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STEREO / HI-FI 1966 DIRECTORY

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The Fisher 440-T



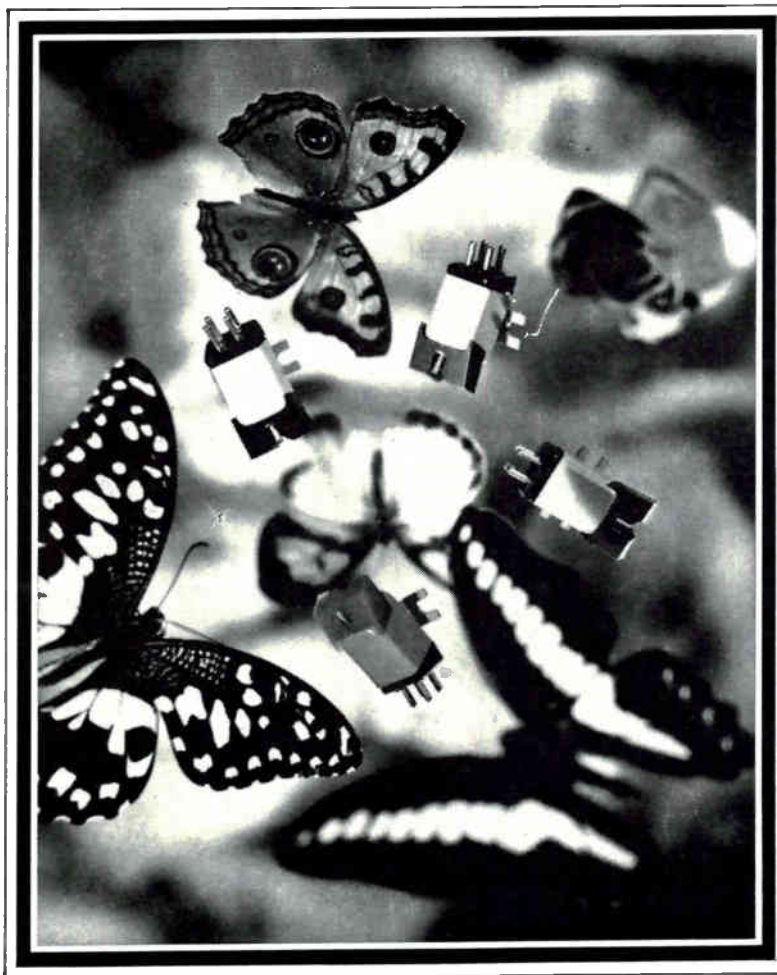
ACTUAL SIZE !

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- *No output transformers—therefore no limitation of bass performance or of transient response because of transformer characteristics.*
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- *Four wide-band IF stages and three limiters.*
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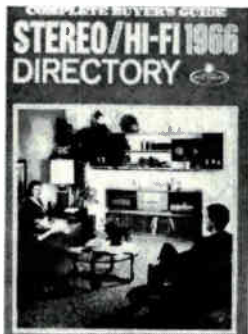
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**THE SOUND OF GOOD MUSIC
ADDS ENJOYMENT TO LIVING**



Our cover typifies one of the many approaches to modern decor through the use of component hi-fi equipment. Sherwood Electronic Labs' Model S9900 amplifier and S3000V tuner; the "Townsend" Model 82-2 turntable by Weathers (courtesy of TelePro Industries, Inc.); Empire Scientific Corp.'s "Grenadier" Model 8200 speaker systems; Sony Corp.'s stereo "Tapecoder" TC-250A; Sonotone Corp.'s "Ceramide"

CMT-10 microphones; and Koss, Inc. "Pro-4" headphones. Cabinet by Barzilai Furniture Mfg. Co., Inc., made available to us through the courtesy of Toujay Designs, Inc. of New York, designers and major distributors of all types of hi-fi equipment cabinets. The chair, walnut lamp and cigarette tables, sofa (all "Avant" design) and lamp by Kroehler Mfg. Co.; nylon carpeting, The Magee Carpet Company's "Color Bazaar." Room designed by S. Squire Associates. Photo by Ernest M. Silva.

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STEREO/HI-FI 1966

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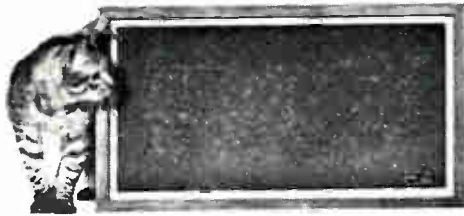
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By WALTER O. STANTON

President

INSTITUTE OF HIGH FIDELITY, INC.



President of Pickering & Company, Inc., he is also president of the Institute of High Fidelity, Inc. Holder of many patents in the audio field, he is also past president of the Audio Engineering Society.

GUEST EDITORIAL

IF sales growth is any indication of an industry's responsiveness to consumer demands, then the hi-fi component industry is certainly heeding the demands of enthusiasts across the nation. In the past ten years, annual sales have quadrupled from \$25 million in the mid-1950's to an estimated \$100 million last year. The present annual growth rate for the industry ranges between 10 and 15 percent.

Looking back a few years, it is interesting to note that in the electronics area, following World War II, only component hi-fi and radio-television companies centered their basic marketing efforts on the consumer. This is in sharp contrast to the bulk of electronics firms whose marketing approaches, initially at least, were aimed at government work, although some have since entered the consumer market as well.

The Institute of High Fidelity has played no small part in the steady growth of the industry. Most of the nation's leading manufacturers of hi-fi component equipment are active IHF members. The Institute's basic purpose is to promote public appreciation of the benefit of hi-fi component equipment and to bring about the introduction of such equipment in more and more American homes.

A major part of this effort has taken the form of hi-fi shows, exhibits, and seminars, now held annually in major metropolitan areas. This year's Los Angeles Show, held at the Ambassador Hotel from March 10th through 14th, was one of the most successful in the history of the Institute. The annual New York Show is scheduled for September 29th through October 3rd, at the New York Trade Show Building, New York City.

There will be more than 100 sound demonstrations at the show and attendance is expected to top all other shows thus far. Exhibits will feature two of the fastest moving developments in the industry—home video tape and stereo tape equipment for cars.

Currently, the Institute's exhibit in the Better Living Pavilion at the New York World's Fair features the exciting story of high fidelity, dramatically told in color photographs.

Recently, the Institute, through a network of 1800 recognized dealers, has been distributing reprints of a *House and Garden* article, "Sound Conditioning for Music," which is slanted to the distaff side of the family. It explains how hi-fi components add to the attractiveness of home décor.

Another instance of the Institute's public service role was its successful campaign for the repeal of the Federal excise tax on hi-fi components. Also for customer convenience, hi-fi dealers are listed as "Authorized IHF Dealers" in the yellow pages of metropolitan area telephone directories.

Presently, the Institute is conducting, through its dealers, a component system photo contest, emphasizing ingenuity and decorative appeal in installations, with thousands of dollars in prizes, including a flight to Europe for two. For each prize won by a customer, the dealer whose name will appear on the entry blank, receives the identical prize. The contest runs through November 30, 1965.

Realizing the importance of constant and constructive action on behalf of high-fidelity, the Institute pledges the continuation of consumer-slanted projects. This year, greater emphasis has been placed on consumer surveys, discussions, and seminars at high-fidelity shows. The upcoming New York Show will be no exception. A full schedule of seminars is slated to bring attendees up to date on the latest advances in components.

Information is also being made available to builders, architects, and decorators in the form of a book prepared by the Institute.

As in the past, the Institute will continue to work to put high-fidelity components within the reach of those who enjoy listening to music at its very best.

DIRECTORY OF Hi-Fi Manufacturers

Listing shows the identifying page numbers on which manufacturer's products are described.

ACOUSTECH, INC. 17, 109 139 Main St., Cambridge, Mass. 02142	CRAIG PANORAMA, INC. 78 3412 S. La Cienega Blvd., Los Angeles, Calif. 90016
ACOUSTIC RESEARCH, INC. 37, 109 24 Thorndike St., Cambridge, Mass. 02141	CROWN INTERNATIONAL— Subsidiary of Intern'l. Radio & Electronics Corp. 78 1718 W. Mishawaka Rd., Elkhart, Ind. 46517
ACOUSTICA ASSOCIATES, INC. 109 5331 W. 104th St., Los Angeles, Calif. 90045	CUSTOM CRAFT MFG. CO. 120 P. O. Box 605, Orangevale, Calif.
ADC—Audio Dynamics Corp. 43, 48, 109 Pickett District Rd., New Milford, Conn.	DELCO RADIO—Div. of General Motors Corp. 120 Kokomo, Ind. 46901
ALTEC LANSING—Div. of LTV Ling Altec, Inc. 17, 53, 63, 110, 165, 172 1515 S. Manchester Ave., Anaheim, Calif. 92803	DUAL—United Audio 37, 43, 79 12 W. 18th St., New York, N.Y. 10011
AMERICAN—Greentree Electronics Corp. 99 2135 Canyon Dr., Costa Mesa, Calif.	DYNACO INC. 18, 43, 48, 63, 80, 166 3912 Powelton Ave., Philadelphia, Pa. 19104
AMERICAN MICROPHONE CO.—Div. of Electro-Voice, Inc. 165 Buchanan, Mich. 49107	EDITALL—Elpa Marketing Industries, Inc. 104 New Hyde Park, N.Y. 11044
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AMPLIFIER CORP. OF AMERICA 74, 104 398 Broadway, New York, N.Y. 10013	ELAC—Benjamin Electronic Sound Corp. 43 80 Swalm St., Westbury, N.Y. 11591
APPARATUS DEVELOPMENT CO., INC. 151 Drawer 153, Wethersfield 9, Conn.	ELECTRO-VOICE, INC. 20, 54, 64, 120, 147, 160, 166 Buchanan, Mich. 49107
ARGOS PRODUCTS CO. 112 600 S. Sycamore St., Genoa, Ill.	EMI—Scope Electronics Corp. 48, 125 235 E. 42nd St., New York, N.Y. 10017
ARGUS-X ELECTRONICS, INC. 116 315 West End Ave., New York, N.Y. 10023	EMPIRE SCIENTIFIC CORP. 37, 43, 49, 126 845 Stewart Ave., Garden City, N.Y.
ASTATIC CORP., THE 43, 166, 172 Conneaut, Ohio 44030	ERIC ELECTRONICS CORP. 20, 54, 64, 147 2115 Colorado Ave., Santa Monica, Calif. 90404
AUDIO ORIGINALS 158 546 S. Meridian St., Indianapolis 25, Ind.	EUPHONICS CORP. 44, 49 Guaynabo, Puerto Rico
AUDIOTAPE—Audio Devices, Inc. 100, 104 235 E. 42nd St., New York, N.Y. 10017	FANON-MASCO—Fanon Electronic Industries, Inc. 80, 104 439 Frelinghuysen Ave., Newark, N.J. 07114
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BARZILAY FURNITURE MFG. CO. INC. 159 17303 S. Western Ave., Gardena, Calif. 90247	FERROGRAPH—Ercona Corp. 80 432 Park Ave. S., New York, N.Y. 10016
BENJAMIN—Benjamin Electronic Sound Corp. 116, 147 80 Swalm St., Westbury, N.Y. 11591	FINCO—The Finney Co. 152 34 W. Interstate St., Bedford, Ohio 44014
BOGEN COMMUNICATIONS— Div. of Lear Siegler, Inc. 17, 37, 53, 63, 147 P. O. Box 500, Paramus, N.J. 07652	FISHER RADIO CORP. 20, 38, 54, 64, 126, 147, 172 21-21 44th Dr., Long Island City 1, N.Y.
BOZAK, R. T., MFG. CO., THE 116, 160 587 Connecticut Ave., South Norwalk, Conn.	FRAZIER INC. 127 2469 Brenner Dr., Dallas, Texas 75220
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CHANNEL MASTER CORP. 18, 63, 76, 119, 147, 151 Ellenville, N.Y. 12428	GARRARD—Div. of British Industries Corp. 38, 50 Westbury, N.Y. 11591
CLARK, DAVID, CO., INC. 172 360 Franklin St., Worcester, Mass. 01601	GENERAL ELECTRIC CO. 44 2200 N. 22nd St., Decatur, Ill. 62525
COMPONENTS CORP. 48 Denville, N.J.	GRADO LABORATORIES, INC. 45, 49, 50 4614 Seventh Ave., Brooklyn, N.Y. 11220
CONAR INSTRUMENTS—Div. of Nat'l. Radio Institute 18, 172 3939 Wisconsin Ave., Washington, D.C. 20016	GRAETZ—Warman Precision Products Corp. 80 172 Madison Ave., New York, N.Y. 10016
CONCERTONE—Div. of Astro-Science Corp. 76, 104 9731 Factorial Way, South El Monte, Calif. 91733	GRAY RESEARCH AND DEVELOPMENT CO. DIV. 49 333 Roberts St., East Hartford, Conn. 06108
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	GROMMES—Precision Electronics, Inc. 21, 55, 65 9101 King St., Franklin Park, Ill.
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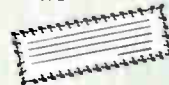
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CITADEL RECORD CLUB

545 Fifth Avenue, New York, N. Y. 10017 ST-6

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- \$4.00 enclosed. Both record and tape membership. (Complete Harrison tape catalog as well as the Schwann catalog sent)

FULL NAME _____
STREET _____
CITY _____ STATE _____

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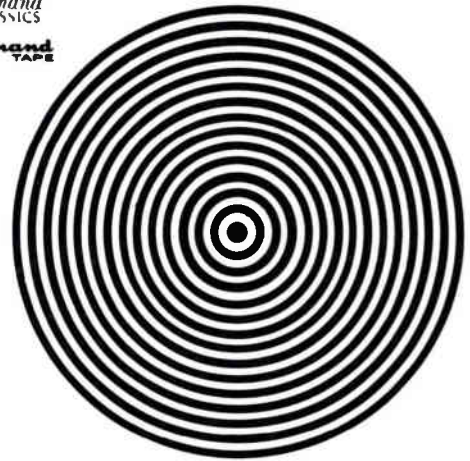
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HEATH CO.—Subsidiary of Daystrom, Inc.	21, 55, 65, 128, 162	RADIO CORPORATION OF AMERICA	40, 59, 88, 100, 139, 148, 168, 175
<i>Benton Harbor, Mich. 49023</i>		<i>30 Rockefeller Plaza, New York, N.Y. 10020</i>	
INTER-MARK CORP.	80	REALISTIC—Radio Shack Corp.	30, 40, 59, 70, 139
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<i>15th and Lehigh, Philadelphia, Pa. 19132</i>		<i>New Hyde Park, N.Y. 11044</i>	
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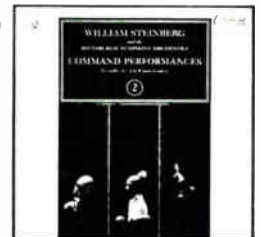


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WHAT ARE THE IMPORTANT HI-FI EQUIPMENT SPECIFICATIONS?

By JULIAN D. HIRSCH

IN COMMON with the manufacturers and distributors of audio equipment—and the magazine publishers who are one of their links with the public—I would like to see the high-fidelity industry wax and grow prosperous. I would like to be able to convince the maximum number of people of the virtues of good sound reproduction, not only for the tangible benefits this would bring to the industry, but—even more—for the many intangible benefits that would accrue to the listener.

My own point of view has always been that of the consumer. I want to see him get a fair deal—but this is not without its complications. The average layman considering the purchase of a complex electrical or mechanical device, whether it be a washing machine, a television set, an automobile—or a high-fidelity component—is, it must be admitted, at something of a disadvantage. Who among us has the spare time, the energy, or even the opportunity to acquire enough technical knowledge about any of these complicated products to make a well-informed decision about either quality or value? With some of these products, of course, use and experience are so widespread that the potential buyer can draw on many sources—friends, relatives, and neighbors—for trustworthy information on which to base his decision. When it comes to buying hi-fi components, however, the average man usually finds himself pretty much at sea. Although it is within the realm of possibility that an audiophile neighbor or a knowledgeable local high-fidelity salesman could lead an audio novice straight and true to the set-up ideally suited to his means and interests, the odds are distinctly in favor of his ending up ensnared in a mess of misinformation.

