13 /{ }^{\circ}$ side knock outs. Dia. $13 / 4$
No. 12A67. Net Each... :....... Tc (c) Below Surface Mount. Lowers con nector bottom $13 / 16^{\prime \prime}$ below surface Mounts in $17 / 16^{\prime \prime}$ hole. Has two $5 / 32^{\circ \prime}$ screw holes on $13 / 4^{\circ}$ centers No. $12 A 70$. Net Each. .il...... Met
ADAPTER SHELL (not illus.). Metal sleeve. Ends take "S" sockets or "CP" plugs except 7 Large and 7 Comb. Makes adapters as needed.
No. 12A120. Net Each.
Cathode Ray \& Television Tube Connectors

(A) (A) BAKELITE SOCKETS

Molded of high quality bakelite. With efficient creepage barriers and removable bakelite cap for shock hazard and wiring protection.
Opening for lead wire harness can be positioned in any of 6 locations. 402. For 12 pins on circle dia. of
$1.063 \%$. Fits 2 BP , 5TP/UP, $10 \mathrm{BP} / \mathrm{EP}$. $1.063^{\prime \prime}$ Fits 2BP, STP/UP, 10 BP .
12 AP and 20 BP series tubes. No. 174785 . Net Each. . . . . . . 920 Small Diheptal Socket. Amphenol Type 59-415. Fits 14-pin tubes with pin circle dia. $1.75^{\prime \prime}$ and tube base dia $2.05^{\prime \prime}$. Fits 2923 and 5655 type tubes.
No. 174786 . Net Each.... A...98c Type 59-417. Fits 14-pin tubes with pin circle dia. $1.75^{\prime \prime}$ and tube base pin circle dia. $3 \mathrm{AP} / \mathrm{BP} / \mathrm{P} / \mathrm{MP} 5 \mathrm{CP} /$ MP/RP/SP, 7CP/JP, 12 CP and 5527 series tubes.
No. $17 A 787$. Net Each. ${ }^{17}$ ) MACNAL STEATITE SÓCKET Amphenol Type 49-SS 11 L . For 11 -pin Amphenol TYpe 49-SSIIL. For 11 -pin tubes with $1 / 16^{\circ}$ dia. pin circle Mounts in $15 / 8$ hole with retaine ing. Fits 2AP, 3CP/KP, 5BP/HP/JP/ LP and 7EP series tubes.
No. $12 A 572$. Net Each
(C) SECOND ANODE CONEBTIC Silver plated snap button type plue well insulated by $11 / 2^{\prime \prime} 2^{\prime \prime}$ dia. rubber protective cap. With $12^{\prime \prime}$ wire lead No. 15A126. Nef Each.
(D) SECOND ANODE CONNECTOR (D) SECOND ANODE CONNECTOR Cadmium plated brass contact sur rounded by rubber insulator. Snaps diheptal tubes.
Assembled from moided plugs above, encased in unbreakable metamet ac ommodates ip to $7 / 16^{\circ}$ cable. No. 12A89, Plug, Each....... 280 No. 12A90. Receptacle. Each...280


RUBBER HANDLE
For use with above shielded connectors No. 12A88. Each. . .............. 11 c CABLE CLAMP. Replaces rubber grom-
met in shielded connectors above
Crips cord securely

SPEAKER PLUGS FOR STANDARD SOCKETS

$$
\mathbf{x}-\mathbf{-}
$$

$$
\left.\begin{array}{c}
0 \\
0 \\
0 \\
0
\end{array}\right) \stackrel{\square}{\square}
$$

$\left.\begin{array}{l}\text { No. Prongs Eac } \\ 12 A 128 \\ 12 A 129 \\ 12 A 130 \\ 12 A 131\end{array}\right\}$

No. Prongs Each $\begin{array}{lrl}12 A 132 & 8 & 10 c \\ 12 A 133 & 9 & 12 c \\ 12 A 134 & 12 & 18 c\end{array}$

Cinch Miniature Sockets


Fig. (A) Sub-Minlature. For hearing aid type tubes. Molded mica-filled bakelte with siver plared berylium fit 5 -prong socket. fit 5 -prong socket.
No. 17A 056.5 -prong. Net Each. $22 c$ No. 17A1057. 6-prong. Net Each. 23 No. 17Al058. 7-prong. Net Each. 24 c Fig. (B) 7 -Prong Miniature. For
mounting through bottom of chassis in $3 / 4^{\prime \prime}$ dia. hole. Mounting centers $11 / 8^{\prime \prime}$. Fits standard miniature tubes Molded black low-loss bakelite.
No. 17A1060. Net Each....... 13 c
Fig. (C) 7-Prong Miniature. Same as
Fig. B except top mounting.
No. 15A129. Net Each.

# JONES Plugs TUBE SOCKETSand SHIELDS 

(1) BAYONET SOCKETS

Clear white glazed porcelain base, with heavy phosphor bronze side
wiping contacts, and screw and solder lug terminals.
Type 123-209 4 prong "UX" base, tor 866 and other trans. No. 12A174. Net Each. 88c Type 123-211 Standard "50 watt" socket tor "Jumbo 4 pin" fubes,
$203 \mathrm{~A}, 211,805,810,872,250-450$
THK HK 354, etc. No. 12A175. Net Each $\$ 1.09$ Type 123-216 etc.
R K 28 . 17 Alilo. Net Each. $\$ 1,76$

## (2) JUMBO WAFERS

Steatite construction. Contacts are brass with steel reinforcing springs. $8008,5 \mathrm{C} 22$ Tubes, etc.
No. $17 \mathrm{Al111}$. Net Each. 18
 etc. Adequate ventilation is provided by five
No. 12A571. Net Each . S1.03 Type 122-813,8001, HK257, etc. $\mathbf{6 5}$ C No. 12A173. Net Each
Type 122-247 Wafer 7 pin, for 4-65A 829, 832 RK4D32, etc. Suppl Nc. 204773. Net Each
Type 124-213 (not iilus.). For 304TH 304 TL and 152 TL . Contacts arranged No. 16 A 718 .
No. $16 A 778$

## . <br> \$1.18

## (3) UHF SOCKET

Type 122-101 Wafer 7 pin with base or 832 tubes. Has silver plated contacts, isolated grid terminals and propass condensers.
No. 20A774. Net Each.. \$1.76

JOHNSON Miniature
Sockets and Shields

(1) Designed for use with the 9000 series and miniature series
cluding $154,155,174$, etc. Contacts are Phosphor Bronze, heavily silver plated and are self-aligning. Designed to permit a meminty between contacts. Ceramic low.loss construction. Type 267.296
No. 12A566. Net Each...... (2) 277B - Steatite base with metal mig. ring extending upward to torm
a shield.
No. 12A567. Net Each ......4.4 (3) 2775 - Miniature socket shield (B) Shield for 277 B or 2775 . No. 12 A569. $17 \mathrm{r}^{\prime \prime}$ Shield. No. $12 A 570.13 / 4 / 4$ Shield.
CHOICE, Your Cost, Each.

JONES PLUGS AND SOCKETS
300 Series. Small polarized connectors with phosphor bronze contacts. 5/32" wide, $3 / 16^{\prime \prime}$ thick and black molded bakelite body. Rating, up to 45 V . at 5 A . Cable type has black crystal finished metal shell and cable clamp. Two contact plugs and sockets are round; all others rectangular. CABLE TYPE WITH CLAMP

a)


Male (Fig. A
Male (Fig. A)
Contacts $5 \$ \mathrm{k}$. No. Jones No. Price Contacts Female (Fig. B) $2 A 3$
$12 A$
$12 A$
$12 A$
$12 A$
$12 A$

$12 A$ | Jones No. | Price | Contacts | Stk. No. | lones No. Price |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $P 302 C C T$ | 31 c | 2 | $12 A 343$ | S302CCT | 32 c |
| P 303 CCT | 34 c | 3 | $12 A 344$ | S $303 C C T$ | 34 c |

## $\begin{array}{lll}12 A 345 & \text { S304CCT } & 37 \mathrm{C} \\ 12 A 346 & \text { S306CCT } & 42 \mathrm{C}\end{array}$

 $\begin{array}{ll}12 A 346 & S 306 C C T \\ 12 A 348 & \$ 310 C C T\end{array}$ 12A342$\qquad$ $\begin{array}{rrrr}4 c & 3 & 12 A 344 & S 30 \\ 46 & 4 & 12 A 345 & S 304 \\ 40 \mathrm{c} & 6 & 12 A 346 & S 306 \\ 44 \mathrm{c} & 8 & 12 A 347 & \$ 308 \\ 49 \mathrm{c} & 10 & 12 A 348 & \mathrm{~S} 31\end{array}$ CHASSIS TYPE WITH ANCLE BRACKETS
TFi

Fig. D)
Contacts

400 Series. Same general construction as " 300 series" above, but heavier.
Contacts are $1 / 4 "$ wide, $1 / 16^{\prime \prime}$ thick. Two-contact type S402AB has mtg. Contacts are $1 / 4 "$ wide, $1 / 16^{\prime \prime}$ thick. Two-contact type S4O2AB has mig. plate instead of angle brackets. Rating up to 110


## NATIONAL SOCKETS AND SHIELDS

FOR 7 and 9 PIN MINIATURES

ockets molded of mica filled natural color bakelite with beryllium copper. silver plated contacts that correctly grip the tube pins close to the bace of tube. Axial (XOA) and radial
(XOR) contacts are interchangeable and can be used in combination on same socket for shortest leads or minimum size. Sockets can be used with or without shield. Shield base and top are nickel plated brass. Studs on base secure socket and base to
chassis. Too locks on base holding thase in place with phosphor bronze spring. Type XOS-1 fits 6 AK 5 , XOS-2 fits 6C4, XOS 3 fits OA2. Mig. centers $.875^{\prime \prime}$

## SOCKETS

7-PIN SOCKETS (MICA FILLED) 12A1422. Tvpe XOA with $50.5(5)$
axial contacts. Each ....... 12A1423. Type XOR 50c 9-PIN SOCKETS (CERAMIC) 15A2058. Type XOA-C-9. Axial conculout $13 / 16^{\prime \prime}$. 57 ( NET EACH 15A2059. Type XOR-C-9. Rad
tacts. Same mounting as above. tacts. Same
NET EACH. SHIELDS (Eoch with shield base) 12 A1424. Type XOS-1, for
tubes 1 3/lu high. Each.... 488
 I2A1426. Type XoS-3, for
tubes $2^{\prime \prime}$ high. Each..... .488

Millen Tube Sockets

(A)
(B)
steatite body of deep construction for long flash-over path to
chassis and steatite barriers between chassis and steatite barriers between
contacts. Metal mtg. ring is removcontacts. Metal mig. ring is remov-
able. No. Prongs Millen No. Net Ea.


## (Fig. B) For standard $13 / 8^{\prime \prime}$ dia. base

 tubes.No. 12A1418. Type 33087. Ea. 30c (fig. 12 ) For small metal tubes. 24 c (Fig. C) For large metal tubes (6L6).
No. 12 Al 420 . Type 33089. Ea. 30 c

## No. Type CIR National Sockets

## Has low-loss steatite

 insulation, positive
contacts. Mounting 1 27/32" centers, hole size $11 / 2^{\prime \prime}$. Octal mounts $11 / 2^{\prime \prime}$ centers, $11 / 4^{\circ /}$ hole.

| No. | Prongs | No. | Prong |
| :---: | :---: | :---: | :---: |
| $12 A 168$ | 4 | $12 A 169$ | 7 I |
| $12 A 167$ | 5 | $12 A 170$ | 7 S |
| $12 A 168$ | 6 | $12 A 171$ | 8 octa |

 807 TUBE SHIELD
Helps prevent oscillation Helps prevent oscillation.
Also OK for RK20, RK39 and 804 tubes. Size $21 / 4^{\prime \prime}$ dia. $x$
3'" nigh. $^{\text {No. 17A575. Each... } 35}$ WE CAN SUPPLY ALL NATIONAL, MILLEN, AND JOHNSON SOCKETS, SHIELDS AND OTHER PRÓDUCTS.

RADIO TUBE SHIELDS

(A) Form fitting two-piece shields assuring a snug positive fit for CT, ground clip as illustrated. Two sizes available.
198254. 1CA 1727-B. Length, $21 / z^{\prime \prime}$. 19B255. ICA 1729-B. Length, 23/4, CHOICE, EACH
(B) Single shell type shield for all CT or Loctal tubes with metal bases such as $12 \mathrm{K7CT}-6 Q 7 \mathrm{GT}-1$ A7GT-1LA6$7 \mathrm{~A} 8-7 \mathrm{B8}$, etc. Vertical grooves provide flexible positive fit. Shield grounds
thru metal base of the tube. Open top for grid connection. Over-all height, $21 / 16$ inches. Base dia 1.165
No

No, 19A256. Net Each........ Diameter $1.218^{\prime \prime}$.
No. 19A257. Net Each....... No. 19A257. Net Each.......
(C) Shields for miniature fubes. A two-piece shield which will fit all miniature type tubes. Easy to install. base clip as illustrated. No. 19A258. Net Each Metal Tube Shield. Fits over top of the tube providing complete shielding for grid. lead. Cad. plated.
No. $12 A 1348$. Each $1!$


GLASS OR METAL TUBE GRID CAPS


Bakelite Wafer Sockets
 center shield. Mounfing centers $1 / 8{ }^{\circ}$
No. 17A1059. Each.............12
AMPHENOL PHOTO TUBE MOUNT


No. 15A1104. Amphenol Type 79c

# Thike Connectors.Phone Plups.Jachs, tee 

SPECIAL VALUE PLUGS FOR STANDARD JACKS

(A)




(D)

(A) Std. Bakelite Plug, $3 / 4 \times 1$ 9/16" 12A386. Net Each 27c;10 at 74c 12A387. Net Each 49c: 10 at 46 c (8) Stubby Metal Plug, $11116 \times 1$.". 12A388. Net Each 42c; 10 at 37 c (C) Midget Bakelite Plug, $9 / 16 \times 1 \%$. (C) Midget Bakelite

Solder lug connections
12A389. Net Each 29c; 10 at 26c (C) Midget Meral Plug, 9/16x1". Solder lug connections.
12A390. Net Each $41 \mathrm{c} ; 10$ at 37 c (D) Flat Bakelife Plug, $11 / 16^{\text {¹ }}$ diam-
eter $\times 1 / 4$ Net Each 65 c ; 10 at 690 (E) 3-Way Mike Plug, $1 / 4^{\prime \prime}$ diameter stem. Barrel size $3 / 4 \times 1$, $916^{\prime \prime}$. Bakelite.
12A392....55c 12A393....72c

## Miniature Plug \& Jack

 Two conductor precision cors conneetors. Molded plastic case cements to$1 / 2 \times 13 /{ }^{41}$ " long. No. 17A1071. PlugType PL-291. .32c No. 17 A1072 Jack

Portable Type Jacks
 Handy! Single Open Circuit. Will fit all standard plugs. Ideal to make up extenard plugs. Ideal to make up exten-
sion cords for phones, speakers, etc. Sion cords for Barrel, $11 / 16 \times 21 / 8^{\prime}$

| Barrel, $11 / 16 \times 218$. |
| :--- |
| Bakelite. Metal. |
| $124394 \ldots \% 15$ |

Midget Short Jacks
 Small, compact. Quality bakelite insulation. Mount in ${ }^{3 / 3}$ to hole on $3 / 16^{\prime \prime}$ thick. Fit standard size phone plugs.
12A396. Open Circuit. ©......24c 3-Way Mike Jack
Fits $1 / 4$ " diameter plugs Nos. 12A392, 12A393, 12A363 listed on this page.
No. 12A398. Each..............29c

## STAND CONNECTORS



Chrome plated, 5/8 27 threads.
(A) Screws on top of stand to permit easy removal of mike.
12A333. 3 Con..65c
(A) $12 A 334.4$ Con. 75 c (B) For use between mike and stand, providing cable outlet at side, so it stand.
No. 12A335. Net Each.
48 C


Single contact, brass chrome plated Contact made by tightening of coupling ring.
(1) 14A320. Female Cable Type Each
(8) 14A319. Male Cable Type. 24 C

14A321. Male Chassis 21 C

## AMPHENOL MINIATURE CONNECTORS


(A) (B)
(C) (D)
D) (E)

Shells are cadmium plated brass, 11/16" dia. Inserts are bakelite, eas ily removed for wiring.
(A) Short male cable plug $13 / 16^{\prime \prime}$ long. No. 12A142. 3-pin. Net Each. 21 c No. 12A143. 4-pin. Net Each. 21 (B) Long male cable plug. Lgt. 1 3/16' No. 12A146. 3-pin. Net Each.. 21 c No. 12A147. 4-pin. Net Each.. 24 c (C) $13 / 16^{\circ}$ long. Flanged female cable plug. Used with male A or B for fully shieided connection.
No. 12A148. 3-hole. Net Each.21c No 12A149. 4-hole. Nef Each. 24 c (D) Short female cable plug. Lgt. [1] No. 12A144, 3-hole. Net Each. 21 c No. 12A145. 4-hole. Net Each. 24 c (E) Chassis type female receptacle. No. 12A150. 3-hole. Net Each. 21 c

## Handy Mike Connectors

(A).

(B)

All have standard 5/-27 thread and mate with standard mike cable connectors.
(A) "Y" CONNECTOR

2 male and 1 female-for use where more than one mike or speaker is No. 12A307. Nef Each
$\$ 1.03$ (B) DOUBLE MALE CONNECTOR Solid silver plated contacts. 41F (C) DOUBLE FEMALE COMNECTOR With two coupling nuts. Ideal for extrac cable connectors.
No, 12 300 Net Each.
N8 No. 12A309. Net Each.
$\qquad$

Double Female Coupling Ring. Used for joinıng two standard male microphone cable connectors or for 11 converting male
to female type.
No. $17 \Delta 1070$. $\qquad$
15c

## AMPHENOL MICROPHONE CONNECTORS



Standard single contact pressure type connectors with $5 / 8^{\prime \prime}-27$ male or female thread as illustrated. Made of brass, chrome plated.
(A) No. 12A311. Type 75-MCIF Female, Cable end. Each............... 27 c (C) No. 12A313. Type 75-PCIM Male, chassis mounting in . $385^{\circ}$ hole. Fur-
 has spring to push center contact forward. Each
(C) No. 12A315. Type 75-CL-PCIM Male, with spring actuated contact to close circuit when cable connector is removed. Prevents open circuit grid howls. Mounts in .385 hole. Each.
(D) No. 15All 59 . Type $75-202$. Same as i2A3i4 except with bakelite
mounting plate. Each.
mounting plate. Each
(E) No. 12A316. Type Micis Microphone Switch." Push to "talk"
(Fwitch for permanent contact. Each
(C) No. 12A317. Type 75-MCIF-A Angle Connector. Each.
(H) No. 12A318.



## TYPE 80 2-CONTACT CONNECTORS

Equipped with screw coupling ring to prevent accidental disconnection. Spring cord protector takes cables to $5 / 16^{\prime \prime}$ diameter. Brass chrome plated. (i) No. 12A320. Type $80-\mathrm{MC} 2 \mathrm{M}$. 2-contact male, for attaching to cable end. EACH
$.52 c$
end. No. 124321 : Type 80 -MČ2F. 2 -contact female, for attaching to cable
(K) No. $12 A 323$. "Type $80-\dot{P} C 2 \dot{F}$. $\dot{2}$-contact female, for chassis mounting in



TYPE 913 AND 4 CONTACT CONNECTORS
3-contact types have $1 / 4^{\prime \prime}$ diameter spring cable protector; 4-contact types, $3 / \mathrm{B}^{\prime \prime}$ diameter protector. Brass, chrome plated. "Indicates connector has threaded coupling ring; all others, threaded shell.
(L) MALE CABLE CONNECTOR

No. 124324*. Type 91-MC3M. 3-contact male. EACH.
$.85 c$
$.71 c$
No. 12A326\%. Type 91-MC4M. । 4-contact male. EACH $\qquad$
No. 12A325. Type 91-MC3F. 3-contact female. EACH .65c
No. 12A327. Type 91-MC4F. 4-contact female. EACH $.71 c$ (N) CHASSIS MOUNTINC (MALE AND FEMALE)

Mounts in $13 / 16^{\prime \prime}$ Holo in Panels Up to $1 / 4^{\circ}$ Thick
No. 12A328*. Type 91-SP-PC3M. 3-contact male. EACH
No. 12A329. Type 91-PCBF. 3-contact female. EACH.
No. 12A330\%. Type 91-SP-PC4M. 4-contact male. EACH
No. 12A331. Type 91-PC4F. 4-contact female. EACH .....710
No. 12A332. (Not illustrated.) Cap and Chain to fit 91 series chassis units.


2 way phone plug, bakelite shell 124361. Type 75 ...........Net 38 e 2 way plug, shtelded metal shell. 12A362. Type 75N ........Net 58c 3 wny Microphone plag, bakelite. 12A363. Type 76 ...........Net 59 C 2 way plug. shielded metal shell like 75 N above, except has built-in cable cinmp.
12A364. Type 75A ........Net 97 c Txtonalon Jnck, 2 way. flbre shell. 12A365. Type 100 ...........Net 76 c

## Long Frame Jacks

Soe dilagram below A1, A2, and A2A. 12A366. No. 1, Open Circuit.. 38 c 12A367. No. 2. Circuit Closing.. 47 C
12A368. No. iA. Closed Circuit 47 C

## MALLORY JACKS

## 



MIDCET JACKS. Extremely compact Mount in $3 / 8^{\prime \prime}$ hole. Special metal assures finest spring action.
JUNIOR JACKS. Neat, small mounting in 7/16" panel hole. Extends 11/4" back of panel.


JK34A. Same spring arrangement Al in diagram above. Fits standard plugs.
No. 12A384. EACH.
325

WE109, PL46, PL68, PLI68,
etc. No. 12 A385. EACH..
38 C

#  

(1) Insulated Head Jack. Mounts in (6) All Mefal Spring Plug. Brass nickel $1 / 4^{\prime \prime}$ hole on ponels up to $3 / 6^{\prime \prime}$ thick. plated. $1 / 2^{\prime \prime}, 6-32$ threaded shank. Specify Red or Black. 10 For...... 81 c (3) All Mefal Jack. Brass Nickel plated. Mounts in $1 / 4{ }^{\prime \prime}$ hole. 10 . 3 c (3) Bronze Spring Plug. Nickel plated. Has hex shank, removable 6-32 screw
And lugs. Ea........ 7 c 10 For......e日c (9) Insulated Spring Plug. Solderless, side screw connection. Overall length 12A1042, Ea.....12c io For-. $\$ 1.08$ INSULATED ALLIGATOR WITH PHONE TIP JACK Has phone tip jack in shank. Overall length $23 / 8^{\prime \prime}$. Red or Block. 12A1020.Ea...27c 10 For.. $\$ 2.43$

## TEST LEAD PRODS


(1) Phono Needle Type-Tapped removable chuck holds standard phono needles. Red or Black Tenalite handie.
114173 . $5^{\prime \prime}$ long----................. 24 c (2) Solderless Type-Tapped Removable solderless plug holds wire secureBlack means of knurled collar. Red or 114176
(3) Heavy Duty Type-..................... 24 c (3) Heavy Duty Type-For high voit-
age needs. Has finger guard ring, minimum of metal exposed.

## THREADED PHONE

 TIP CHUCK(4) Threaded to fit all test prods.
12A1037, Ea........ 9 c 10 For..... 81 c

PLUGS AND TERMINALS WITH SHANKS TO Fit


Ideal for use with test leads, etc which hove bonana plugs.
12 11038. Red or Black. Ea..
(a) Insulated Spade Terminal Type 10 c 12A1039. Red or Block. Eo....... 10c () All Metal Spade Terminal Type.
12 A1040. Doz.....44c $100 . . \$ 3.28$

## TEST LEAD WRRE




Finest mode. A type for every need. Screw or lug connections-na solder needed. Type: marked with asterisks (\$) are Copper. Others are of steel with bright finish. Standard packages of 10 elips; 5 marked + and 5 plain.
(FIG. I) BATTERY CLIPS WITH GRIP TEETH


 \$Meshing Teeth on All 3 Sides of Jows ${ }^{\text {(FIG. 4) INSULATED ALLIGATOR }}$ All Metal. Fits banana plugs. 10 Red or Black Shank. Fits bonano | Stk. Type Over-all $\begin{array}{l}\text { Length } \\ \text { No. } \\ \text { No. For plugs. } \\ \text { Stk. }\end{array}$ |
| :--- |

 $12 \mathrm{AlOO7}$ *60CS $\begin{array}{llllll} & \text { Solid Copper. }\end{array}$ (FIG. 5) CROCODILE CLIP $12 \mathrm{AlO10} 85$ 2/8 6C 49c 12 A1009 "60CHS 2l/4" 11C 98C (FIG. 6) CROCODILE TIP-CLIP (FIC. 7) INSULATORS ONLY
or black, specify colors wanted. Standard phone tip on one jaw. 25/8" For Clip Sik. No. Net Ea. 10 For overoll length. Type 85T.
12A1011.Ea.. 12c 10 For.. 51.08 (FIG. 8) WEE-PEE-WEE CLIP
on-ferrous R.F. Clip. Ideal for coils


Overall leng'th $13 / 16^{\prime \prime}$.
12A1044, Eo........7c 10 For......60c 12A1044, Eo.........7c 10 For......60c
(6) Insulated Split Plug. Prong split in center for spring action. Set screw Black.
12A1043, Ea.....12c 10 For.. $\$ 1.08$
(7) All Metal Split Plug. 6-32 threaded hex shank. Overall length $11 / 4^{\prime \prime}$. deduct $10 \%$ from 10 Lot Price.
(1) All Insulated lack $1 / 2^{\prime \prime}$ head coun- (6) Insulafed Plug. Perfect solderless tersunk for sinug fit. Phosphor bronze connection by tightening knurled colcontacts. $3 / 4^{" \prime}$ overali. Mounts in panels lar. Overall length $23 / 16^{\prime \prime}$. Red or up to $3 /$ " " thick. Red or Black $^{\text {a }}$
12A1059. Ea...15c 10 For.. 51.30
(3) Insulated Jack. Phosphor bronze contocts. Fits $1 / 4^{\prime \prime}$ hole in ponels up to $1 / 4^{\prime \prime}$ thick. Red or Black.
12 A 1058 . Ea. ...9c 10 For....80c (3) Insulated Combination Jack. Takes either phone or banana tips. Fits $1 / 4^{\prime \prime}$ hole in panels up ta $5 / 8^{\prime \prime}$ thick. Red or Black
12A1049. Ea...12c 10 For. . 51.08 (4) All Mefal lack. Phasphor bronze contacts. Fits $1 / 4^{\prime \prime}$ hole in panels up to ${ }^{3 / 3 / 3 \prime}{ }^{\prime \prime}$ thick.
$\qquad$
$\qquad$
6 c Black
(8)A1050. Ea... 11 c 10 For.....99c (8) All Metal Plug. Brass nickel plated. Solderless connection. Overall length $15 / 8^{\prime \prime}$
12A1052. Ea. . . . 6 c 10 For. . . . 54c Grip-Rite Insulated Plug. Supplied with nut and bolt assembly. 12A1055. Ea...29c 10 For. . \$2,81 (i) Streamlined Right Angle Plug. Solderless connection made by screw ing tip in securely. Red or Black. 12A1056. Ea... 18c 10 For. . $\$ 1.82$ For Quantities of 100 or More deduct
10\% From 10 Lot Price.

HEAVY DUTY ALLIGATOR CLIPS


(A) Sure contact. Flush mouniting. Nickel tip jacks mounted in bakelite strip. $2^{\prime \prime}$ long, $11 / 16^{\prime \prime}$ wide, mounting hole $111 / 16^{\prime \prime}$ centers. 12A1061—Net Ea. 9 C 10 @...... 8c
(B) Insulated head jacks mounted on a bakelite strip, $1 / 2^{\prime \prime}$ wide, $2^{\prime \prime}$ long, $3 / /^{\prime \prime}$ apart.
No. $12 A 1062$. Net Each.

29 c


For recording units, recelvera and many makes Auto Radios.
No. 12A1087-Pin Plug. Ea.........5c
No. 12A1088-Socket E Shield.... 8 C
Double Phono Jack
2 positive grip phono jacks

## SHIELDED EXTENSION

## JACK

## (B. CINCH

Fits pin plug above for extending and connecting leads in record players, louto radios, recording equipment. Etc.
0
0
0
0 EBY BINDING POST
$7 / 16^{\prime \prime}$ dia. Has hole for phone tip and 6-32 stud 7/16 long.

No. 17A385

$70 c$

## RADIO MULTI-GANG, SELECTOR and ALL WAVE SWITCHES



## Centralab

Lever

## Action

 SwitchesPositive and Spring Return

Extremely compact-Simple in design -Used in Public Address and inter comm systems; test equipment Con trols for model railroad, etc. Mount Mounting in ganks up to five ise Mounting Plates listed below). Rating: inated insulation: High grade lamSilver plated spring brass. Supplied CHOICE, EACH mounting hardware. Shorting Type . . Non-ihorting Tyne No. Pole Pos. Action No.
 $\begin{array}{lllll}12 A 701 & 2 & 3 & \text { Spring } & 12 A 706 \\ 18 A 70 \% & 4 & 8 & \text { Spring } & 12 A 707\end{array}$ 12A70s $4 \quad 2$ Positive 121708 12A70, 2 Pos. \& Spr. 12 A 709 For mounting above switches singly or in gangs up to 5. Black crackle finish steel
Stk. No. Cangs
$12 A 713$
$12 A 714$
$12 A 715$
$12 A 716$
Dim.

Centralab SPRINE

## RETURN SWITCHES

Used as talk-Jisten switches in Inter inal position when knob is released Rotation is clockwise Have $17 / \mathrm{g}^{\prime}$ (from end of bushing) shafts which can be cut to size.
2A710. 1-Pole, 2-Position. . . $\$ 0.44$
2A712. 4-Pole. 2-Position... 1.03
Centralab MOMENTARY PUSH SWITCHES
 For light duty
applications such

Nor狊 applications such as meter inser-
tion, record rejection or selecctc. Rating: i amp. at $110-\mathrm{V}$. contacts. insulated $3 / 8^{40}$ bushing. $7 / 6^{\prime \prime}$ ong. Push-bution extends $1 / 2^{\prime f}$ from No. 124718 .
No. 12A718. Normally open,
No. $12 A 719$. Normally closed
$.24 c$
Universal Flat Switch


Use as SPST, SPDT, DPST, DPDT, 3PST:
3PDT, 4PST, 4PDT: 3PDT, 4PST, 4 PDT.
Non-shorting type. 5\%" ${ }^{\text {deft. }}{ }^{\text {deep }}$ With ${ }^{21 / 44^{\prime \prime}}$ bar
Nor knob.

| No. 12A533. Your |
| :--- |
| Cost, Each. 59 c | spring return. Each.

## FEDERAL

 Anti-Capacity(8) Contacts of silver plated phosphor bronze. Actuated by a cam roller. Size, $21 / 2 x$ No. 12 A452. DPDT. $\$ 1.90$ $\frac{\text { No. J2A453. 4PDT. } 2.26}{\mu_{2} \mathrm{~A}_{2}}$

## Tap Switch

 Positive snap ac-tion. Strong wiping contact grounded to shaft and bushing. In operation, contact breaks be ween makes. Bushing length $3 / 8$ haft $9 / 16^{\prime \prime}$ from end of bushing.

| No. | Pts. Each | No. | Pts. Each |  |  |
| ---: | :---: | :---: | :---: | :---: | :---: |
| $2 A 534$ | 2 | $50 c$ | $12 A 540$ | 8 | $58 c$ |
| $2 A 535$ | 3 | $50 c$ | $12 A 541$ | 9 | $68 c$ |
| $2 A 536$ | 4 | $50 c$ | $12 A 542$ | 10 | 580 |
| $2 A 537$ | 5 | $53 c$ | $12 A 543$ | 11 | 680 |

$2 A 538$ 6 53c 1245441260

MALLORY GANG SWITCHES
Trpee 1200L and 1300L Seriee
Used in a very wide range of applications. bakelite in ula bakrings and phosphor-bronze 3 and 4 gang are spaced 10 are spaced is easily shorton necessary can be disassembled. the spacers cu down to required length of switch and spacing of sections. With bar knob but lese dial plate.

\section*{| Shorting |  |
| :---: | :---: |
| Cat. No. Typa |  |}


$|$| Non-Shorting |  |
| :---: | :---: |
| Cat. No, | Ty1p |
| $12 A 457$ | 1311 L |
| $12 A 459$ | 1315 L |
| $12 A 461$ | 1313 L |
| $12 A 463$ | 1312 L |
| $12 A 467$ | 1321 L |
| $12 A 469$ | 1325 L |
| $12 A 471$ | 1323 L |
| $12 A 478$ | 1322 L |
| $12 A 477$ | 1331 L |
| $12 A 479$ | 1335 L |
| $12 A 483$ | 1341 L |
| $12 A 485$ | 1345 L |
| $12 A 487$ | 1351 L |
| $12 A 489$ | 1356 L |
| 12.1491 | 1361 L |
| $12 A 493$ | 1366 L |



*Types marked with (*) have no third or "off" position with all circuits open. All others have "of $f^{\prime \prime}$ position
No. 12A494. Universal mtg. bracket RB254 for all above
15c

## MALLORY SINGLE-GANG CIRCUIT SELECTOR SWITCHES 3100 J and 3200 J Series

Very sturdy and have a wide application in tap switch needs. Have $2^{\prime \prime}$ notched shafts; silver contacts: $3 / 8^{\prime \prime}$ threaded bushing, Low resistance wiphave adjustable stops. All are with bar knob and mounting nut. See below for switch plates.


| Cat. No. | Type |
| :---: | :---: |
| 12.1458 | 1211 L * |
| 12.1758 | 1215 L |
| 12A 160 | 1213L |
| 12.462 | 1212L |
| 12.1166 | $1221 \mathrm{~L}^{*}$ |
| 12 A 468 | 1225 L |
| 12A470 | 1223 L |
| 12 A 472 | 1222L |
| 12.1476 | 1231L* |
| 12 A 788 | 1235L |
| 12 A 482 | 1241L* |
| 12.1484 | 1245 L . |
| 12A486 | 1251 L * |
| 12A488 | 1256L* |
| 12A 490 | 1261 L * |
| 18A492 | 1266L* |

mallory ceramic SELECTOR SWITCHES


Ceramic Insulation minimizes RF losses "Snap" retards moisture absorption. has adjustable stop feature. Contacts are heavy silver-plated, self-cleaning, non-shorting. Cang spacing Mounting bushing, $3 / /^{\prime \prime}$ dia. $x$ 3/6" cutting. Bar knob supplied with each Use Standard $30^{\circ}$ switch plates.
No. Type Cangs Poles Pos. Net Ea. $\begin{array}{llll}17 A 1113 & 172 C & 1 & 11 \\ 17 A 1114 & 173 C & 1 & 2 \\ 17 & 5 & 1.32\end{array}$ $17 A 1$
$17 A 1$ $17 A$
$17 A$ $17 A 1119$
17 IC C
17120
179 C $17 A 1121$
$17 A 1122$
$181 C$ E3.
.32
.32
.32
2.06
2.08
2.84
2.84
2.94

## Mallory "Hamband"

## Switches



Low ioss ceramic insulation, wide contact spacing, improved heavy silver plated contacts, For transmitters with power up to 100 watts. 4 con-
tacts per circuit. With knob as tacts per clrcer
shown. $90^{\circ}$ indexing.

## MALLORY PUSH-BUTTON SWITCHES

Ideal for laboratories, on test panels, in meter circuits, quired. Non-tocking type maintain contact while button is held. Locking type keeps circuit closed until button is pulled out again. Mounts in $7 / 16^{\prime \prime}$ hole on panels
(1)
(2) $=\square$
(3)
 up to $1 / 4^{\prime \prime}$ thick.


Shorting
Cast.
12.478 12A499 12.1501 ${ }_{1 \geqslant \text { A500 }}^{12}$

 ${ }_{12}$ 1.1511 | 12.1313 |
| :--- |
| 12.1515 |

## MALLORY SWITCH PLATES FOR ABOVE

For switch, tonc, or volume control. Easy to read ligures on Net Price, Wach

| Non-Shnrting |  | Poles | Poditions | Base Dia. | N゙et Hach |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Cat. No. | Type |  |  |  |  |
| 12 A 486 | 3215 J | 1 | 1-5 | 114" | \$.68 |
| 12A498 | 32112 J | 1 | 1-12 | 14*" | . 88 |
| 12.4500 | 3222 J | 2 | 1-2 | 114** | .68 |
| 12A503 | 3223 J | 2 | 1-3 | 11/6" | .88 |
| 12.1504 | 3226 J | 2 | 1-6 | 11/** | . 88 |
| 12.1506 | 3234 J | 3 | 1-4 | 11/\% | - |
| 12.1508 | 3242 J | 4 | 1-2 | 11/" | .71 |
| 12 A 510 | 3243 J | 4 | 1-3 | $11 /{ }^{\prime \prime}$ | 17 |
| 19.1512 | 32117 J | 1 | 2-17 | 1 11* | 1.08 |
| 12A514 | 3229 J | 2 | 1-9 | $11^{\prime \prime}$ | 1.06 |
| 12A516 | 32365 | 3 | 1-6 | $1{ }^{\prime \prime}$ | 1.15 |
| 12. 518 | 3263J | 6 | 1-3 | 1+1" | 1.15 |

## Type

 3122 J3123 J 3126 J 3134 J
3142 J 3143 J 3129 J 3163 J

| No. | Type | Cangs | Cir. | Ea. 31.32 |
| :---: | :---: | :---: | :---: | :---: |
| 12 A 28 | 161 C | 1 | 1 |  |
| 124529 | 162C | 2 | 2 | 2.06 |
| 124530 | 163 C | 3 | 3 | 2.84 |
| 124531 | $164 C$ | 4 | 4 | 3.68 |
| 12 A532 | 165C | 5 | 5 | 4 |
| 124766. | Special | ial pl | te fo | above |
| numbere | from 1 | to 4 |  | c |

## MALLORY 24-POINT

## TAP SWITCH

For test equipment or other application where more than the convention-
al 12 -point switch is required. Single circuit, non-shorting. Continuous rotation with $15^{\circ}$ indexing action between positions. Has $3 / 8 \times 3 / 8$ " brass bushing,
2 " long notched shaft. Complete with dial plate and bar knob.
No. 12A527. EACH.
S2.06
MALLORY CIRCUIT-OPENING SWITCM
Type 1400L. Used in test sets, tube checkers, analyzers, etc., anywhere the use of only one meter is desired. Opens any one of twelve lines for insertion of current reading meter and maintains a through circuit on other and Bar K Complete with Dial Plate

## No. I2A555. <br> MALLORY <br> "HAMSWITCH" .152L

2-section
circuit, 6-posj-
tion switch for
application
whed terminals

are to be con
nected and automatically shorted out resin insulation $1 /$ "spacing between sections. Adjustable stop. 3 , dia sections. Ad, bushing. ${ }^{\prime \prime}$ " long shaft $3 /{ }^{\text {" }}$ long bushing; $2^{\prime \prime}$ long shaft grooved for easy cutting to popular
No. 16 A730. EACH . . . . . . . S1. 81

## TAP <br> SWITCH 8 pos. single pole. Numbers show through <br> No. 17 A75 <br> No. 17A758. Each ...63c

## 2 4 4 1 1

\section*{| 2 c |
| :--- |}

For $11 / 4$ " BASE SWITCHES- $30^{\circ}$ SPACING

| No. | Tyjue | Marked | No. | T'ypo | Marked | No. | Type | Marked |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $12 \mathrm{A726}$ | 372 | 1 to 2 | 12A333 | 379 | 1 to 9 | 12.1740 | 386 | Orf 1 to 6 |
| 12.4727 | 373 | 1 to 3 | 12A734 | 380 | 1 to 10 | 12A741 | 387 | Off 1 to 7 |
| 12A728 | 374 | 1 to 4 | 12.1735 | 381 | 1 to 11 | 12A742 | 388 | Off 1 to 8 |
| 13, 729 | 375 | 1 to 5 | 12.1736 | 38. | 1 to 12 | 12.4743 | 389 | Off 1 to 9 |
| 12A730 | 376 | 1 to 6 | 12A737 | 383 | Off 1 to 3 | 12 A 744 | 390 | Off 1 to 10 |
| 18.1731 | 377 | 1 to 7 | 12A 738 | 384 | O:P 1 to 4 |  |  |  |
| 12.1732 | 378 | 1 to 8 | 12A739 | 385 | Off 1 to $\mathrm{b}^{\text {a }}$ |  |  |  |

For $111 / 16^{\prime \prime}$ BASE SWITCHES-20오 SPACING

| 12.1745 | 453 | 1 to 3 | 12A752 | 460 | 1 to 10 | 12.759 | 477 | Off 1 to 7 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 121746 | 454 | 1104 | 12A758 | 461 | 1 to 11 | 12 A 760 | 478 | Off 1 to 8 |
| 12A747 | 455 | 1 to 6 | 12A754 | 462 | 1 to 12 | 12 A 761 | 479 | Off 1 to 9 |
| 12 A748 | 456 | 1 to 6 | 12A755 | 478 | Off 1 to 3 | 124762 | 480 | Off 1 to 10 |
| 12 A749 | 457 | 1 to 7 | 12, 1756 | 474 | Off 1 to 4 | 12, 763 | 481 | Off 1 to 11 |
| 12A750 | 458 | 1 to 8 | 12 A 757 | 475 | Off 1 to 5 | 12A784 | 482 | Off 1 to 12 |
| 12A761 | 459 | 1 to 9 | 12A758 | 476 | Off 1 to 6 | 121765 | 467 | ORe 1 to 17 |

Eac

## QUALITY RADIO and ELECTRICAL SWITCHES for MOST ANY NEED



Carling
Hi-Power Togsle Bwitch 20 amp., 125 volts 10 amp., 250 voltg偒" dia. shank \%" ong. Bat handle. bakelite base日PST.
12A794. Each 52 c
10 at $.47 c$


Carling
Momentary Plunger Type Switches

Conntless Need
Double-Pole, Double Throw 6 Jug switch suitable for testers meter panels. etc. Maken DP. ST by using 4 lugs. 1 amp. 126 volts ank ${ }^{\prime \prime}$ long 2A792. Each $53 \mathrm{c} ; 10$ at $\ldots .48 \mathrm{c}$ Single-Pole. Two Clircult 4 lug wwitch. 1 amp. 125 volts AC only. $15 / 32^{\prime \prime}$ shank. ${ }^{\prime \prime}$ long.
$12 A 793$. Each $36 \mathrm{c} ; 10$ at 32 c

Toggle Switch With
Mire Lesis Carling S.P.S.T. tog le switch rating amps. 250 volts 5/16' shank with two knurled nuts. Attached 6 inch leads provide easy installation. 315
17A307. Ea. Lots of 10. Ea. 27 c
0
Toggle Switch
Serew terminals and tiny
bakelite handie. Light duty
$\begin{aligned} & \text { service for model aircraft, } \\ & \text { trains, etc size } \\ & \text { and }\end{aligned}$
$\begin{aligned} & \text { centers. } \\ & 15 A 108 \\ & 10\end{aligned}$
15A1082. Each.
18c

## Slide Switches

 For any need where a small switch is wanted-mike curlow power supplies. etc. All contacts Ratings, S.P. $3 / 4$ A., D.P. $1 / 2$ amp. at 125 volt $A C$ or $D C$. No. 12 A 799 . S.P.S.T. Net Each. 1 Be No. 12A768. S.P.D.T. Net Each. $19{ }^{c}$ No. $17 A 1040$. D.P.S.T. Net Each. 226
No. $12 A 769$. D.P.D.T. Net Each. 280

Switch Plates For Standard
Slide Switches.

(A)
(A) For toggle switches. N.P. steel. No, 12A785. Ea. 2c, 10 at $11 / 2 \mathrm{C}$ (B) Circular type for toggle switches. Etched, polished aluminum with black background.
No. 17 Al013 off-On Chaice
No. 17 A1014 Micro-Phono
No. I7A1015 Phono-Radio
Each
(C) For slide type switches 12 c $11 / \mathrm{s}^{\prime \prime} \mathrm{mtg}$, hole centers. Antique finish. Size $21 / 2 \times 7 / 8^{\prime \prime}$
No. $17 A 1016$ Phono-Radio $\quad$ Choice $\left.\begin{array}{l}\text { No. } 17 A 1016 \text { Phono-Radio } \\ \text { No. } 17 A 1017 \text { On-Off }\end{array}\right\} \begin{aligned} & \text { Each } \\ & 15 e\end{aligned}$ ROTARY CANOPY SWITCH For lamp and appliance repairs SPST switch. Rated 3 -amp; 125 -vol
amp. 250 -volt. Has $1 / 4$ shank, b


(A)

HART \& HEGEMAN SWITCHES

(B)

(C)

(D)

(E)

(F)

(G)

TOGGLE and BAT HANDLE SWITCHES (A)-(B)
Underwriters Approved: For controlling radio sets, small motors, lamps, meters, etc. Of high quality rugged construction. Rated at 3 -amp., 125 -volt; 1 -amp., Mounting shank diameter 15/32" $\times 13 / 32^{\prime \prime}$ long. Two mounting nuts included. Nickel Plated.


| No. | Type | Lu | Each | @ Ea. | No. | Ty | Lugs | Each | $10 @ E a$. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $12 A 770$ | $\begin{aligned} & \text { SPSTT } \\ & \hline \text { SDS } \end{aligned}$ | 2 |  | 2 | 124771 | SPST | 2 | 25 c | 23 c |
| $12 A 772$ |  |  |  |  | 12 A773 | SPDT |  |  |  |
| 12 | DP | 4 |  | 27 c | 12 al7 | DPST | 4 | 45 c |  |
| $2 A 776$ | DPDT | 6 | 55 | 436 | 2 A777 | DPDT |  | c |  |


| $12 A 774$ | DPST | 4 | $45 c$ | $43 c$ | $12 A 777$ | DPDT 6 | $51 c$ | $46 c$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

"Shank long. HI-POWER SWITCHES (C)-(D)
Used on motors, appliances, etc. Rated 12 amps. at 125 volts. Size, $134^{\prime \prime}$

No. 12A779. NET EACH
 interlock switch, will break primary circuit when door is opened.

87 c
EXTRA HEAVY DUTY TYPE-DPDT with neutral position in the center for use in heavy current circuits such as transmitters, amplifiers, motors, etc. "Fast-break" type contacts. Rated 10 amps at 125 volts. Size, high, $11 / 4^{\prime \prime}$ wide. $5 / 8^{\prime \prime}$ diameter shank
No. $12 A 780$. NET EACH.............
No. 12A780. NET EACH
ROTARY SWITCHES (E)

| For knob operation. 3 amps., 250 volts. Mounting sleeve, $3 /{ }^{\prime \prime}$ diameter, sleeve length, 15/32". Knob shafts extend 1" beyond threaded sleeve. | $\begin{aligned} & \text { No. } \\ & 12 A 781 \\ & 12 A 782 \\ & 12 A 783 \\ & 12 A 784 \end{aligned}$ | Type SPST SPDT DPST DPDT | $\begin{gathered} \text { Lugs } \\ 2 \\ 3 \\ 4 \\ 6 \end{gathered}$ | $\begin{aligned} & \text { Each } \\ & 28 \mathrm{c} \\ & 322 \mathrm{c} \\ & 516 \\ & 58 \mathrm{c} \end{aligned}$ | 10@Ea. <br> $26 c$ <br> 48 c <br> 52c |
| :---: | :---: | :---: | :---: | :---: | :---: |

TWO-CIRCUIT PUSH SWITCHES (F)-(G)
In normal position, with plunger out, "off". When plunger is depressed, circuits are reversed. Slow make, quick break momentary contacts. R'ated amp. at 125 -volt AC. Bushing $15 / 32$ diameter, 5/8" long.



The wide application of this type switch is familiar to most all tic 1 th" "x $1 t^{\prime \prime} \times 27 / 322^{\prime \prime}$. drilled for mounting two $6 / 32$ screws on $1^{\prime \prime}$ centers. Type 1P mounts through panel, fif" sleeve. Rated 10 amps.
 Movement Differeotial: Type 1A-.005"; Type 6L-.030"; Type 1P-.003".


|  | ${ }_{\text {1A }}^{\text {MPrsin }}$ |  |  | 51-Leap Type |  |  | 1P-Panel Type |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Stock | Net | Mfrs. | Stock | N | MPrs. | Stock | N |
| Circuit | Code | No. | Ea. | Code | No. | Fa. | Code | No. | Ea. |
| NO. | XO-1A | 12 A 800 | . 83 | XO-51. | 12 A 803 | 1.02 | RO-1P | 124806 | 86 |
| N.C. | XC-1A | 12A801 | 93 | XC-6L | 12:4804 | 1.02 | RC-11 | 12.1807 |  |
| D.T. | XD-1A | 12A80\% | 1.12 | XD-5L | 12 A 805 |  | RD-1P | 12 A 8 | 8 |

## PHONO-RADIO SWITCH

For Record Players, Changers, FM Tuners Connects Record Players, FM Tuners, TV attachments, Microphone, and similar devices into the change-over from radio to record player with suppression of radio when in "phono" position. 95 S
No. 12A554. NET EACH................

## RCA RECORD-PLAYER SELECTOR SWITCH

Provides the means for using a 45 RPM record player with existing players or phono-radio combinations by switching between the two pickups Mount on rear of radio or cabinet. Includes the switch assembly; and plugs for connecting to standard phono jacks used on present day radio combinations. Pick-up leads plug into standard jacks on switch unit No. 154496
\$2.37 NET EACH.

BAKELITE

## KNIFE SWITCHES


(A)
(B)
(A) Miniature Type-For radio and electrical uses. Black bakelite base. Nickel plated brass parts. Insulated handies.

| No. | Type | Size | EACH |
| :---: | :---: | :---: | ---: |
| $12 A 795$ | SPST | $1 / 2 \times 1 / 4^{\prime \prime}$ | $\mathbf{S O . 2 1}$ |
| $12 A 796$ | SPDT | $1 / 2 \times 1 / 4^{\prime \prime}$ | .35 |
| $12 A 797$ | DPST | $1 \times 1 / 4^{\prime \prime}$ | .41 |
| $12 A 798$ | DPDT | $111 / 4^{\prime \prime}$ | .44 |

(B) Standard Type - Heavily nicke! plated brass hardware is mounted on highly polished black bakelite bases. Firm contact assured.

| No | Type | Size |  |
| :---: | :---: | :---: | :---: |
| 164725 | SPST | ) | , |
| $16 A 726$ | SPDT | 21/8x1" |  |
| 164727 | DPST | $1 / 8 \times 17$ |  |
| 164728 | DPDT | $23 / 4 \times 17 /{ }^{\prime \prime}$ |  |
| 164729 | 3PDT | 21/8×21/2" |  |


| Porcelain <br> Switches <br> Knife Type |  |  |
| :---: | :---: | :---: |
|  |  |  |
| Porcelain basecompact ${ }^{\text {a }}$ ( |  |  |
|  |  |  |
|  |  |  |
| 124550 SPST | Size $1 \times 15 / 8^{\prime \prime}$ | 13 |
| 124551 SPDT | Size 1 |  |
| 124552 DPST | Size $11 / 2 \times 13 /{ }^{\prime \prime}$ | 23 c |
| 12 A553 DPDT | Size $11 / 2 \times 25 / 8^{\prime \prime}$ | 27 c |

## Nut Type

## Acro Switch

Push-button type, compact 29/32" dia. $\times 1 / 1 / 2^{\prime \prime}$ overal height. For panel mounting. Bakelite plunger. Rating is
15 amps, at 115 volts $A C$. Ideal for DC loads because of double break feature.

$\qquad$ | 12A812. Type 3NO5-5P-N.O. | 1.47 |
| :--- | :--- | MALLORY MULTIPLE PUSH-BUTTON SWITCHES



Ideal for automatic station selector tuning, intercomm systems, telephone systems, PA, erc.; anywhere a device circuits is required. One or more plungers may be pressed simultaneously, and remain as such until another is pressed. Comes complete with brown phenolic resin knobs, statuary bronze escutcheon plate with blank identification inserts and transparent strip for windows.

| CIRCUIT CLOSINC TYPE |  |  |  |
| :---: | :---: | :---: | :---: |
| 16 NAII9 | 2164 | $\begin{aligned} & 4+16 \\ & 4 \end{aligned}$ | $\begin{gathered} \text { ans EACH } \\ \$ 3.09 \end{gathered}$ |
| 164720 | 2166 | 6 | . 85 |
| 164721 | 2168 | 8 |  |
| CIRCUIT TRANSFER |  |  |  |
|  | Non-Sh | 8 |  |
| 164722 | 2194 |  | $\$ 3.09$ |
| 16 A723 | 2196 |  |  |
| 16 A724 | 2198 | 8 | 4.65 |

## Carling Toggle Switches

 E3
3
3 purpose use.
mounting Bleeves. Rounting
Rated 3 amps . at 125 2 mtg . nuts.
No. Type
12 A787
2A788
$12 A 789$ DPDT
center
Each.


2-2.


No. 31A HEARINC AID BATTERY TESTER. Carefully engineered to delicate batteries used on vacuum tube hearing aids. Has two scales, 0-50 volls in 1 -volt divisions and $0-2$ $21 / 4^{\prime \prime}$ diameter, $5 / 8^{\prime \prime}$ thick, bright nickel finished.
No. 16A734. NET EACH. N2, No. 42 A PORTABLE RADIO BATTERY TESTER. Equipped with red and green "Cood-Bad" color chart for all standard batteries including 45 -volt and 90 volt " $B$ " batteries and $1.5,4.5,6$, and 7.5-volt "A" batteries. Also has 0 . 100 -voli scale for special sizes of "B" are made at correct load to give true battery condition. Case size, $21 / 4^{\prime \prime}$ diameter, 5/8" thick, bright nickel finished.
No. 16A735. NET EACH. 3,53 No. 164735 NEON CLOY VOLTMETER Reads AC or DC 65 to 660 Volts


Just rotate the knob until glow lamp goes out and read voltage direct from able instrument that can stand knocking around. Resistance approx. $1 / 2$ megotim. Neon indicator good 0,000 hours actua operation Ckelite case dia.
C 17 A572. Net

TRIPLETT PANEL METERS


Round or square flush-mounting, bright bakelite cases, dust-proofed Meters are Dirsonval type; AC damped. All have selected jewel bearings, highly polished pivots, alu minum pointers, molded zero adjust ers, ceramic pointer stops and white enameled metal dial with easy-toread scale. Accurate within $2 \%$. Mounting hole, $2^{\prime \prime}$ models 2 7/32":


## 3-INCH METERS

| 3-IN |  |  |  | METERS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DC MILLIAMMETERS |  |  |  | DC VOLTMETERS(125 Ohms Per Volt) |  |  |  |
| Range | Mod, 321-T | Mod. 327-T | Price |  |  |  |  |
| MA | Round | Square | Each | Range | Mod. 321-T | Mod. 327-T | Price |
| 0-1 | 19A1183 | 204813 | \$7.74 | Votts | Round | Square | Each |
| 0-5 | $19 A 1184$ | 19 A 1197 | 6.66 | 0-5 | 19A1140 | 1941147 | \$6.66 |
| 0-10 | 1941185 | 1941198 | 6.66 | 0-10 | 1941141 | 204835 | 6.66 |
| 0-15 | $19 \mathrm{A1186}$ | 204814 | 6.66 | 0-25 | 19 A1142 | 1941148 | 6.66 |
| 0-25 | $19 \mathrm{A1187}$ | $19 \mathrm{Al199}$ | 6.66 | $0-50$ | 1941143 | 204836 | 6.66 |
| 0.50 | 19A1188 | 204815 | 6.66 | 0-150 | 19A1144 | 204837 | 6.66 |
| 0-100 | 1941189 | 204816 | 6.66 | 0-300 | $19 \mathrm{Al145}$ | 204838 | 8.43 |
| 0-150 | 1941190 | $19 \mathrm{Al200}$ | 6.66 | DC VOLTMETERS (1000 Ohms Per Volt) |  |  |  |
| $0-200$ | 19A1191 | 204817 | 6.66 |  |  |  |  |
| 0-250 | $19 A 1192$ | 1941201 | 6.66 |  |  |  |  |
| 0-300 | $19 \mathrm{Al193}$ | 204818 | 6.66 | Range | Mod, 321-T | Mod. 327-T | Price |
| 0-500 | 19A1194 | 204819 | 6.66 | Volts | Round | Square | Each |
| $0-750$ | 1941195 | 19A1202 | 6.66 | 0-10 | 19A1149 | 19A1152 | \$9.21 |
| 0-1000 | $19 \mathrm{Al196}$ | 19 A1203 | 6.66 | 0-150 | 1941150 | 1941153 | 9.51 |
| DC MICROAMMETERS |  |  |  | 0-300 | 19A1151 | 19 A1154 | 11.56 |
| Range  <br> Micro $A$  <br> Mod. $321-T$  <br> Round Mod. 327-T  <br> Square Price |  |  |  | DC MILLIVOLTMETERS |  |  |  |
|  |  |  |  | Range Mod. 321-T Mod. 327-T <br> Millivolts RoundSquare |  |  | Price |
| 0-20 | 16A766 | 164767 | \$13.33 |  |  |  | Each |
| $0-50$ | 164768 | 16 A769 | 10.68 | 0-50 | 16 A772 | 16 A773 | \$6.66 |
| 0-100 | $19 \mathrm{A1138}$ | 204823 | 10.19 | 0-100 | 164774 | 164775 | 6.66 |
| 0-200 | $19 A 1139$ | 204824 | 8.72 | AC VOLTMETERS |  |  |  |
| 0-500 | 16 A770 | 164771 | 8.13 |  |  |  |  |
| DC AMMETERS |  |  |  | Range Volts | Mod. 331-S Round | $\text { Mod. } 337.5$ <br> Square | Price Each |
| Range | Mod. 321-T | Mod. 327- | Price | 0-5 | 19 A1123 | 204828 | \$6.66 |
| Amps. | Round | Square | Each | 0-10 | 1941124 | 204829 | 6.66 |
| 0-1 | 19A1131 | 204820 | \$6.66 | 0-15 | $19 \mathrm{Al\mid 25}$ | 1941129 | 6.66 |
| 0-5 | 19A1132 | 19 A 1136 | 6.66 | $0-50$ | 19A1126 | $19 A 1130$ | 6.66 |
| 0-10 | 19A1133 | 204821 | 6.66 | $0-150$ | $19 \mathrm{Al127}$ | 204830 | 7.74 |
| 0-25 | 19A1134 | 204822 | 6.66 | 0-300 | $19 \mathrm{Al128}$ | 204831 | 9.31 |
| 0-50 | $19 A 1135$ | 1941137 | 6.66 | AC AMMETERS |  |  |  |
| R.F. AMMETERS (With Internol Couple) |  |  |  |  |  |  |  |
|  |  |  |  | Range Amps. | Round | Square | Each |
| Range | Mod. 341-T | Mod. 347-T | P Price | 0-1 | 19A1105 | 1941110 | \$6.66 |
| Amps. | Round | Square | Each | 0-3 | 1941106 | 204832 | 6.66 |
| 0-1 | 1941092 | 204825 | \$7.74 | 0-10 | $19 A 1107$ | 204833 | 6.66 |
| 0-2.5 | 19 Al 1093 | 204826 | 7.74 | 0-25 | 1941108 | 204834 | 6.66 |
| $0-5$ | 19 11094 | 204827 | 7.74 | 0-50 | $19 \mathrm{A1109}$ | 1941204 | 6.66 |


| 2-INEM METERS |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DC MILLIAMMETERS |  |  |  | AC VOLTMETERS |  |  |  |
| Range | Mod. 221-T | Mod. $227-$ T | Price Each | Range <br> Volts | Mod. 231-5 Round | Mod. 237-5 Square | Price Each |
| MA | Round | Square | Each |  | 19A1111 | 19A1117 | \$5.68 |
| 0-1 | 19A1155 | 1941169 | \$6.76 | $0-5$ $0-10$ | 19A1112 | 19A1118 | 5.68 |
| 0-5 | $19 A 1156$ | 1941170 | 5.68 | 0-15 | 19 A1113 | 1941119 | 5.68 |
| 0-10 | 19 A1157 | 1941171 | 5.68 | 0-50 | 1941114 | $19 A 1120$ | 5.68 |
| 0-15 | 19A1158 | $19 A 1172$ | 5.68 | 0-150 | 1941115 | 19A1121 | 6.76 |
| 0.25 | $19 \mathrm{Al159}$ | $19 \mathrm{A1173}$ | 5.68 | 0-300 | 19 A1116 | 1941122 | 8.33 |
| 0-50 | 1941160 | 1981174 | 5.66 |  | AC AM | METERS |  |
| 0-100 | 1941161 | $19 A 1175$ | 5.68 |  |  |  |  |
| 0-150 | 19A1162 | 19A1176 | 5.68 | Range | Mod. 231-S | Mod. 237-5 | Price |
| $0-200$ | 1941163 | 19A1177 | 5.68 | Amps. | Round | Square | Each |
| $0-250$ | $19 A 1164$ | 1941178 | 5.68 | 0-1 | 19A1095 | $19 \mathrm{Al100}$ | \$5.68 |
| 0-300 | $19 A 1165$ | 19A1179 | 5.68 | 0-3 | 1941096 | $19 A 1101$ | 5.68 |
| 0-500 | 19A1166 | $19 A 1180$ | 5.68 | 0-10 | 19A1097 | 19A1102 | 5.68 |
| $0-750$ | $19 A 1167$ | $19 A 1181$ | 5.68 | 0-25 | 19 Al 098 | $19 A 1103$ | 5.68 |
| 0-1000 | 19 A1168 | $19 \mathrm{Al182}$ | 5.68 | 0-50 | 19 A1099 | 19 A1104 | 5.68 |

## CONANT INSTRUMENT RECTIFIERS


For meters, relays and other apparatus requiring DC output current where the frequency of the AC source extends into the audio range. Series 500 is recommended 160 is recommended where linear response is required over $.500^{\circ}$. Series 160 is recommended where inear response is required over entire commercial and audio range at currents ap fire single screw mounting. Both types have flexible pig fail wire leads and single screw mounting. Circuit , full wave bridge: circuit ${ }^{2}$, half wave, circuit 3, half wave
bridge. Output ratings are continuous duty. bridge. Output ratings are continuous duty.

| Stock | Mff's. |  | Internal |  |  | Price |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. | Type | Series | Círcuit | Volts | MA | Each |
| 144629 | M | 500 | 1 | 10 | 30 | 82.03 |
| 164732 | HS | 500 | 3 | 5 | 30 | 1.60 |
| 144631 | H | 500 | 2 | 5 | 30 | 1.18 |
| 144630 | B | 160 | 1 | 10 | 5 | 2.08 |
| 164733 | BHS | 160 | 3 | 5 | 5 | 1.50 |

SHURITE PANEL METERS


Attractive, well-made, dependable instruments, accurate within $5 \%$. DC
meters are polarized-vane solenoid meters are polarized-vane solenoid type: AC meters are double vane repulsion type. All have white metal dial with black scale calibrated for use in non-magnetic panel. Cases are black enameled brass, and mount in $25 / 32^{\prime \prime}$
dia. hole. Model 550 round flush case instruments are supplied with a $23 / 4$ " dia. flange adapter ring for optional flush or flange mounting. Model 950 is $25 / 8^{\prime \prime}$ square.

| DC MILLIAMMETERS |  |  |  |
| :---: | :---: | :---: | :---: |
| Range MA | Model 550 (with Flange Ring | Model 950 Square | Price Each |
| 0-5 | 164736 | 16 A737 | \$1.99 |
| 0-10 | 194209 | 194216 | 1.89 |
| 0-15 | 194210 | $19 A 217$ | 1.49 |
| 0-25 | 194211 | 194218 | 1.45 |
| 0-50 | 194212 | 194219 | 1.45 |
| 0-100 | 19 A213 | 194220 | 1.45 |
| O-200 | 194214 | $19 A 221$ | 1.45 |
| 0-300 | 194215 | 194222 | 1.45 |
| 0-500 | 164738 | 164739 | 1.40 |

DC AMMETERS
Range Model 550 Model 950 Price Amps (with Flange Ring) Square Each

| $0-1$ | $16 A 740$ | $16 A 741$ | $\$ 1.45$ |
| :--- | :--- | :--- | :--- |
| $0-5$ | $19 A 223$ | $19 A 227$ | 1.45 |
| $0-15$ | $19 A 224$ | $19 A 228$ | 1.45 |
| $0-25$ | $16 A 742$ | $16 A 743$ | 1.74 |
| 0.50 | $16 A 744$ | $16 A 745$ | 2.14 |
| $10-0-10$ | $19 A 225$ | $19 A 229$ | 1.45 |
| $30.0-30$ | $19 A 226$ | $19 A 230$ | 1.94 |
| $50-0-50$ | $16 A 746$ | $16 A 747$ | 2.14 |

DC VOLTMETERS

| Range <br> Volts | Model 550 (with Flange Ri | Model 95 <br> ) Square | Each |
| :---: | :---: | :---: | :---: |
| 0-3 | 194231 | 19 A235 | \$1.45 |
| 0.10 | 194232 | 194236 | 1.50 |
| 0-25 | 194233 | 194237 | 1.45 |
| 0-50 | 16 A748 | 16A749 | 1.50 |
| 0-100 | 164750 | 164751 | 1.65 |
| 0-150 | 194234 | 194238 | 1.83 |

AC VOLTMETERS Volts (with Fiange Ring) Square Each

| $0-15$ | $19 A 245$ | 194248 | $\$ 2.48$ |
| :--- | :--- | :--- | :--- |
| $0-150$ | 194246 | 194249 | 3.21 |
| $0-300$ | 194247 | 194250 | 3.80 |

AC AMMETERS

| Ramge | Model 550 | Model 950 | Price |
| :--- | :---: | :---: | :---: |
| Amps | (with Flange Ring) | Square | Each |
| $0-1$ | $16 A 752$ | $16 A 753$ | $\$ 2.48$ |
| $0-3$ | $19 A 239$ | $19 A 242$ | 2.48 |
| $0-10$ | $19 A 240$ | $19 A 243$ | 2.48 |
| $0-30$ | $19 A 241$ | $19 A 244$ | 2.63 |
| $0-50$ | $16 A 754$ | $16 A 755$ | 3.12 |

AC MILLIAMMETERS


## RESISTANCE METERS

Direct reading volt-ohmmeter with $41 / 2$-volt DC and 10,000-ohm scales. Requires three $11 / 2$-volt cells of any type for resistance measurement. Model 550 with round flush case is supplied with has square flange case
Stock No. Model
$19 A 251550$ Round
$19 A 252950$ Square
NOTE: We can supply on special order at regular prices al other types
Triplett or Shurite panel meters.

# REIGAYS 

## EOR EVERY

 PURPOSE
## ADVANCE

 COAXIAL RELAYSFor use with 52 or 75 ohm RC Coax Cable. Has SPDT internal con. tacts supported directly from cable connectors Housing is aluminspection port. standard Amphenol $83-R$. Max. rating 880 watts at 100 MC. Operates on No. 194268. Advance ype 7200 . Net Each No. 19A269. Advance Type 7204 contacts.
$\$ 10.03$


Net Each.
ADVANCE
Time Delay Relay


A complete.
$110 \mathrm{~V}^{\text {A.C. }}$
operated DPDT
relay with
ther mostatic
control for pre
heating tube
ilaments.
ustable from 10 seconds to 1 minute Relay has $1 / 4^{\prime \prime}$ silver contacts. Stock No. 19 Al 66.
Type 3048. Net Each
$\$ 5.50$ THERMOSTAT FOR TIME oElay relar
Same as used in type 3048 assembly above. Operates from 110 V. A.C Adjustable from 10 seconds to 1 min
 Net

## ADVANCE Adjustable Underload Relay



For use in
transmitters as
transmitters as a protective
device to turn device to turn modulators when plate
current of class current of class
"C" stages falls below desired value. Has popoint between 150 and 300 MA . Confacts are DPST.
19A260. Type 800A. Each \$6.57


## GUARDIAN GENERAL PURPOSE RELAYS

SERIES "200" WITH INTERCHANGEABLE COILS \& CONTACTS


Relay frame includes armature and either SPDT or DPDT contact assembly. Design allows quick installation or change of actuating coil. Contacts are fine silver rated at 8 amps. 115 -volt 60-cycle non-inductive load except type 200-4 which is rated at 12.5 amps. Assembled size using Standard Frame, $13 / 4 \times 27 / 8 \times 11 / 8$
using Midget Frame, $11 / 2 \times 21 / 16 \times 11 / 8$

MIDCET FRAME AND CONTACTS No. 14A301. 200-MI SPDT.S1.00 No. 14A302. 200-M2 DPDT. 1.32

STANDARD FRAME AND CONTACTS
No. 19A40. Type 200-1 SPDT.. \$1.0 No. 19A40. Type 200-1 SPDT.. ${ }^{\text {No. 19441. Type 200-2 DPDT.. } 1.47}$ No. 14A303. Type 200-4 DPDT.. 1.7 1
No. 14A303. Type 200-4 DPDT.
60-CYCLE AC COILS
No, 19A31. 6 Volts. ........ $\$ 1$ No. 1943212 Volts No. 19A32. 24 Volts No. 19 A34 115 Volts
No. 19A34. 115 Volts......... 1.32

## DC COILS

|  | D |  | Net Each |
| :---: | :---: | :---: | :---: |
| No. 19435. | 6 | Volts | \$1.32 |
| No. 19436. | 12 | Volts |  |
| No. 19437. | 24 | Volts | - 1.32 |
| No. 19A38. | 32 | Volts |  |
| No. 19A39. | 110 | Volts |  |
| No. 144300 | 5000 | Ohms | . | Fits above type 200 relays. Consists of contact springs and spacers to make any combination up to $4 \mathrm{P} . \mathrm{D} . \mathrm{T}$. To be used with standard size armature and coils above. No, 19A42. COMPLETE KIT, AT ONLY.

$\$ 1.09$

(1) GUARDIAN KEYING RELAY

Will follow key or bug at high speed. Double break S.P. contacts can handle up to 5000 watts, non-inductive load. Will key centertap of any stage using up to 2000 volts or grid controlled rectifier handling up to 3000 volis. Coll operates on 6-volt AC. Size, $\mathbf{s}$. $\$ 2.65$
(2) ADJUSTABLE OVERLOAD RELAY WITH ELECTRICAL RESET Operating current can be adjusted from 250 to 600 MA by front panel control potentiometer. Voltage drop across coil is never more than 10 -volt. Coil insulation to ground 3000 -volt. Has. S.P.S.T. contacts for breaking power cirdicators. Reset coil is energized momentarily from 6-volt AC to restore power circuit. Size, $43 / 4 \times 1$ 15/16×2"1 high.
$\$ 5.44$
 Contact rated 1 kw . on inductive loads. Mounts on rear of panel with reset button extending through. Adjustable, to operate at loads of 150 to 650 Ma Stock No. 19Asi. Guardian X-100.
$\$ 8.40$

## NET EACM

## "GUARDIAN" HIGH FREQUENCY RELAYS


(1)


(3)
(4) For use in R.F. or high voltage circuits where leakage and loss must be kept at minimum. Large silver contacts handle 1 kw . at frequencies up to 28 MC. 110 -valt $A C$ coils.
No. $19 A 48$. Type $R-100$-SPST. YOUR COST.
$\$ 2.32$
Type R-100C-DPDT handles 400 watts at 14 MC .
$\$ 5.03$
No. 143066.

POTTER and
BRUMFIELD RELAYS
Heavy Duty Power Relays - Type PR With Coils for 110 V .60 Cy . A.C.

For power circuits, mo tors, lights, heaters, etc
Double break type Double break type
PR3A and PR4A rated at 20 amps. All others,
15 a mps. continuous
duty; Contacts ar
$5 / 16^{\prime \prime}$ dia. silver, self
wiping, mounted on floating carrier Metal parts are heavily plated. Op erating coil requires approx. 5 watts continuous duty, and operates with out hum or chatter. Has screw ter minals. Max. size $29 / 16 \times 29 / 16^{\prime \prime}$ by $21 / 4^{\prime \prime}$ high. NO- normally open, NC-
normally closed, DB-double break
No. Type Contacts NetEach 16 No. 181 PR3A SPSTDB-NO $\$ 3.10$ 164182 PR4A SPSTDB-NC 3.1 $16 A 183$ PR5A SPDT $16 A 184$ PR7A DPST-NO $16 A 184$ PR7A DPST-NO $19 A 160$ PRIIA DPDT

## Medium Duty Power Relays Type MR

 Very compact. Has full floating locked-on armature for fast, positive ing. Coils require approx. 4 watts. continuous duty. Contacts are 7/32" dia. silver, rated at 8 amps. On 110 motion keeps contacts clean. Max. more $215 / 16 \times 21 / 8 \times 17 / 8^{\prime \prime}$ high.
No. Type Contacts Coil-V. Each 16 i 85 MR5A SPDT 6AC 2.16 $6 A 186 \mathrm{MRSA}$ SPDT $110 A C 2.15$ $16 A 187 \mathrm{MRIIA}$ DPDT GAC 2.80 $\begin{array}{llll}16 A 188 & \text { MRIIA DPDT } 110 A C & 2.8 C \\ 16 A 189 & \text { MRSD } & \text { SPDT } & \text { 6DC } \\ \mathbf{2 . 1}\end{array}$ 16 AI90 MRIID DPDT 6DC 2.8

## Plate Circuit Relays

Sensitive
adjustable spring
sion, adjustable release
silver contacts rated at
5 amps. on 110 V. A.C.
circuits. Min. MA is
lowest cail current for
lowest coil current for
satisfactory operation.
safisfactory operation.
Type LM-5 S.P.D.T

| Stock | Type LM-5 | S.P.D.T. | Net |
| :---: | :---: | :---: | :---: |
| No. | Res. | Ma. |  |
| 164191 | 2,500 | 2.4 | 32.30 |
| 16 A192 | 5,000 | 1.7 | 2.56 |
| 19A161 | 10,000 | 1.2 | 2.95 |

$\begin{array}{lccc} & \text { Type L.M-11 } & \text { D.P.D.T. } \\ 19 \text { A162 } & 2,500 & 5.3 & \text { S3.40 } \\ 19 \text { A163 } & 5,000 & 3.7 & 3.65 \\ 19 A 164 & 10,000 & 2.7 & 4.05\end{array}$
Similar to LYpe LS series above but less sensitive. Factory adjusted for optimum performance. Insulated mtg. base.
Stock
No.
No.
16 Al93
$16 A 193$
$16 A 194$

## GUARDIAN IMPULSE RELAY

(3) Heavy $1 / 4^{*}$ Silver Contacts. Coils for 110 -volt AC. Coil circuits need to be energized only long enough to close armature. Contacts lock automatically non-inductive or 1,000 watts inductive loads.
Type RC-100AR-Four-pole, single throw.
No. 19A53. YOUR COST
$\$ 4.21$
Type RC-100BR-Three-pole with one pole D.T. and two poles S.T.
$\$ 4.61$
No. 19A54. YOUR COST
GUARDIAN $115-V O L T$ 6O-CYCLE AC SOLENOIDS
For countless experimental and industrial applications requiring electromechanical actuation. Piunger has slotred end with
coupling. coupling.

No. 17B401. YOUR COST.
(7) Type 14 Solenoid. Laminated construction. Plunger stroke $11 / 4^{\prime \prime}$; lift
approximately $64 \mathrm{oz;}$ Coil res. 12.5 ohms; 1 amp. coll current. Frame size.
$1 / 8 \times 21 / 16 \times 27 / 16^{\prime \prime}$ long.
No. 17B402. YOUR COST.

## AMPERITE <br> Time Delay Relay Tubes

 tacts, normally open. actuated by a bimetal strip and a 2-watt AC or DC heater hermetically sealed in a glass tube envelope withoctal base. Heater can be operated continuously. Contact rating Delay fime can be increased approximately 50\% by decreasing Stk. No. Heater Delay Stk. No.
$14 A 307$ 204797 19A165 204798 204799
204800 20A801


$\qquad$

## LATEST TRANSMITTING COIL and TURRETS



## 

B \& W JUNIORS 75-WATT RATING Fitted with standard 5 -prong steatite base. Compact, rugged, may be used in the oscillator, buffer Any type may be used in power up to 75 watts by omitting connections to the links. Steatite or equivalent sockets should be used.

To resonance on Low-Frequency end of band.


Typ
End
Cat
Type JCL
Cent.

| Cat. No. |
| :--- |
| 174713 |
| 174714 |

174713
$17 A 619$
$\begin{array}{ll}174714 & 17 A 623 \\ 174620 & 17 A 716\end{array}$
$\begin{array}{ll}17 A 620 & 17 A 624 \\ 17 A 621 & 17 A 625\end{array}$
$\begin{array}{ll}174621 & 174625 \\ 17 A 622 & 17 A 626\end{array}$
174626
174808
.51 .38

## 8 \& W BABY INOUCTORS

Same as above, excep
circuits up to 35 watts


## B \& W 5-Band Turrets-For 10-15-20-40-80 Meters

Provides simple, efficient band switching in circuits up to 75 watts. Center or end link types for either push-pull or single ended circuits connections. Mounts thru panel with single $3 / 0$ hole. 5 pasition dial plates listed below.

Stock No
324258
324258
324259
$\begin{array}{lc}\text { Mfg's. Type } & \text { Link } \\ 3810-J T C L & \text { Center } \\ 3811-j T E L & \end{array}$

## 5-BAND BABY TURRETS

32 A 260 年 $3817-\mathrm{BTCL}$ in size for use up to 35 watts. 324261 End $\quad$ 38i6-BTEL $\quad 8.44$ Calibrated $21 / 4^{\prime \prime}$ dial plate for use with all turrets above and the band Stock No. 19A136. NET EACH

## BUD AIR-WOUND PLUG-IN COILS

Precision built coils firmly supported on a steatite strip fitted with banana plugs. All coils are center tapped.
Adjustable link, (lllus. Al provides the efficiency of link adjustment at no additional cost.
Variable link, (Illus. B) has link winding on mounting base into which coils are plugged. One link serves all bands. Shaft may be extended for panel control. "Capa-

(B)

RCL 150-Watt—Adi. Center Link

| Stock No. | Band | *Cap. Mmf. | Net Ea. | Stock No. | d | Cap. Mmt |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 17 A 294 | 80 | 68 . | \$3.38 | $174299^{\circ}$ | 80 | 78 |  |
| 174295 | 40 | 36 | 3.03 | 17 A300 | 40 | 38 |  |
| 17 A 296 | 20 | 27 | 2.73 | 174301 | 20 | 30 |  |
| 17 A705 | 15 | 27 | 2.70 | 174706 | 15 | 30 |  |
| 174297 | 10 | 25 | 2.59 | 17 A302 | 10 | 28 |  |
| 174298 | Mig. b | for above | . 83 | 174303 | Mig. b | and link |  |
| VCL 500-Watt-Adj. Center Link |  |  |  | VLS 500-W att-Variable Link |  |  |  |
| 174322 | 80 | 71 | \$3.88 | 174332 | 80 | 70 |  |
| 174323 | 40 | 26 | 3.56 | 174333 | 40 | 36 |  |
| 174324 | 20 | 21 | 3.23 | 174334 | 20 | 28 |  |
| 174707 | 15 | 23 | 3.21 | 174708 | 15 | 25 |  |
| 17 A 325 | 10 | 26 | 3.09 | 17 A335 | 10 | 25 |  |
| 174326 | Mtg. ba | for above | 1.03 | 17 A315 | Mig. | and link |  |
| MCL 1,000-Watt-Adj. Center Link |  |  |  | MLS 1,000-W att-Variable Link |  |  |  |
| 174327 | 80 | 67 | \$7.41 | 174316 | 80 | 65 | \$6. |
| 17 A328 | 40 | 38 | 6.73 | 174317 | 40 | 37 | 5. |
| 174329 | 20 | 23 | 6.41 | 17 1318 | 20 | 33 | 5.0 |
| 174709 | 15 | 30 | 6.41 | 174710 | 15 | 30 | . |
| 174330 | ${ }^{10}$ | 25 | 5.73 | 174319 | 10 | 25 |  |
| 174331 | Mtg. bas | for above | 1.37 | 17A320 | Mtg bas | and link | 5.8 |

## BUD 75-WATT PLUG-IN COILS

The finest air-inductions. Uniform windings of enameled copper wire rigidly mounted on ceramic 5 -prong base which coils have main coil center tapped socke. Only center linked new variable link feature. new variable link feature.
*Capacity necessary to tune to low end of band.

| Band | OCL <br> Ctr Link | OES | OLS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Band | ctr. 17 Alink | Adj. End L | Adj. Cir. L | :Cap. Mmf. | Price |
| 40 | 17 Al 52 | 174157 | 17 A162 | 75 52 | \$1.35 |
| 20 | 174153 | 174158 | 17A163 | 40 | 1.35 |
| 10 | 174154 | 174159 | 174164 | 25 | 35 |
| 6 | 174155 |  |  | 17 | .29 |

## NEW B \& W PLUG-IN LINKS

Designed for addition to existing swinging link assemblies for better transmission line impedance matching. Requires new plug-in swinging arm to No. 17 A800. Type 3550 Plug-in arm for VL and OVL解 YOUR COST EACM
No. 17A801. Type 3750 Plug-in arm for swinging link assembly YOUR COST, EACH

COILS FOR TYPE 3550 ARM
$\$ 1.37$
$\begin{array}{lll}\text { tk. No. Turns Type } & \text { COILS FOR TYPE } 3750 \text { ARM } \\ 7 \text { Each Stk. No. Turns Type }\end{array}$
 $\begin{array}{llll}174803 & 3 & 3553 & .59 \\ 174804 & 6 & 3556 & .59\end{array}$

B \& W "BAND HOPPER" Type 2A interstage coupling between two beam power tubes or between beam power tubes and triodes covers $80,40,20,15$ and 10 meter bands. A 50 mmfd tuning capacitor is recommended for use with it. No. 17A627. Your Cost, Net Each....... \$4.81

## B \& W STANDARD and MINIDUCTORS

 Very Neat Miniature Coils, $1 / 2^{\prime \prime}$ to $3 / 4^{\prime \prime}$ dia., $2^{\prime \prime}$ long;also $1^{\prime \prime}$ dia., $3^{\prime \prime}$ long. "Air-Wound" construction for very efficient operation as tank coils. RF chokes, etc Easily cut to required length. Larger Standard coils
 are listed below with description and size.
Stock Turns Coil
 17 A1076
$17 A 1077$
17A1078
17 A1079
$17 A 1080$
1741081
17 A1083
$\left.\begin{array}{r}4 \\ 8 \\ 16 \\ 32\end{array}\right\} \quad 1 / 2^{\prime \prime} \ldots .315$
$\left.\begin{array}{lr}17 A 1084 & 4 \\ 17 A 1085 & 8 \\ 17 A 1086 & 16 \\ 17 A 1087 & 32 \\ 17 A 1088 & 4 \\ 1741089 & 8 \\ 17 A 1090 & 16 \\ 17 A 1091 & 32\end{array}\right\} \quad 1^{\prime \prime \prime} \ldots \ldots$.
$44 c$ 50c

$1781161821 / 2^{\prime \prime}$ Length $10^{\prime \prime} \quad \# 14$ Enamel Wire
$\$ 1.50$

## TRANSMITTING and SPECIAL PURPOSE CONDENSERS

BUD XMITTING TYPE


Ideally suited for low and medium power transmitters. Has low minimum capacity. Spring brass rotor contact. Plates are brass with rounded edges
and cadmium plated. Frame provides tor chassis or panel mtg. and coil assembly mtg. Panel space only $23 / 4 x$ 27/8". 2for .015 air gap peak voltage
$2000, .078=3600$ and $.175=5900$. Stk. Mfg. Max. Min. Airs Net 17 A128 1526 100 7 . 051 \$2.20 $\begin{array}{rlllll}17 A 128 & 1526 & 25 & 4 & .078 & \mathbf{1 . 8 1} \\ 17 A 134 & 1534 & 110 & 10 & .078 & 2.70\end{array}$ $\begin{array}{llllll}17 A 135 & 1535 & 150 & 11 & .078 & 3.16 \\ 17 A 139 & 1545 & 55 & 13 & .175 & 3.47\end{array}$ $17 A 140 \quad 154710018$. 175 4. 81
DUAL SECTION CONDENSERS Tie rods are insulated with steatite. Has four finger wiper contact at cenance between sections. Other features are the same as the single units described above.
$174308 \quad 1551 \mathrm{~A} 50 \quad 5.051 \quad \$ 3.58$ $\begin{array}{lllll}17 A 309 & 1553 A & 100 & 7 & .051 \\ 17 A 311 & 1572 A & 55 & 8 & .078\end{array}$ 174311 $17 A 312$
$17 A 314$

BUD MC MIDGET TYPE
 The popular high quality steatite
insulated midget condenser. ble two bearing
design $1 / "$ shaft design, $1 / 4$ "shaft extends ${ }^{\prime \prime}$ to also $5 / 16^{\prime \prime}$ to rear for gang-
ing. Has cadmium plated brass plates. Mounts an base or with single hole through the panel. Air gap .024"
*Semi-circular plates Istraight line capacity) all others are mid line plates (straight line wave length $\begin{array}{lrrrr}\text { Stk. } & & \begin{array}{c}\text { Max. Min. } \\ \text { No. }\end{array} & \begin{array}{c}\text { Type } \\ \text { Mfd. } \\ \text { Nach }\end{array} \\ 17 A 58 \% & 1850 & 15 & 3 & \text { Mf. } 1.28 \\ 17 A 59 \% & 1852 & 33 & 4 & 1.32 \\ 17 A 60 \% & 1853 & 50 & 5 & 1.67 \\ 17 A 78 & 903 & 50 & 6 & 1.64 \\ 17 A 62 & 904 & 75 & 7 & 1.71 \\ 17 A 63 \% & 1855 & 100 & 7 & 1.71 \\ 17 A 64 & 905 & 100 & 7 & 1.84 \\ 17 A 66 & 906 & 140 & 7 & 2.11 \\ 17 A 65 \% & 1856 & 140 & 7 & 1.98 \\ 17 A 67 & 908 & 190 & 9 & 2.21 \\ 17 A 68 & 909 & 250 & 11 & 2.40 \\ 17 A 69 & 910 & 300 & 13 & 2.69 \\ \text { MC DUAL } & \text { CONDENSERS }\end{array}$ 17A1146 929A 50 SONSER $\begin{array}{lllll}17 A 1146 & 911 A & 100 & 6 & 2.99 \\ 17 A 1147 & 912 A & 140 & 7 & 3.23\end{array}$ BUD MIDGETS
Single bearing type; wiping spring hole. Electro soldered semi-circular plates. Ceramic insulated. Double spaced units. . $06^{\prime \prime}$ air gap, others.024" Stk. Type Max. Min. Net
No. Mfd. Mfd. Each
$\begin{array}{llllr}17 A 51 & \text { MC1870 } & 15 & 3 & \$ 0.88 \\ 17 A 52 & \text { MC1872 } & 33 & 4 & .98 \\ 17 A 53 & \text { MC1873 } & 50 & 5 & 188\end{array}$
$\begin{array}{ll}17 A 53 & \text { MC1873 } \\ 17 A 54 & \text { MC1875 }\end{array}$
$\begin{array}{lll}17 A 54 & \text { MC1875 } & 100 \\ 17 A 55 & \text { MCI876 } & 140\end{array}$
$\begin{array}{lllrr} & \text { DOUBLE SPACED } & 1.37 \\ 17456 & \text { MCI } 880 & 35 & 5 & \$ 1.23\end{array}$


NATIONAL MIDGET
For every ultra lantite insulation. Rear

No. 17A118. 15 mmf .
.31 .02
No. 17 A119. 35 mmf .
No. I7A120. 50 mmf .

(1) Type TMS and TMSA

Compact transmitting condenser de-
signed for low power stages. Voltage signed for low power stages. Voltage
rati,gs are conservative, has steatite in Jlation. Mounts on chassis or panel. All types are $3^{\prime \prime}$ lang and $21 / 2^{\prime \prime}$ wide.
(1) TMS_Spacing, 026 ; Peak

Stk. Mfg. Max.
$\begin{array}{cccc}\text { No. Mf. Max. Min. Net } \\ \text { No. } & \text { No. } & \text { Mmf. Mmf. Each } \\ 17 \text { A101 TMS-100 } & 100 & 9.5 & \$ 2.60\end{array}$
$\begin{array}{lllll}17 A 102 & \text { TMS-150 } & 150 & 11 & 2.80 \\ 17 A 103 & \text { TMS-250 } & 250 & 13.5 & \mathbf{3 . 3 0}\end{array}$
$17 A 104$ TMS-300 300 15 3.80
TMS Duals (Cap. given per section
$17 A 105$ TMS-50D 50
6 17A106 TMS-100D 1007

Peak Voltage, 2000
17 A107 TMSA-3
17 A108 TMSA-5
$\begin{array}{r}35 \\ 50 \\ \hline\end{array}$
33.80 TMSA Dual (Cap. given per section) (2) New AMT Dual Center Drive

## Condenser

A Condenser of New design, featuring center right angle drive for modern layouts. Shaft also extends from the as part of end plates. Uses heavy steatite insulation. Aluminum tie bar steatite insulation. Aluminum tie bar across Condenser top serves as mount-
ing for coil assemblies. Has smoothly polished aluminum plates. $064^{\prime \prime}$ thick polished aluminum plates $.064^{\prime \prime}$ thick.
Spacing is .177 , peak voltage 6000 . Capacity given per section. capacity given per section.
Stk. No. Mfs. No. Max. Min. Each $\begin{array}{llrl}16 A 703 & \text { AMT-50DG } & 50 & 13 \\ 10.75 \\ 16 A 704 & \text { AMT-100DG } & 100 & 20 \\ 12.75\end{array}$

JOHNSON SUBMIDGETS


Sub-midget size. Alsimag end plate only $5 / 8 \times 3 / 4^{\prime \prime}$. Depth behind panel
$45 / 64^{\prime \prime}$ to $11 / 64^{\prime \prime}$. All have $3^{\prime \prime} 16^{\prime \prime}$ 45/64" to $111 / 64^{\prime \prime}$. All have $3 / 16^{\prime \prime}$ dia. slotted shaft extending $1 / 4^{\prime \prime}$ from
bushing and mount in $1 / 4^{" h}$ hole. Bushbushing and mount in $1 / 4^{\prime \prime}$ hole. Bush-
ing length $7 / 32^{\prime \prime}$. Has beryllium upper rotor contact and rigidly soldered rotor and stator assemblies. Piate spacing . 017 , rating 750 -Volt R.M.S.

Stock M4g. Cap. Mmid. Net
No. No. Min.-Max. Each
$\begin{array}{lllll}14 A 311 & 160-102 & 1.5 & 5.1 & \$ 0.84 \\ 14 A 312 & 160-104 & 1.7 & 8.7 & 1.04\end{array}$
$\begin{array}{lllll}14 A 313 & 160-107 & 2.1 & 14.6 & 1.09 \\ 14 A 314 & 160-110 & 2.6 & 19.7 & 1.18\end{array}$ 144315 BUTTERFLY

| 144315 | $160-203$ | 1.7 | 3.3 | 1.35 |
| ---: | ---: | ---: | ---: | ---: |
| 144316 | $160-205$ | 2.1 | 5.3 | 1.47 |
| 144317 | $160-208$ | 2.7 | 8.5 | 1.71 |
| 144318 | $160-211$ | 3.2 | 11.0 | 1.88 |

## BUD TINY MITE

 CONDENSERS frequency circuits whited for ultra-high trequency circuits where good stability is required and space is limited. Rigid trame with ceramic insulation. has brass plates, spring rotor, ground conections, and a separate shield be tween each section. $1 / 4^{\prime \prime}$ shaft. Mount
base or through panel.
DUAL SECTION TINY MITE
Stock Cap. Per Sec. Mfg. Net $\begin{array}{lllll}\text { No. Max. Min. No. } & \text { Nach } \\ 16 A 710 & 8 & 2.5 & \text { LC1659 } & 22.1\end{array}$ $\begin{array}{rrrrr}164711 & 15 & 3 & \text { LC1660 } & 2.11 \\ 164712 & 25 & 4 & \text { LC16 }\end{array}$ 164712 164713
$16 A 714$ LOO 100 LCI663
TRIPLE SECTION TINY MIT
OVERALL LENCTH $33 / 8$


144309

## HAMMARLUND "HF" <br> HAMMARLUND MICROS

example to assemble KWCluding lack bars, vacuum capacitor brackets. For 32 A267 HD Jack bar and swinging link assembly with \#3913 mounting brackets. HDVL coils from listing on opposite page and necessary neutralizing plates listed below. "Capacity with sections in series.
No. Max. Min. Air Cap
Lypength
3


Compact heavy duty condensers for medium and high power. The balanced butterfly design permits by reducing the RF circuit path and greatly increasing the efficiency. The plates are $1 / 16^{\prime \prime}$ thick. Rounded and buffed to a smooth finish. Low los steatite insulation is used. A $3 / /^{\prime \prime}$ shaft extends aphas provision for mounting adiustable neutralizing has provision for mounting adjustable neutralizing

32A267. H.D. Jack bar $\&$ swinging link assembly \#3722-1. Each. 19A153. Brackets for mtg. H.D. Jack bar on CX frame \#3913. Pair 19A154. N2 Neutralizing plates for 35T-808, RK35-855, etc. Pair. 19A155. N3 Neut. plates for TZ40, 810, 812, 100TH, 250TH, etc. Pair 19B6. N4 Neutralizing plates for $838,805, \mathrm{~T} 200$, etc. Per Pair.

37483
$32 A 263$
$32 A 263$
324264
$.375^{\prime \prime}$
$.25^{\prime \prime}$
$25^{\prime \prime}$
${ }^{517.5}$
butterfly TYPE JCX BUTTERFLY CONDENSERS
This small butterfly condenser is like the larger $C X$ in most respects but is only $1 / 4$ as large. it will provide peak efficiency in medium power stage where a peak of, 500 volts is used. It has steel $1 / 4$ shaft and tie rods, smoothly
rounded aluminum plates and high quality insulation. * Cap . sections in series. Stk. No. Mfg. No. *Max. Mmf. *Min. Mmf. Length
19A133
19 A134


JOHNSON DUAL VARIABLES for MIGM POWER
Sturdily constructed of the finest materials insulation. large laminated phosphor bronze insulation, large laminated phosphor bronze
spring contacts to center of rotor $5 / 16^{\prime \prime}$ spring contacts to center of rotor, $5 / 16^{\prime \prime}$
diameter aluminum tie rods and $1 / 4$ sta $^{\circ} n-$ less steel shafts. Width $51 / 2$. height Stock Max. Min. Air Approx. Net Stock Max. Min. Air Approx. Net

No. Mmf. Mmf. Cap Lgth. Each Stor | $33 A 95$ | 52 | 15 | .175 | $6^{\prime \prime}$ | $\$ 7.35$ | No. Mmf. Mmf. Cap | Lgth. Each |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $33 A 96$ | 97 | 22 | .175 | $10^{\prime \prime}$ | 9.41 | $33 A 57$ | 147 | 30 | .250 | $12^{\prime \prime}$ |
| 33497 | 52 | 19 | .250 | $10^{\prime \prime}$ | 8.53 | $33 A 56$ | 66 | 21 | .350 | $15^{\prime \prime}$ |
| $33 A 98$ | 97 | 30 | .250 | $15^{\prime \prime}$ | 11.47 | 33455 | 51 | 24 | .500 | $15^{\prime \prime}$ |
| 11.72 |  |  |  |  |  |  |  |  |  |  |

Very efficient in
tuning or trimming
critical high fre-
quency circuits.
Heavily plated
plates. Isolantite
Equipped w

spacing . 015 . "Have plate spacing of
$\begin{array}{llll}17484 & \text { HF-15 } & 17.5 & 2.8 \\ 17485 & \text { HF-35 } & 35 & 3.2 \\ 17 & 17\end{array}$1.17
$17 A 87$
$17 A 88$
$17 A 89$ $17 A 89$ \#HF-15-X 15
$17 A 90$ \#HF-30-X 30 $\begin{array}{r}5.2 \\ \hline\end{array}$ ..... 1.38
$\begin{array}{llll}\text { No. } & \text { Type Cap. Per Sec. } & \text { NET } \\ 17 A 91 & \text { HFD-50 } & 50 & 3.30 \\ 17 A 92 & \text { HFD.100 } & 100 & 3.78 \\ 17 A 93 & \text { HFD-140 } & 140 & 4.20 \\ 17 A 94 & \text { HFD-15-x } & 16 & 3.24 \\ 17 A 95 & \text { شHFD.30-X } & 28.5 & 3.80\end{array}$
Hammarlund
"APC"
Micros
ParticularlyS.W. Isolantite
base. Air gap
No.
$17 A 79$
No.
$17 A 79$

Stock Mfr's Max. Min. NET

## CRYSTALS-NEUTRALIZING CONDENSERS-R. F. CHOKES

## NEUTRALIZING CONDENSERS


(1) BUD NC-1002. For large transmitting tubes. Max. capacity 27 mmid . min. 6 mmid.
No. 17 A576.
Net Each.

## $\$ 4.46$

(3) NATIONAL NC800A. Disc type for high voltage. Mierometer adjustment with lock nut. Low-loss Isolantite insulation. Three-hole mounting bracket. For type, 808, T40, T35, e No. 17498.

## Net Each.

$\$ 3.00$
(3) NATIONAL NC-75. For 75T. 811. discs, isolantite insulation. 83.61 (9) NEW HAMMARLUND NZ 10 Condenser. A compact neutralizing capacitor providing fine micrometer adjustment and positive locking. 2.3 to 10 mmf. range tor such tubes as $812^{\prime} \mathrm{s}$. 811 's. 8005 's. T40's, etc. Smooth
 (3) BUD FEED-THRU TYPE. Bud NC852 for Neutralizing 6 L .6 and other beam

## JOHNSON R.F. CHOKES



Highly effective chokes made of enameled, silk-covered wire wound on steatite forms and impregnated with high-grade R.F. lacquer. current rat-
ings may be exceeded for intermitings may be exceeded for intermittent use. for 1.7 to 30MC except which are for UHF.

| Stock No. | Type | Ma. | Lgth. | Net Each |
| :---: | :---: | :---: | :---: | :---: |
| 17A1155 | 750 | 150 | $11 /{ }^{\prime \prime}$ | \$1.03 |
| 17 A1156 | 752 | 500 | 27\%" | 1.47 |
| 17 A1157 | 754 | 750 | $4{ }^{\text {P/ }}$ | 1.78 |
| 1741158 | 760 | 250 | 11/2" | . 35 |

$\begin{array}{rrrrr}17 A 1157 & 754 & 750 & 41 / \prime \prime & 1.78 \\ 1741158 & 760 & 250 & 11 / 2 & .35 \\ 1741159 & 762 & 1500 & 216^{\prime \prime} & .88\end{array}$


## MEISSNER

 DELUXE R.F. CHOKESAIR CORE
(UNSHIELDED)
Coils wound on specially treated dowels mounted on bakelite base and thoroughly moisture proofed. hole mounting.
Stock No. Meissner No. Ind. Net Ea. $12 \mathrm{Al431} \quad 19.1994 \quad 2.5 \mathrm{MH} \mathrm{S} 38$ 12 A184 12 A1432 $12 A 185$ $12 A 186$ $12 A 187$ $12 A 1433$ $\begin{array}{ll}19-4551 & 5.5 \mathrm{MH} \\ 19-2078 & 8\end{array}$ $12 A 188$
type tubes with grid connection at the base. 1" plate diameter. Capacity No. $17 \mathrm{Na}^{2}$ No. 17496
$98 t$
(c) BUD NC1928. Capacity range .75 to 4, very compact. Uses ultra lowloss quartz $Q$ as a dielectric. Mounts single hole or on solder lugs. 54E (7) NATIONAL NC600. Small neutralizing condenser for use with 6L6's and similar beam power output tubes. Capacity adiustable from .5 to 4 weight. 6 ozs.
No. 17 A97. Your Cost, Each. 32 E (a) JOHNSON TYPE N. Extremely high voltage rating in proportion to size. "Plates" are aluminum cups mounted concentrically on steatite and alumitire range.
$\begin{aligned} & \text { Stock MMFD Spac- } \\ & \text { No. }\end{aligned} \begin{aligned} & \text { Net } \\ & \text { Each }\end{aligned}$ No. 174578 Nipe Max. Min. ing Each 17 A 579 N250 $10.6 \quad 1.4$. $250 \quad$ A. 41 $\begin{array}{lllllll}17 A 580 & N 375 & 10.7 & 1.7 & .375 & 5.68\end{array}$

BLILEY AMATEUR AND COMMERCIAL CRYSTALS

(A) TYPE AX2 PLATED CRYSTALS. FIRST FOR AMATEUR FREQUENCIES Primary electrodes consist of a micro-thin metal film deposited-almost chemically bonded-directly on major crystal surfaces. Secondary electrodes merely clamp crystal in position and help dissipate heat. Acid etched to frequency to prevent frequency shift with aging. Calibration accuracy within $.002 \%$, temperature stability better than $.02 \%$ between- $10^{\circ}$ and $60^{\circ} \mathrm{C}$. Holder is moisture resistant phenolic with neoprene gasket. Pins are stainless steel spaced $1 / 2^{\prime \prime}$ apart. Size $13 / 1 \times 13 / 8 \times 23 / 32^{\prime \prime}$
No. 17A1001. 3,500-4.000 KC, within 2 KC . Each.
No. 17A1002. 14,000-14,850KC, within 30KC. Each. 3.96

Fits same socket as AX2 erystals for $80-40-20$ and is approximately the same size. Accuracy, plus or minus, $.002 \%$; frequency stability, plus or minus, $0002 \%$ per degree
We will ship nearest available frequency from stock and within plus or minus 1 KC of specified frequeney on special order.
No. 15A131. 1803 to 1822 KC...................................... $\$ 3.75$
No. 15A133. 1903 to 1922 KC
3.75

No. $15 A 134$. 1978 to 1997 KC
3.75

15A1095. 13.580-13.715 KC within METER MULTIPLIER
A new Blitey development. OX3 OVERTONE CRYSTALS 6 and 2 meter bands. Calibration accuracy $.003 \%$ with drift less than $.002 \%$ per degree. Crystal is plated and holder is similar to $A \times 2$ type Recommended for use with Blitey CCO-2A oscillator. Furnished within 5KC of your specified frequency.
15A1096. 6 Meter Multiplier 25.000-25.500 KC. Cholee, Each. . . . . . 33.95 15A1097. 2 Meter Multiplier $24,000-24,333 \mathrm{KC}$. Choice, Each........3.3.85 (B) Type SMC-100. Dual frequency crystal provides 100 KC op 1000 KC source, for use in frequency standards. The 1000 KC frequency is correct within $5 \%$ and the 100 KC can be adjusted to zero beat. Ideal for align17A1003. Your cest size $1 / 8 \times 13 / 8 \times 23 / 32$
 tween $0^{\circ}$ and $50^{\circ} \mathrm{C}$. Plug-in type holder gasket is sealed against moisture Stock No. 19A169, Your Cost, Each . ................................. . $\mathbf{5 . 5 0}$ (D) Type VX2-3105 KC for private aircraft where space is at a premium Same accuracy as type MC9. Solder lug connections and gasket sealed holder 5tock No. 19A170. Your Cost, Each … and spring KV3 Od KC FREQUENCY STANDARD in metal cased holder that plugs into standard octal socket. Supplied with diagram for constructing a receiver calibration oscillator useful up to 40 with Stock No. 19A168. Your Cost . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . . \$8.95 (C) Crystals for Broadcast. Marine, police and aircraft service can be supWrite us for literature and price quotations stating your requirements.


17A729, 3/4" Spacing . 125 pins. . 30c 17A730. . 487 Spacing . 095 pins. . 30C MOSLEY CRYSTAL Made of low loss plastic with brass pis No; 17A728. Adapter $1 / 2^{\prime \prime}$ holder to
$3 / 4$ i spacing ................35c

## HAMMARLUND

 BUTTERFLY CONDENSERS A new butterfly type con-
denser for use in balanced VHF circuits
requiring a requiring a a
great amount great amount and mechaniAll soldered construction; moisture sealed ceramic end plate $3 / 8^{\prime \prime}$ single hole mounting and $1 / 4$ " diameter $\times 7 / 16^{\prime \prime}$ sotred shaft. Rotation from min. to max.
capacity $90^{\circ}$. Air gap. $030^{\prime \prime}$. 1200 -volt capacity $90^{\circ}$. Air gap. $030^{\prime \prime} 1200$-volt section. Size, $13, \%^{\prime \prime}$ square, 1 " to $11 / 2^{\prime \prime}$ deep.
Leep. No, Type Max. Min. Net Ea,
Stk. $\begin{array}{lllll}17 A 1092 & \text { BFC-12 } & 14.5 & 3.5 & \$ 1.50 \\ 17 A 1093 & \text { BFC-25 } & 27.5 & 5.0 & 1.68\end{array}$


## OHMITE FREQUENCY RATED R.F. CHOXES



Newly designed single layer wound RF plate chokes for frequency range 3 to 200 Mis. All are 1000 Ma. except Wound 228 which are 600 Ma. Wound on low loss cores, insulated and moisture proofed. Features small size and excellent results. For correct choke simply select the one covering frequency range desired.
Stock Mfg. Freq. Micro Net $\begin{array}{lllll}14 B 11 & Z 7 / Z 3 & 3-20 & 84.0 & 92 c \\ 14 B 12 & 214 & 7-35 & 44.0 & 40 c\end{array}$
$\begin{array}{lllll}4 B 12 & Z 14 & 7-35 & 44.0 & 40 \\ 4 B 13 & 228 & 20-60 & 21.0 & 28 \\ 4814 & Z 50 & 35-110 & 7.0 & 19 e\end{array}$ $\begin{array}{lll}14815 & \text { Z144 } & 80-200\end{array}$

## TUNER KITS - SPECIAL COILS - PADDERS



PERMEABILITY TUNERS FOR SUPERHET CIRCUITS
tuning range 540 TO 1600 KC A complete slug-toned broadeast band K.F. and oscillator coll assembly with dial attached. To be used in place of variable conaensers, coils and tuning dial in Asspmbled and pretracked at factory. Supplied with diagrams and finished in gold, buff and brown, Airphane Dial Tuner. Entire as:

nembly $81 / 4 "$ wide, $5^{\prime \prime}$ hish Airphane Dial Tuner. Entire asmembly 8 y" wiae, ${ }^{5}$, stock No. 17A584. Type A230 Tuner. Net Each
$\$ 2.79$


SLIDE-RILE DIAL TUNER
Size over all $6^{\prime \prime}$ ", wide, ${ }^{4}{ }^{7 / 16^{\prime \prime}}$ Pointer travel $4 \% "$. Dial face finwith red pointers. Supplied with clear acetate window requiring
 $43 / \mathrm{c}$ ". For $456 \mathrm{KC}, 1 \mathrm{~F}$.

## Tue t210 Tuner let En e339

## REGENERATIVE-TUNER 540-1600 KC



A slick permeability type tuner to take
the place of a single gang condenser, coil the place of a single gang condenser, coil
and tuning dial. Well suited for the ex-
nerimenter who does not wish to tackle
the more complex superhet circuits. Has
attractive gold and brown dial and red
pointer. ovcr all size $31 /$ " wide,
high, extends 13 ". " behind panel. Supplied
complete with instructions and diagram.
Stock No. 17A5s2. Stock No.
Type
A260 Tunter. Net Each... $\$ 1.41$


SUPERIIET V ARIABLE CONDENSER supplled with Clear acelate window. dial cable sping and condenser drim. Dial face nttractravil approximately $5^{\prime \prime}$. Over all size $6^{\prime \prime}$ wide $x$ 4 7/16" high. For 456 KC . IF. $\$ 1.62$
CIIASSIS FOR PERMEABILITY UNITS
tuners. Has five 1 socket holes and other hole
lor mounting circuit components. Over-all size


F.M. TUNER KIT Now you can build an F.M. tuner for use on
radio set and have true static-free reception. F.M. Dia-Tuner consists of a slug tuned coil assembly with attached dial mechanism, pointer, and attractive gold
 tory aligned and cover
stock No. 19A261. Type A275 FM-Dia-Tuner. NET EACH
$\$ 4.09$
Kit of Matched F.M. Coils-To use with Dia-Tuner.
includes High quality F.M. Ratio Discriminator and 2 I.F. transformers, all for 0.7 .
 2. Kit F.M. Coils Chassis for FM Dia-Tunerassembly, etc. Size 8
Stock No. 19 A 263.
MILLEN IF Transformers
 De Luxe type as tory built equipment. Feature heavy molded end terminal boards,
steatitc coil forms rigidly located "down leads", etc. heavy wall extruded aluminum shield cans, high Q condensers and coils result in the overall $\&$ hi all foranstormers being extreme. BFO Units contain the grid condenser and grid leak inside the shield

AIR TRIMMED IRON CORE
1746921600 Interstage .... $\$ 4.50$ $17 A 694$ 1600 BFO AIR COORE 4.50 PERMEABILITY TUNED

MILLEN Tunable Coil Form
 Standar
base of mica styrene coil for aluminum shield, iron tuning slug of high frequency type, suitable for use up to 35
me. Adjusting ofrew protrudes thru cen 17A698, With Iron Core 17A699, Less Iron Core .... $\$ 1.896$

## MILLEN SLUG TUNED UHF COIL FORM <br> A steatite form $7 / 16^{\prime \prime}$ dia., $1 /\left.\right|^{\prime \prime}$ long with tuning slug adjustable long with tuning slug adjustable from top or bottom. Mounts in $5 / 16^{\prime \prime}$ hole. No. 15 A1110. <br> No. 15 All 10. Millen Type <br> 75c

## NATIONAL

XR-50 COIL FORM Mica filled bakelite permeability tuned coil form, using iron slug. Coil winding space $11 / 16^{\prime \prime}$ diameter $1 / 2^{\prime \prime}$. This small size coil form is particularly adapted to UHF circuits where space is limited high efficiency is required. No. 16A716. Net Each

## RIBBED COIL

 FORMS Molded of amber colored, low loss bakelite. Ribbed shape holds winding away from form and inWinding space approximately $21 / 2^{2}$. All haveflanged top and pins to fit standard tube sockets.


Diam. 4 Prong 5 Prong 6 Prong Each $\begin{array}{lllll}13 / M^{\prime \prime} & 12 A 197 & 12 A 198 & 12 A 199 & 27 c \\ 11 / 2 & 12 A 194 & 12 A 195 & 12 A 196 & 35 C\end{array}$

## MILLEN COIL FORMS

(1) Made of low loss mica base phenolic. Supplied less prongs for permanent mounting or
with prongs to fit standard fube sockets. Dia. $1 \times 15 / 8^{\prime \prime}$ long. No. 17A1107
Less proness. 4500035 c No. 17A1108.
4-prong. ${ }_{45004}^{45}$
 No. I7All09. 45005 \& 5 (2) Isolantite plug base for mounting air wound coils. $15 A 127.4$-prong base. 40104.
15 A128. 5 -prong base. 40105.
 30 c

## 

## AMPHENOL COIL FORMS



Made from Amphenol 912 "A" Polystyrene. Losses are practically zero. perior to air wound coils because dirt cannot get between windings and lower "Q" of coil.
"A"-11/4". dia. $\times 21 / 4$ " long plug-in forms to fit standard tube sockets. 12A201. 4 Prong 12A202. 5 Prong 2A203. 6 Prong . . . . . . . . "B"-Miniature plug-in forms $13 / 4$ " dia. $\times 19 / 16^{\prime \prime}$ long) for use with No. 19A131 and No. 19A132 sockets listed below.
12A204. 5 Prong
$28 c$
"C"_Miniature form for mig. di-
rectly on wave band switch, tuning condenser or chassis. Has raised hole
in center of base for self-tapping screw.
12A200. Each
110
Liquid "912" Coil Dope
To impregnate wound coils, etc.
12A206. 4 oz. bottle .......... 38 c
MICA FILLED SOCKETS
For miniature plug-in coil form above. 19A131. 78-S5ST, 5-prong. . . . . 180
19 A132. $78-S 6 S T$, 6-prong.

Short Wave \& Broadcast
Plug-In
Coil Kits


Space wound on $13 / 4^{\prime \prime}$ dia. ribbed bakelite forms that plug into standard 4 -prong tube sockets. Windings are standard for regenerative circuits and tune with 140 or 150 mmfd. condenser.
Sef of Four Short Wave Coils. Tune ,iraitin vour cosis


Semi-Midget Condenser Latest
mechanical mechanical ball bearing rotors, heavy brass contact springs,
and $1 / 4$ :
dia. shaft


Precision made throughout
SINCLE CANC


## MICA TRIMMER AND PADDER CONDENSERS


lugs can be
bent to any position desired.


15A1514. 85-60 Mmf. Each. . 41 c 15A1515. 185-120 Mmf. Each. . 44 c 15A1516. $200-170 \mathrm{Mmf}$. Each. . 44 C
$15 A 1517$.
$350-275 \mathrm{Mmf}$. Each. $4 \mathrm{Cl}^{\mathrm{C}}$

Padder type
adjustable

base, shaped to
of mica dielectric Plated phospho bronze adjusting plates. Single hole mtg., adjustable from top or bottom. Stock Mmfd. Min. Net
No. Mach

| Stock | Mmfd. |  | Net |
| :---: | :---: | :---: | :---: |
| No. | Max. | Min. | Each |
| $5 A 1521$ | 115 | 20 | $28 c$ |
| $5 A 1522$ | 315 | 85 | $32 c$ |

## MORRIS COIL WINDER

Pays for liself. Factory Accuracy. Winds honey combs, spiderwebs, solenoids, etc., in various and pointer show number of furms.
No. 16A245. Net Each.
$\$ 4.95$


# RADIO <br> and INSTRUMENT DIALS 

## POPULAR DIALS



## All fit $1 / 4$ Shafts <br> Miniature Type, <br> 13/8" <br> Diameter

## (A) NATIONAL TYPE R - Neat

 etched silver dial as used on HRO receivers. Marked $0-10$ over $180^{\circ}$ (B) ICA. Chrome silver dial with black etched numerals. With finger grip black knob. Marked 10-0-180
(A) NATIONAL TYPE O. Attractive circular-grained Nickel Silver. Reads
$0-100$ over $180^{\circ}$ ce Large fluted $0-100$ over $180^{\circ}$ ce. Large fluted finger grip knob. 12A16. Net Each............ $\$ 1.00$ (8) MILLEN Heavy Cauge NickelSilver 0 to 100 cc . Large bakelite hub insulates metal scale 12A17. Net Each

DIAL ACCESSORIES

(A)
(B)
(A) OOD. National Vernier pinch type drive for type O dial abov
similar plain dial. No. 17B278. Net Each.

42c (B) 10021. Millen index unit, a dial | Nounts through panel. |
| :--- |
| No. 16B509. Net Each...... |

(C) ODL. National dial lock. 33 C
No. 16A731. Net Each.....

NEW NATIONAL KNOBS


## HRS <br> HRT <br> HRP-P

National Type HRS control knobs. Grey plastic with 1 z/".. dia. chrome plated skirt. All for $1 / 4^{\prime \prime}$ shaft. i5Alloo. 5-0-5, $180^{\circ}$ rotation 15Allo1. O-1

50 c
National Type HRT tuning knob. Crey Diastic with bright trim $21 / 8^{\prime \prime}$ Fits $1 / 4^{\prime \prime}$ shaft.

750
No. 15A1098. Each $\qquad$ dial. $11 \times 1 /{ }^{\prime \prime}$ with as used No. 12 Al4.
Vernier INDICATOR DIAES


Beautiful chrome silver, Etcho-Engraved with black numerals and calibrations. With
marker and hardware. 0 to $100-180^{\circ}$

12A18. $23 / 4^{\prime \prime}$. Net Each. .... $\$ 1.23$

## RIGHT ANGLE DRIVE



NATIONAL ACD-1. A sturdy, smooth operating drive for condensers, etc. sign, with cast frame and bronze gears. Easy to mount. Frame $11 / 16^{\prime \prime}$ wide. No. 17B741. EACH...........S3.75

## NATIONAL TYPE ACN

 An ideal instruand lab need Uses Velvet Ver Uses Velvet Ver with 3 blank removable scales Holes in pointe bration points. Size $5 \times 71 / 4^{\prime \prime}$

S3.30 TYPE SCN
Essentially the same as ACN dial but smaller size, 4 7/16×61/ New HRT knob No. 14A776. Net Each
33.010 TYPE MCN
Scaled down from the SCN to 23/4' high $\times 37 / 8^{\prime \prime}$ wide. On rear side the mechanism extends $1 / 4$ " below dial frame.
panel.
No. 1

## TYPE ICN DIAL



Provides even il lumination on all
bands by means of special dial indow and two Scales are same as used on ACN dial. Size overal

No. 144778
36.01

MILLEN Panel Marking Kit


MILLEN MIDGET DIAL
 Type 10039. Ca blank scales, siz only $4 \times 31 / 4^{\prime \prime}$. Has completely enclosed 8 to 1 ratio tuning mechanism and at tractive dull black

Your Cost, Each
enamel
$\$ 2.70$
MILLEN PANEL DIAL


A combination panel dial

Drive ratio 8-1 Escutcheon size $81 / 4 \times 61 / 2 "$
Holes may be drilled to add two small contrated. Fine wily wrinkle



## Tekni-Cal Panel

 Marking Sets Provides sef builders mateurs and manufac turers with a permanent nexpensive means of marking panels with cial lacquer base decal cial lacquer base decal which works perfectlyon any surface. Each set contains over 1,000 markings, dial set con
except a group of gold ones in re ceiver and television sets.
Stk. No.
20872 Oscilloscope Set

| 20873 Audio Set |
| :--- | :--- |
| 20874 Television Set |
| 20875 DHOICE, |
| EACH |

$20 B 76$ Transmitter Set $\quad$ i 135
20877 Receiver Set
$20 B 78$ Instrument Set

## TRANSFER TYPE TITLE PLATES

ontarking controls on transmitters, markers. Lettering is etc. Each sheet No. 174739 . Series 1 Techniplate. Per Sheet. ..... 51 -


## CROFLEX SLIDE-RULE DIALS

 BRONZE ESCUTCHEONS, BEAUTIFULEDGE LIGHTED GLASS SCALES
The Most Flexible Tuning Arrangemen Yet Devised
ke knob can be located at cither end of any place along the lower edge. Your variable condenser may be above nished with each tuner is connected to the condenser drive pulley furby drive cable which can be adjusted for clockwise or counter-clockwise rotation. Tuning ratios range from approximately 12 to 1 for No. 231 to 23 to 1 for No. 234. All types extend $11 / 2^{\prime \prime}$ behind panel and are furnished with scales for horizontal installation with double channel calibra tions for FM and AM Broadcast. See list below for additional selection


ALTERNATE DIAL SCALES FOR ABOVE For Dial No.
Vertical $231187 \quad 232$ 233 1741188 NETEACH
 AM BROADCAST \& SHORT WAVE DOUBLE CHANNE $16 A 783$ 16A784 16A785 16A786 44e FM-AM BROADCOST DOUBLE CHANNEL

## Vertica

 TUNMNG EYE ASSEMUBLY For adapting "Magic Eye" tubes to sets test equipment and apparatus. Includes tube socket, 22" cable, adiustable mounting bracket, bronze escutcheon and hardware. Tube Not Furnished.
No. 174759. Assembly for 6-prong tube
890

Hood type, large size for mounting over panel or cabinet hole. Bronze No. 17A761. For Single Eye Tube. Each.
No. 17A762. Full vision type. For use with octal base tubes. "Bronze
Finished. Net Each
$18 c$
$21 c$


A smooth planetary drive type dial. Highly satisfactory operation through many years of exacting service, has established these dials as the best o calibrated. Ratio is 5 to 1. Both are cambrared 100-0 in 180, increase AD $4^{\prime \prime}$ diameter die stamped scale No. 17 AS70. Net Each. . 5 I AM $3^{\prime \prime}$ diameter die stamped skirt. black filled calibration markers and numerals. Has indexpointer. © 2,25
No. 17 A 569 . Net Each.

## NATIONAL TYPE NPN-0

 Micrometer dial reading directly to one part in 500 . Originally designed for HRO receiver at right angles to to 1 . Supplied with pling Hast pling. Has black finish

## BUD VERNIER DIAL

 Type D1944. Has smooth calibration 0-100 clock: wise 360 degrees. Face and calibration markers are in black enamel, rim and numerals are eter $23 / 4$ metal. "Diam- Has line indicator and With knob on vernler
No. 1781 . Net Each. $\$ 1.45$ GORDON HAND WHEELS
 Bakelitc wheel with pointer and $180^{\circ}$ scale. mor $1 / 4$ shaft. Will add of your equipment.

| No. | Wh. 1)18. | Scale |  |
| :---: | :---: | :---: | :---: |
| 12423 | $11 / 8$ | 21 |  |
| 12 A 24 | $15 \%$ | 35 |  |
| 12 A 25 | 21 |  |  |
| 12426 |  |  |  |
| $12 A 27-11 / 8$ |  |  |  |
| $270^{\circ}$ scale |  |  |  |
| Net Each. |  |  |  |
| Find Whevels Whth Pointer Only |  |  |  |
| 12.428-14\% less scale ...... 63 |  |  |  |
| 12A29-1 \% ", less scale |  |  |  |
| 12A30-2 $2 / 4 \prime \prime \prime$ less acale |  |  |  |
| 12.131 | ${ }^{n \prime}$. les | acale |  |

## DIAL POINTERS



Dial pointers finished in beautiful red ename 17
shaft. Each. 2 $1 / 16^{\prime \prime}$ long fits $1 / 4$ (3) 17A1034-2" long, for slide rule () 17 Al 037 -" $3 / 8 ;$ jong fits $1 / 4$ shaft (4) 17 a $1035-3 \dot{1} / 4$ iong, for slide rule dial. Each...................... 12

SHAFT LOCK
 Instantly converts any plain $1 / 4$ " shaft, Volume from "plain" to "shafi ocked type". Easy to mount in place of regBlar mounting No. $12 A 1496$. Brass Nickel .25
Plated. SPECIAL, EACH....
RADIO KNOBS-DIAL PLATES-SHAFT FITTINGS

RADIO AND INSTRUMENT DIAL PLATES
QUALITY REPLACEMENT KNOBS for EVERY PURPOSE

(A)

(B)

(C)

(E)
(A) BLACK SATIN FINISH PLATES
Made of brass, black finish with etched silver lines and numbers Cali brated 0-100.

| Stock No. | Diameter | Desrees |
| :---: | :---: | :---: |
| 12A1201 | 2 | 180 |
| 12A1202 | $2 *$ | 325 |
| 12A1203 | $34 /$ | 180 |
| 12A1204 | 31/2" | 325 |

(B) CHROME FINISH PLATES Grain satin finish with black etched engraving on chrome silver back ground. Calibrated 0 to 100. 12A1205 $12 A 1206$
$12 A 1207$ 12A1207 12A1208 $12 A 1200$
$12 A 1210$
$\begin{array}{lll}2 . " & 1885 \\ 325 & 5.47\end{array}$

All plates supplied less knobs.
Make sclection in the listing at
the right.

## (C) RECTANGULAR TYPES

 Made of brass, black linish with etched silver markings. Size $1 \%$ " $x$ Marked 1 to 10 . 多" hole.

BAKELITE MOLDED KNOBS—SET SCREW TYPE—FOR $1 / 4 *$ SHAFTS Type Stk. No. Dia. Color N
12 A 1221

|  | $12 \mathrm{Al221}$ | 1" | Wal. | 12 | 6 | 12 A1229 | 1/2" | Bwn | 8 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2 | 12A1222 | $3 / 4 "$ | Wal. | 9c | 7 | 12 A1230 | \%" | Blk. | C |
| 3 | $12 \mathrm{Al223}$ | $11 / 4{ }^{\prime \prime}$ | Blk. | 12 c | 7 | 12 Al 1231 | $1 *$ | Wal. | C |
| 4 | 12A1224 | $18^{\prime \prime}$ | Wal. | 8 c | 8 | 1241232 | $1^{\prime \prime}$ | Wai. | 8 |
| 4 | 1241225 | $1 "$ | Wat. | 8 c | 9 | 12A1233 | $11^{\prime \prime}$ | Wal. | 9 C |
| 5 | 12 A1226 | 7/8' | Wal. | 110 | 9 | 12A1234 | -10 | Iv. | 9 |
| 6 | 12A1227 | \% | Blk. | 8 c | 9 | 12 A1235 | "" | Red | 9 |
| 6 | 12A1228 | $1 / 2^{\prime \prime}$ | Whi. | 9 c | 9 | 1241236 | 18." | Blk. | $9{ }^{\text {c }}$ |

(iii) KNOBS FOR FLAT SHAFTS

Spring clamp type for "D" type Chrome plated solid brass shafts. Choice of 2 sizes and colors. ing very durable solid brass, good lookshafts.
12 A1240 Walnut $\{3 / 4$ " Diameter 12 Al240 Walnut $\left\{\begin{array}{l}3 / 4 \text { " Diameter © } \\ 12 \text { Al } 241 \text { Ivory }\end{array}\right.$ 12 A1243 Walnut $\{1 "$ Diameter os 12 A1244 Ivory \{Choice, Each $\uparrow$ f KNOBS. Includes chrome plated brass, KNOB FOR KNURLED SHAFTS $12 A 1247$ White $\left\{\begin{array}{l}3 / 4^{\prime \prime} \text { Diameter } \\ \text { Choice, Each }\end{array}\right.$ No. 19A199. For $1 / 4$ " Shaft. Each. 18 c
No. 19 A198. For " Shaft Each No. 19A198. For and plastic with chrome trim for (D) CROWE PANEL INDICATOR PLATES Beautifui gleaming silver anodized aluminum plates with black figures calibration marks. Size, 2 3/16" high, 25/8" wide. CHOICE, EACH

| Stock No. | Description | Stock No. | Description |
| :---: | :---: | :---: | :---: |
| 17 A1018 | No Title 0-10 | 17.11025 | Mike 2, 0-10 |
| 17A1019 | Tone 0-10 | 1711026 | Hecord Mike 5-0.5 |
| 17A1020 | Gain 0-10 | 1711027 | Volume 0-10 |
| 17A1021 | Master Gain 0-10 | 1711028 | Fader 5-0-5 |
| 17A1022 | Record 0-10 | 17A1029 | ITass 5-0-5 |
| 17 A1023 | Mike 0-10 | 17 A 1030 | Treblo 5-0-5 |
| 17A1024 | Mike 1, 0-10 | 17A1031 | Expansion 0.10 |

SHAFT FITTINGS AND FLEXIBLE COUPLERS


To increase or reduce shaft diameters of volume controls, condensers, etc. for ganging units, of to extend shaft engths even insulated or brass. Available in insulated or brass

## COUPLINGS

| Hole Stock No. | Net Ea. |
| :--- | :---: | :---: |
| Sizes Insulated Brass | N2C |

 EXTENDERS (Shaft 5/8" Lang) Hole Shaft Stock No.
Size Dia. Insulated Brass
Each Size Dia. Insulated Brass
$1 / 4^{\prime \prime} 1 / 4^{\prime \prime} \mid 2 A 1187 \quad 12 A 1190$

120 | $3 / 4 / 4^{\prime \prime} 12 A 1188$ | $12 A 1191$ | 10 for |
| :--- | :--- | :--- | :--- |
| $1 / 4^{\prime \prime} 12 A 1189$ | $12 A 1192$ | $\$ 1.10$ | EXTENDERS (Shoft $11 / 4^{\prime \prime}$ Lang) $1 / 4^{\prime \prime} 1 / 4^{\prime \prime} 12 A 1193$ 12A1196) Each $\left.\begin{array}{l}3 / /^{\prime \prime} 1 / 4^{\prime \prime} 12 A 1194 \\ 1 / 4^{\prime \prime} 12 / 8^{\prime \prime} 12 A 1195 \\ 12 A 1197 \\ 12 A 198\end{array}\right\} \begin{aligned} & \text { for } \\ & \$ 1.40\end{aligned}$ BRASS OR INSULATED SHAFTS No. Kind

244 Brass
12A5 Brass
1246 insulated
$12 A 8$ Insulated

## SHAFT COUPLINGS

Johnson Steatite solid
Coupling. Features long leakage path and accu rate alignment of hubs For $1 / 4^{\prime \prime}$ shaft
No. 12A1402. Each
Johnson Compression Coupling. Ideal for coupling together $1 / 4$ shafts where lated. Will not burr shafts.
No. 12All99. Each

EXTENDED SHAFT KNOBS. Plastic

## All Fit $1 / 4^{\prime \prime}$ Shafts



Nationa! TX10, very compact Bakelite insu, lated coupling free from backlash.
12A1361. Each. . 40c Nafional TX9. $15 / 8$ " diamzter, Steatite insulation.
No. 12A1362. Each........... 75c
 lohnson No. 250, 118
dia., Steatite with phos dia., Steatite with ph
phor bronze spring. 12A1360. Each... 47 c Johnson No. 251 A, like above, $21 / 4^{\prime \prime}$ diameter
No. 12A1403. Each. . . . . . . . . . 82 c

MILLEN Flexible Coupling
 Has universal joint. tions where high

No. 184652. 42E

## STEATITE INSULATED

 Universal joint No. 39001. Similar toshafts.
No. 15 A2057. Net Each.... 42C SPLIT BUSHING
 To, reduce ,dial holes from $3 / 8^{\prime \prime}$ to $1 / 4{ }^{\prime \prime}$ or to io increase $58^{\prime \prime}$ long No. 12 AA1 200. Each... 6c
10 For.

## FLEXIBLE SHAFTS

Phosphor bronze. When used with suitable couplings, control of units at angles up to 90 degrees with the panel is permitted.
No. Mub Dia. Length COST
$\begin{array}{llll}12 A 11 & 1 / 4^{\prime \prime} & 3^{\prime \prime} & 24 \mathrm{c} \\ 12412 & 1 / 4^{\prime \prime} & 6^{\prime \prime} & 32 \mathrm{c}\end{array}$
(ii) With $1 / 2^{\prime \prime}$ Shank Extension
SHO on type for knurled $1 / 4^{\prime \prime}$ shaft.
(22) With $3 / 8^{" 3}$ Shank Extension 124667 Brown $\} 15 / 16^{\prime \prime}$ Dia. 1 \& 124669 Brown $13 / 4^{\prime \prime}$ Dia. 12A668 Ivory iChoice, Each.. I 1 I2A670 Ivory SChoice, Each.. 14
INSTRUMENT AND EQUIPMENT POINTER KNOBS

## CRONAME BAR KNOBS



Smartly designed, serviceable, lined and equipment PA systems and the like where appearance and eve appeal are where appearance and eye appeal are shaft and slotted head set screws.

Fig. Size Btack No. $\quad$ Red Net Ea.
$\begin{array}{lcccc}\text { Fig. Size } & \text { Black } & \text { Red Net Ea. } \\ \text { A } & 11 / 4 & 17 A 1042 & 17 A 1050 & 18 \mathrm{C}\end{array}$ $\begin{array}{lllll}\text { A } & 21 / 4 & 17 A 1043 & 17 A 1051 & 27 C \\ B & 11 / 8 & 17 A 1045 & 17 A 1053 & 18 C\end{array}$ $\begin{array}{lllll}\mathrm{B} & 2 & 17 A 1044 \text { 17A1052 27c } \\ \text { 2 }\end{array}$ Style "C". Black only. Dia., 11/16" close panel mounting. 216 No. 17 Al 054 . Net Each.

PENDULUM KNOB


Molded bakelit knob with brass in. sert for $1 / 4$ " shaft
with set screw. $13 / 4$
overall

No. 12A99. Walnut. EACH

## PANEL

## BEARINGS

Cadmium plated brass for panel up to " 4 thick Furnished Bepar ately or with $3^{\prime \prime}$ or $6^{\prime \prime}$ cadmlum plated brass shafts.
12 A1359-Bearing Only
12 A9-With $3^{\prime \prime}$ shaft
2A9-With ${ }^{3}$-With shaft
TUNINC DRINE SMAFT
For cable connected drive using drum on condenser shaft. Mounts $3 / 8^{\prime \prime}$ hole. Overall length $15 / 8$ 1/4" diameter. Adjustable Slip Clutch
 ad any forque slip at Couples Length, $19 / 32$ No. 17 A1033
Net Each.

11 c

## BAR KNOBS

## set screws.



ap18 c 8 Cc 9 c $39 c$
38 c $33 c$
38 c
62 c $41 c$
$52 c$ $52 c$

21 adjusts shaft and

## nt


(2-2)
$\qquad$
$410)^{4}$ shaft and hub.
 ory, y, bove 1
.
on
of
5


38

# $8 c$ $8 c$ $8 c$ $8 c$ 9 c 9 c 9 c <br> C <br>  <br>  <br> <div class="inline-tabular"><table id="tabular" data-type="subtable">
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<td style="text-align: left; border-left: none !important; border-bottom-style: solid !important; border-bottom-width: 1px !important; border-top: none !important; width: auto; vertical-align: middle; ">1</td>
</tr>
</tbody>
</table>
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## INSULIATORS POlystrrene.and NEW CABIMETS



Types 65, 66, 67 have Cadmium steel bases. "J" after Type Number indiStk. No. Type Fig. Hgt. Hdwe. NET $\begin{array}{ll}\text { Stk. No. Type Fig. Hgt. Hdwe. NET } \\ 12 A 249 & 20 \\ \text { A }\end{array}$
$12 A$
$12 A$
$12 A$

JOHNSON
PLUGS AND JACKS


Highest Quality BANANA TYPE. Nickel silver springs and nickel-plated brass screw machine parts. Heavy duty type 77, 77A plugs are .300" diameter and fit jack 76. Type 75, 75C fit 74 jack. the universal size used in test instruments, etc.

| Type | Stock No. | Price |
| :--- | :--- | ---: |
| 77 | $12 A 1071$ | 18 c |
| 77 A | $12 A 1072$ | 21 c |
| 76 | $12 A 1073$ | 21 C |
| 75 | $12 A 1075$ | 7 C |
| 75 C | $12 A 1076$ | $\mathbf{8 C}$ |
| 74 | $12 A 1077$ |  |

JOHNSON
FEEDER SPREADERS


Finest silicone im
lain low-loss insulators. All have $1 / 2 \times 3 / 8$ cross sections. Stk. No. Type Length Net Each 144769 136-122 $136-124$ 10C $14 A 771$ 136-126 $6^{\prime \prime} 18 \mathrm{c}$

THRU-PANEL TYPE Of white glazed porcelain. strength and long leakage strength and long leakage paces.



## "LUCITE" <br> FEEDER

SPREADERS
Furnished with locking screws to clamp wire in drilled for No 12 to 18 wire.
wire.
$\qquad$ spacing
spacing spacing

20 c $5 c$
9 c


Stk. No. Trpe Fig. Hgt. Hdwe, NET $12 A 262$ $12 A 263$
$12 A 264$ 12A264 $12 A 265$
$12 A 266$ $12 A 266$
$12 A 267$
$12 A 268$
$12 A 268$
$12 A 269$
$12 A 269$
$12 A 270$
Each of
Each of the 0 4 $1 / 2 \quad 1 / 4-20$ 82c hardware for panels up to $1 / 2^{\prime \prime}$ thick. Longer rods

## THREADED BRASS ROD

 $12 A 279-1 / 4-20 \times 8^{\prime \prime}$ long. Each. 29 c$12 \mathrm{~A} 280-1 / 4-20 \times 10^{\prime \prime}$ long. Each. 35 c ULTRA-STEATITE CONES

white glaze, low adsorption steatite, which is far superior electrically at high frequencies. Threads are tapped directly into the cers-
machine screws and brass $x$ ashers top and bottom and with cushion washers. One hole mounting

|  |  | Diameter |  |
| :--- | :--- | :--- | :---: |
| Stk. No. | Type | Top | Bot. |
| $12 A 271$ | 500 | $5 / 8$ | $1 / 2$ |
| $12 A 272$ | 501 | $11 / 2$ | $1 / 2$ |
| $12 A 274$ | 502 | $11 / 2$ | 5 |
| $12 A 276$ | 503 | 2 | $5 / 4$ |
| $12 A 277$ | 504 | 3 | $3 / 4$ |

NET 180
210 216
$38 c$ $38 c$
445

"LUCITE" TRANSPARENT INSULATORS

(A) FEED THRU TYPE

Stock Dis. Leth. $\begin{gathered}\text { Mtg. } \\ \text { Mole } \\ \text { Your } \\ \text { Cost }\end{gathered}$


(B) STAND-OFF TYPE

Pillar type. Single-hole base mounting with nickel-plated brass hardware.
No. Hot. Dia. Hdwe. Cost $\begin{array}{lllll}\text { No. Hgt. Dia. Hdwe. Cost } \\ 124291 & 11 / 4 & 1 / 2, & 6-32 & 29 \mathrm{c}\end{array}$
 $\begin{array}{lllll}12 A 293 & 21 / 4^{\prime \prime} & 3 / 4^{\prime \prime} & 10-32 & 49 \mathrm{c} \\ 12 A 294 & 41 / 4^{\prime \prime} & 3 / 4^{\prime \prime} & 10-32 & 84 \mathrm{c}\end{array}$ $12429561 / 4^{\prime \prime} \quad 3 / 4^{\prime \prime} \quad 10-32$ 88c
(C) LOW-LOSS STAND-OFFS

912 A Polystrene. Strong, not brittle like ceramic or glass.
Stk. No. Height Diameter Net Each


## CERAMIC STAND-OFFS



Have 6/32

Features simple interlocking design, which elimi nates hard to get at places. Slips together easily making a sturdy finished box requiring only two ldeally suited for building preamps, oscillators deally suited for building preamps, oscillators natural metal finish.


AMPHENOL "Poiystrene 912A" and "Acrylic 912B" SHEETS, RODS, TUBING, ETC. 912A Polystrene is the popular thermoplastic, unexcelled for low-los insulation, in high frequency radio and other electrical circuits 912 B Acrlic is a crystal clear lastic Ucryic is a crystal clear tough thermofaces, dials. Has high dielectric strength, used for el octrical insulation where no RF is in volved. Power factor at I MC .OIS.
912 "A" SHEETS - ALL $4 \times 8$


## Racles.ChassisoCabineto. Panels.Accessories


(1)

## ICA DELUXE RACK CABINETS

Professional type Relay Racks of outstanding modern design, with gracefully rounded top and corners and cial quality and appearance desired by all rackmer Built of $1 / 16^{\prime \prime}$ cold rolled steel Removable vertic corner pioces cover rolled steel. Removable vertica Drilled for either Western Electric or Amateur notch. ing. Ample louvers are provided for good ventilation. Hinged rear door has double snap catch. Finished in baked on Marine Grey Ripple. Shipped knocked down All are $22 \times 18^{\prime \prime}$ square.

## DELUXE TABLE TYPE <br> To Moln

Table Model units of new streamined rounded front corner design Amplifiers for Transmiffers, PA ventilators and front chrome trim Hinged doors top and rear with snap locks. 〒Have top door only. Marine Crey ripple finish.
(1) FLOOR MODEL RACK CABINETS



STANDARD RELAY RACK PANELS
Regular $19^{\prime \prime}$ length. Standard amateur rack notching first notch $7 / 8^{\prime \prime}$ from edge and $13 / 4^{\prime \prime}$ centers. Steel are $1 / 8^{\prime \prime}$ for rugged strength. Masonite are $3 / 16^{\prime \prime}$, tough. non-magnetic, work nicely with wood tools. Aluminum are $1 / 8^{\prime \prime}$ combining strength with light weight. Easily worked. Supplied in baked on Black Ripple. For Cray Ripple add "C" to Stock Number of size desired.

| 1/8" Steel |  |  | 3/16' Masonite |  | 1/8" Aluminum |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Size | Stock No. | Price | Stock No. | Price | Stock No. | Price |
| $13 / 4{ }^{\prime \prime}$ | 5421 | \$0.68 | 4 A15 | \$0.60 | 54289 | 50.85 |
| $31 / 2$. | 5422 | . 88 | 4416 | . 8.8 | 54290 | . 8.85 |
| $51 / 4 "$ | 5 A23 | .86 | $4 A^{4} 7$ | . 85 | 54291 | 1.02 |
| 7 \% | 5424 | .91 | 4 A18 | .84 | 54292 | 1.34 |
| 83/4" | 5425 | 1.15 | 4419 | 1.18 | 54293 | 1.53 |
| 101/2" | 5426 | 1.29 | 4420 | 1.32 | 54294 | 1.81 |
| 121/4" | 5 A27 | 1.59 | 4421 | 1.47 | 54295 | 2.08 |
| $14 *$ | 5428 | 1.82 | 4422 | 1.65 | 54296 | 2.36 |
| 153/4" | 5429 | 2.12 | 4423 | 1.82 | 54297 | 2.65 |
| 171/2" | 4427 | 2.26 | 4424 | 2.12 | 54298 | 2.94 |
| 191/4" | 4428 | 2.44 | 4425 | 2.35 | 54299 | 3.23 |
| $21^{\prime \prime}$ | 4429 | 2.76 | 4426 | 2.56 | 54300 | 3.53 |

"HI-QUALITY" METAL CHASSIS BASES
Solidly constructed I-piece steel chassis bases for re ceivers, transmitters, amplifiers, etc.-folded over on the bottom (except the 2 smallest sizes) for addi= tional strength. All sizes from $51 / 2 \times 10^{\prime \prime}$ drilled for attaching bottom plates listed opposite chassis.

| Alze. Inches | ('IIANSIN | BANEA |  | Bottom | Net Each |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Cudmium No. | 131k. No. | Each | Plates No. |  |
| 4\%x8 $/ 2 \times 1 \%$ " | 6A50 | 8.4.51 | 50.63 |  |  |
| $5 \times 91 / 2 \times 14{ }^{\prime \prime}$ | 6A52 | 5A53 | . 68 |  |  |
| $6 \times 91 / 8 \times 3^{\prime \prime}$ | 5854 | 5AE5 | .85 | 8A101 | \$0.39 |
| $81 / 2 \times 10 \times 8{ }^{\prime \prime}$ | 6AB6 | $5 \mathrm{A57}$ | .81 | 5A102 | . 4.45 |
| $5 \times 13 \times 3^{\prime \prime}$ | 6A58 | 5A59 | 1.03 | 5 A103 |  |
| $7 \times 7 \times 2^{\prime \prime}$ | 5460 | 5A61 | .74 | 5 S104 | . 48 |
| $7 \times 9 \times 2$ " | 5 A62 | 5463 | .88 | 6.1105 | .48 |
| $7 \times 11 \times 2$ " | 5.464 | 5 165 | .97 | 5A106 | .54 |
| $7 \times 12 \times 3$ " | 6468 | 6.467 | 1.15 | 5 A107 | .67 |
| $7 \times 13 \times 2^{\prime \prime}$ | 5A68 | 5 A69 | 1.08 | SA108 | .57 |
| $7 \times 15 \times 3$ "' | 5470 | 8.471 | 1.26 | 5A109 | . 83 |
| 7x17x3" | 5.172 | SA73 | 1.28 | 54110 | 88 |
| $8 \times 12 \times 3$ " | 5A74 | 5 A75 | 1.26 | 6A111 | -68 |
| $8 \times 17 \times 3^{\prime \prime}$ | 8A76 | 6A77 | 1. 1.44 | $5 A 112$ | -69 |
| 10x12x3" | 5A80 | 5A81 | 1.38 | 6A114 | 89 |
| 10x14×3" | 6A82 | 5.483 | 1.35 | \$A115 | -75 |
| 10x17x3" | 6484 | 6 685 | 1.29 | 5.1116 | .82 |
| $10 \times 23 \times 3^{\prime \prime \prime}$ - | 5 586 | 5 587 | 1.84 | 8A117 | 1.06 |
| 11×17×3 ${ }^{\text {m }}$-* | 6A88 | 6A89 | 1.94 | 5.4118 | . 82 |
| 12×17×3" ${ }^{\text {m }}$ | 8A90 | 5 A91 | 1.94 | 8 \$119 | 88 |
| $13 \times 17 \times 3^{\prime \prime}$ - | $8 \wedge 92$ | 8A93 | 2.44 | \$A120 | 1.08 |
| 10x17x4"- | $5 \mathrm{A94}$ | 6A95 | 2.08 | \$A116 | . 82 |
| 13x17x ${ }^{\prime \prime}$ - | 6A96 | 8A97 | 2.76 | 5^120 | 1.06 |
| (NOTE:-Denotes 18 gauge steel. All otlers 20 gauge.) 150 |  |  |  |  |  |
| CHASSIS MOUNTING BRACKETS <br> Fits on Panels 7"' High and Over |  |  |  |  |  |
|  |  |  |  |  |  |  |
| 5499. For $8^{\prime \prime}$ | Chassis base. | ack. Per | Pair. |  | . 80 |
| 5498. For 11" | Chassis base. B | ack. Per | Pair |  | 1. |
| 4A30. For 13" | Chassis base. B | ack. Per | Pair. |  | 1. |

## AMPLIFIER FOUNDATION CABINETS

Top-notch quality "Professional" type amplifier chassis units. Pleasing round ed top corners-raised screen openings in tops. Louver ventilators in sides and ends. Units " $A$ " and " $B$ " have Chrome plated ventllators with red striped chrome moldings and handles to match. Marine Crey Ripple.


UNI'T "A" - Do Luxe Amplifier Foundation high: chassis $3^{\prime \prime}$ he Glives Do lure high Gives De Luxe "Com mercial" appearance to
custom bulit equipment. custom bullt equipment.
No. size Net. Ea. $\begin{array}{ccc}\text { No. } & \text { Eize } & \text { Net, Ea } \\ 5 A 34 & 5!3 \times 10^{\prime \prime} & \$ 3.62\end{array}$

| BA35 | $8 \times 12^{\prime \prime}$ | 4.70 |
| :---: | ---: | ---: |
| $5 A 36$ | $7 \times 17^{\prime \prime}$ | 4.85 |
| 5437 | $10 \times 14^{\prime \prime}$ | 5.29 |
| $5 \mathrm{A38}$ | $10 \times 17^{\prime \prime}$ | 5.59 |

STEEL CABINET
Crey ripole finish,
 Hinged top lid. Louvers side and back. Removable panel. Rear cable
opening. Has embossed feet. Has a really smart Stock Sire Your Requires No. H. W. W. YOUR Chassis SA30 8×10x 8", $\$ 2.94$ 5A60 $\begin{array}{rrrr}5 A 31 & 8 \times 14 \times 88^{\prime \prime} & \mathbf{3 . 2 3} & 5 A 62 \\ 36496 & 12 \times 20 \times 12^{\prime \prime} & \mathbf{7 . 1 2} & 5464 \\ 3458\end{array}$

HINGE LID CABINET
 Black wrin
kle ename steel. Front, back and bottom removable separately.

Cat.
No. EA1
5A2
8A8
5A
EA
8A

## QUALITY

## ALUMINUM CHASSIS

 See illustration and general description in metal chassis base listing at left Aluminum is $1 / 16$ material $35-1 / 4$ hard. Features light weight, exceptional strength and good appearance. Very easy material to work. Highly recommended for transmitters, receivers, etc., where RF circuit components must lie close to the chassis.