Consumer testing organizations such as Consumer's Union can give very helpful advice in a number of product areas, but I find their approach is frequently much too arbitrary in a field such as high fidelity, for hi-fi components do not lend themselves readily to an un-

equivocal ranking of “good, better, best.” In other words, in making judgments among reasonably similar hi-fi components, one simply cannot say with assurance that A is better than B or worse than C. But, human nature being what it is, people still want to be told positively which is “the best,” and will continue to search for someone to give them the answer—even if the answer doesn't exist.

It has been my experience that many people go out shopping for high-fidelity equipment without first having arrived at a clear idea of which features are truly significant and which are trivial or of little practical importance. Lacking a technical background to help keep things straight, it is easy to become confused by conflicting advertising claims and unfamiliar technical specifications. In fact, I have known some otherwise-competent electronics engineers to cherish some rather odd, not to say incorrect, ideas about the performance of high-fidelity components and about the requirements for good reproduction.

Since, apparently (and strangely), most people place more trust in published specifications they do not understand than they do in the verdict of their own ears, it would be well to place these specifications in their proper perspective. The point under discussion here is not whether such specifications are honest, but simply which are important or meaningful, and which can safely be discounted.

FM Tuners

Let's start with one of the most widely used signal sources, the FM tuner. For various reasons, people tend to attach undue importance to a tuner's sensitivity rating. The fact is, however, that it matters little whether a tuner is rated in the sensitivity race at 1.9, 2.2, or 2.5 microvolts. Except in fringe areas (more than 50 miles from a station), signal strength will probably be in the tens or hundreds of microvolts, if not more. And in any case, adding a good antenna system will probably do far more

to improve reception of weak signals than would a premium-price tuner—and probably at less cost. I consider the most significant features of a tuner to be its distortion and quieting levels, its capture ratio, and its ease of tuning.

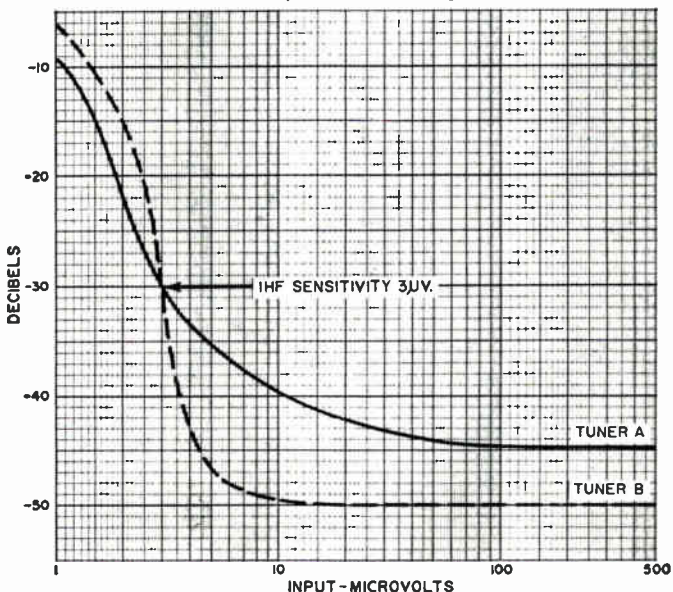
The ease-of-tuning question is a subtle one and, perhaps for that reason, is seldom mentioned. I do not mean by “ease of tuning” whether the unit has a flywheel or whether the dial calibrations are accurate, but whether the tuner will deliver a low-distortion output *when tuned with ordinary care*. Some tuners will yield a low-distortion output only when tuned with the aid of a distortion analyzer under laboratory conditions.

It is possible that two tuners with the same IHF Usable Sensitivity rating may require widely different signal-input levels to achieve a fully quiet background. This is illustrated in the accompanying graph, where tuner A and tuner B both have a distortion/noise level of -30 db at 3 microvolts—by IHF standards, their Usable Sensitivity rating. However, because of a difference in the slope of the curves, tuner A does not reach its *maximum* quieting level of -45 db until its input signal is about 100 microvolts. Tuner B, on the other hand, reaches -45 db at 4.5 microvolts, and at all higher input-signal levels has a quieter (-50 db) and cleaner output signal than tuner A. Clearly, tuner B is superior to tuner A, but one could not discover this solely by checking their sensitivity figures.

Factory-wired stereo tuners selling for under \$200 can be perfectly satisfactory for all but the most critical listener. These tuners are not the most sensitive, nor, in general, do they have the lowest distortion—and they lack some of the automatic convenience features. Nevertheless, it takes a very critical ear indeed to detect any difference on most broadcasts between many of them and the most expensive tuners made.

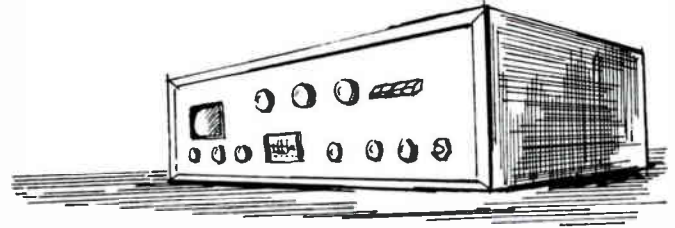
Tuners in the \$200-\$250 bracket offer the highest performance presently available from the standpoint of sound quality. Many manufacturers offer models more than twice as expensive, with such conveniences as automatic stereo switching, interstation-noise muting, remote-control tuning, multipath indication, vu meters, and the like. These features, of course, are nice to have, but the buyer should be aware that what he is usually paying for in this case are convenience and prestige, not performance. And even when a “deluxe” tuner can be shown to be technically superior, the quality of FM broadcasting, in many cases, renders this superiority superfluous.

Quieting-sensitivity curves for two tuners. Note same 3-microvolt sensitivity, but differing quieting ratio.



A distorted or poorly equalized broadcast will sound no better on a \$500 tuner than it does on one costing \$100.

Transistorized tuners have a lower operating temperature than tube models, but also tend to be somewhat more costly for comparable performance. There is no “transistor sound” in tuners, but transistor tuners, may, owing to low operating temperatures and the stability characteristic of transistors, remain in alignment far longer than tube tuners. Ventilation considerations may, in some cases, also favor the selection of a transistor tuner.



Power Amplifiers

What about amplifiers? Usually the principal specification quoted is the power output. How high this figure should be is determined by two things: your taste in listening levels and your choice of speakers.

I have found that audible differences between amplifiers are usually very small—except, of course, in comparisons between the very best units and the lower-price economy models. Most people cannot, in fact, hear the difference between a \$100 amplifier and a \$350 amplifier. There are *measurable* differences, of course, and if these are also audible to your golden ear and if they are sufficiently important to you, then by all means get the best amplifier you can afford.

It is surprisingly easy to be swayed when a persuasive salesman or an overenthusiastic hobbyist points out the “obvious” audible superiority of one amplifier over another. But if you cannot really hear the sonic marvels being called to your attention, don’t immediately conclude that your perceptions are faulty. I freely confess, without shame, that I frequently do not hear the much-touted improvements in performance achieved by some new amplifier (or other component). Perhaps I have a tin ear—but I doubt it.

Aside from purely sonic considerations, the more expensive amplifiers are likely to be better built, and to use more reliable components in a more conservative design, than the cheaper ones. This might be a major factor influencing your choice, since a good amplifier can deliver full performance for many years with minimal maintenance. In addition, bear in mind that when a manufacturer makes a line of amplifiers of different power ratings, the differences usually go beyond mere wattage: in general, the more powerful units have better power bandwidth, lower distortion at all power levels, and greater control flexibility. Since you may at some future date replace your speakers with units requiring more amplifier power, this possibility should also be taken into account.

For someone who is not genuinely sensitive to the admittedly subtle superiorities of the more expensive amplifiers, there is always the most reasonable choice: an amplifier of appropriate power made by the same company that made his tuner. This is the best guarantee that the tuner and the amplifier will be both electrically and aesthetically compatible.

The best choice for most installations is the integrated amplifier. Separate power amplifiers and control amplifiers are advantageous when amplifier power is high and when the ultimate in performance and control flexibility are desired, but they are more expensive than integrated units and may not produce any noticeable improvement in



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JULIAN HIRSCH, Hi Fi/STEREO REVIEW.

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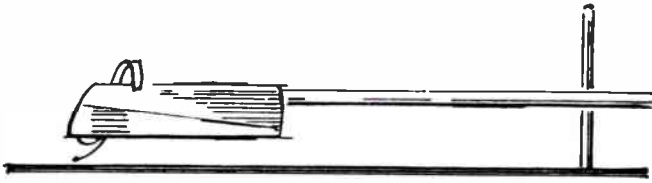
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sound. They do, however, offer a real advantage in installations where cabinet ventilation is a problem. The power amplifier may be located in another room or even in the cellar or attic, where its heat can be dissipated without the need for a fan or blower. For years I have kept my power amplifier in the garage adjacent to my listening room, with excellent results.



Record Players & Tonearms

When choosing a record player, avoid "bargain" record changers or turntables of obscure or unknown make. At prices between \$50 and \$100 there are many satisfactory—and well-known—changers and single-play turntables. Turntables in the \$100 to \$200 price bracket may be superior in some respects to less expensive models, but not always. In any case, the differences are usually slight, and not necessarily audible.

There are measurable differences in rumble and other characteristics among various turntables, but almost all the standard brands are capable of satisfactory performance. Over the long run, a single-play turntable is likely to prove more reliable than a record changer, by virtue of its simplicity of construction. Really good record changers (or "automatic turntables") cost more than single-play turntables of comparable performance, and unless you have a collection of 78- or 45-rpm records, or you like to have hours of continuous background music, a record changer may offer no real advantage.

Don't place too much faith in the turntable-rumble figures quoted in a manufacturer's sales literature as a basis for comparisons, since different manufacturers use different measurement standards. If your speakers have good bass response down to 30 cps, ask a reputable dealer or your speaker manufacturer for advice on a compatible turntable.

I HAVE found that the tonearm, which has a great deal to do with the performance of the cartridge, nevertheless has surprisingly little influence on its sound. Most currently popular arms have very low tracking error and bearing friction, and will not hinder any cartridge from doing its best job. For me, the major distinctions between arms are: handling convenience, ease of installation, and freedom from resonance or mechanical-shock effects. If at all possible, handle the tonearm at your dealer's showroom before you buy it. If there is a finger lift, it should be so designed that it does not tend to fly from your grasp when the arm is moved quickly. The "feel" of the arm should be such that you can place the stylus anywhere on the record without undue fumbling. It is also helpful if the arm leaves the stylus visible for cueing—although this is as much a function of the cartridge design as it is of the arm's. Some arm-cartridge combinations are stable and quite insensitive to acoustic feedback or jarring; others are very susceptible to these problems. Bear in mind that although the integrated tonearm/cartridge combinations tend to be relatively free from such instabilities, they must also be replaced as a unit should you decide to upgrade your arm or cartridge at some future date.

In cartridges, there is very little correlation between price and audible performance. Over a four-to-one price range, the sound quality differs so little that it is indistinguishable except in direct A-B comparisons using two tone-

arms playing in the same groove—and sometimes not even then. There are many cartridges in the \$20 range that will deliver top-quality sound. By paying much more (\$40 to \$75) it is possible to get a cartridge which operates at a lower tracking force, has a somewhat better tracking ability, and a slightly more "transparent" sound. Probably only the audio hobbyist, whose associated equipment is all on the same high level, can justify the expense of the deluxe cartridges (which are, I must admit, superb devices). Whatever cartridge you choose, it will probably perform best if you don't try to operate it at the lower limit of its rated tracking force.

Loudspeakers

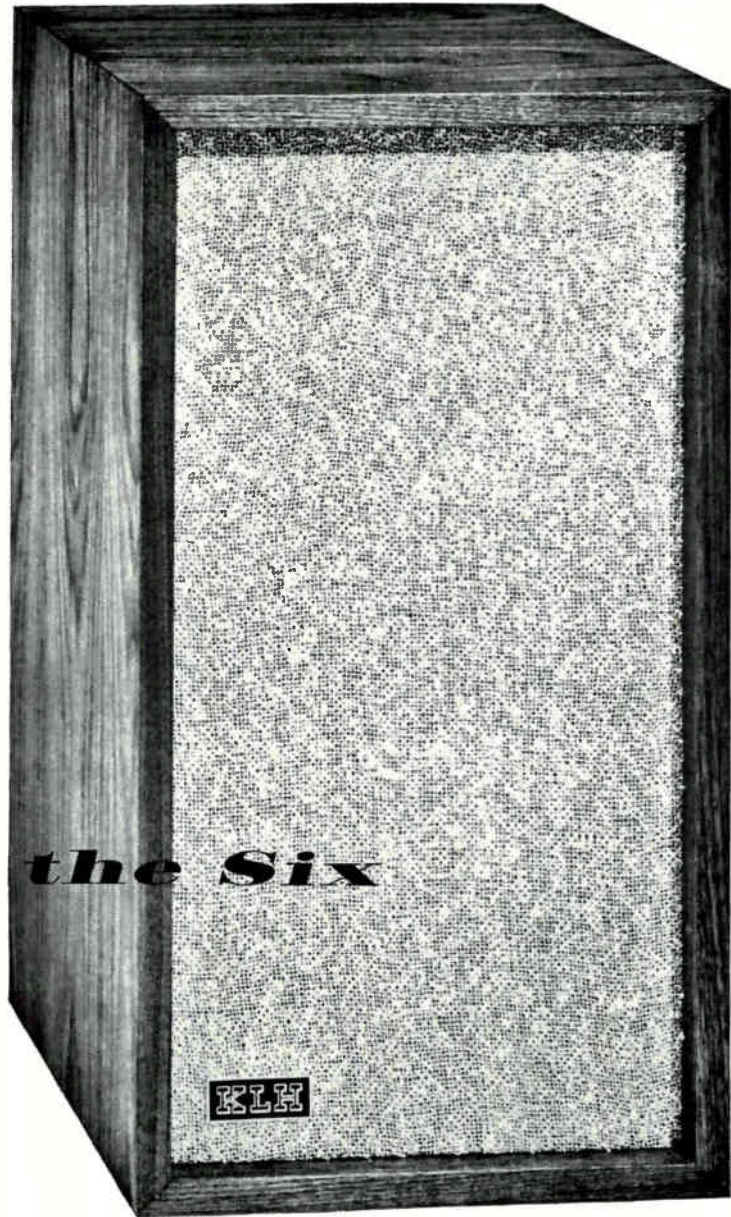
I have left the subject of loudspeakers for the last because they are particularly problematical. Amplifiers and tuners can be depended on, in general, to deliver what you pay for. Speakers, however, are available in an enormous variety of sizes, shapes, and models, spread over a price range of approximately 100 to 1, and with performance qualities often bearing no necessary relation to price. And add one further complicating factor: speaker specifications are, more often than not, untrustworthy. Such statements as "response of 20 to 20,000 cps," to cite but one of the more familiar phrases used in advertisements, are almost wholly without meaning in predicting just how a speaker will sound. I have heard good \$40 speaker systems—and miserable-sounding \$400 systems. I have come across several under-\$100 speaker systems that can deliver what I consider true high-fidelity sound. This sort of thing leaves the speaker shopper in the unhappy position of having no trustworthy guidelines to follow in the very area he needs them most. The answer? Trust your own ears, or follow—with some caution—the recommendations of someone in whom you have confidence. If at all possible, listen to a few of the more expensive systems in your dealer's demonstration room, then to some of the less expensive models. You will find that some cheaper systems come out quite well in such a comparison. If you are considering buying "raw" speakers and putting them in your own enclosures, try to audition them in a similar enclosure and be prepared to do some "cut-and-try" experimenting.



THE VAST, complicated, and highly competitive field of high fidelity today is, I confess, a thoroughly confusing one. But surprisingly—and gratifyingly—the average level of quality is high throughout. This alone is a safety factor of some importance to the bewildered buyer. Further than that, I cannot do better than to repeat the injunctions above. (1) Don't buy on specifications alone—particularly those you don't really understand. They may be of no consequence whatsoever in your own listening situation. (2) Don't buy a "difference" in sound quality you cannot actually hear yourself. It may in fact be there—but *you* will be doing the listening. In the more expensive equipment, remember that your money will buy many convenience features, reliability, and long life. But (3) you are not to expect any more than marginal increases in sound quality as the cost increases. Most important of all, (4) trust your ears.

☺

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But the one by which we judge every new product we make is the Model Six.

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We aim at the Six because it gives you the highest quality of performance, *per dollar*, of any speaker we make. Or anybody else makes.

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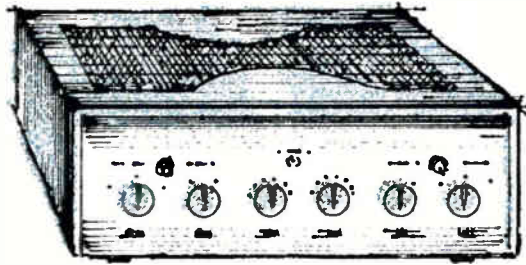
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AMPLIFIERS

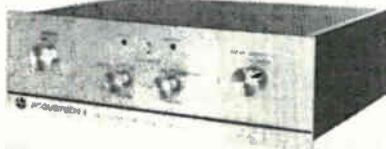
POWER AMPLIFIERS.....	} 17
PREAMPLIFIERS.....	
INTEGRATED AMPLIFIERS.....	



ACOUSTECH

Model I-A Transistorized Stereo Power Amp

40 w./ch. (continuous sine wave) from 20-20,000 cps; 4-8-16 ohms output; clip-



ping power 65 w. @ 8 ohms, 50 w. @ 16 ohms, 40 w. @ 4 ohms; IM & HD each less than 0.45% at rated output; response 5-50,000 cps $\pm 1/4$ db (2.5-250,000 cps ± 3 db); rise time less than 1.25 μ sec.; hum & noise -85 db below 40 w.; damping factor over 25; input impedance 150,000 ohms; all driver & output transformers omitted; 4-AT3260 silicon output transistors plus 5 other silicon transistors, a silicon bridge, and two diodes; 15 3/4" x 5" x 12" d.\$395.00

Model III Transistorized Stereo Power Amp (Kit or Factory Assembled)

Factory pre-built, pre-adjusted plug-in printed-circuit boards; 40 w./ch. (continu-



ous sine wave) from 20-20,000 cps; 4-8-16 ohm output; clipping power 45 watts at 8 ohms; IM distortion less than .45% and HM distortion less than .25% at rated output; rise time below 1.25 μ sec.; hum & noise -85 db below 40 watts; damping factor over 70 at 16 ohms; transformerless direct-coupled circuitry; all silicon transistors; 15 3/4" x 5" x 8" d.; Kit\$199.00
Factory wired\$274.00

Model IV Transistorized Stereo Preamp Kit

Factory pre-built, pre-adjusted plug-in printed-circuit boards; full control func-



tions: 2 bass, 2 treble, level, balance, mode,

input selector, speaker left-right or both, muting, tape monitor; IM distortion; tuner input .09%—phono input .15%; sensitivities: phono 3 mv. or 10 mv. for 2 volts out, all high-level inputs .5 volt for 2 volts out; hum & noise -75 db on tuner; rise time below 1.25 μ sec.; outputs: tape and main; inputs: mag. 1, mag. 2 hi., mag. 2 low, tuner, aux., and tape monitor; front-panel headphone output for phones above 600 ohms; 15 3/4" x 4" x 8" d.; Kit\$149.00

Model V Transistorized Integrated Stereo Amp

All silicon transistor circuitry with direct-coupled transformerless power amplifier



section; all control functions and input sensitivities same as Model IV; no speaker switch; IM distortion under 0.5% at 30 watts equiv. sine-wave power at 8 ohms; HM distortion under .25%; rise time under 1.25 μ sec.; hum & noise 70 db below 30 watts; damping factor over 60 at 16 ohms; front-panel headphone output; 15 3/4" x 5" x 8" d.\$349.00

Model VI Transistorized Stereo Preamp

Factory-assembled control center with stepped tone controls; NAB equalization; 200 ohm output impedance; metal knobs; similar in all other specifications to the Model IV; 15 3/4" x 5" x 8" d.\$249.00

ALTEC LANSING

Model 351B Transistorized Amplifier

50 watt music power mono design; 4-8-16-125 ohm & 70 volt line outputs; sensitivity .45 v.; response 20-20,000 cps ± 1 db; noise 90 db below full output; single level control; protective-circuit sw.; transistors: 2N381, 2N377, Syl 2834, 6-B 1272; 5" h. x 9 3/4" w. x 9 1/4" d.\$252.00

Model 360A Playback Transistorized Integrated Stereo Amp

35 w./ch. music power; HD 1.5% @ 25 w., 20-10,000 cps; response 20-20,000 cps ± 1 db; input sensitivity for 25 w. @ 1000 cps: radio, tape, aux. 400 mv., mag. phono 4 mv., ceramic phono 200 mv., tape head 1.9 mv., mic. 4.5 mv.; output impedance 4/8 and 16 ohms (ctr. speaker 8/16 ohms); damping factor 10; has conventional operating controls; features solid-state circuitry;

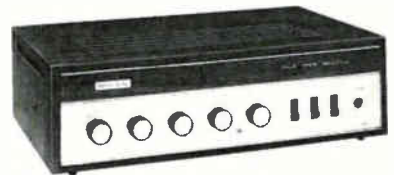


matrixing network for center-channel output; automatic reset circuit breakers for channel protection; 28 transistors, 3 diodes & rectifiers; 15" x 5 1/2" x 11 3/8" d. \$389.00
Case optional\$9.00

BOGEN

AT-400 Integrated Stereo Amp

Transistorized design, 20 w./ch. music power; HD less than 1%; IM less than



1%; power bandwidth 20-15,000 cps; response 15-30,000 cps ± 1 db @ 1 w. Sensitivity 250 mv., mag. phono 3 mv., tape head 2 mv.; hum & noise -60 db (aux. & phono) related to full output, 4, 8, 16 ohm outputs. Has conventional operating controls. 16 transistors; 15" w. x 9" d. x 3 3/4". Design similar to amp. section of RT-4000 FM-stereo receiver.....\$139.95
Walnut wood cabinet (WE 15)....\$ 19.95

Model AT600 Transistor Amp

Integrated design; 30 w./ch. music power; 25 w./ch. sine wave @ 4 ohms; HD .6%

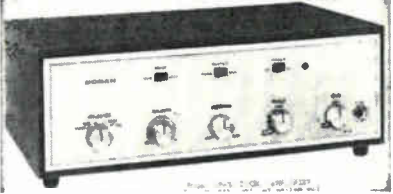


@ 1 kc. at rated output; IM dist. less than 1%; power bandwidth 20-20,000 cps; response 25-50,000 cps ± 1 db. Sensitivity: tuner 250 mv., aux. 250 mv., mag. phono 2.5 mv., tape 1.5 mv. Separation 50 db @ 1000 cps; hum & noise -65 db for tuner input & full output; 4, 8, 16 ohm output. Has all conventional front-panel controls

1 Amplifiers

and 26 transistors with 6 diodes. 15" w. x 10" d. x 4 3/8"\$199.95
 Vinyl-clad walnut metal case.....\$ 14.95
 Walnut case\$ 27.95

Model AP35 Integrated Amp
 Stereo design; 17.5 w./ch. music power; response 20-20,000 cps \pm 1 db; dist. .6%



@ rated output; hum & noise -70 db for tuner at rated output; sensitivity: mag phono/tape head 4.5 mv., tuner/aux. .5 v.; 8 & 16 ohm impedance. Controls are input selector, balance, loudness/volume, treble, bass, mode, speaker/phone. Inputs: phono, tape, tuner & aux. 15" w. x 11 3/8" d. x 4 3/4"\$99.95
 Vinyl-clad metal cabinet.....\$14.95

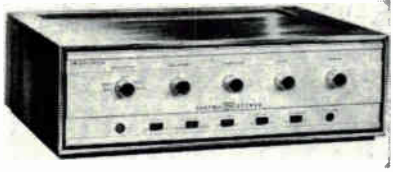
BURSTEIN-APPLEBEE

BA30S-6 Integrated Stereo Amplifier
 15 w./ch.; response 20-20,000 cps \pm 1 db @ 1 w.; harmonic distortion .5% (1000



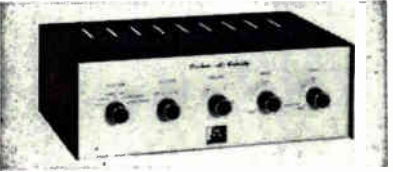
cps); IM dist. 2% @ 10 w.; hum & noise -72 db (tuner) & -52 db (phono) below rated output. Has conventional operating controls. 9 tubes. 13 1/2" x 4 3/8" h. x 9" d.; less cover.....\$59.95
 Metal cover.....\$ 4.95
 Walnut wood cab.....\$12.95

44S-6 Integrated Stereo Amplifier
 22 w./ch.; response 20-20,000 cps \pm 0.5 db; harmonic distortion .6% (1000 cps);



hum & noise -75 db (tuner), -52 db (phono). Conventional operating controls. 9 tubes, 4 silicon rectifiers. 13 1/2" x 4 3/4" h. x 10" d.; less cover.....\$79.95
 Metal cover.....\$ 4.95
 Walnut wood cab.....\$14.95

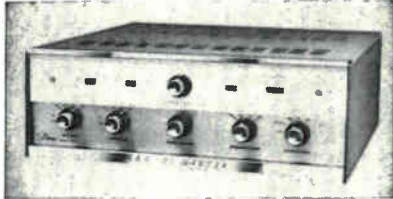
BA20M-6 Integrated Mono Amplifier
 20 w. output; response 20-20,000 cps \pm 1



db; hum & noise -72 db (tuner), -52 db (phono) below rated output. Five controls; 5 tubes including two EL84; 11" x 4" h. x 7 1/2" d.; less cover.....\$29.95
 Brown metal cover.....\$ 4.95

CHANNEL MASTER

Model 6601 Integrated Stereo Amp
 20 watts per channel (music power); 5 mv. for 10 watts on phono input and 250



mv. for high-level inputs; hum level 46 db below full output; response 20-20,000 cps \pm 1 db; harmonic distortion less than 1%; inputs: tuner, aux., tape, ceramic & mag. cartridge; outputs: 4-8-16 ohms; has output for center-channel: bass, treble, loudness controls; rumble, noise, center-channel switches.....\$99.95

CONAR

Model 300 Power Amplifier
 Stereo design 5 w./ch.; response 40-12,000 cps; channel separation 50 db. Has crystal



or ceramic & tuner inputs. Controls: bass, treble, balance & volume. Kit.....\$31.50
 Wired\$41.50

DYNACO

Mark IV Mono Amplifier Kit
 40 watts power, up to 80 watts peak; less than 1% IM distortion at 40 watts; fre-



quency response \pm 0.5 db from 10 cps to 40 kc.; sensitivity 1.3 volts r.m.s. input for 40 watts output; output impedances are 4, 8, and 16 ohms; tubes, 2-EL34, 7199 GZ34 selenium rectifier; over-all size 5" x 14" x 6 1/2".
 Mark IV Kit\$59.95
 Mark IV Factory wired\$79.95

Mark III Mono Power Amplifier Kit

Power output 60 watts continuous up to 140 watts peak; frequency response 6-60,000 cps within 1/2 db at 60 watts; sensitivity 1.6 volts r.m.s. input for 60 watts out; IM distortion less than 1% at rated output; damping factor 15; includes patented Biaset for non-critical balancing control; matched set of KT88 power output tubes; other tubes are 6AN8, GZ34, selenium rectifier; power socket for preamp; printed circuit boards; over-all size 9" x 9" x 6 3/4".

Mark III Kit\$ 79.95
 Mark III Factory wired\$ 99.95
 Mark III-70 4-8-16 ohm & 70.7 volt out-



put\$104.95
 Mark III-500. 500 or 125 ohm output\$109.95

Stereo 35 Power Amplifier Kit
 17.5 w./ch. (continuous sine wave); 22.5 w./ch. music power; IM dist. less than



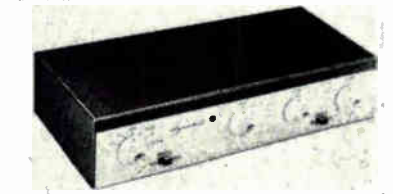
1% at 17 w.; response 10-40,000 cps \pm 1 db; sensitivity 1 v. for 17.5 w. output; damping factor 10; hum & noise -80 db; 8 & 16 ohm outputs; 2-7247, 4-6BQ5, & 2 silicon rect.; 13" x 5 1/2" x 4" h.; with case; kit.....\$59.95
 Factory wired.....\$79.95

Stereo 70 Amplifier Kit
 Two power amplifiers 35 watts each; full 70 watts on mono operation; printed cir-



cuit board; 7199 driver; push-pull EL34's; frequency response \pm .5 db 15-40,000 cps; IM distortion less than 1% at 35 watts; sensitivity 1.3 volts r.m.s. input for 35 watts output; estimated time of assembly 4-6 hours.
 Model 70 Kit\$ 99.95
 Model 70 Factory wired\$129.95

PAM-1 Mono Preamp Kit
 Six inputs: high and low level magnetic phono, tuner, TV, tape, plus option of



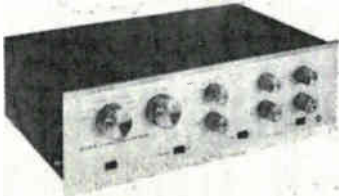
tape head, mike or extra phono position; two outputs, low impedance (1000 ohms), and tape output; equalization for RIAA, LP, 78 rpm records; tape A-B monitor switch; separate bass and treble controls with up to 15 db of boost or cut at 30 cps and 15 kc; loudness control with switch;

IM distortion under .05% at 1.5 volts output; noise level less than 3 microvolts equivalent input noise on RIAA position; frequency response 10 cps to 100 kc, ± 1 db; d.c. filaments, 2-12AX7 or ECC83, selenium rectifier; 4 a.c. outlets, 2 switched; scuff-proof and washable; 12" x 6" x 2 3/4"; 7 lbs.; preassembled printed circuit board.