Smooth and quiet runn
No. 5A139. Net Each
Heavy duty bail
bearing type recommended for DeLuxe Relay Racks
and other heavy equipment. High omposition wheel. Smooth and quiet running.
No. 5A139. Net Each......

| $4 \mathrm{4} 32{ }^{\text {4, }}$ | $4 \times 8 \times 1 / 2^{\prime \prime}$ | Price |
| :---: | :---: | :---: |
| 4433 | $5 \times 91 / 2 \times 3.1$ | .97 |
| 4 4.34 | $5 \times 13 \times 3{ }^{\prime \prime}$ | 1.06 |
| 4435 | $7 \times 7 \times 2^{\prime \prime}$ | 94 |
| 4436 | $7 \times 9 \times 2^{\prime \prime}$ | 1.06 |
| 4437 | $7 \times 12 \times 3{ }^{\prime \prime}$ | 1.29 |
| 4438 | $7 \times 15 \times 3$ " | 1.47 |
| 4439 | $7 \times 17 \times 3^{\prime \prime}$ | 1.58 |
| 4440 | $8 \times 12 \times 3 \prime$ | 1.50 |
| 4 A 41 | $10 \times 12 \times 3.1$ | 1.88 |
| 4442 | $10 \times 17 \times 3^{\prime \prime}$ | 1.88 |
| 4443 | $12 \times 17 \times 3^{\prime \prime}$ | 2.32 |
| 4444 | $13 \times 17 \times 3^{\prime \prime}$ | 2.85 |

## TRUCK CASTERS

DELUXE SLOPING PANEL


## PORTABLE STEEL CABINET

Welded steel cabinet with leather handle. Removable front and back panels fastened with self-tapping screws. Black ripple ename finish. For Oscillators, Transceivers, etc.

| Cat. |  |  |  | Net |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| No. | H. | W. | D. | Wt. | Na. |
| SA18 | $12^{\prime \prime}$ | $7 \%^{\prime \prime}$ | $7^{\prime \prime}$ | 9 lbs. | $\$ 2.50$ |
| SA18 | $15^{\prime \prime}$ | $7 \%^{\prime \prime}$ | $7^{\prime \prime}$ | 11 lbs | 2.91 |

## Panels

## 1/16

Thick
Steel
BLACK RIPPLE FINISH


## r

 Cat. H. W. D. Wit. Net $\begin{array}{llllll}6 A 18 & 12^{\prime \prime} & 7 \%^{\prime \prime} & 7^{\prime \prime} & 9 \mathrm{lbs}, \$ 2.50 \\ 6 A 18 & 15^{\prime \prime} & 7 \%^{\prime \prime} & 7^{\prime \prime} & 11 \mathrm{lbs} . & 2.91\end{array}$
8180 ,

# Cabinets－－Rachs－－MISC．NEEDED SMALL PARTS 



Build a Small Parts Cabinet to fit any space－add any number of units as needed．
Easy to assemble－all steel construc－ bottom，and sides．Drawers are free and smooth operating with provisions for drawer dividers．Has holder for finish．In two convenient sizes．

## LARGE DRAWERS

No．36836． $1111 / 16^{\prime \prime}$ front to back， dates up to 5 drawer dividers． $\underset{\substack{\text { Net } \\ \text { Nech．} \\ \text { N }}}{\text { 99 }}$ C No．36B37．Drawer Dividers．
Net Each．．．．．．．．．．．．．．．．．．．．

SMALL DRAWERS
No．37A77．5＂front to back， $27 / 8^{\prime \prime}$ to 3 drawer dividers．
Net 31 －Per
sor
No．37A79．Drawer Dividers． $2 \frac{1}{2}!$
Nef Each．．．．．．．．．．．．．．．．．
3－TRAY PARTS BIN
Keeps Small Parts Handy


Here is convenience．Parts easily ac－ cessible from bins which are set at a 10 degree forward angle．Ideal for resistors，condensers，screws，nuts，etc． on bench．or hang on the wall－in workshop or garage．
Of durable construction with baked on enamel finish．Has 3 trays divided into is compartments； 14 compart ments
wide．Each tray $43 / 4$＂deep from front to back．Overall size $163 / 4$ wide $x$ $13 / 4^{\prime \prime}$ deep $\times 9^{\prime \prime}$ high．Weight， 5 lbs No． 36494.
EACH．
$\$ 2.25$
B－A POPULAR HARDWARE ASSORTMENTS in CLEAR PLASTIC ENVELOPES

## 406

TERMINALS and LUCS－ 100 Asst Most popular solder types． No．19A1069．Per Asst 45c
TERMINAL STRI
With lugs attached．
No． $18 A 9 . ~ P e r ~ A s s t . ~$


SOLDERING LUCS－ 100 Asst．
Types most often used in Radio work No． 12 A665．
Per Asst．．
34 c
SHAKEPROOF LUCS－50 Asst
Sizes 4，6， 8 and 10
29c

ALL STEEL UTILITY CABINET Saves time and patience by keeping shay pans tound instantly Attractive whey can grey hammertone iacquer fin ish and bright plated pull handles．Spe－ cial design makes the stacking of sev－ eral units simple．Just add them as needed．Sturdy－of welded construc－ tion．Size， $53 / 4^{\prime \prime}$ wide $\times 61 / 4^{\prime \prime}$ long $x$
$81 / 4^{\prime \prime}$ deep． 4 with three -2 with compartments each， 1 with six compartm Weight， 4 lbs． No．36A93．Each


ents，and 1 with no compartments． $\$ 2.45$ Lion of $\mathbf{y}$

## HANDY ASSORTMENTS OF OFTEN

 NEEDED RADIO HARDWAREPockaged in Clear Plastic Envelopes．
PER PACKAGE．．．

## SCREWS and BOLTS

 （1）MACHINE SCREWS－50 Asst．Steel Nickel Plated． Round Head．Sizes，4－36，6－ No．198952．Per Asst．245 （1）4－36 MACHINE SCREWS ed．Round Head． ed．Round Head．No．198956．Per Asst．－4 －45 Asst．Steel Nickel Plat－ ed．Round Head．
No．19B960．Per Asst． 24 C （1）8－32 MACHINE SCREWS
3 ed．Round．Head．Nickel Plat－ No． 19 B972．Per Asst． 24 C
（1） $10-32$ MACHINE SCREWS （1）10－32 MACHINE SCREWS
－ 30 Asst．Steel Nickel Plat－ ed．Round Head．Asst．24F （8）RACK SCREWS G WASH－ ERS－30 Asst．Steel Nickel
Plated．Sizes， $6-32, \quad 8-32$
5 10－32． 19 No 1047．Per Asst．24G （3）ORNAMENTAL HEAD Bro．ze Plated． 24 B No．19A980．Por Asst 245
（4）SHEET METAL SCREWS－ （4）SHEET METAL SCREWS－ Hexagon Head．Sizes，4，6， 8 and 10.
No．19B1048．Per Asst．24C （6）WOOD SCREWS－ 30 Asst．
Round Head．Steel Nickel Round Head．Steel Nickel
Plated．Sizes，4，6，8． No．1981049．PerAsst．24C © ESCUTCHEON PLATE Plated．No． 2 size． 246 No．18A19．Per Asst．
（a）RADIO KNOB SET SCREWS ened ${ }^{2}$ Seel．Headless．Hard－
ent No． 1981050 ．Per Asst． 245 SCREWS 7 Assf．Most DOD－ ular sizes．


NUTS and WASHERS （1）HEXACON NUTS－ 45 $\begin{array}{lll}\text { Sizes，} & 4-36, & 6-32, \\ 10-32 & & \\ \text { ion，}\end{array}$ $10-32$
No．19B1060．Per Asst．24C （ii）MOUNTINC NUTS－ 15 Asst．For Volume Controls， Switches，etc．Nickel Plated．
No．19A979． Per Asst．
（冈）METAL WASHERS－ 100 Assp．Nickel Plated．Sizes，4， No．19B1075．Per Asst． 246 （1）LOCK WASHERS
Asst．Internal and externai．
Most popular sizes．24P
No．19B1076．Per Asst． 24
B4 FIBRE WASHERS－
Asst．Extruded and flat．Sizes
6 through 15／32＂
No．19B1077．Per Asst． 245
（17）＂C＂WASHERS＿50 Asst． For servicing Volume Con－
trols，etc．
No．19A965．Per Asst． 245
No．19A965．Per Asst．24C
DUST FELTS，DIAL SPRINGS，ETC． （3）VOICE COIL DUST FELTS -25 Asst．Glues to any speak－ er．Keeps dust out． 245
No．16A567．Per Asst． G BRASS DIAL PULLEYS－ 6 Asst．Several sizes． 246
No． $17 A 1011$ ．Per Asst． A FIBRE DIAL PULLEYS－10 No． 11 A80．
Per Asst．
PPHONO TURNTABLE SPRINCS－ 10 Asst．Small sizes．
No．16A570．Per Asst．24 （2）PHONO TURNTABLE SPRINCS－ 10 Asst．Large sizes．
No．16A571．Per Asst．24F © DIAL DRIVE SPRINCS－ 10 Asst．Regular size．24F
No． 11 A78．Per Asst．．24 No． $11 A 78$ ．Per Assf．．
A DIAL DRIVE SPRINCS－ 10 Asst．Small size． $24 G$
No． 11 A79．Per Asst． 24 （2）COMPRESSION SPRINGS （2） 20 Asst．Used on dials， phono motors，etc． 24 C
No．17A1010．Per Asst． No．DIAL CABLE CLIPS－50 Asst．For lse on all types of
Dial Cord Assemblies． 24 C
No，17A1009．Per Asst． No，17A1 009．Per Asst． 45
KNOB FELTS，SPRINGS KNOB FELTS，SPRINGS，
ESCUTCHEON PINS，
（9）KNOB FELTS－50 Asst．As （e）KN behind radio knobs．
used
No．18A2． No． $18 A 2$.
Per Asst．．

245 （2）KNOB PUSH－ON SPRINCS -20 Asst．Most sizes． No．1981051．Per Asst． 245 Asst．


Find the parts you want at siance． Easy sliding clear plastic bins in sturdy steel drawers which snap together on sides，top and bottom to form a strong cabinet to the size and shape of your choice．Add them as you need them． Each drawer is furnished with a re－ movable plastic divider．Drawer size． $61 / 16 \times 31 / 8 \times 17 / 8^{\prime \prime}$ ．Weight， $71 / 2$ lbs． No．33874． 118 Per D，Doz． 42

## Clear Plastic Utility Box



Here it is，just the thing for keeping those screws，nuts，lugs，and other small parts separated and easy to for carrying parts on out－of－the－shop jobs．Hinge covered and with parti－ tions．Available in two sizes．
16A398． $81 / 4 \times 41 / 4 \times 11 / 4^{\prime \prime}$ ．Each．． 76 e 16A399． $7 \times 31 / 2 \times 13 / 16^{* \pi}$ ．Each．． 55 C

## HANDY GLASS JARS

 with METAL SCREW LIDS To Stock Small Hardw
## No．3A24．2－oz．2＂diam－ eter $\times 13 / 4^{\prime \prime}$ high． Each．．．．．．．．．．．． <br> Each．．．．

$\qquad$ $\$ 8.50^{\circ}$
No．3A25．4－oz． $13 / 4^{\prime \prime}$ diameter $x 33 / 8^{\prime \prime}$ high．
 Each． 10c Per Doz． .$\$ 1.00$
MACHINE SCREWS

## Packaged in Clear Plastic Envelopes．

 Stk．No．2－56 ROUND HEAD $\quad$ Lgth．Pkg． 100 Pkg． 500 $\begin{array}{lllr}19 A 702 X & 1 / 4 " \prime & 22 c & \$ 0.98 \\ 19 A 702 & 14 & 23 \mathrm{C} & .87\end{array}$ $194857^{6-32}$ ROUND HEAD| 194857 | 2 | 1.10 |
| :---: | :---: | :---: |
| 194995 | 17＂ 276 | 14 |
| 194858 | $\because 296$ | 22 |
| 194859 | 316 |  |
| 194723 | $3 / 4 \% 36$ |  |
| 19 A733 | 416 | c |
|  | 4．40 BINDER HEAD |  |
| 19 A 706 | 1／4＂ 24 C | 2 |
| $19 A 708$ | 18＂ 256 | 05 |
|  | 6－32 BINDER HEAD |  |
| 194715 | $1 / 4 \prime 276$ |  |
| 194716 | 1＂ 280 |  |
| $19 A 718$ | 3／1＂29c | 2 |
| 194721 | 1／2＂320 |  |
| 194726 | $5 \% 34 \mathrm{c}$ |  |
| $19 \mathrm{B727}$ | $3 / 4 \% 36$ |  |
|  | 8－32 ROUND HEAD |  |
|  | Pkg． 20 | ． 100 |
| 198802 | 2＂${ }^{\prime \prime}$ 30c | 1. |
| 19B803 | 3＇ 45 c |  |
| For ad | tional types and | S |

For additional types and sizes see page 110.


[^2]
## Scremes---Nuts---OTHER RADIO HARDWARE



Cap Nuts-BRASS-NICYEL PLATED $\begin{array}{llll}\text { Size } & \text { No. } & \text { Doz. } & \text { Per } 100 \\ 6-32 & 19 A 924 & 26 c & \$ 1.34\end{array}$ $\begin{array}{rrrr}8-32 & 19 A 925 & 26 \mathrm{c} & 1.34 \\ 10-32 & 194926 & \mathbf{3 2 c} & 1.68\end{array}$ Wing Nuts-brass-Nickel PLATED $\begin{array}{llll}6-32 & 194927 & 41 c & \$ 2.21 \\ 8.32 & 194928 & 41 c & 2.21\end{array}$ 10-32 19A929 41 c 2.21 For Quantities of 500 or more of above deduct $10 \%$ from 100 Lot Price.


Cable Clamps Heavy gauge steel cadmium plated. No./8 6 mounting $_{1 / 4}$ hole. Fit 12 A1303 $1 / z^{\prime \prime}$ Pkg. 20 100 For 500 For 27 c 1.03 4.63

## MOUNTING NUTS

STEEL-NICKEL PLATED


Standard sizes for switches, volume controls, etc. Rotary Switch type is No. Type Thread For For No. Type. Thread For For
$15 A 2045$ Rot. Sw. $15 A 2046$ Vol. Con. $38-32$ 12c 1.87


## ROUND RINC NUT

1542049 Tog. Sw. 15-32 22c 1.68 19A979. 15 Assorted. Per Asst.. . 24 c For Quantities of 500 or more of above deduct 10\% from 100 Lot Price.


No.
$12 A 1491$
$12 A 1493$ $12 A 1493$ $12 A 1494$. 2A1495. Flat washer type, without 8 holle. "Ne Clameter, $1 / 8$ " thick, size 10 Lots, Each..

## THREADED BRASS RODS

Ideal for making your own long screws by cutting to any desired length. Supplied in $12^{\prime \prime}$ lengths.

| No. | Size | Each | 10 For |
| :---: | :---: | :---: | :---: |
| $12 A 1474$ | $6-32$ | $17 c$ | $15 c$ |
| $12 A 1475$ | $8-32$ | $22 c$ | $20 c$ |
| $12 A 1476$ | $10-32$ | $26 c$ | $24 c$ |


|  |  |  |  |
| :---: | :---: | :---: | :---: |
| Mrg. A.D. |  |  |  |
|  |  |  |  |
| $12 A 14842$ |  |  |  |
| 1/2" 3 | $12 A 1485$ | 21 | 1.47 |
| $58^{\prime \prime} 1 / 2$ | 12 A1486 | 28 c | 2.02 |
| 15 ASSORTED. No. 18A21. SPECIAL. Per Asst. 24C |  |  |  |
| CUM RUBBER |  |  |  |
|  | $12 A 1487$ | 21 | \$1.20 |
| 10" $1 / 4^{\prime \prime}$ | 12 | 24 | 1.61 |
| 15 ASSORTED. |  |  |  |
| o. 18A22 | - |  |  |

## Rubber Mounts

For chassis or any place where cushioning is desired
against vibration or microagainst vibration or microphonic disturbances.

26c 24c


Nickel Plated Brass Machine Screws NON-MAGNETIC-RUST PROOF
 For Quantities of 500 or more of
For
above deduct $10 \%$ from 100 友 (3) Phillips Type Machine Screws
Brass-Nickel Plated

(c)
$12 A 13191 / 2 \times 1 / 2^{\prime \prime \prime}$. Ea. 4 c 10 for 32 c
$12 A 1321 \quad 1 / 2 \times 3 / 4{ }^{\circ}$. Ea. 5 c 10 for 40 c $12 A 1321$ 1/ $2 \times 3 / 4$ ". Ea, 5 c 10 for 40 c
For Quantities of 100 or More Deduct 10\% From 10 Lot Price.

Self-Tapping Metal Screws (5) ROUND MEAD PLATED No PI HEAD GIMLET POINT No. Size Lgth. Per Doz. Cross $\begin{array}{lllll}19 A 941 & 6 & 1 / 2 \prime \prime & 7 c & 44 c \\ 19 A 942 & 8 & 3 / 2^{\prime \prime} & 8 c & 50 c \\ 19 A 943 & 8 & 8 c & 58 c\end{array}$ (4) ROUND HEAD BLUNT POINT



Felt and Rubber Bumpers

(A) Felt attached to metal base in which is embedded a 6-32 screw for attaching where desired.
12A1443. Each, $6 c$; Per Doz 43 c (B) Rubber with recessed cavity for No. 6 or 8 screws. 5/8" dia." $3 / 8{ }^{\text {" }}$ high. 12A1444. Per Doz.............25c (C) Rubber covered tack bumper, $7 / 16^{\prime \prime}$ dia. Can be tacked or pushed in. 12A1446. Pkg. of 25. Per Pkg... 44 c (D) Flat felt, fasten with glue.
$12 A 1447$. Pkg. of 100 .
$.35 c$

## For Cushioning

 Condensers and transformers to give them floating effect. Usually 3 condenser12A1448. Ea., 5c; 10 Lots, Ean, 4c

## Ventilating Plug

For amplifiers, racks, transmitters, etc. Just snap in No. 124402.
Per Env. of TWO. . 24c

## SNAP BUTTON

## HOLE PLUGS

A round, flat head, metal button with spring flanges which snap right into the hole. Holds securely, yet easily removed. Used to seal adjustments, cover unused holes, etc.



Made of black bakelite $1 / 8$ thick, $1 / 2$ " between centers and constructed for open or closed end lugs. Screw Size 8-32. 12 Ni 276 1241277 12A1279 12 A 1280 $12 A 1281$ 12A1282 12 Al 283 $12 A 1283$ JONES BARRIER TYPE TERMINAL STRIPS
 wide $\times$ 13/32",
high bakelite hign bakelite $3 / a^{\prime \prime}$ terminal centers. 141 is
$1 / 1 / 8,{ }^{2} 1 / 2,1$ has $7 / 16^{\circ}{ }^{\circ}$ centers. $^{1 / 2 .}{ }^{\text {has }}$ Type 140 Each No. Each 141
Term No. EA5 $\begin{array}{ccccc}\text { Term } & \text { No. } & \text { Each } & \text { No. } & \text { Each } \\ 2 & 14 A 541 & 14 \mathrm{c} & 144547 & 18 \mathrm{c} \\ 3 & 1542050 & 20 \mathrm{c} & 1542052 & 25 \mathrm{c} \\ 4 & 14 A 542 & 24 \mathrm{C} & 14 A 548 & 31 \mathrm{c}\end{array}$ $\begin{array}{lllll}4 & 14 A 542 & 24 c & 14 A 548 & 31 c \\ 5 & 15 A 2051 & 30 c & 15 A 2053 & 38 c\end{array}$ $\begin{array}{lllll}5 & 15 A 2051 & 30 c & 15 A 2053 & 38 c \\ 6 & 14 A 543 & 34 c & 14 A 549 & 45 c \\ 8 & 14 A 544 & 45 c & 14 A 550 & 58 c\end{array}$ $\begin{array}{ccccc}8 & 14 A 544 & 45 c & 14 A 550 & 58 c \\ 10 & 14 A 545 & 58 c & 14 A 551 & 72 c\end{array}$ 12 14A546 86ic 1
Type 142


 (A) (B) (C) (D)
ALL METAL (A) Single Post. No. 12A1026. Each. 7c (B) Heavy Duty for high amp. 5/8" serew. Brass nickel plated. No, 12 A1028. Each.

## INSULATED

(C) Combination. Takes a banana plug through the top and a phone tip or wire through hole in stem. ${ }^{1}$ Red or Black composition.

## No. FOR

15c
EBY POSt's with non-removable tops Have $1 / 2^{\prime \prime}$ dia. head, $6-32 \times 9 / 16^{\prime \prime}$ long (D) Ensign No. 38. Has insulated shoulder for centering and mounting in $11 / 32^{\prime \prime}$ hole.

236
No. 12A1030. Each.
1/16." Red.
No. 12A1031. Each.
23c
Junior No. 30 Has knurled base to prevent post from twisting
No. 12A584. Each.
15 c
(F) Bakelite head. Red or Black Sin-

No. 12 Al032. Each.
11c

SOLDERING LUG STRIPS
Very popular for all types of radio-amplifier work. Terminals securely riveted to bakelite insulation atrip. Mounting lugs for quick, handy bolder or acrew mounting. Rigid and sturdy. Simplifiea all wiriag.


No. 18A9. PER ASSORTMENT of 25
MILLEN HIGH VOLTAGE
SAFETY TERMINAL


Black bakelite in-
sulated bushing extends through conductor fully

enclosed. Easily | round hole. Millen No. 37001. 40 E |
| :--- |
| No. 17 AIO67. PRICE....... |
| NATIONAL TERMINAL |
| ASEEMBIY |



A low-loss binding post for high frequency use.
Mounts solidly on any
thickness thickness panel. Posts
take banana plugs at top and guy wire through
holes at bottom simula tancously if desired. National type FWH.

## SUPER QUALITY BINDING POST

Rating 30 amps. 1000 Volts.
 Insulated bakelite collars for
mounting on panels up to
$5 / 16^{\prime \prime}$ thick. Has center hole in top for Standard banana plug and cross hole for up diameter. Mounts $1 / 8$ " above panel. 10-32 thread stem No. 15 A1102. Black.
No. 12 A585. Red. EACH.

40c
Each

##  <br> MILLEN STARI' STEATITE SERMINAL

For RF, AC or DC connections to equipment requiring better than average insulation. Each terminal is feedscrew connections. Has holes for surface mounting.
Stk. No. Terminals Type Price Each $\begin{array}{lcrr}\text { Sk. No. } & \text { Terminals Type } & \text { Price Each } \\ 15 A 1105 & 2 & 37302 & \text { SO.80 } \\ 15 A 1106 & 3 & 37303 & .70 \\ 15 A 1107 & 4 & 37304 & .80 \\ 15 A 1108 & 5 & 37305 & .90\end{array}$ Fahnestock CONNECTORS



## WALSCO TEST RECORDS

FOR TESTING AND ADJUSTING OF RECORD PLAYERS, CHANGERS, PICKUPS, AMPLIFIERS, ETC.
 etc. wh Servicemen, Experimenters, Radio Engineers, chanical performance of record changers and players, and for checking the frequency response of pickups. amplifiers and speakers. Records are made of unbreak able plastic and are long lasting.
No. 720. Has 3 tone signals in lead-in groove for indicating proper set-down position of pickup arm. Tone signal at end of record indicates proper tripping action. Saves time-record plays only 45 seconds. $10^{\prime \prime}$ and $12^{\prime \prime}$ records can be mixed for checking d.
$\$ 0.97$ Hoctil
EACH. 4A47. 10" Record
No. 4A48. i2" Record.
EACH.
$\$ 1.46$
$\$ 0.88$

No ${ }^{26} 6^{\circ}$ io ${ }^{\text {Record }}$ One side is .
Association of Broadcasters Standard level. Range 10,000 to 50 cps in 16 steps. For checking frequency response of pickups, amplifiers and speakers Other side is the same as No. 720 described above.
No. 4480 EACH
No. 727. $10^{\circ}$ Record. One side has 1000 and 400 cycle tones each. Tests for irregular turntable speed (wow). Other side is each. Tests
as No. 720.
No. 4A81. EACH No. 728. $10^{\prime \prime}$ Record. One side has silent (no modulation) groove. Checks for furntable rumble, Other side same as No. 720 . 17


## SOLDERING LUGS



No. Type Lgth. Hole of 100 of 1000
 $\begin{array}{lllll}12 A 1288 & C & 5 / 夕^{\prime \prime} & 6-8 & 34 c \\ 12 A 1289 & \text { D } & 3.08 \\ 124 & 6-8 & 34 C & 3.08\end{array}$

 No. 12A665. 100 Assorted of
above lugs. . . . . . . . . . . . . SA


| $\mathrm{S}^{2}$ |  |  | Shake Proof Type |
| :---: | :---: | :---: | :---: |
| Stock | Hole | Pkg. | Pk |
| No. | Size | of 20 | of 10 |
| 12 Al 298 | 4 | 14 c | 66 |
| 12 A1299 | 6 | 14 c | 5 |
| 12A1300 | 8 | 14 c | 56 |
| 12A1301 | 10 | 14 c | 56 |

Spade Type
Soldering
Lugs



| No. Fits Screw | 100 | 500 |  |
| :---: | :---: | :---: | ---: |
| $19 A 919$ | $\# 4$ | 35 c | $\$ 1.45$ |
| $19 A 920$ | $\# 6$ | 35 c | 1.45 |
| $19 A 921$ | $\# 8$ | 35 c | 1.45 |
| $19 A 806$ | $\# 4$ | 35 c | 1.45 |
| $19 A 9222$ | $\# 4$ | 36 c | 1.45 |
| $19 A 923$ | $\# 8$ | 35 c | 1.45 |
| $19 A 808$ | $\# 10$ | 40 c | 1.85 |

## $\pi<$ BUSHINGS, SPACERS

Available in Insulated or Brass Quite the thing for raising condensers transformers, sub-panels, efc.

## $1 / 4$ DIAMETER

 Brass Het. Each 10 For $12 A 145912 A 14591 / 4^{\prime \prime} \quad 3 \mathrm{C} \quad 23 \mathrm{C}$ $12 A 1451$ 12A1460 $3 / 8,4 C 28 \mathrm{CB}$ $\begin{array}{lllll}12 A 1452 & 12 A 1462 & 3 / 4 \prime \prime & 4 c & 32 c \\ 12 A 1453 & 12 A 1463 & { }^{\prime \prime} & 5 c & 35 c\end{array}$ Insulated ${ }^{3 / 8 \prime \prime}$ Brass Hgt. Each 10 For $\begin{array}{lllll}12 A 1455 & 12 A 1465 & 3 / \prime & 4 \mathrm{C} & 30 \mathrm{C} \\ 12 \mathrm{~A}\end{array}$


THREADED TYPE BRASS
Threaded on the inside to take a 6-32 screw. All are $1 / 4^{\prime \prime}$ diameter. $\begin{array}{cccc}\text { No. Length Each } & 10 \text { For } \\ 12 A 1469 & 1 / 4, & 4 \mathrm{c} & 28 \mathrm{c}\end{array}$ 12A1470
$12 A 1472$
$12 A 1472$
$12 A 1473$

POPULAR DIAL BELTS AND CABLE KITS

(1) KIT OF 25 DIAL BELTS

Woven fabric made-up dial beits in handy kit with chart
No. 15A2023. Per Kit
$\$ 4.41$
(2) 300 FEET DIAL CORD AND RACK

Assortment Includes 100 FF . pre-stretched special Thin Cord, fibreglas core Just right for most small sets. 100 Ff. of pre-stretched Standard Cord. fibre-
glas core, diameter .o31". 100 Ft. of Medium Cord. No. 11A277. 300 Ft. Cable With Rack.
$\$ 5.82$
(3) FIVE 25-FOOT SPOOLS WITH RACK

Metal rack hangs on wall. Has ruler on rack to measure length of cable desired. Contains 25-foot spool each of 42-strand Phosphor Bronze cable Heavy Linen, Light Linen, Special Thin Linen and Special Thin Phospho Bronze.
Stock No. 15A2026. Your Cost Per Assortment
$\$ 3.82$

SPEAKER SHIMS-DIAL POINTERS-ACCESSORIES

(E)
(A) SPEAKER SHIMS

Kif of 16 assorted Swedish Steel Shims very flexible.
No. 11 A158. Per Ki especially flexible and tough
No. 11 A159. Per Kit.
(8) SPEAKER
(8) SPEAKER CONE PATCHES 12 assorted. Speedily patches cones. A specially fabricated material and ad-
hesive which forms a permanent hesive which forms a permanent
bond. No. 16A430. Per Asst.

## DIAL CABLES

 IN PLASTIC CONTAINERS
## Containers are non-brea

 able and transparent. Phosphor Bronze Cableohos A good quality cable made of phos spun glass core. spun glass core
11 A66. Per 25 $\qquad$ 73c
NYLON DIAL CABLES
Made of braided nylon as used by $95 \%$ of all sets. All $25-\mathrm{Ff}$. Spools. No. 11 A67. Extra Thin No. lla68. Medium

## DIAL BELTS WOVEN FABRIC

Exact duplicates of originals. Finest quality, heat and moisture proof. qualted to prevent slipping. state make and model of set for which de-
sired.
No.
15c
Non-Slip Compound
A special compound for application to slipping dial cables, friction drives, belts, cords. etc. Makes them hold
instantly. POWDER. 2-0z. Bottle.29c 16A429. LIQUID. $1 / 2$-Oz. Bottle. 18 c

## Dial Cord Dressing

Apply to slipping dial cords and drives.
No. 11 A74. Per Srick.......... 16 c Dial Oil
A special oil for radio dials and fine mechanisms. Treated with graphite. Long lasting. Will not gum. 298

Dial Drive Cement To cement rubber dial drives to metal shafts, rubber mountings to chassis, or any rubber to metal.
No. 1 IA76. 2-Oz. Bottle
296

## Plastic Dial Crystals

Special design makes it possible to use one basic crystal to fit any dial. crystal, is used to cut a circle of any diameter with ordinary scissors. Made of unbreakable plastic. It can be cemented firmly in place. dash board dials, etc
No. $164431.6^{\prime \prime}$ Max. Diam......e5c
$\mathrm{No}_{5} 164432.9^{4 \prime}$ Max. Diam... $\mathrm{S}_{1.06}$ No. $164433.8 \times 10^{\prime}$ Flat Sheet. . 97 c

## J.F.D. BALLAST KIT

Contains 5 adjustable ballasts: 2 type A, 2 Type B, and I Type $C$ with complete instructions for replacing ove 2500 exact duplicates.
15 A2012. Per Kit . . . . .


## WALSCO "UNIBELT"

THE UNIVERSAL DIAL DRIVE BELT-CAN BE CUT to FIT ANY DIAL DRIVE.-Will Not SLIP or STRETCH Comes in 5 -foot length spools and can be installed without taking dial mechanism apart. A real time and money saver. Eliminates the need for stocking numerous sizes of belts.
$\$ 1.62$
CABLE CLAMPS—CLIPS—PULLEYS-ETC.

##  <br> (H)


(G) CABLE EYELET TOOL Consists of base and clincher. Handy for rive
cables
No. 11A275. Per Set (H) CABLE CLAMPS, EYELETS 60 Assorted. Same as used on ready made dial cables. Make up your own cable and belts.
No. 11 A72. Per Assortment. . 245
(H) DIAL CABLE CLIPS Envelope of 50 Clips (ONLY). For use on all types of Dial Drive Cord assemblies. Make up your own special cords with these clips. No. 17A1009. Env. of 50 clips 245
(I) COMPRESSION SPRINGS Assortment of 20. For use on dials, push-button tuners, phono motors, etc.
No. 1741010 .

245

## BALLAST TUBES FOR AC-DC SETS



## J.F.D. AIR-COOLED ADJUSTABLE

Just 3 Types Replace Over 2500 Exact Duplicates. Easily adjusted to the correct resistance. Housed in air-cooled perforated shell. Types A and B have octal base, Type C, 4 prongs.
eplaces ballast tubes


AMPERITE BALLAST TUBES FOR AC-DC SETS Amperite

| mperite <br> Type No. | Stock No. | Starting With Letfer | Numbered From | ing in Letter |
| :---: | :---: | :---: | :---: | :---: |
| KL 4 | 1542000 | K, L, M, or BK | 36 to 67 | A, B, C, or D |
| 7 | 1542001 | BL or | 67 to 105 |  |
|  | 1542002 |  | 36 to 67 |  |
| 4 P 45 | 15A2024 | KX, or LX | 42, 49, 55 |  |
| For L55B, order 15A2006; for 200R, 15A2007; for 250R, 15 A2008. YOUR CHOICE, ANY TYPE. |  |  |  |  |
|  |  |  |  |  |

C) VOICE COIL DUST FELTS 25 assorted. Felt dise same as used on speaker voice coils to keep dust out Can be glued on any speaker. 24F No. 16A567. Per Asst. .
(D) DIAL POINTERS 10 Assorted Poinfers for replacement needs on many makes of sets. 51 C (E) KNOB FELTS

50 Felts as used behind radio knobs on all the latest sets.
No. 18 A2. Per Env. of $50 . \ldots 245$


No. 17A1004-Envelope of 2 No. 16 Phono Drives for General Industries RX-LX Motors, etc. Env. 240 No. 17A100s-Envelope of 2 No. 17 Phono Drives for Alliance Model 80 and Motorola Motors. Por. Env. 24c No. 17A1006-Envelope of 3 No. 18 Phono Drives for RCA. Linv...24c No. 17A100\%-Envelope of 3 No. 19 Phono Motor Nrives for Philco. RCA and etc. Per Env. .......24c No. 17A1008-Tnvelope of 1 No. 20 Phono Drive for Detrola. Ea. 24 c 17A1012. Spring phono drive for Detrola Morel 550, etc., Utah: Trela
and others. Each . ........... 29c
TURNTABLE SPRINGASST.
As used
changers.
16A570. Asst. of 10 Small Sizes. 24 c 16A571. Asst. of 8 Large Sizes.. 24c

## RESISTOR CORDS



Flexible, sturdy, 6 ft. cords with trim bakelite plug and three well insulated color coded leads. End terminals are tinned.
Ohms Stock No. Ohms Stock N
135 $\begin{array}{llll}135 & 15 A 2015 & 290 & 15 A 201 \\ 160 & 15 A 2014 & 300 & 16 A 451 \\ 180 & 15 A 2020 & 330 & 15 A 201\end{array}$ $\begin{array}{llll}180 & 15 A 2020 & 330 & 15 A 2016 \\ 200 & 16 A 450 & 350 & 15 A 2017\end{array}$ $\begin{array}{llll}220 & 15 A 2019 & 390 & 16 A 452 \\ 250 & 15 A 2018 & & 0\end{array}$ CHOICE EACH

69c
High Resistance Line Cords.
450 Ohms, Stock No. 16A453.
550 Ohms, Srock No. 3 -way portable radios 560 ohms-ror $3-$ way portable radios.
stock No. $15 A 2022$.
960 Ohms-For sets using $45 Z 3$ recti-
fier. Sfock No. 1542025.
Choice High Resistance
Cords, Each ..............
1
MOTOROLA LINE CORD For Models $41 \mathrm{D}, 51 \mathrm{D}, 52 \mathrm{D}, 41 \mathrm{H}$. Contains 1,100 ohm and 280 ohm resistors. 8 ft. long.
Stk. No. $16 A 454$. Net Ea.. UNIVERSAL A.C.-D.C. LINE CORD Adjustable 22 to 330 ohms. $\$ 9$
Mo. 15A2021. Each.......
J.F.D. AC-DC BALLAST MANUAL Information on how to adapt adjustwhen requested with order. 16A317.

RADIO CEMENTS
SERVICE CEMENT Especially suitable for replacing and repairing speaker cones. Also used on glass, to seal adjustplace, etc. Dependable, Vibration - proof, water proof, and fast-drying.
No. ilA33. 2-0z...29e No. 11A34. 6-0x. . .82c No. 11434.6 -Oz. . 826 o. 11 A38. In Handy Tubes...29c SOLVENT THINNER FOR ABOVE Also ideal for loosening old cement cleaning switch points, controls, etc.
11 A 35.2 Oz .29 c 11 A 6.60 F .50 c No. 16A498. 1 Pt................. $82 c$

CEMENT-SOLVENT KIT Consists of a bottle each of cement and solvent in a kit to carry on job. RUBBER CEMENT
Best quality for general use on paper, cloth, rubber, etc. A necessity in every shop.
 BAKELITE CEMENT Made especially for ce menting bakelite to bake lite or to other materials
Produces bond as strons Produces bond as strong
as material itself. Ideal as material itself. Ideal 11 A39. 2 Oz. Price 35 c PLASTIC CEMENT Pyroxilyn cement for ce-
menting all types of plastic. Excellent for cementing broken
cabinets, knobs, etc. No. $16 A 440.2$ Oz. Bottle, Ea.
VINYLITE CEMENT
Specially made for cementing vinylite materials. Has excellent adhesion, high tackiness, and extreme flexi-
bility. Also can be used for cementing metals, plastics, paper, leather etc., and as a thermoplastic cement for non-porous materials.
No. 16A441. 2-Ox. Bottle, Ea... 35 c
LUCITE CEMENT
For cementing Lucite, Plexiglass, etc Fast drying.
No. 16 A57
No. 16A575. 2-Oz. Bottle.
RUBBER TO RUBBER TO METAL CEMENT Cements rubber dial drives to metal No. 11476.2 Oz., Price...... 29 c
FABRIC TO METAL CEMENT For cementing cloth and felt to metal grille cloth to metal cases, etc No. $16 A 442$. 4-Oz., Price
GRILLE CLOTHFABRIC CEMENT For cementing grille cloth, luggage fabric, leather, etc., to metal or wood.
No. 11 All. $1 / 2$ Pt. Can.......58e

ELECTRICAL and RESISTOR CEMENT
Heat-proof, hardens like porcelain Same as used on resistors, Irons, Elec 1rical applianc

No. 16A574. 2 Oz. Bottle..... 35 c
WOOD CABINET GLUE
Finest quality, fast drying, Will not
 No. 11 B177, 1-Pt. Bottle. ...... 81 c

FILM SPLICING CEMENTT
For Splicing Motion Picture films or
similar material. Makes splice as strong as film itself.
No. IlA64. 1-Oz. Bottle.

LACQUER THINNER

## for leccuers haccuere enamets, tele.

 No. 16A579. 8-0z.:
${ }^{29} 5$

## CEMENT

 LAB-KIT A cement and adhesive forevery conceivevery conceiv-
able use and purpose. A
netessity in netessity in
every shop and
factory.

RADIO - REFRIGERATOR CABINET REPAIRS

(B)

## (B) PORCELAIN CABINET

 REPAIR KIT
## (A) DE LUXE CABINET

 REPAIR KIT
## FOR WOOD, PLASTIC OR

bakelite radio cabinets
A complete professional kit in
handy grey metal case. Contains handy grey metal case. Contains
shades of shellac sticks, bottles light and dark oil stain, metal shading lacquer, polish, scratch, remover, alco-
hol hol lamp, spatula, brushes, steel wool,
sandoaper, etc. Everything to sandpaper, etc. Everything to Jo a
professional repair job on any type or color cabinet, knobs, etc. No special skill required.
No. 11A2. Complete Kit.....\$3.20
For Refrigerator, Stove, Washing Ma chine or other porcelain cabinets. Kit contains lacquer enamel, tinting colors, glazing compound, solvent, spatula, steel wool, sandpaper, mixing tins,
brushes, etc. Everything to do a perbrushes, etc. Everything to do a per-
fect iob. No. 11 Al. Complete Kit.... $\$ 2.55$ (C) CABINET TOUCH-UP KIT includes light and dark stain, brushes, wiping cloth and scratch filler. To No. 11 Al8. Complete Kit.....65c


FRENCH VARNISH KIT
Contains French Varnish, Emulsion, Polish ing Pad and directions to blend cabinet repairs 11A10, Per Kit. .82c


PLASTIC
TOUCH-UP KIT Contains six shades of lacquer enamel and brushes. Easy to touch up scratches and nicks
in plastic cabinets.
11 A63. Per Kit..82c


SCRATCH REMOVER KIT Kit contains 6 Stain
Crayon fillers and 2 Crayon fillers and 2
bottles of scratch fluid. For light and dark shades of wood.
11 A58. Per Kit. .82c
VARNISH, STAINS, ETC. FOR CABINET REPAIRS SKRATCH STICK

SCRATCH REMOVER POLISH
Contains filler and scratch polish in
one. Handy for tool kit or pocket.
One. Handy for tool kit or pocket.
PORCELAiN GUAŻŻE゙
Easily fills in those nicks on porce-
lain. Use on refrigerators, washers
surface scratches on cabinets eliminate
surface scratches on cabinets.


## LEMON OIL POLISH

etc. Merely fill in the nick and Polish sets after repair for customer | smooth over top. |
| :--- |
| No. 11 Alf. Per 2-0z. Bottle. . 36c will. Fast working. Low cost. |

## PAINTS - VARNISHES - COMPOUNDS



DIAL LITE

## COLORING KIT

Long lasting coloring for multi-colored dials. Instant drying. Bright colors of red, green, blue, a mber, purple and solvent. Dress up tha65. Per Kit. . 59 c

## POPULAR TELEPHONE

## BLACK AND GRAY

Satin finish lacquer enamel of rich professional looking appearance. Not glossy, it is a lasting, fast drying, one-coat
finish. Black will produce an finish. Black will produce an ebony black finish that is so tamiliar on telephone devices.
aminar on telephone devices. Grey Size Black panel work and
Say
Sizelent $\begin{array}{lll}\text { Size } & \text { Black } & \text { Gray } \\ 2-\mathrm{Oz} . & 11 A 55 & 16 A 426 \\ 1 / 2-\mathrm{Pt} . & 11 A 56 & 16 A 427\end{array}$

CRYSTALIZING LACQUER

## Produces a professional erystal effect

 on metal panels or parts. Can also beused for wood or other materiats. Esed for wood or other materials. Easy to apply, quick drying. $11 A 53.2$
$11 A 54$.
$1 / 2$
Pt. Botfle.


## R M A COLOR CODING KIT

 Kit contains jar each of red, gray, white, purple, brown, orange, purple, blue, green and drying lacquer enamet complete wit enamel. Complete with brush and color code chart. Grey ${ }^{\text {Garts. }}$ Can


LUMINOUS
LITE-KOAT KIT "Clows in the Dark" A long - life, non-poi-
sonous luminous coatsonous luminous coat-
ing. Ideal to coat or ing. Ideal to coat or
stripe dials, knobs, switch plates, panels, etc. Kit contains Lite Koat Powder, Mix-Koat and brushes.
16A436. Per Kit. 87 c 'RUF-KOAT" AIR DRY WRINKLE VARNISH Require No Baking or Heating, Dry Fast.
Same professional finish as used on P.A. Test equipment. els, racks, etc. Easy to apply. e brushed or sprayed. Black Cray Brown Ea. 11447 11A49 11A51 35c $11 A 48$ IlA50 11A52 $\$ 1.03$ PAINT THINNER Paint Thinner-For Ruf-Coat, KromeKoat, B-K Cement, Insulating Varnish and Rubber Cements.

58 c

## RADIO CHEMICALS

## CONTACT AND CONTROL REPAIRS

Specially made to eliminate noise on controls and con-
tacts without taking them apart.

## CARBON CONTROL CLEANER



Repairs noisy volume con-
trols, switches, etc., While
chassis is in cabinet. Removes oxida. tion and minimizes future trouble by coating contacts. Special applicato coating
No. 16A443. 2 0x. Each...... 35 c
CONTACT SILVER PLATE
For piating new or worn contacts and metals (Copper, brass, bronze, zinc special equipment Merely wipe into metals equipment. Merely vipe into No. 16A439. 2 Oz. Each
$.44 e$
CARBON TETRACHLORIDE
For cleaning electrical controls and contacts. Brush supplied in bottle. No. 164581.16 Oz. Each...... 97 e GRAFOLINE
To eiiminate noise on wire-wound controls, switches and contacts on rube prongs.

## CONTACT DOPE

To prevent corrosion and eliminate noise on electrical or radio switches, conin handy, long-neck tubes. 11A22. Per Tube....24c

## CARBON-X

For noisy carbon controls Apply on the worn and
noisy spots and the job is

iiA2. 20 az. Bottle

## LUBE-REX

Moisture repellent, rust and corrosion preventive, and cleaner for all types reels, guns, dial mechanisms, phone equipment, etc. Clings to metal.
11A21. Per 2-0x. Bottle......35e

## CONTACT AND

CRYSTAL CLEANER
To clean crystal and delicate contacts 11A19. Per 2-0x, Bottle. . . . . . 29e INSULATING and DIPPING VARNISH
Clear, amber colored insulating varnish. Produces smooth, tough film, waterproof, oilproof, non-corrosive For field coils, buzzing or noisy transformers and choke coils. Dip of apply with brush. Requires no bak11 ing dries in air. Protects, insulates 11A27. 1/2 Pint...................... 1.156
"Q-DOPE"
For HF Coils, Insulation, etc. An ultra styrene and recommended for HF work. Absolutely no loss in Q-fas 11A25. 2-0z.......................356

ORIGINAL "LIQUIDOPE"
For holding all wave coll windings firmly in place. Automatically tightens winding and gives tough, protective film assuring firmness and premoing characteristic changes due to fast and elear drying. Non-inductive,

| CHEMICALKlT8 radio chemicalnecessities, in-cluding bottleeach of ServiceCement, RubberDrive Cement, Carbon X,Scratch Polish, Non-Slippound, Dial Oil, and ContacNo. IIA32.Per Kit. . . . . . . . . . . . . . . . |  |
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# SERVICE STANDS-and OTHER SHOP AIDS 

## 8WISs COLD SOLDER



A waterproof putty -like
materici material
mode from metol the purpose of filling
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$30 c$
$78 c$
CUTS $3 / 4$ " TO 8-1NCH HOLE Hex shonk fits either hond broce, or electric drills. Has removable $3 / 16^{\prime \prime}$ centering drill and odjustoble $3 / 8$ squore cutting bor.

No. 11A184. Each. $\qquad$ $\$ 2.95$

 Cuts Square Holes Operotes on the screw principol for punching power similar to conventional round punches. Precision machined of high
grade tool steels.
No
$16 A 552$
$16 A 553$ Size EACH 3.43 Pioneer Keyway Punch Makes $11 / 64$ " socket hole "with
keyway by which Amphenol "S" and similar type sockets may be locked into position.
No. 168196. EACM
$\$ 3.43$


11 1207.
Net Each
11A808. Rive
Rivet and Eyelet Punch Set
For rivets or eyeleti of most used alzes. Tools of hardened ateel, base cast iron, hez. sides to hold in vise. Price includea assortment of eyelets and rivetn.
42.35

Eyelet Setting Tool. Onis...53C
NEW XCELITE REAMERS


Detachable reamers are interchangeable in plastic handle. For reaming wood, plastic or sheet metal. No. 164834 . Tapers $1 / 9$ to 18 ". 30.78 No, 164835. Tapers $1 / 4$ to $1 / 2^{\prime \prime} .0^{\circ} .87$ No. 16A836. Tapers I to jf"e t. 15
No. 16A837. Handle Only. Each 44


## GREENFIELD REAMERS



POWER TOOLS FOR THE HOME WORKSHOP Light duty tools, designed, built and priced to meet the requirements of the beginner, hobbyist, of handyman. Simple to operate. Use with any $1 / 4 \mathrm{~h} . \mathrm{p}$.
motor. (1) BENCH SAW. Uses standard $6^{\prime \prime}$ blade with $1 / 2^{" \prime}$ hole. Crosscuts, rips, grooves, table tilts to 450 . Sawblade is raised lowered and locked into position by handle. Cuts to maximum depth of $2^{\prime \prime}$. Mitre bar is graduated to $45^{\circ}$ in both directions for cutting at desired angle. Adjustable fence and saw guard furnishes adequate protection.
Of durable all metal construction. Shaft hardened and ground to precision limits. Torrington needle bearings. $11 / 2^{\prime \prime}$ pulley takes a $1 / 2{ }^{\prime \prime}$ V-belt. Recommended $10^{\prime \prime}$. Weight, 17 lbs. List Price Height, Noo. 36877 i. Less Biade. $\$ 15.85$ No. $16 A 600,6^{\prime \prime}$ Blade. EACH. . $\$ 1.49$ (8) DRILL PRESS. Drills to center of 8 circle. Hardened three-jaw chuck accommodates any size drill up to $3 / 6^{\prime \prime}$ Lever action-drilling is accurate. $43 / 4$ table can be swung in either direction thumb screw lock. Maximum distance from chuck to table is $71 / 2^{\prime \prime}$ from from chuck to table is $71 / 2^{\prime \prime}$ from
chuck to base $101 / 2^{\prime \prime}$. All metal construction. Steel drive pulleys are conStruction. Steel drive pulleys are $21 / 2{ }^{\circ}$
O.D. Supplied with endless corded belt. $5 \times 10^{\prime \prime}$ base is corner drilled for simple bench mounting. Height. $24^{\prime \prime}$. Weight 13 lbs. List Price Height, 24 Youve coss, EACH.... \$12.71 (3) JIC SAW. Cuts to center of $24^{\prime \prime}$ circle and to depth of $3^{\prime \prime} .81 / 2 \times 81 / 2^{\prime \prime}$ heavy gauge metal table tilts to $45^{2}$. Uses standard $6^{\prime \prime}$ or $61 / 2^{\prime \prime}$ blade, any is $9 / 16^{\prime \prime}$. Soundly made of of stroke and steel. Has two-piece cast frame: enclosed mechanism; self-lube trame, bushings: mechanism; selt-lube bronze Height. 16 ". Weight, 14 lbs. List Price. $\$ 12.50^{\circ}$
No. 36 B74. EACH........ 5.5 .
No. 164601 . Extra $61 / 2 "$ No Blades. . 120


HACK SAWS


## ADJUSTABLE HACK SAWS

(1) No. 300. Heavy duty steel frame
nickel plated. Faster, easier, more accurate cutting. Cam action lever at bottom of frame and handle assures greater blade tension. Adjustable for $10^{\prime \prime}$ or $12^{\prime \prime}$ blades. Blade faces in any one of four direction for cutting. Extremely durable red plastic hande with a comfortable pistol grip and excellent balan
Weight, 2 lbs
No. 16B404. With $10^{\prime \prime}$ O Blade. Each.
52.65
(2) No. 99. "Substantial" steel frame. nickel plated. Adjustable for $8^{\prime \prime}$ to $12^{\prime \prime}$ blades. Blade may be faced for eutting in any one of four directions. Black composition pistol grip handle. Throat depth. $23 / 4$. Weight. $11 / \mathrm{b}$ tbs No. 11A209. With $10^{\prime \prime}$ BE EXTRA BLiDies-Made of special analysis tungsten steel $1 / 2 \mathrm{~m}$ wide. With milled teeth. 11 A210-10"•Ea. 10c: Doz. 1.08


## S-INCH BENCH GRINDER

Clamps on table or bench. Has adjustable tool rest. Accurately made grinder with $5^{\prime \prime}$ abrasive wheel for sharpening knives, drill bits, screwdrivers, etc. All gears properly machined and meshed. Dirt proof gear case has extra long of wheel. Finished in baked red enamel. No. 17 A 829 . Complete with $5^{\circ \prime}$ Stone.

## KLOSE KUT HACK SAW

 ) Heavy stee! trame; nickel plated. be where ordinary hack, saws cannot be used. Takes any $10^{\circ}$ blade, also No. 164367 .KEYHOLE SAW
75 c
Iron handle with comfortable grip. Cuts wood or metal. $3 / 4^{\prime \prime}$ to $5 / 32^{\prime \prime}$. No. 11A301. Nef Each 296 UNIVERSAL HACK SAW

## G.M.Co 500



Adaptabie for general purpose use especially in smant places. Has uuick especially in small places. Has quick cutting thin blade and tension adjust g handie

## HANDY TOOLS FOR AIL PURPOSE NEEDS

## BURGESS-ELECTRIC VIBRO-SPRAYER

SPRAYS ENAMEL, LACQUER, VARNISH, SHELLAC, INSECTICIDE

- SIMPLICITY. It's as easy as a paint - AMAZA - Than a set of good paint brushes. appearance and gets professional sults. Molded bakelite handle is designed for comfort and easy, one ho EXTRAS TO BUY. Just Plug it in and spray. Pull the trigger and watch it take care of those utility painting and spraying jobs with speed, ease and perfection. Comes with removable $25-02$. jar, extra nozzle discs, and instructions. Unit has standard Mason jar thread. Use any size iar you like. Operates on $110-125$ volt AC current. No. 36867. List Price, \$ $\$ 2.95$. EACH
Dealer's Price in Single Lots.


TWO TO FIVE. EACH....\$8.65

## The New BURGESS VIBRO-TOOL MASTER KIT



With a Burgess Vibro-Tool you have electrical power at your finger tips to write your name on tools or other belongings - engrave jewelry, put designs on glass, metal, plastic; carve on wood; tool leather, and a host of other big and little craft and shop jobs-all in a liffy. Operares on 60-cycle, 110 -volt AC. cessories with sharpening stone in convenient kit. List price, $\$ 9.95$
 The New
BURGESS VIBRO-TOOL


## BURGESS VIBRO-GRAVER



For Industrial Marking. With tantalum carbide point for permanent marking With tantalum carbide needle for masking or engraving on metals, glass, pencil. Vibro-Tool operates by vibravolt, 60-cycle AC List Price $\$ 7.50$. No. 16 A360. Dealcr's Price 5,05
in Single Lots. EACH...
 No. $16 A 352$. Extra Needles. EACH.
Two or More. EACH.

IT ENGRAVES . . BUFFS . . GRINDS . . POLISHES . . ETC.


LOOK AT THESE FEATURES
Pencil-Sized Hand Piece for Easy Handling.

- POWERFUL-Turns up 15,000 RPM. LOW PRICE-Yet High in Quality. A Precision Tool for Precision Work. Hobbyists-Here is the tool to handle $1 / 20$ hundred and ane of your needs. namically balanced to insure smooth aperation and is housed in hard, baked gray enamel case with bracket for $3-t t$. flexible shaft is plastic covered. Hand-piece takes $3 / 32^{\prime \prime}$ and $1 / /^{\prime \prime}$ shank tools permitting the use of most small accessories furnished with standard hand-rype grinders.
Kit Comes Complete with Motor, Tool, Flexible Shaft. 10 Aceessaries and two Wrenches. All in a blonde wooden case. No. 33B72. Dealer's Price 15,86 in Single Lots. EACH. Two to Six. EACH.
Six or More. EACH.


## Ungar

HANDY SOLDERTNG KIT For Home, Hobby, or Shop Use. A Includes the popular 20-watt UNGAR soldering pencil; 3 tips (Heavy duty $3 /{ }^{\prime \prime}{ }^{\prime \prime}$ Medium 5/16" and Fine
$\left.3 / 32^{\prime \prime}\right)$; Flux brush; package of core solder; emery cloth; and instruction folder. Operates on $110 / 120$
$\mathrm{AC}-\mathrm{DC}$. Weight, $111 / 2$ ozs.
No. 16 B 378.
Complete, EACH.
52.19

Lots of Six. EACH......... \$1.65


## PLI-RENCH



Cadmium plated tool with self-aligning lower jaws. Cives full jaw-length grip on straight or angular objects
with terrifie power plus equalized with terrifie power plus equalized
pressure. size 10.1.
No. 16A526. EACH. . . . 1.46


BOSTITCH "3-IN-1"
 DESK FASTENER
DESK FASTENER,
TACKER. HANDSTAPLER
For the School. for the school
shop or home Handy for fastening letters, checks, packages; tack taching tags and labels,
pocket-on work bench, counter our desk-always convenient and ready to use. Includes box of 1,000 staples. No. 20A592.
Complete
No. 20A593. Extra Staples.
$\$ 1.85$
Box of 1,000 . 35 c

## (2) (2)

## HANDY TOUCH-UP SPRAYER USES SPARE TIRE FOR AIR

 Operates on low pressure from spar tight valve, adjustable spray tip. Air-tub tight valve, adjustable spray tip, rub-
ber hose and two 4-oz. jars. Handy No. 11 A5. Complete, EACH.................. 35

## AMBERLITE HANDLE

 WOOD CHISELS

Handle absorbs blow from ham mer without shock. Blades made from high grade chisel steel are brightly polished and treated with rust presuntive. Perfectly cabinet work. Set contains sizes $1 / 4^{\prime \prime}$

## in a strong canvas roll.

No. 16A365. Per S
$\$ 2.35$
XCELITE ADJUSTABLE SOCKET WRENCH

## WITH SCREWDRIVER BIT AND

 PLASTIC HAMMER HEAD The handiest The you ever ed-For shop oll home. Ove $\mathrm{Cll}^{\mathrm{Cl}} \mathrm{h}$ length $\mathrm{f}^{\prime \prime}$ Molybdenum steel jows open up to 1" for hex or square nuts. serewcriver can be inserted for use No. 204586. Complete...... $\$ 2.06$ AND RADIO USE

(A) 7" Long, curved smaoth point No. 11 A307. Each 456 ers, plain st common soldering 256
No. 11 A306. Each point tweezers, plated. No. 20A578. Each.
(D) $51 / 2^{\prime \prime}$ Long Selit-Closing serrated points, plated.
No. 20A577. E, arh. TWEEZER KIT Contains the four iweezers listed
above.
No. 168546 . ONLY.....
All-Purpose HAMMER SET AN AMAZING VALUE!
 Here's a handy trio for the
workshoo hobbyist, and handyman. Precision made
hardened steel hardened steel mers. Rust-proof plating. 8 and 51,2 " long.

# QUAIIIY TOOIS bot RADIO MAN am HOBBYISI <br> <br> KRAEUTER PLIERS <br> <br> KRAEUTER PLIERS <br> <br> CASCO FAMOUS POWER TOOL KITS 

 <br> <br> CASCO FAMOUS POWER TOOL KITS}

INDUSTRIAL FINEST QUALITY LINE Finest Kraeuter quality, made from with blue temper finish handles.
diaconal cutting pliers For close cutting. Size $6^{\prime \prime} . \$ 1.96$
No. 11 A218. Each LONC NOSE PLIERS Tapered jaws and needle nose with No. 11 A219. Each. $\$ 1.91$ NEEDLE POINT PLIERS
Full polished diagonal" Line able for delicate adiustmentr. InvaluNo. 16 A470.
Each.

SPECIAL
Genuine Kraenter quality, drop forged rom a good grade of steel. Semi polished heads. Blued steel handles.
 LONG NOSE PLIERS
Long tapered jaws with cutters and slender nose for getting into confined working space. Size No. 164528.
$\$ 1.50$
SIDE CUTTING PLIERS
Electricians fype plier with sturdy tap ioint-milled iaws-hardened and Nompered cutters.
No. 16A527. Each
$\$ 1.33$

(3)

COMPLETE PORTABLE POWER WORKSHOPS
Polishes, Engraves, Routs, Drills, Buffs, Grinds and Saws ON
H'ood, Plastic, Glass, Metal and Other Materials
New improved power tool with a built-in statte suppressor. Finely engineered, precision made and designed for the professional craftsman as well as the hobbyist or beginner. Operates on 110 volts $A C-O C$
IT'S THE TOOL OF 10,000 USES - Available with accessories to answer

(4)
every need.

## THREE ATTRACTIVE KITS

(1) THE CASCO ELECTROMATIC

Includes electric tool as described above and 50 accessories. The kit that scooped the electric power tool field for 1950 . In sturdy, compact. yet eyeappealing plastic case of lustrous burgundy. Complete with illustrated project

(2) THE CASCO TOOL N'RAK

With electric fool as described above and 35 accessories. The hottest power tool idea in years! A complete set of motor-driven tools at your fingertips -all on an enduring beautifully finished solid hardwood rack that hangs conveniently on wall-takes the clutter off work bench. Complete with project booklet. List Price, $\$ 17.95$.
 (3) THE CASCO ELECTR-O-TOOL

With electric tool and 20 accessories. A real value! It's the same tool available in kits above, with the same unbeatable features-designed to give smooth vibrationless operation at high speed-handies as easy as a pencil. Rugged durable construction. Complete with illustrated instruction booklet. In a handy durable cardboard box. List Price, \$14.95.
 $\$ 8.97$ Naturals for all year around sales. Oisplay all three kits in window, or on your counter . . . Watch them go!

## STEEL TOCL MARKING SET

Machine made Roman face $1 / 8$-inch ietters and figures of grood quality tool steel. Produces clear. sharp impressions for ong wear, Letter set consists of 28 characters miludi
11 A273. Per Set
$\$ 2.97$

## FIGURE SET

Consists of nine characters from 0 to 8 , the " 6 " being also used for the
11 A274. Per Set


PLASTIC RADIO PLIERS

Weighs only $11 / 2$ ozs., a handy pocket pliers. Shockproof and non-magnetic -can be used on apparatus while in operation. 6000-volt breakdown, heat resistance 240 to 3000 . Tensile strength of material, 5,000 lbs. per square No. 11 A220. Each. ......... 90f


## Handy Scriber



Knurled eteel handle with chuck that holds needle point and retracts into handle whea not in use. 45 11Az\%1. Complete. Each.... 1 .
11.1272 . Extra Pointe ........ $16 e$ LS IN ONE
Bone fibre tool of fountain pen size. Has $1 / 4^{\prime \prime}$ and $5 / 16^{\prime \prime}$ nut wrenches; small metal No and full size screwdrivers. Very handy
No. 11 A150. EACH................ T8C

Four different positions for hard to get at or tight screws where extra leverage is mecessary. Blades of special har ". Blades, $1 / 4 "$ wide.
No. 11 A296. Each. ........


With wire cutter. Made of high quality steel, drop forged and hardened. Jaws are milled, and holes accurately punched.
No. 16A531. Net Each
595

## T001S for EIECTRICIANS and RADIO MEN <br> UTICA "Kutmaster" <br> "E-Z" AUTOMATIC <br> LENK ALCOHOL and <br> SPECIAL VALUE:

Heavy Duty
ELECTRICIAN'S KNIFE


Handy to have on the job-any time, any place. Has standard $23 / 4$ knire with insulation cutter and wire scrape er. Screwdriver blade locks in open position. $33 / 4^{\prime \prime}$ Rosewood handle with shackle ring, polished bolsters, and brass linings. Made to government No. 17A492. Each S1.29 12 Lots. Each. $\$ 1.15$

## KEY WRENCHES <br> For HEX and SPLINE SOCKET SET SCREWS <br> 

Set of 5 Hex Wrenches to fit set screws No. $4,6,8,10$ and $1 / 4^{\prime \prime}$ anc
cap screws No. 2 to 8.
No. 11 A270. ............ 48 Set of 4 Spline Wrenches to fit se screws up to $1 / 4^{\prime \prime}$ and cap No. 8.
No. $19 A 1210$
24c
HEX AND SPLINE WRENCH KIT Kit contoins complete ronge of wrench sizes used in electronics. Includes hex (Alien) and Spline ${ }^{\text {neys }} 2$ to $3 / 8^{" 1}$ screws Leathe-ette roll case.
No. $15 A 123$. Completc Kit.. 971


American Electrician's Handbook By Terrell Croft. Revised 5th Edition. 1600 Pages Covers fundamentals, generators, motors, outside distribution, interior wiring, transformers, and electric lighting. Full description, definitions and methods. Fully describes up-to1935 National Electric Code. World famous among contractors and general electricians. S5. 88 The Electricians" Pocket Companion
By Benjamin Coldberg
Handy size reference guide for the practical electrical worker. Written in accordance with the code. Contains a new selection of descriptions, diaing. 432 pages. 320 illus. 2.29

SCOTCM VINYL PLASTIC ELECTRICAL TAPE NO. 33 Resistant to grease, acids, alcohols, water gasoline, etc. Non-corrosive.
Has high tensile strength, 7 mills Has high tensile strength, 7 mills
thick. Dielectric strength of 7000 V .
 2 ROLIS
$\$ 1.35$

WIRE STRIPPER
NEW MODEL! STRIPS TV-FM 300-OHM TWIN LEAD, ALSO STANDARD HOOK-UP' WIRE
 Won't Crush or Scratch Wire
Removes plastic insulation from both conductors of twin lead in one squeeze of the handle. Simple, quick - no $18,20,22$ solid or stranded electrical No 16 A830 changing blades No. 164830.
$\$ 4.80$ STANDARD 'MODE of wire, Solid or Stranded, from 22 No. 16A831. Net Each. S4. 4


BRISTOL WRENCH
 Has plastic handle with $1^{\prime \prime}$ Jong steel blade. Reversible Blade Pocket Screw Driver
(6)

Handy for fine work Made of heavy knurled steel tubhing hex head. Blades are tempered and polished and will not turn in chuck. Body dia.. $z^{2 / 4}$ ", blade length $21 / \mathrm{m}^{\prime \prime}$,
 HYTRON SERVICE AIDS
(1) Pun wown livel
(2)

## (1) TUBE LIFTER

Lifts tubes, vibrators, plugs and similar type parts easily and quickly. SimPly insert tool under base of part and litt. Right angle end is for compact
auto
radios and for pulling knobs. Made of stainless steel. 15 c o. 16A832. EACH.
$15 c$
(2) AUTO RADIO TOOL

For manual adjustment of volume and tone controls, tuners and on-oft been removed from set. Has square tip for slotted fitting on one end, and $V$-shape tip for any thickness of spade type fittings on the other.

24c
No. 16A833. EACH
ILLUMINATED Switch Lite
 Clows in the Dark. Bakelite switch
plate stays lit when plate stays lit when
light is off. Eliminates groping in tremely low current consumption. Complete with lamp. onnecting wires and instructions. For No. 20A124. 5\% E 10 at E3
Net Each....

GASOLINE TORCHES

(A)

(B)

(C)
(A) Casoline Torch, $3 / 4$ pt. flame control, shut-off valve. with high $\times 3^{\prime \prime \prime}$ dia. base.
No. 11 A253. Net Esh . $\$ 1.99$ Alcohoi Torch, same as above No. 11 A254
Net Each
$\$ 2.15$
(B) Alcohol Torch - Double Burner, one for a needlepoint flame and the attachment for a heavy intense
flame. Practical for flame. Practical for fusing large ter-
 No. 11 A255. Net Each. . $\mathbf{C l}$. needs. Compact, leak-proof. 99e



## NE-O-LITE

ELECTRIC THOUBLE
shoor
Handy for radio men and eloctricians for test Ing
of AC or DC . for blown quses. tracing ground line in AC circuits, as an RF indicator, spark plug and cable tester,
etc. Can be used on voltages of 60 AC to 500 volts AC or DC. 35

Soldering Heat in Just a Matter of Seconds

SUPER INSTANT IRON
Designed for light soldering in Radio, TV, etc. A flick of a switch gives sufficient soldering heat in a matter is turned off. Extremely light weight -easy to handie. Small size makes i convenient to solder in tight places. Heat is concentrated in thin nickelalloy tip. No filing or tinning
placeable. 55.29
No. 20A184. Replacement Tip with
Element. Each . . . . . . . . . . . . $\$ 1.00$
Fairchild ACCESSORY KIT
FOR $1 / 4^{\prime \prime}$ ELECTRIC DRILLS
For Polishing, Sanding, Drilling, Grinding, Paint Mixing, Etc.


For use with any make $1 /{ }^{\prime \prime}$ electric drill. Includes arbor assembly: Rubber backing disc i 3" grinding wheel; $3^{\prime \prime}$
wire wheel brush; $5^{\prime \prime}$ lamb's wool wire whee! brush; 5" amb's wool discs and $35^{\prime \prime}$ medium grade sand paper dises ; paint mixer : $5 / 8^{\prime \prime}$ counter sink; and set of four high speed drills No. 174826 .
Complete
$\$ 4.60$
EXTRA SANDPAPER DISCS
17A827. Coarse Crade. Pkg. 6.. 250
17A828. Medium Crade. Pkg. 6.25c

TAP and DIE SET


Cood quality tool set with the most popular sizes for radio and hobby work. Consists of tap wrench; die stock; and one each of size 6-32. $8-32,10-32,4-36$ and $1 / 4-20$ plug taps and solid dies. Made of high carbon alloy steel. Complete kit comes in mahogany box.
No. 18A430. EACH .... S3.45

## MACHINE SCREW TAPS

 AND DIESThreadwell carbon steel. Dies O.D. $13 / 16$

TAPS DIES
Size Stk. No. Each Stk. No. Each 4-36 12A1503 21c 16A585 44c $6-3212 A 150421 \mathrm{C} \quad 16 A 586$ 44C $8-3212 A 150521 c \quad 16 A 587$ 44c $10-2412 A 150621 \mathrm{C}$ 16A588 44c $10-3212 A 1507$ 21c $16 A 589$ 44c TAP WRENCHES
$0=\square=$ Best quality. For holdand other small drills Has adjustable handle, knurled chuck shell. sizes $1 / 16^{\prime \prime}$ to $1 / 4^{\prime \prime \prime}$.
No. $16 A 471$. Each........ 885 Cood quality tap wrench for use with No. 2 through No. 10 taps. 296
No. 18 A431. Each. . . .....

## DIE STOCK



For use with $13 / 16^{\prime \prime}$ dies. Of rugged construction.
No. 16A591. EACH
$38 c$
NEW! GREENLEE SQUARE HOLE CHASSIS PUNCHES
Cuts clean, accurate square holes in chassis. Operates on the same Grinciple as the popular Greenlee Round Pynches. Driven by screw action.
Use an ordinary wrench for drive power.

| No. | Size | EACH |
| :---: | :---: | :---: |
| 184432 | $5 /{ }^{\prime \prime}$ | $\$ 3.01$ |
| 184433 | /4." | 3.51 |
| 184434 |  | 4.05 |

## SPECIAL VALUE! PUTTY KNIFE



With $2^{\prime \prime}$ tempered steel blade and wood handie.
No. 16A8>2. Eac
15 c
MINIATURE TUBE-PIN STRAIGHTENERS
 Handy tools that will make the job of straightening the pins on miniature tubes a simple one.
Assures socket contact. - Dies made of steel.

No. 17A434. For 7-Pin
Miniature. Each. 59c


## SCREWDRIVERS. SOCKET WRENCHES etc

XCEIITE
SHOCK PROOF, BREAK PROOF AMBER PLASTIC HANDLE SCREWDRIVERS


Stubby Type diamere
blade. Phillips Screwdrivers - -a-mining -2

With Round Blades and Ambery Handles.
Stock Size O'all Point NET
 $\begin{array}{llllll}11498 & 9 \times 6 & \prime \prime & 10^{1 / 2} & \prime & 3 \\ 11499 & 3 / 8 \times 8 & \prime \prime & 12 & \prime \prime & 4\end{array}$
Thin : lade for Set Screws Hin
small sizes-ideal for set screws in knob and other hard to reach places. handles.

| No. | Blode Size | Lgth. <br> Overoll | Net |
| :---: | :---: | :---: | :---: |
| Eoch |  |  |  |
| $11 A 103$ | $3 / 32 \times 2^{\prime \prime}$ | $41 / 4^{\prime \prime}$ | 18 c |
| $11 A 104$ | $3 / 32 \times 3^{\prime \prime}$ | $514^{\prime \prime}$ | 18 c |
| 11 A105 | $3 / 32 \times 4^{\prime \prime}$ | $61 / 4^{\prime \prime}$ | 18 c |

## Screwdrivers <br> Screwdriver

 Btock IIex. Dverall YOURNo. Dlade Lsth. COST
 $11 A 112{ }^{5} / 32$ RESED HEAD SCREWS ${ }^{-5}$ FOR RECESSEO HEAO SCREW $20 A 585$
204584
.47

| 204583 | $5 / 32^{\prime \prime}$ | $6^{\prime \prime}$ | $95 / 3^{\prime \prime}$ | .57 |
| :--- | :--- | :--- | :--- | :--- |

Insulated Blade

Amberyl all insulated break, and shock-proof screwdriver. $1 / 2^{\prime \prime} \times 6^{\prime \prime}$ all insulated, hand forged vanadium

11A116. Each.
$41 c$

## Small Pocket Sizes

Amberyl handle
Rlade $1 / 8 \times 2^{\prime}$
No. 11 A106. Net Each For Phillips Type Screws
Blade $3 / 16 \times 13 / 4^{\prime \prime}$ with
No. IIA107. Nef Each
$17 c$

XCELITE SUPER DELUXE NUT DRIVER SETS

Plastic handies are newly designed to better 4 it the hand. Double heat rreated blades with double depth sockets are highly polished.


Type 127 Handles are color coded for easier selection of sizes. Metal contoiner can be fostened to wall or work bench. $9 / 32^{\prime \prime}$, $1 / 4^{\prime \prime}$
and 3/8". 11 222. Per set.... 5.32 Type 117 Identical to set above, ex(not color coded) and bench stand as in set illustrated at right. 3. 78
No. 11 A180. Per Set....

## XCELITE NUT DRIVERS



## NEW! "XCELITE" MULTI-PURPOSE KIT



Shock-proof, break-proof amberyl handles. 5000 -volt insulation. Sizes: $5 / 16 \times 8^{\prime \prime}$ sq. bit, $1 / 4 \times 6^{\prime \prime}$ round, $3 / 16 \times$ $1 / 4 \times 11 / 4^{2 \prime}$ stubby. Set of 5 deluxe life No. 11 aloo. Pers set of 5 . 2,40
No. SET OF 3 THIN BLADE DRIVERS No. 114101.
Por Set of 3 in Case.... (4) For Cross Fits all Reed se Prince and other
recessed bead cross slot screws recessed bead cross slot screws from the smallest to the round blade In amberyl handle over-all length 8 h
$11.102-N e t ~$
$90 c$


Type 137 Handles are color coded Drivers are easily accessible from attractive metal stand. Contains sizes. $3 / 16^{\prime \prime}$, $1 / 4^{\prime \prime} 5 / 16^{\prime \prime}$, $11 / 32^{\prime \prime}, 3 / 8^{\prime \prime}$; and No. 204587. Per Set.
$\$ 4.35$

## XCELITE HOLLOW

 SHAFT NUT DRIVERS| Full length holiow shaft. 5,000 shock-proof handle. Fits right volume control shaft or other truding bolts and stubs. |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Stock No. | Depth of Hole | Nut Size | Lgth. | $\begin{aligned} & \text { COST } \\ & \text { EACH } \end{aligned}$ |
| 11 A143 | 21/4" | P" | $6^{\prime \prime}$ | 82 c |
| 11 A144 | 21/4" |  | $6^{\prime \prime}$ | 82 c |
| 11 A145 |  | 翟 | 6" | 82 c |
| 11 A146 |  |  | $6^{\prime \prime}$ | 71 c |
| 11 A147 |  |  | $6^{\prime \prime}$ | 78 c |
| 11 A148 | 5 |  | $6^{\prime \prime}$ | 78 c |
| 114149 | 5 | 5/8 | $7{ }^{\prime}$ | 88 c |

## VACO HANDY POCKET TOOL KITS


(1)
(2)
(1) SCREWDRIVER KIT. Set of 5 snapin bits -3 regulars, sizes $1 / 4 \times 5^{\prime \prime}, 3 / 16 x$ $41 / 2^{\prime \prime}{ }^{\prime} 1 / 8 \times 41 / 2^{\prime \prime}$ one each No. 1 and
No. 2 Phillips blades. Supplied with $1 \times 35 / 9^{" ~ A m b e r y l ~ s h o c k ~ a n d ~ b r e a k p r o o f ~}$ handle, Blades are chrome vanadium steel with bright cadmium rustproof
plating. In neat tool roll.
No. 16 A444. Per Set.... No. 16A444. Per Sef. ...

5 snapin Hex wrenches, sizes $1 / 4$ ' 5/16 with jx 3 " Amberyl shock and break proof handle. Sockets are super plating. In neat tool roll. S2?
No. 16A445. Per Sef.... -1.



Bench Set of 7
One each $3 / 16^{\prime \prime}$ to $1 / 2^{\prime \prime \prime}$. Spintites as isted below in handy stand Aftords quick selection.
No. 11 A117. Complere set $\$ 3.82$ No. 11 Allis. Bench Stand Only. . 97 c Individual "Spintites" Use like a screwdriver. Built with a hin walled hexagon socket on end. over to grip nut.
Stock
Hex. Your Stock Hex. Your No. Size Cost No. Size Cost
 11A120 $1 / 4^{\prime \prime} 41 \mathrm{C} \quad 11 \mathrm{~A} 1251 / 2^{\prime \prime} 59 \mathrm{C}$
11 A123 类" 41 C 11 A1275/8" 1.03

## Stevens Walden <br> WRENCH SETS

##  <br> Handy Leatherette Roll Sets

552. Contains Chuck-Type Handle with Rear-awi " Spintites, $3 / 8^{\prime \prime}$ to $1 / 2^{\prime \prime}$. insulated neu-
tralizing Alignment Wrench, pair of traizing Alignment Wrench, pair of
diagonals and side-cutting long nose diagonals and side-cutting long nose
pliers, $L e a t h e r e t t e$ Roll. No. 11 A228. Complete, Only . pliers. $\mathrm{No.11A140} \mathrm{}. \mathrm{Complete}$,
 MIDGET WRENCH SET

Handy pocket set that fills the ne eds for
light work. Kit contains: 8 midget hex $7 / 16^{\prime \prime}, 3$ midget dou-
handié $\begin{aligned} & \text { ha } \\ & \text { No. } 16 \text { A } 45 \text {. Complete, Each } \\ & \$ 4\end{aligned}$ Square sockets
$\$ 4.87$
RADIO WRENCH SET
and
Handy kit of socket wrenches useful holds case hardened sockets sizes holds case hardened sockets, sizes Heavily knurled handle is $71 / 2^{\prime \prime}$ long. made of high grade steel and nickel $\frac{\text { No. 16A368. Your Cosf..... }}{\text { Magnetic Pick-Up Tool }}$


Reaches what your hands can't grasp. Use for picking up small parts from Chassis or off.er hard to reach places. Nin permanent Alnico $101 / 2^{\prime \prime}$ overall length
No. 16 A854. Each

# SOIDERNG IRONS-SOIDERNG GUNS-SOIDER 

## "DRAKE"——QUALITY, YET LOW IN PRICE ECONOMY MODELS | DE LUXE MODELS

 Type No. 315 Excelient for light work. Highest quality nichrome wire rubber plug and stand. No. $11 A 214$. Only.
$\$ 1.12$ $\rightarrow 00010$
100 WATTS-3/8" TIP. LOW PRICE! chrome wis. stand.

No. 164507.
$\$ 1.06$
 TWO MANCET IRO
Type 350, 35-Watt High Quality, mica-wound iron for meter and hearing aid needs, provided with two $1 / \mathrm{B}^{\prime \prime}$ special $45^{\circ}$ angle tip. No. 16A510. Each
$\$ 2.94$
No. 16A511. Standard Tip. Che. 156
No. 16A512. Special Tip. Ea.
Pull the Trigger, Start to Solder Within 5 Seconds


WELLER SPEED IRONS WITH SOLDERLITE
Power used only when trigger is held. Built-in spotlight focuses on work. making it easy to solder iq dark corners. Loop tip has long reach to get farther down into work, and can be around corners etc. Easy to handle around corners, etc. Easy to handle 115 volts, 60 Cyeles A.C. 100 Watt Single Heat Models-for normal soldering.
Dual Heat Models-hos second heot thot gives 35\% reserve power-in-stontly-when needed for chossis or other heovier soldering.