Kit\$34.95
 Factory wired\$59.95
 PM-1 Panel mounting kit\$ 2.95

PAS-3 Stereo Preamp Kit

Inputs for 3 low level stereo and 4 high level stereo; controls for bass, treble, vol-



ume, balance, blend, tape monitor switch, loudness compensation, feedback scratch filter to eliminate high frequency distortion; RIAA equalization; gain: 60 db at 1000 cps on RIAA, 20 db 20-20,000 cps at high level inputs; d.c. filament supply; tubes are 4-ECC83, 12X4 rectifier; 13" x 8" x 4"; kit.....\$ 69.95
 PAS-3 Factory wired.....\$109.95
 PAS-2 Kit (Same as PAS-3 except styling)\$ 59.95
 PAS-2 Factory wired.....\$ 99.95
 PM-3 Panel mounting kit.....\$ 4.95
 PK-30 Deluxe panel & knob kit (same as on PAS-3) for modernizing PAS-2 units\$ 13.95

SCA-35 Integrated Stereo Amp Kit

Combines dual-channel preamps & power amps; 17.5 w./ch. continuous sine-wave

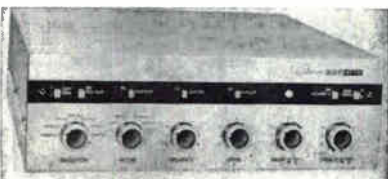


power; response 20-20,000 cps $\pm .25$ db; IM dist. less than 1% at 17 w.; has 7 pairs inputs; mag. phono, low & high levels; ceramic phono; tape head; radio; tape; and spare; controls: selector, volume, balance, bass, treble, stereo/mono, loudness, on-off, filter; sensitivity 2.5 mv. at tape head, 4 mv. mag. phono, 1 v. at high-level inputs; 13" x 10" x 4"; with cabinet; Kit\$ 99.95
 Factory wired.....\$139.95

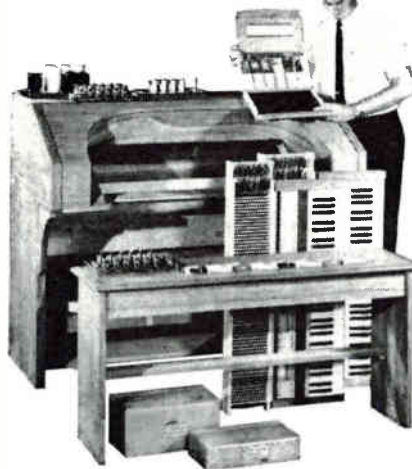
EICO

Model ST-70 Integrated Stereo Amp

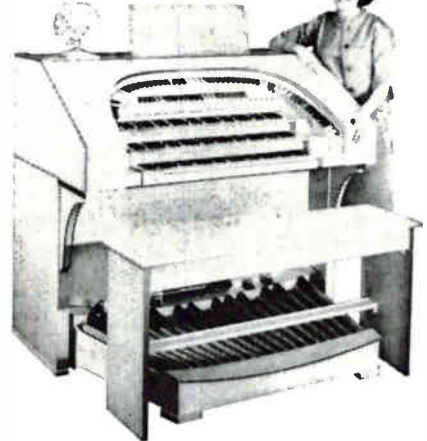
Complete stereo control center and amplifier; two 35-watt amplifiers; inputs for tape head, two mag. phono, FM-AM tuners, multiplex; input selection and mode switches; ganged level and separate balance controls; concentric bass and concentric treble controls; tape monitor, tape



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167	3M 7" 1800'	Acetate	Ea. 1.39 1.29
941-15	Ampex 7" 1800'	Mylar	Ea. 2.69 2.59
A724M	Allegro 7" 2400'	Mylar	Ea. 2.49 2.29
A724T	Allegro 7" 2400'	Ten.Mylar	Ea. 3.49 3.29

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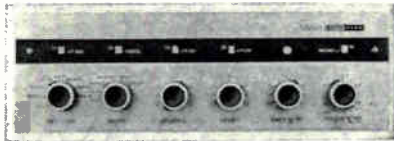
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1

Amplifiers

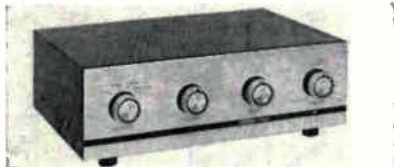
speed, hi-filter, lo-filter, loudness compensation, phase reversal, and balance-check slide switches; center-channel speaker output; IM distortion 1% @ 70 watts; response 9-60,000 cps \pm 1 db. Kit\$ 99.95
Factory wired.....\$149.95

Model ST-40 Integrated Stereo Amp
Similar to Model ST-70 except unit has two 20-watt amplifiers; all controls and



features as in ST-70 but no phase-reversal or choice of tape-speed equalization; IM distortion 1% @ 40 watts; response 12-25,000 cps \pm 1 db.
Kit\$ 79.95
Factory wired.....\$129.95

Model HF-12A Preamp-Amplifier
Power output 12 watts (25 watts peak); Williamson type; 25 to 20,000 cps at 12



watts, \pm 0.5 db; harmonic distortion 2% at 30 cps, 1% at 10,000 cps.
Kit\$39.95
Factory wired\$59.95

ELECTRO-VOICE

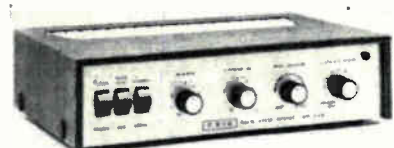
E-V 1144 Integrated Amplifier
Transistorized, 25 w./ch. music power stereo design. Response 20-20,000 cps \pm



1.5 db; HD 1% at rated power 4-16 ohms output. Has computer-type indicator lights indicating input source; inputs: mag. phono, tuner, aux. high-level tape. Has all conventional operating controls plus speaker "on-off" and headphone jack. 3 3/8" x 8 1/4" x 10 1/2" d. With cabinet.....\$124.50

ERIC

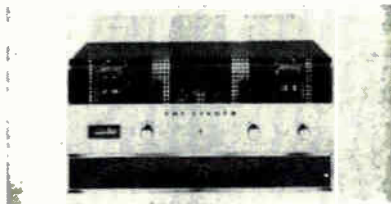
SA-40P Integrated Stereo Amplifier
All-transistor design featuring 10 w./ch. music power; inputs for magnetic cartridge



& tape deck. Has tape output. 2 1/2" h. x 10 1/2" x 7" d.List \$89.00

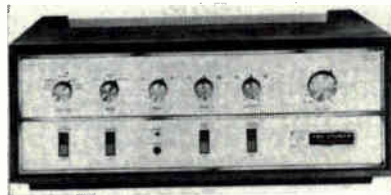
FISHER

Model K-1000 Stereo Power Amp
65 w./ch. continuous sine-wave; HD .25% & IM dist. .4% (both at rated output);



response 20-20,000 cps \pm .5 db; 8-48,000 cps \pm 1 db; sensitivity .5 v.; 15 1/4" x 7 3/4" x 12" d.; less cabinet.
Kit\$279.50
SA-1000 Factory wired.....\$329.50

X-100-C Integrated Stereo Amp
25 w./ch. music power at .5% HD. Features speaker on/off sw.; center-channel

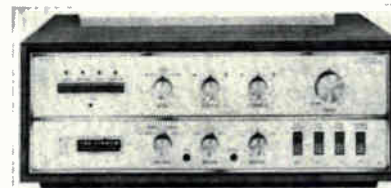


output; tape monitor; hi-freq. filter. Response 20-20,000 cps \pm 1 db; power bandwidth 25-40,000 cps. IM distortion .5% at rated output; hum & noise -80 db; sensitivity: high-level inputs 320 mv., phono inputs 3.5 mv., tape head 2 mv. 4-8-16 ohm outputs. 15 1/2" w. x 4 1/8" h. x 11 7/8". Less cabinet.....\$169.50

X-101-D Integrated Stereo Amp
30 w./ch. music power output @ .5% HD. Has tape monitor, hi-freq. filter; speaker selector; center-channel output; 2 tape recorder outputs. Response 20-20,000 cps \pm 1 db; hum & noise -80 db; power bandwidth 22-43,000 cps; IM dist. .5% at rated power. Sensitivity: high-level inputs 350 mv., phono inputs 3.5 mv., tape-head inputs 2 mv. 4-8-16 ohm output. Appearance similar to X-100-C. 4 1/8" x 15 1/2" w. x 11 7/8" d. Less cabinet.....\$199.50

X-202-C Integrated Stereo Amp
42 w./ch. music power @ .5% HD. Features tape monitor, speaker selector sw., 2 sets of low-level phono & tape-head inputs; low & hi-freq. filter. Response 20-20,000 cps \pm 1 db; hum & noise -80 db; power bandwidth 22-45,000 cps; IM distortion .4% at rated power. Sensitivity: high-level inputs 265 mv., phono inputs 3.5 mv., tape-head inputs 2 mv. 4-8-16 ohm output. Appearance same as X-100-C. 15 1/2" w. x 4 1/8" h. x 11 7/8". Supplied less cabinet.\$249.50

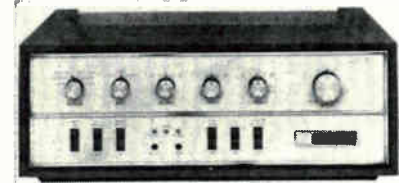
TX-300 Transistorized Integrated Amp
50 w./ch. music power @ .5% HD; IM dist. .5% at rated output; power bandwidth



12-50,000 cps; hum & noise -80 db; separation 55 db @ 1 kc. Has tape monitor, speaker selector sw., high & low filter; push-button selector sw. (tuner, tape play, aux., low level). Sensitivity: phono 2.8

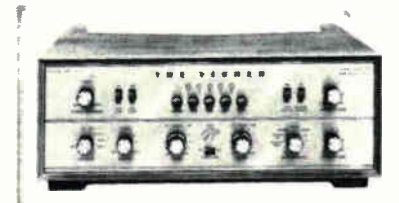
mv., tape head 1.8 mv., microphone 2.2 mv., aux. 200 mv. 4 & 16 ohm output. 15 1/2" x 4 1/8" h. x 11 7/8" d. Less cabinet\$329.50

TX-200 Integrated Amplifier
Transistorized design; 45 w./ch. music power (35 w./ch. r.m.s.); HM dist. .5%; hum & noise 80 db below rated output; channel separation 55 at 1 kc.; response 20-



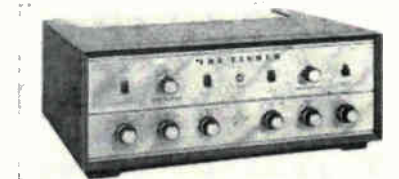
20,000 cps \pm 1 db; input sensitivity: phono low 4 mv., phono high 7.5 mv., tape head 2.2 mv., tuner-aux. 280 mv., monitor 280 mv. Features 6-pos. selector sw., 3-pos. mode sw. plus other conventional operating controls including speaker silencing switch. Has 25 transistors & 4 diodes. 15 1/2" w. x 4 1/8" x 11 7/8" d. Supplied less cabinet\$279.50

Model 400-CX Stereo Master Audio Control Center
Push-button control selectors; record-monitor facilities; controls for bass, treble,



phase, scratch and rumble filters; 10 tubes; 15 1/2" x 11 1/2" x 4 1/8"\$199.50

Model KX-200 "Stratakit" Integrated Amp
Combination amp-preamp; dual-channel design; 40 watts per channel music power



at .4% harmonic distortion @ 1000 cps with both channels operating; response 20-20,000 cps \pm 1 db; sensitivity 350 mv. high-level, 3.5 mv. low-level; high-frequency and subsonic frequency filters; 14 front-panel controls; 10 tubes; full-wave silicon rectifiers; 15 1/2" w. x 12 1/2" d. x 4 1/8" h.; less cabinet; kit.....\$169.50

Model KX-100 "Stratakit" Integrated Amp
Similar to Model X-100-C; combination amplifier and preamp, dual-channel design; 25 watts per channel music power at .5% harmonic distortion at 1000 cps with

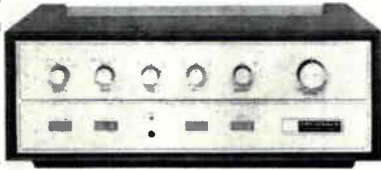


both channels operating (24 w. r.m.s.); response 20-20,000 cps \pm 1 db; sensitivity

16 mv. high level, 3.5 mv. low level; has high frequency and subsonic frequency filters; front-panel earphone jack; 14 front-panel controls; 10 tubes, 2 silicon rectifiers; 15½" w. x 12½" d. x 4½" h.; less cabinet; kit\$129.50

KX-90 "Stratakit" Integrated Amp

20 w./ch. music power (17 w./ch. r.m.s.) at .5% HD; IM dist. .8%. Response 20-20,000 cps ± 1.5 db. Input sensitivity: tape

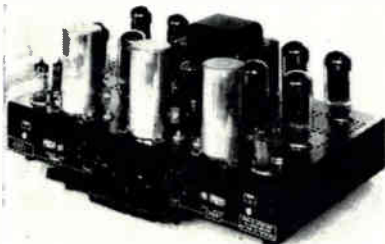


head 2 mv., phono lo 3.5 mv., phono hi 8 mv., tuner/aux./tape monitor 300 mv. Hum & noise -80 db (below 17 w., high level); has all essential operating controls, with speaker silencing sw. & phone jack. 15½" x 4½" x 11½" d. Supplied less cabinet; kit\$99.50

FUTTERMAN

Model H-3 Power Amp

Transformerless stereo design with 50 w./ch. r.m.s. output with 15 or 16 ohm load.

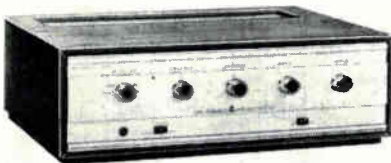


Response +0. -5db 5-90,000 cps (-3 db at 200 kc.). HD less than .2% at rated output. IM dist. less than .05% at rated output. Damping factor 200. S/N ratio 90 db below 50 w. Has less than 2.0 μsec. rise time. Requires 2 v. r.m.s. to drive amp to rated output. With cage.....\$288.00

GROMMES

C-25 Integrated Amplifier

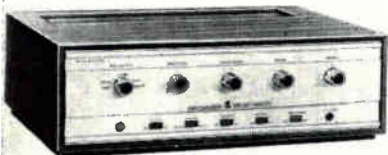
12½ w./ch. music power; response 20-20,000 cps ± 1 db @ 1 w.; power band-



width 45-20,000 cps; HD .5% @ 1000 cps; IM distortion 2% @ 10 w. Features stereo inputs for mag. phono, crystal phono, tuner & aux. Input sensitivity .006 v. mag. phono, .25 v. for tuner & aux. 4, 8, 16 ohm-outputs. 15" x 4¾" x 11" d.\$99.95
WC-2 Walnut cabinet.....\$17.95

C-40 Integrated Amplifier

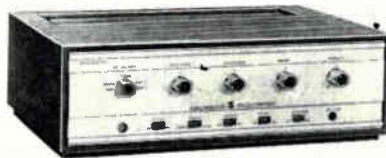
20 w./ch. music power; response 20-20-



000 cps ± .5% @ 1 w.; power bandwidth 30-20,000 cps; HD .6% @ 1000 cps; IM distortion 2% @ 1000 cps. Features stereo inputs for tape head, mag. phono, tuner & aux. Input sensitivity: .003 v. tape, .002 v. mag. phono & .15 v. for tuner & aux.; 4, 8, 16 ohm outputs. 15" x 4¾" x 11" d.....\$139.95
WC-2 Walnut cabinet.....\$ 17.95

C-41 Integrated Amplifier

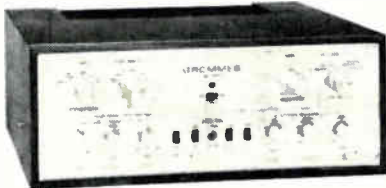
25 w./ch. music power (20 w./ch. r.m.s.) transistorized design. Response 10-100,000



cps +0. -1 db @ 1 w. (20-20,000 cps ± .5% @ 20 w.); HD .3% @ 1000 cps; IM dist. .5% @ 20 w.; damping factor 30. Features stereo inputs for tape head, mag. phono, tuner, & 2 aux. Input sensitivity: .003 v. tape. .002 v. mag. phono & .15 v. for tuner & aux. Hum & noise -80 db for high level inputs.; 4, 8, 16 ohm outputs. 15" x 4¾" x 11" d.....\$179.95
WC-2 Walnut cabinet.....\$ 17.95

Model 3000 Integrated Amplifier

60 w./ch. music power (50 w./ch. r.m.s.) transistorized design. Response 10-100,000

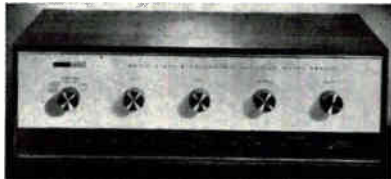


cps +0. -1 db @ 1 w. (20-20,000 cps ± .5% @ 50 w.); damping factor 30. Features stereo inputs for tape head, mag. phono, tuner, aux., tape, tape monitor. Input sensitivity: .003 v. tape head. .002 v. mag. phono, 15 v. for tuner, aux. & tape. Hum & noise -85 db for high-level inputs. Outputs: 4, 8 & 16 ohms. ctr. speaker, tape recorder & phono. 15" x 6½" x 13¼" d.....\$279.50
Walnut cabinet.....\$24.50

HARMAN-KARDON

"Stratophonic" SA-2000 Integrated Amp

Transistorized 18 w./ch. music power stereo design with on-off-volume, balance,



bass & treble, contour, hi- and lo-cut, speaker defeat & tape monitor controls. Has headphone jack, phono & tape inputs, two aux. inputs; response 8-25,000 cps ± 1 db at 1 watt; 10-23,000 cps at rated output. Harmonic distortion less than 1%; hum & noise -90 db; damping factor 25:1; square-wave rise time 5 μsec. 13¼" x 4¾" x 8¾". Walnut enclosure optional....\$159.00

HEATH

AA-21D Transistorized Amplifier

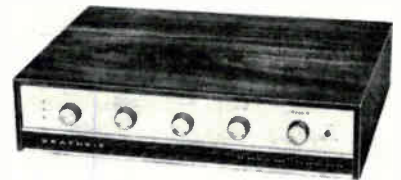
Integrated preamp and power amplifier; dual channel; 35 watts (8-ohm load) per channel continuous sine-wave or 50 watts



per channel music-power rating; response 13-25,000 cps ± 1 db at max. power: 26 watts (16-ohm load) sine wave; 18 watts (4-ohm load) sine wave; harmonic distortion less than 1% @ 20 cps, .5% at 1000 cps, 2% @ 20,000 cps; IM distortion less than 1% at rated output; channel separation 55 db; has all conventional operating controls many of which are mounted behind hinged front panel; 26 transistors and 10 diodes; 15½" w. x 5¼" h. 14" d.; (kit) Less cab.\$137.00
AE-11 Walnut cabinet\$ 12.95
AE-15 Metal cabinet\$ 6.95

Model AA-22 Transistorized Amplifier

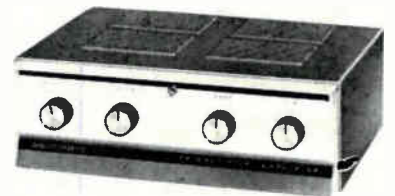
Integrated stereo design features 33 w./ch. music power; 20 transistors & 10 diodes.



Response 15-30,000 cps ± 1 db; 4,8,16 ohm output. Has 5 stereo inputs (mag. phono, tuner, tape recorder & 2 aux.). Front-panel controls: mode (mono, stereo, stereo reverse); 5-pos. input selector sw. & bass & treble tone controls. Power output 33 w./ch. @ 8 ohms, 18 w./ch. @ 16 ohms, 16 w./ch. @ 4 ohms—all music power rating @ .7% THD, 1 kc.; HD less than .3% @ 1 kc. and at rated output. IM dist. less than 1% at rated output; separation 60 db at 1 kc.; input sensitivity (20 w./ch. & for 8 ohms) mag. phono 6 mv., all others .25 v.; 15½" w. x 3¾" h. x 11¾". Kit.....\$99.95

Model AA-23 Integrated Amplifier

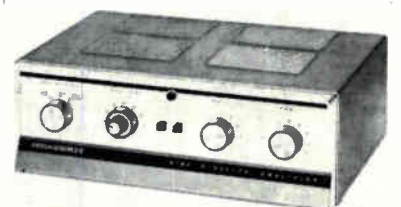
Mono design; 25 w. sine-wave power; response 30-15,000 cps ± 1 db at 25 w.; HD less than 2% at 30-15,000 cps, 25 w.; IM



less than 2% at 25 w.; inputs for mic., mag. phono, crystal or ceramic phono, aux.; bass & treble tone controls: 4-8-16 ohm outputs: 13½" x 4½" x 9½". Kit.....\$42.95

Model AA-32 Stereo Amplifier

Integrated stereo design features 16 w. cont. sine-wave. 20 w. music power. Response



30-30,000 cps ± 1 db. HD 2% at rated output; IM distortion 3% at rated output. Has 4 stereo inputs, mag. & ceramic cart-
(Continued on page 24)

HOW MUCH AMPLIFIER POWER DO YOU REALLY NEED?

By JULIAN D. HIRSCH

AMONG audio enthusiasts and just plain music listeners, the question "How much amplifier power do I really need?" continues to be one of high fidelity's major puzzlements. Even among professionals, there are some rather hazy ideas about the relationship between amplifier power and the loudness of the sounds that issue from the speakers. Much has been written on the subject—most of it factually accurate—yet the uncertainty remains.

To understand the question, it is first necessary to appreciate the relationship between electrical and acoustical power. Acoustical power is measured in watts, just as is electrical power. If a loudspeaker were 100 percent efficient in converting electrical energy into acoustical energy, it would produce an output of one acoustic watt for an input of one electrical watt from the amplifier. In terms of the volume of air moved and the amount of sound thus produced, one acoustic watt is actually a great deal of power, and few loudspeakers designed for home use can deliver much more than this over a wide frequency range.

It is a little-appreciated fact that it is *not* necessary to recreate the original acoustical power output of a symphony orchestra in order to achieve "concert-hall" loudness in your living room. This would mean your playback system would have to produce in the neighborhood of 70 *acoustical* watts of peak power! The fact is that all your loudspeakers need do is develop the same sound pressure *at your ears* as you would have experienced in the concert hall. The acoustical power required to achieve this varies greatly and depends on the size of your listening room and its acoustical absorption qualities. Not everyone, of course, likes to listen to recorded music at concert-hall level, and it is one of the major virtues of home music systems that they allow the listener to tailor the sound to his own preference. Background music in a small room might require only a small fraction of an acoustic watt, while an attempt to recreate full orchestral volume in a large room could call for several watts of acoustical power.

Loudspeaker Efficiency

Once we have decided on a suitable range of *acoustical* power for our listening, the question becomes, more specifically, how much *electrical* power is required to get it? The power requirement is determined for the most part by the efficiency of the loudspeaker, but it is also affected somewhat by the loudspeaker's position in the room. Inefficient speakers, such as the acoustic-suspension types, may require 100 watts of amplifier power to develop one acoustic watt output. At the other extreme, some horn-loaded systems approach 50 percent efficiency and thus may need only two watts input to produce one acoustic watt output.

Efficiency in loudspeakers, although it is most often expressed as a simple fixed percentage, usually varies greatly throughout the frequency range of a loudspeaker. For this reason, manufacturers generally rate loudspeaker efficiency at some mid-range frequency—where it is likely to be greatest. Although a low-efficiency speaker requires more amplifier power to produce a given loudness level than a more efficient one does, it is important to remember that *efficiency has no bearing on a loudspeaker's sound quality.*

As a matter of fact, some speakers that are rated as having low efficiencies are actually *more* efficient below 50 cps than some of their "high-efficiency" competitors.

Almost all high-fidelity amplifiers have power-output ratings somewhere between 12 and 75 watts per channel. After you have chosen a loudspeaker—presumably on the basis of listening preference—the question arises as to how much amplifier power is needed to drive it. Sometimes the choice of amplifier and speaker is made in reverse sequence, but the same interrelationship exists. I am not concerned here with amplifier qualities other than power output, but the over-all performance of a high-power (and high-price) amplifier is likely to be superior to that of a lower price, lower power model.

IT MAY be that the rather general theoretical and/or textbook approach of most of the foregoing is of little help in solving your particular power problem. In order to develop some practical guidelines on this question of amplifier-power requirements, I decided to make some tests on my own music system.

Some Practical Measurements

My first measurements were made with a medium-efficiency speaker system in a rather bright (acoustically "hard") room of about 1500 cubic feet. At my usual comfortable listening level for music the speaker required about $\frac{1}{2}$ watt power input on musical peaks. At very high volume (actually too loud for comfort), the power was 16 watts on peaks.

I use the terms "comfortable" and "very high" to describe my personal taste in playback volume, but tastes differ, and what I consider to be very loud might well be not loud enough for someone else. I usually do not attempt to approximate the original sound levels in playback—except occasionally with chamber music—because I find the acoustic presence of a hundred-piece orchestra in my living room to be rather disturbing. I suspect that this would be so even if the reproduced music were minus the inevitable distortions of the recording and playback process. For anyone who likes his music at "natural" volume levels, the amplifier-power figures I measured might well have to be increased by a factor of ten or more.

I next made measurements in my 2500-cubic-foot living room, which is reasonably well-damped with furniture and carpeting. The speakers used were low-efficiency types. Here, to achieve even a barely noticeable background-music level, a $\frac{1}{4}$ -watt electrical input to the speaker was required, and for what I consider a normal listening level (compatible with conversation being carried on in the room), 2 watts peak power was required. Turning up the loudness to about as loud as I would ever listen for pleasure required 9 watts on peaks. Finally, I turned up the volume in order to approximate the original sound level of the program. To reproduce this level in my living room required some 50 watts of power on peaks. Although conversation was not possible at this level, the sound was clean, and I have heard much louder reproduction at audio shows.

Since I found that 50 watts of peak power was adequate

for very loud reproduction with an inefficient speaker, it might be concluded that a good amplifier with a 25-watt average-power output rating (which is equivalent to 50 watts peak power for sine-wave signals) could be used satisfactorily in my installation. Experience has shown me that this is not so. For one thing, this would not leave any margin for "turning up the volume just a little bit more," and a few more listeners in the room could absorb enough energy to require as much as 3 db more power. This relatively moderate increase in sound level would require a disproportionately high increase in power fed to the speaker. For a 3-db increase in sound, which is actually barely noticeable, the amplifier power would have to be *doubled*. Thus, as the maximum power capabilities of an amplifier are approached, there is very little reserve power to take care of the occasional need to "turn it up just a little more." For this reason, if you like your music reproduced at natural or higher levels, and if you are using a low-efficiency speaker, the most powerful amplifier you can get is probably none too large.

Excessive Power Output

Finally, to see how much power I could pour into the speaker without damage to it—or to my eardrums—or overdriving the amplifier (which can deliver over 65 watts average power per channel throughout the audio range), I turned up the volume as high as I could without producing observable distortion. At this level, I measured peak powers of over 110 watts. The volume was too deafening for me to enjoy the music, but I know some audio enthusiasts who thrive on this sort of "larger-than-life" reproduction.

Many speakers have efficiencies several times greater

than the ones I used. The power requirement, naturally, goes down in proportion to the increased efficiency of the speaker. With some very efficient speakers, more than 15 watts of amplifier power is quite unnecessary. But it is important that the amplifier be able to deliver its 15 watts at low distortion not only at 1000 cps, but at 30 and 15,000 cps as well. Many low-power amplifiers are unable to maintain even their low rated power output at the frequency extremes. The realities of amplifier merchandising in this country are such that few really good low-power amplifiers are made. For this reason, many of us use amplifiers that are more powerful than we really need.

There is one situation, however, in which too much amplifier power is definitely undesirable. Speakers that are rated for low power inputs can be damaged by excessive power, even of brief duration. This is particularly true of some full-range electrostatic speakers, as well as those with ribbon tweeters. With these, it is best to follow the manufacturer's recommendations as to amplifier power, or to fuse the speaker line.

To summarize, the amplifier-power requirements of a home music system are difficult to define rigorously, because of variations in listening environment and personal tastes, as well as in speaker characteristics. If the speaker manufacturer recommends some minimum or maximum amplifier power rating, it is well to follow his recommendations. Driving a speaker rated at 10 watts with a high-power amplifier is risky, but, on the other hand, with low-efficiency speakers, don't be afraid to use a 60- or 70-watt amplifier. Other factors being equal, a high-power amplifier will usually have an easier, more relaxed sound than a low-power unit.

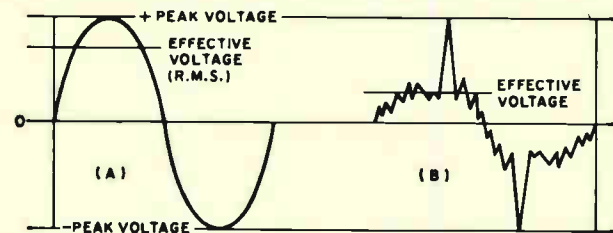
"PEAK", "AVERAGE", AND IHF MUSIC POWER

IN music reproduction, the relationship between peak power and average power is frequently misunderstood. The situation is not helped by the fact that average power is also referred to variously as *continuous*, *r.m.s.*, *effective*, and *sine-wave* power. The measurement of an amplifier's average power output using a sine-wave test signal is a fairly simple procedure. A load resistor equal to the impedance of the speaker is connected across the amplifier's output terminals, and a sine-wave test signal fed into the amplifier's input causes a voltage to be developed across this resistor. The formula $W=E^2/R$ (where W is the power in watts, E is the effective or r.m.s. voltage, and R is the resistance of the load resistor in ohms) is used to determine the power output of the amplifier.

To understand the meaning of peak power, we should first refer to the sine wave shown at A in the accompanying diagram. We see that the sine wave's amplitude (which represents voltage) is not constant, but varies from zero to a maximum, or peak, value. However, when a complete cycle of the sine wave is analyzed, it has an effective value. This is the value we refer to when we say, for example, that the line voltage in our home is 120 volts. This effective value of a sine wave is always 7/10 of its maximum, or peak value. Or, looking at it another way, the peak voltage of a sine wave is 1.4 times its effective voltage. (The relationship between peak and effective voltage is shown at A in the diagram.) To calculate a sine wave's peak power, we first multiply the effective voltage by 1.4 to convert it to peak voltage. Then, when the peak voltage, rather than the effective voltage, is substituted in the equation $W=E^2/R$, the amount of peak power works out to be exactly twice the average power. Thus, for example, 25 watts of average sine-wave power is equivalent to 50 watts of peak sine-wave power.

It must be emphasized that this one-to-two relationship holds only when we are referring to sine waves. Music waveforms are usually quite different from sine waves; a music waveform might look like the one shown at B—irregular and jagged. Here the average power is much lower than the peak power. The ratio between the average power and peak power is likely to be one-to-ten, rather than one-to-two. Thus, musical material may call for an amplifier output of, say, two watts of average power, yet require twenty watts of output during brief musical peaks. To satisfy this condition, a ten-watt average sine-wave power amplifier would provide the required peak output of twenty watts.

The IHF music-power rating is somewhat different. The assumption is that amplifiers are used to reproduce sound, not sine waves, and since a music-wave pattern (shown in B) consists of sharp peaks, this type of reproduction does not unduly burden the power supply of the amplifier. The power supply's output voltage re-



mains fairly constant. In a good design, the power supply would allow the amplifier to handle both music waveforms and sine waves equally and, therefore, the two ratings are quite similar. In a less expensive design, the power supply is compromised and will be heavily taxed with a sine-wave signal. In cases like this, the music-power rating would be considerably higher than the continuous sine-wave rating.