STANDARD 100-WATT

| No. 208102. Single Heat S |
| :--- |
| S-107. Each.......... |
| 1 | No. 16 A513. Dual He "A" No. 20A570. Dual Heat DX-8 with

Each. . . . . . . . . . . . . $\$ 14.45$ NEW! HEAVY DUTY 200-WATT New streamlined design, no increase in weight over 100-wa No. 3781. Single Heat
WS-200. Each. . . WS-200. Each.
No. 37B4. Dual Heat $\$ 12.69$ WD-250. Each....... EXTRA TIPS
For 100-Watt Models
No. 20A103. Long Life Tip.
Pkg. of 4.
No. 16A5\%8. Duratip.
Pkg. of 2 For $200-$ Watt Models
No. 204541. Rigid Tip.
Pkg. of 2.
246 246 345

100-Watt IRON with 3/8" Plug Tip Highest quality Nichrome wire wound on cord, rubber plug and stand. S2.94
No. 11 A233. Net Each No. 20A574. Extra Tip
$.47 c$
 Special $125-W a t t ~ " E X T R A ~ H O T " ~$ ment, baffle fins keep handle ele With $3 / 8$ " plug tip. A favorite with service men.
No. IlA284. With stand. 32 No. 20A574. Extra Tip.
$\$ 3.53$


The Popular " 400 " for Tight Spots and Delicate Work. 60 watts with $1 / 4^{\prime \prime}$ tip-only $9^{\prime \prime}$ long, weight only 8 oz., yef will stand the "gaff" for packed with use. Magic cup stand No. 11 A237. Net Each... 35 No. 11 A239. Extra Tips....... 35 C NEW? MEAT CONTROL STAND Type 305. Thermostatically controlled stand for all irons. Keeps iron at cor use.
$\$ 4.41$
Trigger Action Gives In stant Heat When Needed


NEW: DRAKE "INSTANT HEAT SOLDER CUN
Gun operates only when trouble-free trigger is squcezed. Built-in spotlight rocuses on spot being soldered-keeps work always in view. Perfectly balanced, functional in design. Handsome, durable maroon plastic case properly louvered for cool operation. Tips are easily removed. Complete with $31 / 2^{\prime \prime}$ tip for ordinary soldering; $61 / 2^{\prime \prime}$ tip for deep chassis soldering. 110/120-volt, 60 cycles watts.
No. 20a212. EACH \$11.76 EXTRA TIPS
No. 20A543. $31 / 2^{\prime \prime}$. Pkg. of 4. 29 c No. 20A542. 61/2". Pkg. of 2. 29c

## SOLDERING IRON STANDS


(1) Hooded Safcty Stand. Prevents accidental burns of hands and test leads.
No, 20A581. Each
73c (2) Plain Stand. As above except withNo. 40 A580. Each 35c (3) Magic Cup Stand "Magic Cup" for cleaning tips. 4, No. 20A579. Each $44 c$ LONC LIFE TIP Designed for long use without breakPlated
Plated.
164550 . Each
64 c

## "AMERICAN BEAUTY" IRONS

## $\square=\square$

(1)
(1) IOO-WATT MODEL 3138

This iron needs no description, it being an old stand-by in the industry for years. 3/8" ip, with 6-ft. cord and stand. No. IIA241. Your Cost, Each In Lots of SIX. Each No. 11 A242. Extra Eleme No. IlA243. Extra Tips

60-WATT MODEL 3128
A smaller "American Beauty", for lighter work and tight places. Plug type iron 7/16" tip.
No. 11 it244. Complete with stand $\mathbf{5 3 . 3 4}$
$\$ 5.36$

$27 c$

No. 11 B245. Extra Tips.
Mo. 11 A 46 . Net Each.....e. ready to use on 111 -valt AC. $\$ 3.88$
(2) 200-WATT MODEL 3158
and cord
hat heavier nature. Complet
No. 37A8. Your Cost, Each.
$\$ 6.41$
No. 20A576. Extra Tips
. $\$ 6.07$


SOLDER FAST WITH "FLASH" SOLDERING IRON Streamlined, Perfect Balance, Non-Tiring Natural Grip

TRICCER CONTROLLED MODEL
 tery. For use on 110 volt AC use transformer listed below. Comes com
$\$ 2.85$
ation on 110 -volt $A C$.
No. 16A502. Each..... 3.

## No. 16A504. Extra 5/16" Tip for flash irons listed. EACH

Long Lasting Tip made of special copper olloy of great hordness and plated to resist conductivity. Nicke diameter, $4^{\prime \prime}$ length. No. 20A574. Each.

415

## ROSIN OR ACID CORE

High quality sol der for Radio and Automotive lb. or 5 lb. packages. KESTER 3/32" $(40 \%$ Tin, $60 \%$ Lead) $\begin{array}{ccc}\text { Rosin Acid Put CHOICE } \\ \text { Core Core Up } & \text { EACH }\end{array}$ $\begin{array}{llll}114257 & 114260 & 1 \mathrm{lb} & \$ 1.01 \\ 11 \mathrm{~A} 258 & 11 \mathrm{~A} 261 & 5 \mathrm{lb} & 4.85\end{array}$ 11 A259 11A262 31/2 oz. $\quad 18$ KESTER $1 / 16^{\prime \prime}$ Thin Core ( $40-60 \%$ ) 11A264. 5-Lb. Rosin Core... 5.00

NEW! KESTER "RESIN FIVE
3/32" (50\% Tin-50\% Lead)
The better solder for TV, Radio, Elec-tronics-everything electrical. More active and stable.
198853. 1-Lb. Rosin Core... $\$ 1.14$ 198866. 5-Lb. Rosin Core... 5.60 BURNLEY SOLDERINC PASTE No. 11 a 267. Per 2-Oz. Can.... 10 c

## MALLORY SOLDERING

 IRON TIPSUNGAR SOLDERING PENCIL

Features New, Cooler Handle of Dur able Plastic and Ceramic Separators For double Sofety.
For thoso dellcate jobs and hard-to-reach places. Welghe only 3.6 ozs. Over-all length $7^{\prime \prime}$. Draws 17 watts. Note the wide cholce of tips-one for every need. They serew in handle llike a lamp. They Soldering Pencll, less tip. 11A24\%. Your Cost, Each 78c (1) \% Standard Copper tip 78 . 78
only. 114248 . Each ........ (2) 1/4" Chisel tip made of Elkaloy A. 11A249. Each 78 c

 (5) Extra hot tip made of Elkaloy A. 11A252

Use It as Inspection Lamp. Regular $\$ 6$ candelabra 110 V . lamp screws in place of tip and you have
a neat service light. a neat service light.
No. 16 A168 56







68. 56 Lamp. Each




## HANDY TOOLS BARGAIN PRICED

TYLER "SPIRAL" SAW


Saws in any direction, without turning frame. Cuts wood, plastic or light metal without binding or breaking. Blades are made of High Carbon Spring Steel with teeth cut spirally the full lagth, providing a sharp cutting sur sace completely around the blade Sturdy steel frame has lever adjust No 164544 Frame and
15 Spiral Blades
95 c
Extra Blades, also fit any standard coping saw frame. \$1.00 value No. 16 A545.
12 for
50c

## PLIER SET



Set consists of one "diagonal" and one needle nose" side cuttling pliers-both the product of a maker known for top quality. Drop forged from a good grade steel handles Fully suaranteed-blued No. 20B643
Special, Per Set
$\$ 2.49$

MIDGET HAND DRILL and 5-PIECE DRILL SET


Drill has 3/16" capacity chuck with wheel with small gear for $21 / 4^{\prime \prime}$ gear ratio. Entire drill nicely finished and hardwood mahogany handle. Overall length only $77 / 8^{\prime \prime}$. Comes with good quality 5 -piece drlll set, sizes $1 / 16$ to $3 / 16^{\prime \prime}$ by 32 nds.
Noi kisis. Mand dill \$1.35

## TUBE PULLER


Brx10". Ideal for smoothing and engeneral purpose use. an 39 C

STAR MASONRY DRILL

$1 / 4 \times 12^{\prime \prime}$. Every serviceman needs one for installations of antennas, guy wir to brick or concrete walls and chimRemember . . the B-A reputation for honest, dependable and friendly

Caltronic (Ceramicore) Electric Soldering Irons


Made of highest quality materials and sturdy; designed with the Caltronic Ceramicore Heating Element for and ability and featuring a comforpable, cool handle. Tips are standard, easily
replaceable by merely loosening set screw replaceable by merely loosening set screw.
Rigidly constructed, soundly engineered, you can depend on them to give long uninterrupted service. A Special B-A Purchase makes possible A Terindividually! One-Half Regular Wholesale Cost. Every One Brand Newindividually boxed with Stand.
100-WATT TYPE CIOO

将" diameter tip. Net weight. 16 ozs.; Length
Nometrer ${ }^{1 / 8}$. List Price, $\$ 7.50$. Regular Net, $\$ 5.25$
Now While They Last! SPECIAL, EACH
\$2.62
diameter tip. Net weight, 150 WIT TYPE C150
dian diameter tip. Net weight, 20 ozs.; Length overall, 12"; Housing
No. 17 B426. List Prige, Weight, $\$ 8.25$ Regular Net, $\$ 5.78$,
Now While They Last! SPECIAL, EACH.
$\$ 2.89$

NEUTRALIZING TOOLS ALIGNMENT TOOL

##  <br> Made of "Huff" Low Loss Bakelite. Has $3 / 16$ ", wide metal blade insert Has $3 / 16^{\prime \prime}$ wide metal blade insert. A quality tool for radio and TV alis. quant. Overall length, $41 / 2^{\prime \prime}$. TV alignNo. 198619. A Buy at Each. 19C Adjustable Neutralizing Tool Qextras:-8) $=\leq$ <br> Finest quality bone-fibre. Extension screwdriver adjustable from 6 to 11 ", on one end and hex socket on other. Ideal or crowded sex socesket on other. No. 178662 . SPECIAL, EACH. 29 C NEUTRALIZING TOOL

Sturdy, unbreakable. Has metal collars each en
sockets.
11A232. BARGAIN, Only . . . . 30C
INSULATED HEX WRENCH

Inside hexed for $1 / 4^{\prime \prime}$ nuts. Hexed all through so when worn or broken merely saw off and you have a new wrench. Made of tough bone-fibre.
5" long.
No. 16 A371. Special, Each... 10 C

## HOBBY HAND

 GRINDER

Handy clamp-on high speed grinder well suited for the and hobbyist $23 / 4 \times 5 / 0^{\prime \prime}{ }^{\prime \prime}$ whee driven at just the right speed for sharpening drill bits, knives, and tools. Has stamped metal case, tool ings and screw-on clamp.
No. 16 AS 35 .
Net. Each. . . . . . . . . . . . . 99 .

## FLEX NECK FLASHLIGHT



Sturdily built bakelite case with 13' flexible steel neck-'"iust it'" for getting light to out of way places such as in chassis and other blind spots. Can even be used in the gas tank, and in water-it is vapor and moisture proof. Buld is protected against breakage.
Built for the Air Force at a cost of sev Built for the Air Force at a cost of sev-
eral dollars. Comes ready to use, less

## No. 164402

-5C 10 Lots.

A HOT BUY!
A HOT SOLDERING IRON!


80-watt Belden Type 8110 with $3 / 8$ "plug-in" type tip, extra long to hold the heat. With heat radiator fins to keep the large comfortable handle cool. Finest quality throughout, UL
approved. Regular Net Price, $\$ 3.40$. No. 18A1059. Now While $\$ 1.99$
They Last. Each.......

## 3/8-INCH SOLDERING IRON

 TIPS

3/8" diameter, $41 / 4$ "' long Copper. Reset screw type tips. "A Buy." | No. 178277. 28 C Lots. 256 |
| :--- |
| Special, Each |

MECHANICAL FINGERS


The handiest tool you can have for getting into those inaccessible places for retrieving or installing small parts, screws, nuts, etc. Has powerful spring No. 16A401. At Least a $\$ 1.00$ SO Value for Only

50 c
Jeweler's Screwdrivers

Hexagon swivel head, removable blade firmly held by threaded chuck elimi nates any back-lash. Finest quality at least a regular 65 c value. Stock Slade Overall
No. Size Length Each $29 c$

No. 16 A 402.
Special, Each.

85c

TOOL ASSORTMENT


SOFT FACE HAMMERS

(A) Amber Plastic. ${ }^{7} 8^{\prime \prime}$, face fitted o metal shank on fickory handle. No. 164373 . Special, Each. 656 (B) 8-oz. Brass Hammer. Soft brass, $3 / 4$ ", diameter head with metal tang and use where injury would mecur from use of a hard metal hammer
No. 16 A377.
Special, Each
60 c

## BERNARD PARALLEL

 ACTION PLIERSMille
jaws parallel
ike grlo that
won't slip. Has
powerful side cut-
head. Made of
nicke! chrome al-
by steel-blue-
No. 164543.
Special, PER PAIR


PEXTO 7" METAL SNIPS Highest quality drop forged steel shears accurately ma-
chined to government specifications. Shaped spestraight as well as tish cut left curves. An indispensable tool for the repairman No. 164542
Whice the Lust $\mathbf{S 1 . 1 9}$
"CLEAN 'EM" AS YOU "FIX 'EM'"


A must in every shop and tool kit Quick and efficient for brushing dust out of chassis and parts; to clean and a little carbon "tet" will do wonders.
Set consists of 1 duster brush 3/4' handle bristle oull length and wire Oerallilensm, $30^{\circ}$
No. 184398. Per Set
39 c
See Pages 82 to 91 for Complete Listing of Tools.

#  EVERYOAY NEEDS 

## These Speaker Values Defy all competition



NOT a .68-oz., NOT a 1-oz. BUT a full 1.47-oz. Alnico V-Magnet-fully enclosed. NOT factory rejects BUT first quality-clean, perfect, with the usual guarantee. Note the handy bracket for mounting of output. No 14C616. 4" PM. © 19 Lots of
SPECIAL, EACH.
10. Each No. 4A649. 5" PM. . 29 Lots of
SPECIAL, EACH. ...
10. Each. No. 14A654. 6" PM. 79 Lofs of 1919 No. 21 Aio30. $8^{\circ \circ} \mathrm{PM}_{\mathrm{M}}$. A husky speaker with, 2 ,

ELECTRO-DYNAMIC SPEAKERS
 450 Ohm Field Transformers for 50 L 6 and similar tubes.
No. $144645.4^{4 \prime}$
Spach. $\$ 1.39$
Each. No.
Spe. . S1.
Each.


6-INCH PM WITH
ADJUSTABLE CONE

Alnico $V$-magnet $1.47-o z$., wattage rating 4 normal. 6 peak. Dustproof all welded construction. The Adjust-ACone feature allows spider to be moved if necessary to recenter voice coil by merely loosening two screws erally. No. 20A780. Special, Each 1.95

## OVAL SPEAKERS at

BIG SAVINGSI
No. 21A1023. $4 \times 6^{\prime \prime}$ PM.
EACH
No. 21A1024. $5 \times 7^{\prime \prime}$ PM.

Ohms. EACH.
No. 21A1026. 6x9"̈4:-
No. 21 A1026. 6x9"4-
Ohm, 6-Volt. EACH.
\$1.39

## $2 \times 3$-INCH OVAL PM

 SPEAKER RCA Type 42351. Per fect for building or
replacement in Per replacement in "Per-
sonal Portable" type sonal Portable" type
sets. Voice coil impedance 11.8 ohms $1 / 8$-watt output; $1.5-o z$.
magnet. Ruggedly built.
No. 148688 . A VALUE.

REMEMBER THE B-A REPUTATION FOR HONEST, DEPENDABLE AND FRIENDLY DEALINCS PROTECT YOUR EVERY'PURCHASE.

Consists of 5" PM, 1.47-oz. Alnico 5 Speaker, steel braid grille screen, grille mounting plate--harmonizes with interiors.
No. 21 A1028. Special, Each 205 6 Lots. $\$ 2.50$
RCA 12-INCH PM


Ruggedly built, 1-piece steel stamped frame; seamless felted cone. Voice coil impedance 3.2 ohms; 15 -watt "Controlled Resonance" for finer tone Shipping weight, 7 lbs. Priced Less than Malf of regular. No. 30 A123. Each........i.ins
No. .$\$ 4.45$ FRIEND


Standard quality makes, midget all purpose type with $11 / 4^{\prime \prime}$ round shafts 500,000-Ohm, Less Swifch. No. 19A1208, 18 Lots of 198
Each...... 10 . Ea. 98 200,000-Ohm, With Switch. No.18A387. 27 Lots of 251
Each...... 10. Ea. 51 500,000-Ohm, With SPST Switch. Naid 500,000-Ohm DPST Switch, the popular control for battery sets.
 1 MEG. CONTROL

No. 18A1002. 39C Lots of 34C
Each........ 30. Ea.
-

## N.U. "Sav-A-Shaft" VOLUME CONTROLS <br>  <br> EACH CONTROL COMPLETE WITH SWITCH

Auto Radio Suppressors


## (A) (B) (MC)

(A) and (B) Wire spring permits mounting in any position and makes a connection that won't shake loose. Cable ends mount by cutting ignition Standard 10,000 -ohm resistance for ali around use.
(B) No. 17 A248. For Distributor.
(B) No. $17 A 247$. For Spark Plug.
CHOICE,
10 Lots.

CHOICE, $7 B$ EACH. 10 Lots. SE
EACH
(MC) Univers (MC) Universal for either Distributor or Spark Plug. Inserts in Cable by means of pointed screws in each end. No. 12A401. 10
Each...... Lots of 7 10. Each.

## A TERRIFIC VIBRATOR

 BARGAIN!Well known quality make roleased from government surplis. BRAND NEW - PER-


Non-Sync. 4 Contacts (Standard)
Fits Many
Popnlar Popular
Auto Rallo
$\$ 1.19$
19A25. Special, Each . same control. No shaft size or knob fitting problems-provides for use of shaft and knob from old contro. 511 and 25,000-ohm controls which are Linear. \#Indicates tapped controls
which can be used with or without tap.

Stk. No. Res. Ohms While They 18A1012. 5,000 Last! 18A1013. 10,000 Choice, $\begin{array}{lll}\text { 18A1014. } & 25,000 & \text { E2Ch } \\ \text { 18A1015. } & 50,000 & \end{array}$ 18A1113. 100,000 Lots of 10 .


MINIATURE TUBE PIN STRAIGHTENER
Made to Jan. specificatlons at a cost of several times our price. Precision machined stainless steel pin straightening die in cadmium plated frame. For 7 -pin miniature tubes. Lo with the No. 18 A404.
SPECIAL, EACH



T CAR RADIO SPEAKER
Easy to install in a few minutes-no
cutting of holes required. Furnished cutting of holes required. Furnished
complete with 17 ft . wire, fittings, recomplete with 17 ft . Wire, fittings, re-
sistor to match speaker to any standard Auto Radio and complete instructions. Consist of $5^{\prime \prime}$ quality PM speaker in case, volume control built-in. S4 5 No. 144650 . Your Cost, Each S4. 5

TUBES
Standard Brands. . some boxed, some In bulk anteed. In ordering please indicate types wanted giving stock numbers as listed below. Limited quantities-subject to Prior Sale.

| Type | Sfock No. |
| :--- | :---: |
| 6C4 | $14 A 1012$ |
| $12 A 6$ | $14 A 999$ |
| 2807 | $14 A 998$ |
| 9003 | $20 A 728$ |
| 1625 | $37 T 1002$ |
| 1619 | $37 T 1015$ |
| CHOICE, | 29 |
| ABOVE....... |  |
| 6F6 | 1441056 |
| 615 | 2173988 |
| $6 K 7$ | $14 A 1057$ |
| $65 H 7$ | $14 A 1051$ |
| $12 A U 6$ | $14 A 991$ |
| $12 S H 7$ | $14 A 1037$ |
| CHOICE, | 39 |
| ABOVE........ |  |

Stock No.

| Type | Stock No. | Type | Stock No. |
| :---: | :---: | :---: | :---: |
| 1629 | 37 T1020 | 6U6GT | 14 A 993 |
| 1626 | 3751019 | 7A7 | 14 Al 1021 |
| 955 | 204779 | 7 C 6 | 1441023 |
| CHOICE, | 9 | 12J5CT | 14 A1052 |
| ABOVE. | - | 12517 | 1441049 |
| 2 C 34 | 3711008 | 12SQ7 | 1441026 |
| 5 C 4 C | 14 A1038 | 35 W 4 | 1441028 |
| 5Y3GT | 14A1010 | 35Z5CT | $14 A 1029$ |
| 6H6GT | 1441036 | 76 | $14 A 1053$ |
| 6SA7 | 14 A1016 | 77 | 1441054 |
| $65 C 7$ | 14 A1046 | 78 | 14A1055 |
| 6SJ7CT | 1441041 | 11723 | 144992 |
| 6SK7 | 14 A1017 | VR150 | 2173980 |
| 6SL7GT | 14 A1042 | 9004 | 204729 |
| 6SQ7 | $14 A 1018$ |  |  |
| CHOICE, | 496 | CHOICE, | 496 |


| Type | Stock No. | Type | Stock No. | Type | Stock No. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| OZ4 | 1441001 | IN5CT | 14A1006 | 814 | 204809 |
| 1H5CT | 14A1004 | 1 T4 | 144995 | SPECIAL, |  |
| IR5 | 14 A1050 | 3Q5GT | 144996 | EACH. |  |
| 155 | $14 A 1008$ | 1 LN5 | 1441005 | 872A | $37 \mathrm{T1001}$ |
| 3Q4 | $14 A 1031$ | 6SN7GT | 1441033 | SPECIAL, | 110 |
| 354 | 1441032 | 12SN7GT | 1441039 | EACH... | 1 |
| 6 AC7 | 14 Al 1058 | 50A5 | 2173997 | 394A |  |
| 6V6CT | 14A1019 | 5085 | 1441030 | 394A |  |
| 6×5GT | 1441020 | 50L6GT | 1441045 | SPECIAL, |  |
| 125A7CT | 144994 | 11726 CT | 1441048 | EACH |  |
| 125 C 7 | 1441025 | 1616 | 204665 | 371 B | 36T202 |
| 12SL7CT | $14 A 1027$ | CHOICE, | 89 | SPECIAL, | + 1 |
| 25L6GT | 1441043 | ABOVE. | $0 \%$ | EACH. |  |
| 35L6GT | 1441047 | 616 | 1441014 | CL. 8020 | 36 T 205 |
| $14 \mathrm{A7}$ | 2173993 | SPECIAL, | 391 | SPECIAL, | 361205 |
| 1486 | 2173995 | EACH | 0 | EACH... |  |
| 14Q7 | 2173994 | 807 | 204668 | 5FP7 | 367200 |
| 35 Y 4 | 2173996 | SPECIAL, |  | SPECIAL, |  |
| 2050 | 2173987 | $\begin{aligned} & \text { EACH } \\ & 866 \mathrm{~A} \end{aligned}$ | 204791 | $\begin{aligned} & \text { EACH } \\ & \text { \|B42 } \end{aligned}$ | 37T1006 |
| CHOICE, ABOVE. |  | SPECIAL, EACH. |  | $\begin{aligned} & \text { SPECIAL, } \\ & \text { EACH. . } \end{aligned}$ |  |

Stock No.
204809
.
-1.10

| $\mathbf{3 7 1} 1.95$ |
| :--- |


$\$ 1.95$
3.45200
$\$ 1.45$
$\$ 1.95$

## Fransfoument and Chorees sAVINGS! <br> BARGAINS IN FILTER CHOKES



(2)

4.2 HENRY 300 MA . (1) DC resistance 78 ohms, 2500 volts breakdown. Fully enclosed round metal case, $41 / 2^{\prime \prime}$ high $\times 33 / 4^{\prime \prime}$ diameter, base case, $41 / 2$ high $\times 33 / 4$ diameter, base mounting. Insulated wire leads. A Top Quality Choke Built by a Leading Qualty Whore Weight, 9 lbs. 5 No. 3A135. Special, Each. $2-4$
2.5 HENRY 375 MA . (6) 5000-volt insulation. DC resistance oniy 20 ohms permitting use in multiples for better filtering with extremely low voltage drop. In black enameled ing studs and ceramic post terminals. Size, $3 \times 23 / 4 \times 35 / 8^{\prime \prime}$ high. Made to government specifications.
(1) Inductance, 4 henries. Fully encased upright mount ing with leads out bottom. Size, $3 \times 27 / 8 \times 33 / 4^{\prime \prime}$ high. Weight.
4 lbs Shipping wt., 5 lbs.
No. 4 A71. Special, Each. 1.88 No. $4 A 71$. Special, Each.
10 HENRY 75 MA. (B) 240-ohm filter choke with strap mounting. 240 ohms mounting centers. You'll want several of these at this price. 898 No. $13 \mathrm{B263}$. Special, Each...
8 HENRY 100 MA .
(9) A Terrific Value. Strap mounting
 5 HENRY 50 MA.


HEAVY DUTY PLATE and FILAMENT TRANSFORMERS


900-Valt C.T. at 270 M.A.-Plus Five Filoment Windings: 6.3-volt @ 3A., 6.3-volt @3A., 6.3-volt @ 10A., 21/2-volt @ 10A. and 5-volt @ 6A. Primary 110-volt.
The core stack measures almost $4^{\prime \prime}$, wide, $41 / 2^{\prime \prime}$ high, and $37 / 8^{\prime \prime}$ deep. Overall length, $6^{\prime \prime 2}$. Weight, $171 / 2 \mathrm{llbs}$. We highly recommend this transformer for transmitters, exciters and high power ampli fiers. Perfect for use with surplus com-
mand transmitters. Regularly you would pay
more than twice this price. Shipping weight, 19 lbs.
$\$ 5.47$
No. 4A73. SPECIAL, EACH........................
Primary 115 volts 60 -cycle; Secondaries 650 volts C.T.
 and 36 volts at 1 amp. Ideal for low voltage high current plate supplies. 36 -volt windings can be used we connected together and used as bias supply. Steel case, black crackle finish. Size, $43 / 4 \times 43 / 8 \times 5$
16 lbs.
No. 3A126. SPECIAL, EACH.
$\$ 3.95$

## sAVE HALF on THESE



## HEAVY DUTY OUTPUT TRANSFORMERS

 EVERY ONE BRAND NEW! (NOT WAR SURPLUS) MADE BY AMERTRAN, an old and respected name in transformers. All types are upright mounting fully encased, with lug terminals. Much needed for amplifier repairs and con-struction. Buy several while they last! Quantities limited! Secondary impedance all types $4,8,15,250,500$ ohms

For Class AB1 operation of PP 6V6, 7C5. 45 or Class B 6N7, 53. Primary impedance rent each side 45 MA . Maximum
watts 15 . Wt., 3 lbs.
No. 34128 . Special, Each No. 3A128. Special, Each
For Class AB1 operation of PP 2A3, 6A3, 6 B4 or Class AB2 PP 45. Primary impedance 3000 hm .
current each side 70 MA . current ea
watts 20. No. 3A129. Special, Each S2.45 For Class AB operation of PP 6 L6. Primary impedance 4300 ohms. Primary current each side 95 imum watts 25 . Wt. 3 lbs. 92.15
No. 3 A130. Special, Each

## MIKE TRANSFORMER



Compact in Gray cas
$13 / 4 \%$ square $\times 2 / 16$ high. Matches either 200 ohm dynamic or singlegrid. Electrostatic shield-
ed. Has four threaded mounting studs.
200 MA. 850-VOLT C.T. (1) Furnishes high voltage plus 6.3 -volt C.T. at 5 amp. and 5 -volt at 3 amp. filament. Pri. 110 -volt 60 -cycle $A C$. Top quality construction. Fully shielded, upright mounting with wire leads. Size approx. $37 / 8^{\prime 2}$ square $\times 43 / 4^{\prime \prime}$ high Weight each, $73 / 4$ lbs.
No. 34122 . Special, Each. .

150 MA. 750-VOLT C.T.
(3) High voltage plus 6.3 -volt at 5 amp ${ }^{\text {and }} 5$-volt at ${ }^{3}$ amp. filament.
Pri. 110 -volt 60 -cycle AC. Double halfprill construction. fully shielded with
shell coded wire leads. Size overall $31 / \mathrm{g} \times 33 / 4 \times$ 41/4" high. Wt. each, 6 lbs. $\mathbf{S} 2.97$
No. 3A123. Special, Each. .

190 MA. 780-VOLT C.T. (9) Size, approximately $41 / 2 \times 33 / 4 \times 41 / 2^{\prime \prime}$ No.38iol.

90 MA. 650-VOLT C.T. (3) For sets up to 10 tubes. Filaments, 5 -volt at 2 -amp. and 6.3 -volt at 3.5 amp. Double, half-shell mounting. Shipping weight, 4 lbs.

## TVPOWER TRANSFORMER



Suitable for type 630TS TV Sets or ofther Radio Cear. Primary: $110-\mathrm{V}$,
60 cycles AC,
$730-\mathrm{V}$ C.T. at 275 MA. 5 -V.
at 6 amps. for 2
$5 U 4 C$ rectifiers, $5-V .8$ at 2
amps., $6.3-V$. at 8 amps. amps., $6.3-\mathrm{V}$. at shectrostatic Size overall, $33 / 4 \times 4 / 3 \times$ $513^{3 \prime}$ ". Half shell mounting extends $41 / 4$ above chassis. Mounting size, $33 / 8$. Top quality and equal to transformers selling regularly at Double Our Price.
No. 5 A153. Shipping weight, 14 lbs. Limited Quantity.
$\$ 5.95$

For Class AB2 operation of PP 6L6, 2A5, 6F6, 42 (Triode connected) or Class B 46, 59. Primary impedance side 75 MA Maximum watts 30 Weight, 4 lbs
No. 3 A131.
Special, Each
$\$ 2.75$

For Class AB1 operation of PP 6L6 (Fixed bias). Primary impedance 6600 ohms Primary current each side
70 MA. Max. watts 30 .
No. 3A132.
Special, Each
$\$ 2.75$

##  on this UNIVERSAL Speaker Matching <br> Tronsformer

10 WATTS RANCE $100 / 10,000$ CPS. Potted and fully cased. Top Quality. Comes with full instructions for properly matching almost any number of speakers having voice coils of 3 to 4 tween 50 sh any line impedance beone on each speaker for multiple sound installations in schools, plants, etc. By selecting proper primary taps almost any number of transformers can be paralleled or connected in series to match a 500 -ohm line or other line impedance you choose. Equally well suited for single speaker jobs and for radio and amplifier repairs. High Primary impedance allows direct match to single plate of many tube types. OK for use on the service test bench and for countless experimental applications. Case size, $3^{\prime \prime}$ wide, $3^{\prime \prime}$ high ished. Weight, 2 lbs.
No. 18 A1022. Special, Each $\$ 1.95$
No. 18A1022. Special,
T TRANSFORMERS

| Single <br> Tubes | Prim. Ma. | Wts. | MIg. Areo | $\begin{aligned} & \text { Your } \\ & \text { Cost } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: |
| 5016-25 $\overline{85}$ | 55 | 5 | $23 / 8 \times 11 / 4$ | \$0.82 |
| 35L6-154 | 40 | 5 | $2^{3 / 8} \times 1{ }^{1 / 4}$ | . 91 |
| 3Q5-6V6 | 30 | 5 | $2^{3 / 8} \times 1{ }^{1 / 4}$ | . 94 |
| 6F6-1T5 | 10 | 5 | 23/8×11/4 | 97 |
| AL TYPE |  |  |  |  |
| Single or P.P. | 35 | 4 | $23 / 8 \times 11 / 2$ | 1.41 |
| gle or P.P. | 40 | 8 | $\mid 27 / 8 \times 1 / / 2$ | 1.59 |

## 

TRANSMITTING MICA CONDENSERS
(2)



Every one factory marked for rafing. Most celebrated makes, many specially prepared with salt spray test, high capacity stability with respect to temperature change. Buy Them Now for Future Needs.


Every One of Recognized maxe and quality in standard aize with factory marked ratinga.
Stk. No. Cap. Mid.

| $18 A 133$ | .00005 |
| :--- | :--- |
| $18 A 134$ | .0001 |
| $18 A 135$ | .00015 |
| $18 A 136$ | .00025 |
| $18 A 187$ | .0005 |
| $18 A 138$ | .00075 |
| $18 A 139$ | .006 |
| $18 A 872$ | .005 |
| $18 A 687$ | .004 |
| $18 A 618$ | .003 |
| $18 A 140$ | .002 |
| $18 A 611$ | .0015 |
| $18 A 619$ | .001 |
| $18 A 229$ | .01 |


| Mica Condenser Asst. |
| :--- |
| TEN, assorted of those listed above |
| and other popular ones. A Real |
| Bargain! |
| No. 18 A633.-Per Asst.... 75 |

## SOLAR-_"Domino"

Bakelito Molded Paper Capacitors

## CERAMIC TRIMMER CONDENSERS


(2)


(4)
(1) MIDGET PADDERS and TRIMMERS

## Stock <br> No. 17B283 <br> 178249 <br> 15 A1126 <br> $15 A 1127$ $15 A 1114$ <br> $15 A 1114$ $15 A 1112$ <br> $15 A 1112$ $15 A 1111$ $15 A 1113$ <br>  <br> (2) CRL MIDGET TRIMMERS <br> for soldering into circuit or can be fastened flat to chassis. Very stable and vibration proof. Size 1 " $\times 5 / 8$ ". <br> No. 174431.7 to 45 mmfd . <br> No. 17 A432. 4 to 30 mmfd. <br> Cap. in mmfd. <br> CHOICE EACH, SPECIAL. <br> 19c

## CERAMIC CAPACITORS <br> 

| WELL | KNOWN | QUALITY | MAKE |
| :---: | :---: | :---: | :---: |
| Stock | Cap. | Stock | Cap. |
| No. | Mmfd. | No. | Mmfd. |
| 178670 | 3 | $18 A 141$ | 15 |
| 178668 | 5 | 178671 | 30 |
| 178667 | 8 | 178669 | 70 |
| $17 B 672$ | 10 | 184848 | 250 |
| YOUR |  |  |  |

YOUR CHOICE. \&B Lofs of 10 . S
SPECIAL. EA...

## Ceramic Condenser Asst

KIT of 10 Fixed Condensers
Assorted from those listed above and other popular capacities. The use of any at regular price would pay for entire lot.
No. 17 A376.
Per Asst
39c
Aluminum Can Screw Neck Electrolytics
Direct Replacement for Upright Wet and Dry Electrolytics


450 Working, 525 Peak Volts Designed for heavy duty serviceize $1 \%^{\prime \prime} x 4^{\prime \prime}$ with $H^{\prime \prime}$ standard threaded neck-easy to mount in holes of old condenser to be replaced, Finest Quality, Fully Guaranteed.
8 Mfd. No. 15A378. Each.
16 Mid. No. 15A379. Each. . . 59 C 20 Mfd. No. 154383. Each... 65 c 8-8 Mfd No. 15A381. Each... 736

## ELECTROLYTICS for

 Motors, Rectifiers, Etc.115 Mfd. 110. Volt AC. In cardboard insulated can, $13 / 8 \times 31 / 2^{\prime \prime}$. For motor starting etc

65 c
BUY WITH CONFIDENCE. B-A list ONLY NEW, TOP QUALITY items-even though surplus.
Map.

| Mifd. | Foltb | No. | Each |
| :---: | :---: | :---: | :---: |
| .1 | 400 | $18 A 622$ | 13 c |
| .25 | 200 | $18 A 237$ | 16 c |
| .5 | 200 | $18 A 624$ | 26 c |

KIT of 10 MOLDED PAPER CON. DENSERS, assorted from above and No. 184827. Per Kit Only.. 55
"HOT" TUBE BARGAINS
"Sylvonio" identical to tubes thot cost twice these prices exceptnot boxed.

| Type | StkNo. | Each | 25 Lots |
| :--- | :--- | :--- | ---: |
| $14 A 7$ | 21 T3993 | 59 c | 53 c |
| 1407 | 21 T3994 | 59 c | 53 c |
| 14 B 6 | 21 T3995 | 59 c | 53 c |
| 3544 | 21 T3996 | 59 c | 53 c |
| 5045 | 21 T3997 | 69 c | 62 c |

KIT OF FIVE
1 of each type as listed.
No. 21T3998............... S2.95
10 Kits, Per Kit.......... S2. 70

$$
\omega \ln
$$

0 nis, ref kir..........

## SPDT contocts, 16000 ohm

16000 ohm coil. Fully ad. Mounted $25 / /^{\prime \prime}$ square lite base. Sc.ew terminals. Fine for plate circuits, phota
tions and other uses where on exceptionally good relay is needed. No. 178233
An Outstanding Value...... $\$ 1.95$

(1) Extremely low loss. Finest quality duced to silver in a high temperature furnace. Working voltage 350 D.C., flash test 1000 V. D.C., leakage re-
sistance more than 10 megohms, tol. sistance more than 10 megohms, tol. plus or minus $10 \%$. Type 831 s . List No. 18 A963.
Each.
15c
Lots of 10 . Ea.. 18
(8) As above, Type 833 S feed thru style with threaded bushing. Has a
post terminal on one side and a wire terminal on other side. List Price,
Each $\$ 2.00$. Each \$2.00.
No. 18A964. Special, Each . . . . . 2 (

## ULTRA SENSITIVE RELAY

(3) DUAL SECTION

2-30 mmfd. each section, mounted on handy bracket. Can be removed and used individually. No. 17 A433. Per Assembly.

No. 18 Al56.
65 c


PAPER TUBULARS


No. 184981. . 2 mfd., 400-Volt Paper Tubulars, top notch quality, standard make and size.
No. 15 B367. $1 \mathrm{mfd}$. 400-Volt.
No. 15 B368. . 003 mfd ., 600-Voff Choice, Any of \&B Lots of 10 . Each
Above. Each... BUFFER CONDENSER
.02 mfd ., 1600 Volt, oil filled tubular sealed and externally insulated. Size $11 / 2 \times 3 / 4^{\prime \prime}$ with tinned wire leads. $75 c$ Value!


## DARGAIN ASSORTMENT

25 PAPER TUBULARS
A handy assortment of 25 pape
tubular Condensers, in good usable
capacities and voltages. All first
quality standard makes.
No. 18 A203.
25 Assorted. Oniy.
99c
Kit of 25 Paper Tubulars, 5 each .01 , .02, .05, . $1, .5$ mfd., all 600


## SAVE WHILE YOU CAN ON <br> 807 TUBES

AN inspected, quality make, individually boxed, clean, pertect. GUARAN TEED.



## Condenserst Priced as low as $\frac{10}{10}$



Known Quality Bramds in hermetically scaled metal case. Ratings and voltages are exact as marked on each unit by the maker. Built to rigid A. G N. specifications. Buy Now for Future Needs-they can't spoil. You will pay up to five times as much when present surplus stocks are gone.

$$
\begin{aligned}
& \text { Cap. }_{\text {Mrd. }} .
\end{aligned}
$$

(Fig. 1 ) Rectangular Cans with Ceramic Pillar Terminals

| Cap. | Working |
| :---: | :---: |
| Mid. | Volts |
| 1 | 1000 |
| 1 | 2500 |
| 1.5 | 1500 |
| 2 | 600 |
| 2 | 1000 |
| 2 | 1500 |
| 2 | 2500 |
| 2 | 4000 |
| 2 | 5000 |
| 3 | 1000 |
| 3 | 4000 |
| 4 | 600 |
| 4 | 1000 |
| 4 | 1500 |
| 5 | 600 |
| 6 | 600 |
| 8 | 600 |
| 8 | 1500 |
| 10 | 600 |
| 10 | 1000 |


| Size | Stock No. |
| :---: | :---: |
| 23/4x15\% ${ }^{\text {a }}$ | 174169 |
| $43 / 4 \times 33 / 4 \times 11 / 8^{\prime \prime}$ | 17 A485 |
| $43 / 4 \times 15 / 8 \times 1$ | 174473 |
| $27 / 8 \times 13 / 4 \times 1$ " | 18 A214 |
| $4 \times 13 / 4 \times 1$ | 174170 |
| $4 \times 23 / 8 \times 1$ " | 174470 |
| $41 / 2 \times 33 / 4 \times 134^{\prime \prime}$ | 2173990 |
| $43 / 4 \times 43 / 8 \times 33 / 4^{\prime \prime}$ | 4459 |
| $6 \times 41 / 2 \times 33 / 4^{\prime \prime}$ | 4460 |
| $31 / 2 \times 25 / 8 \times 1$ | 174484 |
| $61 / 2 \times 41 / 2 \times 33 / 4^{\prime \prime}$ | 4 A 61 |
| $37 / 8 \times 21 / 2 \times 11 / 81$ | 17 A486 |
| $45 / 8 \times 21 / 2 \times 11 / 8^{\prime \prime}$ | 184226 |
| $45 / 8 \times 35 \times 11 / 2^{\prime \prime}$ | 174474 |
| $43 / 4 \times 13 / 4 \times 1$ | 18 A366 |
| $43 / 4 \times 23 / 8 \times 1$ | 174482 |
| $41 / 4 \times 33 / 4 \times 1 / 8^{\prime \prime}$ | 174469 |
| $43 / 4 \times 33 / 4 \times 21 / 2$ | 17 A475 |
| $45 / 8 \times 31 / 2 \times 1 / 8{ }^{\prime \prime}$ | 184111 |
| $45 / 8 \times 33 / 4 \times 13 / 4^{\prime \prime}$ | 174268 |

 Lots
of 10

h Lug
Terminals

| $s$ with Lug Terminals |  |
| :---: | :---: |
| 174342 | $\$ 0.29$ |
| $18 A 881$ | .45 |
| 174340 | .49 |
| 184971 | .80 |
|  |  |

$\$ 0.25$

## ค)

 \$0.62\$0 $\begin{array}{r}1.40 \\ .75 \\ \hline\end{array}$


No.
No.


All are hermetically sealed in metal containers.
(1) $3 \times, 1$ MFD. 600-Volf DC. Size 25/8" overall height $\times 23 / 8^{\prime \prime}$ wide at mount ing bracket $\times 1 / 2^{\prime \prime}$ thick. 111 (0).5 MFD. 200-Volt. Size $3 / 4 \times 21 / 4^{\prime \prime}$ No. 178727.
Special, Each
15 c
Q. 1 MFD. 350-Volt. Size $17 / 8 \times 11 / 4 \times$ No. 18A109. Special, Each... 156

## Oil Filled Condenser

 Assortment10 Assorted of those listed above and other popular capacities in Bath-Tub and tubular types. No. 184968.
No. 18 A9
956

## \$1.88 VALUE FOR ONLY.............U, PAPER REPLACEMENT CONDENSERS far 8 MFd. ELECTROLYTICS 800-VoIt Peak 600-Valt DC Warking

Paper Dielectric Capacitors in standard inverted Aluminum can $13 / 8 \times 43 / 8^{\prime \prime}$ and with $6^{\prime \prime}$ insulated wire leads. Made o beakedown high insulation resistance and low power factor Known to main tain their actual capacity permanently Well Known Quality Make - Brand New. Buy Plenty at this Crazy Low Price-paper condensers won't deteriorate in stock. List Price, \$3.25. Regular Net Price, \$1.88.
Stock No. 18 Al055.
Scoop Price! Each.
10 Lots.
EACH.

59c
49c

In convenient hermetically sealed round aluminum containers. Mount up right or inverted. Come with mount ing clamps or nuts.
(1) 2 Mfd. 1500 Volts D.C.W. with high voltage pillar terminals. Size, 2 diameter $\times 43 / 4^{\prime \prime}$ high.
No. $17 A 471$. Special, Each $\$ 1.95$
(3) "TLA" C.D. DYKANOL

One terminal is well insulated, the other is the can itself. Standard inverted mtg. with threaded neck and nut. 2 Mfd. 600 Volts D.C.W. Size, $11 / 2$ 27/8"
No. 17A466. Special, Each
$60 c$
2 Mfd. 600 Volts D.C.W. Size $13 / 8 \times$
No. 18A594. Special, Each OUG 1 Myd .1500 Volts D.C.W. Size, $11 / 2 \mathrm{x}$
No. 17A467. Special, Each 955 $41 / 2^{\prime}$
No.
$75 c$
Internally Insulated From Case. ${ }_{3}^{2}$ Mfd. 1000 Volts D.C.W. Size, $13 / 6 x$
No. 17A468. Special, Each at DEEP CUT PRICES POPULAR STANDARD BRANDS EVERY ONE GUARANTEED


Quality makes, fully guaranteed, waxed cardboard encased with tinned or in-
sulated wire leads. Dual types have common negative.

TUBULAR OIL FILLED CONDENSERS


[^3]
(A)
(B)
(C)
(A) and (B) are popular cardboard tubulars with inner seal and ample wax seal at ends and flexible insulated vided with feet for vertical mounting in addition to an adjustable strap with each for horizontal mounting like on Dual unit (B). Type (C) are encased in aluminum cans with threaded necks for mounting.
(A) 8 Mfd. 450 Working Volts. Type No. $15 A 284.39 \quad 10$ Lots. $\$ 1$. Special, Each (A) 16 Mfd. 450 Working Volts. Type ST597, size $13 / 16 \times 233 / 4^{\prime \prime}$. List Price No. 154285.
No. 15A285. 49 \& 10 Lots. 43 E
Special, Each (A) 30 Mfd. 450 Working Volts. Type ST599, size $1 \times 31 / 2^{\prime \prime}$. List Price, $\$ 1.85$. No. $154287.59 G \quad 10$ Lots. 495
Special, Each (A) 8-8 Mrd. 450 Working Volts. size $11 / 8 \times 27{ }^{\prime \prime}$. List Price, Each $\$ 230$. No. 1841066. 89 P 10 Lots. 49 E
Special, Each. (A) 8-8-8 Mfd. 450 Working Volts. Triple separate sections. Type 35584 , size $13 / 8 \times 27 / s^{\prime \prime}$. List Price, Each $\$ 2.75^{\circ}$. No. 17A487. $895{ }^{10}$ Lots. 555 (B) $\mathbf{2 0 - 2 0}$ Mfd. 150 Working Volts. Type 2N509, size $1 / 6 \times 23 / 6^{\prime \prime}$. List Price, Each \$1.30.
No. 174463.49 P 10 Lots. 435
Special, Each 49 Each. (8) $20-20$ Mfd. 150 Volt $\times 20$ Mfd. tive, Type 3N527. List Price, $\$ 1.90$. No. 174488.59 B 10 Lots. 54 E
Special, Each 59 Each. (C) 8 Mfd .600 Working Volts. Type HS693, size $13 / 4 \times 4^{\prime \prime}$. Insulated wire leads. Ideal for high surge voltage No. $174464.99 e^{10 \text { Lots. } 89}$ Special, Each 150 Eorking Volts. Type (C) 8 Mfd. 450 Working Volts. Type
RS213, size $1 \times 2334^{\prime \prime}$. List Price, $\$ 1.75$. No. 174489.59 E 10 Lots. 545
Special, Each 59

## PAPER TUBULAR

 CONDENSERSCompact, ruggedly built, full ratings; here are great values in tubular paper condensers. Wound absolutely noninductiver whing fore hot soldered leads, assurig keedoly from contact resistance. Completely sealed

Cat. No. WORKINC VOLTS D.C. | Cat. No. Cap. Mfd. Each |  |  |
| :--- | :--- | :--- |
| $15 A 420$ | 0010 | 8 c |
| 1 c |  |  | 154420

154421
$15 A 422$
$15 A 423$
$15 A 424$
154425


Kits of Paper Tubulars Kit of 18 CONDENSERS. Contains 2 Each . $001, .002, .005$ and 3 Each .01 , paper tubuiars. 600 -Volt top quarity paper tubulars.
No. $15 A 388$. Your Cost
51.29 Kit of 36 CONDENSERS. Contains 4 Each $001, .002, .005$ and 6 Each .01 .02 , 05 , 1 Alill 600 -Volt top quality paper tubulars
No. 15A389. Your Cost

## Resistors at prices you can stock up FOR VEARS TO COME？

|  |  |  |  |
| :---: | :---: | :---: | :---: |
|  |  |  |  |
| Ohme | 3 Watt | Cat．No． |  |
| 125 | 是现 | 18 A76 |  |
| 10 Watt |  |  |  |
| 125 |  | 18А77 | Choice， |
| 1600 | 7\％$\times 3 \%$ \％ | 18478 |  |
| 3000 | P63＂ | 184576 |  |
| 3150 7.5 |  | $18 \wedge 79$ $18 \wedge 80$ | 106 |
| 15 | ${ }^{18} \times 34 /{ }^{1 /}$ | 18481 |  |
| 16000 | 1883\％＂ | 18485 |  |
| 25 Watt |  |  |  |
| 315 | 13 $\times 41 / 8$＂ | 18A571 |  |
| 400 |  |  | Each |
| 400 6000 | ＋5x5 \％${ }^{\prime \prime}$ | 18.186 |  |
| 6000 8000 |  | 18 A 1888 | 15 |
| 10，000 | 橧×51／8 | 18.4574 |  |
| 100 Watt |  |  |  |
| 800 | 11／871／2＂ | 18．457\％ | c |
| 2000 | $11 / 87{ }^{1} /{ }^{\prime \prime}$ | 18A578 | － |

## BARGAIN Assortment Ferrule Resistors

Includes 10 Resistors from above or other size ferrule type．Ideal for experiments，etc No．18A93．Per Asst．of 10． 79 C

CLIPS for Above Resistors or for Cartridge Fuses
 No．12A1324．For 9／16＂dia． No．18A775．For 13／16＂dia． CHOICE，
EACH．
46

## TYPE AAG FUSES



Class enclosed，9／32＂dia．$\times 11 / 4^{\prime \prime}$ ong．Designed for wione wher as in conslderable vibration such as in ais draf；efc．being 3 AC type they an usually be used to replace the $3 A C$ ． No．18A778．2－Amp．
No．18A779．3－Amp．Ehoice， 3 E
No．18A780．Assmp． above．Box of 100 ．．．．．．S1 95

## TYPE 3AG FUSES

No．18A787．2－Amp．EACH．Box of 10050
20－Amp．250－Volt FUSES 250 －Volt，standard cartridge fuses $2^{\prime \prime}$ No 2008 diameter，Chase－Shawmut No． 2008. No．18A177．Per Box of $10 . .516$

## HIGH VOLTACE FUSE

with bras 2500－Volt；Fibre enclosed $\times 41 / 2^{\prime \prime}$ long．caps $13 / 32$ diameter No． 18 A 777.

## FUSE CLIPS <br> for ABOVE

No．12A1322．Phosphor bronze N．P． clips for $1 / 4^{\prime \prime}$ dia．fuses such as 3AG，etc．EACH
No．12A1323．Berylium copper clips for $13 / 32^{\prime \prime}$ dia．fuses such as 30 high voltage，etc．EACH

FUSE EXTRACTOR
Very Handy for Removing


Adjustable Vitreous Enameled 25－50－100 WATT RATINGS Not War Surplus．．Shiningly New just as they come from CE stocks in O．huge special purchase．Made by Ohmite for CE and comparable to the
popular Ohmite＂Dividohm＂．Vitreous popular Ohmite＂Dividohm＂．Vitreous
enameled on porcelain cores with a narrow strip of the turns of wire ex－ posed to form a contact surface for the embossed contact on the adjust－ able lug lone lug with each）．May be adjusted to any value from zero to the maximum value of the unit．It also permits an adiustable tap for use
in voltage divider circuits．Every One Cuaranteed Perfect－Brand New－ Regular．

| 100－WATT ADJUSTABLE <br> Care： $61 / 2 \times 3 / 4^{\prime \prime}$ Mig．Centers 73／8＂． |  |  |  |
| :---: | :---: | :---: | :---: |
| Value | Stock | List |  |
| Ohms |  | Price | Net Eac |
| 25，000 | 18 A1045 | \＄3．25 | 93 |
| 50－WATT ADJUSTABLE |  |  |  |
|  |  |  |  |
| Core： $4 \times 9 / 16^{\prime \prime}$ Mtg．Centers 43／4＂ |  |  |  |
|  |  |  |  |
| 10，000 | 18 A1038 | 2.15 | 64 |
| 15，000 | 18 A1039 | 2.15 | 84 |
| 20，000 | 1841040 | 2.15 | 846 |
| 25，000 | 18 A1041 | 2.15 |  |
| 30，000 | 18 A1042 | 2.47 | 74 |
| 40，000 | 1841043 | 2.47 | 74 |
| 25－WATT ADJUSTABLE |  |  |  |
|  | 18 A1050 | \＄1．24 |  |
| ，000 | 18 A1051 | 1.43 | 43 |
| 20，000 | 18 A1052 | 1.56 | 47 |

## OTHER TOP MAKES



FIXED TYPE
No．18A789．100，000 ohms， 100 －watt． Size， $3 / 4 \times 61 / 2$
Special，Each
No． 18 A799． $4000 \cdot \cdots \cdot$. Size， $3 / 4 \times 2^{\prime \prime}$ ． Special，Each． ．．．．．．．．．．．．25 No．18B596．5，000 ohms，20－watt． Special，Each．．．．．．．．．．．．． 19 No．18A794．＂O0，000 ohms，50－watt．

Special，Each $\mathbf{A D J U G A B L E}$ TYPPE No．18A796． 75 ohms，50－watt．Size $3 / 4 \times 41 / 2^{\prime \prime}$
Special，Each
50c


## FINEST GRADE INSULATED RESISTORS <br> 

Standard RMA Color Coded，well known quality brands．In ohmages ONLY as listed．

|  | $1 / 2$－WATT |  |  |
| ---: | ---: | ---: | ---: |
| Ohms | Ohms | Ohms | Ohms |
| 68 | 2,500 | 22,000 | 220,000 |
| 150 | 3,000 | 25,000 | 470,000 |
| 180 | 3,300 | 39,000 | 1.0 Meg. |
| 560 | 10,000 | 50,000 | 2.2 Meg． |
| 1,500 | 12,000 | 100,000 |  |
| 2,200 | 15,000 | 150,000 |  |

## （When ordering specify ohmage）

No．12A654X．1／2－watt any 25 C
size listed． 10 for．．．．．．．．． Lots of 100 ．
Each Value．ONLY
$\$ 2.00$

## 

Contains all most popular capaci－ ties． 100 assorted， 50 each $1 / 2$ and
$1-w a t t$.
No． 18 A74．Per Asst．．． $\mathbf{S}-95$ 100 assorted， 50 1／2－w watt， 25 2－wat $\qquad$ \＄2．25 200 assorted， 100 1／2－watt， 751 watt， 25 2－wa No．18A786．Per Asst．．\＄3．95
free－Handy Color Code Chart with each of the assortments listed．


## PRECISION Wire Wound Resistors

Accurate within 1\％ OHM Type 190,1 watt wound on cramic，size $1 / 1 / \times 1{ }^{\mathrm{m}}$ With tinned wire leads．

| Cat．No． | Ohme |  |
| :---: | :---: | :---: |
| 184858 | 1.01 | E |
| 18 A 859 | 2.11 | EACH |
| 184860 | 2.68 |  |
| 184861 | 4.13 | de |
| 18 A868 | 23.8 | 3ec |

## PRECISION RESISTOR ASSORTMENT

 10 ASSORTED IRC and Shallcross wire wound precision resistors， accurate within $2 \%$ ．A variety of values．Any one resistor is usual－ YEN．Fuse \＆Resistor Mtgs．

（A）3AG FUSE HOLDER For two type 3 AC fuses．Bakelite base．
No．18A887，SPECIAL，EACH．． 1 DC
（B）FUSE and RESISTOR MTG． No．18，mi94．black bakelite base，



10 WATT
Wire Wound Resistors
Well known qual ity makes with wire leads and lugs．
Ohms Str No
Srk．No．
$18 A 102$
$15 A 1133$

Ohms Stk．No． $\begin{array}{ll}1,200 & 12 A 579 \\ 1,500 & 12 A 580\end{array}$ $\begin{array}{ll}1,500 & 12 A 580 \\ 2,000 & 15 A 1140\end{array}$ $\begin{array}{ll}5,000 & 12 A 581 \\ 7,500 & 12 A 582\end{array}$ $\begin{array}{ll}7,500 & 12 A 582 \\ 10,000 & 15 A 1142\end{array}$ $\begin{array}{ll}10,000 & 15 A 1142 \\ 12,000 & 12 A 583 \\ 15,000 & 18 A 217\end{array}$ $\begin{array}{ll}15,000 & 18 A 217 \\ 25,000 & 15 A 1145\end{array}$ $\begin{array}{lll}1,000 & 12 A 578 & 25,000 \\ \text { CHA1145 }\end{array}$ CHOICE，

15c

## WIRE WOUND

Resistor Assortment
10 Watt resistors handy for serv－ ice and other needs．All quality Assortment of TEN．．．．．． 950
1801801
$95 c$

## 50 Ohm <br> 3 Watt <br> Carbon <br> Resistor



POWER RHEOSTATS


A permanently smooth，close control． Made of all ceramic and metal with mounting are fused together with vitreous enamel and fired at high temperature．The finest you can Bu and LOOK What You Save．

25－Watt．Rotation $2950 \pm 5 \%$
Res．Stk．List $\pm \begin{aligned} & \text { Special，}\end{aligned}$
Res．Stk．List Special
Ohms No．Price $\begin{array}{llll}\text { Ohms } & \text { No．} & \text { Price } \\ 25 & 18 A 1047 & \$ 5.20 \\ 500 & 1841048 & 5.20 & \end{array}$ 500 －Watt．Rotation $3000+5 \%$
Resistance Tolerance $\pm 10 \%$ 10，000 18A1049 \＄6．50

## OHMITE＂J＂50－WATT

75 Ohm Rheostat． All porcelain，Vitre－ ous，enameled．Shaft 1／4＂long $3 / 16^{\prime \prime \prime}$ dia． A $\$ 5.85$ List
No． 188663.
Specla，Eac
Lots of 10. 50c Lots of 10．．45C


25 Watt Power Rheostat IRC ． 5 OHM．An ali－metal unit with
die cast aluminum die cast aluminum formily distributed throughout element，regardless of percentage of
element actually
used. Dissipates
heat rapidiy. Screwd heat rapidly．Screwdriver type ad－ justment．Single hole mtg．for panels up to $7 / 16^{\prime \prime}$ thick．List
Price Value $\$ 4.50$.
No． 18 A773．SE Lots of 5 E 5
Each．．．．．

## B-As SUPER VIIUES in POWER SUPPIYNIIS



Here in kit form are the BEST values in power supply components. Each part carefully selected and chosen to give the best possible performance,
resulting in a kit supplying well filtered $D C$ output suitable for receivers, testers, oscillators, preselectors, monitors, amplifiers, transmitters and tered, high voltage DC supply in conjunetion with filament voltages.
(A) 275-VOLT DC 80 MA KIT Complete Kit consisting of the following: 1 Transformer, Pri. 110 -volt, 60 -cycle, Plate Sec. $630-$ volt C.T.i 80 MA . Rectifier filament 5 -volt @ 2 $33 / 8 \times 23 / 4 \times 35 / /^{\prime \prime}$ high. 2 Filter Chokes, $80 \mathrm{MA}, 10$ $338 \times 23 / 4 \times 35 / 8$ high. 2 Filter Chokes, 80 MA,
Hy. 240 ohms. Res. I Filter Condenser, two sections with 8 mfd . capacity, each section in metal can. Shipping weight, 8 lbs.
No. 4A78. Your Cost Per Kir
as Described........................ $\mathbf{3 . 5}$

(A) 300-VOLT DC 90 MA KIT

Complete Kit consisting of the following: 1 Transformer, Pri, 110 -valt, 60 -cycle. Plate Sec. 650 voit C.T., 90 MA . Rectifier filament 5 -volt @ 2 amp. Also has Sec. 6.3 @ 3.5 -amp. Size, $33 / 16 x$ $27 / 8 \times 31 / 4^{\prime \prime}$ high. 2 Filter Chokes, $100 \mathrm{MA}, 8 \mathrm{Hy}$. 1 Filter Condenser, two sections with 8 mfd . capacity. each section in metal can. Shipping weight, 6 lbs.
No. 4A77. Your Cost Per Kit as Described
$\$ 3.95$
(B) 350-VOLT DC 185 MA KIT Complete Kit consisting of the following: 1 Transformer, Pri., 110 -volt, 60 -cycle. Plate Sec. $750-$
 $43 / 4 \times 33 / 4 \times 4^{\prime \prime}$ Weight, $71 / 2$ lbs. 2 Filfer Chokes, 270 MA, 4 Hy. 2 Filter Condensers, 4 mfd. 600 volt oil filled in hermetically sealed rectangular can. Shipping weight,-18 lbs. No. 4A76. Your Cost Per Kit as Described.

(C) 450-VOLT DC 270 MA KIT

A real heavy duty power supply kit large enough for almost any class of service. Kit consists of I Power Transformer, weight, 16 lbs. with a coie stack almost $4^{\prime \prime}$ thick, overall size $41 / 2 \times 6 \times 37 / 8^{\prime \prime}$ Primary 110 -volt 60 -cycle. Plate Sec. 900 -volt C.T. @ 270 MA. Filaments: 5-volt @ 6-amp, 6.3-volt@3-amp,6.3-volt @ 3-amp and 6.3-volt @ 10 -amp. A real heavy duty transformer. 2 Filter Chokes, 300 MA, 4.2 Hy., 78 ohms, 2500 -volt breakdown. Fully enclosed round metal case $41 / 2^{\prime \prime}$ high $\times 33 / 4^{\prime \prime}$ diameter, base $4^{\prime \prime}$ square with 4 screw holes for easy mounting. Weight, 9 lbs. each. 2 Filser Condensers, 4 mfd ., 600 -volt oil filled in hermetically sealed rectangular can. Shipping weight, 32 lbs.

No. 4A79. Your Cost Per Ki as Described
$\$ 9.95$

## "WHOPPING" BARGAINS IN POWER TRANSFORMERS


(1)

(2)

(3)

Priced as Low as Less than One-Half of Regular, made possible by a huge B-A Special Purchase from a manufacturer who quit radio sets and amplifiers Top quality. Brand New, regular in every detail except the price. Buy Now! t isn't always such values in really good transformers are available.

## (1) 270 MA- 850 -VOLT C.T.

## Hos Four Filament Windings A Real Husky Transformer.

 measures almost 4" long. Fully en closed vertical mounting. Primary 115 volt, 60 -cycle, 850 volts C.T. at 270 6.3-volt @ 3-amp, 6.3-volt @ 10-amp and 5-volt @ 6, amp. Overall size. No. 3 B35.SPECIAL, EACH . . . . . . .
$\mathbf{5 4}$
4.97 (1) $270 \mathrm{MA}-900-$ VOLT C.T.

Has Five Filament Windings Has a $21 / 2$-volt @ 10 -amp winding in addaition to the 4 windings listed in
transformer above. O Otherwise identic transformer above. Otherwise identica to transformer above. 970 MA . Overall size, $41 / 2 \times 6 \times 37 / \mathrm{B}^{\prime \prime}$ Shipping weight, 19 lbs. No. 4A73.
$\$ 5.47$

## PPECIAL EACH (2) $190 \mathrm{MA}-780$-VOLT C.T

(2) $\mathbf{2 0 0}$ MA- $\mathbf{7 8 0 - V O L T}$ C.T. Otherwise identical to No. 3A141 at left below. Size, $43 / 4^{\prime \prime}$ high $\times 33 / 4$ No. 3A143. 287 SPECIAL, EACH
$\$ 3.77$
 High voltage plus 6.3-volt @ 5 amp and 5-volt@3-amp filament. Prí 115 -volt 60 -cycle AC. Double halfshell construction fully shielded with coded wire leads. Size overall. $41 / 4 x$ $41 / 2 \times 33 / 4{ }^{\prime \prime}$. Shipping weight. 9 lbs. No. 3 Al42.

## SPECIAL, EACH

$\$ 3.19$

## (3) $80 \mathrm{MA}-630$-VOLT C.T.

 315 -volt each side center @ 80 MA 5 -volt rectifier winding at 2 amps. volt 60 -cycle AC. Double half-shell construction fully shielded with codedwire leads. Size, $33 / 8 \times 23 / 4 \times 35 / 8^{\prime \prime}$ high. uly enclosed. upright mounting. Pri C.T. at 190 MA. Filaments @ 3 amp, 6.3 -volt @ 5 amp. Size Shipping weight, $81 / 2$ ibs. NO. 3 Al4 SPECIAL, EACM wire leads. Size, $33 / 8 \times 23 / 4 \times 3$ lbs.
Shipping weight, $41 / 2$ No. 198709. SPECIAL, EACH
$\$ 1.88$ No. 198714. Primary 115 -volt and 220-volt universal, otherwise as

BUY WITH CONFIDENCE The B-A reputation for honest dependable and friendly deafings profect your every purchase.


## ADC 75-WATT MODULATION TRANS.

Pri. for a pair of 807's operating Class "B'". Sec. for 3500 . ohm load with current of 200 MA DC through winding. Exactly right for amplitude modulating a command transmitter or similar gear. In black wrinkle enameled steel Weight $91 / 2$ lbs
No. 3A139. SPECIAL, EACH
$\$ 3.96$

## ADC MULTIPLE FILAMENT TRANSFORMER

Sec. No. 1, 6.3 -volt at $12-\operatorname{amp} ; \sec$. No. 2, 5 -volt at 2 -amp; sec. No. 3, 5-
volt at 2-amp. Primary 115 -voit 60 cycles. In black wrinkle enameled steel case, fully potted. Lug terminals. Size, $41 / 8 \times 31 / 2 \times 51 / \mathrm{B}^{\prime \prime}$ high. Weight 9 lbs No. 3A140.
SPECIAL, EACH
$\$ 2.49$

4.2 HENRY 300 MA FILTER CHOKE

## DC resistance 78

breakdown. Fully en closed round metal case, $41 / 2^{\prime \prime}$ high $\times 33 / 4^{\prime \prime}$ diameter, base 4 square with 4 screw holes for easy mounting. Insulated wire leads. A Top Quality Choke Buit by a Leading Maker. Weight, 9 Jbs.
No. 3 Ait35. Speclal, Each. 2,5

## 2 MFD-4000-VOLT

OIL FILLED CONDENSERS


Top make and quality. Size $41 / 2 \times 33 / 4 \times 51 / 4^{\prime \prime}$ can
size, with ceramic pilsize, with ceramic pilwoink $\$ 3.95$ Each.

2 MFD. 2500-VOLT OIL FILLED CONDENSER Well known brand. Cerd.
mic pillar terminals, in
hermetically sealed metal hermetically sealed metal case. size overallo $13 / 4 x$
$33 / 4 \times 51 / 2^{\prime \prime}$ high. Comes
with mounting bracket and solder lug terminals. No. 2173990.
 Special, Each.


10 Mfd. 600Volt DC Wkg. Oil Filled Condenser
$45 / \times 31 / 2 \times 11 /{ }^{\prime \prime}$ her-

metically sealed can with flat lug terminals. What a BUY! | No. 18Al11. |
| :--- |
| AT ONLY.: |

. 5 MFD. 1000-VOLT DC GE PYRANOL CONDENSER Compact hermetically sealed drawn metal case, overall size $31 / 4^{\prime \prime}$ $916^{\prime \prime}$ thick. Mounting bracket attached
A Whale of a Bargain!


## Relaus sand Swithinn Yunto at cirixum <br> SWITCH ASSEMBLIES and PUSH-BUTTON UNITS <br> RIDICULOUSLY LOW PRICES ON RELAYS



## (1) INTERPHONE SWITCHING ASSEMBLY

Consist of $5-p o s i t i o n ~ s e l e c t o r ~ s w i t c h ~(4 ~ p o s i t i v e ~ a n d ~ l ~ s p r i n g ~ r e t u r n) ~ o p e r-~$ ated with bar type pointer knob. Included in assembly is a $10,000 \mathrm{ohm}$ control with knob; one IK33A mike jack, one JK34A phone jack, an 11-point terminal block and receptacle of standard banana plugs and jacks. Entire assembly in a handy cast aluminum box, size $43 / 8 \times 31 / 4 \times 21 / 8$. Has many apolications for switch control in intercoms and PA. Easy to rewire for individual needs or to dismantle for parts, which are a tremendous bargain at the price we ask for the complete unit.
stock No. 21T3984. SPECIAL, EACH. ALL BRAND NEW 59c eceptacle for banana plugs. All other parts as receptacle for banana plugs. All
(2) PUSH-BUTTON TUNING UNIT

Consists of Ten $7 / 16^{\prime \prime}$ dia. Chrome-plated push buttons that extend $11 / 4$ rom plate. Each button DPST positive action and automatic release. Assembly includes: Ten adjustable 100 mmf air padders, a 50 mmf variable automatically cam-adjusted or set manually by rotating external shaft, and an adjustable 25 mmf air padder. Mounting drilled for 6-32 and 8-32 screws. Condensers are easily removed; parts value of this unif is many times greafer than our low price! Size $6 \times 8 \times 51 / 2^{\prime \prime}$. Special, Each.
Stock No. 3 B74. ALL BRAND NEW. Sper

5245

## (3) PUSH-BUTTON SELECTOR SWITCH

An eight-button switch designed for push-button tuning and numerous other switching applications. Has seven two-circuit sections which are all bridged ogether when all buttons are out (normal). Operating any one button releases all others to normal and inserts into the circuit the coils, resistors or
whatever is being switched. The eighth button operates a SPST and a SPDT whatever is being switched. The eighth button operates a SPST and a SPDT other circuif combinations. With removable walnut bakelite buttons. Size verall $63 / 8^{\prime \prime}$ long, $15 / 8^{\prime \prime}$ deep behind panel, $11 / 4^{\prime \prime}$ thick. BRAND NEW fock No. 17 A344

## 24 VOLT G.E. RELAYS

50 c
(A) S.P.S.T. Normally open double break Midget relay. Positive noiseless $\begin{array}{ll}\text { operation. Coil resistance } \\ \text { Has } 3 / 16^{\prime \prime} & \text { silver contacts. Size } 13 / 4^{\prime \prime}\end{array}$ Has $3 / 16^{\prime \prime}$ silver contacts. Size $1 / 4^{\prime \prime}$
high, $1 / 2^{\prime \prime}$ wide, $114^{\prime \prime}$ deep. Has four high, $11 / 2^{\prime \prime}$ wide, $11 / 4^{\prime \prime}$ deep. Has tour
$6-32$ t tapped holes for mtg. C. E. No $6-32$ tapped hol
CR2791-B100A3.

(B) 4 poles single throw normally open. Will handle up to 10 amperes non inductive load. Coil voltage 24 V C. Resistance 300 ohm. Size $11 / 2 x$
$13 / 4 \times 21 / 2^{\prime \prime}$ long. Made by G. E. No. $13 / 4 \times 21 / 2^{\prime \prime}$ Ion
CR2791G100.

CERAMIC GANG SWITCH


8 circuits, 2 positions, 4 sections. The front section is 3 cir. 2 pos. Rear pec tion is lir 2 pos The pos. Rear sec tions are individually shielded rear sec Ength $10^{\prime \prime}$. Can be easily disassem bled and converted to a variety of
No. 17 A428.
Special, Each
10 Lots. 418
Each...


Contains: O-10 C.E. meter with 19.5 millivolt movement, a $50 \mathrm{~mm} f$., 5000
volt vacuum condenser, and a SPDT antenna switching relay with 28 -volt wo ding all wired in an aluminum box. SPECIAL, EACH.
$\$ 2.95$
LEACH 6-VOLT DC RELAY D.P.S. T. nor-
mally closed, plus S.P.S.T. 16-ohm coil

for 6 -volt DC
operation. Has $4 \times 4 \times 1 / 4^{\prime \prime}$ bakelite base. operation. Has $4 \times 4 \times 1 / 4 "^{"}$ bakelite base.
Leach type $1252-567$.
No. 18 Alil2. A Buy. Each. ANOUTSTANDING VALUE in RELAYS and RELAY PARTS


An assortment that provides unsists of 5 various relays, an ex tra relay coil and extra contact points. ALL BRAND NEW.
No. 15 A 2036.
$\$ 1.95$

$\qquad$
(4) SENSITIVE RELAYS
(1) 3-POLE SINGLE THROW

Coil resistance 200 ohms. Operates on 100 to 150 MA at 20 to 30 volts DC. Contacts will safely handle 10 amps. tion. Overall No. 17A355. 79 Lots of ? (2) S.P.D.T. MINIATURE Coil 115 volts AC. Overall size 11 $13 / 4 \times 1^{\prime \prime}$. Single screw mounting. Brand New. I7A351. SPECIAL, EACH 05
(3) 24-VOLT DC D.P.D.T. ANTENNA RELAY. Operates on 24volt $D C$ or in series with bias supply bleeder or tube cathode circuits. Coil resistance approx. 250 ohms. Operat-
ing current approx. 90 MA . Has addiing current approx. 90 MA . Has additional SPST contacts, normally open. Very neat with ceramic insulation throughout and $1 / 4^{\prime \prime}$ silver contacts.
Size $3 \times 11 / 2 \times 15 /$ wide. Made by Ad- $^{\text {Wid }}$. Size $3 \times 11 / 2 \times 15 / 8^{\prime \prime}$ wide. Made by Ad-
vance Elec. or Leach Relay Co. Brand New. Elec. or Leach Relay Co. Brand
No. 18 A988.
$\$ 1.65$

(4)
4.5 MA. Contact arrangement in normal position, make one, break one. 6500 ohm coil. Can be used as single Not ind 95 c 2 MA. S.P.S.T., 6500 ohm coil, size No. 19A27. $\quad 58$ Lots of 85 Each.

> (5) 24-VOLT AC RELAY
S.P.S.T. G S.P.D.T. int. Can also be used on 6 V . DC continuous duty.
 (6) SENSITIVE 6500 OHM Telephone type, for vertical or hori zontal mounting. Contact arrange ment, SPDT plus SPST normally open Operates nicely on any 24 -volt DC ircuits or in fube plate or Cathode ircuits carrying current of 4 MA or No. 18 A989.