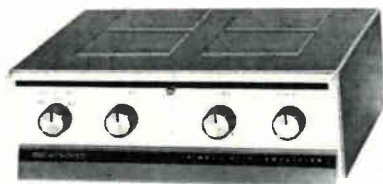
1

Amplifiers

ridges, and tuner & auxiliary with complete controls, two push-pull power output stages and two 4-stage preamps. 4, 8, and 16 ohm outputs. 13½" w. x 4½" h. x 9¾" d. Kit.....\$39.95

Model AA-13 Amplifier

Mono design, 14 watts output. Response 20-15,000 cps ±1 db; HD less than 2% at



14 w.; IM distortion less than 2% at 14 watts; three inputs; mag. phono (RIAA), crystal phono & tuner; separate bass & treble controls; hum balance control; screen-tapped output circuit uses EL84 tubes; output impedances: 4, 8, and 16 ohms; complete with cabinet; 13½" w. x 10½" d. x 4½" h. Kit\$29.95

Model AA-100 Integrated Stereo Amp

Rated output: 25 watts per channel; frequency response 30-15,000 cps ±1 db for



rated output; IM distortion less than 1%, harmonic distortion less than 0.5% at rated power; channel separation 42 db minimum at 1000 cps; input sensitivity: mag. phono, 1.5 mv.; tape head, 1.0 mv.; tuner, aux 1, aux 2, 0.2 volt; 4-position function switch: stereo, stereo reverse, chan A, chan B; balance control; separation control; dual tandem type level control; dual concentric bass and treble controls for each channel; input level controls for each channel except tape head; power amplifier input level control, one per channel; hum balance controls; phase switch; low impedance tape outputs; output impedances: 4, 8, 16 ohms each channel; tubes 2-EF86, 4-12AX7, 2-7199; 4-7591, 1-GZ34; 15½" w. x 4¾" h. x 12½" d. Model AA-100 (kit).....\$ 84.95

Model AA-151 Integrated Stereo Amp

Power output 14 watts per channel; frequency response 20-20,000 cps ±1 db;



channel separation better than 45 db; input sensitivity for rated output; mag. phono, 4 mv.; crystal phono, 0.25 volt tuner and aux, 0.2 volt; 4 position selector switch; mag. phono, crystal phono, tuner aux; dual concentric (clutch) volume control; dual tandem bass and treble controls;

phase switch; 1 filament balance per channel; output impedances: 4, 8, 16 ohms; tubes arc: 2-6EU7, 2-6AU6, 2-6AN8, 4-EL84/6BQ5, 1-GZ34/5AR4. Kit\$ 59.95

Model AA-191 Integrated Amplifier

Mono version; 3 watts output; response 50-20,000 cps ±1 db; harmonic distortion



less than 3% 60-20,000 cps @ 3 watts; IM distortion less than 3% @ 3 watts; sensitivity (crystal phono & tuner) .15 v. for 3 watts; 4-8-16 ohm outputs; tubes-EF86, EL84, 6X4. Kit.....\$15.95

Model AA-121 Stereo Power Amplifier

Power output 40 watts per channel; frequency response 20-20,000 cps ±0.5 db



for rated output; 20.5 db negative feedback; damping factor, 17; phase reversal switch; center speaker terminals; tubes: 2-6AN8, 4-EL34; 4 silicon diodes; 1 selenium diode for bias supply; 15" w. x 7¼" h. x 11" d. Kit\$79.95

Model AA-141A Stereo Preamplifier

Input sensitivity (for 2.5 v. output @ 1000 cps) mag. phono .006 v., crystal phono .2

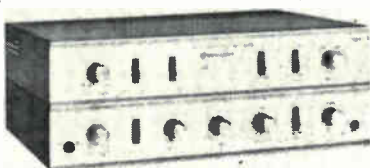


v., aux. #1 & #2 .2 v.; input impedance mag. phono 47,000 ohms, balance 1 megohm; response 20-20,000 cps ±1 db; IM & HD for high-level circuit .1%; channel separation 45 db from 20-20,000 cps; hum & noise for mag. phono input -55 db; controls: source selector sw., 6-pos. function sw., bass & treble controls, "on-off" sw.; 6-6EU7 tubes; 15¾" x 5¾" x 7½" d.; (kit)\$34.95

KENWOOD

TK-400 Integrated Stereo Amp

All-transistor, transformerless design featuring 40 w./ch. music power & 32 w./ch.



continuous sine wave @ 8 ohms: 26 transistors & 5 diodes; 5 stereo inputs (2 phono,

tape head 1.5 mv. sen. & aux., tuner 100 mv. sen.); 4-16 ohm outputs. Damping factor 20; HD 1% @ 40 w. & 1000 cps; response 20-20,000 cps ±1 db. Controls: volume, bass, treble, balance, separation. Switches: input selector, mode selector, low filter, high filter, loudness, speaker on/off, loudspeaker phase, and tape monitor.\$174.95

KW-220 Integrated Stereo Amp

50 w./ch. music power; 40 w./ch. sine wave at 1000 cps @ 1% HD; 4-8-16 ohm

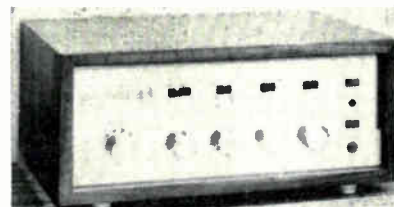


outputs; HD 1% @ 50 w./ch. (1 kc.); damping factor 8. Response 20-20,000 cps ±1 db. Sensitivity: mag. phono 1 & 2, tape head 1.5 mv.; tuner, aux. 1 & 2, 100 mv. Has 13 front-panel controls including bass & treble, loudness, low & high filter, phono equalization, balance, separation, volume, speaker on/off, phase. 15¾" w. x 12¼" d. x 5¾" h.\$139.95

KLH

Model Sixteen Integrated Stereo Amp

Fully transistorized integrated amp with stereo output of 70 watts r.m.s. (both channels driven into 8 ohms); mid-frequency



power per channel 49 w. (one channel); IHF music power over 100 watts; THD less than 2% from 25-20,000 cps +0, -1 db @ 35 watts (both channels at full output into 8 ohms); S/N better than 80 db. Controls: rotary program selector, volume, balance, treble, bass. Slide sw.: three-position loudness, stereo/mono mode, tape monitor, high-frequency filter, power on/off; speakers on/off; stereo headphone output jack. Inputs: mag. phono, tuner, aux. 1, aux. 2, tape in. Rear-panel outputs: record out, speakers out; without housing,\$219.95 Oiled walnut case.....\$ 19.95

KNIGHT

KN-999A Integrated Stereo Amplifier

Transistorized design; 60 w./ch. music power (35 w./ch. r.m.s.); response 15-

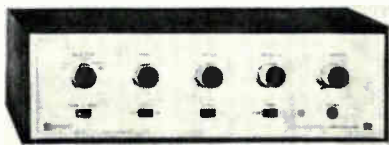


30,000 cps ±1 db; HD 1%; hum & noise -90 db tuner (-65 db mag. phono); sensitivity: tuner 0.25 v.; tape 4.5 mv.; phono 4 mv.; aux. #1 1 v., aux. #2 0.5 v. Inputs: (5 pairs) magnetic phono, tape head, tuner, aux. #1, aux. #2. Outputs: 4, 8, 16 ohms; 2 hi-Z to recorder, low-Z stereo headphone. Has conventional controls and a unique selector system using illuminated windows. Turn selector control and appropriate window lights up to show which

inputs are connected for playing. 4 1/2" x 13 3/4" x 12 3/4", less case.....\$199.95
 Metal case.....\$ 6.50
 Walnut wood case.....\$ 14.95

KN-966 Stereo Amplifier

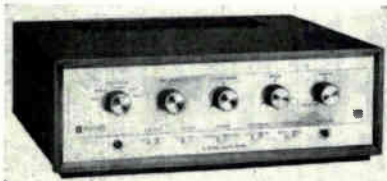
Transistorized design; 33 w./ch. music power (20 w./ch. r.m.s.); controls include



5-pos. selector: bass, treble, balance & loudness; switched mode selection (stereo or mono), high- and low-cut filters; stereo reverse. Has stereo headphone jack; 4,8,16 ohm outputs. Response 20-20,000 cps ± 1 db; HD 1%; hum & noise: tuner -75 db (mag. phono -60 db). Sensitivity: tuner 0.25 v.; tape 3.5 mv.; phono 4 mv.; aux. #1 1 v.; aux. #2 0.5 v. 2 hi-Z for tape recording, stereo headphone jack. 15 transistors, 2 diodes. Panel size 4 1/2" x 14 1/4". 4 1/2" x 13 3/4" x 12 3/4"; less case.....\$119.95
 Cordovan brown metal case.....\$ 5.95
 Oiled walnut wood case.....\$ 14.95

KN-940A Stereo Amplifier

22 w./ch. music power; 18 w./ch. sine wave power; 9 tubes & 4 silicon rectifiers;



input selector switch: tape, tuner, phono, aux. 1 & 2; bass, treble, balance, loudness controls; scratch & rumble filter switches; low impedance plus two high-impedance outputs for off-the-air stereo tape recording; stereo headphone jack; response 30-18,000 cps; HD 1.5%, hum -72 all at rated power; less case.....\$89.95

KN-928 Stereo Amplifier

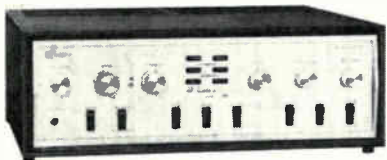
28 w./ch. peak power, 14 w./ch. IHF. Input selector: phono, tuner, aux., mode,



bass, treble, balance & volume. Low- & high-impedance outputs for tape. Response 30-15,000 cps ± 1 db. Has stereo phone jack & speaker switch. Oiled walnut & metal cases optional.....\$59.95

KNIGHT-KIT

KG-895 Integrated Stereo Amplifier
 Transistorized design; 60 w./ch. music power (40 w./ch. r.m.s.). Response 18-30,000 cps at rated output; HD .7% at

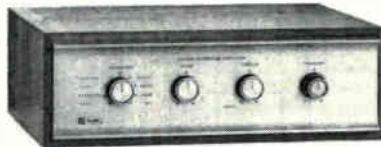


rated output; IM dist. 1%; power bandwidth 20-20,000 cps at less than 1% dis-

ortion at rated output; hum & noise -75 db for high-level inputs at rated output (-65 db for mag. phono); damping factor 6; channel separation 55 db. Input sensitivity: tuner & high-level .25 v., mag. phono 2.5 mv., tape head 2 mv., tape monitor .5 v. Has individual level-set pots; 4,8,16 ohm outputs; 34 semiconductors, front-panel speaker sw. for main or remote, headphone jack; conventional operating controls. 5" x 16 3/4" x 15". Less case; Kit.....\$149.95
 Walnut wood case.....\$ 19.95

Model KG-250 Stereo Amp

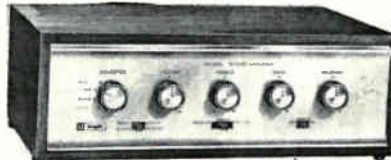
12 w./ch. music power; response 30-15,000 cps ± 1 db at full rated power; harmonic



distortion less than 1.5% at rated power; inputs: 4 pair—mag. phono, ceramic or crystal phono, tuner, aux.; selector switch positions are: stereo phono, phono reverse, tuner, tuner reverse, aux., aux. reverse; mono—phono, tuner, aux.; bass and treble on-off controls; concentric volume control; output impedances 4-8-16 ohms; tubes: 4—ECL82, 2—ECC83/12AX7, 1—EZ81/6CA4; 4 1/2" x 13 3/4" x 8 1/2"; wt. 17 lbs. 83YX317-KG-250.....Kit \$39.95
 83YX030 Deluxe walnut case.....\$ 9.95
 83YX031 Metal case.....\$ 4.95

Model KG-400 39-Watt Stereo Amp

Preamps have d.c.-heated filaments; 5 pairs stereo inputs, including tape head input;



center-channel output; outputs for stereo tape recording; response 30-16,000 cps ± 1 db; harmonic distortion less than 1% at 16 watts; tubes 7025, 5-12AX7, 4-7189, GZ34/5AR4.

83YU413-KG-400.....Kit \$59.95
 83YX023 Deluxe walnut case.....\$10.95
 83YX024 Metal case.....\$ 5.95

Model KG-854 54-Watt Transistor Stereo Amp

27 w./ch. music power; response 20-25,000 cps ± 1 db at rated power; 4-8-16 ohm out-



puts; features 14 transistors and 2 silicon diodes; direct-coupled output (no transformers), has stereo headphone jack; volume-loudness control; 5 pairs of inputs: tape head, mag. phono, tuner, aux. 1 & aux. 2; circuit breakers; HD less than 1% at rated power; less case.

83YX605 Kit.....\$79.95
 83YX035 Deluxe walnut case.....\$12.95
 83YX036 Metal case.....\$ 5.95

Model KM-15 Amplifier

14 w. music power, mono design; response 30-15,000 cps ± 1.5 db at full rated power; harmonic distortion 1% at 1000 cps for rated output; hum and noise level

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1 Amplifiers

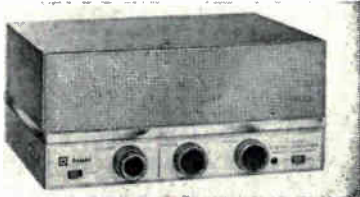
65 db down at rated output through high-level input; two inputs; bass control 9 db boost or cut at 40 cps; treble control 9



db boost or cut at 10,000 cps; tubes: 2—ECC83/12AX7, 2—EL84/6BQ5A EZ81/6V4/6BW4; output 4-8-16 ohms. 83Y784—KM-15 Kit.....\$19.95 83Y783 Metal cover.....\$ 3.95

Model KG-240 20-Watt Stereo Amp

Two pairs of inputs (tuner, ceramic phono) selectable by front-panel slide

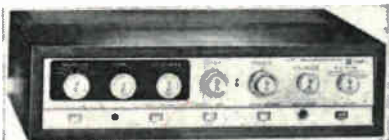


switch; complete stereo control facilities; all controls front panel mounted and include ganged bass and treble controls, concentric volume control; hum and noise 60 db below rated output; power output 10 watts per channel (IHF music power); response 35-15,000 cps; harmonic distortion 1.5% at 1000 cps; separation 30 db; less cover.

83YX602 Kit.....\$27.95 83YX020 Metal cover.....\$ 3.95

KG-870 Transistor Stereo Amp

35 w./ch. music power; IM dist. less than 1%; response 20-25,000 cps ± 1 db at



rated output; 4-8-16 ohm outputs; features 22 transistors and 4 silicon diodes; direct-coupled output (no transformers); 4 pre-driver transistors are silicon type; has stereo headphone jack; phasing switch; tone controls; 6 input circuits: phono, tape head, tape monitor, two aux., tuner; $2\frac{3}{4}$ " x 13 " x 11 " d.; less case.

83YX548 Factory wired (less case) \$149.95 83YX603 Kit.....\$ 99.95 83YX035 Deluxe walnut case.....\$ 12.95 83YX036 Metal case.....\$ 5.95

KG-320 32-Watt Transistor Amp

32 w. music power stereo design; 14-transistor, 4-diode circuit; direct-coupled output; no transformers or capacitors in output



stage; better than 30 db separation; mag. phono, tuner, and aux. inputs; separate ganged bass and treble controls; output impedance 8-16 ohms; continuous sine-wave power output 24 watts at 8 ohms, 16 watts at 16 ohms; IHF music power output 32 watts at 8 ohms, 30 watts at 16 ohms; response at rated power 25-18,000 cps ± 1 db; harmonic distortion at rated power 1%; hum and noise —75 db.