(1) ADVANCE 60-VOLT DC D.P.S.T. normally open 10 amp con
tacts. 1500 ohm coil Normally oper tacts. 1500 ohm coll. Normally oper ating on 40 MA , it is ideal for underload or remote control applicati
Mounted on micarta base, $31 / 4 \times 2$ Mounted on micarta base, $1 / 4 \times 1 / 4$,
overall height $13 / /^{\prime \prime}$.
No. 18 A542. SPECIAL, EACH
(2) KEYING-BREAK-IN RELAY Double coil type for operation on 12 volt DC or 6-volt DC with coils in parallel, Has 2 sets of heavy $1 / 4^{\prime \prime}$
silver contacts normally open and 2 sets of light duty contacts normally closed. Well insulated for high valtage. Beautifully constructed of black bakelite. Size $25 / 8 \times 37 / 8 \times 13 / 4$ high.
No. $18 A 957$.
SPECIAL, EACH. . . . . . . .
(3) 12-VOLT DC MIDGET S.P.S.T. contacts, normally open. All ceramic insulation. Coil resistance 150 Can be used in tube Cathode or Can be used in tube Cathode or circuits. Mado by Allied Control. Size $11 / 4 \times 11 / 8 \times 7 / 8^{\prime \prime}$. NO. 18 A990.
SPECIAL, EACH

85c

## (3) 24-VOLT MIDGETS

S.P.D.T. By removing one screw, coil can be slipped out and easily rewound for other voltage
 No. 174458.
$95 c$ D.P.S.T. normally open, otherwise as No. $18 A 953$.
SPECIAL, EACM . . . . . . . . .
(4) Leach Type 1127 110-V. AC D.P.D.T. ruggedly built with $3 / 16^{\prime \prime}$
silver contacts. All circuits insulated from metal frame. Quiet-will allow keying. Cail resistance 530 ohms. Over all size, $29 / 16 \times 11 / 2 \times 13 /$ B' $^{\prime \prime}$. 29
(4) Leoch Type 1024 24-V. DC 2-Pole single throw normally open Has 10 ampere contacts. Coil voltage 24 -volt DC. Resistance 265 ohms. Eas ly rewound. Size, $13 / 8 \times 11 / 2 \times 21 / 2^{\prime \prime}$ Ione No. 178661.
(4) ADVANCE 40-VOLT DC Type 975-8-38, $3-$ pole, center contact open. 40 volts DC, $1000-0 h \mathrm{~m}^{2} \mathrm{~m}$ coil, 10 amp. at 115 volts contacts. Area refor many industriai applications. © (5) KLIXON 24-VOLT CIRCUIT BREAKER. Type PLM 90, will handle very high current. Screw terminals Mounting centers, $23 / 8$ No. 18 A197.
SPECIAL, EACH
50 c
(6) ULTRA SENSITIVE RELAY S.P.D.T contacts, 16,000-ohm coil fully adjustable. Mounted on $25 / 8^{\prime \prime}$ terminals. Fine for plate circuits, photo cell applications and other uses, where an exceptionally good relay is needed
No. 17B233. $\rightarrow$

## SWITCHES .Ta - You can qo all out at theseprices

MICRO SWITCHES for MOST ANY NEED

(1)

(3)

(4)

(3) Type BZR5, S.P.D.T., with lug ter minals, otherwise as Fig. (3).
No. 18A994.
Special, Each 1 Lots of 1015 (4) $3 / 16^{\prime \prime}$ DIAMETER BUTTON PLUNGER TYPE
Type BZ3RDTC, S.P.D.T., otherwise

(5) PUSH-BUTTON, PANEL MOUNTING
Type YZ-7RA6, S.P.S.T., norm. open witch mounted in metal bracket with 15/32" dia. shank $11 / 16^{\prime \prime}$ long for single hole panel mtg. Has M2, $1 / 4$ " dia. metal plunger. Screw terminals.
No. 188225 . Special, Each 458 10. Each 415 Note: Z type Micro Switches as listed here possess highest sensitivity. White top indicates N.C.; Yellow, N. O., and Brown, the double throw

## ACRO MINIAC SWITCH


S.P.D.T., type 2 MD 3.1 AX rated at 15 amps. 115 -volt AC. Snap action, silver contacts. Bakelite, case only mounting holes. Stacks in multiple. No. 178666. Special, Each.

35 c iociois: 25 c

(1) HEAVY DUTY-BAKELITE 6 amp., "KLIXON" all bakelite, off on switch. Size overall $2 \times 1 \times 3 / 4$ type connecting lugs. No. 17A354. SPECIAL, EACH SSB (2) G.E. SPST TOGGLE SWITCH 3-amp. 250-volt, 6 -amp. 125 -volt. 15/32" dia. mounting sleeve $13 / 32^{\prime \prime}$ long. Nickel finished hardware complete with mounting nuts. 215 10 Lots. $188 \quad 100$ Lots. 88
EACH... EACH... (3) $\mathrm{C}-\mathrm{H}$ BAT HANDLE
D.P.S.T. 6 amps. at 125 volts; 3 amps. at 250 volts. Has $1 / 2^{\prime \prime}$ standard shank. Bakelite encased, compact, solder lug terminals.
Each
35c
$\stackrel{\text { Lors of }}{10}$ Each 30 C


Leaf type. Makes one breaks one.
Silver contacts, has Silver contacts, has 3/6" threaded Shank. size $2 \times 3 / 4 \times 5 / 8$
No. 1541156.296 iolots. 256
Special, Each 28 Erch..

## C-H PLUNGER

 TYPE SWITCHBakelite plunger type nor mally closed S.P.S.T. . 75 amp. at $125-$. Mounts in
Smooth operating
operated lights
mounting nu
No. 184399.
Each
10 Lots. Each
$15 c$ $13 c$

## S.P.D.T. PUSH SWITCH

(4) C-H HEAVY DUTY volts: 35 Rated at 5 amp. il 125 plate size $3 / 4 \times$

| No. 18A993. |
| :---: |
| Special. Each |
| 18 c |
| $\substack{\text { Lots of } \\ \text { 10. Each }}$ | S.P.D.T. eenter off, Otherwise like Fig. 4.


(5) C-H MOMENTARY TYPE S.P.S.T. Normally on, in "Off" position with lever held down, spring retion with "ever held down, spring re-
turn to "ON" when released. Rated turn tomp.oN" when released. Rated at 5 amp., at 125 volts; 3,5 amp., at
24 volts. Has $3 / 4 \times 2$ I $1 / 16^{\prime \prime}$ mounting plate with $113 / 16^{\prime \prime}$ mounting centers. No. 18A27. 15C Lotsof 12C Special, Each 15C lotsach 126 Normally off, otherwise same as above. No. 18A28. 20C Lots of
Special, Each
10. Each (B) C-H D.P.D.T. SWITCHES Rated at $20 / 30$-amp. at 125 volts. Has mounting plate size $11 / 2 \times 21 / 16^{\prime \prime}$ with $113 / 16^{\prime \prime}$ mounting centers.
No. 18 A236.
IO Lots.
 No. 17A797. D.P.D.T. with center off.



C-H POSITIVE ACTION PLUNGER SWITCH High quality push
type s.P.S.T. Circuits type s.S.S.T. Circuits
remain closed or open remain closed or open
after metal plunger is after metal plunger is
actuated. Rating 3 . 125 -volt. Has bakelité shell, solder terminals and standard $15 / 32^{2 \prime}$ dia. shank for


BARGAINS in PUSH-BUTTON SWITCHES


Normally open. In "ON", position with pressure on plunger, in "OFF", position
when plunger is released
 safety switch for cabinets housing high voltages.
No. 174257,4510 Lots. 1015
Special, Each 45
(2) MOMENTARY D.P.S.T.

Normally closed. Finest quality make. Has bakelite push knob, mounts in
 S.P.S.T. Normally open. Leaf type construction with $3 / 32^{\prime \prime}$ flat silver conNo. 17 Aush mig.
No. 17A276.
Special, Each
15C
Lots of
10. Each 12c (4) SURFACE MTG. SWITCH Momentary type, normally open. Ideal for surface mpg . on floor, panels, etc.
Has metal cover with bakelite body Has metal cover with bakelite body and screw terminals. Ruggedly con-
structed structed. Size $1^{\prime \prime}$ dia. $x$ 3/4" high.


HANDY SLIDE and ROTARY SWITCHES

(1) SLIDE SWITCHES

Small compact switch for a multitude of uses. Solder lug terminals and screw holes for mounfing.
No. 17 A438 S.P.S.T Each 10 Lots tacts. Thumbscrew locks it in either No. 17 A438 S.P.S.T. $10 \mathrm{c} \quad 8 \mathrm{c}$ throughout. A very high grade switch No. 178390 S.P.D.T. 12 c 10 c .wit 12923.


## (2) METAL SWITCH BOX (4) S.P.D.T. ROTARY SWITCH

 (Not illustrated.) Slip-on metal switch With off position, shorting type. $23 / 4{ }^{\prime \prime}$ box that provides a protective cover shank. for terminals. Has 3 , "" dia. hole for leads. Firs all standard midget slide switches. ${ }^{\text {No. } 17 \mathrm{~B}} \mathbf{6 7 8 .}$ SPECIAL, EACH. . 5 CSLIDE SWITCH WITH PLATE S.P.S.T. Switch with plate marked onoff. Plate size, $21 / 2 \times 1 / 8^{\prime \prime \prime}, 23 / 16^{\prime \prime}$ No. 17A358. 19c Lots of $15 c$

No. 18A166. Ea. 18c Each. . 1 WA S.P.D.T. Compact, with $3 / 8$ ". threaded shank $1 / 4^{\prime \prime}$ long plus $5 / 16^{\prime \prime}$ long $1 / 4^{\prime \prime}$ No. 18A534. Ea. .10c Each.... © (B) D.P.D.T. ROTARY SWITCH $1 / 4 \times$ " diameter with bushing for up



MISCELLANEOUS - POPULAR SWITCHES

(1) C-H TOGGLE SWITCH
S.P.S.T., ON-OFF. Has special handy SP. (3) DOOR SWITCH finger lever and mounting plate, siz S.P.S.T. Norm. closed, spring return $21 / 16 \times 3 / 4^{\prime \prime}$. Mig. centers $113 / 16^{\prime \prime}$. refrigerators, etc., where opening door Rated 5 amp., at 125 volts. turns on light or alarm. Small easily No. 18A34. 258 Lots of
Special, Each 20 . Each
(2) TOGGLE SWITCH with WIRE LEADS
S.P.S.T. enclosed in metal shell for surface mounting on panels or motors, No. 17 A 382 . 2 No. $17 A 382.2210$
Special, Each Lots of 10 . Each 10
mounted. Has 20" wire leads. Rated at .75 amp at 125 volts No. 178258 . Spe Lots of 24 (4) ROTARY SELECTOR SWITCH Mallory 4-position, single cireuit $1 / 4171$ shaft $1 / 2$ " long.
No. 174389.
Special, Each $\left.\begin{array}{l}\text { No. } 174389 . \\ \text { Special, Each }\end{array} \leqslant \begin{array}{l}\text { Lots of } \\ 10 . \text { Each }\end{array}\right\}$ RGAIN in SWITCHES 10 ASSORTED FOR ONLY...


## TabeTisore, check eveov, item FOR TERRIFIC VALUES

## UHF CHOKES and PARASITIC SUPPRESSORS


(2)

CENTER TAPPED CHOKE (1) $4.8 \mathrm{MH}, .15$ ohms D.C. Wound with 63 turns of No, 25 P E wire on steatite form $13 / 4 \times 1 / 4^{\prime \prime} \cdot$
No. 18 A562. SPECIAL, EACH . . 21

### 1.5 MH—125 MA

3) 21 ohms wound on wood dowel astened to $1^{\prime \prime}$ dia. bakelite plate, with solder lugs. Very compact size pregnated against moisture. 12 O

## OHMITE PARASITIC

(3) P300 Suppressor designed to prevent unwanted U.H.F. parasitic oscilations which occur in push-pull cir cuits. The parasitics are suppressed without loss of driving power. P300 is a non-inductive vitreous-enameled resistor combined with a choke, only $13 / 4^{\prime \prime}$ long $\times 5 / 8^{\prime \prime}$ diameter. ${ }^{\text {No. }} 18$ A593. SPECIAL, EACH. .5S

## BUTTERFLY CONDENSERS

 For VHFOnly.
29c


A sturdy well designed condenser with ow loss ceramic insulation and adjustable ball bearing rotor. Has three studs for easy panel or bracket mounting 5/32" shaft extends 1 3/16 inches. There are provisions for direct mount ing of circuit components resulting in minimum length of leads necessary for high efficiency and stability in VHF circuits.
In addition there is a silver plated hair pin inductance with pickup loop and R.F. choke with each condenser. All brand new sis 15 " square front to back buipmen

Stock No. 18A1057. *Capacity 5 to 35 mmf. Inductance loop $21 / 4 \times 11 / 4$
Stock No. 18A1058. *Capacity 3 to 12 mmf. Inductance loop $11 / 8 \times 11 / 4^{\prime \prime}$
Measured in series.
CHOICE, EACH
29 c

456 KC. I.F. COIL SETS


Midget I.F. Transformers. Size, $23 / 4 x$ No. 18A383. PER PAIR.....

PARASITIC SUPPRESSORS (4) An uitra high frequency choke of 22 turns on a $1 / 4^{\prime \prime}$ dia. $\times 13 / 16^{\prime \prime}$ long No. $172658 . \quad 15 \mathrm{c}$ SPECIAL, EACH

## MIDGET R.F. CHOKE

(4) 37 turns on $3 / 16^{\prime \prime}$ diameter $\times 1 / 2 \prime$ long phenolic form. Axial wire leads No. 18 A393.
SPECIAL EAC

## 1 MA RF CHOKE

(3) Midget size-only $7 / 16 \times 3 / 4$ " long Heavily wax coated with axial leads Will handle 200 Ma . O . No. 178659. SPECIAL, EACH HIGH FREQUENCY SUPPRESSOR 6) Carefully designed suppressor for 810 's. Contains four 5\% tolerance 10 ohm I watt resistors and a ceramic mounted inductance. A big value as a unit or for the parts.
No. 178684.
SPECIAL, EACH
15c

## ANTENNA <br> and OSCILLATOR COIL


(1) ANTENNA COIL

Unshielded, ideal for replacements, etc. For broadcast band with a 365 mmid. tuning condenser.
 (2) Midget oscillator coil For 456 KC I.F. Wound on ceramic form with single stud mounting. 5/8" diameter $\times 1^{\prime \prime}$ high
No. 17A398. Your Cost.
39c

## FLEXIBLE

## CONDENSER COUPLINGS



ARE FOR AL,
(2)
(1) Steatite $13 /{ }^{\prime \prime \prime}$ Diameter. 30 -
No. $18 A 500$. SPECIAL, EACH. (1) Steatite $21 / 4^{\prime \prime}$ Diameter. 5 C No. 18A501. SPECIAL, EACH. No. 18 A502.
SPECIAL, EACM
256

1.7 to 30 MC at 150 MA
R.F. CHOKE

Well known make choke of enameled silk covered wire impregnated with R.F. lacquer and wound on steatite core. Length, $11 / 2^{\prime \prime}$.
No. 18 A867. Special, Each. 258

## HIGH QUALITY

I.F. TRANSFORMERS


456 KC IRON CORE
(1) Wound with litz wire, dual slug puned. In aluminum can $13 / 8{ }^{\prime \prime}$ square, $21 / 2$ high. Has sols will opers and soade mounting lugs. Will operate as
l.F. input or output.
No. 18 A580.
Special, Each 9 L Lots of 39 Each 39 456 KC I.F.'S
(1) Universal input or output type. All ceramic insulated, with dual mica trimmers. Mounted in aluminum can
$11 / 4^{\prime \prime}$ square, $21 / 2^{\prime \prime}$ high. 39 en o. 17A412. Special, Each..
456 KC. SLUG TUNED (3) Has screwdriver slot adjustments top and bottom. Quality built throughout, low-loss polystrene bottom with 4 solder lugs. Can size $21 / 2^{\prime \prime}$ high ${ }^{\text {a }}$ $11 / 8^{\prime \prime}$ square, with spade $6 / 32 \times 3 / 8$ mounting studs. Ideal for replacement or experimental use as it can be easNo. 17A343. 51 E 10 Lots. 416 Special, Each KC MIDGET I.F.
(3) Only $15 / 8^{\prime \prime}$ high $\times 3 / 4^{\prime \prime}$ square. Universal input or output. Ideal for Midget sets.
No. 16A717. EACH. . ....... 49 G

## MICA TUNED MIDGET

 (3) 456 KC Iron Core. $17 / \mathrm{g}^{\prime \prime}$ high, 13/16" square, with wire leads at bottom. Designed for output to diode load, but can be casily converted forany standard if circuit. any standard IF circuit.
No. 18A846. Per Set of Two... 656

FINEST QUALITY, Mica Condensers at RIDICULOUS PRICES

.00025 mfd 2500 test volts. 35 C
18 A 614. .02 mfd . volts. est volts. 005 mfd 5000 test volts.
18 A 121 ................ .01 mfd .5000 test volts. 18A615
.001 mfd .5000 test volts. 18A870
.002 mfd .2500 test volts. 15 A46.
.0005 mfd .2500 test volts.
15 A44

## TOP MAKE TUBES <br> NEW . . . GUARANTEED <br> Type 807

No. 20A668
h. . . . . . . . . . .

Special, Each
Type 872A
No. 37T1001.
Special, Each. . . . . . . . . . $\$ 1.19$
Special, Each.... . VR ...
Type VR150
No. $21 T 3980$
Special, Each
496
\$19.75 QQ 15
RiFE GE TYPE DW52


4 Amperes, 2\% accuracy. EXPANDED scale. 2.19" diameter C.E. type DW52. List Price, $\$ 19.75$. Every One Brand Newl
20A840. 8285 Lots of 2445
Spec. Ea. 10 . Ea.

HOYT DC AMMETER
Range 0-5 DC amperes. Magneticvane instrument with accuracy of $5 \%$ Movement is air damped. Standard $3^{\prime \prime}$ round flange type bakelite case for panel mounting in $23 / 4^{\prime \prime}$ hole. Limited quantity at this low priceorder at oncel
No. 18A1028.
Price, Each.
$\$ 1.19$

## FOR ONLY <br> 4. 15

GIANT AC VOLTMETER
RANGE 0.300 VOLTS
Just the ticket
for power panels, test bench-
es, etc
es, etc. Has
non-glare scale non-glare scale
approx. $51 / 2^{\prime \prime}$ long. Easily read from a distance Made
by C.E. Type AD-7 Model
BAD7VBDl6 AAD7VBD16.


Accurate over frequency range of 25 to 125 cps . Internal resistance over 10,000 ohms. Case size overall, $61 / 2^{\prime \prime}$ wide, $7^{\prime \prime}$ high. Mounts in hole $51 / 2$
 PRECISION VERNIER DIALS $23 / 4 "$ Dio. Block etched colibrotions and nu-
merals on brushed aluminum backgr'nd. Large flanged bross bushed for $1 / 4^{\prime \prime}$ shoft. With micrometer indicator allows logging to one tenth of one dial division. No 18A516, 0 to 100 , over $180^{\circ}$. © S
No. 15 A 2037 (Less micrometer indi cator) with Black etched calibrations


866A TUBES Brand New - NOT WAR SURPLUS. \$1.95 Value.
No. 20A791.
EACH...... EVERY ONE CUARANTEED!

BC 459, ETC.

## SPARE TUBE KIT

Set of spares or replacements for BC 459A and sim ilar units. Kit consists of $2,1625,11626$ and 1 1629. Brand New in individuai boxes, quality brands -GUARANTEED.
No. 37 T1021. Per Kit, 4 Tubes as Listed. ONLY.

## CRAZY LOw PRICEs m, wo oumm Variable Condenserse

## TWO-GANG BC BAND VARIABLES


(1) COMPACT TUNINC CONDENSER FOR SUPERHETS. Cut plate type to be used with standard 456 KC oscillators and IF coils. Has trimmers, ball bearing rotor and $3 / 8{ }^{\prime \prime}$ dia. shaft for drums or can be reduced to $1 / 1^{\prime \prime}$ with shaft coupling. Ov SPECIAL, EACH

49c
(2) CUT PLATE TYPE to be used with standard 456 KC oscillators and IF coils. Has trimmers, ball bearing rotor and $3 / 8^{\prime \prime}$ dia. splined shaft with $21 / \mathrm{s}^{\prime \prime}$
dia. drum. Has $8-32$ threaded holes for easy mounting. Condenser size $17 / 8 \times 21 / 4 \times 15 / 8^{\prime \prime}$
No. 178197 . SPECIAL, EACH . . SSC

FOR TRF SETS, 365 mmfd per secrion. Has ball bearing rotor and $1 / 4$ take pointer. Size $1 / 1 / 8 \times 21 / 4 \times 15$ No. 174447.
SPECIAL, EACH
CUT PLATE TYPE FOR HETS. To be used with standard 456 KC oscillator and IF coils. Has trimmers, ball bearing rotor and $3 / 8^{\prime \prime}$ dia splined shaft for drum or coupler Supplied with universal mtg. bracket Size $17 / 8 \times 21 / 4 \times 15 / 8^{\prime \prime}$.
No. $17 A 451$. SPECIAL, EACH. . 896 SHAFT COUPLINC. To redu $3 / 8^{\prime \prime}$ shaft to $1 / 4^{\prime \prime}$ diameter No. 12Al191. EACH. 14 c

## MIDGET VARIABLE CONDENSERS


(1) VERNIER 3-GANG
CONDENSER


## (3) BUD TYPE MC1855

Semi-Circular-Double Bearing, Stea For superhets or TRF receivers. Has tite insulated 100 mmfd max., 7 min For superhets or TRF receivers. Has two 365 mmfd . sections, plus 220
mmfd. center section, oll with trimmers and isolating shields. Shoft is $1 / 4^{\prime \prime}$ dio. with bullt-in 7 to 1 vepnier operated thru $1 / 8^{\prime \prime}$ dia. shaft. All boll beoring construction. Size $11 / 2 \times 13 / 8$ wide, $21 / 2^{\prime \prime}$ long

## (2) APC SHAFT TYPE

Ceramic insulated air padder condensers. Finest quality makes. Adaptable for wide variety of uses. All have $1 / 4^{\prime \prime}$ $\begin{array}{lccc}\text { shafts. } & \text { Cap. } & \text { Shaft } & \text { Prico } \\ \text { Stock. } & \text { MMFD } & \text { Lengłh } & \text { Each } \\ \text { No. } & \text { MM8. } \\ \text { 18A88. } & 140 & 1 \% \text { E0c } \\ 18 B 92 . & 100 & 7 / 8^{\prime \prime} & 40 c\end{array}$

(1) JOHNSON TYPE G NEUTRALIZING CONDENSERS

Type $12 C 70$. 12 max. 6 min . MMFD, 7 plates .225 spacing, $1 / /^{\prime \prime}$ shaft $11 / \mathrm{s}^{\prime \prime}$
 No. 14A677. Special, Each air gap $.024^{\prime \prime} .14$ plates. Can be single hole or chassis mid. Has $1 / 4^{\prime \prime}$ shaft $1 / 2^{\prime \prime}$ long, overall size of condenser behind panel $2 \times 13 / 4$
No. 18A804. Special, Each.
65c

## (4) APC SCREWDRIVER SLOT

Finest quality, well known brand, cer amic insulated air padder condensers adaptable for a wide variety of uses. Has screwdriver slot adjustment (Mounts behind panel with $6.32 \mathrm{ma}-$ chine screws.)

| Stock | Cap. | PRICE |
| :--- | :---: | :--- |
| No. | MMFD | EACH |
| $8 A 512$. | 100 | 35 C |
| $7 A 178$. | 75 | 25 C |

Type 50C20. 52 max. 5 min . MMFD, 9 plates $.045^{\prime \prime}$ spacing, $15 / 32^{\prime \prime}$ long. No. 14A679. Special, Each.

## (2) CARDWELL 7-GANG CONDENSER

Type CA325. Two 200 mmf , Four 100 mmf and One 75 mmf sections, Worm drive assembly and $0-30$ calibrated dial: 5/16" shaft, $13 / \mathbf{a}^{\prime \prime}$ long. Enclosed No. 5Al74. A TREMENDOUS VALUE! EACH ONLY
$\$ 1.95$

## VERNIER 3-GANG CONDENSER



A precision made assembly that can be used for single dial control of receivers, frequency meters, VFO units or medium power transmitters up to 75 watts. Includes two spaced 260 mmfd . section, all ceramic insulated, and a worm driven 50-t0-1 ratio dial drive mechanism attached. Cears are spring loaded. Has shaft lock and $4^{\prime \prime}$ calibrated metal dial with transparent hair line indicator. Size overall, 7 " long, $43 / 4^{\prime \prime}$ high, $43 / 4^{\prime \prime}$ deep. A "Honey" of a Unit, That Cost Many Times the Price We Ask
$\$ 2.95$

## TRANSMITTING VARIABLE CONDENSERS



(2)

(3)
(1) JOHNSON 250 MMFD

Type H (250H15) 250 mmfd max., 11 min., $02^{\prime \prime}$ plates, compact yet very rugged. Panel space $112^{\prime \prime}$ square $x$ $3,13 / 32^{\prime \prime}$ deep. $1 / 4^{\prime \prime}$ shaff, $11 / \mathrm{g}^{\prime \prime}$ long.
51 plates . 030 spacing. REC. LIST 51 plates .030 spacing. REC. $\$$ LIST
PRICE, $\$ 5.75$. SPECIAL, EACH 656 Type H (200H15) 200 MMFD. 41 plates. 2 $28^{\circ "}$ deep. Otherwise above. ${ }^{\text {No. } 14 A 678 . ~ S P E C I A L, ~ E A C H ~} 85 \mathrm{C}$
(2) JOHNSON TYPE $250 E 20$ Capacity 244 max. 12 min . MMFD. 2000 volts. 23 plates. Stator plates can be removed to vary capacity and to increase voltage breakdown. . $045^{\prime \prime}$

(1) Type 150 E30. 154 max. 14 min . MMFD. 3000 volts. 23 plates. $075^{\prime \prime}$ spacing ${ }^{1 / 4 " \text { " }}$ shaft. Size $278 \times 25 / 8 \mathrm{x}$
$41 / 4^{\prime \prime} . \$ 6.00$ List Value.

## (1) Type 70F30. 67 max. 11 min .

 MMFD. 3000 volts. 17 plates $.075^{\prime \prime}$ $\$ 5.35$ List Value.No. 144675 . Special, Each. $\$ 1.45$

(1) SINGLE GANG 365 MMFD (2) SINGLE GANG 440 MMFD Ceramic insulated, precision built. Has Straight line capacity, silver plated $1 / 4^{\prime \prime}$ dia. $\times 3 / 4^{\prime \prime}$ long shaft with 10 to plates 03 spacins. Ceramic end plates, anism. Size $23 / 4^{\prime \prime}$ high $\times 31 / 2$ wide $x$ shaft $1 / 4^{\prime \prime}$. O.K. for many broadcast $\begin{array}{ll}13 /{ }^{\prime \prime} \text { deep. } \\ \text { No. } 18 \text { A974. Special, Each. } 51.45 & \text { band circuits. } \\ \text { No. 18AS07. . . . . . . . . . . . . . }\end{array}$
(3) HAMMARLUND 3 GANG 236 MMFD PER SECTION Each section shielded. Isolantite insulation, encased precision bearing steel shaft. Panel mounting space $17 /^{\prime \prime}$ high $\times 25 / 8^{\prime \prime}$ wide $\times 63 / 4^{\prime \prime}$ deep.
No. 18 A958, SPECIAL, EACH......................................... 5 .

## "HFD" MICRO DUAL CAPACITORS

Hammarlund type HFD-15-X. Double
spaced 15 max .6 min. mmid. per
section 1500 volts. 111 plates per section section 1500 valts. 11 plates per section
$.030^{\prime \prime \prime}$ spacing. Screwdriver slot for tuning with shaft lock. Soldered brass plates cadmium plated. Aluminum end plates
mounted on Isolantite base. Has isolatmounted on Isolantite base. Has isola
 ing center shield. Silver plated rotor contacts can be shifted to 3 positions for shortest possible leads. Base mount ing size, $11 / 16 \times 11 / 2 \times 3^{\prime \prime}$. List, $\$ 3.50$. 99 C
No. 14A680. SPECIAL, EACH.......................................... ype HFD-30-X. 28.5 max -8
volts. 19


## VARIOMETER

Variable inductance, range 2.5 to 7 microhenrys. Wound with size 10 silver plated solid copper wire. Has ceramic insulation, low loss linen base phenolic frame and ceramic shaft coupler. Continuously rotatable. Makes an unusually Mounts flush against panel. Overall size $5 \times 41 / 2 \times 27 / 8^{\prime \prime} .59$ C

## Tervific Vakeen for THE BUILDER


(1) Heavy duty chassis. Extra heavy cad. plated steel. Ideal for heavy ing extreme rigidity. Practically blank -the few holes in it are well placed, Corners are seam welded. Has $1 / 2^{\prime \prime}$
 $101 / 4 \times 35 / 8 \times 11 / 2^{\prime \prime}$
(2) Already punched with 7 socket holes but can be used for any number desired. Well made. Has base mount-
ing brackets.
No. 5 Al 173 . Special, Each....
35 No. 5A173. Special, Each.

## $93 / 4 \times 4 \times 1 \frac{1}{2} 2^{\prime}$

(8) Extra heavy steel, well built, cadmium plated. Turned down on all sides for greater strength. Has 6 socket holes, if mounts and holes for other circuit components.
No. 178416 . While they last... 490 CADMIUM PLATED STEEL

## CHASSIS

(3) Ready punched with octal socket mounted for building pre-amplifier, oscillator, power supply, etc. Has six point terminal strip mounted inside. Chassis size, $51 / 4 \times 31 / 8 \times 11^{\prime \prime \prime}$ d deep. Has $58^{\prime \prime}$ mounting flange turned out along the base on each side. Ends are
straight. A smooth, weil made chassis for building up many types of apsparatus. No. 3Al38. Special, Each... 25c


DOUBLE CLIP BOARD
A Terrific Value made possible by a huge surplus purchase - Built to Army engi-
neers specificaneers $\left.\begin{array}{l}\text { specifica- } \\ \text { tions. } \\ \text { Has nu- }\end{array}\right]$. merous applications in any busiSturdily constructed of $1 / 8^{\prime \prime}$ masonite with smooth durable finish. Overall size, $121 / 2 \times 9^{\prime \prime}$. Can be. separated into two complete clip boards.
No. 3 A1 24.
EACH.
$\$ 1.45$


No. 4 A57.
Cabinet an

ALUMINUM BLANK CHASSIS (4) Made of bright new 20-gauge Alumis bottom lip for added rigidity No. $3830.91 / 2 \times 5 \times 11 / 2^{\prime \prime}:$.
Special, Each
59C Special, Each No. 3840 . $81 / 2 \times 43 / 4 \times 11 / 230$. 49 $81 / 4 \times 35 / 8 \times 11 / 2^{\prime \prime}$
(8) Punched with 5 socket holes. peaker cut-out, etc. Fine for smal sets and infer-coms.
No. 178415 . Special, Each.... 296 5-TUBE CHASSIS
(6) Made of heavy aluminum, size $8^{\prime \prime}$ long, $4^{\prime \prime}$ wide, $17 / 16^{\prime \prime}$ deep. Punched for five $1^{\prime \prime}$ sockets and other circuit components. With handy mtg. bracket Ideal for building small receivers, am plifiers, etc.
No. 17 A411. Special, Each. . . . 5s STEEL CHASSIS BASE
(7) Size $5 \times 3 \times 11 / 4^{\prime \prime}$ deep. Punched for miniafure tubes. Ideal for phono am= plifiers or battery type midgets. Has bottom plate.
No. 5 A170. Special, Each
20c
8-TUBE STEEL CHASSIS © Just it for the large Radio Tuners, amplifiers, etc. Punched for sockets I.F. Coils, Volume Control, etc. Recessed at left for $6^{\prime \prime}$ or $8^{\prime \prime}$ speaker No. $44 \times 6 \times 2$
No. AA95. Special, EACH..... 35 C

## CABINET HARDWARE AT LOW PRICES


(1)

## (2)

## Cabinet (2) (4)

 No. 198618. Each (3) Lock Type Lid Support, Bronze fin No. 19B617. Each............ 10 c (8) Snap Catch Set. Brass finish. No. 19B616. Per'Set. No. 19 B 615 .CABINET HARDWARE ASST. 10 Pieces Assorted from above and others. 1981021. Special, Per Asst. 55

## HANDY BRACKETS

Steel, gray wrinkle finished. Chassis is punched for one tube. Cabinet front has four holes for controls, switches, etc. Originally designed for code practice oscillator. Cabinet size $45 /{ }^{\circ}$ " wide, $3^{\prime \prime}$ deep, $41 / 2^{i "}$ high. Chassis fits inside cabinet and is $15 / 16^{\prime \prime}$ high.

No. 4A58.
. . ............... 49 C


18A104. Bracket
 Mtg. llange *n wido. Front needs. Oplset is lange $1 \%^{\prime \prime}$ with extension wide. Handy for $11 / 2 /{ }^{\prime \prime}$ each side. oscillators or Moun t as mounting for CHOICE
EACH


(2)

BAKELITE CABINET
(1) Attractive grille design, natural brown bakelite, sturdy construction. Inside measuremerits $93 / 8^{\prime \prime}$ wide, $45 / 16^{\prime \prime}$ deep, $61 / 4^{\prime \prime}$ high. Dial opening $31 / 16^{\prime \prime}$ wide $\times 37 / 16^{\prime \prime}$ high. Ideal for replacements or new construction. No. 4A50. A REAL VALUE ......... METAL RADIO CABINET
(1) Trim, neat appearing, all heavy gauge metal construction with beautiful grey hammertone finish. Size $111 / 2^{\prime \prime}$ long, $6^{\prime \prime}$ deep $\times 7^{\prime \prime}$ high. Has metal grilled cut-out for $5^{\prime \prime}$ speaker. OK for radios, inter-coms, etc. No. 5B161. SPECIAL, EACH
$\$ 1.95$
BAKELITE CASE
(8) Sturdy black bakelite, size $3^{\prime \prime}$ sq. $x 21 / 8^{\prime \prime}$ deep. For $3^{\prime \prime}$ square meters, but also handy for countless other uses. Makes fine parts bins for the service or hobby bench. Buy plenty of them while available at this crazy low price. No. 4A51.
No. 4A51,
SPECIAL, EACH
19c
lot.. $\$ 1.45$

## BINDING POST


(1) $\frac{(2)}{(2)}$ all $\stackrel{3}{3}$ Metal ${ }^{(4)}$ posts
(1) Non-removable top, type 14CD Sergeant. Features $1 / 8^{\prime \prime} \times 5 / 32^{\prime \prime}$ slot in which clamp moves up and down by turning cap. Provides vibrationproof contact for pin terminals or any type wire. Cap dia. $1 / 2^{\prime \prime}$, height open long. Tumble nickel finish. 10 . No. 12A1375. Each..10c Lots 9 As above exc. $1 / 2^{\prime \prime}$ long stem. 10 Lots 8 No. 19A1085. Each. 10 C
(7) Non-removable bakelite top 7/16" dia. Has hole for phone tip and 6-32 stud 7/16" long. 10 Lots 71 No. $17 A 385$ Each. 10G Each.
INSULATED SPRINC TYPE (3) $7 / 16^{\prime \prime}$ dia. black bakelite top, pushes down on spring to provide hole for standard tip. Has 6-32 $1 / 2^{\prime \prime}$ long stem. With marking that can be easily removed. ${ }^{\text {No. } 18 \mathrm{~A} 555 \text {. Each. . } 5 \mathrm{c} \text { Each... } 10 \text { Lots }}$ NEEDLE CONTACT TYPE (4) Type 95 V -Has needle contact for piercing cable without removing insulation. Cap dia. $5 / 8^{\prime \prime}$, height open $3 / 4$ " long. All brass nickel finish.
 - EBY ADMIRAL TYPE (3) Knob $5 / 8^{\prime \prime}$ dia. of molded bakelite, $17 / 32^{\prime \prime}$ high, base $23 / 32 \times 1 / 4^{\prime \prime}$ thick with $8-32 \times 3 / 4^{\prime \prime}$ stem. $10{ }^{\text {No. } 184857 . ~ E a c h . ~ 12 e ~ L o f s ~} 18$
BINDING POST ASST.
25 assorted from those above and
others.
No. 18A1004. Per Asst.....

DOUBLE BINDING POST


## BARGAINS in ALUMINUM

## PANELS

. 081 -gauge 52- $\$ 1 / 2$ hard. Clean, easy to work and drill. Handy for many needs.

|  | STOCK | SPECIAL |
| :--- | :---: | :---: |
| Sixe | No. | EACH |
| $7 \times 10^{\prime \prime}$ | $4 A 52$ | $\mathbf{4 0 c}$ |
| $7 \times 12^{\prime \prime}$ | $4 A 53$ | $\mathbf{4 5 c}$ |
| $7 \times 14^{\prime \prime}$ | $4 A 54$ | $\mathbf{5 5 c}$ |

1/16" ALUMINUM PANELS
Etched or Grey Wrinkle Finish
Size Crey Wrinkle Etched $7 \times 10^{\prime \prime} 17447$ 60c
$8 \times 14^{\prime \prime} 11 A 2929_{c}^{c} \quad 11 A 291$ 80c BAKELITE PANEL BARGAINS Top quality glossy black laminated bakelite. Handy for insulating parts terminal strips, etc. $\begin{array}{llll}\text { Stk. No. Size } & \text { Each } & \text { 10 Lots } \\ 14 A 683 & 6 \times 6 \times 1 / 8^{\prime \prime} & 40 \mathrm{c} & 35 \mathrm{c}\end{array}$ $\begin{array}{llll}14 A 683 & 6 \times 6 \times 1 / 8^{\prime \prime} & 40 \mathrm{c} & \mathbf{3 5 c} \\ 15 A 2033 & 6 \times 6 \times 10 & 50 \mathrm{c} & \mathbf{4 5 c}\end{array}$


## RUBBER

 SHOCK MOUNTS
## square

 thick each side 215of plate. . . . . .


18A836. $23 / 8^{\prime \prime}$ square, $257^{\prime \prime}$ center hole, $196^{\prime \prime}$ corner holes on 1 15/16 centers. Has flat mounting surface at
top $13 / 8{ }^{\prime \prime}$ dia. with $1 / 2^{\prime \prime}$ thick rubber sushion. Cad. Plate.... 155
HANDY CABINET WITH PARTS


Ventilated, aluminum drawer cabine and chassis, black crackle finish. Ideal for building audio amplifiers, power supplies, or any small electronic apponents easily accessible both above ponents easily accessible both above and below chassis. Contains: power trans., condensers, (mica and oil) re sistors, sockets, etc., easily disassembled and worth more than the price we ask for complete assembly. Size $83 / 4 \times 41 / 2 \times 33 / 4$
No. 5A167. Special, Each.
While They Last.

## ALUMINUM RODS

## Handy for corner posts, mountings, efc. $1 / 8 \times 1 / 2^{\prime \prime}$ tapped for $8-32$ machine <br> screws. $91 / 2^{\prime \prime}$ long. No. 3 A111. Special, <br> 15 c

## Terrific Valueo! but Limited Quantitiesturru.

25 TO 40 WATT EXCITER — 10 TO 80 METERS


## FOUNDATION KIT

Engineered around the BC-610 series of plug-in tuning units. Described in the fith edition Radio Mandbook. Completed exciter uses 6AC7 crystal or electron coupled osciliator, 6 L6 buffer-doubler and 807 amplifier. Kit inspecial $51 / 4^{\prime \prime}$ aluminum relay rack panel, socket for plug-in units and special hardware, together with full instructions and diagrams for assembing No. 31 A28. FU-40 Foundafion. SPECIAL
$\$ 9.95$
PARTS KIT. Everything needed to complete exciter except tubes and power supply. Includes all mica condensers, resistors, RF chokes, sockets switch, 0-200 ma meter, key jack, and miscellaneous parts. ............................................
Exciter Assembly, Less Tuning Units. Consists of front relay rack panel, back panel, sub panel with coil sockets attached, 807-tube mounting bracket. BC610 rods and hardware. Illustration above shows the assembly with BC610 unit inserted.) EACH. . ..................................... $33882 . \operatorname{SPECIAL}$. EACH



In FT 243 hoiders, cut from highest quality quartz accurately ground and acid etched. Frequency marked on each within 2 KC. Sorry we must sell them - But you can'f go wrong! There are choice frequencies for 80.75 and plenty for 40 meters or for doubling to 20 and 10 meters in each assortment Every one guaranteed to be an active oscillator.
Stock No. 21 T3991.
Assortment of TEN. ONLY. S. 95

## PERMEABILITY TUNER COIL KIT


basic coll kit for the construction of a 5 - or 6-tube AC-DC superhet broadcast receiver. Excellent for students, set builders and experimenters. Kit includes that takes the place of old-style gang that takes the place of old-style gang permeability tuned 455 KC oscillator coil: a loop antenna that matches the input circuit of the tuner and two the input circuit of the tuner and two good quality 455 KC If transformers, plus two wiring diagrams using all standard parts and conventional tube line-up. with $21 /$ " diameter dial $21 / 4$ overall No. 14A661. Tuner and Coil No. 14A661. Tuner and Coil
Permeability Tuner Only. Consists o Noscillator coil.
No. 184403 . Permeability Tuner. Special, Each No. 18A403. Permeability Tuner. Special, Each $\$ 1.95$ 95c


Built from the BC746 tuning unit chassis. Size only $4 \times 3 \times 11 / 4^{\prime \prime}$. Simple to convert. It can be easily completed in one evening. Diagram and instruc45 to 90 -volt B batteries. Plate current 8 to 12 Ma. Kit includes the tuning unit chassis, sending key with cord, 80 meter crystal, tube, resistors, condensers, etc. Less batteries. No. $18 B 201$.
YOUR COST.

BATTERY KIT FOR ABOVE
21 A1. A Battery.......... \$0.08 8 Battery
1.71

## VEEDER-ROOT COUNTERS



## TRIP CYCLOMETERS

(1) Registers 000 to 999 in steps of $1 / 10$ revolution, in other words. 10 numerals register for each complete revolution of the cam. Attractive Chrome housing size $13 / 4 \times 3 / 4 \times 7 / 8$ " Cam is $138^{\prime \prime}$ long.
No. 184987. Special, Each. SS

## REVOLUTIONS COUNTER

 quickly with thumb operated knurled disc at one end. Designed for direct connection to rotating device. Shaft has $1 / 8^{\prime \prime}$ coupling attached. Numbers are white against black background. Overall size $23 / 4^{\prime \prime}$ long, $1 / 4^{\prime \prime}$ square No. 17 A346. NO.
SPECIAL, EACM

95c

(A) Consists of 140 mmf . midget variable, (alone worth what we ask for entire assembiy), miniature 3 prong polystrene coil socket, dual crystal socket, 10 contact terminal strip, resistors, etc., neatly assembled on metal chassis with fibre bottom plate $4^{\prime \prime}$ long, $11 / 4^{\prime \prime}$ wide $x 11 / 8^{\prime \prime}$ high. Easy to disassemble for the parts or to convert to low power transmitter or receiver See QST Jan. 1948 for article on Bantam 1-Watter, suggesting this unit as foundation.
No. $17 B 654$. SPECIAL, EACH.
29 c (10

## COMPLETE with CRYSTALS and COILS

(A and B) Tuning unit BC746 is the Complete Assembly, the unit above
PLUS TWO CRYSTALS in FT243 Holders. ONE in Ham Band, midget polymidget polyfibre cover measures $4^{\prime \prime}$ long $\times 23 / 4^{\prime \prime}$ high $\times 11 / 4^{\prime \prime}$ thick. No. 17A456. While They Last! Complete, Each.
$\$ 1.35$
AS ABOVE Crystal unit with crystals outside Ham
m $\mathrm{mand} \cdot{ }^{\circ}$....
down to 7 M.C. band.
No. $17 A 457$. SPECIAL, EACH
65 c

## 28 VOLT DYNAMOTOR

 WEBSTER. Input 27.9 volts, amps $1.28 ; ~$
$0 u t p u t 224$ Output 224
volts, at .070 amps, 4400 R.P.M. contin-
Hous.
$H a s$ overall size, $5 \mathrm{l} / 4 \times 2 \mathrm{y} / \mathrm{A}^{\prime \prime}$. No. 3 A42. Special, Each. N1. 95

## PARTS ASSEMBLY

 MICA CONDENSERS-RESISTORS

Contains 6 Sprague Mica Condensers 1000 V . Test 600 V . DC working, 3 $.01,2.05$ and 1.001 plus $61 / 2-W$. resistors, 41 meg., 130 M and 12150 M. All parts clean and new and easily removed from $31 / 8^{\prime \prime} \times 4^{\prime \prime}$ terminal board. Worth several times the price. S?
No. 17 B652. SPECIAL, EACH.


CABINET tUBES RELAY and a NICE BUNCH OF PARTS ONLY


MARKER BEACON RECEIVER

## BC 1023A

Consists of a shiny drawn Aluminum Cabinet, size $31 / 4^{\prime \prime}$ wide $\times 51 / 4^{\prime \prime}$ high $\times 5^{\prime \prime}$ deep. Has removable shock mount ed base. Chassis with front panel attached slides out. Equipped with four Tubes, 6SQ7, 6U6CT, 6SC7 and $125 \mathrm{H7}$ plus sockets, resistors, condensers, chokes, coax connector, etc. Included also is an Uitra sensitive relay ISPDT contacts 16,000-ohm coil) fine for plate circuits, photo cells, etc. Brand New in original factory pac
No. 36464
No. 36464
$\$ 3.95$
CABINET AND PARTS ONLY
As above except less tubes and relay.
No. 36486. No. 36 A86.
EACH

Tuning Unit for BC-610


A swell addition to any Ham collec. rion. Contains 3 midget variable condensers. Slight changes convert it into basic unit for VFO or ECO. Tubes mounted externally provide crystal or VFO stage, buffer-doubler and fina amp. stages. 6AC7, 6L6 and 807 used in final conversion to make 25-40 watt xmitter-exciter. Used in BC-610 and Hallicrafters HT-4. $9 \times 61 / 4 \times 2^{\prime \prime} \mathrm{D}$ (Tubes not included.)
No. 3 AlI7. SPECIAL, EACH $S 2$ No. 3B133. Unit as above with damBrand New. EACH.
$\$ 1.25$


Mounts to Cable end or on Panet, making it extremely versatile for photo fash units, mikes, etc. Conapen arrangementi. S.S. ., normally open, or two isolated normally open lated from ground Rating 3 A insu volt AC TOP quality switch A. 10 handy screw quarm switch body with screws into heavy molded bakelite crews 11 " heavy molded bakelite button of bakelite $11 / 46^{\prime \prime}$ dian push deep. Shell has sturdy eable slamp making it has sturdy cable clamp and is also provided with mounting nut for panels up to 3/16" thick Requires 7 " " hole Made to govern Requires $7 / 8$ hole. Made to grovern Fraction of Original Cost. Brand New No. 184408. 29 Lots of 29
Each..... 20 Each

## Bia Sarinas on Sockets and Connectors

BAKELITE SOCKETS

(1)

(2)

(3)


TYPE 400 JONES PLUGS and SOCKETS For Voltages Up to 110 V. at 10 Amps

(D)
(E)
(1) OCTAL MICA FILLED BAKELITE. (3) LOCTAL BAKELITE SOCKET. Sad Mounts directly to chassis or panels in $11 / 8^{\prime \prime}$ hole. Complete with retainer rings.
 (2) OCTAL BAKELITE SOCKET with not vibrate. Quality make. Mounts in $11 / 16^{\prime \prime}$ hole, $15 / 16^{\prime \prime} \mathrm{mtg}$. centers No. 17 A206.
Special, Each.
Lots of
lo. Each. (2) 4-PRONC. Mounts in $11 / 8^{\prime \prime}$ hale, has $11 / 2^{\prime \prime}$ mounting centers, otherwise as above.
No. 18 A406. $8 B \quad$ Lots of
Special, Each. 10 . Each. 48 S. 5 -PRONC. Otherwise as above.
No. 18 A405. No. Lots of
Special, Each. 68
10. Each. or below mounting from either abow hole. M + g. centers I 516
No. 18 A8335.
Special, Each.
Lots of
10, Each. $4 C$ (3) OCTAL. Mounts in $13 / 32^{\prime \prime}$ hole, $1 / 2^{\prime \prime}$ mig. centers, otherwise as above No. 184407.
Special, Each. Lots of
lo. Each. (4) 7-PIN MINIATURE, top mount saddle type. Molded bakelite. Phos phor bronze contacts. Mounts in $5 / 8{ }^{\circ}$
dia. hole $7 / "^{\prime \prime} m t g$. centers. Has cen dia. hole, $7 / 8^{\prime \prime} \mathrm{mtg}$ centers. Has cen ter shield. For all 7 -pin miniaturc tubes.
No. 15 Al122. $78 \quad$ Lots of
Special, Each. Be
10. Each. WELL KNOWN QUALITY MAKE CERAMIC SOCKETS

(1)

## (2)

(1) Octal 8-Prong. Mounts in $11 / 8^{\prime \prime}$ hole directly to chassis or panels with retainer ring furnished. No. 18 A833. 10C Lots of
Special, Each.
10. Each (8) FOR BELOW SURFACE MOUNTING. Octal 8-Prong. Has nickel steel shell that mounts in $19 / 16^{\prime \prime}$ hole with $13 / 4^{\prime \prime}$ mounting centers. No. 184864. 17 ( $\begin{aligned} & \text { Lots of } \\ & \text { Special, Each. } \\ & \text { 10. Each }\end{aligned} 5 C$

4-PRONG HIGH VOLTAGE SAFETY SOCKET


For $2 \times 2$ rect. and other tubes with base diameter of used in TV. and Photo Flash equip. Socket set at bottom of a deep molded bakelite shell. Steel mtg. shell. Mtg. holes on $17 / 8^{\prime \prime}$ centers. mounts trom above or below No. 17 A357. Special Each


## BAKELITE

 WAFER SOCKETS6-prong, regular, $11 / 2^{\prime \prime} \mathrm{mtg}$. centers No. 18 Al 081. 3c Each... 26 Each. re, $7 / 8$
(3) Octal 8-Prong WITH SLOTTED MOUNTING PLATE. Mounting centers No. 18 A832. 1 Lots of Special, Each. 56 Lots of 13 c 4-PRONC, otherwise as above No. 18A831. Special, Each. (1) SADDLE MOUNTING TYPE 8-Prong. mounts. Mounting centers $11 / 2^{\prime \prime}$ mounts in $3 / 16^{\prime \prime}$ hole. Equipped and grounding lugs No. 174378. $8 P$ Lots of

##  <br> (1) ISOLANTITE LOW LOSS

 Well known make. Cadmium-plate phosphor bronze contacts. Recessed Mounts against metal without arcing. $\begin{array}{lc}\text { Stk. No. } & \text { Prongs } \\ 18 A 161 . & 4 \\ 17 A 429 . & 6\end{array}$
## (2) JOHNSON 7 PRONG

Steatite. For 829B, 832, 836, etc Type 247, Cad. plated contacts. FinNO. 18 A829. SPECIAL, EACH. 296 (3) ACORN TYPE

Very Low Loss.
No. $18 A 830$. SPECIAL, EACH. . $2 C$

## Low Loss Bakelite CRYSTAL SOCKETS

 Well known quality make. Accommodates
standard crystal holdstandard crystal holdspacing. Single screw Nounting. 18485 No. 18485
Spec. Ea. 12c crystal holders.

(A) and (B) 12 Contact Plug and Socket COMPLETE (Type P412CCT Plug, 5412 SB socket) Socket with shallow bracket for flush mtg. . 69C
No. 18 A8810. Complete Assembly. Special, Each. No. 18A810. Complete Assentbly. Special, Each (B) 8 Contact, Chassis mounting type S408AB socket. No. 18Al108. Special, Each......19c; 10 Lots. Each (C) 6-Prong Plug. Type P406SB with shallow bracket for flush mounting. No. 18A814. Special, Each
(C) 10 -Prong. Type P410SB with shallow bracket for flush mounting. No. 18A815. Special, Each
C) 12-Prong Plug Type P41 25B with shallow bracket for mounting. No. 184816. Special, Each
mounting. No. 18A816. Special, Each....................... $\$$

FOR 5000 VOLTS AT 25 AMPS PER CONTACT
No. 18 A818. Special, Each
59c
(E) 6 Contact, Type P506SB plug with shallow bracket 49c
No. 18A819. Special, Each


TYPE 30015 CONTACT JONES PLUGS \& SOCKETS (Type P-315-FHT) Plug with flared hole in
top of cap.
No. 18 S 940, SPECIAL, EACH
(Type S-315-AB) Socket with angle bracket
for chassis mounting for chassis mounting 30 c

## JONES PLUGS \& SOCKETS ASSEMBLIES

(1) EIGHT PRONG ASSEMBLY

Eight prong chassis type plug, type P-308-AB
and type S-308-CCT socket.
MBLY... 39
(2) CHASSIS MOUNTING PLUG
 SPECIAL, EACH
(3) 6 CONTACT SOCKET

For use with above
No. 12A346. EACH
42c


FOR "MOTOROLA" POLICE RADIOS
 equip. A hard to find item. 59 Lots of special

## 2-CONDUCTOR CONNECTORS



Molded bakelite. 2-hole receptacle and 2-pron plug. Used on record changers, phono motors o leads. No. $18 A 106$. SPECIAL EACH 198

AC RECEPTACLE


Bakelite body with remov
able steel mig. plate Mounts in motg. centers. mtg. centers.
Has screw No. 15 Ali 154.
Speclal, Each $28 \begin{aligned} & 10 \text { Lots. } 108 \\ & \text { Each... }\end{aligned}$

FOR
BC 348 RECEIVERS
Type FI-Q130A.
An 8 contact socket with cable clamp fitting
184998.
Spec., Ea.. 49


JONES TYPE 101 SOCKETS and PLUGS
A low loss plug and socket ideal for high frequency connections. Brass chrome finish, silver contacts, ceramic insulated.
(1) Plug- $3 / 8^{\prime \prime}$ sleeve.

No. 18 A807. SPECIAL, EACH. 40 c (2) Socket. No. 18 A808. SPECIAL, EACH 30 C GIANT PLUG and JACK SET (3) and (4). Plug 1 3/16" long-Jack
is $7 / 8^{\prime \prime}$ and fits $3 / 8^{\prime \prime}$ hole.
No. $12 A 1400$. Per Pair....

## AC RECEPTACLE

Standard steel mounting plate molded into bakelite bodyMounts in $13 / 16^{\prime \prime}$ chassis hole; two $5 / 32^{\prime \prime}$ screw hole on $11 / 2^{\prime \prime}$ centers. No. 17 A394. No. 17 A394.
Special, Each.

15 Lots of
Lots of
10. Each 38

#  


(1) $11 / \mathrm{e}^{\prime \prime}$ BLACK BAKELITE with $11 / 2$ No. $18 B 144$
Special, Each 18 Lofs of
10 Each 48 (3) BLACR TAPERED, $13 / 4^{\prime \prime}$ dia. at top and $23 / 8^{\prime \prime}$ at base. Brass bushed fo $1 / 4^{* t}$ shaft, with set screw
No. $18 A 521$. SPECIAL, EACM. 201 No. 18A522. Like above, $13 / \mathrm{B}^{\prime \prime}$ top, $2^{\prime \prime}$ at base for 3/16"

15c (3) E'ZEE CRIP POINTER KNOB, $11 / 2$ (3) E'ZEE CRIP POINTER KNO8, $11 / 20$ Polished black bakelite. Complete with set screw.
 Black satin finish, $1^{\prime \prime}$ dia. at base.
 (1) POINTER KNOBS. Pe: -ter filled in
white. Available in sizes and colors white. Available in sizes and colors
as listed. Complete with set screws. as listed. Comp
Stk. No. Length Color Each 10 For 15A1118 21/4" Black 7c 50c $\begin{array}{lllll}15 A 1117 & 114^{\prime \prime} & \text { Black 6c } & 40 c \\ 15 A 1119 & 1 / 4^{\circ} & \text { Brown 6c } & 40 c\end{array}$

(1) LEVER KNOB. Fof coils, switches or contactors requiring a sturdy knob witr, plenty leverage. Has brass insert
for $1 / 4$ " shaft and 2 set screws. I" for $1 / 4^{\prime \prime}$ shaft and 2 set screws. I da. $\times 11 / 4$ deep with lever extension
$3 / 3^{" 1}$ wide $\times 1 / 2^{\prime \prime}$ long. Made of black polished bakelite No. $17 A 452$.
Special, Each Lots of 12 (3) ALL PURPOSE bakelite knob. I $1 / 8^{\prime \prime}$
dia. Brass bushed for $1 / 4^{\prime \prime}$ shaft. With
set screws.
No. 18 A223. 10 Lots of
Special, Each 10 . Each. (3) INDICATOR KNOB. Marked 1 to 9. Soct

(1)
(2)

BAKELITE KNOB. I" dia., black. For $1 / 4^{\prime \prime}$ shaft with set serew. Shank length, ${ }^{\text {No. } 18 A 222^{\circ}}$
Special, Each $155 \begin{aligned} & \text { Lots of } \\ & \text { No. Each }\end{aligned}$ (1) BAR KNOB. Black bakelite for


## KNOB ASSORTMENT

 Contains 10 quality bakelite knobs such as used on Amplifiers, Transmitters. Etc. All fit $1 / 4$ : shafts and are complete with set screws. The kind that usually cost you up to 25 c each.No. 178679.
Spec. Per Asst. of 10 for 556

## PANEL LIGHT ASSEMBLIES



## At Ridiculously Low Prices

Bulbs accessible from front on all models shown. Fig. (1) uses 110 -Volt type $\$ 6$ lamp Fig. (0). Fig. (2) uses 110 -volt type NE45 neon bulb. All others use any regular $T 31 / 4$ miniature bayonet base single contact bulb. (1) 110 V., fully enclosed, porce- (5) Full view type. Plastic hood lain and brass nickel plated. Un- gives visibility from all sides. derwriters approved. For single $1^{\prime \prime}$ hole $m$ ount ing, any thickness
panel. Over-all length $21 / 2^{\prime \prime}$. Lens panel. Over-all length $21 / 2^{\prime \prime}$. Lens for dia. Uses Fig. 9 Lamp illustrated.
No. 18 A 180 . Red Lens.
Special, 818 Lofs of 558
Each.... 5 . Each 551 17A338." As above with variable
 65 c (2) For 110 -volt Neon Lamp Type NE45. Clear plastic lens. Fits $3 / 4$ " hole in panels up to $3 / 4^{\prime \prime}$ thick,
overall length $2^{\circ \prime}$. Cun metal finish. 18A1102. 5, E Lots of 585 Each. NE45 Neon Lamps for abov 16 A145. 59 Lots of 3810 . Each
Each... (3) A very popular type. Supplied with two fibre washers to adjust $1 / 4^{\prime \prime}$. Extends $11 / 8^{\prime \prime}$ behind panel. Hass h2" Dial red iowel.
 (4) Requires only $5 / 8^{\circ}$ panel hole. bly removable at front and so arranged that brilliance of light coming thru lens can be varied. 184886. Amber Lens.
 uitable for Neon NE5l bulb or standard T $31 / 4$ miniature bayonet base S. C. lamp. For various panel hickness up to $3 / 8^{\prime \prime}$. Very com pact, fully enclosed bulb.
12A666. S9 Lots of
Spec. Ea. 875
(0) An especially attractive assembly fully enclosing the bulb. Very compact yet suitable for panels up to $1 / 4$ " thick. Has $1 / 2^{\prime \prime}$ ed jewel. Holder on swivel to 17A281. 5 L Lots of Spec., Ea. $\$ 1$ 10. Each 2 (7) Made of bakelite, mounts on ront of pane $2^{\prime \prime}$. Faceted red lens extends back 2 i $\dot{d}$ raceted red lens swings out of place for front removal of bulb.
 (6) Shutter type, intensity of light can be variedjby turning knurl nut. Mounts in $11 / 16^{\text {h }}$ hole, bulb can be removed from front. For bay onet base miniature bulbs, Red
17A366. A5E Lots of 35 E (9) Bulb, 110 -volt, 6-watt S6 cand. base for Fig. (1) and any other


## 10 Assorted PILOT LIGMT ASSEMBLIES



NEON R.F. INDICATOR


Consists of 1/25-watt Neon Lamp and series resistor assembled inside bakelite fibre sleeve $21 / 2^{\prime \prime}$ long. Bakelite knurled knob at one end, brass concuits like ordinary neon lamps. Can also be operated from 110 -volt AC or DC. Originally designed for use as blown fuse indicator. Made by LaMar at a cost many times in excess o
price we show. 180 and 0 ver. Noich sione 8 C
 watt bulb for 110 -volt AC or DC Mounting centers, $11 / 2^{\prime \prime}$......19C
 MIKE PLUG and COMBINATION ar Consists of 1 JK33A jack and 1 PL68 plug.

29 C

## PUSH PULL OUTPUT

Pri: 10,000 ohms C.T. Sec: 3.2 ohms. Power rating 4 watts. No. 13 A264 No. 13 A264
$656{ }_{\text {For...... }}^{10}$. 95

## NATIONAL

 "Volvet Fernier" Identical Manimm. used on the pop- | No. 18as25, |
| :--- |
| Speclal Kimih |

$\qquad$

## (iulimi

## VERNIER DIAL MARKERS

vision. Easy to mount on eny type panel. 18.1518 For $180^{\circ}$ Dials. 18.1519 For $270^{\circ}$ dials. $10 c$

## NEON LAMPS


(1)

(3)
(1) NE 15-1/25 WATT Handy for many needs. Only $11 / 8^{\prime \prime}$ long $\times 1 / 4^{\prime \prime}$. For any voltage above 90 -volt current limiting resistance .2 meg. for 105 to 125 -valt, 5 meg. For 210 to ${ }^{250}$ baselt. Has single $9 \mathrm{C} \quad 10.80 \mathrm{~F}$ No. 12 All 150 . Socket for Above. 10 c (2) NEON I-WATT LAMPS C.E. Type NE30. 1-watt with medium screw base to fit standard sockets. ideal for night light or R.F. indicator. New, in original C.E. packing, 10 to a No. 18 A1056. Special,
Per Box of TEN. ........ S1.80

## (3) PLASTIC BEZEL

Clear plastic convex lens in friction Handy for many needs.
No. 17A348. SPECIAL, EACH. 10C
PILOT LAMP SOCKETS

(1) For Candelabra Screw base lamps such as (Fig. 9) on this page. Bakelite with bracket for mounting in any posita799 eads alracs.
No. 17A799.
Each....... 10 Lots.
Each... (1) For Min. bayonet single comfact Nulbs, otherwise as above. 10 Lots. 13 C Each...... 15 Each... 155
(1) For Candelabra double contact bay(1) For Candelabra double contact bayNo. 18 A388. 1 Shell. 10 Lots. 13 E No. 18A388. 15 E Each... 10 Lots. 3 C (3) Through panel mounting for canbulbs with mounting nut and washer. No. 17A337.256 10 Lots. 236
Each........2.
(3) Base or wall mounting type for of black bakelite. 10 Lots. 28 C
No. 18A238. 25 E Each $\frac{\text { Each...... } 2 \rightarrow \text { Each... } 206}{7 \gg 8}$

Easy to mount Positive action. does not al-
ter dial setter
ting.
No. 1 No. 18 A526.
Spec. No.
Each.,
E.

# WhappmombARGANSSinWIREand CABLE <br> SENSATIONAL VALUES in <br> 8-FOOT HEAVY DUTY 



ALL OF IT IS HICH CRADE QUALITY WIRE
The Biggest Buy in Wire we have ever offered. Consist of size 22 to 16, both solid and stranded, with various types of insulation. Ideal for hookSupplied in bundies of 10 needs. 100 -foot coils.
$\$ 4.95$
No. 3A37. Per 1000-Ft. Lot

## 500-FOOT ASSORTMENT

popular types. 02.55
200-FOOT ASSORTMENT
Contains short lengths as well as 25foot coils of various iype wire, suitNo. 3A28. Per 200-Ft. Lot S1. 45

SIZE 22 SOLID TWISTED PAIR
lite insulation. ideal for conductor Vinydoor bells and for general hook-up. needs. Supplied in 50 -foot coils. No. 3A106.
Special, Each 39 C
10 Lots. 306
Each...

"BUSS"
WIRE

SIZE 20, BARE COPPER, TINNED. It's the ideal size for coils, wiring, antenna wire and many other uses-and a handy wood spool. 18 SI 065 . PER SPOOL.. 15 S 10 SPOOLS FOR. $\$ 1.25$
Phosphor Bronze Cable

16 fine strands braided over line core. Fine for dial cable, concealed aerials No. 2B25. Per $100-\mathrm{Ft}$. Coil... 49 C

ANTENNA INSULATOR KIT


Contains a $4^{4 *}$ ceramic insulator, 15 ting for securing rope. OK tree fitmanent or temporary receiving or transmitting antennas.
No. 22A25. Per Kit....... $\mathbf{3 9}$

SHIELDED WIRE AT
CRAZY LOW PRICES


Needed for many applications. 20 , stranded tinned conductor with verall inned Conductor.
No. 2 A84.
Per 100 Ft., ONLY. . ..... S $\$ 45$
Per 500-Foot
35.95

With overall cotton Braid.
as above. 50 -Ft. Coil. ...... 955
Per 100-Ft. in Bulk. . . . . . . . . . $\$ 1.65$

## THREE CONDUCTOR

 SHIELDED CABLE

Consists of 3 size 20 stranded tinned conductors vinylite insulation, color-
coded cotton braid and tinned copper coded cotton braid and finned copper
shield overall. For any use requiring


## ANJC 48 WIRE

Priced Ridiculously Low!

Consists of stranded tinned wires with vinylite insulation and overall glossy lacquered braid. Priced af abous $1 / 2$ of 5,000 feet. C.E. and other quality makes.
No. 2A34. Size 22.
Per 1,000 Feet.
53.65

HIGH VOLTAGE CABLE
7 MM. ignition type. Ideal for high voltage connections in power supplies, Xmitters, etc. Supplied in length approx. 9 ft, long. 186
No. 3 B31. Special, Each.


TINNED COPPER SHIELDING
Expands to nearly double its original width reducing length about $25 \%$
188100. 3/16"
dia. 50-ft. Coil.
65c
50c
Per 50-r't. Coil 50

## ANTENNA FEEDER

## SUPPORT

8White porcelain $11 / 2^{\prime \prime}$ high, Tapped for and supplied with 10-32 screw for mounting. No. 17A391. 8C
Special, Each Lots of
10. Each No. 18Allo6. $3^{\prime \prime}$ high. Otherwise as above.
Special, Each 126 Lots of 10 Each 105

## Aerial Kit BARGAIN!

CONTENTS: 100 ft . stranded tinned aerial wire, 25 ft . lead-in wire, 2 antenna insulat ground elamp.
No. 3A16. Special, Per Kir 496

REPLACEMENT CORD


Size No. 18. Type $S$ round, rubber sheathed, Underwriters Approved. Cord with rubber plug. Handy for a multitude of needs-Refrigerators, Washers, Motors, etc. Special, Each $45 C$ Each... 426 6-FOOT CORD
Otherwise as above. 10 Lots. 298
No. 3 Al27. 33 C Each...
Speclal, Each 33
6-FOOT AC CORD


Underwriters' Approved. Rubber sheathed size 18 cord with rubber plug. There's a big replacement de-
mand.
No. 3 A96
220
10
For.
1.65
PARALLEL CORD


Standard \#18/2 conductor brown rubber parallel cord-the kind you use

100 Ft . 1.95 For... $\$ 8.25$
SHIELDED PHONO LEADS Extra flexible shielded
$x$ ible
single conductor wire in record players in record players
and $c h$ angers. Length, approxi-
mately $26^{\prime \prime}$
No. $17 A^{\circ} 399^{\circ}$.
lengths
for..... 295
No. 14A781. Same, except $72^{\prime \prime}$ long. SPECIAL, 19 C
EACH.... 10 Lors. 15 C
Each.


No. 18Al120, Special Each
10 Lots,


APPLIANCE CORD SETS AT BIG SAVINGS!


3000-Cycie good quality cord set Fits standard irons and appliances. 7 ft. long No. 18 conductors with durable attachment cap and plug. A good 75c seller.
No. 3 A98.
Special, Each. $24-10 t s ~ o f ~$
Lo. Ea. DE LUXE CORD SET
(2) 10,000-Cycle top quality. Extremely flexible for rugged use. Fits all standard irons and appliances. 7-foot long No. 16 conductors with rubber attachment plug and trouble-free heater plug. Retails for $\$ 1.35$.
No. 3497.
Special, Each. 65 Lots of BO
10 . Ea. MIDGET CORD SET
Coffee Maker and small appliance cord set. 6-foot long No. 18 heater cord with rubber attachment plug cap and midget heater plug to fit waffle irons, No. $18 A 944$.
Special, Each. 24
Lots of $20 . E a$.

3-OUTLET EXTENSION CORD


Underw rifers' approved Brown rubber parallel cord with bakelite plugs.



up and seiectivity
ype set. Cost any
No. 20B15. Special, Each.... 249

## CERAMIC INSULATOR

For transmitting or receiving antennas. $3 / 4^{\prime \prime}$ square $x$
No. 18A961. Special, Each... 1 C


TWO CONDUCTOR TEST CORD (1) Approx. 65 inches long. Very fiexible size 18 stranded wire with black and red broid covering. Has pin
tips one end and piercing spring clips tips one end and piercing spring clips No. 178647 ,
SPECIAL EACH ...................... 5 S.

## HEAVY DUTY LEADS

(2) Equipped with heavy duty standard phane plug, easy grip Weston type phone tips, flexible leads with overall rubber jacket. Overall length
5 ft .
No. 174388 . A steal at...... 65 C
(3) Heovy duty, 10,000 voits. Non-kinking-flexible. Consist of tinned stranded copper wire with heovy wall of live rubber insulation. Paired red and black, 4-4t. long lead.
No. $15 A 2035$. PER PAIR....

## W.E. TEST CLIP

(4) Type TLI37 the one so widely used on telephone test sets. Jow spread $3 / 4^{\prime \prime}$ with pin to pierce insuloion. Very strong spring
No. 174453,
Special, Each.... 115
For

## Every Item Here it Sensational Value!



GOOSENECK TYPE ( 2 Section) (1) Ideal for UHF portable fransmitrers and receivers. Made of 18 dia. brass tubing mounted to a sturdy fexible base which permits adjustment longth angle after mounting. Overal Headed $34^{\prime \prime}$ collapses in center. bounting stud in base and attached connection for grounding, Fin-
 FOLDING WHIP ANTENNA (3) $101 / 2$ Feet extended and only $17^{\circ \prime}$ collapsed. "Just if or equipmed. Original has to be carried around. equipment with SCR300 Walkie-T brass tubing, held firmly upright by a powerful spring housed in base and braided stainless steel cable extending through the entire length of antenna; Base has 7/16" long threaded rod for mounting purpose. Dia. at base 5 extend Takes only a few seconds to extend or collapse.
No. $22 A 24$. Spectal, Each.

65

## MOUSE

MAST
ANTENNA
Extenda Up to 12 Ft . Eliminates orerhead wirem. Easy to install. Mounts to
vent pipm, roor. cornice. vent pipn ronot cornice.
winlow frammp gable, "te. 4 sertion nickel pint Incluiles all attaching clamps, leadand kround wire


## 56



ANTENNA WIRE


## 100-FOOT COILS

Stranded aerial wire. 3 strands copper tinned, 4 strands monel metal. Greatless and stainless. Made to government specifications.
No. 3A85. Special
$20 c$ 12 COILS FOR

## ANTENNA

 HANKS20 feet extra flexible stranded coppe plastic insulated wire on fibre card. Nach

CRAZY SALE on AN Connectors


Consist of Amphenol, Cannon and Harwood. All priced at a mere fraction of regular price. | fig.(1) Type AN 3100 |
| :---: |

FIG. (1) Type AN 3100
Size
$165-4 S$
Fig. (3) Type AN 3102
Ype AN
${ }^{2} 201$
Each
$20 c$
$15 c$
$15 c$
$20 c$
$20 c$
$20 c$ $20 c$
$30 c$
$18-55$
$18-65$
$18-85$
$18-16 S$
$18-16 S$
$20-4 S$
$22-4 P$
$22-5 S$
$22-4 \mathrm{P}$
$22-5 S$
$44-2 S$

|  | Fig. (3) Type AN 3106 |  |
| :---: | :---: | :---: |
| 12S-3S | 18212 | 20 c |
| 14S-1S | 18213 | 30 c |
| 14S-2S | 18214 | 25 c |
| 16S-4P | 18215 | 25 c |
| 18-15 | 18217 | 40 c |
| 18-2P | 18218 | 25 c |
| 18-2S | 18219 | 35 c |
| 18-5S | 18220 | 30 c |
| 18-5P | 18221 | 30 c |
| 18-6P | 18222 | 30 c |
| 18-16P | 18223 | 30 c |
| 20-4P | 18224 | 35 c |
| 22-5P | 18225 | 40 c |
| 44-2P | 18226 | 70 c |
|  | Fig. (3) Type AN 3108 |  |
| 28-195 | 18227 | 35 c |
| 28-19P | 18228 | 33 c |
| 22-4S | 18229 | 25 c |
|  | Fig. © ${ }^{\text {C Type AN }} 3108$ |  |
| 28-19P | 18230 | 35 c |
| 28-19S | 18231 | 40 c |

## Low Prices on Mike Cable Connectors

 Contact made by tightening of couDing ring. Female Cable Type. Each (2) 14A319. Male Cable Type... 21 c (1) 14A321. Male Chassis Type... 15 c

HEAVY-DUTY AMPHENOL CONNECTORS


6-Prong Complete Sets Cable Connector and Chassis Unit. Chassis or panel section mounts in up to $1 / 2^{\prime \prime}$. Has lock and spacer washer and hex nut. grip cable section has cable ciamp, grip built in. For cable up to $7 / 16^{\prime \prime}$ dia. threaded tions tigh. Jerminals of bakelite inner tions tight. Jerminals of bakek wiring. Fully enclosed in cadmium plated heavy brass shell.
No. 18A381. Set of female cable unit and male chassis unit
No. 174792. Set of male cable unit and female chassis unit.
CHOICE either
65c
AMPHENOL MIKE CABLE CONNECTOR SET


3-Contact for Cable up to $1 / 4$ " dameter. Furnished in sets as illustrated. with coupling ring, mounting ring, lock washer, etc
No. 184382. Regular Net. 97c. $\$ 5$

## RG/8u COAX CABLE

BRAND NEW 50 FOOT COILS Complete with
Connectors. Stock No. 4A65. ONLY $\qquad$ $\$ 3.88$
Yes Sir it's the populor genuine RG/8u Coox Coble so much in demond ond on which the surplus is just obout gone. Brond New, foctory ossembled with stondord 83-1SP (PL259) connector ot eoch end. Coils con be connected together with type 83-1J connectors.

## 15 FOOT LENGTHS

RG/8u as above with 83-1SP (PL 259) connector factory ossembled to eoch end.
No. 4A66, SPECIAL, PER 15 foot Length..
95c

CONSTANT IMPEDANCE
CO-AX CONNECTORS


Weathe
(A) UC21/4 Plug. List Value $\$ 5.11$ No. 17A368. $53 G$ EACH.. 355 (B) UC2Z/U Panel

18A1069. A1 100 Lots. 30 C EACH... 116 EACH... 305 (C) Angle Type UG27/u Adapter. One end fits above plug, other end 18A1070. 615 EACH 100 Lots. 45 Sold in Pairs at Crazy Cive Away Price No. 18A1071. I UC21/u Plug and 1 $\$ 9.27$.

## COAXIAL CABLE


TYPE RC/8u. Brand New, Miade to Jan-C-17 A.N. specs.
No. 2A163. Per 100 feet 55.95 1,000 Feet and Over. $\$ 55,01$ No. 2A170. 62-ohm cable, like above except without the Vinyl outer covering. Consists of 7 strands No. 22 bare copper wire encased in copald No. 2 A170.
Per 100 Feef
$\$ 2.50$
RG59/u-73 OFiN CO-AX CABLE
Top quality-Fresh. New-Not War Surplus.

Per Ft.
RG29/u-53.5 OFī CO-AX CABLE
Easy to handle, only $.116^{\prime \prime}$ O.D. 28 Easy to her ft. Poputar for shieided audio and R.F. circuits also for mike cable in fixed installations. Odd Lengths, 25 to 100 ft . Specify length closest to footage you order. 26 No. 386. PER FOOT. Continuous Lengths, 100 feet and
over. No. 2A169. Per 100 Feet, 2.95

## 300 OHM TWIN

 TRANSMISSION LINETop quality with polyethylene dielectric of full thickness edge to electric design
No. 4A67.
Per 100 Ft
$1,000 \mathrm{Ft}$.

Coax Cable Connectors


83-1SP 83-1R 83-1AP 83-1SPN (PL259) (SO239) (M359) (PL259A)
 $\begin{array}{llll}184806 . & 83-1 S P & 30 c & 25 c \\ 184805 . & 83-1 R & 35 c & 33 c\end{array}$ $\begin{array}{llll}18 A 805 . & 83-1 R & 35 C & 33 c \\ 17 B 185 . & 83-1 A P & 25 C & 236\end{array}$ 17A462. 83-1SPN 30c 25c 83-1) (PL-258) CONNECTOR Junction for use with fittings above
and for coupling lengths of RC/8u having 83-1 SP plugs attached.
No. 178193.
$\$ 1.14$
net each


## 83-1R CABLE UNIT



Consists of $183-1 \mathrm{R}$ chassis connector and hood with $18^{\prime \prime}$ length of RC8/U cable attached. A convenient size for connection of coax circuits inside the chassis.