83YX601 Kit.....\$59.95 83YX016 Deluxe walnut case.....\$ 9.95 83YX017 Metal case.....\$ 4.95

LAFAYETTE

LA-350 Integrated Stereo Amp

35 w./ch. music power, 28 w./ch. continuous sine wave. Response 15-30,000 cps ± 1



db at normal listening level; HD 1%; hum & noise —76 db (high-level inputs); separation 50 db @ 1kc. Input sensitivity: tape head & phono 1.5 mv., phono #2 6 mv., tuner 200 mv. aux. #1 10 mv., aux. #2 750 mv. Output: 8 & 16 ohms. Has 2 stereo tape outputs. 11 front-panel controls, d.c. on preamp filaments. $14\frac{1}{8}$ " w. x $5\frac{1}{4}$ " h. x 10 " d. Supplied with cabinet...\$99.50

LA-248 Transistorized Integrated Stereo Amp

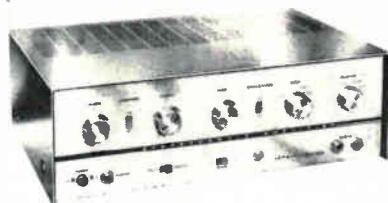
25 w./ch. music power; response 20-20,000 cps ± 1 db; HD 1%; hum & noise —74



db (tuner input); has 5 pairs of inputs; tape head, mag. phono, ceramic phono, tuner, aux.; has conventional operating controls; 19 transistors; 13 " x $4\frac{1}{8}$ " x 9 " d.; metal case included.....\$119.50

Model LA-260 40-Watt Stereo Amp

Integrated 40-watt stereo amp-preamp; 20 watts each channel; 8- or 16-ohm speak-



ers; concentric bass, treble controls; continuously variable separation control; individual volume-balance; loudness switch; rumble filter; mode switch; selector switch (aux., tuner, phono, tape head); hum balance controls; 5 inputs; dual tape output, dual 8- and 16-ohm terminals. Response: 40-20,000 cps ± 1 db. Front panel headphone and tape output jacks. Enclosure included\$79.95

JAMES B. LANSING

SE402 Solid-State Energizer

Transistorized stereo power source which takes the place of conventional stereo pow-



er amplifier. Plug-in equalizer board controls damping and makes minor adjustments in frequency-response contour to complement performance of specific JBL speaker systems used. Plug-in boards available for any JBL loudspeaker/enclosure combination. Energizer installs directly in one stereo speaker enclosure. Performance specifications same as JBL SE400...\$231.00

SE400 Solid-State Energizer

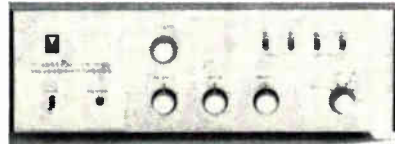
Similar to Model SE402, but supplied in brushed gold and olive case for freestand-



ing use. Model also available with plug-in equalizer boards to match speaker systems of other manufacturers as well as JBL speaker systems. With equalizer board set "flat," the Energizer can be used as a stereo amplifier with following specifications: 40 w./ch. r.m.s. from 10-30,000 cps. Response 10-30,000 cps $\pm \frac{1}{2}$ db at full rated power. HD less than $\frac{1}{2}$ % at rated output or any level less than rated output. Overload typically less than 0.004 millisecond to recover from 100% single-cycle overload at any frequency in musical range. No output transformer or output coupling capacity. For loudspeakers rated from 4 to 16 ohms.....\$261.00

SA600 Amplifier/Preamplifier

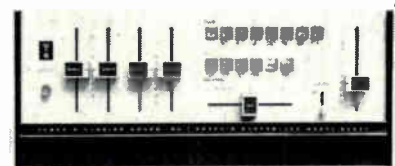
Completely transistorized stereo preamplifier and 40 w./ch. r.m.s. transistorized



stereo power amplifier in single unit. Power amplifier section similar to JBL Solid-State Energizer, but without plug-in equalizer board. Preamplifier sensitivity 5 mv. for phono or tape-head inputs. .25 v. for high-level inputs. $16\frac{1}{8}$ " w. x $5\frac{1}{4}$ " h. x $13\frac{1}{2}$ " d. Oiled walnut side panels available separately\$300.00

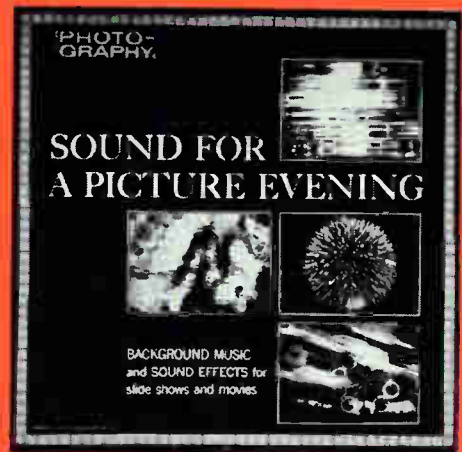
SG520 "Graphic Controller" Preamplifier

Completely transistorized stereo control center using straight-line controls and il-



luminated push-button switches. Seldom-used controls and supplementary signal jacks concealed behind hinged front panel for easy access. Built-in 1000-cps test tone and provisions for use with JBL Aural Null balancing system. Response within $\frac{1}{4}$ db 20 to 20,000 cps at 3 volts rated output. Harmonic distortion less than 0.15% and IM distortion less than 0.05% at rated output. Hum and noise 1 μ v. or less referred to

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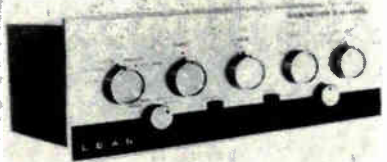
1 Amplifiers

low-level phono input. Oiled walnut and olive case available separately.....\$450.00

LEAK

"Varislope 2" Stereo Preamp

Features 5 stereo inputs, mag. phono sensitivity 3.5 mv., tape head sensitivity 3 mv.,



tuner sensitivity 50 mv., mic. sensitivity 3 mv., tape amplifier sensitivity 125 mv. Has function control (mono, stereo & right or left channel); bass & treble tone controls; balance control; tape monitoring sw.; filter & slope controls. HD .01% for 125 mv. output; hum & noise -60 db. Size 11 1/4" x 4 1/4" x 16 1/4" d.....\$129.50

Stereo 30 Transistor Amp

Integrated design, 15 w./ch.; HD .1% @ 8 w./15 ohms/1 kc.; hum & noise -66 db; damping factor 50 @ 1 kc.; separation 50 db to 1 kc. & 30 db to 10 kc. Has 5 input selector sw. (mag. phono, tape head, tuner, tape amp, mic.). Controls are bass, treble, balance, volume, filter & slope; tape monitor sw. 13" x 9" x 4 1/4". Panel design similar to "Varislope 2" preamp.....\$249.50

Stereo 20 Basic Amplifier

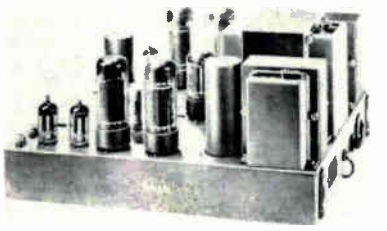
Frequency response 20 to 20,000 cps ±0.5 db; power output 12 watts r.m.s. per chan-



nel; harmonic distortion 0.1% at 10 watts output (1000 cps); hum and noise 80 db below 10 watts; sensitivity 125 millivolts for 10 watts output; damping factor 25 at 1000 cps; output impedance 3 to 16 ohms; 100-125 volts; 50 to 60 cycles; tubes are 1-ECC83, 2-ECC81, 4-EL84, 1-GZ34.....\$149.00

Stereo 60 Basic Amplifier

Power output 30 w./ch. r.m.s.; harmonic distortion 0.1% at 1000 cps for 30 watts

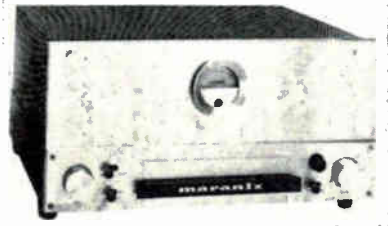


output; hum and noise 80 db below 30 watts; sensitivity 125 millivolts for 30 watts output; frequency response 20 to 20,000 cps ±0.5 db; damping factor 25 at 1000 cps; output impedance 3 to 16 ohms; 100-120 volts; 50-60 cycles.....\$219.00

MARANTZ

Model 9 Mono 70-Watt Amp

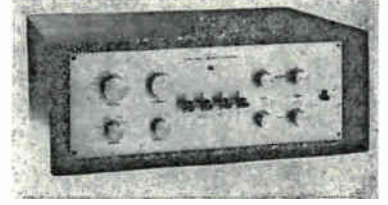
70 watts r.m.s., 140 watts peak; switch for 40-watt triode operation; response 20-20,-



000 cps ± 0.1 db at full rated power; sub-sonic filter switch -.25 db @ 20 cps, -20 db @ 3 cps; harmonic distortion less than 100 db below 70 watts; damping factor 17, can be changed internally; output impedances 4, 8, 16 ohms, plus 1 ohm tap for center speaker connection; front panel controls: gain (isolated by cathode-follower), phase switch, low filter, test switch (plate current readings each tube, built-in test signal for dynamic balance adj.); five bias and balance adjustments plus input and output connections under snap-out access panel; 2-6DJ8/ECC88, 1-6CG7, 4-6CA7/EL34, 1 zener diode, 5 silicon rectifiers; over-all size 15 3/8" x 8 1/4" x 10 1/2". Model 9\$384.00 Model 9R (rack mounted).....\$414.00 Also available: Model 970 (70 v. output, plus 8, 16 ohms) Model 970R (same as Model 970, rack mounted)

Model 7 Stereo Console Preamp

Preamplifier; can select 8 positions: mic., phono 1 and 2, tape, FM-AM, multiplex,



TV, aux.; controls for stereo, stereo reverse, channel A, channel B, channel A/B; all monophonic positions can be heard in both speakers; precision-tracking volume control; tone controls have switched steps of feedback networks; high filter at 9 kc. and 5 kc.; rumble filter at 50 and 100 cps; 0.1% IM distortion at 10 volts r.m.s., 0.01% at 2 volts r.m.s.; frequency response 20-20,000 cps; tubes are 6-ECC83/12AX7; over-all size 14 3/8" x 5 3/8" x 8 1/2"; total noise level is 80 db below 10 mv. phono input; weight 15 lb.\$285.00 Model 7R-identical to 7 but mounted on 19" rack panel.....\$309.00

Model 8B Stereo Power Amplifier

Two 35-watt amps on single chassis; each amp: 70 watts peak; output in triode opera-



tion (with minor circuit changes) 18 watts; response 20-20,000 cps ±0.2 db at 35 watts;

harmonic distortion less than .1% at mid-frequencies at 35 watts; IM distortion less than .5% at 35 watts; damping factor 20 (can be adjusted for 2, 1, and 1/2); hum better than 100 db below 35 watts; metered bias adjust; tubes are 6BH6, 6CG7; 2-EL34/6CA7 plus silicon rectifier (each channel); 13 1/2" x 7 1/4" x 10 1/2".....\$285.00 Accessory grille.....\$10.50

MATTES

SSP/200 Power Amplifier

Transistorized stereo design; 100 w./ch. continuous r.m.s. power; 20-20,000 cps for



4 & 8 ohm output (60 w./ch. for 16 ohms). Response 15-30,000 cps ±1 db; IM dist. .07% at 100 w./ch. (.3% @ 1 w.). HD .5% at 100 w./ch., 20-20,000 cps; sensitivity 1 v. for rated output. Hum & noise -90 db; damping factor 250; rise time 5 μsec.....\$375.00

McINTOSH

C22 Stereo Preamp

Response 20-20,000 cps ± .5 db; dist. less than .2% @ 10 v. output. .02% @ 3 v.:



noise 85 db below rated output; input sensitivity aux., tape, tuner 1 & tuner 2-.25 v. @ 250,000 ohms; phono 1 & 2, 2 mv. @ 47,000 ohms; mic. 2.5 mv. @ 1 megohm, tape head 2 mv. @ 1 megohm; tape compare .25 v. @ 250,000 ohms; has conventional operating controls; features front-panel jacks for connecting external tape recorder\$279.00 Cabinet extra.....\$ 25.00

C-24 Stereo Preamp

All-silicon-type transistor design featuring 6 stereo program sources: 3 high-level (tuner, tape, aux.) & 3 low-level (2-mag. phono & tape head). Response 20-20,000



cps +0 -5 db; Dist. less than .1% at 2.5 v., .3% at 10 v. (all 20-20,000 cps); noise -75 db (vol. control clockwise pos.). Sensitivity: high-level .2 v., low-level 2 mv. Outputs 2.5 v. Controls: bass, treble, RIAA/LP equalization, tape monitor, L.F. & H.F. filters, input & mode selector. Panel size 16" x 5 3/8" with chassis 11" deep.....\$249.00 Walnut cabinet.....\$ 25.00

MC40 Mono Amplifier

40 watts continuous sine-wave; harmonic distortion less than .5% at rated output



and 20-20,000 cps; IM distortion less than 5% (20-20,000 cps); phase shift $\pm 8^\circ$ (20-20,000 cps); response 20-20,000 cps $+0 -1$ db at 40 watts total output (10-100,000 cps $+0 -1$ db); output impedances 4-8-16-125-150-600 ohms; tubes: 2-12AX7, 12AU7, 12BH7, 2-6L6GC or 2-7027A; $13\frac{3}{4}$ " l. x $8\frac{1}{2}$ " w. x $7\frac{1}{2}$ " h.\$159.00

MC75 Mono Power Amp

Guaranteed continuous sine-wave output 75 watts with harmonic distortion less

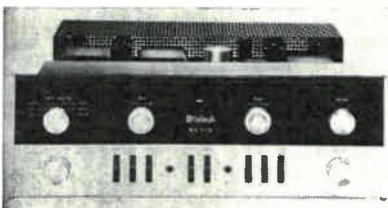


than .5%, 20-20,000 cps; capable (but not guaranteed) of 91 watts continuous

sine wave at same distortion; IM distortion less than .5% for any combination of frequencies 20-20,000 cps; phase shift less than $\pm 8^\circ$; response 16-60,000 cps $+0 - .5$ db; sensitivity .5 v. for rated output; hum and noise 90 db below rated output; output impedance 4-8-16 ohms; $16\frac{3}{4}$ " l. x $8\frac{1}{4}$ " w. x $8\frac{1}{4}$ " d.\$229.50

MA230 Integrated Amp

30 w./ch. continuous sine wave output (44 w./ch. music power) with silicon planar preamps & tube-type power amplifier. Response 20-20,000 cps $+0 - .5$ db @ 30



w./ch., 15-70,000 cps $+0 -3$ db. Damping factor 10; HD .5% @ 30 w./ch. (20-20,000 cps); IM dist. .5% (20-20,000 cps); phase shift $\pm 5^\circ$ (20-20,000 cps). Output impedance 4-8-16 ohms. Sensitivity: aux., tape, tuner, tape monitor .25 v.; phono 1 & 2, tape head 3 mv. Controls similar to Model C-24 preamp.\$349.00 Walnut cabinet.\$25.00

MC240 Stereo Power Amp

Guaranteed 40 watts (capable of 58 watts) continuous sine-wave power per channel; harmonic distortion less than .5% from 20-20,000 cps at rated output; IM distortion less than .5% for any combination of frequencies from 20-20,000 cps; phase shift less than $\pm 6^\circ$ from 20 to 20,000 cps;

response 16-60,000 cps $+0 - .5$ db; sensitivity .5 v. at rated output; hum and noise 90 db below rated output; output impedance 4-8-16, 125, 150, and 600 ohms; $17\frac{1}{4}$ " l. x $10\frac{3}{4}$ " w. x 8" h.\$288.00

MC275 Stereo Power Amp

75 watts per channel with each channel identical in performance to Model MC75



power amplifier; $17\frac{1}{4}$ " l. x $12\frac{1}{4}$ " w. x 8" h.\$444.00

MC225 Stereo Power Amp

Guaranteed 25 watts (capable of 34 watts) per channel continuous sine-wave power



with less than .5% harmonic distortion,



COOL those heat generating transistors and tubes
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the WHISPER FAN beats the heat that wrecks the set. Engineers have found that up to 40% or more life can be added to computer systems when components are properly cooled. And the life of your hi-fi, TV or ham equipment will be shortened unless you provide for the dissipation of the heat generated by transistors, tubes, transformers and other components. In addition, the

Whisper Fan improves equipment performance by minimizing component drift due to heat and eliminates hot spots due to eddies.

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mounting hardware, plug and cord for electrical connections and installation instructions. Cost only \$14.85

Write for descriptive literature and name of nearest dealer.



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Canada: The Hoover Co., Ltd., Hamilton, Ont.