## BELIEVE IT OR NOT! 50c PER DOZEN FOR PORTABLE ANTENNAS



Roll it up to carry everywhere. Hangs anywhere from attached clip. At taches to set with single wire. Made of flexible metal foil attractively bound and covered. Gives better signal pick-up than ordinary hook an take along to im prove portable set reception in the car hotels, outdoors, efc. Size, $10 \times 111 / 2^{\prime \prime}$ 12-ft. flexible insulated wire attached this and the alligator clip above comptete antenna.
No. 5B140. Per Dozen
DEALERS! SERVICEMEN! A swell giveaway item to promote good will. Cost value must have been around $\$ 100$

Remember . . the B-A reputation for honest, dependable and friendly dealings protect your every purchase.

# Sensational Bargains in Qualitufteadphomeo 

THE FINEST IN HEADPHONES
MADE TO AIR CORPS, ARMY \& NAVY SPECIFICATIONS ALL BRAND NEW - In Original Packing - ot Terrific Savings!


8000 OHM TYPE HS23 D. High impedance. extremely sensitive. Alnica Magnets in molded bake-
bite cases, concealed terminols, Headbond fully odiustoble leather covered. spring steel, $12^{2 "}$ cord with PL54 plug ottoched at side out of way. Jock ond rubber cord supplied to extend length cushions. An extremely light weight No. 17A37. Pair Complete $\$ 2.45$

## 600 OHM TYPE HS33

(1) Identical to Type HS23 except 600 Ohm impedance, flat response; preferred for many applications. Complete
with headband, cord, plug and cushwith headland. corr, plu
ions as illustrated Fig. No. 22A26. Complete. Par Pair.
\$1.95
600 OHM HS33 (Less Headband) (2) Identical to above, less headband extension cord and cushions. 65C
No. 18A1011. Per Pair. .... TRIMM COMMERCIALS AT A FRACTION OF REGULAR PRICE 3) 600 OHM IMPEDANCE. Sensitive, extremely light weight. Black bakelite caps and shells oniy $21 /$ " $^{\prime \prime}$ diameter $x y^{\prime \prime}$ "thick Forged magnet of
best grode Cobolt steel. Fobric covered wire headband with spring lock and adjusting clamp.

moisture for monitoring service. Regular list at $\$ 14.50$ and Net at $\$ 8.70$. | No. 17 A413x. B-A Special. |
| :--- |
| While They Last. . . | RUBBER EAR CUSHIONS (9) Comfortable, sponge rubbnr front.

Exact fit for HS23, H533 and HS38 type receivers.
No. 18A1009. EACH . ......15C


THE POPULAR TYPE "HSI6" 600 Ohm impedance, flat response. Extremely sensitive. Quality molded
black bakelite caps and shells, Corome black bakelite caps and shells, Chrome
steel magnets, standard concealed tersteel magnets, standard concealed terminals. Headband of Bronze spring Has sturdy thumb serew adjusiment on sturdy yokes. Cord is moisture proof 6 ubber insulated cotton braid covered. 6 teet long with standard pin tips. No. 5A169X.
. $41-4$
TYPE HS30 MIDGET HEADSET (5) Highly sensitive. 8000 ohm. Very compact, light weight, and equipped with ear fifting rubber cushions de-
signed to shut out outside noises Phone units are precision built and small, similar to those used on hearing aids. Metal headband can be plete as shown with Y-shaped, flexible, rubber covered head-set cord, spring clip clothing fastener, high impedance transformer and 6 ft . 2 con-
ductor rubber covered extension with PL55 plug. Converts to low umpedance dot iniong toistioner \$1.59 10 Lofs. Each
$\$ 1.29$
HS30 (Low Impedance)
(9) Supplied as above, except LESS high and plug.
No. 14A684. Special, Each 1.19 MATCHING TRANSFORMER (6) Converts Low Impedance Phones high impedance 8000 ohms. For types such as HS30, HS33, HS16 and others. Has screw perminals for direct connec-
tion inside transformer. Furnished with 6-ft. rubber No. 14 A685. E 12 Complete.. 115 EAC 45 c No. 4 A46. Each 25 c


PHONE \& MIKE PLUG, JACKS \& CORDS
 Fits all standard |acks. Quality (0) "Just it" tor making speaker or built to "toke it", for horrd use. Ten- phone extension cords. Fits exoctly


(8its exactly the Noch .is. 12c EACH: 10c PL68 PLUG
${ }^{3}$ contact mike plug. Fits JK33
 FLat Phone plug
 Cord tips held tighty by screws. for
 CLOSED or OPEN CIRCUIT JR. JACK
(1) Short type closed circuit fack, Can be used for open circuit. F fits an
 midget open circuit jack

 JK33 MiKe JACK Ofits WE No. 100 and Aimy Nos.
 CORD E SWITCH ASSEMBLY
 Oeerate in palmo ot hand. Hass cord with socker tor connection to pilug an on
itroat mike and tift ruber courra
 Noch inc: 45 C EACH: 40 C

(1)

(2) PL55 PLUG WITH CORD (8) 6 -fort, long wearing rubber phone coll PL68 PLUG WITH CORD (i9) 6-foot durable 3 cond. rubber mike coble ossembled ta PL68 mike plug
 IK26. JACK WiTh CORD cord ind Otension tor Amy piones, that haw

 TINSEL PHONE CORD
(13) Tinned tinsel conductor, cotton covered and over all rubber. Very flexible. Fine for long phone and speaker exNo. 2492 $35 c$ In bulk, 100 tit and onve 95 c
$61 / 2$-FT. PHONE Ond SPEAKER EXTENSION CORDS
(19i) Type CD605, Two conductor tinsel wire, rubber insulated and overall rubber covered. Extremely flexible with ugs and terminals as illustrated. Ideal or extension phone and speaker cords, Terminals exactly made to AN specs.

 6-FT. MIKE CORD
m Duraile spiral wound rubber made


## TELEGRAPH KEYS

Finest quality, made to Army specs. at a cost many times our price. Get several while available at

## (1) TYPE 137

$1 / 8^{\circ}$ silver contacts, frame of solid bakelite, phos phor bronze key lever, spring steel lever spring, No. $\begin{aligned} & \text { nass hard ware. } \\ & \text { Natiat. }\end{aligned}$

## Terific Value

49c
(2) TYPE 138

Jumper strip with binding posts mounted on bakenections and circuit key. Has binding post consilver keying contacts. All metal parts cadmium plated. Is an excellent key for sounder and buzzer elegraph systems, as it is equipped with two sets of binding posts. One set mounted on a jumper strip and the other set mounted on the key.
No. 17 . 38 . SPECIAL, EACH....

#  

## at Less THAN ONE-HALF PRICE

WIRE RECORDER and RECORD PLAYER MECHANISM The identical St. Ceorge essential mechanas used in many leading makes of Radio and Wire Recorder combinations. Adaptable to most any Radio or Amplifier. For recording up to 1 hour on standard wire, also plays back and erases. Included in the mechanism is a 78 RPM motor and turntable for playing standard disc records or to re-record on wire. Single knob controls all of recording. Furnished as illustrated, except less pick-up (any standard crystal pick-up and diagram for constructing amplifier' and crase circuit are included. A B-A Special Purchase brings them to you at Less than Half the Regular Net Price. For 115 -Volt $50 / 60$-Cycle AC. Shipping weight, 15 Ibs.
No. 30B7. SPECIAL EACH............................................ 5 .


## SPECIAL PURCHASE

G.E. VARIABLE RELUCTANCE No. RPX-0:0
PHONO CARTRIDGE
ALMOST $1 / 2$ NET PRICE!


The original type DLIRM6C with permanent sapphire needle. Thousands
were sold at $\$ 4.68$ net. Now while a limited quantity last
No. $17 A 819$.
Special,
Each...

## RE-AMPLIFIER

 PARTS KITMAKES PHONO PRE-AMP. FOR GENERAL ELECTRIC CARTRIDGES All the resistors, condensers, 65C7 tube and socket, small hardware and a punched chassis for making up the pre-amplifier necessary for tridges. Supplied with circuit diatridge
gram.
17a822. Unwired Kit.
Special, Each
$\$ 2.49$

MIDGET DYNAMIC MIKE AND PHONE UNIT


Western Electric MC253A: $11 / 4^{\prime \prime}$ dia. $x / 8$ thick-with screw ferminals on
back for handy conncetions. For use as a midget phone unit. pillow speaker, etc. connect to voice coil circuit of radio or amplifier. For use as a ordinary carbon Mike transformer to input of audio circuit of radoo or amplifier. Originally built for military use show. Brand New.

PRICE CUT IN HALF SHURE
VERSATEX MICROPHONE
 THE VERSATILE CRYSTAL MICROPHONE Can be used "as is on a desk, on a floo stand or in your hand. ideal for Hams, paging systems home recording, PA etc. The crystal car tridge is moisture proofed and mountfilter is incorporated to prevent crystal burn-out. Case is rich marooncolored plastic. Output level, - 53
db. Supplied with 7 feet shielded mike cable attached. List Price $\$ 11.50$. Thousands were sold at the Regular Net Price of \$6.76. NOW A Special B-A Purchase Brings them to You-Brand New
No. 20A657. While
They Last, Each
$\$ 3.38$


Complete switching and plug-in connector unit for attaching rec
ord players to radio. Consists o ord players to radio. Consists of shielded Radio-Phono switch. Phono lack and AC receptacle all wired and assembled on brackets that can be adapted to practically any mounting. Circuit
sembly included.
No. 18 A1079.
Special, Each
50c
10 Lots.
Each
45c

## 110 -VOLT AC MOTOR


tc Self thing for hobbyists, experimenters, etc. Self starting shaded pole induction motor changers and is exact replacement. Equally suited to use on electronic controls, switches animated displays or for any purpose requiring a small high quality AC motor. Equipped with cooling fan for long periods of operation. Self aligning graphite bronze oil-less bearings for trouble-free operation. Equipped with $2^{\prime \prime}$ diameter rubber tired friction idler turning at 360 R.P.M. Idler may be easily removed for operation of equipment direct from motor shaft at a speed of about 3400 R.P.M. Motor shaft is $7 / 32^{\circ}$ diameter, extending 5/16" above top bearing. Motor and idler are mounted on rigid pressed steel plate $51 / 8^{\prime \prime}$ long, $31 / 2^{\prime \prime}$ wide. Mounting plate is equipped with shock mounts. Motor extends $2^{\prime \prime}$ below top of mounting board, 1" above.
Operates directly from 110 -volt, 60 -cycle line.


## TWO-POST SEEBURG MODEL "L"

$\$ 42.00$ LIST VALUE
RECORD CHANGER, ONLY.
HERE IS THE FINEST IN CHANG-
ERS AT A PRICE USUALLY TERMED "A BARGAIN" EVEN FOR ORDINARY ONES. HAS EVERY WORTHWHILE FEATURE THAT MORE THAN JUSTIFIES THE ORIGINAL $\$ 42.00$ LIST PRICE AND $\$ 28.00$ NET PRICE.


## FEATURES

Latest "LT" Astatic Cartridge with Mounts easily with 4 solid studs $3 / 4-0 z . ~ n e e d l e ~ p r e s s u r e ~ a n d ~ f u l l ~ a n d ~ e u s h i o n ~ s p r i n g s . ~ B a s e ~ d i m e n-~$
range $50 / 10,000 \mathrm{cps}$. reproduction.
sions $141 / 4 / 1$
square; extends $23 / 4{ }^{\prime \prime}$ Two-Post design holds records per- Sons mounting $41 / 2^{\prime \prime}$ above. Finish fectly flat-casy to load and unload below mounting, $41 / 2$ above. Frtone -ho spindle to break or enlarge record holes.

- Gear driven mechanism throughout, quiet and positive acting.
Automatic shut-off after last record. Heavy Duty fan cooled motor with 93/4" flocked turn-table.

Plays Twelve $12^{\prime \prime}$ or Fourteen $10^{\prime \prime}$ stand shut-off after last record. Single knob control for Start-Manual-Off-Auto matic and reject.
For 110 -Volt, 60 -Cycle AC. Shipping Weight, 16 lbs.
No. 31A250. Special, Each. While They Last
$\$ 14.95$
THREE-POST SEEBURG DELUXE

## "INTERMIX" MODEL

Here is the "Last Word" in record changers-was available only to manufacturers of expensive Combinations (the $\$ 500$ and up class). Equipped with the Plays 12 static QTM crystal cartridge and precious metal replaceable neede. Has every quality deluxe feature. Base dimensions $141 / 4$ ", square-extends $23 / 4$ "below and 6 " above mounting. Complete with $A C$ cord, phono tead and pin plug wired ready to
No. 35A1000. While They Last
$\$ 27.95$
FOUR-TUBE PHONO AMPLIFIER and SPEAKER

## Wired ond Complete

 Reody to Use. No. 4A63-Only 41 145 4 Tubes with tone and volume control, nectors for speaker and phono outnectors for speaker and phono output. The speaker is a heavy duty ready to connect to amplifier Tubes included: 2 3525, $1125 Q 7$, 1 35LG. Voltage doubler rectificr allows greater audio power outpur. Just it "to make a record player with either of above changers, Motor and pick-up combination below or any crystal phonopick-up. Chassis size $12^{\prime \prime}$ long $4^{\prime \prime} 2^{\prime \prime}$ wide $\times 21 / 2^{\prime \prime}$ deep. Complete with pick-up. hasses and speaker as illustrated. No. 4A63. While They Last, ONLY
$\$ 9.95$

## MOTOR AND PICK-UP COMBINATION



Standard 78 RPM Motor with threepoint rubber cushion suspension and heavy $9^{\prime \prime}$ rim drive turntable, rubber tired idler. Easy to mount, extends nished with an extra idler tire. Operates on 110 Volts AC. The pick-up is at
almost what we wask for both motor and pick-up.
No. 31 A98. Motor and Pick-Up. A Steal at Only. . . . . . . . . . .

## WIRELESS PHONO-OSCILLATOR

Add it to your present single record player. or record changer or build your own wireless player using this unit and any phono motor and pick-up.
Plays records through any radio without connecting wires. Tunes in like a radio station and is adjustable to any clear spot on your radio dial between 900 and 1600
Small enough to mount inside most portable players. Size $6^{\prime \prime}$ long, $3^{\prime \prime}$ wide, $11 / 2^{\circ "}$ high. Tube extends $23 / 4{ }^{\prime \prime}$ above unit. Operates on 110 -volt AC-DC. Complete with type 117 l 7 tube. Stock No. 17A345. SPECIAL, While They Last. ONLY.

# Bargains-IN OFTEN NEEDED HARDWARE 

## BRASS TERMINAL LUGS


(1) (2) (2)
(4)
Best types of radio and repair work.

19 191082
 No. 19A1069, Per Asst......... 45 C


BARRIER TYPE TERMINAL ON BAKELITE


Type 2-142. Two ferminal. Size $21 / 8 x$
$1 / 4 \times 5 / 8 \%$ with $8-32$ Sinder head screws.
No. 18A821.
Special, Each $5 C \begin{aligned} & \text { Lots of } \\ & 10 . \text { Each }\end{aligned} 20$ Type 5-142. Five terminal. Siz
No. 18A1092. 25C Lots of 206
Special, Each 10 . Each
Type 4-140 Four terminal. Size $21 / 8 x$ $3 / 4 \times 3 / 8$ with $4-40$ binder head screws.
No.18Allo3. 15 Lots ot $12 C$ $\frac{\text { Each....... } 5 \text { 10. Each } 1}{\text { TERMINAL STRIPS }}$

(1) Screw Type Terminal Strips 2-Screw. marked A-G.io Lots. $2 \frac{1}{2}$ C
No. 18A1084. 3 Each....... 2-screw, marked FM Dipole." No. 18A1085. 35 Each....... 10 Lots.
Each....
$\frac{1}{2}$ C 4-screw, marked 1-2-3-4. No. 18A1086. 5 Each...... 10 Lots.
Each...... 45 5-Screw, not marked,
No. 18 Lilo87. 8 Lots.
Each.......
Each...... 6-Screw, nöt marked. No. $15 A 1115.155$ Each... 125
Special, Each Assortment of 10. Includes some of No. 17A820. PER ASST. 350 (2) Lug Type Terminal Strips $\begin{array}{llrr}\text { No. } 18 A 1088 & 2 \text { Lugs } & 1 \mathrm{c} & 10 \text { For } \\ \text { No. } 18 \mathrm{CAlO89} & 3 \text { Lugs } & 2 \mathrm{c} & 15 \mathrm{c}\end{array}$
 Assortment of 25. Includes some of
above and others.
No. 18 A9. PEY ASST

## INSULATED SOLDER

TERMINAL STRIP

## 

Has total of 18 heavy solder lugs mounted on bakelite strip, with insulating strip
$73 / 4 \times 9 / 16^{\prime \prime}$
covering back.
wide and $3 / 32^{\prime \prime}$ Length
thick. Has three mounting holes.
No. 18A400. 11 C Lofs of
Special, Each
10 . Each


##  <br> MACHINE SCREWS AT <br> 0

BH
BH. designates Binder PRICES Round Head and FH. Flat Heod. To quality Steel machine screws. Nicke or Cadmium Plated, Our Choice. Round Head Round Head Binder Head

FO
50
$F 0$

$$
\begin{aligned}
& 50 \\
& F 0
\end{aligned}
$$

Lg

| Size 2-56 | Size 8-32 | Size 10.32 |
| :---: | :---: | :---: |
| gth. No. | -gth. No. | gth. No. |

0 ( 11 "19A751 \%"19A768

 Round Head $1 / 2$ 19A750 FOR 45 1/:"19A705 10
 Binder Head 1/8" 19 A70 $\left.\begin{array}{llll}\text { Ch'ce Above } & \text { S } \\ 100 & 2 & 1 & 5\end{array}\right)$

 \$1.57 c 1.81 | Size 10-24 |
| :--- |
| Round Head |
| \% $19 A 782$ |

## Hexagon Nuts

Many popular sizes à a Plated Finish NICKEL PLATED



## Mardware Assortment

 As listed here and other popularsizes and lengths.
No. 3 A36. Special, Each.

## EARGAIN SPECIAL!

 FLAT HEAD SCREWS

## Jack Hole Covers

 Keeps out dust and dirt No. 18 A851. Special, Each5c

Low Prices on StandOff Insulators-Bushings


Low loss ceramic, threaded each end or standard machine screw sizes.
No. 1-3/4" SQUARE INSULATOR
Stock High Screw Choice
No. Ins. Size
No. Ins. Size Each

No. 3-3/"ROUND INSULATOR 19 A1054 $1 / 2^{\prime \prime} 6-32$ Each, 5 c
No. 3 ROUND INSULATOR 15Ali52 $3^{\prime \prime}$ 6-32 Each, 20 No. 4 $1 / 2$ " ROUND INSULATOR No. 5 Bushing, $1 / 8^{\prime \prime}$ hole for panel up to $1 / 4^{\prime \prime}$ thick. Eushing
$1 / 2^{\prime \prime}$ dia. $12 A 1370$. Pkg. of 12 . 15 No. $6-3 / 4$ " ROUND INSULATOR $\begin{array}{ll}19 A 1027 & 3 \\ \text { No. } 6-10-32 \text { ROUND Each. } 13 \text { C } \\ \text { ROATOR }\end{array}$
 Each, $10 c:$ Per 100
25 Assorted from good usable sizes 19A978. Per Asst

## Stand Off Insulator

 Ceramic insulator with 3/16" coils, condensers, etc. Other end is tapped for $8-32$ machine screw. 3/8 square.No. 19A1089. 1"high. Ea. 5
BUSHINES_INSULATORS
(1) Steatite Bushing. Fits $3 / 8^{\prime \prime}$ dio. No. 15A1067
Per set os illustrated................. © No. 1541150 , Fits $1 / 2^{\prime \prime}$ dio. hole $x$
$3 / 4{ }^{\prime \prime}$ O.D.
Per Set...........en Per Set. (3) Ceromic Bushing Woshers. Use
two tcgether with size 6 mochine

[9]

 NO. 3-1/2" ROUND INSULATOR 2Al369 5/8 6-32 Esch 10 9A978. Per Asst
c

two fcgether with size of oppropriote length for feed Hos bushing or insuloted mounting. Hos shoulder for $9 / 32^{\prime \prime}$ dio mig.
hole. Bushing dio. $11 / 32^{\prime \prime} \times 1 / 8^{\prime \prime}$ thick. No. 17B657 No. 178657
Pkg. of 10 . SPECIAL

15 c
FEED THRU INSULATORS


Cones each $1 / 8^{\prime \prime}$ long, $13 / 4^{\prime \prime}$ diameter at base, $11 / 4$ diameter at top, rewith $1 / 4-20$ rod, nuts, washers and lock washers. Overall rod length
$415 / 16^{\prime \prime}$.
No. 3 A68. Each. . . . . . . . . . .


## LIGHTNING ARRESTER

Approved by Underwriters' Labora tories. Made of black porcelain grounding and weatherproof dividually packed.
No. 3AI21. SPECIAL, EACH
o. 3A121. SPECIAL, EACH
$\qquad$

## CABLE CLAMPS



## CERAMIC INSULATORS

 BARGAIN PRICED!Finest quality, tapped each en for $1 / 4-20$ mach
dia. $\times 11 / 2^{\prime \prime}$ high
18A969. Special for 10
65c



# KITS - ASSORTMENTS For The Radio Shoo 



10 assorted types with the greater 25 assorted. High grade Metal and portion octals complete with mounting Bakelite Posts of Eby and other quallates. Would cost at least $\$ 2.50$ it ity makes in types that regularly sell bought regularly.
No. 18 A loob Per Asst....95c
(2) JACKS, PLUGS, ETC. 25 assorted. Included are banana and phone tip jacks and plugs of sizes in popular demand. This Assortment. No. 18A1005. Per Asst OES (3) RELAYS and RELAY PARTS An assortment that provides unlimited exp rolays an extra relay coil and ox No. $15 A 2036$. Per Asst..... . . . to 25 c e each in thes hat reguarly sel manyoccasions to have use for. 95c No. $18 A 1004$. Per Asst.
(5) ANTENNA INSULATOR KIT (5) ANTENNA INSUC insulator, 15 contains a ceet of treated rope and a steel fitfeet of treated rope and a steel fir-
ting for securing rope. OK for permanent or temporary receiving or transmitting antennas.
No. 22A25. Per Kit.
 Ki inclut 50 TEY TERMINALS popular types.
$\$ 2.93$

(A) SPEAKER SHIMS

Kit of 16 assorted Swedish Steel Shims,
 No. 11 A158. Per Kit. . . . . . . . . 4 Kit of 20 assorted Fibreloid Shims, especially flexible and tough. Packed


## (B) SPEAKER CONE PATCHES

12 assorted patches. A quick means of patching speaker cones. Made of specially fabricated material and adhesive which forms a permanent bond.
No. 16 A430. Per Asst.

(C) VOICE COIL. DUST FELTS 25 assorted. Felt disc same as used on (D) RADIO \& PHONO DRIVES friction 25 assorted popular rubber No No. 18 RA70.
Per Kit................. 886 ${ }_{24}$

(1) COIL AND CHOKE KIT 10 assorted miscellaneous coils and RF
Chokes. An outstanding value. $95 C$
No. $17 A 387$. Per Kit. . . .
(2) TYPE 3AG FUSES

25 assorted 3AG fuses of most POD ular sizes.
No. 18A966. Per Asst.....
No. 18A966. Per Asst...
(2) TYPE 4AG FUSES
100 assorted 4AC fuses of very use-
ful sizes.
No. 18A785. Per Asst.. 51.95
No. 18A785. Per Asst.....
(3) NAME PLATES
10 assorted. Made of Brass, Nickelplated Finish. Letters are raised and etched on Black Satin background.
 No. 15A1120. ONLY

(4) NAME PLATE SCREWS

30 assorted small sizes of Escutcheon
No. 18A19. Per Asst.
24 c
(5) COTTER PINS

60 assorted. Replacement Cotter Pins work.
(8) MOUNTING NUTS

15 assorted mounting nuts for Volume Controls. Switches. Etc. . . 24 C
No. 19 A979. Per Asst. . . . .
(7) SNAP-IN TRIMOUNTS

30 assorted. Handy for uss in place of screws to fasten dials,
aerials, and other parts.
24 c

Approximately 50 pieces, in handy metal container. $1^{\prime \prime}$ lengths of flexible synthetic tubing for wire splices and insulating lug shanks or wire at
soldered connections, etc.
No. 17A375. SPECIAL, PER CAN. ONLY................................. 8 .

(1)

(4)
(1) SWITCHES

10 assorted-toggle, Dush-bu
slide type switches. slide type switches. No. 16 A935. Per Asst. ONLY. (2) JACKS

10 assorted long and short type frames, both open and closed circuits. No. 18 A937.
Per Asst. ONLY
(3) VOLUME CONTROLS 10 assorted of quality makes. You Money's Worth.
No. 18A934. Per Asst. onty G5C

(3)

(b)
(5)
(4) PANEL LIGHT ASSEMBLIES 10 assorted, a variety of colors. All
for standard base panel bulbs. No. 18A14. Per Asst. ONLY,.. YSt (5) FAHNESTOCK CLIPS 25 assorted of various sizes and No. 17A267. Per Asst. ONLY. . 196 (6) TURN-BUCKLES 6 assorted in pairs. Fine quality. Brass barsels - high tensile strength stee
forks and eve.

## BULB REMOVER

Rubber tool for removing practically ward to your fingers. ward to your finger
No. 12 A 399 . Each.


00, cadmium and nickel plated steel and brass screws in most popularly used sizes in round, flat, oval and handy for all purpose needs. In that is glass jars.
No. 19A961. Per Asst........ 38 C 100, 6-32 machine screws, assorted heads, length and finishes, in handy glass jar
No. 19A1055. Per Asst.. .... A4C No. 19A1086. As above except all Per Asst. of $100 . .$. . . . . . . . 47 ( No. 19A1087. As above except all 10-32 machine screws.

HEXACON NUTS
100 , steel and brass nickel and cadmium plated to fit screws contained handy glass jar. WASHERS
100, metal, cadmium and nickel plated plain, various types shake-proof, fibre, bakelite and lock type in sizes handy glass jars. 19A963. Per Asst.

256
100, SOLDERINC LUCS
vizes, handy various types and any soldering for anyone who does any soldering with wire.
19A964. In glass Jar....... 30


SNAP BUTTON HOLE PLUGS 10 assorted of most useful sizes No. 18 A10. Per Asst.

RIVEXTS - - EYELETS
55 assorted in sizes and types needed in Ro. 18A6. Per Asst..........24C

245

- CABLE CLAMPS



## CABLE CLAMPS

50 assorted of metal and bakelite various sizes.
No. 19A1073. Per Asst.
455 CABLE CLAMPS - FUSE CLIPS 25 assorted brackets, cable clamps and fuse clips. Very Handy. 255

BUSHINGS - SPACERS - BRACKETS - COIL FORMS STAND-OFF INSULATORS


METAL BUSHINGS \& SPACERS 25 assorted metal bushings and spacers, some are tapped for $6-32$ and Handy for countless needs. 395 No. 18 A20. Per Asst..........
MOUNTING BRACKETS 25 assorted of many types and sizes straight and angle mounting brackets. Mandy needs.


STAND-OFF INSULATORS 25 assorted, finest grade ceramic inround tapped for machine serews, also included are several sizes of Steatit
No. 19A978. Per Asst.
506 COIL FORMS
25 assorted paper forms from $11 / 4$ to $31 / 4^{\prime \prime}$ long and $7 / 16$ to $3 / 4^{\prime \prime}$ dia $1 / 4$ to your own coils.
BAKELITE STRIPS - BAFFLES - DRAWER PULLS



DRAWER PULLS \& HANDLES Approx. 50 pieces. Tubing and solid 12 assorted styles and shapes and sulating washers,
 No. 18 B202. Special, Per Assf. . 595 good values.
BAFFLES - CABINET BACKS - ETC.
is assorted pieces, cabinet backs, baffles, and miscellaneous handy 358
items. No. 3A18. SPECIAL. PER ASSORTMENT, ONLY............... 55

POPULAR MISCELLANEOUS HARDWARE


BRASS WOOD SCREWS
$1 / 4$-lb. pkg. approx. 200 pieces. Assorted
lengths.
No. 19A969. Special. Per Pkg.. . 52 ? TAP SCREWS
00 assorted regular selt tape. screws in popular sizes. 50.19 . 5 MACHINE SCREWS
100 assorted of many types and sizes, a most handy pkg. in any shop. 22
No. 19A973. Special. Per Asst.


SET SCREWS
50 assorted headless and with heads for knobs and other uses. 255
No. 19A971. Per Pkg........ HEXAGON NUTS
100 assorted $4 / 36,6 / 32,8 / 32$ and Nother popular sizes. $19 A 974$. Per Pkg.......... 418 ORNAMENTAL HEAD SCREWS 15 assorted of 6/32, various lengths, statuary bronze with rosette heads. No. 19 A980.
Special. Per Asst
245

(1) TERMINAL STRIPS

25 assorted terminal strips with lugs atrached. Always needed No. 18A9. Special. Per Asst... 356 (2) TERMINALS G CONNECTORS 100 assorted of solderless type that can also be soldered.
No. 18A25. Per Asst. .......49C

BAKELITE, FIBRE, VELLUTEX and METAL WASHERS


BAKELITE - FIBRE WASHERS 100 assorted bakelite and fibre plain Many varied types No. 19A975. Per Asst. FIBRE WASHERS

395 100 assorted. FLAT and EXTRUDED type fibre washers.
No. 19A966. Per Asst. . . . . . . . 45C

## FLAT BAKELITE and FIBRE

 100 assorted FLAT BAKELITE and FIBRE washers No. 19A967. Per Asst.455

## VELLUTEX INSULATING

100 assorted, hole sizes 6,8 , and 10 Very handy insulating washers. 255 METAL WASHERS
100 assorted many sizes; flat, shake proof, split washers, etc. Plated finish. 15 C

## (3) LUGS \& TERMINALS

00 assorted terminals and lugs as No. 19A1069. Special. Per Asst. 45E LUGS \& CABLE CLAMPS 100 assorted in varied types and sizes included are cable clamps and smal No. $\begin{aligned} & \text { clips, etc. } \\ & \text { No. } \\ & \text { RA8. Per Asst. }\end{aligned}$

356


RUBBER GROMMETS, CHASSIS MOUNTS AND BUMPERS
50 assorted rubber items so often needed in Radio and Electrical Work. Included are sponge rubber blocks, washers for floating condensers, No. 19 A97

PLAIN RUBBER GROMMETS

GUM RUBBER GROMMETS 15 assorted
ber Grommets
No. 18A22. Per Asst.

## RUBBER MOUNTS

15 assorted of various diameter plain 10 Assorted STRIPS rubber grommets.
No. 18A21. Per Asst.......... 246

20 assorted ness. For use any place cushioning is desired against vibration. 39c SCREW TYPE TERMINAL STRIPS

Assorted erminals.

# B-A Hascele-Poweclan ASSORTMENTS 

BUY THESE ASSORTMENTS WITH CONFIDENCE PIECE BRAND NEW - PERFECT! B-A quontity purchoses bring them to you ot worth while sovings. In many instonces the volue of ene piece olone is worth more thon the price shown for the complete ossortment. EVERY ONE AN OUTSTANDING VALUE!

(A)


ACCESSORIES

(D)

(B)

(A) BAKELITE KNOBS 10 Assorted, Brown. Black and Ivory knobs, push-on type to fit standard ${ }^{14}{ }^{\circ}$ " knurled shafts as used on most nakes of sets
No. 17A286. Per Asst. of 10... 5 25 Assorfe and others. (B) KNOBS FOR AMPLIFIERS, TRANSMITTERS, ETC. Contains 10 quality Bakelote knobs wuch as used on Amplifiers, Transmitters, etc. All fit $1 / 4$ " shafts and that usually cost you up to 25 c each No. 178679. Per Asst. of 10
(C) DIAL POINTERS

10 Assorted pointers for replacement needs on many makes of sets. ET No. 12A1171. Per Asst, of 10.. HJ (D) SET SCREWS FOR KNOBS 25 Assorted of various lengths of 6-32, $8-32$ and $10-32$ screws. Handy No. $18 \mathrm{AB3}$.
Per Asst. of $25 \ldots \ldots . . . . . .65 C$ Per Asst. of 25
(E) KNOB FELTS

50 Felts as used behind radio knobs on all the latest sets.

24 c
(F) PUSH-ON KNOB SPRINGS 35 Assorted of the most popular types A handy kit for any shop.
No. 18 A4, Per Kit of $35 . . . . . \& 1 C$
(G) ASSORTED CABLE SPOOL A sectioned spool containing 15 feet each of the three most popular types No. 1147i. Per spool.... $\$ 1.47$ (H) CABLE CLAMPS, EYELETS 60 Assorted. Same as used on ready thade dial cables. Make up your own
cable and belts
No. 11 A72. Per Assortment... 246

## (H) DIAL CABLE CLIPS

 Envelope of 50 elips (ONLY). For use on all types of Dial Drive Cord assemwith these clips.1.Al009. Env. of 50 Clips....245 (1) COMPRESSION SPRINGS Assortment of 20. For use on dials, push-button No. 17 A1010. No. 17 Alol
Per Assortment of 20

24c

(H)

(A) TUBULAR CONDENSERS A handy assortment of 25 paper tubular condensers in good useable capacities and voltages, quality standard makes. 99 No. 18 A203. 25 Asst. ONLY.
Kit of 25 Paper Tubulars. 5 each 02, .05. .1. . mfd., all 600 vo No. 21 T3999.
SPECIAL PER KIT. ....... 28.85 (B) OIL FILLED CONDENSERS 10 Assorted popular capacities, tubular and bath-tub types.
No. 18A968. Per Asst. of $10 . . .55$


CERAMIC CONDENSERS
KIT OF 10 fixed condensers now so popular. Assorted capacities, minimum voltage 500 Volt DC both zero and negative temperature coefficients. The use of any one will pay for the entire lot. AT THIS PRICE
YOU CAN AFFORD TO BUY SEVERAL YOU CAN AFFORD TO BUY SEVERAL.
No. 17 A376. No. $17 A 376$.
PER ASSORTMENT OF 10 ONLY 396

KIT OF TEN MOLDED PAPER CONDENSERS


Bakelite molded wax impregnated with pig tail leads. Standard RMA color coded. Excellent, dependable sub-
stitutes for mica or paper tubular condensers.
KIT stitutes for mica or paper tubular condensers. KIT
OF 10 POPULAR CAPACITIES AND VOLTACES. 75 C

SAVE ON THESE RESISTOR KITS


## WIRE WOUND RESISTORS

10 Watt, wire wound resistors handy
for service and other needs. All quality makes in good useable capacities with lugs or pigtail leads.
No. 18A801. A REAL BUY.
Assortment of TEN $\qquad$ 95c


## NON-INSULATED

CARBON RESISTORS
100 Assarted. (25 1-watt. $251 / 2$-watt
18471. Box of 100. -1. 45
and 2-watt.
18A73. Box of $200 \ldots . . . .22 .25$ FREE. Handy Color Code Chart with each of the assortments listed.


PRECISION RESISTORS 10 ASSORTED IRC and Shallcross wire wound precision resistors, accurate within $2 \%$ A variety of capacities. Any One Resistor is usually priced what we ask for the TEN.
No. I7A379. Per Asst. ONLY


WIRE WOUND RESISTORS FERRULE TYPE
Contains TEN Wire Wound Ferrule Type Resistors in popular capacities. No. 18 for experimenters, Etc No. $18 A 93$.
Special, Per Asst. of TEN.

HERE-on the next page - the next and the next are hundreds of good reasons why thrifty buyers go so strong for B-A.


3-gang, push-button type. Each "AM" section Max. Cap. 420 Mmf ., Min 13.5 Mmf . Each ${ }^{\text {i }} \mathrm{FM}^{1 \prime}$ section Max Cap. 15 Mmf., Min. 6 Mmf. Pushbutton selection for 6 stations-can be removed. Shaft ${ }^{1 / 4 "}$ "dia., 5/8" long.


## 12C130

 Condenser mmid. $13,000 \mathrm{~m} \mathrm{~V}$ 3 plotes .500 spocing. Micolex end plate with mitg. holes, $1 / 4$ Ponel mitg long No. 3829,GEAR DRIVE MECHANISM
 Frankly, we
don't know
what it's what it's for, some beautifu gears, etc. Has bilities for the guarantee you will get your m. W No. 19B852. Each......... 58

24-IN. REMOTE CONTROL SHAFT AND CASING


For auto radios or experimental appliarions. Sturdy, flexible with shaft end fittings for standard $1 / 4^{\prime \prime}$ shaft of phono amplifiers, tuners, transmitter antenna coupling links, et


## BRONZE NAME PLATES



Modernistic design, re tangular shape "OFF-ON-VOLUME" No. 15A1123. "BASS-TREBLE-TONE


## 4-FT. AUTO ANTENNA LEAD OR EXTENSION

Top grade cable, shielded and vinylite jacket overall. With standard antenna plugs attached each end.

Every item is new . . . perfect. The B-A reputation for honest, dependable and friendly dealings protect your every purchase.

## CARDWELL VARIABLE

 MIDGET CONDENSERS

DUAL MIDGET VARBABLE


Each section has fixed capacity of 80 Mmfd. and a variable capacity of 40 Mmic. Screw justed No. 178173.296 10 Lots. 236

At LESS THAN ONE-HALF REGULAR PRICE
2-WATT NEON : OULBS


514 Med.
standard sockets.
volt AC or DC. Popular as RF indicators and are Long lasting, low current cong lasting, Buy current at less than one-half regular nef cost.
No. 20A201. 2-WATT NEON. Redish
 20A202. 21/2-WATT ARCON. Purole



Vitreous enameled wire wound with two separate sections, 100 ohms at 7 watts and 750 ohms at 5 watts,
tapped at 350 ohms. No. 17A275. Special, Each... 513


## LOCKING

 CLAMPS Plated Steel Band withintegral lock ing device integral lock ing device For holding tubes and other cylindrical components securely in place. The universal bracket makes it adaptable for many applications. For $11 / 8^{\prime \prime}$ dia. tubes or components.

106


TWO Pole Single Throw normally open. Hos 10 ompere contocts. Coil ohms. Eosily rewound. Size $13 / 8 \times 11 / 2 \times$ $21 / 2^{\prime \prime}$ long. Leoch type 1024. No. 17B661.
SPECIAL EACH

HEAVY DUTY TOGGLE SWITCHES

(1)

(2)

CRYSTAL MIKE Well known make. $30 / 6000$ cps. bass response good output: 52 db Com plete with 7 ft cable plete with 7 ft . cable. An oufstanding BUYi

No. 204873 $\$ 5.45$ 175 Type 8782 K6 S.P.D.T. Rating 175 amps. at 24 volts DC, therefore at least 75 amps. at 110 -volt $A C$ Ideal as main power switch on light
ing panels, motors, Ham rigs, etc ing panels, motors, ${ }_{2}$ Ham, rigs, etc
Mounting plate size $2 \times 31 / 4^{\prime \prime}$ with $11 / 2$ Mounting plate size $2 \times 31 / 4$
mounting centers, overall depth $3^{\prime \prime}$ in cluding heavy screw terminals. A Husky Switch with $11 / 2^{\prime \prime}$ bat handle. No. 18 Alllo. Each...:
Each. Lots. . . . . . . . . . . . . . . . 55
(2) CH S.P.S.T. Bakelite enclosed bat handle toggle. Rated at 20 amps. 250 volts $A C$ or 1 HP motors. Standard single hole panel mount. Body size.
$25 / 9 \times 1 / 16 \times 11 / 4{ }^{\prime \prime}$.
No. 18 All 107. Each. . . .


## G.E. SWITCHETTE

Type B3, S.P.S.
T., norm. open.

Snap action mo-
mentary switch
for limited space
applications. Size
only $11 / 4 \times 1 / 2^{\prime \prime}$ of black bakelite. Operates by snap action of built-in spring No. 18A951.
Special, Each $\qquad$ 396
Type C3, D.P.S.T. 10 Lots 356
No. 184952. Ea.. 40 c Each..
PUSH-BUTTON SWITCH
Normally open, spring return, insulated from
shell, bakelite button.
Panel mounting in 5/8" diamcter hole up to

No. 188103 15P
Each.....
10 Lots. .
Each...

(0) 0

METAL CLAD MICRO SWITCH


Q typeir. Has
Q type plunger
with molded bellows seal of syntheflexures.
No. 19B790. Special, Each $\$ 1.15$ 10 LOTS. 95c

## BARGAIN! MIDGET <br> ELECTRIC MOTOR

THE SLICKEST LITTLE MOTOR


Operates on 12 -volt $D C, 1.4 \mathrm{amps}$ Speed 5600 RPM. Shunt wound. Sup plied with simple instructions for con version to 40 -volt AC or 110 -volt $A C$ Case is bright aluminum alloy, size $41 / 4^{\prime \prime}$ long overall, $13 / 4^{\prime \prime}$ diameter. Has splined (gear toothed) shaft $1 / 4$ " diameter extending $1 / 2{ }^{\prime \prime}$. Made by
John Oster Mfg. Co., type B- $9-2$ for government use. Original cost of probably over \$10.00. $\$ 1.49$ No. 3 A1 34. While They Last .4 .4 No. 17A478. 6 Mid. Condenser required for operapion of motor on
volt $A C$.
Each.
4.

## JK24

## JACK

Circuit Opening, long frame type fits PL55 and all standard phone plugs. Has 9/16 shank, mounts with 6-32 diameter Machine Screw.
No. 15A2055. 12C Lots of
Special, Each 10. Each
DOUBLE PHONE PLUG


A two-way phone plug. Will accommodate 2 sets of headphone tips o lugs. Fits all standard jacks. Handle is molded bakelite. Metal parts are nicke. plated brass.
No. 174793.256
Special, Each
10 Lots. 236

## SHIELDED MIDGET PHONE PLUG <br> Has screw-on nickel plated handy solder lugs. Barrel length tandard jacks. <br> No. 198620 . <br> A "Buy" at Each <br> 255 <br> 10 Lots. <br> 236

## HEAVY DUTY PHONE PLUG <br> 

## 

Just it for Labs. and uses where a high voltage rugged plug is required. Heaw all brass construction well insulated. Comes with screw-on spring cord strain protector. Regularly worth several times the price we quote. Fits all standard jacks.
No. 184409. 958
Each.... 10 Lots. 855

## W.E HEADBAND AND

 DOUBLE PHONE CORD

Western Electric Headband No. D141421 leatherette covered on spring steel, fully adjustable with thumb screw locks. An ideal replacement for
phones of $j 3 / 4$ diameter receivers. No. 174824.
Each..... E 10 Lots. B1S
Double Phone Cord No. 584, 4 ft. 3" long, is of top quality. Fits phones with pin terminals including HS23, HS33, etc., thus converting those
No. 18A1109. SSE 10 Lots ESE
Each......


## LEAD-IN BOWL

15/8" hole. For lead-in purpo
No. 18A175. Each
5 c


THE POPULAR TYPE H830 TINY 8000-OHM HEADPHONES Highly sensitive. Very com pact, ight weight and rubber cushions designed to shut out outside noises. Phone units are precision built and small, simifar to those used on hearing aids. Metal headband can be shaped to comfortably fit contour of head. Furnished complete as shown with Y-shaped, flexible, rubbercovered head-set cord, spring clip clothing tastener, high impedance transtormer and 6-1t. 2 conducto plug. Priced at a small fraction of plug. Priced at a small brand new. brand new

## HEADPHONE ASSEMBLY

Typo ANBHI receivers as popular type HS33 and HS38 military phones and exact replacements for fective that occur in those widely used phones. sists of two receivers attached to cord and PLS pug, Brand New. 10 Lots.

50c
Per Assembly.............. 6-Ft. Cord and PL55 Plug
 plied with rubber phone cord and plis5 plur alone worth the cord and ask for all. Brand New. Eomplete. Each 515
No. 14 A 685 . Compren 10 LOTS. 45c
$\qquad$
6 PHONES


A value! At the
price we show. Adjustable head band and standard 6 -foot cord, transformer for a truly sensitive all purphones. Brand New.
No. 5 Al 69 X . Per Set.... 61/2-FOOT PHONE CORD
 Tinsel two-con-
ductor, flexible, ductor, flexible,
rubber covered. Extremely rugged and long
wearing. Made to government
specifications. No. 178648. ABuy
Each 16c 10 LOTS. 14 c

## JK33 MIKE JACK



Fits WE No. 109 and Army Nos. PL46,
PL68 and PLI68 mike plugs. 18 A839. Each. 10 Lo 12 c Each.... 10C

## HANDY PARTS JARS



2 oz . glass, size $2^{\prime \prime}$ dia $\times 13 / 4^{\prime \prime}$ high. Metal serew No. 3 A24
Per Dos
Carton
of 48.

CENTER OFF
S.P.D.T.

TOGGLE SWITCH


CH Type AN-3022-1B. Rated at 35 amps at 24 -volt and 5 amps at 125 volf. Mounting center
No. 18A29. 30 Lots of 286
Special, Each.

## D.P.D.T. CENTER-OFF TOGGLE SWITCH

 C.H. - rated 20/30 amp. at 125 volts
AC . Has mtg. plate size $11 / 2 \times 2,1 / 16^{\prime}$ centers.
No. 17 A797 A. Buy!
E..... 85c

10 LOTS.
Each
Each. 75c


MOMENTARY C.H. MOMENTARY
CONTACT SWITCH Normally Off "ON" when lever is held down, spring return to ing 5 amps. at $125-$
volt $A C$. Mounting plate $3 / 4 \times 2 \quad 1 / 16^{\prime \prime}$. No. 18A27.
Each..... 5 E 10 Lots.
Each...

## FLEXIBLE NECK FLASHLIGHT


position for getting into dark spotsbulb encased against breakage. Case of sturdy bakelite. Cost government
around $\$ 5.00$. Uses two standard bataround celts and bulb. Bulb included,
tery
ess batterics.


LOOK! ONLY \$2.95


Supplied with $9^{\prime \prime \prime}$ rim drive turntable. For 110 -Volt AC.
No. 31 A67. A Steal. Each 51.29

AIRPLANE SIGNAL FLASHING BULBS C.E. 1038-12.8-VOLT Double contact, Bayonet
base, 3 -amp. DC No. 18 A199. No. 18A199.
Per Box of 10.51 .50 C.E. 1047 -26-VOLT Single contact, Bayonet No. 18 A200.
Per Box of 10 .
50 G.E. 12-16 VOLT $15 \mathrm{C.P}$. Double contact candelabra base.
No. 17 B 663 .
Special, Per Carton of $10 \ldots 1$.


## 100 MMFD.

 MIDGET VARIABLES No. 18B511 What a Steall S1.95Ceramic insulated, finest qual-
 24-VOLT AC OR 6-VOLT DC One contact S.P.D.T., another S.P.S.T. intermittent duty. Can also be used on 6-volt $D C$ continuous duty. Size No.
Each

AMPLIFIER CHASSIS
 and drilled

filter condenser, etc. Extra heavy
 STEATITE SOCKETS


With slotted mounting plate to mount on $11 / 2$ " to $17 / \mathbf{B}^{\prime \prime}$ centers

No. 18A831. 14C
Each.....
Lots of
10. Each 2C Each. OCTAL
No. 18A832. 15C
Each..... Lots of 13 ( 10. Each Octal Less Plate. Supplied with
ing ring, otherwise as above. No. 18A833. 10.
Each..... Lots of
10. Each. . 8 C

ground noise. Ac-
centuates speech frequencies, can be used as talk-back mike in intercoms. Alnico $V$ magnet, molded phenolic
diaphragm. Enclosed in metal case with protective front screen, $67 / 16^{\prime \prime}$ dia. $\times 21 / 8^{\prime \prime}$ deep. Has flange rim for panel mounting if desired. Weight.
$43 / 4 \mathrm{lbs}$.
No. 36 A85. A Buy! At Only $\mathbf{S} 9.95$

## 78 RPM MOTOR



A sturdily built bass wood cabinet ideal for storage of hardware, resistors, condensers parts. Has 6 drawers with 4 compartments each Overall size $9 \times 7$, 5/8"P Polis hed
Varnish finish. No. 36A8. Net Each
$\$ 3.45$


Ideal steel drawer type cabinet for radio parts, etc. Made so cabinets Size, $13^{1 / 2^{\prime \prime}}$ long, $6^{\prime \prime}$ wide, 4" high No. 36A51. Each $\$ 1.29$

## HANDY CARBON MIKE

Has press - to - talk switch in rubbercovered flexible cord $41 / 2 \mathrm{ft}$. long. com No. 17A419. Every SPECIAL, 95 .


## INSULATED SPIN

 HEX NUT DRIVER
## P1

S/6" diameter, $6^{\prime \prime \prime}$ long. $1 / 4^{\prime \prime}$ hex socket with long hollow shaft. Atrached proof.
No. IIA139. NET EACH

## MORE THRIFTY BUYS <br> 41-FOOT TELESCOPING STEEL MAST

## 5 Sections, Collopses ta $91 / 2 \mathrm{Ft}$. Ex-


tremely Sturdy
outside dia., is $23 / 8{ }^{\prime \prime} \times 9 \mathrm{ft}$. high and the four succeeding sections are each 8 ft . high tapering to $\mathrm{l}^{\prime \prime}$ dia. for top section. Top of each section is equipped with 3 hole guy wire rings. Sections extend easily and ore held in position by heavy cross pins included.
Ideal and strong enough for TV antennas, amateur beams, flag poles, removed for inserting standard TV mast assembly (up to standard 1 supplied with most TV antenna kits.
Built to Gov't Specs. B2 at a cost for in excess of our price so here truly is an exceptional buv on a real rugged mast. Brand New. While They Last,
Special Each. STRANDED GUY WIRE
6 stronds No. 20 galvanized steel. Suitable for antenna masts and towers. labout 500 ft .) required for
obove most
No. 2A33, Supplied in 100 Ft. Cails.
Per Coil ..........................8Bc

WOOD CABINET KNOB


Comes unfinished so it can be stained, varnished or painted to used for. Modern design, top quality. $2^{\prime \prime}$ concave scroll design base, extends out $3 / 4^{\prime \prime}$. Supplied with mounting screw.
No. 198614.
$155 \begin{aligned} & \text { Lots of } \\ & 10 . \text { Each }\end{aligned} 20$
CERAMIC COIL FORM
 mally open.
No. 18A168. Each 4
10 Lots. Each.... Type B7R5 S.P.D.T. Na. 18A994. Each
10 Lofs. Each.


## AMATEUR CRYSTAL KIT

Kif contains 3 Crystal Blanks approx. 50 to 10 KC . below tundamental freq. of $7,000 \mathrm{KC}$, can be ground to 7.000 KC or over (with abrasive included) to any desired freq. in amateur band. Fo became cluded are Two holders complete with reguelectrodes and springs and 2 additonal sets of electrodes and 1 bag of abrasive. Instructions in electrodes and 1 bag of abrasiver cluded
No. $17 A 305$.
SPECIAL, PER KIT

## FLEXIBLE PLASTIC TUBING at CRAZY LOW PRICES!

Handy for a variety of insulating needs . . . for wire, solder lugs, etc. Extremely flexible, resistance to abrasion, cold and heat. High dielectric strength.

100-FOOT ASSORTMENT ONLY 95 c
Consists of 425 -foot coils; 2 coils . $118^{* 2}$ ID, 1 coil $106^{\prime \prime}$ ID, and 1 coil $148^{\prime \prime}$ ID. You would usually pay more for one coil than we ask for the
Stock Na. 3B45. SPECIAL PER 100-FOOT ASSORTMENT 95c Consists of above and several other popular sizes. A value that would usually cost at least SIX TIMES this ridiculous LOW PRICE. Stock No. 3846. SPECIAL PER 300-FOOT ASST. ONLY

## (20)

10 assorted picces of hinges, cabinet Very handy and snap catch fasteners. Very handy for repairing or building
carrying cases and cabinets. No. 19B1021. PER ASST.

356
METAL MTG. BRACKETS and FASTENERS


10 assarted pieces, very handy for numerous mounting needs.
No. 18A410. Special, Per Asst. 29 C

## 999-PIECE

HARDWARE ASSORTIENT


CABINET HARDWARE ASSORTMENT
 WAR

Contains machine screws, ers, solde, lugs, rivets, self-tappins ers, solde, lugs, rews, etc., ete. All gcod self-rapping screws, etc., etc.-All good useable have need time and time again!
No. 3 A36.
Per Asst.
99c

SOCKET ASSORTMENT


10 assorted, water, octal and miniature sockets. A Real Cood Value. No. 18 A 411 PER ASSORTMENT

296


All the electrical parts for construct ing an 8 -watt fluorescent light for closets, cabinets, special built-ins in kitchens, etc.. or for illuminafing pictures or backlighting displays. Dozens of uses will suggest themselves to you Kit contains lamp, ballast, lamp sock ets, starter, AC switch and 6-ft. cord Operates on 115 -volt AC . No. 20B1. Per Kit.
$\$ 1.95$

Remember . . The $B-A$ reputation for honest, dependable and friendly

PHONO JACK, PLUG and LEAD ASSORTMENT


Here are items that are almost in daily demand servicing phono con nections. Here is what you get for only flexible shieldeds, 2 lacks, and 226 flexible shielded leads.
No. $16 A 547$. Per Pkg. OnLy 50

## ANTENNA HARDWARE FOR AUTO AERIALS

## (\%) 0 (0) (OOO

A handy and complete kit of parts, hardware, etc., for use with all makes of aerials having $5 / 16^{\prime \prime}$ dia. tubing. STRAICHT SIDE COWL MOUNTINC No. 11 Al60. List Price $\$ 1.25 .738$
Complete Kit, Each ......... Complete Kit, Each

SLOPINC COWL MOUNTINC No. 15A2032. List Price $\$ 1.25$.

73 c
PLUG ASSORTMENT


6 assorted plugs with attached wire
leads, very useful in radio work No. $20 B 2$.
Per Asst. of SIX

## PUSH BACK WIRE

## ASSORTMENTS

Top quality, tinned copper with double cotton serve, wax fin150 easy to push back. coils, each of different color in each assortment.)


No. 22B22, 22-Gauge, solid Per Asst. of 150 Ft ....... 88 C No. 22823. 20-Gauge, Solid. 94 C No. 22B28. 20-Cauge, Strand- 998
ed. Per Asst. of 150 Ft.... 50-FT. COILS PUSH BACK WIRE No. 18B35. 18-Cauge, Solid. 39 C
(Color Black.) 50 -Ft, Cail. No. 18830. 18-Gauge, Strand- 43 C

## INSULATED RESISTOR

 ASSORTMENT

Contains all most popular capacifies. 100 assorted, 50 each $1 / 2$ and 1 watt
18A74. Per Assortment $\$ 1.95$
100 assorted, $50-1 / 2$ watt, $25-2$ watt. $\$ 2.25$ 200 assorted, $100-1 / 2$ 18A786. Per Assortment 93.95

FREE - Handy Color Code Chart

PRICE CUT IN HALF ON AUTO ANTENNAS!


32/110-VOLT CONVERTER Operates Standard
$110-$ Volt AC Appliances From 32-Volt Farm Power Plants


Converts 32 -volt DC to 110 volts 60 cycle AC. Continuous load capacity up to 100 watts, but has considerable
overload capacity for electric starting, Easy to Use. Has two outlet sockets. Converter turns on or off automatically with appliance
switching required.

Dependable, Trouble-frec. With the extra vibrator included, this unit gives 2,000 hours of trouble-free operation. Durable blue-gray enamel finish. A TERRIFIC VALUE! Converter List placement vibrator. Total list value, | No. 32841 . While Ther |
| :--- |
| Last. ONLY. | ican be used with radios by adding proper tiltering.


$12^{\prime \prime}$ long $\times 51 / 4^{\prime \prime}$ wide $\times 41 / 4{ }^{\prime \prime}$, high outside dimensions. Made of $1 / /^{\prime \prime}$ kitn dried No. 1 clear pine sides and ends with 3 -ply plywood bottom routed in. Weldwood glue construction. Bolted sturdy handles. Slotted for $31 / 4 \times 11 / 2^{\prime \prime}$ card labels. Slotted inside for two $4^{\prime \prime}$ and (not included), making two $4^{\prime \prime}$ and one $23 / 4^{\prime \prime}$ compartments. The real "McCoy" for building up stock racks to suit individual needs. Could $\$ 1.00$ beach tor less than at least Hot Buy.
No. 4A69. 59C 10 Lots. 51. 59
Each....


Written by Six Distinguished Radio Experts. Edited by Wm. L. Everett. in thoroughness this book is outstand ing. With no previous radio experience or knowledge one can obtain Has over 300 working diagrams and step-by-step instructions by six of the country's greatest radio experts. Covers everything one needs to know (400 pages). Handbook style. Comsells for $\$ 5.00$. course. Regnarl So. 16A50. Ai $1 / 2$ Price. 3251 HANDSOME
WALNUT CAB?NET


Priced at a fraction of cost to make Size, 20" wide, $133 / 4^{\prime \prime}$ high, $9^{\prime \prime}$ deep. Sturdy construction, ornamental brass strip escurtcheon panel. Shipping No. 4 .

## 110-VOLT AC RELAY

 Leach Type 1127 D.P.D.T.
ecommended for transmitter highly Has $3 / 16^{\circ \prime}$ silver contacts. All circuits ares quietly. Will follow keying. Coil resistance 530 ohms. Overall No. 1888828.5 FLEXIBLE FM ANTENNA AT A GIVE AWAY PRICE
$\square$
for heavy 300 -ohm Twin Lead for use indoors, under rug, around moulding, back of console cabinet or extra 10 -ft. of twin lead included No. 3B1.
SPECIAL, EACH
798

## MIDGET BOX TYPE

##  <br> 8 MFD. <br> 450-Volt Working

## DRY ELECTROLYTICS

Cardboard carton type dry electrolytic. Mounting flanges have slotted holes to fit various spacings. Mount flat, upright or will stack. Size $21 / 2 \times 11 / 8 \times 3 / 44^{\prime \prime} 196$
No. 154267 . Each.

## HANDY BOOK SUPPORTS



Perfect for the work bench, ham shack. or office. Keeps books and records in orderly out - of - the - way tashion. Made of springy steel, black enamel finish. Size, $43 / 4 \times 51 / 2^{\prime \prime}$. 30 C
No. 164458 . Per Set of 2. .

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Just a few copies left. Over 450 pages of good usable information on 27. 000 sets.
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OHMS LAW CALCULATOR


Answers any Ohm's Law problem with one setting. Finds volts, amps, and warts. Resistance range o to 10 megple to operate.
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1700 Answers
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$\$ 6.00$ VALU
\$2.95

## ANTENNA WEIGHT



2 lbs ., with stain 11" cord attached on spring core. trailing wire an tennas.
$3 A 120$. 396

## 6-VOLT AC MOTOR

 "Oster" Type BU254 Model 1875.60 -cycle 6 volts AC continuous duty.Fractional $H P$ Fractional HP.
5700 R PM counter clock-
wise rotation. 1.5 inch -oz
 $3 /{ }^{3}$ long. Wire leads $7^{\prime \prime}$ long. ShipNo. 19B791. EACH
32.45


## SOCKETS

 quality make. molded bakelite with a steel mtg. plate so itcannot vibrate come loose.

[^4]
## USED HS23 PHONES

 The most popular8000 -ohm hi-impedance military ordinarily s 4 oc used items but special purchase lot was misrepre sented to us we have them and fested for defects.


Noor set. A cood Buy! $\$ 1.19$
CONSOLE LOOP ANTENNA
Attractively de signed, sturd constructed
pine. Size $9 \times 1$ 12 turns. Pri turn. Sec.
turns. Size 20 bare tinned cop nating to termi nal strip with 4 screw connec top and bottom
 Mitered construction No. 5 B133.
A Buy at Only 59 Lots of SOC

ALIGNMENT TOOL SET
$\square \mathrm{O}$

4 TOOLS IN ONE

## When closed, is fountain pen size. Has

 $1 / 4^{\prime \prime}$ and $5 / 16^{\prime \prime}$ nut wrenches, small blade serewdriver, and a full sizeserewdriver. Made of finest bonescrewdriver. Made of finest bonefibre. Has metal ends for longer wear. No. 11 Al56. Per Set.

## GRILLE CLOTH

 Bcige fabric will harmonize with all cabinet designs. Buy it now, while you
 servieing. 48" wide.
No. 18A413. PER YARD. 1.29

## LEATHERETTE



## JONES SOCKET



## SLUG TUNEO FORM


$7 / 16^{\prime \prime}$ diameter $\times 23 / 4^{\prime \prime}$ overall long. Polystyrene. No. 18All05.118
Each...... 10 Lots. 85
Each...

## STANCOR "Telematch"

Eliminates TV antenna impedance mismotch, gives startling results with indoor antenna. Minimizes ghosts, reduces interference. Easy to install. \$7.95 List Value. No. 19892. Naw Spec. Ea.
31.95

BLINKER LIGHTS

G.E. 5 MFD. 600 VOLT

## OIL FILLED CONDENSER

Hermetically sealed in rec-
tangular metal cans size $37 / 8 \times 21 / 2 \times 1^{\prime \prime}$. Stand-off in
sulator terminals add $11 / 4^{\prime \prime}$ to its height. C.E. Pyra nol type 23F5-C3. No. 18A435

| No. 18A435 |  |
| :---: | :---: |
| Each. |  |
| 10 Lots. |  |
| Each. |  |

## SAVE ON SOCKETS



Assortment of Six-any one of which is worth more than the price of the
lot. Anyone experimenting or building will find good use for No. 18A436.
Per Asst. of six
99c

## ELECTRIC CHIMES



Well known make. Separate tone from front and back door or may be with standard door bell transformer or 8 dry cells.
(A) Streamline, stunning CHROME Louver and trim strips over gleaming install in restricted spaces, size $63 / 4 \times 41 / 2 \times 21 / 4{ }^{\prime \prime}$

(B) In white enamel
(B) In white enamel with CHROME $61 / /^{\prime \prime}$ wide, $25 /$ B $^{\prime \prime}$ deep. Weight. $3^{1 / b s}$. No. 3 waid $3 x$.
While They
Last. Each... 3.75 While They Last. Each...
CHIME OR DOOR BELL TRANSFORMERS
Reduces $110-125$ volt 60 -cycle $A C$
current to 10 volts for operating current to 10 volts for operating most any
No. 20A71x.
No. 20ATIX.
SPECIAL, EACH.
956

SPEAKER VALUES
here
truly ARE SMASH values in top quality

## SPEAKERS

MACNAVOX $12^{\prime \prime}$ PM-Alnico 3. 21
 OXFORD $12^{\prime \prime}$ EXTRA HEAVY DUTY PM
22 oz. Alnico $V$. ring magnet, curvelinier molded high tidelity cone ruger mly built to take up to 35 watis. Bright aluminum thinsh. Priced at
less than
$1 / 2$
regular net price. Shpg.
 Special Each 12 For $125^{00}$

## HANDY 6-IN-1

UTILITY TOOL


Ball Pein Hammer and 4 Serewdrivers Combined in onc compact Tool. Knurled hollow handle of ball pein hammer holds four complete screw-
drivers with blade sizes of to drivers with blade sizes of the to
is
it. Tools are of hardened steel
 $\frac{\text { No. 16A853. Complete Only.. }}{\text { 9-PIECE }}$ VEST POCKET


Two-gang
Pwoition
Posure
square bake
lite $P_{1}$
solid
s
sol
contract
arm.

shaft $11 / 4 " 10$ hole mounting. Size be-
long, single
No,
hind panel 3
No. $17 A 373$.
Special. Each
$\$ 1.95$
25 MMFD 10,000 V. CONDENSER
Rated for high RF
currents. Uselul in
Un Rurrents. Useful in
cuny RF applications such as antenna loadsug. Tank circuit
ing
shts to get 80 an
shunts to get 80
meter tanks to 160 , meter as a substitute in $m$ any cases for vacuum condensers. A most recent applica-
tion is as plate to ground or grid to
 ground harmonic by-pass for elimi nation of TV1 in transmitfer circuits. dia. $2^{\prime \prime} H_{\text {:, ceramic insulated binding }}$


## SHOCKMOUNTS


twisted pair wire
 -

## FILTER

CHOKES
10 My .65 Ma spec. Each . ${ }^{6}$ Hy. 50 Ma .

## Precision made, shadow- graphed for perfect re-

$\begin{aligned} & \text { production especially on } \\ & 78 \\ & \text { RPM } \\ & \text { a }\end{aligned}+0 \mathrm{matic}$ changers. Each plays over 25 sides with minimum record wear.
No. 19B731.
No. 19B731.
Per Card of SIX

only.
No. 5


Provides a two way phone system, powered by the sound of the voice Proquires no batteries or other source of power. Portable, compact, tight
low in price. "Just it, for communication between roof and television set for proper "lust it" for communication between eroot and television set for proper many uses. Good volume up to 1 mile. Consists of Two Pairs, the celebrated type HS30 head sets-one of the ear pieces easily slips off the head band tor use as mike. Wired ready to use, except for simple connzction with lengin
Each set has shirt clip for added convenience.
No. 22B41. Two Pair H530 and 50 foot coil
$\$ 3.48$
 bown bakelite base $4 \times 6^{\prime \prime}$. \$2.65
fo. 17 A6. Your Cost....

## DRY ELECTROLYTICS



20 Mfd. 350 W. V., 425 V. Peak Solar Minicap. Size $18 \times 258.810$ Lots. 25
No. 18 Allis. 28 Each ...
Each ...... Each Mfd. 30 W50 W. V. Aerovox. Size $1 \times 3^{\prime .}$ Has mig. strap. 10 Lots. 258
No. 18 Alli7. 28 Each...
Each...... Each. Mid. 25 V. CD Blue Beaver, Size No. 18 Aill9. 18 \& 10 Lots. 28
Each. . . . . .



COLUMBIA CHROMIUM

## PHONO NEEDLES



MICRO SWITCHES Type YZ3RQIT. Push button plunger, normally op en, operating
pressure 7 to 9 oz. single hole panel $\underset{\text { Each....... 65C }}{\substack{\text { No. } \\ \text { Each ...60 }}}$ BATTERY

## ELECTROLYTE

Sulphuric acid solution of proper specific gravity for all types of wet cell storage batteries. Pint bottle-can be shipped by express
No. SB141. 25ec. Each. 25C
Spor... $\begin{gathered}\text { Thirty } \\ \text { For }\end{gathered}$

## 200 WATT SOLDERING IRON

Top quality make, fully guaranteed. $5 / 9^{\prime \prime}$ dia. screw-in tip. Overall size
$12^{\prime \prime}$ weighs 22 oz. Regularly $\$ 9.25$ List and $\$ 6.48$ net value. Complete


SENSITIVE RELAY


Telephone type D.P.D.T. Solid gold contacts, positively corrosion proof. Sturdy construction, top qual ity. adjustable. Closes at 31,2 Ma. drops | No. 198763 |
| :--- |
| A Value! Ea.. 88 C |
| 10 Lots. |

VOLUME CONTROLS
1/2 Meg., No Switch

". dia., top make with split knurled shaft $11 / 2^{\prime \prime}$ from bushing.
and COAX CONNECTOR ADAPTORS


Type 83-168 adapts RC59, 62 and
 Type 83-185 adapts RG29, 55 and


## CABINET LOCK

 Top quality, sturdily built, Threaded stud
for use on wool den or
metal cabinets met cabinets thick. Handsome chrome
with key and plated front. Complete with key
necessary hardware. Lots of
No. 19 Bio18. No. 1981018. 29 Lots of $2510, ~$
Each.....

# SPEELIAL PURCHASE Sale of Top Mole TEST NSTRUMENTS 

SUPREME MODEL 574
REGULAR PRICE, \$72.50. COMPLETE ELECTRONIC MULTIMETER』

## - HAS ALL VOLTS, CURRENT, OHMS, RANGES <br> - 9006 DIODE PROBE <br> - 4-INCH METER WITH REVERSE SWITCH <br> WHILE LAST, NOW...

Model 574 Electronic (Vacuum Tube) Multimeter and Set Tester is a completely modern Set Tester, indispensable to the Servicer for accurate measurements in high dmpedance circuits as encountered in FM, Television, High Fidelity Audio, and the measurement of AC voltages in the RF spectrum up to 100 mc with negligible trequency error! $D C$ input impedances of 40 meg. maximum to 20 meg. minimum for DC volts ranges of $0,1,2.5,50,250,500,2500$ volts. AC input impedances at 60 cycles, 9 mmf - - 10 Megohms to provide V.T. ranges of $0,1,2.5,10,50,250$ AC volfs with newest type handfitting H.F. Diode Probe. AC impedances are $100 \mathrm{mc}-20,000$ ohms. Low frequency (standard) DC
Volts measurements in ranges of $0,1,2.5,10,50,250,500,2500$ volts by use of standard test leads. Volts measurements in ranges of $0,1,2.5,10,50,250,500,2500$ volts, by use of standard test leads.
Resistance Ranges of $1 / 1000 / 10,000,100,000$ Ohms, and $0,1,10,100,1,000$ Megohms! DB Ranges of Resistance Ranges of $1 / 1000 / 10,000 / 100,000$ Ohms, and $0,1,10,100,1,000$ Megohms! DB Ranges of O. 1. 10 DC Amps. The completely modern and stable V.T. circuit of Model 574 assures negligible O. 1. 10 DC Amps. The completely modern and stable V.T. circuit of Model 574 assures negligible changing ranges. Push-button selectors for all ranges and functions and dearly etched steel panel in white on gray wrinkle enamel finish. Steel cabinet is $5 \times 91 / 2 \times 12^{\prime \prime}$; weight, 16 lbs. Complete with easily followed operating instructions, Diode H.F. Probe, high quallty standerd test leads and AC cord and plug; for use on 100/133-volt, 60 -cycle AC current. Schools, Industrials, Servicemen and Experimenters
really "HIT THE JACKPOT ON A WHALE OF A VALUE" on Model 574 at this price! (HACKPOT ON A WHLE OF A VALUE" on Model 574 at this price.
Stock No. 35B6. "SUPREME" MODEL 574 Electronic Set Tester. (Regular $\$ 72.50$ Net.) WHILE THEY LAST, NET.
$\$ 43.88$


## PORTABLE TUBE and BATTERY TESTER

 SUPREME MODEL 589A.WELL WORTH THE $\$ 54.85$ HUNDREDS PAID


## AUTOMATIC

## HEAVY DUTY

3 WAY

## PORTABLE RADIO

## RECHARGES BATTERIES

A rugged, full size Superhet portable built to accommodate batteries large enough to give long and trouble-free service. Has the space also to accom-
modate a large improved type PM modate a large improved typ
Cives 7 -tube performance with four tubes, two of which are dual purpose
plus lifetime Selenium rectifier. The patented built-in Porta Loop assures increased pick-up and improved reception Operates from $A C$ or $D C$ electric equal available everywhere). The bat teries are kept operative longer than normal by the built-in Rejuvenator The Cabinet is a pleasingly proportioned and sturdy wood case with a simulated alligator leatherette covering and unusually attractive easy vision two-tone dial and speaker grille. Stitched leather hande. Automatic volume control An ideal town or co
Size, $125 /{ }^{\prime \prime}$ " long, $93 / 4^{\prime \prime}$ high, $43 / 4^{\prime \prime}$ deep. Weight with batteries 14 lbs . Less Batteries, $61 / 2$ lbs.
$\$ 29.95$
Set of Batteries-i ER747 and 2 ER482. PER SET
$\$ 4.96$

## SAVE $40 \%$ :

SUPREME MODEL 592.
DUAL SENSITIVITY V.O.M.A.
\$34,88
DOUBLE METER SENSITIVITY- $\mathbf{2 5 , 0 0 0}$ and 1,000 OHMS-PER-VOLT ON DC. ANY meter range or function obtained in a second! Depress ONE button on left side of panel for "function" and ONE button on right side of panel for desired range. ONLY ONE PAIR OF PIN JACKS FOR 43 RANCES. Separate heavy duty bindng posts for 14 amp. range. LEAKACE CHECK of all paper and mica condensers on 50-Meg. resistance range. NO SAFETY SWITCH TO HOLD DOWN ON AC-special circuit minimizes burn-outs. Copper oxide rectifier CUARANTEED, same as any other part. "OB" conversion chart furnished for
readings on any line of known impedance.
DC VOLTS: 125,000 or 1,000 Ohms per Volt): $1,31 / 2,7,35,140,350,700$ 1400. AC VOLTS: 7, 35, 140, 350, 700, 1400; OHMS: $500,5,000,50,000$ $500,000,5 \mathrm{Meg} ., 50 \mathrm{Meg}$. WITH internal batteries. DC CURRENT: $0,7,35$,
$140,350 \mathrm{MA} .0,14$ Amps. DECIBELS: - 0 to +46 . OUTPUT: $0,7,35,140$, 350, 700,1400 . NO CONDENSER REQUIRED. In modern steel cabinet size $91 / 16 \times 63 / 4 \times 53 / 4$ :". Weight, 9 lbs. Complete with instructions and RegistraNo. 35A15. "SUPREME" Model 592 Set Tester WH ILE THEY LAST, NET EACH

## JACKSON MODEL 615 POCKET MULTIMETER

An excellent general purpose instrument, compact in size but unusually complete in ranges. Rotary switch RANGE SELECTION. Three-inch square type HICH QUALITY METER with jeweled bearings.
RANGES-Two-ohm panges: $0 / 1000,0 / 500,000$. Five
AC Volp ranges: $0 / 10,100,200,500,000$, AC Volt ranges: $0 / 10,100,200,500,2.000$. Five DC ranges: \%/1, 5 , 50,250 . ${ }^{\text {High voltage } \mathrm{DC} \text { range: }}$ $0 / 2,500$. Instrument supplied with self contained battery, less test leads.
JACKSON Model 615. Reg. Price, \$24.95. 14.95
No. 37A78. SPECIAL, EACH.............. 9.1 .


SAVE \$ \$ \$ ON STANDARD MULTIMETERS ALL PURPOSE AC-DC V.O.M.A. 'RCP': MODEL 424-A. 26 RANGES AND FUNC
TIONS! O-1000 AC G DC VOLTS, O-1000 M.A O-10 MEC VOLTS RANCES FROM VOLTS. 4-RESISTANCES FROM $0-10$ to 1000 TO 10 MEGOHMS 4-DC MA RANGFS FROM $0-10$ to 1000 M . A. 4-DECIBEL RANGES FROM LINE IMPEDANCE. 2500 O.P.V. METER MOVE-MENT-1\% TOLERANCE SHUNTS G MULTIPLIERS

$$
\text { Stock No. } 37 T 1023 \text {. "RCP" Model 424A. YOUR COST }
$$

 2 LBS.
\$21.50

## 2uchity Flmarescent <br> Righting Equipment

"FUTURIST" - Gorgeous Lighting - Moderate Cost!


THE FUTURIST ADMINISTRATOR (as shown above) combines modern beauty and efficient light distribution-uses 4 40-watt, 48" lamps, all ex posed, in a fixfure of unusual streamlined beauty-adaptable to any us or location where good lighting is a necessity! Heavy gauge steel body for strength, with aluminum channel enabling a beautiful Two-Tone finish of electrically baked super-white enamel with satin polished aluminum striping -graceful end pieces of highly polished satin aluminum. Pendant style unit $16^{\prime \prime}$ wide, canopy in white with polished metal tubes. Size, $541 / 2^{\prime \prime}$ long type mounts direct $/ 8$ inst , type mounts direct against ceiling surface. U/L Approved, finest electrica components. Supplied complete and ready to install with choice of Dayligh No. 50A94. "Futurist" 4 40-Watt Pendant
No. 50A95. "Futurist" 4 40-Watt Ceiling
$\begin{array}{rr}\text { Net Each } & 3 \text { ar Each } \\ \$ 25.72 & \$ 24.11 \\ 24.11 & 22.87\end{array}$

## New: 3-LAMP SUPER CEILING (Mrypton Cas Tubes)

THE LATEST IN FLUORESCENT! Provides MORE light at LESS cost for power-uses THREE of the NEW 25-WAT Krypton Ga put of standard 40 -watt white fluorescent lamp! Ideal for HOME, STORE, SCHOOL and many other uses, a single 3-lamp fixture provides floods of easy-on-the-eyes light over an area of 80 sq . ft.! U/L Approved, body quality constructed of heavy, steel, scientific designed reflector finished in super-white baked enamel. Satin polished aluminum end pieces provide neat decorative effect. Supplied complete with three $25-$ watt lamps, ready to install. Mounts flush to ceiling. Size, $331 / 2^{\prime \prime}$ long, $4^{\prime \prime}$ wide, $6^{\prime \prime}$ deep. Weight, 17 lbs. No. 50A92. Triple Lamp Super-Celling
Unit. Net Each
.
 trim pief eye-ease light. Heavy steel end decorative design hide unsightly lamp holders. All fixtures are $491 / 2^{\prime \prime}$ long overall. Pendant types hang $36^{\prime \prime}$ from ceiling to bottom of fixture. Ceiling types mount flush with ceiling, extend only $71 / 2^{\prime \prime}$ from ceiling face. Wired, with hangers for quick, easy installation to
any 110 -volt $A C$ ceiling outlet. Complete with choice of Daylight or $4500^{\circ}$ white lamps. Average weight, each, 22 lbs.
 No. 50A99. $240-$ Watt Ceiling, With Lamps........... 13.37 .12 .42

## LOUVERED FLUORESCENT FOR BEST LIGHTING!



## "AIRLINER"

 Louvered bottom 2- OR 4-LAMP 48-INCH FLUORESCENT UNITS FOR STORE, OFFICE or PUBLIC BUILDINCModernly styled and handsomely proportioned, the new Airliner not only adds to the beauty of the room in which it is installed-it provides the best and most efficient no-glare, even distribution of light possible? Side glass diffusing panels of "Corning" Albalight glass eliminate glare from lamps a.id diffuse light, usually wasted, over a wide area of working space; egg crate type bottom Louvers provide the best possible spread of efficient, soft fluo rescent light-electrically baked-on White Enamel finish of fixture body reflects all the light-wastes none! Cast Aluminum end pieces, canopy and stems are highly burnished to a Silver finish. Bottom Louvers are of heavy steel, finished white enamel for highest lighting distribution efficiency. Al component parts, ballasts, etc., are of best quality, Underwriter's Approved and entire fixture is Union Made. Easily installed and maintained, shipped complete with Daylight or 4500 White Lamps. High Power Factor. All Pendant units are 36 "AIRLINER" PENDANT TYPE FLUORESCENT FIXTURES
Stock'No. For Lamps Wize Weight Net Each 3 at Each
$\begin{array}{llllll}50 A 209 . & 440-W \text { att } & 491 / 2 \times 161 / 2 \times 6^{\prime \prime} & 45 \mathrm{lbs} . & \$ 33.44 & \$ 31.32 \\ 50 A 210 . & 240-W \text { att } & 491 / 2 \times 91 / 2 \times 6^{\prime \prime} & 30 \mathrm{lbs} . & 22.72 & 21.78\end{array}$ Identical to above illustrated Pendant type fixture, except does not have stems and ceilinc canopy, ready to hang complete with Daylight or White Lamps.
No. 50A212. "Afrliner" 4 40-Watt Ceiling Fixfure. Net Each No. 50A213. "Airliner" 2 40-Watt Ceiling Fixture.. 21.22 19.82 INote: Ceiling and Pendant Fixtures may be assorted for quantity price.)

## RED HOT BARGAIN!

 DECORATIVE STRIP LICHTI Cold Medal Quality, product of nationally known Manufactur er! Pleasing beveled edge design, entire body of extra heavy steel, finished entirely in Super White Baked Enamel! White lamp sockets. This fine strip ${ }^{\prime \prime}$ wide at face, $31 / 4^{\prime \prime}$ deep overall with lamp installed. Easily installed to any 110 -volt AC wall or ceiling outlet. Packed complete with white lamp. Weight, 4 lbs. No. 32A45. RED HOT BARGAIN: 15-Waft Strip Light. Net Each
$\$ 2.95{ }_{\text {for }}$ \$15.95
Identical to 3 -lamp unit described above. Supplied with TWO Krypton Gas filled $25-$ waft lamps. Same size as listed above. Weight, 15 lbs.


## STREAMLINE FLUORESCENT STRIP LIGHTS



Refreshingly new low-cost, all-purpose Fluorescent Strip Lighting Units in SINCLE and TWO-LAMP styles for EITHER 20-waft or 40-waft lamps. Durable steel bodies with removable back plates for easy installation to any standard 110 -volt AC ceiling outlet-simply screw plate to ceiling or outlet box, make connections, and slip on the trim, neat streamline cover! Finished overall in high-bake super-white enamel-design engineered to provide shadowless light over a large area. May be installed in groups end-to-end or side-by-side, or combination of both for ultra modern and efficient lighting of large rooms. Size of one-lamp units is $41 / 2^{\prime \prime}$ wide, two-lamp units, $61 / 2$
wide; 20 -watt units are $25^{\prime \prime}$ long, 40 -watt is $49^{\prime \prime}$ long; all types are $21 / 2$ wide; 20 -watt units are $25^{\prime \prime}$ long, 40 -watt is $49^{\prime \prime}$ long; all types are $21 / 2^{\prime \prime}$
deep. All styles are U/L Approved. 40 -watt two-lamp type is high power factor. Weights complete with lamps, Single-20, 5 lbs; Double-20, 7 lbs . Single-40, 10 Ibs ; Double-40, 16 lbs. Supplied with lamps.
Stk. No. 20-WATT UNITS $3 @$ Each 5 tk. No. Lamps NT UNITS 314212 ONE Net Each $\$ 3.57$ S3.34 314214 ONE S EACh 3 Each


PLUG-IN REFLECTOR UNITS - EASY TO INSTALL!

## B-A SUPER VALUES

"Double Forty" Industrial UnitTWO 40-watt lamps easily equal 150 to 200 watts of incandescent


Heavy steel reflector quickly removable by thumb screws for access to Underwriter's Approved, high power factor Ballasts and Sockets. Baked White Enamel reflector, gray exterior, is $51^{\prime \prime}$ long, $11^{\prime \prime}$ wide-overall height, $51 / 2^{\prime \prime}$. Hangers at both ends of top channel, and knock-outs in channel allow hanging by chains, wire or pipe; knockouts in ends for switches. Supplied complefe with 4500 Whire or No. 31A201. "Double Forty" Unit. Complete. Net Each

Modern Fluorescent Fixtures at New Low Prices!

stalled to any standard $A C$ celling outlet. "Complete with two 16 -watt "Circlarc" lamps.
$\qquad$ Popular 32-Watt "Circline" Efficient, attractive for most any room in home or otfice! Furnished complete
with new 32-watt Circline lamp; lamp mounts in striking eircular housing of
high polished spun aluminum with white enamel reflecting surface; trimmed by crystal glass ornament.
instalis easily flush with ceiling to any standard AC outlet. Size, $12^{\prime \prime}$
$\qquad$ Complete with Lamp. Net Each...............
DECORATIVE GLASS SHIELDED "TWO-TWENTY"
The "20th Century" Universal Ceiling Unit
 TWO 20-WATT LAMPS!
MOUNTS ANYWHERE! Sparkling ne w. CHROME plated ends hold ceramicDECORATIVE CLASS SHIELDS-set at an angle efficiency WITHOUT GLARE! A super-efficient lighting unit, for use in HOMES, Offices-Salesrooms; provides glareless light equal to at least 150 watts of incandescent lamps. Undecting surfaces finished in gleaming white ourt heavy steel body with refiecturely braced and correctly spaced-lamps don't fall out or refuse to light! Frieze decorated Class Panels are easily removed for cleaning, are held in place by polished Chrome Plated end pieces! Complete with ,ittings for quick, easy installation to any Complefe with TWO 20 -watt fluorescent lamps. "Flush" Mounting type. at AO 8 No. 31azent Unif. Net Each ................... 10.09 Each \$6. 58
ATTRACTIVE CAST GLASS ENDS ON THIS "GTRIPLETWENTY" - QUALITY AT A LOW PRICEI
 THREE 20-WATT LAMPS equal light output of several out-ot-date inctiffixture adaptable to offices, or most any room in the homel Cast Glass decorated end pieces eliminate "dark"
ends - glow softly when fixture is ends - glow soffly when fixture is ceiling installation, permanently, to of heavy gauge steel with body finished in hi-bake gleaming white enamel. S0\% more light than from usual 2-lamp 20-watt fuorescent fixtures with tion throughout. Size, $241 / 2^{\prime \prime}$ long $41 / 2^{*}$ wide $4^{\prime \prime}$ deep. Complete with THREE 20-watt Daylight or White lamps; wt., $81 / 2$ lbs.
No. 31 B204. "Triple-Twenty" Economy Unit. 3 at Net Each.
"GERM-KILLER" GERMICIDAL UNIT
Effectively kills alr-borne bacteria and other micro-organisms by transmission of Cermbcidal Lamp germ killing radiation through air currents traveled by these germs! Deodor-izes-removes unpleasant odors
by creation of Osone in the air. Special design of mirror-finished aluminum reflector assures maximum distribution of Cermicidal Rays for germ killing
and deodorization, yet is so constructed as to not endanger occupants of room by direct exposure to the lamp. Cermodor should be installed $61 / 2$ to 7 ft . above floor and preferably over doors or windows-one 15 -watt unit to each home! Hangs on wall, plugs in anywhere! size $334^{\prime \prime}$ " wide $534^{\prime \prime}$ high $191 / /^{\prime \prime}$ long for 15 -watt, wt., 5 lbs.: $37 / \mathrm{y}^{\prime \prime}$ long for $30-\mathrm{watt}$; wt. 8 lbs . 11 ft finish in beautitul baked Bronze. Complete with Cermicidal Lamp, No. 31 ib205. 15 -Watt "Cermodor". Noch $\$ 11.955_{\text {arach }}^{3} \$ 10.99$ No. 31 B200. 30-Watt "Cermodor". $\underset{\text { Each }}{\substack{\mathrm{Net} \\ \text { Eat } \\ \hline \\ \text { Each }}} 15.79$ FOR PRICES OF FLUORESCENT FIXTURES, LESS LAMPS: Deduct from "Compete" prices shown, the following amounts PER LAMP-45c for each 15 watt lamp; 55 c for each 20 or 30 -watt lamp; 75 c for each 40 -watt lamp.
iChoice of Daylight or White lamps supplied with all fixtures priced "with


DE LUXE GLASS END
"DOUBLE TWENTY" UNITS
In Choice of Permanent Ceiling or "Adapter" Types
SENSATIONALLY PRICED!
(A) "Fitter Adapfer" type-Instantly installed to ANY ${ }^{\prime \prime \prime}$ standard shade
(B) Permanent mounting type-for easy
instailation DIRECT to outlet box or wires in ceiling of room; canopy of fixEND PIECES "dress up" fixture. Quality construction throughout-U/L APPROVED components, heavy steel body, baked snow. White enamel for maxi-
mum tight output. TWO $20-W A T T$ LAMPS will FLOOD the average kitchen mum light output. TWO 20-WATT LAMPS will COMPLETE WITH LAMPS. List Price, \$11.70. Weight, 9 Ibs.
(A) DE LUXE $4^{* \prime}$ ADAPTER TYPE PLUC-IN UNIT. For ANY $4^{\text {e }}$ Shade Holder.
No. 30A57, With Lamps. Net Each......... S5. $45 \begin{aligned} & 3 \text { at } \\ & \text { Each } 5.18\end{aligned}$
(B) DE LUXE CEILING TYPE UNIT. (Fits any ceiling electrical outlet.) For
 B-A "JACK-POT" (Your Choice of Either of Above BARGAIN SPECIAL\{LESS LAMPS....... 1 FOR 4895
(Nos. 30A57 and 304116 May Be Assorted at Above Prices)
HI-QUALITY CHROME BRACKETS-LOWER PRICESI

$\square$

(1)
(2)

In three beautiful styles for modern side-wall, over mirror, or ceiling lighting In Bathrooms, Klichens, Rumpus-rooms, Beauty Parlors, or Walt Brackets for Easily instalted to any 110 -volt AC ceiling or sidewall outlet! Overall size is $191 / 2^{\prime \prime}$ long, $31 / 2^{\prime \prime}$ wide at back, extend $3^{\prime \prime}$ from wall; all have turn-knob listed below. Shipping weight, with lamp, 3 pounds. Convenience Outlet as (1) 15-Watt Chrome Plated Bracket, with On-Off Switch and 15-Watt Lamp. No. 31 A209. No Convenience Outlet. No. 31 Bl . With Convanience Outlat.
(2) 15-Watt Chrome Bracket WITH Adjustable "Reflector, Switch and Lamp. No. 31A210. No Convenience Ouflat. No. $31 \mathrm{B20}$. With Convenience Outlet.

(3) 15-Wart Chrome Bracket, Etched Class Panel, Cpt. with Switch and Lamp. No. 31A211. No Convenience Outlet. No. 31 B21. With Convenionce Ouflet.



Fluorescent Desk Lamp


TWO 15-WATT Clamps, Screws to any
With automatic "Swre-Lock" fitops and stays securely in any position; insfantly adjusts "at-a-touch" for light in any direction! Die-cast construction 18 guar long. uppet arm, $13^{\prime \prime}$ long. Durable brown Polymerin enamel finish, Automatic Off-On switch. With lamps, 8-ft. cord; adjustable clamp. Wt. 9 lbs. No. 32B31. Magic Arm Desk Lamp.


THE ONLY COMPLETE "FOOD-FIXER". Completely eliminafes costly power take-off affachments-ready in an instant to grind meats, raw or cooked, vegetables, etc., by merely slipping grinder aftachment into Dormeyer's spevitamins from citrus fruits! Beats, Mixes, Stirs, Folds, Creams, Whips foods at recipe tested speeds indicated in Dormeyer Electric-Mix Recipe Book DIAL OPERATED 10-SPEED MIXER has automatic power regulator-maintains even mixing speed--steady power at all mixing speeds! Automatic beater release operates at a touch of the finger-tio control under the mixer handle! Power head and beaters instantly removable from base for on-stove mixing or beating, or use anywhere in the kitchen! Motor mount permits moving of beaters from center to sides of the two opal glass mixing bowls supplied. Ball bearing bowl turntable revolves without hand help. Streamlined light weight, beautifully finished to harmonize with any kitchen! Complete as No. 3OB55. DORMEYER MODEL 4200
Mixer, Juicer, Crinder. NET EACH......29.39 3 AT
EACH 27.29
DOMINION DE LUXE AUTOMATIC WAFFLE IRON Makes man-size (full $71 / 2^{\prime \prime}$ grids) waffles to
any desired degree of browness without guesswork or opening iron to see if waffle is done Medium, or Dark, as desired and at Light, every waffle comes out perfectly baked! Full size $71 / 2^{\prime \prime}$ grids are of silvery finished cast aluminum-completely stick-proof! Aufomatic indicator light glows when iron is connected to current, goes out when proper baking temper-
 is perfectly done! Nickel Chrome element distributes heat evenly over entire grid surface. Modern design steel case is heavily Chrome Plafed, has hidden, no-mar feet. Walnut finished handles, cord set. For $110 / 125$-volt. 25/150: cycle Ac current only. Weight, $\$ 10.95$.
 DOMINION HEAT INDICATOR WAFFLE IRON Identical in appearance to Model 1301 shown above EXCEPT is equipped
with heat indicator (flush with top of iron) instead of automatic control. with heat indicator (flush with top of iron) instead of automatic control.
Bakes $71 / 2^{\prime \prime}$ waffle. Complete with cord set. Weight 6 ibs

COMBINATION WAFFLE IRON and SANDWICH GRILL


THE FAMOUS "FOSTORIA" Twin Waffle Mold and Sandwich Toaster! DOUBLE DUTY! DOUBLE VALUE! Heat Indicator Twin Waffle Baker bakes TWO WAFFLES, each $5 \times 53 / 4$ " and both perfectly "done" in a maffer of minufes. Cast Aluminum waffle molds are heated quickly and evenly by the heavy duty 750-watt and base of this fine home appliance! Waffle grids are quickly interchanged for heavy steel Sandwich Crids for toasting delicious cheese or other combination sandwiches. Heat Indicator tells proper temperatures and indicates when grids are ready for use. Waffle and sandwich grids are interchanged easily by means of knurled screws at each end of frame. Highly Chrome Plated heavy steel housing has new aire cooled bakelite handles, no burned fingers! Bakelite feet guard against scorched table tops. SIZES, Sandwich Crids, $105 / 8 \times 63 / 8 "$; Waffle Crids, each waffle, $5 \times 53 / 4^{\prime \prime}$; overall size $131 / 2^{\prime \prime}$ long, $9^{\prime \prime}$ wide, $33 \%^{\prime \prime}$ high; wids, each Complete with cord set. For $115-125$ volt AC or DC current. Model 351. List Price, \$11.20.
Stock No. 30B52. "Fostoria** Watfle-Sandwich
$\$ 8.40$ Bact $\$ 7.46$

des'gned in heavy steel with all-over Chrome plated finish, has always cool ribbon element wound on genuine mica. $71 / 4^{\prime \prime}$ high, $87 / 8^{\prime \prime}$ on genuine Cord set. Weight, $21 / 2$ Ibs.
204808 . $? ~$


DOMINION AUTOMATIC ELECTRIC IRON
Weighs only 4 lbs. Sét the dial at Rayon, silk, Wool, Linen or High, and an even tempera: ture is automatically maintained at desired setfing Polished aluminum watt Nickel-Chrome element. Easygrip Plastic Handle and strain-relief attached cord and plug. Chrome Plafed. Weight, $41 / 2$ Ibs.

"REMINGTON" ELECTRIC SHAVERS


Al Remington Shavers are powered by the REMINGTON ROTOR TYPE MOTOR - the most powerful for its weight and size in
 Use-tested and proven satisfactory by thousands of men. "Remington" Shavers cut heavy or light beards with equal ease-take long hairs, short hairs or stubble in their stride-they have ro equal in electric shavers for shaving around sideburns and mustaches
REMINCTON FOURSOME. Combines a Blue Streak twin head with two of the standard round heads that made Remingłon Shavers famous-a combination that
Model 78
No. 20A127. List $\$ 19.50$. NET

## REMINGTON FIVE. Two Blue Streak twin heads plus one of the standard

 round heads-a combination of five heads that romp through a wiry beard in No. 20A165. List \$21.50. NET.CONTOUR SIX. Improved Blue Streak twin shaving heads on a contour. 240 cutting blades Diamond-Honed to a keen edge. All whisker openings aiways can offer you! AC/DC. Model 648 .
$\$ 16.45$
No. 20B644. List $\$ 23.50$. NET EACH

## Toastswell

The finest in Automatic Toasters! Makes perfect toast-from the first slice to any desired degree of brownness by merely setting the Color Selector to dark, light, or in-between shade desired. Split-second Super-Silent Clock Thermostat Control guarantees fully automatic action WITH= OUT the "ticking" noise found in other types of automatic toasters! Time control lengthens toasting time when toaster is cold, shortens it when toaster is hot; makes every piece of toast identical in color and crispness! Does not require pre-heating! "Toastswell pops the toast out when finished cuts off the current automatically! Unsurpassed in beauty, performance and dependability. Toastswell is streamined with case finished in highly polished SUPER-CHROME plate with black bakelite trim and handles. Size, $7^{\prime \prime}$ high, $61 / 4^{\prime \prime}$ wide, $111 / 2^{\prime \prime}$ long; complete with attached heavy duty cord. Operates only on $110-125$ voit, 60 cycle Ac current; 860
 TOASTER. NET EACH
"POPEX" ELECTRIC CORN POPPER


THE DELUXE "POPEX"-PPops fluffy, tender, crisp French Fried Pop Corn in a jiffy-no guess measuring cup isupplied) full of corn in the popper with the cooking oil, set the porn in the popper with the cooking oil, set the popper on erystal clear, heat resisting glass cover. Popper is made of heavy spun aluminum, finished to a high polish-Hot Plate, 660-watt heavy duty type, has flat top surface, new plastic feet, is entirely separate from popper utensil-may be used for any other cooking purpose! Kettle capacity, $21 / 4$ qts. Size, $83 / 4^{\prime \prime}$ diameter ap base, Capacity, $21 / 4$ gts. Size, $83 / 4$ diameter at base,
$10^{\prime \prime}$ overall height. List Price, $\$ 7.30$. Operates

No. 32B27. "POPEX" CORN POPPER


## EVERHOT DE LUXE MODEL 900 AUTOMATIC ELECTRIC ROASTER



## - FULL MEAL ELECTRIC COOKING!

 + 18 QUARTS LIQUID CAPACITY * $16 \times 11 \times 51 / 2{ }^{\prime \prime}$ COOXING WELL! t TURN-A-KNOB COVER LIFTER! t ROLLER CHART COOKINC CUIDE!Plugs into any 115 -volt, 60 -cycle AC outlet to provide care-free automatic temper-
ature controlled electric cooking! 3-Piece ature controlled electric cooking! 3 -Piece provides large open pan for meat and two provides large open pan for meat and two be removed and large turkey or other fowl or meat placed on steel lift-rack. Heavy aluminum alloy cover acts as self-baster, has self-adjusting steam escape; turn-a: knob lifter opens, closes and locks cover Extra heavy steel body with removable, extra large cooking well with acid resisting porcelain enamel finish. Drum type heating elements in sides and bottom Class Wool insulation! Exterior baked white enamel, chrome trim, gray enamel band around botfom. Complete with 48-page Cook Book $21 \times 151 / 2 \times 121 / 2^{\prime \prime}$ overall. Weight, 43 lbs . List Price, $\$ 44.95$
No. 30A74-2. EVERHOT MODEL 900 DE LUXE ROASTER.
$\$ 29.95$

[^5]
## Sessions electric clocks

"Sessions" Self-Starting Electric Clock mechanisms are fool-proof, long Bife -quiet; contain only one-half the number of moving parts used in other "makes". FEDERAL EXCISE TAX:-All prices quoted below are DEALER NET PRICES-all purchasers are required by Federal Law to remit 20\% o LIST PRICE of all elocks purchased to the Internal Revenue De partment of the U.S. Covernment. We do NOT colleet the tax!
SESSIONS Wall Clocks for Kitchen, Den, Office, Store


"B"

"D"
(A) Model 386 W . White Plastic wall clock has $5^{\prime \prime}$ square dial and convenient bottom set knob. Size. $7 \times 71 / 2^{\prime \prime}$. List, $\$ 4.75$. \$3.42 6 at S3.11 No. 33A223. MODEL 386W. Net Each $\square$
hen
Wall Clock: $4^{\prime \prime}$ (B) Model 339 W . White Plastic case "TEAPOT" Kitchen Wall Clock: " $^{\prime \prime}$
banded dial: bottom set knob. Size, $81 / 2^{\prime \prime}$ wide, 7" high. List, $\$ 4.95$.

?
$\qquad$ Each $-\sqrt{6}$ (C) Chrome Wali Clock. For kitchen, bath or small office. $73 / 4$ " diameter Chrome Plated steel case: $5^{\prime \prime}$ raised numeral metal dial and sweep second hand. Famous Sessions Demountable Motor movement with handy-bettom set
 Clock. Net Each.

Wall Clock: "Cileaming cop (C) Old Copper Wall Clock. Cleaming copper overall finish for the modern Kitchen. Den or Office. $73 / 4^{\prime \prime}$ diameter, $5^{\prime \prime}$ metal dial with black numerals
on copper-colored band. List price, $\$ 5.95$.
No. $33 A 110$. Model 481 W Copper Wall
Clock. Net Each.
\$4.24 fatich \$3.85
(D) i7" Round Wall Clock. For Ơffice, Store, School. Molded black plastic case, $14^{\prime \prime}$ diameter face, sweep second hand, black and gilt numerals, bottom set knob. List price, \$13.95. Weight, 6 lbs. No. 33 A224. Model 438 W Office Wall Clock. Nef Each.
$\$ 9.44$ 3.act $\$ 8.58$
"CATNAPPER" ALARMS—Desk, Den, Mantel Clocks

(A)
(A) Popular CATNAPPER Electric Alarm, Luminous Dlal and Hands. Correct electric time as dependable as your electric power, together with soft
toned bell alarm (not a buzzer)! Pleasing lvory molded plastic case $73 / \mathrm{a}^{\prime \prime}$ toned bell, alarm. (not a buzzer)! Pleasing lvory molded plast wide, $41 / 2^{\prime \prime}$ high; has $31 / 2^{\prime \prime}$ metal dial. List price, $\$ 5.95$.
 Electric Alarm. Net Each.

Alarm, Plain Dial. A) Carnapper Electric Alous feature. List Model 451A: identical to No
 (A) Mantel or Boudoir Electric Clock (No alarm). Identical to alarm models in appearance and size. Limited stock on hand. List, $\$ 4.60$.
No. 33A215. Model 451 W. B-A Special Closeout Price. Net Each 25 (B) DeLuxe Wood Case Electric Alarm, Luminous Dial and Hands. A beauty in Mahogany finished case with contrasting fluted decoration around base $41 / 4^{\prime \prime}$ wide, $43 / 4^{\prime \prime}$ high; $31 / 2^{\prime \prime}$ metal dial. Li
No. 33 A107. Model $477^{2}$ DeLuxe Electric Alarm. Net Each.
$\$ 6.17$ fact $\$ 5.61$
(C) Pleasing Mahogany Finish Desk or Mantel Clock. A beautiful clock with large $4^{\prime \prime}$ metal dial and standard Sessions self-starting demountable motor.
 (D) Nautical Pilot Wheel Desk Clock. In elegant mahogany finish case with polished brass spindles; self-starting electric movement with large 4" metal dial having contrasting outlined numerals and sweep second hand. A "natural" for Den, Desk, Office or Recreation Room. List price, $\$ 10.00$.



NITE-CUIDE. Plug-in Nite, Light. Bakelite,
$31 / 2$ high: uses 731/2" high: uses 7-
watt lamp plugs
into any wall recepinto any wall receps ᄀade and switch. No. 20A205. 32F PLUC......... FLASHER. Bakelite, U/L approved. Flashes lamps to 100 watts at 14 to 16 flashes a minute.
Fits any receptacle. No. 204206. 235
Each........ 235 Each...
10 For. $\$ 2.10$


| Sylvania |  | "Warmtone" Fluorescent Lamps |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stock No. | WATTS | Bulb | List Each | 3 @ Each | 6@Each | 24 @ Each |
| 208675 | 15 | T 8-18" | \% $\$ 0.79$ | \$0.89 | \$0.84 | 50.58 |
| 208745 | 20 | T12-24" | " 1.94 | . 82 | . 77 | . 8 |
| 34A5 | 40 | T12-48" | " 1.21 | 1.05 | .88 | 8 |
| "Daylight" a |  | and "4500\% | $00^{\circ}$ Whit | Fluorescent Lamps |  |  |
| All prices include Federal Excise Tax. |  |  |  |  |  |  |
| DAY- LICHT | $4500^{\circ}$ WHITE |  |  |  |  | 24 at |
| Stk. No. | Stk. No. | $\operatorname{Lamp}_{\text {Watts }}^{\text {La }}$ | Type Each | Each | Each | Ea |
| 204676 | 204677 | 6 T | T- 5 \$0.83 | \$0.72 | \$0.88 | 30.61 |
| 204678 | 204679 | 8 T | T-5 5 | $.82$ | $87$ |  |
| 204680 | 204681 204683 | 14 T | $\begin{array}{ll}\text { T-12 } & .83 \\ \mathrm{~T}-8 & .68\end{array}$ | .72 | .88 |  |
| 204682 | 204683 | 15 T | T-8 8 . 68 | -80 | . 58 |  |
| 204684 | 204685 | 15 T | T-12 . 83 | . 72 | 88 |  |
| 204686 | 204687 | 20 T | T-12 | -72 | -88 | -81 |
| 34 Al | 3442 | 30 T | T-8 .83 | . 72 |  |  |
| 3443 | 3444 | 40 T | T-12 1.10 | . 95 | . 90 | 0 |

## "SYLVANIA" GERMICIDAL LAMPS

NOT designed or sultable for lighting, these lamps emit ULTRA-VIOLET RAYS for killing alrborne or surface germs; the BEST for use and replacement in ANY type or make of Germicidal Fixture: or will operate in ANY fluorescent fixture designed for 15 or 30-wath lampa CARF must be taken to protect eyes and skin from continuous direct



## "SYLVANIA" FLUORESCENT STARTER SWITCHES



Cat. No.
20468
20469
20470
-
"Sylvania" SPEED CLOSTAT Fluorescent Lamp Startersthe finest
long iife!

SMASHING LOW PRICES ON QUALITY STRIP LIGHTS


The low cost "answer" to many lighting problems. These quality Fluorescent Strip Lights are available in SINCLE LAMP types for $15,20,30$ and $40-\mathrm{Watt}$ Lamps (Hllustrated at right above): and in a 2-LAMP unit as shown af left above. Featuring U/L Approved components throughout, every strip is constructed of heavy gauge steel with removable cover for easy installation to any 110 -volt AC ceiling or wail outlet. May be easily mounted in continuous rows. Finished in durable super-white baked enamel. All single lamp types
 Daylight or White lamps.
Stk. No. Wor Lamp Neight Net Each 3 e Each 31 A15 31416
31 A206
31 A207

## 15-W att, $18^{\prime \prime}$ 20-Watt $24^{\prime \prime}$ $30-W$ att, $36^{\prime \prime}$ $40-W$ att, $48^{\prime \prime}$

## TWO-LAMP FLUORESCENT STRIP

Shown at left above, uses TWO 40-watt lamps providing good light over an 80 sq . ft. area! Heavy steel channel, U/L Approved components; High Power Factor. Size, $49^{\prime \prime}$ long, $51 / 8^{\prime \prime}$ wide, $43 / 4^{\prime \prime}$ deep. Weight, 14 lbs. Has vented enamel. Ready to install with choice of Daylight or White lamps.
No. 31 A216. "Double-Forty" Fluorescent
Strip. Net Each. . . . . . . . . . . . . . . . . . . .

Flexible Arm Desk Lamp 12" flexible arm ment of Parabola ment of Parabola shade to any posifiont Brass push 7 -inch shade take up to 75 - watt lamp. Wt. 4 lbs Weighted, felt Weighted, felt covered and pluse. Shade removable thade removable "Heat" sewith 32A20, Ea.\$2. 15
6 at
Each. . 91

|Outdoor Floodlight Bracket


WEATHER-PROOF Cadmium plated bracket for ANY Reflector, Projector, or Heat lamp Adjustable to direct beam of light in ANY direction. direct to $4^{\prime \prime}$ outlet box, or by screws to any surface. All steel; porcelain socket. Base $41 / 8^{\prime \prime}$ diameter. Weight. No. 20A99.S
Each....
Ea.
E. 1.77

## Slectrical Supplies for Atansehald and Bepais Needs

ATTACHMENT PLUG CAPS, BASES, MULTIPLE CURRENT TAPS

(1) (2) No 20484. PULL CHAIN CURRENT TAP (2) No. 20A85. 3-WAY CURRENT TAP (3) No. 20A121. ANCLE TWO-WAY SOCKEX. (4) No. 20A92. PLUC-1N "TRIO TAP" (5) No. 20A122. CORD TYPE "TRIO TAP". (1) No. 20A30. BASEBOARD CURRENT TAP (7) No. 20A28. BAKELITE HANDLE CAP (8) No. 20A91. RUBBER HANDLE CAP (1) No. 20A29. FLAT BAKELITE HANDLE $\ddot{C A} \dot{P}$ (10) No. 20A27. BROWN BAKELITE PONY CAP (11) No. 20A87. ATTACHMENT PLUC BASE
(8) (b) (10) (11)

Each, 29c;10@ Each, 26c Each, 17c ; 10 @ Each, $15 c$ Each, 15c; 10 @ Each, 13c Each, 10c; 10 @ Each, 8c Each, 12c; 10 @ Each, 10c Each, 14c;10@ Each, 12c Each, 8c; 25 @ Each, 8c Each, 9c;25@ Each, 7c Each, 8c:25@ Each, 8c Each, 7c:25@Each, 5c Each, 7c; 25 @ Each, 5c

## APPROVED HEATING ELEMENTS AND IRON PLUGS


(1)
(2) (3)
(8) (4)
(4) (5)
(B)
(1) No. 20A89. SWITCH TYPE BAKELITE PLUC. For Appliances and irons. (2) No. 20A82. Genuine "C-H" SCREWLESS PLUC. Black molded, no screws. (8) No. 20A118. COFFEE-MAKER and 3-Lb. IRON PLUC. Net Each 10c; 10 @ Each, 8c (1) No. 20A108. Standard Screw Base 1000 -WATT HEATER ELEMENT.

## 

 (B) No. 20A86. "FITSALL" ELEMENT. "FITSALL" Cenuine Nickel-Chrome IRON ELEMENT. For ALL 6-lb. irons using mica type element. (0) No. 20A111. TOASTER ELEMENT. 600-Watt Nickel-Chrome Wire Replacement Element, 5/32" diameter coiled wire type for TOASTERS and small appliances. Net Each$15 c ; 10$ @ Each, 12 c (1) No. 20A119. HOT PLATE ELEMENT. 600-Watt Nickel-Chrome Wire Replacement Element, 7/32" diameter coiled wire type for HOT PLATES. Net Each

19 c;10@Each, 18 c
CONNECTORS, SWITCHES, BELL BUTTONS, FUSES TAPE

(1) No. 20A32. S. P. TOCCLE SURFACE SWITCH. Bakelite cover with slotted כorcelain base. Net Each..............................22c;10 @ Each, 20c (2) No. 20A31. FEED-THRU CORD SWITCH. Indicating toggle type "push(3) No. 20A90. 2-PIECE CORD CONNECTOR. Nef Each. $21 c ; 10$ @ Each, 18 c (4) No. 20A123. $13 / 4^{\prime \prime}$ SQUARE PUSH-BUTTON. Each.. $15 c ; 10$ @ Each, 13 c (B) No. 20A33. 5/8" Dia. DEEP PEARL PUSH-BUTTON. Heavy duty type for
desks, door beils, or chimes. Net Each............30c;10 @ Each, 27 c (1) No. 20A95. INSULATED STAPLES. 100 to Box. Per Box.......... 15 c (0) "BUSS" CLEAR WINDOW PLUC fUSES. Packed 5 to handy carton. No. 20A54. 6-Amp. No. 20A56. 15-Amp. No. 20A58. 25-Amp.
 ( $\AA$ ) "BUSS" $250-V O L T$ CARTRIDGE FUSES. Packed 10 to a carton 84.95 No. 20A60. 6-Amp CARTRIDGE FUSES. Packed 10 No. carton. No. 20A61. 10-Amp. No. 20A63. 15-Amp. CHOICE OF ABOVE. Net Each.......... 10c; Carton of 10 Fuses for 65 c (4) No. 20A64. 60-Amp. Cartridge Fuses. Net Each.... 15 c ; 10 for 51.25 (I) No. 20A65. FRICTION TAPE. $1 / 2-\mathrm{lb}$. roll. Net Per Roll 35 c
(0) No. 20A66. RUBBER TAPE. $1 / 2$-lb. roll. Net Per Roll. 35 c

APPROVED APPLIANCE-EXTENSION-REPAIR CORDS


## (1) (2)

2
(3)
(4)

(1) \#16 Approved Heater or Iron Cord. Each conductor 65 strands \#34 No. 2430 .....25 Ft. for $\$ 1.25 ; 100 \mathrm{Ft}$. for $\$ 3.95 ; 250 \mathrm{Ft}$. for $\mathbf{\$ 8} .50$ (2) \#16 Approved Rubber Covered Super-Service Cord. Heavy duty type, No. 2 A 27 ....... 25 Ft. for $\$ 1.35$; 100 Ft . for $\$ 4.50 ; 250 \mathrm{Ft}$. for $\$ 9.50$ (2) \#18 Type SJ Approved Rubber Covered Super-Service Cord. 2-conductor. No. 2 A $26 . . . . .25 \mathrm{Ft}$. tor $\$ 0.96 ; 100 \mathrm{Ft}$. for $\$ 3.25 ; 250 \mathrm{Ft}$. for. $\$ 7.50$ (3) \#18 Approved Rubber Parallel Lamp Cord, Type POSJ. 2 -conductor. No. $2 \mathrm{~A} 28 . \ldots . .25 \mathrm{Ft}$. for $\$ 0.50$; 100 Ft . for $\$ 1.75 ; 500 \mathrm{Ft}$. for 57.95 (3) $61 / 2-$ Ft. \#18 Rubber Parallel Repair Cord. Stripped ends $\&$ rubber $A C$ plug No. 20A120. All-Purpose AC Replacement Cord. Each, $23 \mathrm{c} ; 10$ @ Each, 20 c (3) 10-Ft. \$16 Super-Service Repair Cord. Stripped ends, rubber AC plug. No. 20A11. Refrigerator $G$ Small Motor Replacement Cord.
Net Each.
78c; 15@Each,72c

## SYLVANIA 5 

SUPERFLASH
SYLVANIA (formerly WABASH) SUPER-FLASH LAMPS comparison to "C.E." and Westinghouse types:
Sylvania "SF" same as C.E. Type SM. Sylvania "Press-25" same as C.E. \#5 Sylvania "No. O" same as C.E. \# 11. Sylvania "Press-40", no G.E. equivalent, rates between G.E. \#11 and \#22
Sylvania "No. 2" same as C.E. $\$ 22$. Sylvania "No. ${ }^{\text {" }}$ same as C.E. \#22.
All prices quoted include Excise Tax
Stk. No. Lamp Type Base Type Base Type
Min. Bayonet 20A195 "Press-25" 204195 "Press-25" 204196 "No.0" $\begin{array}{lll}204196 & \text { No. } \\ 204197 & \text { Stess-40" Med. Scr. } & \text { Std. Med. Scr. }\end{array}$ Std. Med. Ser.
 20 A198 "No.2" Std. Med. Scr. $\quad$ 6-lamps 1.00 - 1.91 Shipping weights: Allow 2 lbs. for each carton; 7 lbs . for 6 cartons, packed.

BLUE SUPER-FLASH FLASH BULBS, for "Daylight" color film, indoors or outdoors, eliminates necessity for use of corrective filters.

$20 \mathrm{Al} 99 \quad \% 25 \mathrm{~B}$ (Blue) Min. Bayonet $\quad$ lo-lamps $\mathbf{~} 1.78$ S1.58 | $20 A 199$ | \%25B (Blue) | Min. Bayonet | 10 -lamps | $\$ 1.76$ | S 1.68 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $20 A 200$ | $\$ 40 B$ | (Blue) | Std. Med. Ser. | 8 -lamps | 1.56 | (Note: $\# 25 B$ is blue equivalent of Press-25; $40 B$ of Press-40.)

## SYLVANIA-WABASH SUPERFLOOD LAMPS

The following listed Superflood lamps are rated identical to G.E. and Westinghouse lamps of the same types as to light output and use. Type R-2 Reflee-ror-Flood does not require the use of any type of reflector-sclews lamps permit use of color film. Blue superflood Lamps permit use of col No. 20A802. Type 1 Superflood ..........6-lamps, $\$$ No. 20A803. Type 2 Supertlood ...........6-lamps, $1.94 ; 12$-lamps, $\$ 1.68$ No. 20A804. Type R-2 Reflector-Fiood.... 2-lamps, $1.76 ; 12$-lamps, $\mathbf{2 . 1 6} ; 6$-lamps, 5.52 BLUE SYLVANIA-WABASH SUPERPLOOD LAMPS
No. 20A805. Type B-1 (Blue) Superflood...... 6 for $\$ 1.76 ; 12$ for $\$ 3.16$ No. 20A806. Type B-2 (Blue) Supertlood...... 6 for $\mathbf{3 . 5 1 ;} 12$ for $\mathbf{6 . 3 0}$ Shipping weights: Allow 2 lbs. for each 6 of types 1 and 2 Superflood lamps packed; allow 3 lbs. for 2 type R-2; 10 lbs. for 6.type R-2 lamps.


SYLVANIA THREE-LITE LAMPS. $\mathbf{1 2 5 - V o l t . ~ M e d i u m ~ a n d ~ M o g u l ~ B a s e s . ~}$
No. 20B117. 50, 100, 150 Watts . 3-contact Med. serew base . . . 33c 30 c No. 20A699. 100, 200, 300 Watts. 3-contact Mogul serew base..54c 48 c


## MOTOR BRUSH AND SPRING REPAIR KIT

Over 100 Pieces. Carbon brusfies, springs, wicks; for most household fractional horsepower motors.
No. 20A25. Complete Kit. NET EACH


Crills, etc.! No "dead" parts! No. 20A24. "Fix-All"
$\$ 3.25$


## Jime $_{\text {Suitches-PPOTO RELAYS }}$

## TORK PORTABLE ELECTRIC TIME SWITCH FOR HOME USE

 A plug-in all electric, automatic device for control of ators, etc. Turns "ON" at any present time and turns "OFF" after operating 45 minutes minimum or up to 23 hours and 15 minutes maximum. Operating time can be varied by 15 minute steps. Cycle repeats every 24 hours if desired. Powered by a self-starting synchronous 115 . mechanism plus a manual switch to operate independent mechanism plus a manual switch to operate independent to device being controlled. Max. capacity of switch, 660 to furnish power to de approved In steel case, $51 / 4 \times 31 / 4 \times 3{ }^{\prime \prime} \mathrm{Wt}_{3}$ watts. Underwrite No. 20A209. Tork

## TORK MODEL 191 TIME SWITCH FOR PERMANENT INSTALLATIONS

Turns anything electrical "ON" and "OFF" daily. Designed to be wired permanently into electrical circuit. Operating features identical to model 918 above, except switch rating is 2000 watts lighting load, 2300 watts heating load or one H.P. motor load. Housed in 18 ga. steel case with door. Size $5 \times 9 \times 4^{\prime \prime}$ deep. Wt. 5 lbs. U.L. approved. For 115
AC. List Price $\$ 13.00$. A. Lis 20A210. YOUR COST, EACH
$\$ 9.10$

## EVERHOT TIMER-CLOCK

Dependable self-starting electric clock plus auto-
 matic "ON-OFF" control for electric appliances to 1650 watts! Automatically turns current "ON" and "OFF" for periods of 15 minutes to $51 / 2$ hours-or tinues to operate after mechanism switches "OFF" but timing cycle will not repeat until reset. Has manual control switch. Cord, 6 tt., U.L. approved. Plug-in outlet on rear. Clock case is white plastic, $5 \times 41 / 2 \times 21 / 8^{\prime \prime}$. Escutcheon is chrome finished with must remit $20 \%$ of $\$ 10.95$ list price to U.S. Dept must remit $20 \%$ of $\$ 10.95$ list price

$\$ 8.86$
Lots of
2, Each
$\$ 7.91$

## SESSIONS "SWITCHCLOX"



A famous Sessions self-starting electric clock plus an automatic "switcher" to turn on clectric appliances, radio or lights at any pre-set time-and in case you forget turns the current "OFF" after $11 / 2$ hours. Ivory plastic $41 / 2^{\prime \prime}$ wide, $33 / 4^{\prime \prime}$ high: dark metal contrasting dial with ivory hands and numerals. (Purchasers must remit $20 \%$ of $\$ 4.95$ list price to U. S. Dept. of Internal Revenue
for Federal Tax.) No. 33 A115.
$\$ 3.60$
Lots of 6,
Each.
$\$ 3.28$
WORNER PHOTO-CELL RELAYS FOTOELECTRIC ANNOUNCER

Designed to proiect a beam of light across entrance to a building, office, home, etc. Breaking of this beam by person entering, operates built-in relay and supplies light source and photocell cquipment are mounted in crackle finished metal case, with mirror for reflecting light back into photo-cell window when placed up to 10 ft . from unit. Size $103 / 4 \times 71 / 2 \times 23 / 4^{\prime \prime}$. Operates on 115 -volt 60-cycle AC. 61 Announcer.
Stock No. 36A15. Model 61
With Chime. Net Each.
$\$ 18.38$

INDUSTRIAL PHOTO-CELL RELAY


For use in countless commercial and domestic applications where the interruption of a beam of light sets the relay into opera-
tion. Engineered for long dependable service. 62 PHOTO-CELL MODEL 62-R PHOTO-CEL bled and ready to operate at any distance up to 75 ft. from light source. Unit contains a SPDT control relay rated at 4 amps. Capable of operating up to 300 times a minute. Recommended for such applications as counting and sorting large objects, limit controls, start and stop operations, light density, fire deetc. For 110 -volt, $60-$ cy. AC, 35 watts. Metal case, $7 \times 6 \frac{1}{4} \times 4 \frac{1}{2}$. MODEL 62-L LICHT SOURCE. Companion ' unit for Model Contains a special 2.000-hour lamp and optical system step-down transformer. For 110 -volt AC. Metal case, $7 \times 61 / 4 \times 41 / 4^{\prime \prime}$. Stock No. $37 A 72$. NET EACH.
$\$ 13.23$


MALLORY CRID BIAS CELLS AND MOUNTINCS. Especially for biasing first audio in high gain amplitiers. Supplies 1 -volt plus or minus $10 \%$. Circuit identical to "C" battery.
No. $12 A 1139$. 1 -Volt Cell.
No. $12 A 1141 . \mathrm{CB} 11 \mathrm{~A}$-Mounting for

## TELEVISION FIELD STRENGTH

 METERA MUST for any serviceman or installer! Location survey easily accomplished without the expense of
complete TV receiver installation, reducing actual work to a one man operation. Eliminates guess work in determining type of antenna required at a given location.

## fEATURES:

- Measures actual TV station signal strength


Orientation of Antennas can be accomplished precisely and quickly.

- May be used to compare efficiency of various antenna combinations.

Television receiver radiation from local oselllator may be checked.

- May be used to accurately check efficiency of TV Boosters.

Technical Specifications: 12 Channel High Cain Continuous Tuning Front End; 1-6J6 RF, 1-6J6 Osc. 1-6J6 Mixer, 1-6AK5 1 st IF, $1-6 A U 6$ 2nd IF 1-1 N34 (Meter Rect.) 2nd Det., 1-6AU6 Audio Amp. for Earphone use $6^{\prime \prime}$ dia. Signal Indicator calibrated in relative microvolts 50-30000; sel contained 115 V .60 cy . AC power supply; panel mounted earphone jack Cabinet is heavy gauge steel, battleship grey finished. Size $8 \times 12 \times 10^{\prime \prime}$ high.
Wt. 25 Ibs. Approved Electronic Inst. Corp. Model A460. No. 35C8. NET EACH

NEW! ICA BI-CON TV ANTENNA For fringe area all-channel reception. Uses separate reflectors for the high and low bands plus the popular " $X$ " type construction for each bay. Spacing between the two bays is $1 / 2$ wave for greatest gain. Impedance remains constant over the entire line with very low use of any type transmission line with very low standing wave regardless of inum tubing with rigid aluminum castings for clamping elements. Furnished with all hardware in place hars, placs for quick, easy assembly.
No. 38Alos. NET EACH
S16.55


NO BRUSH NO MESS NO MIXING JUST PRESS A BUTTON AND SPRAY!

## SEVEN COLORS TO CHOOSE FROM



A 12 oz . can, almost a pint, of ready-to-use enamel with a built-in spray that works like an Aerosol bomb! One can covers approx. 150 sq . ft. of smooth surface. For hundreds of daily uses-in the repair shop, at home, for the hobbyist, auto owner, professional or amateur builder. With easy-to-follow direc-
tions on every can.
Stock No.
184450
184450
184451
184451
18A452
18 A453
18 A454
18A455
184456

Color
Chrome Aluminum
White
Black
Black
Chinese Red
Garden Green
Canary Yellow
Light Blue

PerCan
$\$ 1.28$
PerCa
$\$ 1.28$ 1.3
1.34
1.3

## ALUMINUM BOXES INTERLOCKING TYPE

Size is just right for Geiger counters and numer ous other electronic devices. Shaped for easy punching and drilling and assembles with just two screws. Finish is natural aluminum.
3 A153-Size $3^{\prime \prime}$ long, $4^{\prime \prime}$ wide, $5^{\prime \prime}$ high. Ea. $70 c$
3A154-Size $6^{\prime \prime}$ long, $4^{\prime \prime}$ wide, $5^{\prime \prime}$ high. Ea. $79 c$


## ALUMINUM BOXES-SLIDECOVER TYPE

Especially adapted for rack panet construct where the chassis carries fobes and parts in cast stations. custom builders and amateurs.




NEW! PJO5S PHONE PLUG
Replaces the old type PL55 plug. Made to Covt. Spec. BM-120 of compression molded bakelite to withstand high temperature and high voltage.

## SHIELDED MIN-A-PLUG

Developed especially for shielded mike cable, etc. Shield solders firmiy in

 No. 118265
4 Oz. Sire, EACH
47c

## AMPHENOL TV TUBE BASE AND STRAP

For mounting the new 16 inch picture tubes. Consists of polystyrene base, phenolic impregnated holding strap, adjustable to allow for size difference of tubes and rubber No. 35A107. No. 35A107 No. 35A1
Net Each

$\$ 4.29$

# INVERTERS, ELIMINATORS, CHARGERS \& ACCESSORIES <br> GTC PERMA-POWER 



MODEL A


MODEL B


MODEL E

Model A. A simple, plug-in unit to convert $11 / 2$ valt batfery sets for all electric aperation from 110 V ., 60 cycle AC lines. It has universal sockets to accommodate any radio and its small size will also fit most portables. Sufficient "A" and "B"' power is supplied for 4 to 6 tube sets, $11 / 2$ volts " A " at 350 MA and 90 volts " B " at 13 MA . The advanced design provides instant starting hum-free radio reception and trouble-free operation for many yeors. Complete with instructions. Size $21 / 8 \times 41 / 2 \times 63 / 4$ Supplied with AC line cord and plug.
$\$ 8.79$
Model B. Canverts 6 volt radios for all electric operation on 110 V., 60 cycles AC lines. The newly designed unit has two isolated 6 volt sources, one for the vibrator and one for the filament circuit of the radio, completely eliminating interference caused by the vibrator. Each 6 -volt source provides $11 / 2$ amperes, a total of 3 amps when connected in parallel. There are na tubes to replace and it will give years of trouble-free service. Size $35 / \mathrm{x} x$ tubes
$61 / 8 \times 51 / 2$ inches. Wt. 7 lbs. Supplied with AC line cord and plug.
Stock No. 36A12. NET PRICE..........................................................
Model E. For converting 2 volt batfery radios to operate on 110 V .60 cycle AC limes. Has terminals for 2 V . " A " at $3 / 4 \mathrm{amp}$. and 135 V . " B " at 25 MA tapped at $112 \mathrm{~V}_{13} 90 \mathrm{~V}$. and 67 V . Fits into radio battery compartment. Size $21 / 4 \times 47 / 8 \times 613^{\prime} / 16^{\prime \prime}$. Supplied with AC cord, plug and switch. Wt. 4 tbs.
Stock No. 37434 NET EACH.

MALLORY 6 AND 12 VOLT
 TAPER TYPE BATTERY CHARGERS With trouble-free dry disc rectifiers and auto type
fuse to protect the charger from improper confuse to protect the charger from improper con-
nection to battery, and from serious overloods. nection to battery, and from serious overloods. Charges at maximum rate at start, decreasing as
battery becomes fully charged. May also be used battery becomes fully charged. May also be used for electroplating, toy and model train operation,
loud speaker fieids, coin machines, and other loud speaker fields, coin machines, and other applications requiring low voltage D.
Type MMF- 12 Filter can be added models where well-filtered DC is required. Type 652 Dash Receptacle may be added to all models. All are equipped with 6 ft . AC line cord and 6 ft . bottery cable with clips. For use on 115 V . 60 cycle AC.

## FOR 6 VOLT BATTERY

Type 6AC4. Max. charging rate 4 amps, tapers to 2 amps . 7 洛×3 $5 / 16^{\prime \prime}$ deep. Less ammeter. Stock No. 33A26. Your Cost. Each. $6 \times 8 \times 41 / 4^{\prime \prime}$ deep. With Light indicator. Stock No. 33A27. Your Cost, Each. Type $6 A C 10$. Max. charging rate
$103 / 6 \times 51 / 2^{\prime \prime}$ deep. With ammeter.
$\qquad$ s13.03 Stock No. 33A90. Your Cost, Each. $\qquad$d

VOLT BATTERY
$\$ 18.26$ Type 12AC5. Max. charging rate 5 amps, tapers to 3 onips. Size $63 / 4 x$ $103 / 8 \times 51 / 2^{\prime \prime}$ deep. With ommeter.
Stock No. 33A28. Your Cost..

## CHARGER ACCESSORIES

Type R652 Dash Receptacle. Universal Clamp-on connector for installation in Car. Specia bug Recerta nection to battery extremely fost and simple
Stock Na. 33A91. YOUR COST.......
Stock Na. 33A91. YOUR COST
$\$ 1.18$
Type R655 Plug-in Adapter. Special plug to fit cigar lighter dash receptacle. Mokes positive contact to bottery circuit and requires no wiring additions in car
$31-18$
Type MMF-12 Filter. Capacity rating $12,000 \mathrm{mfd}$ at 10 V . DC. For use with Type MMF-12 Filter. Capacity rating $12,000 \mathrm{mfd}$ at 10 V . DC. For use with ceeding 10 V . Converts charger to DC power pack for testing radios, etc. Stock No. 37435.
YOUR COST
$\$ 9.31$

## VARIABLE VOLTAGE REGULATORS



Especially recommended for use on radios in areas where line voltoge is high or varies considerably. Helps prevent tube and parts failure due to overload. Also useful for controlling soldering iron heot or light intensity. Plugs into power
outlet ahead of load. Equipped with cord receptacle and voltautlet ahead
Type 211 for equipment rated up to 65 watts. Adjustable, positions.
Stock No. 17A1185. YOUR COST.
Type 2118 for equipment rated up to 150 watts. Adjustable,
$\$ 1.76$ Stock No. 17A1186.
$\$ 2.94$


Type iB8R.
volts 1115
intermittent
No. $14 A 632$.

## MALLORY ULTRA-COMPACT RECTIFIERS

Only $9 / 16^{\prime \prime}$ diameter, and $7 / 8^{\prime \prime}$ overall height including terminals. Type 1B4R. Replacement in Porta-Power, Electro and similar No. 14A634. NET EACH.
1.34

NET EACH .................................................

${ }^{\text {fone }} 126$
Delivers direct current for testing and demonstrating auto radios and other 6 V . DC electrical apparatus, reloys and motors. Operates from 105-125 volt 50-60 cycle AC. Noiseless and interference free. Dry disc selenium rectifiers assure long life and trouble free service. Units may be hooked in parallel or series to obtain higher current or voltage Gray wrinkle cabinets have rubber feet and 6 ft . cord and plug.
Model $610-E L I B$. Rafed 6 volt 10 amperes Model 610 -ELIB. Rated 6 volt 10 amperes. Has voltmeter and 8 step control for exact voltage setting, wing nut output terminals off-on switch and fuse, Stock No. 32A285. NET EACH
Model 620 C -ELIP. (lllus.) Heavy duty dual purpase unit, rofed 6 volis of 18 amperes or 12 volits af 9 step voltage control. Dual rectifiers ammeter with 8 Size $61 / 2 \times 127 / 81 /$, Weig rectifiers pravide dependable Size, $61 / 2 \times 127 / 8 \times 81 / 2^{\prime \prime}$. Weight, 33 lbs.
Stock No. 32A286. NET EACH.

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## ATR RADIO INVERTERS

Speciolly designed for operating AC radios, public address systems, television sets, intercoms and similar electronic equipment in DC districts, on ships, trains, planes, etc. Radia frequency interference is completely suppressed. Equipped with fourpoint voltoge regulators and special long life plugin inverter vibrator. Input cord on 6 V . and 12 V . types equipped with battery clips. Efficiency greater than $5 \%$. Recommended load power factor $80 \%$ metal cabinets size RSC $83 / 6 \times 9 \times 51 / 4$ Size RHC $61 / 2 \times 111 / 8 \times 81 / 2^{\prime \prime}$. Wt. 30 bs. Output voltoge of all models is 110 V. AC, 60 cycles.



## Mallory "Vibrapack" Portable Power

Dependable and inexpensive plate voltage for portable and mobile equipment. The ideal plate voltage where electric power is not available. Delivers up to 300 volts at 100 M.A. of easily filtered rectified D.C. Output variable in 4 steps of 25 volts each, controlled by switch connected to various transformer taps. Maximum efficiency is obtained for all load conditions. Small in size-easily mounted.
Models 551, 552 and C556 are self rectifying. Tube rectifiers supplied with all others.
High Output Type, VP555 supplies 200 ma., VP557.
*High Output Type, VP555 supplies 200 ma., VP557,
150 ma. All others 100 ma.
Input Volt


Your Cost
$\$ 12.94$
15.44
14.41
16.91
30.68
30.68
16.91
18.38
4.70

## Mallory Filtered Vibrapack

Completely Filfered Type VP540, complete "B" power unit for any electronic device operating on 250 V. D.C. with 60 ma. drain; powered from 6 V storage battery. Ideal for auto, marine and airplane broadcast or short wave receiver
$\mathbf{3} \mathbf{3} \mathbf{A 8 .}$
Your Cost, Each
$\$ 17.64$

## GENUINE G.E. TUNGAR BULBS

For replacement in battery chargers and DC power supplies. With thoriated
 tungsten filaments and gas filled for long, efficient life.

| No. | Type | Fig. Amps | Each |  |
| :---: | :---: | :---: | :---: | :---: |
| $37 A 37$ | 289881 | A | 0.5 | $\$ 2.94$ |
| $37 A 38$ | $12 \times 825$ | B | 2 | 3.31 |
| $37 A 39$ | 206501 | C | 2 | 3.31 |
| $37 A 40$ | $20 \times 672$ | B | 5 | 4.41 |
| $37 A 41$ | 189048 | D | 6 | 3.67 |
| $37 A 42$ | 189049 | D | 6 | 3.87 |
| $37 A 43$ | 217283 | D | 15 | $\mathbf{7 . 3 5}$ |

MIDGET SELENIUM RECTIFIERS


## Pretograple kits

Designed for increasing knowledge of electronics by actual construction of useful apparatus. Kits can be assembled successfully without previous radio experience, and without the use of technical diagrams and symbots. Each kit is furnished with "Pict-O-Graph" charts taken from actual photos of working ing tubes, but less wire and solder. Highly recommended for school class use.


## ONE-TUBE AC-DC RADIO KIT (FIG. A)

Tunes regular broadcast stations and will operate one or two pairs of headphones. Plugs into 110 -volt AC-DC socket. With 6SL7 tube. No. 37A62. T-10 KIT, Less Headphones. Your Cost
$\$ 5.83$ TWO-TUBE AC-DC RADIO KIT (FIG. B)

An excellent set for the beginner or for early instruction in radio classes. Permeability iron core assembly eliminates variable condenser and antenna coil. Supplied with two dual purpose 6SL7 tubes. Dial is calibrated for | broadcast band. Set will operate several pairs of headphones. |
| :--- |
| No. 37A63. RT-20 KIT, Less Headphones. Your Cost. .......... |
| 19 |

FIVE-TUBE AC-DC SUPERHET RADIO KIT (FIG. C) Well engineered for high selectivity and sensitivity. Employs a loop antenna. When properly assembled, only minor adjustments, without service instru plete with tubes and PM speaker, less cabinet. No. 37A64. S-500 KIT. Your Cost.

S
A superhet having high selectivity on both short wave and broadcast bands ( 6.9 MC to $17 \mathrm{MC}, 540 \mathrm{KC}$ to 1600 KC ), using beam power output and employing loop antenna for broadcast reception. Kit supplied complete with speaker, tubes, all necessary coils, loop, efc. Only minor adjustments to peak No 37A97 MODEL $5-520$ permance.
$\$ 14.65$ BLACK PLASTIC CABINET. Fits above superhet radios, Models S-500 and No. 37A65. Your Cost......

NEW 4-IN-1 RADIO KIT
An electronic kit combining in a single instrument an amplifier, code practice oscillator, radio receiver and miniature radio transmitter. The "Quadrucational" Q-5 kit is ideal for school or home. 5 tubes are employed as follows:
$35 Z 5$ rect.; 50 L 6 output: $125 L 7$ as amp. 12SK7 dect. and the $125 A 7$ as
 ose. for broadcast transmission. Complete with tubes. Alnico 5" PM Speaker,
and all necessary parts including instructions and diagrams.
No. $37 A 101$. Quadrucational Q-S KIT. YOUR COST...........

## 

(D)

(F)

FOUR-TUBE AC-DC AMPLIFIER KIT (FIG. D)
Will play a crystal phono pickup or microphone clearly and with pienty volwith tone control and separate volume controls for mike and phono. Supplied No. 37A66. AM-40 KIT. Your Cost
$\$ 8.77$
WIRELESS PHONO OSCILLATOR KIT (FIG. E)
Works with any radio and erystal phono pickup to play records without actual wire connections to radio. Effective over a distance of 100 ft . With 65 A 7
and 6 SK 7 tubes. Plugs into 110 -volt AC or DC socket. No. 37A67. PH-20 KIT. Your Cost

## CODE PRACTICE OSCILLATOR KIT (FIG. F)

Produces clear rich tone through its own speaker. Will also operate headphones, either singly or in large numbers for class room use. Equipped with volume control and tone control to vary note from low to high t600 to 1500
eycles). For use on 110 -volt AC or DC. Supplied with $117 \mathrm{L7}$ tube and PM cycles). For use on 110 -volt AC or DC. Supplied with $117 \mathrm{L7}$ tube and PM
dynamic speaker, less headphones.
No. $37 A 68$. CP-12 KIT. Your Cost.

CRYSTAL RADIO KIT
Kit includes fully wound tuning slide-coil, crystal detector and "cat's whisker". A screwdriver is all you need to assemble this kit. No soldering. No. 17A825. KIT CX-1. Your Cost.

88c


A complete one-tube tuner and amplifier ready to assemble, only a screwdriver needed. Lucite coil form and base. Battery operated. Simple instructions and 1 L4 tube supplied. Short antenna needed.
No. 20B1 10 . Model 200, Less Headphones and Batteries. NET EACH. 222


## KITS, CABINETS, PHOTO-CELLS

## MEISSNER RADIO KITS

Meissner kits are designed for the beginner so that he can obtain the basic principles of radio by assembling his own set. All kits supplied with tubes, detailed pictorial diagrams, simplified schematic, wire, hardware, and solder.

## MODEL 2BK BATTERY TRAINER KIT



A regenerative battery operated kit with pentode output stage, using one
 each) and 90-volt "B" (2-21A19 45-volt @ \$1.51 each). Size, 73/4×41/4x $41 / /^{\prime \prime}$ deep. Weight, 2 lbs.
No. $37 A 102$ 2BK KIT, WITH BROADCAST COIL AND TUBES,
LESS BATTERIES AND HEADPHONES. NET......................... 1

## EXTRA PLUG-IN COILS FOR 2BK AND 3BK KITS

 No. 1781106. Coil for 1.4 to 4.5 MC No. 17Al192. Coil for 15 to 34 MC. EACH.........................
MODEL 3 BK AC-DC TRAINER KIT

MODEL 3BK AC-DC TRAINER KIT
A three-tube regenerative circuit kit using one type $6 B J 6$ and two SoBS
tubes. A "dandy" for the experimenter or student as a starter! AC powered tubes. A "dandy" for the experimenter or student as a starter! AC powered
designed for plug-in coils 540 KC to 34 MC . Shipped with coil for broadcast band. Size, $73 / 4 \times 41 / 4 \times 4 \frac{1}{2} 2^{\prime \prime}$ deep. Weight $13 / 4 \mathrm{lbs}$. See additional coils
above.
No. 37A103. 3BK, Less Headphones. NET.
PHILMORE RADIO CRYSTAL KIT
Complete in every detail including headphone. Bakelite base, crystal, holder, "cat's whisker" support, and all necessary hardware are supplied. This "Supertone Kit"" with simple easy to follow construction information is ideal No. 20A810. Model 7001A. NET EACH.

MURDOCK. The last word in headphones. Designed for lightness and scientifically fitted for comfortable wear at long periods of time. Easy adjustment tinsel cord create an ideal 10,000 -ohm impedance headphone. No. 17B732. MODEL III. NET.
$\$ 4.12$

## RADIO CABINETS FOR EXPERIMENTAL AND REPLACEMENT USE



Left above-Waterfall front, fine looking blank cabinet for radio chassis with to 10 tubes. Reinforced dovetail construction with glued corner braces.

Center above-Blank. WALNUT finish radio cabinet for 5 to 6 tube chassis, long, $51 / 8^{\prime \prime}$ wide. $7^{\prime \prime}$ high,

Right above-WALNUT finish blank front radio cabinet for 4 -tube chassis.

$41 / 4^{* \prime}$ wide, $6^{* \prime}$ high.
No. 3 Al9. SMALL SIZE RADIO CABINET. NET EACH
$\$ 2.15$

## WORNER PHOTO-CELL EQUIPMENT

MODEL 69 PHOTO-ELECTRIC KIT (Fig. A). Practical experimental equipment designed for reachers, students and hobbyists. Complete instructions, diagrams and parts are supplied for easy assembly of an AC operated photo cell amplificr that wilighe intensity. Kit includes photo through a change of light intensity. Kit includes photo
 No. 37A69. NET EACH.
3.85

MODEL 39 LICHT SOURCE KIT (Fig. B). Assembles easily into a companion unit for Model 69 Kit. Contains a special 50-watt bulb and an optical system to project ish. Size, $45 / 8 \times 43 / 4 \times 21 / 2^{\prime \prime}$. . . . . . . . . . . . . . . . .
No. 37A70. NET EACH. . . . .


## HI-POWER PHONO

 OSCILLATORSpecial LOOP, fed by 2-TUBE AMPLIFIER, supplies plenty of power for ANY phono pick-upl Record player radio (impossible with other phono oscillators): wide frequency range of set out of broadcast band for clear record music. Compact size, $4 \times 23 / 4 x$ $4^{\prime \prime}$ : requires $50 L 6$ and 3525 tubes: 110 volt A.C.-D.C.; Less Tubes.
No. 17A409. ELoop Caster." Each .... ? ?

HOW TO BUILD CONSTRUCTION MANUAL Containing , information on Theory, Design and construction of AM. Pickups, Amplifiers, Speakers, Dis C Recorders. matics and wiring diagrams fully lustrated.
No. 168362

$\$ 1.00$

## Headphones - Kits - Crystal Sets - ete

## TRIMM "FEATHERWEICHTS

 World famous as a quality headset Weighs only $41 / 2$ ozs. 5 ft . moisture-proof, wear-resisting cord and adjustable nickel plated steel head band Bakelite shell and cap. Magnet of highest quality $36 \%$ cobalt steel alloy
pole pieces of finest magnetic iron Coils especially impregnated. A cus tom built phone throughout. No. 17A20. 4000-ohm for general pur Per Pair
$\$ 5.88$
work, amateuss, etc. $\$ 5.88$
TRIMM "PROFESSIONALS
For general radio communication use. Forged magnet of chrome steel, im pregnated coils, 5 ft . moisture-proof wear-resisting cord, entirely concealed
terminals. Fabric covered wire headterminals. Fabric covered wire headband. Bakelite cap and shells. Per Pair. TRIMM "ACME"
A superior headset in the light weight low price field. Cap and shell of mold ed bakelite, chrome steel magnets, weighs only 6 ozs. complete with two units.
band.
17A25. Double Headset.
2000 ohms DC resistanc
2000 ohms DC resistanc
$17 A 26$. Single Headset.
$\$ 1.62$
1000 ohms DC resistance
97 c
GROUP HEARING AID COMPONENTS


TRIMM FEATHERWEICHT
Small, Light. Hearing unit only $21 / 8^{\prime \prime}$ dia. $\times 3 / 4^{\prime \prime}$ thick Weighs
durably constructed of black plastic material. Hi-impedance 9000 ohms, Id resistance 2000 ohms. Ideal for
large installations using 500 large installations using cord. No. 14A784. Net Each.
$\$ 4.41$ TRIMM OUTLET BOX
 With Volume Control Combines in a single unit volume control phone jack and terminal strip for incoming circuit. 8 rown
wrinkle finish. $33 / 4 \times 21 / 8^{\prime \prime}$. Control is 10.000 ohms for No. $14 A 782$. Net Each.
32.36 TRIMM PHONE PLUC
Flat type non-protruding. Body of black plastic. Set serew recessed openings for pin tips with stay cord anchorage.
Fits standard phone jacks. No. 14A783. Net Each

38c


## Crystal Set

ed set present
ing an unusual
price. Reception tune clear, easy to the special glass enclosed crystal is assured tor time Entire assembly attractive bakelite case.
Nin. 17ABSG. Net Fach.

## 1 N34 CRYSTAL DIODE

to ordinary erystals.

## WHEELER SOUND-POWERED HANDSET

Na Botteries-No Power Supply Needed Has remarkable speech fidelity. Operates over two conductor or single wire ground return circuit. 12 handsets can be used in multiple for group conversation.
Ideal for Television installers, Linesmen, workers, etc., or for homellers, Linesmen, construction molded black phenolic, with $31 / 2-4 t$. rubber cable and rubber insulated clips for quick connection to line for satisfactory operation for over 20 miles. No. 37A50. Brand New-NOT WAR SURPLUS. YOUR CUST EACH

"TELEX" AIDS to BETTER HEARING

(D)
(A) (A) NEW

W IMPROVED HIGH FIDELITY PILLOW SPEAKER For Privote Rodio Listening
Listen in comfort without disturbing others with the new improved Telex miniature pillow speaker. Ideal for the home, the hospital, the hotel, or anywhere private radio listening is desired-either in bed, or in a chair. Ex-
tremely small in size compact, weighs only t.] ozs. Can be attached to any radio or public amplifying system. Its higher sensitivity, wider frequency range, and greater output provide clear reproduction through upholstery or pillow. Pressure does not affect its sensitivity or frequency response. Durably construeted, Size, $21 / 4^{\prime \prime}$ dia., $11 / 16^{\prime \prime}$ thick. Comes with 5 .
phone plug and hook up instructions. List Price, $\$ 10.95$.
No. 19A194. EACH
$\$ 6.44$
(B) STETHOSCOPE TYPE MONOSET HEADSET

## For Comfortable Hearing

The New Modern Under-chin Headphonc. You wear it under the chin instead of over the head. More comfort-less cumbersome than the older style headband types. Featherweight: Only 1.2 oz . No ear fatiguc. Excellent fidelity. Clear, natural reception of sound. Covers every application where headphones plastic eartips. Supplied complete with 5-ft. cord and phone plug. Impedance 2000 ohms.
No. 19A195. (2568) List, $\$ 12.40$. NET PAIR
$\$ 7.29$
Control mounted in cord. Ideal for use in group applications where more than one Monoset is used on the same line. $\$ 9.64$
No. 19A196. (2841) List Price, $\$ 16.40$. NET PAIR............

## (C) SENSATIONAL NEW . . . TELEX TWINSET

Nothing Touches the Eor
Something new and different. An extremely lightweight (1.6 oz.) headset that gives perfect listening comfort. Eliminates headachy ear pressure-listening fatigue. Twinset teceivers rest lightly at the temples-no heavy, sweaty ear cups cover the ear. Adjustable tubulat sound arm mounted on a locking ball-and-socket-joint pipes the sound into the ear-blocks out background noise completely. If preferred ear tips may loat a fraction of an inch from the ear. Magnetic receivers have excellent sensitivity with high-fidelity reproduction. Of rugged construction. All major parts are of durable tenite plastic and bright nickel. Headband is of nickel steel wire encased in flexreceiver. List Price, $\$ 15.00$.
No. 17A42. 1000 -Ohm Impedance. EACH
38.82

## ELEX EARSET

A single phone Modern Earphone That Slips Onta the Eor
A single phone earset that's convenient and comfortable to wear. Weighs oniy $1 / 2-0 z$ - small enough to fit into a vest pocket. Plastic frame slips onto elter ealls, etc. Has excellent sensitivity and fidelity. Single cord connection gives user complete freedom of movement. Supplied complete with 5 - ft cord and standard phone plug. List Price, $\$ 10.50$.
\$6.17
No. 17A43. 2000-0hm Impedance. EACH
CRYSTAL DETECTORS and ACCESSORIES

(A) Nu. 17Al43. Dixed Crystal Defector. Will give renewed action to
reflex or crystal sets. Meter tested for sensitivity, and permanently rixed. Made to withstand high voltage.
Compact, in bakelite case. Net Fach ............................................... arm provides quick accurate adjustment on any point of crystal. (Leas

(C) No. 12A1401. Super Sensitive Crystals, Made from finest galena ore.
 Best Quality. per pkg. of Three.......9c 10 Pkgs. for..........80c (E) No, 17A145. Glass Encloned Crystal Dptector. A very high-grade


## BRANDES HEADSETS



BRANDES SUPERIOR
A favorite for years. Ruggedly built, outside terminal type, with metal diameter $21 / 8^{" \prime}$. Has double coils, two in each receiver: adjustable flexible metal solit headband $41 / 2$ it cord Magnets of high retentivity are $1 /$ " square. Resistance 2000 ohms are $1 / 4$ No. 17A27.
Per Pair.
32.03

## BRANDES ADMIRAL

Similar to above, but with terminals inside case. Have metal cases, bakelite caps, double coil magnets. Sturdy and light weight.
No. 17A28. 2000 ohms... S2. 33 17B198. 5000 ohms

## $\$ 3.22$

CANNON BALL "DIXIE"
A good quality phone at a low price. Cases are metal with bakelite caps. Diaphragm diameter 2 1/16". Double coils, two in each unit; magnets of heavy bar magnet steel $1 / 4^{\prime \prime}$ square. $41 / 2$ ft. cords.
No. $17 A 292$
31.73

BRUSH CRYSTAL PHONES Type A, high im-
pcdance, response 60 to 10,000
cles. Light
welight,
sensitive
signals.
meas
etc. Molded
case, shaped fastic maximum comfort
17A30. Double
Headset S7. 15
17A31. Single with
cord and headband


## HEADPHONE CORDS

Copper tinsel inner conductor covered gle cord 4 feet, double $41 / 2$ feet.
No. 17A32. Single cord, pin 296
tips one end, spade tips other 296
No. 17A33. Double cord, tips 59 P
No. 17A34. Double cord, tips
39
on one ead, spade lugs other 39 C

## RUBBER PHONE

## CUSHIONS

Designed for comfort and
to fit most any make of to fit most any make of headphone.
by airlines.
$17 A 35$. PER PAIR 656


## 3-IN-1 TUNER



As an Antenna Tuner, it increases signal strength. As a Wave Trap, it separates interfering stations. As an Aerial Eliminator, it makes out-door aerials unnecessary. Easy to install. No. 174205.

59c

## LITTE WONDER

## CRYSTAL SET

Small in size, but big in results. Will receive stations within 25 miles when and headphones.
No. 17A45. Net Each. . .

# CodeKeys*SENDERS*and Oscillators 

## VIBROPLEX

TRANSMITTING KEYS
For Speed and Perfection


The "ORIGINAL"
For all types of communications work where speed and perfect Morse are essential. Single lever. Two pairs of contact points; one for dots, the other
for dashes. Easy to adjust. Has unlimfor dashes. Easy to adjust. Has unlimited sending possibilities. Comes com-
plete with cord and wedge. Weight, plete with
3 lbs. 8 oz . DELUXE OZ. parts and baseished chromium top eled movement. No. 17A823. Each.... parts with black polished chromium top No. 17A18. Each
515.95


The "CHAMPION"
A low price key for the amateur or professional radio operator. Has exceptional sending qualities - clarity speed, sending ease. Black crrstal fin parts. Wt., 3 lbs 8 oz . bright finished No. 17A19. EACH.
\$9.95

CARRYING CASE
 For Keys, efc. Ex-
actly fit Vibroglex. Plush lined case finished in black morocco. Reinforced leather. Flexible lock and key. Inside dimensions $63 / 4$ 17A36. Each .........5. 51

AMATEUR HI-SPEED KEY


Model 515 - Steel Base, $61 / 4 \times 3 \times 3 / 8^{\prime \prime}$ Die cast frame finished in baked black wrinkle enamel, hardware chrome adjustable weight and trunnion adinstable weight and trunnion circuit closing switch and two adjust able paddles. Wt., 3 lbs. 775 Cord and Plug for Above. 88c

## GARDINER AUTOMATIC

 TAPE SENDER MODELDeluxe compact automatic tape sender. Has silent 110-volt AC motor providing variable speed from 4 to 60 words per minute. Only 3 controls notor switch. contact switch and speed control. Terminals for oscillator or buzzer. With 10 rolls double per$51 / 2 \times 41 / 2 \times 6^{\prime \prime}$. Weight, 4 lbs.
No. 17 A17.
EACH.
$\$ 23.52$


Learn code this easy way at your own Convenience on you progress. Op erates on any phono or rec

Includes text book and faced $10^{\prime \prime}$ discs in album
$\$ 9.80$ No. 17A13. Per Set

## The Popular

$J 37$ SENDING KEY at a Froction of Its Regular Value! Heavy Duty!
$1 / \mathrm{B}^{\prime \prime}$ silver contacts, frame of solid

 spring. brass hare.

No. 17A414. A Terrific Value 49e Signal High Freq. Buzzer
 Adjustable with standard resistance of two ohms. Finish of black crystalized lacquer.
$17 A 7$. Type ${ }^{\text {itanctize }} \mathbf{5 1 . 3 2}$

Signal R68 Practice Set


Designed for those who want a well made instrument to learn the code. Set consists of a key and high fre quency buzzer mounted on a mawith binding posts. The code is printed on a plate and fastened to the base between the key and buzz er. Buzzer is adjustable. No. 21 A9. $41 / 2$-Volt Battery. ? No. use with above. EACH. 5:5
For

COD:
PRACTICE


Consists of a top quality key and a Signal high frequency adjustable buzzer mounted on a bakelite base equipped with binding posts ready or quick and simple connection to the $41 / 2$-valt battery included. complete ready to use.
No. $5 A 145$. EACH ....
POPULAR ARRL BOOKS FOR THE RADIO AMATEUR

## RADIO AMATEUR HANDBOOK

Latest Edition-Has universal acceptance among amateurs, technicians and operators. Priceless information gathered on all phases of amateur radio. Presented in an easy-to-understand manner to give the amateu facts for getting the most out of designing and using his equipment. Also includes data on the latest equipment, Ultra high frequencies, station operation standards.
No. 16A58. NET EACH
$\$ 2.00$
HOW TO BECOME A RADIO AMA. TEUR. Covers fundamentals, code, construct
No. 16A62. EACH
$25 c$
RADIO AMATEURS' LICENSE MANUAL. Tells how to secure amateur license. Contains F.C.C. rules and requlations. Covers probable questions for class $A$; $B$ or $C$ license examinations.

EACH.
25c
LEARNINC THE CODE. Both sending and receiving. Ideal for home study, typewriter copy.
No. 16A63. EACH
25 c
A COURSE IN RADIO FUNDAMENTALS. A study guide examination book and laboratory manual with ext taken from the handoo tions and answers.
No. $16 A 59$. EACH.
50c

CODE PRACTICE KEY A Terrific Value!


A top quality ( $\$ 5.00$ List Value) Code practice key, priced at a fraction of original cost. Mounted on bakelite base. $1 / 4 \times 43 / 4 \times 3^{\prime \prime}$. Binding post and contacts insulated with bakelite wash-
ers. Fully adjustable, well balanced ers. Fully adjustable, well balanced shorting spring. Contacts are of high grade fungsten securely fastened to eliminate any chance of becoming loose in operation. Ideal for keying amateur transmitters
No. 17A38. Every One BRAND NEW In Original Factory Cartons. Special, Each

69 c

## Extra Key Knobs

12A1. Navy type knobe, Ra... 1 Be 12A2. Standard knobs, ERa.. 12AS

MON-KEY
ELECTRONIC MONITOR AND SENDING KEY


Flawless CW-Smooth, rhythmic as a tape. Electro-timed Key automatically makes dashes - as well as dots -
spaced in proportion to their length. simple to Operate - A pleasure to read. Features: Automatic dots and dashes. Dashes equal to 3 dots in duration. Speed approximately 8 to 45 words per minute. Speed changed instantly with new dial setting. No
weights to adjust. weights to adjust. Built-in monitor
12 AU 7 , 135 W 4 . Bubes - 2 with volume controls. Operation, 115 -volt AC or DC. Has transparent plastic cover over key mechanism. Size, $11 \times 41 / 2 \times 4^{\prime \prime}$ high. Black wrinkle
finish. Weight, 6 lbs. finish. Weight, 6 lbs. 29.95
No. $14 A 662$. YOUR COST 29.05

ICA SIGNA-TONE CODE PRACTICE OSCILLATORS

(A)

An audio oscillator with 3 output frequencies and variable volume control. Produces signal like that of commercial CW station. For use as (1) Code Practice Set-with facilities for keys and phones for multiple code instruction: (2) Keying Monitor-will follow "bug" at all speeds; (3) Modulation Signal-for adjusting the modulation level of a transmitter: (4) Signal Tracer-locates defects when fed into audio stage of amplifier. For 110 volts AC or DC.
(A) DELUXE MODEL. With built-in speaker and tube. Cabinet size, $8 x$
 (B) All the features of above but less speaker. With tube, Size, $41 / 2 \times 4 \times 4^{\prime \prime}$. Weight, $23 / 4$ Ibs.
$\$ 8.82$

## SIGNAL

TELEGRAPH INSTRUMENT


Sounder and Key - On private and short lines learners will find this instrument easy to handle. Clear, dislinct tone. Bar frame and key base, ing bar is aluminum with steel sounder plate. Key lever nickel plated. Mounted on mahogany finish wood base.
$\$ 5.62$ NO. I7AB, NET EACH. USE WITH
SOUNDE ONLY-FOR USE Designed for tone quality and instant action. All adjustments simple and accurate. Bar frame is black enamel. aluminum sounding bar, brass bridge, and steel sounder plate. Mahogany finished wood base with binding posts

 self-contained - ready to operate. Merely tune radio to clear channel then tune knob on "Micro-Vox" to same channel. Has hundreds of uses -such as a PA System. Paging System, Baby Listener, Detectophone. Simple to operate. Complete, Etc. tube and batteries. List Price, $\$ 6.95$. No. 37849.
NET EACH
$\$ 4.63$

## "MICRO-VOX" SOUND EFFECTS SET

For use with above. Consists of 15 studio sound effect devices for making realistic sounds pius sound effects manua, List Price, $\$ 3.95$. $\mathbf{N o}$. $\mathbf{3 7 B} 5$. NET EACH...

## TIME PROVEN AMATEUR STATION EQUIPMENT

MEISSNER IMPROVED SIGNAL SHIFTER
 AVAILABLE IN
 or $3 / /^{\prime \prime}$ pock pin spacing.
Power output is in
excess of 6 watts on all bands. Keying can be accomplished either in the oscillator or amplifier circuits. Uses 6V6GT osc., 807 amplifier and doubler and a $6 G 5$ tuning eye for visual check of overall operation. Power supply is and a VR150 regulator. Cabinet is grey wrinkle enamel, $1313 / 16 \times 131 / 4 \times 83 / 4^{\prime \prime}$ and a VR150 regulator. Cabinet is grey wrinkle enamel ${ }^{1} 3$
Meissner Signal shifter Kir including every part to build a complete shifter: power supply, detailed instructions, coils for $80,40,20,15$ and 11-1 No. 34A160. Meissner 10-1207 Shifter Kit.
No. 34A160. Meissner 10-1207 Shifter Kit
Meissner EX Signal Shifter wired ready for operation, less pow. 4. coil strips. Complete with tubes and instructions. Model EP Power Supply for above; with tubes.
No. 36A27. NET EACH
No. 36C26. 160 Meter Coil Strip No. 36A31. 15 Meter Coil Strip No. 36A28. 80 Meter Coil Strip No. 36A32. 10 Meter Coil Strip No. 36A29.
No. 36 A30.
20

FMX MEISSNER PHASE MODULATOR

## (Fig. B)

## For use with EX Signal Shifter. Fits in the cabinet in place of power supply

 which then becomes remotely located and supplies power for both units Phase modulator tubes are 6S17, 6SG7 and VR150. These combined units power final up to a kilowatt.
## TRIPLETT ABSORPTION FREQUENCY METER

 COVERS 80-10 METERS BAND SWITCHINC ment with built-in indicat ing meter and germanium crystal rectifier. Enables positive identification of mitter stages. Makes a hand phone monitor. Size includNo. 19 A264. Frequen
$\$ 15.93$

## THE BUD "GIMIX"

 For RF identification and signal monitoring. Can be used as an absorption $40,20,15$ and 10 meter bands: as a phone monitor, field strength meter, neutralizing indicator and carrier shitt indicanance indicator and jack for headphone or meter.
No. $17 A 565$.
$\$ 8.13$
MILLEN MIDGET ABSORPTION FREQ. METERS

To check harmonics, parasitics, tank tuning,
way to determine the resonant frequency of doubler multi
plier circuits all the way up to the UHF range. Calibrated
directly in frequency
$\begin{aligned} & 90606 \\ & 90607\end{aligned}$
$\begin{aligned} & 90607 \\ & 90608\end{aligned}$
50 to 140 MC Not Wark 54.50
4.50 4.50 4.50
$\$ 18.00$

## MILLEN 90800 EXCITER

Famous 50-watt exciter-transmitter using plug-in coils for 80 to 10 meters. Assembled on $31 / 2$ rack panel, using 6L6C tritet osc. and 807 output. Requires power supply of 250 MA. 500 to 700 volts DC, 45 -volt bias, and 6.3 volts at 1.8 amp . Supplied with set of 3 coils. When ordering state band in which your crystal operates and band in which output is desired. No. 33 A61. 90800 Exciter. Less tubes, crystal and power $\$ 42,50$ supply. YOUR COST.
42.50

Additional Coils Available-Osc. Cathode @ \$Oc each and Osc. or Buffer
Plate @ \$1.25 each. Specify frequency desired

## MILLEN HIGH FREQUENCY R.F. AMPLIFIER



## MILLEN 90651 GRID DIP METER

A compact, completely self contained grid dip meter with transformer "AC" power supply, covering frequencies from 15 MC to 270 MC in seven bands. Most common usage is as an oscillating frequency meter to determine resonant irequencies of de-energized tuned circuits, as well as checking all pppes of circuits. Common uses are alignment of tuned circuits; neutralization; locating parasitics; measurement of inductance and capacity; antenna resonant frequency: and funing of beam antennas. 7 ime
Weight, $31 / 2$ lbs. Complete 7 inductors, rack and tube.
No. $35 A 96$. Model 90651 Crid Dip Meter. . . . . . . . . . . . . .

## STANCOR TRANSMITTERS


(1)
(1) 125-watt C.W. Kit
with band switching exciter covering 3.5-30
MC in six bands completely self contained, features ease of contion of six crystal frequencies, separate 350
and 1000 volt power
 meter switching and
(2) AM or FM modulation may be added. Uses 6 V 6 osc., 6 L 6 buffer-doubler, Choice of triode output such as 811 or 5514 , 5 Y3GT and SR4CY rectifiers Kit includes cabinet, detailed instruction manual, and all components, except Kit includes cabinet, detailed instruction may, and components, except the milliameter, 5 tubes, amplifier tank coils, and crystals. Tank coils re$105 / 120$-volt, 60 -cycle AC . Weight, 55 lbs . l . No. 31A231. Stancor ST202-A Kit as described. NET EACH.
(1) Mobile Transmitter Model ST203-A. A 25 -watt crystal controlled phone transmitter 27 to 32 MC , designed for your car or fixed station operation Requires $400 / 500$ DC volts at 200 MA and 6 volts AC or DC at 2.8 amps. which can be supplied from dynamotor, vibrator power supply or regular AC supply. Uses 6 V 6 osc. working from 7 MC crystals, 2 E26 class C amp., 615 grounded grid speech amp. and P.P. 6 V6 Modulators. Press-to-talk Mike switch operates the unit. Osc. amp., and antenna controls are on front pane as well as antenna jacks, mike and meter jacks, with meter and crysta switch, allowing choice of two crystals. Size, $85 / 8$ wide, $73 / 8$ high, $33 / 4$
deep. Weight, 91,4 lbs. Has base mounting clip fasteners. Less tubes and crystals.
No. 36A81. ST203-A. KIT ONLY
$\$ 44.70$
No. 36A82. ST203-A.
$\$ 58.90$
60-WATT TRANSMITTER - TELVAR T60-2
PHONE OR CW- 10 TO 80 METERS
crystal osc., 26 L 6 Gs in the final amp. operating as a push-push doubler requiring no neutralization. Audio line-up includes 6SN7CT cascaded speech amp.
6SN7GT phase inverter and 26 L 6 Gs Pp 6SN7CT phase inverter and 2 6L6Gs
class AB modulators. Any crystal class AB modulators. Any crystal or
high impedance mike may be used. Two power supp:ies, using 5U4C recti relay, Has buitt-in antenna change-over relay, meter switching, front panel crys-


switch. Neat gray wrinkle finished cabine
Stock No. 32A6. T-60-2Stock No. 32A6. T-60-2 Transmitter
for $10-11$ Meter Bands. NET EACH.

## SIMPSON HAM WAVEMETER AND

 MODULATION INDICATORAccurate Wavemeter covering all ham bands. $0-100$ microammeter resonance indicator. Coils for $10,20,40,80$
meters and flexible antenna operating as quarter wave meters and fiexible antenna operating as quarter wave strength meter' calibrated to obtain accurate antenna adjustment and as a monitor for transmitted signal. Has push-button for increasing sensitivity. Percentage Modulae tion indicator calibrated $0-110 \%$. $2 \times 21 / 2 \times 51,4^{\prime \prime}$ completely. shielded aluminum case.
No. 35 A92. Model 380 with 4 coils and 5710 Flexible Antenna. YOUR COST. partmented for instrument and coils.


ELECTRO-VOICE SPEECH CLIPPER
Clips the tops and boftoms from speech frequencies above a pre-set level. Adds to intelligence of speech transmission especially when above 3000 cps . holding modulation at $100 \%$ Connects between hi-impedance mike and amplifier input. Complete with 65C7 and 6 H 6 qubires 150 volis at 5 MA and 6.3 volis at .6 amperes. NET

## GONSET RECEIVER CONYERTERS

$\begin{array}{lll}\text { MODEL } & 3-30 & \text { MOBILE CONVERTER. Continuous } \\ \text { coverage } 3-30 \mathrm{MC} \text {. Has good Amateur band spread, }\end{array}$ high sensitivity, 4 RF low drain tubes No. 33A73, Net Each.............. S. S. 9. NEW MODEL for $1.6-4$ MC. Ideal for Amateur Police, Marine and aircraft, with good band spread and high sensitivity. Attaches to any home or car
radio. Size $51 / 4 \times 31 / 2 \times 51 / 4 \%$. Wt. 2 lbs. 58.85


No. 33892 , Nef Each. Möel 10 -i.ii. Gives unexcell
fixed use when connected to broadcast communicat results for mobile or Fine for converting BC348. Two 6 AK5, 6C4 and OB2 supplied Band 8-1 ratio. Weight 2 lbs


No. 33A59. Model 10-11 Converter. NET EACH
$\$ 39.95$
Clipper Noise silencer, aids in reduction of all typ $\$ 8.25$

## Leading Latest COMMUNICATION RECEIVERS

## LATEST AND BEST HALLICRAFTERS

MODEL SX-71. Communications Receiver - double conversion ( 2075 and 455 KC ) for superior ham band performance! Features: Extra sensitivity and stability, definitely superior im age rejection (better than 300at 28 MC , with double superhet circuit plus built-in noise limiter and balanced detector stages for noise free NBFM re ception. Extra wide dials for main and band spread tuning. One RF 2 conversion, and 4 if stages reate a terrific value communications receiver for Amateur and short wave lengths.
Controls: 5 Range Band Selector for 538 KC to 35 MC and $46-56 \mathrm{MC}$. Dial alibrated for $80,40,20,10$ and 6 meter bands. EFO pitch, 3 -position selectivity, Xtal phasing, Tone, AF gain, RF gain, and Receive-Send switch on front panel with $S$ meter adjustment in rear
External Connections: Doublet or single wire antenna, 500 -ohm speaker out put, phone jack, socket for external battery power supply. Connections for remote control.
12 tubes plus voltage regulator and rectifier: 6BA6 R-F amp., 6C4 Osc. 6AUG Mixer, 6BE6 2nd Conv., 3 6SK7 I.F. Amps., 6SH7 l-F Amp., 6 H 6 ANL and Delayed AVC. $6 S C 7$ BFO and A-F Amp., $6 A L 5$ Det., 6K6CT Output,
VRISOReg., and SYBCT Rect.
No. 30C118. HALLICRAFTERS MODEL SX-71. NET.......
MODEL "SX-42". An excellent receiver designed for the discriminating amateur or short wave listener. Frequency coverage from 540 KC to 110 MC . FM reception from 27 to 110 MC. Panel finished in gray, top is satin chrome and swings open on piano hinge. Lettering is light gray, red and green; remainder of cabinet satin black. Dials are light green, indirectly illuminated. Uses 14 tubes, plus rectifier: 26 GAC5 RF amplifiers, 7F8 converter, 6 HC is limiter amp., 7R7 2nd FM limiter amp., 6H6 FM discriminator, 6SL7 audio inverter, 2 6V6 audio output. $7 \mathrm{A4} \mathrm{BFO}$ and FM tuning meter amp, VR-150
 No. 32A268. B-42 Tilt Base for $\$ X-42$. $\$ 7.50$

## EACH



Model $5 \times-43$. Everything the ham asks for in a medium price receiver! 540 KC to 55 MC conFM above 44 MC . High image rejection. good signal to noise ratio and audio frequency flat from 70 to 8000 cps .
Tubes: 6 BA 6 RF , $7 F 8$ ConverterTubes: 6BA6 RF, 7F8 Converter-
Oscillator, 6SC7 ist IF, 6SH7 2nd IF and 2nd Converter, 6SH7 3rd IF, 6 H 6 AM Det. and Noise Limiter, 6AL5 FM Det., 6SQ7AF, $6 J 5$ BFO or 2nd Converter-Oscil-
lator, 6 V 6 Audio Output, 5 Y 3 lator, 6V6 Audio Output, 5 Y 3
Rectifier. The cabinct is steel finished in rich satin gray. Panel lettering light gray
with red and green markings. Dimensions $181 / 2 \times 12 \times 87 / \mathrm{m}^{\prime \prime}$ high. Weight, 45 with red and green markings. Dimensions $181 / 2 \times 12 \times 87 / 8^{\prime \prime}$ high. Weight, 45
lbs. Supplied with tubes.
No. 31 A232. $\$ X-43$ Receiver. Less Speaker. ............... MODEL R-42. Speaker designed for use with above receivers. Bass reflex type gray metal cabinet. 500-ohm Size, $17^{\prime \prime}$ wide, 113 No. 30 Al40. YOUR COST
$\$ 34.50$
6x9" PM SPEAKER in metal cabinet designed for use with above receivers.
 MODEL S-53. Frequeney range, 540 KC to 54.5 MC in 5 bands. Uses 2 MC IF; accurately calibrated, slide rule dial; full bandspread control, noise limiter circuit; iron-core IFs; built-in PM speaker. Phone jack and connection Uses 8 Tubes: I 6C4 Osc., I 6BA6 Mixer, 1 6BA6 ist iF Amp., 1 6BA6 2nd IF Amp., $16 \mathrm{H}^{\prime} 6$ Det., AVC, ANL, $165 C 7 \mathrm{BFO}$ and Ist Audio, 1 6K6CT Beautiful steal cabinet in satin black with chrome trim. $127 / 8^{\prime \prime}$ wide, $67 / 8^{\prime \prime}$
 NET EACH

MODEL S-40A. Tuning range: 540 KC to 43 MC in 4 bands. Bandspread accurately calibrated, automatic noise limiter scparate RF and AF gain con-
trols, 3 -position tone control. PM speaker inside cabinet. Steel cabinet fintrols, 3 -position tone control. PM speaker inside cabinet. Steel cabinet fin-
ished in rich satin black. ished in rich satin black.
9 Tubes: 6SC7 RF, 6SA7 converter, 26 SK 7 IF's, 6 SQ 7 2nd det., Ist audio,
GF6G audio output, 6 H 6 AVC, noise limiter, $6 J 5 \mathrm{CT}$ BFO, 80 rectifier. Cabinet is finished in rich satin black. Overall size, $181 / 2^{\prime \prime}$ long, $9^{\prime \prime}$ high For operation on $105 / 125$ volts, $50 / 60$ cycle AC. Weight, 33 lb
No. 30 A91. Model $5-40$. with Tubes. Your Cost. EACH.
$\$ 79.95$

## MODEL S-38A. Frequency range of 540 KC to 32 MC . New and improved.

 BFO and bandspread tuning. PM speaker mounted inside cabinet. Jacks for phones. Steel cabinet in satin black, $127 / 8^{\prime \prime}$ long $\times 73 / 8^{\prime \prime}$ high $\times 85 / 8^{\prime \prime}$ deep. or DC with line cord below. 4 tubes plus rectifier. Wt. 15 lbs. 20.8 . No. 17 A740. 220-Volt Adapter Line Cord. NET...$\$ 2.00$

## POPULAR "NATIONAL" RECEIVERS

MODEL "NC57". 540 KC to 55 MC .
Continuously over 5 bands. (Includes 6 meter amateur band.) Calibrated main and band spread dials with built-in $5^{\prime \prime}$ PM speake
Tubes: 1 $6 S G 7$ RF,
Tubes: 1 6SG7 RF, $16 S B 7 Y$ conv
AVC, 1 6SNTGT 1 st audio and BFO
1 6V6GT audio output, I VRISO,
and 1 SY3CT rectifier
Cabinet: Size, $161 / 2 \times 83 / 4 \times 113 / 4^{\prime \prime}$
smooth gray enamel, translucent
dials. For $105 / 125$ volts, $50 / 60$ cycles AC. Weight, 31 lbs.
No. 31A238. Your Cost. Each


NOT EACH
$\$ 89.50$
\$14.95
MODE1 NC-183. Designed for the discriminating amateur. Two tuned RF stages Tunes 540 KC to 31 MC . plus the 48 to 56 MC band. Calibrated band spread for 6, 10-11, 20, 40 and 80 meter bands.
Tubes: 2 6SC7 RF, 1 6SA7 det., 615 osc, 26 6S7 iFs, 16 H 6 2nd det. 6S 17 BFO, I 6 AC 7 AVC amp., $16 \mathrm{H}^{2}$ noise limiter, i 6SJ7 AF, $16 J 5$ phase inverter, 2 6V6GT audio output, 1 VR150 and 1 SU4G rectifier. $50 / 60$ cycle AC. Steel gray cabinet, $193 / 4 \times 101 / 8 \times 15^{\prime \prime} ;$ chrome trim. Weight 56 lbs. Less Speaker.
No. 3iA237. National NC- 183 with 14 Tubes. YOUR COST

$\$ 14.00$
Narrow band FM adapter Model NFM83 for NC-183
socket in receiver.
No. 31 A239. YOUR COST, EACH
$\$ 16.95$
MODEL NC-173. Popular with Amateurs and S.W.L.'s. Frequency range 540 KC to 31 MC ; 48-56
MC . Calibrated band spread for 6, 10-11, 20, 40 and 80 meters. Tubes: 3 6SC 7 RF amp., Ist and
2nd IF Amplifier; 6SA7 Ist det., 2nd IF Amplifier; 6SA7 Ist det.,
6.5 HF oscillator; 2 6H6 2nd detector. AVC and noise limiter $6 A C 7$ AVC amplifier, 2 6SJ7 BFO and ist audio; 6V6CT audio output; OD3/VRI50 voltage reg. ulator and 5Y3CT rectifier.
Operates from $110 / 120$ or $220 /$
240 volts $50 / 60$-cycle AC. Has

rear battery plug for mobile-portable use. Size, $193 / 4 \times 101 / 8 \times 121 / 2^{\prime \prime}$, gray
finish. Weight, 46 lbs. No. 30A158. With Tubes, Less Speaker. YOUR COST.

No. 30A159. NC-173TS Speaker for Above,
With Matching Case
$\$ 10.00$
No. 31 A243. Narrow Band FM Adapter NFM73. Same circuit
$\$ 17.95$
National Model NC-33. 500 KC to 35 MC in four bands. Separate main and Tubes: 12SA7 converter 12 SC 7 IF amp 12 H 6 2nd det, AVC -phone switch. 12 LL 7 GT ist audio and beat oscillator, 35 L 6 CT audio output, $35 \mathrm{Z5GT}$ rectifier. Cabinet finished in durable gun-metal gray enamel, chrome trim and translucent dials. Size, $169 / 16 \times 83 / 4 \times 81 / 2^{\prime \prime}$. Operates from $110-v o l t \mathrm{AC} / \mathrm{DC}$. transiucent diais.
Weight, 23 lbs.
No.g 31 A 245 . Complete with Tubes and Built-in $5^{\prime \prime}$ PM
Speaker. EACH............................................. 5 .
National Model HFS. Ultra high frequency special design covers 27 MC to 250 MC in six bands including $1 \mathrm{~V} / 4,2,6,10$ and 11 meter, $\mathrm{CW}, \mathrm{AM}$ or FM . Terminals from 10.7 MC IF channel permits use as converter.
Tubes: 6AK5 lst det., 9002 osc., 615 converter output, 6SC7 IF, 6SK7 2nd det., 6J5 Ist audio, and 6V6CT audio output. A $5^{\prime \prime}$ PM speaker is built in. Has phone jack, ant. trimmer, linear calibration chart, standby and receiver 8 converter switch on panel. Finished in smooth gray enamel. Size, 16 9/16x $83 / 4 \times 81 / 2^{\prime \prime}$. Supplied with tubes and coils, less power supp No. 31 A241. YOUR COST, EACH
$\$ 142.00$
Model 5886 Power Supply for 115-230 Volts 50-60 Cycles AC
No. 31 A242. EACH
$\$ 22.43$
Model 6865, 6-Volt
No. 31 A244. EACH
$\$ 34.16$
HRO-7T-With tubes, 110 -volt AC power supply, type MCR 8" PM speaker in cabinet to match set and
No. $30 B 72-4$. YOUR COST
$\$ 324.86$
NC-2-400T-With Tubes.
\$236.25
No. 50A255. Matching Speaker for Above.
$\$ 16.44$
B-A Co. can supply most communications receivers and as they are released we will have them. Write us for full information on any type of receiver
and full details will be forwarded to you. "SEND US YOUR ORDER."

## Close Out Sale

From Regular B-A stocks or small lot special purchase. Two pages of Big Savings but small quantities. Give first, second and third choices. Every item Brand New in original Factory Packing.

## CHECK THESE TERRIFIC VALUES! IN HANDSOME RADIOS

Adequate in size far sturdy chassis and layaut af components to give top performance, depth af tone and cabinet design for any raom in the hame or far all around use, anywhere 110 -valt AC-DC electric current is availoble.


Superhets with 5 tubes, plus rectifierTwo tubes are dual purpose giving 7-tube performance. Has RF sfage for increased
sensifivity and Beam Power Output for sensitivity and Beam Power Output for
good volume at low distortion level, Loop good volume at low distortion level. Loop
antenna built-in with provision for external aerial. Edie lighted slide rule dials and full 5" Alnico V PM Speakers. All are priced far below regular and subiect to
Prior Sale. Give First and second Choice. GAROD MODEL 6AI (Top). Corgeous Catalin Cabinet of mottled ivory with
upull-up" carrying handle. Overall cabinet size, $111 / 4^{\prime \prime}$ long, $\times 71 / 2^{\prime \prime}$ deep $\times 7$ " high. No. 36840. List Price was
$\$ 39.95$. Special, Net Each.. $\mathbf{\$ 1 9 . 8 8}$
GAROD MODEL GAZ (Center). Pleasing hand rubbed walnut veneer wood cabinet with a striking contrast of ivory grille deep x $73 / 4$ " high.
No. 36846. List Price was $\$ 21.88$
$\$ 44.95$. Special, Net Each. $\$ 21.820$
AIR KINC A625 (Bottom) Smart twotone polystyrene cabinet with louver top and, , rille. Overall size,
$71 / 2^{\prime \prime}$ deep $\times 8^{\prime \prime}$ high.
No. 31887. List Price was $\$ 16.88$
$\$ 29.95$. Special, Net Each. $\$ 16.80$
radios are most safely shipped via express
CONSOLE TONE and PERFORMANCE OLYMPIC FM-AM SUPERHET

Cabinet is a sleek streamlined beauty in Modern manner in lustrous grained walnut plastic, size $143 / 4^{\prime \prime}$ long, $9^{\prime \prime}$ high, 75/8" deep.
Circuit: Combines Superhet and Superregenerative principles. A.V.C., full
range tone control and inverse audio range tone control and inverse audio
feed-back for elimination of distor-feed-back for elimination of distor-
tion. Tubes: $12 A T 7,12 S A 7,125 K 7$, $125 \mathrm{Q} 7,3525$. Audio power oupput

Tuning Range: Standard AM broadcast 535-1720 kilocycles, FM Broadcast 88-108 mc. Speaker: Improved full response $6^{\prime \prime}$ PM with Alnico magnet gives full rich tone.
Antenna: Two separate built-in antennas provide excellent reception on either AM or FM in good average locations. For poor locations provision is made to connect additional antenna as required.
Dial: Large, full vision slide rule type with clear easily read numerals. Concontrol. Operates on $105 / 125$-volt $A C$ or DC
$\$ 34.95$

## 3-TUBE PHONO AMPLIFIER

at side, front or underncath motor board. Completcly assembled and wired with output transformer, speaker leads and $A C$ cord. Has socket connections for phono motor and remote location of control and switch.
Supplied complete with tubes (12SJ7, 35Z5GT, 50L6GT), plugs and volume control with switch together with


## BELMONT BATTERY RADIO



This handsome four-tube battery-operated radio designed for use in areas beyond power lines provides exceptional performance with low operating expense.
Direct-view dial covering broadcast band, $540-1600$ KC. Permeability tuning insures splendid reception. Automatic volume control sharply reduces fading. At-
tractive polished walnut plastic cabinet. Size $91 / 4 x$ Ul/4 $\times 53 / 4^{\prime \prime}$ 'ddard $11 / 2-90$ V. AB Battery Pack ER758 or Equivalent.
No. 36A65. Less Battery SPECIAL, EACH

## GAROD RADIO-PHONO COMBINATION

WITH AUTOMATIC RECORD CHANGER FOR 78 RPM RECORDS

## only.

THINK OF IT—A full size qual ity built Radio PLUS a Record Player that plays automatically TEN $12 \%$ or TWELVE ords with lid closed.


THE CABINET will convince you that this is NOT the usual low priced phonoradio combination. It's a Beauty. . in smart streamlined design with rounded corners. solidly built, warp-proof walnut veneers... Hand rubbed to bring out the beautiful grain
THE RADIO: A standard trouble-free superhet with these popular tubes12SA7, 12SQ7, 14A7, 50L6 and 3525, is assembled on full size chassis with heavy duty components. A large PM dynamic speaker assures quality reproduction of both radio and records. Antenna is built in. design plays ten $12^{\prime \prime}$ or twelve $10^{\prime \prime}$ records automatically with lid closed. Lightweight crystal pick-up and quiet starting motor.
Easy to read and attractive radio tuning dial and controis including full range tone control. All are accessible without raising the lid.
Operafes on 105-125 Yolss, 60-cycle AC only. Cabinet size is $201 / 4^{" ~ w i d e ~}$ YOU WILL APPRECIATE THE VALUE! Was $\$ 119.50$ Seller. Stock No. 31A217. While They Last, EACH.

## A TERRIFIC AUTO RADIO VALUE!

Fits Any Car . quickly installed. Four-tube plus rectifier Superhet with two dual-purpose tubes gives 7 -fube
performance.
Compac\$, light weight, installs easily
into any car or weight, installs easily into any car or truck with six-volt
storage battery. . low battery drain. storage battery. . Low battery drain.
PM dynamic speaker built in. Beam PM dynamic speaker built in. Beam
power tube assures maximum undispower tube assures
torted power output. versal mounting. Full vision slide rule dial. Automatic volume control. Well inished Blue Silver Enamel metal case,

No. $36 \mathrm{B57}$
SPECIAL, NET EACH


## RADIO-PHONO COMBINATION

Radio is advanced type Superhet
with $1-125 A 7 C T, 1-125 Q 7 C T$. 1-3525 tubes-two of which are dual purpose to give 5 tube performance. Features large slide rule dial, automatic volume control and Alnico V FM speaker
Phono has light weight crystal pickup to play all records, all speeds 78, $331 / 3$ or 45 RPM . .7, 10 or $12^{\prime \prime}$ records. Simple
speeds.
Cabinet-attractive modern design walnut finished wood with lid cover. Size $121 / 4 \times 10 \times 73 / 4^{\prime \prime}$, shpg. wt. 12 lbs. For $110-125$ V., 60 cycle AC. Underwriters Lab. tested.
No. 32 A58. Complete with 2 long life needles.
\$31.88


DE LUXE DUAL SPEED TURNTABLE
For playing EITHER the new LP long playing, or standard 78 RPM records! Features heavy-duty 4-pole motor and external push-pull speed control lever to engage idler wheel with 2-diameter shaft to obtain speeds of either $331 / 3$ or 78 RPM! Delicate balancing of entire assembly assures uniform speed at all timesassures low rumble factor and minimum "wow"! Extra power to handle
 varying record and pickup loads at constant speeds. Mounting plate is $6^{\prime \prime}$ long $55 / 8^{\prime \prime}$ wide, motor extends $25 / 8^{\prime \prime}$ AC. 34 A167 SPECIAL EACH
$\$ 7.95$


ALL-PURPOSE RADIO

- TELESCOPIC ANTENNA SUPERHET - POWERFUL RECEPTION


## - BEAUTIFULLY FINISHED METAL CASE

A Small Powerful battery operated portable Superhet that may be used as a personal set at home, a portable when on the go-or with the simple theft proof brackets that are provided it can be mounted to the handle bars of bikes The removable telescopic.
31 to 10 inches) provides unusual "pick-up" for whatever use may be chosen for this novel little radio.
Housed in sturdy metal cabinet, smartly styled in attractive Hammertone finish with edge lighted vernier tuning slide rule dial.
Extremely Compact, only $71 / 4 \times 41 / 4 \times 31 / 2^{\prime \prime}$. . . Light, weighs only 3 lbs. 3 ozs.- thus is ideally suited for travelers to pack in their luggage.
Made to give trouble-free service with thesc efficient tubes: IR5, IV4, 155, 354. An Alnico V PM speaker assures big set tone quality. Operates with 2 inexpensive flashlight cells and , 2 -volt " B " battery easily available anywhere.
No. 37A75. List Price, $\$ 24.95$.
Net Each. SPECIAL (Less Batteries)
4547 SET OF BATTERIES
$\$ 1.89$
OLYMPAC HI-Power-TUNES BROADCAST \& SHORT WAVE


## A TRULY QUALITY RADIO

An amazingly powerful and efficient receiver that is truly in a class by itself. Gives full console performance - thanks to Olympic's exclusive "trubase" feature which reproduces the full audible basel feature which reproduces the full audible odyne with tuned RF stage and three-gang tuning odyne with tuned RF stage and three-gang tuning condenser. Powerful specially construeted electro-
dynamic $6 \times 9^{\prime \prime}$ oval speaker, full-range tone condynamic $6 \times 9$ " oval speaker, full-range tone con-
trol, 5 watts power output. Built in "Hyper $Q^{\prime \prime}$ trol, 5 watts power output. Built in "Hyper $\mathrm{Q}^{\prime}$
antenna includes shortwave loop video-phono conantenna includes shortwave loop video-phono con-
nection for use with record players or with connection for use with record players or
verter unit for FM and television sound.
Tuning Ranges: Standard Broadcast 535-1700 KC (175-550 meters). International Shortwave 5.618.2 MC (17-53 meters). This receiver will opercasting stations where many sets will not receive any signals. Ideal for use overseas. In beautifully streamlined grained Walnut Plastic Cabinet. Size, $16^{\prime \prime}$ long $\times 9^{\prime \prime}$ high $x 73 / 4^{* \prime}$ deep. Operates on No. 34A159. WHILE THEY LAST! EACH
$\$ 31.95$

## THREE-WAY PORTABLE RADIO

COMPLETE READY TO PLAY. ONLY
4)

## A BEAUTYI A BIG VALUE!



Operotes From Botteries or From AC or DC
Electric Current
Sturdy Luggage style cabinet, covered in two-tone simulated leather with molded plastic front, the tuning controls, dial and knobs countersunk and in contrasting colors-a very attractive effect.
Compact-light, $91 / 2 \times 7 \times 51 / 2^{\prime \prime}$. weight only $61 / 2$ lbs, with batteries. A "Honey" as a personal radio in areas not too distant from broadcast stations.
Operates from self-contained batteries, 5 standard flashlight cells for "A" and 2 ER type 455 or equivalent 45 -volt "B" batteries or from AC/DC electric current. A Superhet with supersensitive $4^{\prime \prime}$ Alnico PM Speaker. Multi-function tubes: IRS, IS5. $1 \mathrm{U4}, 3 \mathrm{~V} 4$ and Selenium rectifie
$\$ 16.88$

## SE=? PG AUTOMATIC <br> RECORD CHANGER

AN OUTSTANDINC VALUE! List Price, $\$ 44.25$. Regular Net Price,
No. 40A1002. WHILE THEY LAST


METAL CHANGER BASE


Brown crackle finish steel. Attractively designed, rounded corners. Overall size, $111 / 4 \times 121 / 2 \times 21 / 4^{\prime \prime}$ Model 650 and similar changers. 95R

## 4-TUBE PHONO AMPLIFIER

Complete with tubes and heavy duty 6" PM Speaker. Furnished completely assembled and wired with tone and volume control and "plug in" connections for speaker and phono output Speaker has output transformer and plug ready to connect to amplifier.
Tubes Included: 2 35Z5, 1 12SQ7, 1 35L6 Voltage doubler rectifier makes possible the
 No. 4A63. A Whopping Value.
$\$ 9.95$

OLYMPIC PERSONAL GEM' COAT POCKET SIZE Weight Only $3^{1 / 2}$ Lbs.


Exquisite in its cabinet of beautiful maroon Polystyrene plastic and when open a lovely gold face wact exact uning slide rule dial. Extra soat, compact. only $811 / 16 \times 25 / 8 \times 45 / 16^{\prime \prime}$. (Coat pocket size). Light, weighs only $31 / 2 \mathrm{lbs}$ Plays anywhere from self contained batteries (1)
No. 950 A and 1 No. 467 BI and built-in "Hi-O", No. 150 antenna. A flip of the lid ond built-in "Hi-Q" loop antenna. A flip of the lid open turns
close the lid and it is automatically "off". Sturdy with watch-like craftsmanship. A superhet using high efficiency miniature battery tubes 1 R5 converter, IU4 IF Amplifier, $1 \cup 5$ Detector, 1 st AF and AVC, 354 Power output. Iron Core If Coils and Iron Core Oscillator Coil. A $31 / 2^{\prime \prime}$ Alnico 5 PM speaker (unusual for a set so smalf and compact) is assurance of tone to please the most critical.
Yes, here is a masterpiece of design, style, quality No. 31 A80.
EACH (Less Batteries) . . . . . . . . . . . $\$ 1788$
Battery Kit (1 No. 950 and 1 No. 467). . $\$ 1.78$ No. 31 A81. Carrying Case, Luggage
$\$ 2.88$

## RECORD CHANGER ONLY <br> 59.50



Popuiar Make Changer. Sturdy and dependabie. Light weight tone arm and crystal pick-up. Simple trouble-free mechanism, Plays ten $12^{\prime \prime}$ or twelve $10^{\prime \prime} 78$ RPM standard records. Flocked $9^{\prime \prime}$ turntable. Base is $111 / 2 \times 13^{\prime \prime}$ No. 40A1000. Limited Quantity.
No. 40A1000. Limited Quantity.
A BUY AT ONLY
$\$ 9.50$
RECORD CHANGER-AMPLIFIER CABINET
For record changer or phono-amplifier Inside measures $141 / 2$ x141/2" with space
$31 / 0^{\prime \prime}$ below and $51 /{ }^{\prime \prime}$ above motor board with lid closed. Baffled and grilled for a the other cutout can be covered with grille cloth. An extremely handsome and sturdy top quality cabinet in any. Originally made
 for an expensive Phono-Radio and cost to make several times our price. It's a great value well Worth a little work to alter it to your needs. Shipping weight, $171 / 2$ lbs.
$\$ 6.88$

# YOU GET FASTER SERVICE FROM B-A IN THE HEART OF AMERICA 

## HOW TO ORDER

Use our order blank where possible-it will help us process your order more speedily. Additional blanks are yours for the asking.

- Print your name and complete address legibly with typewriter, ink, or black pencil.
- List the items you want-only one to a line. Write down exact stock numbers and prices as in our catalog. Show size, color, resistance, etc., in the description. Give second and third choices on scarce items.
- Specify how we should ship-Parcel Post, Air Parcel Post, Air Express, Express, or Freight-by checking one of the squares. Estimate shipping weights not given and use the Parcel Post Rate Chart and Zone Map to estimate amount of postage. Express and Freight charges are coliected on delivery unless there is no agent in your town. For your protection, all shipments are insured.
- Total your order, add sufficient to cover postage and insurance. Any unused amount will be rerefunded at once by Bank Check.
- Parcel Post Insurance:

Parcel Post C.O.D. charges include insurance. Paid Parcel Post shipments are insured in a reliable teeing safe delivery of shipment.

- Use a separate sheet of paper for inquiry or correspondence not related to order.


## PRICES AND TERMS

OUR PRICES are net F.O.B. Kansas City, Missouri. All discounts, including $2 \%$ for cash, have been dcducted from catalog prices. $2 \%$ freight allowance on orders $\$ 100.00$ or over.
All merchandise is sold at prices in effect on date of shipment, and all prices quoted in our catalogs and shipment, are subject to change without notice.
PRICE REDUCTIONS. Your order will be shipped at the lowest prevailing price at time of shipment. We advise you of increases over 20\% before making shipment of items involved.
OUR TERMS are cash with order on ALL orders for $\$ 5.00$ or less; OR we will ship C.O.D. on orders over $\$ 5.00$ when deposit of $25 \%$ accompanies such orders. Remittance. N Furges and expedites your order. you Government, state and Industrial purchase orders are handled on the usual payment plan.
FOREIGN ORDERS: See special sheet included in export catalog or contact our export department for details on shipments to your country.
MISSOURI CUSTOMERS add 2\% State Sales Tax to ALL items for your own use. Please give your Tax Registration Number on items purchased for resale.

## HOW TO SEND MONEY

It is safest to remit by Post Office or Express Money Order, Bank Draft or Check. Avoid sending coin or currency, but, if necessary, register your letter. Use Western Union for rush money orders. Small amounts will be accepted in 3c stamps. You can avoid C.O.D. charges even when you do not know the approximate amount to remit, by sending your signed blank check for us to fill in the exact amount. You may write across the bottom to limit the check to some figure which you know will be sufficient. Your invoice, mailed immediately after shipment, shows the exact amount your check was made payable for. Your money is handled at B.A. by bonded employees. For business references, we refer you to Dun and Bradstreet. Mercantile Bank and Trust Co. of Kansas City, Mo., or Commercial National Bank of Kansas City, Kansas.

## RETURNS-ADJUSTMENTS

Your complete satisfaction is our goal, and you can depend on us for prompt adjustment in case of error, defective merchandise, etc. Please write us first before returning anything, and always be sure to send along all order papers or correspondence necessary to substantiate your claims. Damages in transit. Obtain a damage report from the delivering carrier and include it with youp order papers and letter to us.

## FREIGHT SHIPMENTS

Where rapid delivery is not essential and merchandise selected weighs approximately 100 pounds or over. Freight shipment is recommended. See your agent for rates. Do not remit freight charges if you have a local agent.
FOR URCENT RUSH SHIPMENT, wire or phone. Local and long distance phone number BAltimore 1155. Salesmen on duty 8:15 A.M. to 5:30 P.M. during
week, Saturday 8:30 A.M. to $12: 30$ P.M.


The arrow on the rap indicates the location of Kansas City, the home of B. A. Note that it is in the exact "Heart of America", close to everywhere. Kansas City rates high as a railroad center-there are plenty of fost trains in every direction. Our central location, our adequate stocks, our long experience in mail order routine-these are the reasons for faster service from B. A.

## AIR AND RAIL PARCEL POST SHIPMENTS

## BE SURE TO INCLUDE ENOUCH POSTACE - EXCESS IS REFUNDED

The table below and Zone Map above will help you estimate Parcel Post charges. For packages under 8 ounces, allow $2 \&$ for each 2 ounces, any Zone. The Post Office figures fractions over as a full pound. Example: A package weighing 5 lbs., 2 oz . is figured as 6 ibs.
INSURANCE rates on shipments via Parcel Post are: $5 q$ up to $\$ 5.00$ value, $8 \notin$ from $\$ 5.01$ to $\$ 10.00$, $12 \phi$ from $\$ 10.01$ to $\$ 25.00$, $18 \&$ from $\$ 25.01$ to $\$ 50.00$, $25 \%$ from $\$ 50.01$ to $\$ 100.00,40 \%$ from $\$ 100.01$ to $\$ 150.00$, and $50 \%$ for $\$ 150.01$ to $\$ 200.00$ value. A part of the fee on Parcel Post C.O.D. shipments is for insurance.

NEW AIR PARCEL POST RATES are shown in light face type. Regular Parcel Post in bold face. On all Air shipments to U. S. territories, Alaska, Hawaii, etc., and to APO or FPO addresses rate is $80 \%$ per lb.

| Weight in Pounds | Zones IG2 |  | Zone 3 |  | Zone 4 |  | Zone 5 |  | $\frac{\text { Zone } 6}{1000 \text { to } 1400} \begin{gathered} \text { Miles } \end{gathered}$ |  | $\frac{\text { Zone } 7}{1400 \text { to } 1800} \begin{gathered} \text { Miles } \end{gathered}$ |  | Zone 8Over 1800Miles |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Up to 150 Miles |  | 150 to 300 Mites |  | 300 to 600 Miles |  | 600 to 1000 Miles |  |  |  |  |  |  |  |
| 1 | .12 | . 55 | . 13 | . 60 | . 14 | . 65 | .15 | . 70 | . 16 | 75 | .17 | . 75 | . 18 | . 80 |
| 2 | . 15 | . 59 | . 16 | . 68 | . 19 | . 79 | . 21 | . 94 | . 24 | 1.08 | . 27 | 1.20 | . 30 | 1.45 |
| 3 | .17 | .63 | . 19 | . 76 | . 23 | . 93 | . 27 | 1.18 | .31 | 1.41 | . 36 | 1.65 | . 41 | 2.10 |
| 4 | .19 | . 67 | . 22 | . 84 | . 28 | 1.07 | . 33 | 1.42 | . 39 | 1.74 | . 46 | 2.10 | . 53 | 2.75 |
| 5 | .21 | . 71 | . 25 | . 92 | . 32 | 1.21 | . 39 | 1.66 | . 46 | 2.07 | . 55 | 2.55 | . 64 | 3.40 |
| 6 | . 23 | .75 | . 28 | 1.00 | . 37 | 1.35 | . 45 | 1.90 | . 54 | 2.40 | . 65 | 3.00 | . 76 | 4.05 |
| 7 | . 25 | . 79 | . 31 | 1.08 | . 41 | 1.49 | . 51 | 2.14 | . 61 | 2.73 | . 74 | 3.45 | . 87 | 4.70 |
| 8 | . 27 | . 83 | . 34 | 1.16 | . 46 | 1.63 | . 57 | 2.38 | . 69 | 3.06 | . 84 | 3.90 | . 99 | 5.35 |
| 9 | . 29 | . 87 | . 37 | 1.241 | . 50 | 1.77 | . 63 | 2.62 | . 76 | 3.39 | . 93 | 4.35 | 1.10 | 6.00 |
| 10 | .31 | .91 | . 40 | 1.32 | . 55 | 1.91 | . 69 | 2.86 | . 84 | 3.72 | 1.03 | 4.80 | 1.22 | 6.65 |
| 11 | . 33 | . 95 | . 43 | 1.40 | . 59 | 2.05 | . 75 | 3.10 | . 91 | 4.05 | 1.12 | 5.25 | 1.33 | 7.30 |
| 12 | . 35 | . 99 | . 46 | 1.48 | . 63 | 2.19 | . 80 | 3.34 | . 98 | 4.38 | 1.21 | 5.70 | 1.44 | 7.95 |
| 13 | . 37 | 1.03 | . 49 | 1.56 | . 68 | 2.33 | . 86 | 3.58 | 1.06 | 4.71 | 1.31 | 6.15 | 1.56 | 8.60 |
| 14 | . 39 | 1.07 | . 52 | 1.64 | . 72 | 2.47 | . 91 | 3.82 | 1.13 | 5.04 | 1.40 | 6.60 | 1.67 | 9.25 |
| 15 | .41 | 1.11 | . 54 | 1.72, | . 76 | 2.61 | . 97 | 4.06 | 1.20 | 5.37 | 1.49 | 7.05 | 1.78 | 9.90 |
| 16 | . 43 | 1.15 | . 57 | 1.80 | . 80 | 2.75 | 1.02 | 4.30 | 1.27 | 5.70 | 1.58 | 7.50 | 1.89 | 10.55 |
| 17 | . 45 | 1.19 | . 60 | 1.88 | . 85 | 2.89 | 1.08 | 4.54 | 1.35 | 6.03 | 1.68 | 7.95 | 2.01 | 11.20 |
| 18 | . 47 | 1.23 | . 63 | 1.96 | . 89 | 3.03 | 1.13 | 4.78 | 1.42 | 6.36 | 1.77 | 8.40 | 2.12 | 11.85 |
| 19 | . 49 | 1.27 | . 66 | 2.04 | . 93 | 3.17 | 1.19 | 5.02 | 1.49 | 6.69 | 1.86 | 8.85 | 2.23 | 12.50 |
| 20 | . 51 | 1.31 | . 68 | 2.12 | . 97 | 3.31 | 1.24 | 5.26 | 1.56 | 7.02 | 1.95 | 9.30 | 2.34 | 13.15 |
| For each addit'n'l pound add | . 02 | . 04 | . 03 | . 88 | . $041 / 2$ | . 14 | . $051 / 2$ | . 24 | . 07 1/2 | . 33 | . $091 / 2$ | . 45 | . $111 / 2$ | . 65 |

EXPRESS SHIPMENTS - FRAGILE MERCHANDISE
To assure safe arrival, all test equipment, amplifiers, radios, fluorescent fixtures and fragile or bulky merchandise will be shipped by express. IF THERE IS NO EXPRESS ACENT IN YOUR TOWN SPECIFY SHIPPING POINT. Shipments are made collect for charges. All express is insured as follows: No charges under $\$ 50.00$ value, 10 \& for values of $\$ 50.00$ to $\$ 150.00$ and $10 \%$ for each additional $\$ 100.00$ value or part thereof. See Rate Table below which includes Federal Tax.

| Weight of Pkg. | DISTANCE |  |  | FROM | KANSAS CITY |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 100 | 200 | 300 | 400 | 500 | 600 | 1000 |
| 5 lbs. | \$0.98 | \$0.99 | \$1.06 | \$1.07 | \$1.08 | \$1.12 | \$1.18 |
| 10 lbs. | 1.08 | 1.11 | 1.25 | 1.27 | 1.30 | 1.36 | 1.49 |
| 15 lbs. | 1.17 | 1.22 | 1.43 | 1.47 | 1.50 | 1.61 | 1.80 |
| 20 lbs. | 1.28 | 1.35 | 1.62 | 1.67 | 1.71 | 1.84 | 2.12 |
| 30 lbs. | 1.48 | 1.59 | 1.99 | 2.06 | 2.13 | 2.33 | 2.74 |
| 40 lbs . | 1.68 | 1.82 | 2.36 | 2.45 | 2.54 | 2.81 | 3.36 |
| 50 lbs. | 1.88 | 2.06 | 2.74 | 2.85 | 2.37 | 3.31 | 3.98 |
| . 75 lbs. | 2.39 | 2.65 | 3.67 | 3.83 | 4.01 | 4.51 | 5.53 |
| 100 lbs . | 2.89 | 3.23 | 4.59 | 5.03 | 5.05 | 5.73 | 7.09 |


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\$56
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Mounts Neatly and Attractively Under the Instrument Panel of Any Car. Easy to Reach.
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- Stabilized Permeability Tuned I.F. on Tuning Circuits.
- Continuously Variable Tone Control-Automatic Volume Control.

You will find no other Auto Radio that can match this set in Tone Quality and Clarity, Power and Overall Performance at this amazing low price. Comes complete with under dash universal control tits any make or model car. Attractive Case Finished in Taupe Brown Hammerone Lacquer. Size, 7 1/32" high, $93 / 4^{\prime \prime}$ wide, and $51 / 2^{\prime \prime}$ deep. List Price, $\$ 59.95$. Shipping weight, 17 lbs .

PHILCO MODEL CR-4.
No. 30B68/600M. YOUR COST PER SET. Net Each... 414

PHILCO
AUTO RADIO AERIALS
THE LAST WORD IN
ENGINEERING AND STYLING


Constructed of heavy wall brass tubing to withstand hardest use. Highest quality chrome plating for sparkling appearance and maximum durability. A $36^{\prime \prime}$ shielded coaxial lead with fittings is supplied with each.


LONG DISTANCE SIDE COWL TYPE ( of Right)
For the growing number who want maximum signal strength and station coveerage. 4 section, extends to $100^{\prime \prime}$. Anti-rattle construction. Dust and moisture proof. The utmost in Auto Aerial efficiency.
Stock No. 38 A32. List, $\$ 6.95$. Net Each.... 4.18 iv Lots. 58.5

FOR TOP COWL or FENDER (at Left)
Especially designed for the new model cars Installs on cowl or fender, and adjusts from top. Cannot come loose. Philo anti-rattle construction. Tale-


# More B-A Whopping BARGAINS! 

## AC 25 WATT AMPLIFIER with AUTOMATIC RECORD CHANGER



Overproduction from a run made for a nationally famous moil orde concern known for top quality ot low prices. . their price was $\$ 99.50$.

## B-A Special Purchose

Stock No. 32456 . Net Price Only

## NOTE THESE OUTSTANDING FEATURES

Conservotively roted of 25 wotts 35 wotts.

- Hos two mike inputs with separote
volume controls. - Two phono inputs Automotic Record Chonger of top ient reor connections for speokers, quolity plays ten 12 inch or phono and mike. Selector switeh to properly match instontly ony num ber of. speakers up to four. Also hos Steel cobinet very spurdy in ottractive tuse block. DC current to pre-omp groy finish, ponel of sotin chrome and tube heaters providing very low hum 13' high overall. Shipping Wt. 45 level. Tone control. - Illuminoted Jbs. Operates on $105-115$ volts, 60
ponel.
eycles AC. ponel.
Shipped by express only, complete os described above. Speoker plugs ore included $\qquad$
A COMPLETE PA SYSTEM ONLY $\$ 79.38$ .38


Consists of the No. 32A56 25 watt amplifier with outomotic chonger, two RCA 12 -inch 15 wati PM dynamic speakers, iwo 12 -inch wall baffles ond 0 Shure "Versatex" crystal mike, complete with 7 ft. shielded cable and connector. The mike can be used on
$\$ 79.38$
Additionol Crystol mike coble.
Additionol Crystol m
No. 2AlO1. Per $\mathrm{Ft}_{\text {. }}$.
$51 / 2 c$
Rubber sheothed two conductor cord for speoker lines.
No. 2A28
50c
$\$ 1.75$

A LUCKY FIND MAKES POSSIBLE THIS REPEAT OF A FORMER BANG-UP SELL-OUT. Hallicrafters S-59 AM-FM CHASSIS
$\$ 49.50$ VALUE



Our previous sale of this identical chassis at $\$ 39.95$ was a fast sell out . . hundreds short of the orders we received. We found a concern who still had some ... our cash offer was tempting so here we "go" again. A truly whopping volue . . but Hurry only a limited quantity available.

Built throughout to Hallicrafters standards of qualify. Popular for custom instollations or modernizing older receivers.
SPECIFICATIONS: 7 tubes and rectifier-6BE6 osel-mixer, 6BAG IF omp. 6BAG FM IF amp-AM det. 6 AL 5 FM detector, 65 SQ 7 ist oudio amp. 6 K 6 GT output oudio ond phase inverter, 6K6GT output oudio, 5 Y3GT Rectifier. AM coveroge 540 to 1600 kc . FM coveroge 88 to 108 mc . Audio output 4 wotts. Freauency response- 60 to 14,000 cycles plus or minus ${ }^{3}$ db. Continuously variable tone control. AM sensitivity- 50 micro-volts, FM sensitivity -100 micro-valts 130 db signol to noise ratiol Output tronsformer matches 8 ohm volce coil. Phono connection slide rule type dial, escutcheon and $50 / 60$ cycles AC. 60 watts.

Stock No. 34A19. Model S-59 Chossis
with Tubes ond Loop. Less Speoker. EACH


Any good PM speaker will work with this set ... Ine Dargan priced cooxials listed below are "super-duper" for it, the highfidelity wide frequency ronge of the chassis will be more foithfully reproduced with these wide range cooxial speakers.

## SAVE ALMOST ONE-HALF

## 12-INCH COAXIAL

EXTENDED RANGE DUAL SPEAKER SYSTEM! FOR FM OR AM RADIO. TELEVISION SOUND AND WIDE RANGE RECORD PHONOGRAPHS. QUICK, EASY, MODERNIZING REPLACEMENT OF OLD STYLE SINGLE RANGE SPEAKERS Ruggedly built of finest materials and equipped with super-etficient molded seamless conc-ifrequency range of 55 to 12.000 c.p.s. with low trequencies chan-
neled to heavy duty 10 -watt "WOOFER" and high neled to heavy duty 10 -watt WOOFER and high trequencies handled by special designed $31 / 2$ " "TWEETER" speaker. Builtin bridging network allocates proper requencies to each speaker unit. ohm output by merely connecting 2 -wire speaker leads to output of Radio of amplifier. Improved ALNICO-5 Magnet in both "TWEETER" and "WOOFER" speakers. Dustproof voice colls size. Shipping weight, 6 lbs. STOCK No. 3188.12 EXTENDED RANCE DUAL SPEAKER $\$ 9.95$
SYSTEM. EET EACH SYSTEM. NET EACH

## 15-INCH COAXIAL DUAL SPEAKER SYSTEM

 Truly a super-value is "his big 15 " Extended Range coaxial speaker- Mag net with 15 -watt audio power handling capacity special 5" "TWEETER' high frequency speaker inbuilt cross-over network 8 -ohm $11 / 4^{\prime \prime}$ voice coll. Overall size, $153 / \mathbf{g}^{\prime \prime}$ diameter $\times 91 / 2^{\prime \prime}$ deep. Shipping weight, 12 lbs The ideal speaker for tine home Radio-Phono, Broadcast Station Monitor Schools. Auditoriums, cic. Freq. ronge 55 to 12,000 C.P.S. Stock No. 31B9. $15^{\prime \prime}$ EXTENDED RANCE COAXIALSPEAKER SYSTEM. NET EACH
$\$ 17.95$

## 



THE IMPERIAL CONSOLE "A" A complete, one piece console cobinet for housing all equipment needed in o record chonger slideout drawer ond 2 boss reflex enclosure for 15 " speaker, tuner, ampliftier, etc. Dimensions: (inside) record changer drower $171 / 2^{\prime \prime} \mathrm{W}$., $13^{\prime \prime}$ $\mathrm{H}^{\prime}$, $\mathrm{B}^{\prime \prime} \mathrm{D}$.; other comportments, $18^{\prime \prime} \mathrm{W}$. $101 / 4^{\prime \prime} \mathrm{H}$., $17^{\prime \prime} \mathrm{D}$. canels lend a and raised vee-matched selected imported monogony pulls provide on aftroctive color note. Size overall $371^{\prime \prime} 2^{\prime \prime} \mathrm{W} .3^{\prime \prime} \mathrm{H}$., $18^{\prime \prime} \mathrm{D}$. Shpg. wh. 125 lbs
No. 40A83
251 Cordovon Mohogony
Eoch
$\$ 189.00$
BASS REFLEX CABINET "B"
Beautifully styled speaker cabinet, designed to ocheve the famous Jensen "bassreflex" performance with $15^{\prime \prime}$ speaker. Hos four conceoled cutouts, ony two of which may be used for controls supplied with co-ax speakers. ideal for separate
speoker use as well as basic unit in customode assemblies. Complete with foot

 Go. GENERAL PURPOSE CABINET " ${ }^{\text {C" }}$ "
Provides storage for more than 200-12 or 10 inch records in albums. Fully enclosed flush back. Shelf clearance: bottom shelves, $131 / 2^{\prime \prime}$, top shelf $6^{\prime \prime \prime}$ overall size $36^{\prime \prime} \mathrm{H}$., $18^{\prime \prime} \mathrm{W}$. $18^{\prime \prime} \mathrm{D}$. Shpg. Wt. 40 lbs . Oórder toot ossembly with $14^{\prime \prime}$

SIDE HINGED CABINET "D"
For housing puners, omplifiers, changers etc. Plywood veneer sub-panel furnished loose with cleats ond screws. stack of 3 . For recerder changer, order motar board and slide assembly.
No. 40 A 84
N 31
 DROP FRONT CABINET "E'S

Ho. 40A88

| No. 404888 |  |  |  |
| :--- | :--- | :--- | :--- |
| No. 40 A89 | N303 Cordovan Mahogany <br> N203 Blonde Mahogany | Choice <br> Each | $\$ 38.50$ | MOTORBOARD and SLIDE ASSEMBLY (1) To convert side hinged cobinet ${ }^{\text {to }}$ record changer. plywood motor-board

Wsth mig. screws.
No. 40494 Cordovan No. 40495 Blonde Eoch.
$\$ 8.50$
FOOT ASSEMBLIES (2)
Set of 2 solid motching papered feet and 2 connecting guide strips.


${ }^{\prime}{ }^{E}$ "



This ensemble comprises cabinet " $C$ " of left, of speaker cobinet " $B$ " ond three stacked cabinets " D " at right. From this it is easy to figure out combinations to suit any particular need or taste. A popular combination is as pictured, with oddition of cabinet " E " on top of speaker cabinet " $B$ ". Write for literature, suggesting many varied combinations using the units listed above.


A TOD Qualoty instrument, Low Priced. It brings you the matchless tone quality of high-fidelity naise free FM plus powerful, sharply selective AM reception. Ideal for modermizing old sets and for new custom combinations.

Features: AC Super-het, improved FM circuit, Drift compensoted. 12 tubes plus ectifier and electronic puning indicato mance. Treble tones for odded perfor mance. Treble tone control. 6 gang Puning condenser-AvC. Is watt Audio Output. Indirectiy lllum inated Slide Rule diol. Smooth flywheel tuning. Antenno for AM and folded dipole for FM with provision for external antenna. Wired for phono operation.

Multi-fop oufput tronsformer, 4, 8 and 500 ohms

Tubes: 1-6BE6, 1-6SG, 1-6SH7, 1-6AL5 1-6C4, 1-5BE6', 1-6SQ7, I-7F7,'2-6V6GT' $1-5 Y 3 G T, 1-6 U 5$.

Speaker: 12 inch PM with Alnico $V$ mag net, 25 wotts rating.

Supplied ready to operate, with rubes, antennas, speaker and all nécessary hardware for maunting in cobinet, including escutcheon. Chassis dimensions: $131 / 2^{\prime \prime}$ in 2 cartons.

No. 30899 Cpte. os obove
$\$ 96.00$

# TERRIFIC B-A SmashVahw HITS! 



Of course the famous maker wan't let B-A tell his name-this identical chassis and speaker is in a current model Radio-Phono-TV console combination at $\$ 995.00$.
Lucky for him, he didn't buy as many combination cabinets as he built up AM-FM radio chassis before he found that people prefer TV and Radio sets in separate units.
He switched production to TV sets alone. They sold so fast there was no time or room for the AM-FM chassis he had in excess of combination cabinets. B-A was called. We haggled for a price to give our customers a Really Smacking Value. Here it is!
Even if we can't name the brand here. . it's one you can depend on-believe us-a name respected Nationally for leadership in quality since radio began
There are things you just can't hide. . you'll see at a glance, value of at least twice our low price of $\$ 59.88$. . you'll see a precision built, de-luxe AM-FM chassis of the kind you would expect in a $\$ 995.00$

## combination.

Check these features and you'll see what we mean
Full coverage of standard AM and FM broodcasi bands from a completely modern circuif, using lotest top quality components and 13 tubes, including rectifier as follows: 5-6BA6, 1-12AT7, 1-6AL5, 1-6BE6, 2-6AT6. 2-6V6 and rectitier
$1-5 U 4 G$.
Mos 5 -section tuning condenser, rubber-mounted; iuned RF siage on both FM and $A M$; 3-1F stoges on $F M$ plus ratio detector. All FM and $A M$ circuits are extremely stable and sensitive. The oudio system uses push-pull 6 V 6 tubes for $a$ full 10 watts of wide-range, undistorted sound.
Confrols af front consist of separate Boss and Treble tone, On Off/Volume, Tuning and AM-FM-TV-PHONO selector switch. At the rear are phono connections for TWO record changers or one changer and wire or tape recorder. Also has audio input for a television funcr allowing full use of the high fidelity oudio system. Also provided are AC sockets for both record Changer and A , tuner plus connections for outdoor $A M$ and $F M-T V$ antennas Antenna, AC and Audio connections for $A M, F M$. TV and Phono ore switched automarically by the front ponel selector switch.
The attractive edge-lighted, gloss, slide-rule dial is tilted for modern installation. With slight alteration, dial tilt can be varied to vertical or horizontal
position, chassis remoining in normal position. The well-proportioned size plus
the universal mounting feature of the dial make this chassis especially de siroble for eitrer custom installafion in built-ins ar modernizing old setsdeally suited for the new drawer type mounting. Supplied with bezel frim and moiched set of knobs for neat finish to any installation. Chassis size overall $14^{\prime \prime}$ wide, $123^{\prime \prime}$ deep, $10^{\prime \prime}$ high. Equipped with built-in rubber shock nounts. The AM loop ontenno exiends ll" at side, but con be remounted were most desirable.
Jensen 12-inch Exfended Range Migh Fidelity PM Speaker ALSO INCLUDED at NO EXTRA COST. Provides unusually high quality reproduction - No where but of B-A can you get SO MUCH FOR ONLY $\$ 59.88$
For 110 volt, 60 cycle AC operation. Shpg. Wt. 21 lbs.
No. 34A189-2. Chossis and Jensen Speoker. Eoch one Brond New in originol foctory pocking.

## Complete reody to operote.

SPECIAL EACH
$\$ 59.88$
Quantities of course are limited. subject to prior sole and we regret ony disoppointments if there ore not enough to 90 oround os hos been the case in other B-A Specimi Durchose Volues.

## CASCO ELECTROMAT/C

POWER TOOL KIT WITH 50 ACCESSORIES for WORKING GLASS, PLASTIC, WOOD, METAL, ETC.


No. 328252, Reials for $\$ 19.95$ W. 6 lbs Deoler's Net Price Eoch
Lots of

Handsomely packaged in a sturdy, lustrous, bur gundy plastic chest keeps power tool and ac
cessories safe and ready for instant use.
Power tool features: Im proved E $\times$ ir O Quality
Fractional H P Motor with built-in staitic sup pressor-runs over 20,000 $R P M-A C$ or $D C-110-$
120 volts. All working 120 volts. All working toleronces, assuring prouble tree operation and long life.

Complete with 50 varied and proctical occessories to do any job at home, shop or office. The Greatest Value Ever Offered in the Power Tool field. A de luxe outfot popularly priced for the Amateur or Protessional Cratisman.
$\$ 11.97$

FAIRCHILD DRILL and POLISHER KIT


ELECTRICALLY DRILLS
WAXES . . . POLISHES GRINDS . . . SANDS . . . FINISHES . . . ond hundreds of other uses in the shop or home. Kit consists of: Sturdy Metal Case with attrac tive grey wrinkle tinish and nickel plated snap caich-New Improved Farchild $1 / 4^{\text {" }}$ Electric Drill which reatures a sturdy lacquer finished cast aluminum alloy housing with balanced 1200 RPM 110 volt AC -DC 1200 RPM 110 volt AC-DC motor and sturdy 3 low chuck drill when grinding, etc. . Adaptor for aftaching accessories to drill... $4^{\prime \prime}$ sanding and polishing back up disc...6 sanding dises... $43 / 4$ " Lambswool polishing bonnet back up disc scratch brush ...4 4 high speed dills, $1 / 4,3 / 16,1 / 8$ and $3 / 32 \%$ attachment to electrically mix paint. W 8 tbs
No. 36B50. A GREAT VALUE! Retals for $\$ 26.25$

Foirchild Drill Kit-consists of above Metal Case, Drill and 7 high speed iwist drills, sizes $1 / 16$ to $1 / 4^{\prime \prime}$ by 32 nds. Wt. 7 lbs.
Dealer's Cost $\$ 15862$ to 6
$\$ 14.976$ and over, $\$ 13.98$
Foch oild Drill only, Retgils for $\$ 15.95$. Stock No. 37432 Wt. 4 lbs

Eoch SEE PAGES 82 to 91 for A WIDE SELECTION OF HANDY TOOLS


A combination of custom quality high-fidelity FM-AM radia reception, plus superb reproduction of all three types of records, the $78,331 / 3$ and $45^{\circ}$ RPM An outstanding musical instrument possessing a wealth of features rarely fund in on ossembly selling in this price ronge.
its beoutiful classic georgion cabinet is of rich mahogany. Full closing hinge doors swing back to side of cabinet, out of way when open. Handy pullout drower houses the popular GI changer. plays automatically all home re-cords-all speeds-all sizes. Lorge storage space for records, $15 \times 15 \frac{1}{2} \times 13^{\prime \prime}$ Meissner factary assembled, utilizes their 9-1093 funer and amplifier desc ibed betow. Foithful tone reproduction is assured by the use of a superlotive $10^{\prime \prime}$ PM Speoker.
Two built-in ontennas are supplied with provision for connecting external AM and FM ontennos.
Overall size $35^{\prime \prime}$ wide, $341 / 2^{\prime \prime}$ high, $18^{\prime \prime}$ deep-weighs croted for shipment 136 lbs. For 110 volt 60 cycle AC operation.
B-A Stock No. 40B61 List Price $\$ 405.00$. NET EACH


## tilkssiki

FM-

## RADIO PHONOGRAPH

## A TRIUMPH in Exquisite Beauty

FAITHFUL TONE AVD ADVANCED ELECTRONIC ENGINEERING

$$
\$ 298^{50}
$$

## MEISSNER Model 9-1093 AM-FM TUNER and AMPLIFIER INCOMPARABLE IN TONE IN PERFORMANCE

Two indoor antennas are supplied, a $12 \times 16^{\prime \prime}$ noise reducing loop for AM, a 300 -ohm folded dipole for FM. Provision is made for connecting external AM and $F M$ ontennos.
The amplifier is designed for on 8 to 16 ohm speaker, (not included). Power supply: $105-125$ V. 60 cycle AC. included. Power supply: 105-125 V. 60 cycle Tubes as follows: three 6SK7, one 6SA7, one 6H6, five Tubes as follows: three 6SK7, one 6SA7, one 6H6, five
6AG5, one 6C4, two 9001. one 6AL5, two 6J5, one 6AG7GT, two 6L6, ane 5 Y 3 G , one 5 SV 4 G and one 6UN/6G5.
Tuner mtg. space: $14 \frac{1}{6 \prime \prime} \mathrm{~W} . \times 121^{\prime \prime} \mathrm{D} . \times 83 / \mathrm{m}^{\prime \prime} \mathrm{H}$. Amplifier: $71 / 3^{\prime \prime} \mathrm{W}^{\prime} \times 161 / a^{\prime \prime} \mathrm{O}^{\circ} \times 7^{7} \mathrm{H}$. iallow clearance above amp. for ventilation). Tuner $w t$. 18 lbs., Amp. 27 lbs.
Both Tuner and Amplifier as shown above, is supplied complete with tubes, and all hardware needed ta mount chassis units in cobinet. Cobinet and speaker not included.
B-A Stock No. 31 A 75 List Price $\$ 310.00$
Net for Tuner and Amplifier

$$
\$ 18600
$$

## MEISSNER Model 9-1091 AM-FM.TUNER ONLY

FOR THOSE WHO LIKE EXCEPTIONAL HI-FIDELITY Covers $527-1620 \mathrm{KC}$ and $88-108 \mathrm{MC}$. Response is flot within plus or minus 2 db . from 30 to 15,000 cycles. Separote bass and treble controls. Sensitivity is less than 10 mv . Selectivity for AM may be made either "Brood" or "Sharp". Output is 8 volts of the high impedance terminals and 75 volts ot the 500 -ohm terminals. Phono input terminals are provided. Any antenno may be used for AM. The FM section is designed for balanced 300 -ohm transmission line.
Tubes in AM Section: 9003-RF omp., 6BE6-oscillaterconverter, 29003 I. 9 mo 1456 KCi 6 AL -detector Converter, ${ }^{2}$ 9003.F. amp 1456 KCi, GAL5-detector; verter, 3 6AG5-I.F. omp. ( 10.7 MC ), 29001 -limiters,

1 6AL5 armstrong detector, 2 6C4 oudio amp., o 6U56 G 5 tuning indicotor and $5 \mathrm{Y} 3 \mathrm{GT} / \mathrm{G}$ rectifier.
Chossis measures $165 / 8 \times 1014^{\prime \prime}$ (requires $11 / 4^{\prime \prime}$ odditional between chassis and panell with Slide Rule Dia (requires $2 \times 712^{\prime \prime}$ opening). Calibrated in KC on AM and in channel numbers (200-300) on FM.
Supplied Complet: with Tubes, dial and escutcheon plote. For $105-125$ volts 50-60 cycle AC.

No. 31474
List Price $\$ 245.00$
Your Cost

$$
\$ 14700
$$




[^0]:    converter fransformer aligning adjustments. With tubes and
    No. 14A199. Net Each 537.53

[^1]:    60,000-Volt Hi-Voltage
    No. 35 AlOO . Series TV-2 Probe. Net Each
    Nols
    \$15.14
    Fine Leather Carrying Case for Series 85 above.
    No. 35B16. Net Each
    $\$ 8.57$

[^2]:    兵

[^3]:    

[^4]:    No.
    $17 A 206$ 184206 184405 CHOICE

    Octal
    4. Pron
    CHOICE, S-Pron
    65 Lots of 4C

[^5]:    