CIRCLE NO. 52 ON READER SERVICE CARD

1 Amplifiers

20-20,000 cps at rated output; IM distortion less than .5% for any combination of frequencies from 20 to 20,000 cps; phase shift less than $\pm 15^\circ$ from 20 to 20,000 cps; response 18-60,000 cps $\pm 0 - 5$ db; sensitivity .5 v. for rated output; hum and noise 90 db below rated output; output impedance 4-8-16-150-200 ohms; $14\frac{1}{2}''$ l. x $9\frac{1}{8}''$ w. x $7''$ h.....\$198.00

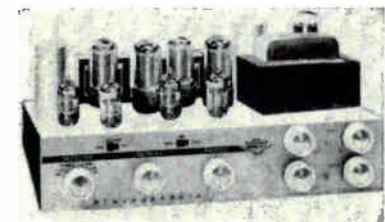
NATIONAL

Model 2000 Integrated Amplifier

Rated output: 15 watts; built-in preamp; 3-position record equalization; separate bass and treble controls with 16 db boost or cut at 50 and 10,000 cps; frequency response: 20 to 20,000 cps ± 0.5 db; hum 60 db below 15 watts on high level input, 50 db on phono input; inputs: magnetic (6 millivolts sensitivity), crystal phono, tape, tuner; output impedances: 4, 8, 16 ohms. $12\frac{1}{2}''$ x $3\frac{1}{2}''$ x $7\frac{3}{8}''$ d. Kit form.....\$28.50
Metal enclosure.....\$ 5.95

Model STA-24 Stereo Amplifier

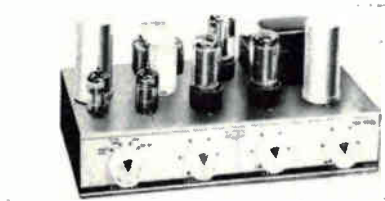
Williamson circuit preamp-amp; power output 15 watts per channel; separate bass



and treble controls; selector switch for tape high and low, phono high or low, tuner and aux.; four dual inputs for channel A and B, tape and mag, phono, ceramic and xtal phono, tuner and aux.; distortion less than 1%; frequency response ± 1 db 20-20,000 cps. $14''$ x $8''$ x $6''$. Kit....\$36.50

Model 2200 Integrated Amplifier

12-watt design; response 20-20,000 cps ± 1 db; distortion 1% at 12 watts; four inputs—mag. phono/tape, crystal phono, tuner, mike/aux.; sensitivity phono 3 mv.,



others .5 v. for max. output; controls—function, loudness, bass, treble.
Kit\$19.50
Metal enclosure.....\$ 3.95

OLSON ELECTRONICS

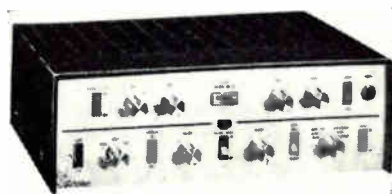
AM-256 Integrated Stereo Amp



7.5 w./ch. Response 80-20,000 cps: 4, 8, 16 ohm output. Has inputs for crystal or ceramic cartridge & aux. for tuner or tape. $10\frac{1}{4}''$ w. x $4''$ x $6\frac{1}{4}''$ d.....\$29.95

Model AM-240 Integrated Amp

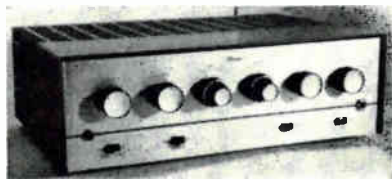
37.5 w./ch.; response 15-40,000 cps. Has stereo balance meter and stereo headphone



jack; 4,8,16 ohms: $14\frac{3}{4}''$ x $10\frac{1}{8}''$ d. x $5''$ \$89.99

Model AM-253 Stereo Amp

15 w./ch. response 30-25,000 cps; inputs: tape, phono (magnetic or ceramic), tuner,



aux. Controls: selector, bass, treble, volume, balance, function, rumble filter, loudness, and power; impedance 4,8,16 ohms. $12\frac{1}{4}''$ w. x $10\frac{1}{8}''$ d. x $4\frac{1}{8}''$ \$54.99

QUADRAMATIC

Model 410-C Power Amp

Stereo design; 40w./ch., 55 w./ch. music power; response 5-60,000 cps, power re-



sponse 30-15,000 cps; sensitivity 2.5 v.; HM dist. .005%, IM dist. .01%; damping factor 200; hum & noise 90 db down; $5''$ x $11''$ x $17''$\$319.00

Model 112 Preamp

Stereo design: response 5-60,000 cps; noise 80 db below 10 v. r.m.s.; HM dist. .005%, IM dist. .02%; has 12 inputs & 4 outputs; separate center channel output; volume, mode, bass, treble, scratch, rumble, contour, and tape monitor; $6''$ x $8''$ x $14''$; includes walnut case.....\$279.00

Model 250 Integrated Amp

Stereo design: 30 w./ch. r.m.s., 40 w./ch. music power; response 10-50,000 cps, power response 30-15,000 cps; sensitivity in phono pos. 3 mv., overload at 100 mv.; sensitivity in tape pos. 2 mv.; sensitivity in tuner pos. .5 v.; HM dist. .01%, IM dist. .03%; damping factor 170; hum & noise down 60 db minimum; inputs: earphone jack, mode switch, bass, treble, contour, scratch, hiss, monitor sw. & recorder output. Uses transistors in low-level and driver stages. $5''$ x $11''$ x $16''$; includes walnut case\$345.00

REALISTIC

SAF-24D Integrated Amp

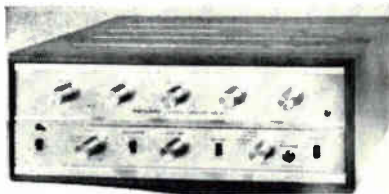
17.5 w./ch. stereo design. Response 20-20,000 cps ± 1 db; 1.8% r.m.s. dist. Fea-



tures individual tone controls; inputs for tuner, tape heads, crystal & mag, phono & aux. Headphone output jack. Champaign gold finish; metal case; $14\frac{1}{2}''$ x $5''$ x $10''$.
30R2000\$69.95
30R1200 Walnut wood case\$14.95

SAF-40D Integrated Amp

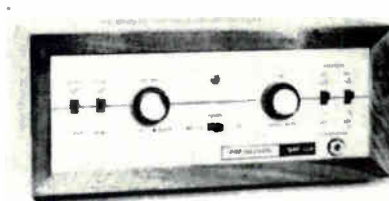
30 w./ch. stereo design. Response 20-20,000 cps ± 1 db; .9% dist.; input sensi-



tivity 2.5 mv. phono, 2.5 mv. tape, 150 mv. tuner & aux. for full output; 4,8,16 ohm outputs; Metal case included, matches TM-6, TM-8D tuners. $12\frac{3}{8}''$ x $15\frac{7}{8}''$ x $5\frac{1}{2}''$.
30R055\$99.50
30R1200 Walnut wood case\$14.95

SAF-12A Integrated Amp

5 w./ch. stereo design. Response 20-20,000 cps; dual front-panel speaker selector sw.



Drives tuner, tape player, or phono. $11\frac{1}{16}''$ x $4\frac{1}{2}''$ x $6\frac{1}{2}''$ d. Walnut case.
30R2212\$44.95

SCHOBER

TR-2 Transistor Amplifier

Single-channel design with 55 mv. sensitivity for 40 w. continuous sine wave output @



8 ohm load. Clipping power 50 w. @ 8 ohms, 48 w. @ 4 ohms, 31 w. @ 16 ohms, all at 1 kc. Response 20-20,000 cps ± 1 db at rated power. IM dist. 1.4% @ rated output; HD less than .75% (20-20,000 cps); hum & noise -83 db; input 100,000 ohms impedance. Kit.....\$69.95

H. H. SCOTT

LK-72B Integrated Stereo Amp Kit

40 watts output each channel (IHF music power); IHF power band extending

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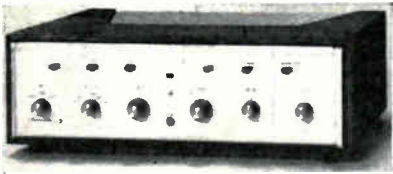
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Zip

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CIRCLE NO. 42 ON READER SERVICE CARD

1 Amplifiers

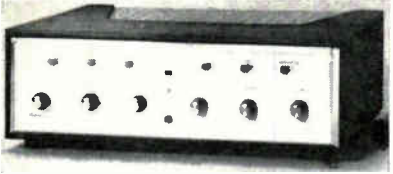


down to 20 cps; total harmonic distortion less than 0.8% at 1 kc. full power; hum level better than 75 db below full power output; stereo controls include center-channel level control, scratch filter, tape recorder monitor, separate bass and treble each channel; tube heaters d.c.-operated; Type "C" case extra.

Kit\$149.95

Model 233 Integrated Amplifier

Power output 33 watts per channel (IHF music power); hum and noise better than



75 db below full power output; harmonic distortion less than .8% at full power; response 20-20,000 cps; IM distortion less than .5%; IHF power band from below 19 cps to above 20,000 cps; inputs are either 3 mv. or 9 mv. for magnetic phono (RIAA) or tape head (NAB) equalization; tape monitoring provisions; tuner and extra high-level inputs provided; seven position stereo selector switch same as on 299-D; scratch filter; loudness compensation; stereo tape recorder outputs; powered center channel output for direct speaker drive; speaker/earphone switch; front-panel stereo headphone output; tubes—4-12AX7, 2-7199, 4-7189, 1-5AR4; Type "C" case extra.....\$189.95

LK-48B Integrated Stereo Amp Kit

Power output 24 watts per channel (IHF music power); hum and noise better than



75 db below full power output; harmonic distortion less than .8% at full power; response 20-20,000 cps; IM distortion less than .5%; IHF power band from below 19 cps to above 20,000 cps; inputs are either 3 mv. or 9 mv. for magnetic phono (RIAA) or tape head (NAB) equalization; tape monitoring provisions; tuner and extra high-level inputs provided; seven-position stereo selector switch same as on 299-D; scratch-filter; loudness compensation; stereo tape recorder and derived center-channel outputs; all wires pre-cut to correct length; tube sockets, terminals, etc., are pre-riveted at factory; tubes—4-12AX7, 2-7199, 4-7189, 5AR4; Type "C" case available at extra cost.

Kit\$129.95

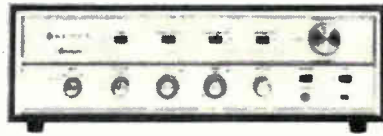
Enclosures

Type "C" metal enclosure.....\$13.95
Type "C" wood enclosure, walnut or mahogany

gogany\$24.50
Type "G" metal enclosure.....\$17.95
Type "G" wood enclosure, walnut or mahogany\$29.95
KWW—walnut wood enc. for Model 348 receiver\$29.95

Model 260 Integrated Amplifier

Integrated preamp/amplifier completely transistorized, no audio transformers of any



kind; silicon output transistors; power output 60 w./ch. music power (40 w./ch. r.m.s.); harmonic distortion .8%; hum & noise better than 80 db below full output; power bandwidth 20-20,000 cps; frequency response 15-30,000 cps; five stereo inputs; phono has switchable sensitivity; tape monitoring provisions; rumble filter; scratch filter; loudness compensation; separate bass & treble controls; seven-position selector switch; front-panel phone jack; derived center-channel output; speaker "on-off" switch; 15 1/2" w. x 5 1/2" h. x 13 1/2" d. "C" size case extra.....\$279.95

Model LK-60 Integrated Amplifier

Solid-state integrated amplifier in kit form. Six pre-wired, pre-tested printed-circuit



boards; premounted output transistors; front-panel power monitor meter switchable for final adjustments. Specifications, inputs, controls, and outputs the same as the 260. 15 1/2" w. x 5 1/2" h. x 13 1/2" d. "C" size case extra.....\$189.95

Model 299-T Amplifier

Solid-state amplifier, direct-coupled circuitry; silicon output transistors; no audio

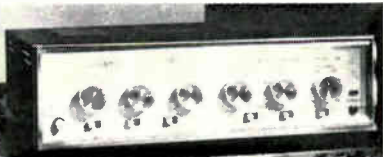


transformers; 32.5 w./ch. music power (22.5 w./ch. r.m.s.); frequency response 20-20,000 cps; distortion .8%; four stereo inputs; front-panel phone jack; tape monitor; scratch filter; loudness compensation; separate bass & treble controls; 15 1/2" w. x 12" d. x 5 1/4" h.....\$199.95

SHERWOOD

S-5500 IV Integrated Stereo Amp

Has friction-locked dual knobs on bass and treble controls; 40 watts per channel



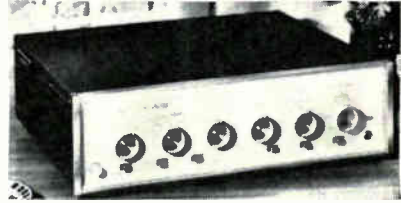
(80 watts total IHF music power); response 20-20,000 cps ± 1/2 db at 36 watts

with 1 1/2% IM distortion; hum & noise, phono input 75 db below 1 watt; d.c. filament supply; inputs: tape head, phono, six high-level; two anode-follower recording outputs, two stereo/mono indicator lights; phono sensitivity 1.2 mv.; tuner .3 v.; damping factor 5; 4, 8, 16 ohm outputs; 14" x 12 1/2" x 4" high.

Without case.....\$179.50
With walnut leatherette case.....\$187.00

S-9000 Integrated Transistor Amp

Stereo design, 75 w./ch. music power (50 w./ch. r.m.s. sine wave). Features silicon



transistors & transformerless circuit. Controls: bass, treble, loudness, balance, selector, mode, phono level, scratch & rumble filters, loudness, phase, tape monitor. Response 20-20,000 cps ±.5 db at 50 w. HD .5% @ 50 w. from 20-20,000 cps; IM dist. 1% @ 55 w.; hum & noise 80 db below 50 w.; sensitivity: phono 1.2 mv., tuner .25 v.; damping factor 20; inputs: phono, tape head, tape monitor, aux., tuner.

14" x 4" h. x 12 1/4" d.\$299.50
Leatherette case.....\$ 8.50

S-9900 Integrated Amplifier

Transistorized, 45 w./ch. music power (36 w./ch. r.m.s.) stereo design. Response 20-



20,000 cps ± 1 db. Power bandwidth 12-35,000 cps @ 1% HD; HD .33% at rated output; IM dist. 1% at rated output; hum & noise -70 db (phono) -80 db (tuner); input sensitivity: 1 mv. tape head; 1.8 mv. phono; .25 v. tuner; channel separation 45 db @ 1 kc. Has 6 high-level & 4 low-level inputs; 4 to 6 ohm speaker, headphone & stereo record outputs; center-channel speaker output, 23 silicon transistors & 2 silicon rectifiers. Has all conventional operating controls. 14" x 10 1/2" x 4" h.\$229.50

Model S-9500 Same as S-9900 except 25 w./ch. music power\$179.50
Metal cabinet extra\$ 8.50

V-M CORP.

1485 Integrated Amplifier

Transistorized, 37.5 w./ch. music power stereo design. Response 20-20,000 cps ± 2



db at normal listening level. Has high- and low-level inputs for both ceramic & crystal or magnetic cartridges, tuners, tape recorders. Switched output impedances. Walnut-grained vinyl-clad steel case; matches 1487 tuner\$99.95

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New Scott

solid state guide

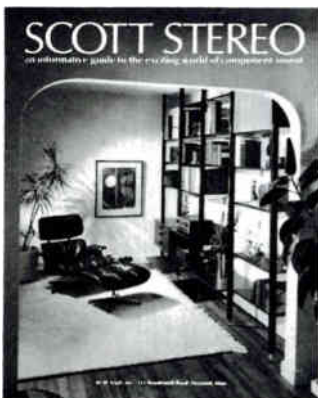
Solid state has suddenly made stereo component design an entirely new technology. The change is so radical that the knowledgeable buyer needs an entire new set of facts and criteria before making an intelligent purchase.

To assist you in your choice, Scott offers a profusely-illustrated 20-page booklet answering questions like these:

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 - 2 In what ways do driver and output transformers adversely affect solid state amplifier performance?
 - 3 Why are scientifically designed heat sinks important for best long-term performance of higher-powered solid state amplifiers?
 - 4 What solid state techniques make it possible to design a receiver fully equal in performance to separate components?
 - 5 Why is silicon IF circuitry needed for broadcast-standard FM reception?
 - 6 What critical solid state circuit techniques guarantee superior multiplex performance?
- Concise, helpful answers to these and many other vital questions on solid state stereo components are contained in Scott's new 20-page full-color 1966 stereo guide. To get your free copy, fill in your name and address and mail the postcard below.

(Shown on the reverse side is the new Scott 348 solid state 120 watt FM stereo receiver)

Fill in your name and address here: →



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Why We Make the Model 211 Available Now

Although there are many stereo test records on the market today, most critical checks on existing test records have to be made with expensive test equipment.

Realizing this, HiFi STEREO REVIEW decided to produce a record that allows you to check your stereo rig, accurately and completely, just by listening! A record that would be precise enough for technicians to use in the laboratory—and versatile enough for you to use in your home.

The result: the HiFi STEREO REVIEW Model 211 Stereo Test Record!

Stereo Checks That Can Be Made With the Model 211

- ✓ Frequency response—a direct check of eighteen sections of the frequency spectrum, from 20 to 20,000 cps.
- ✓ Pickup tracking—the most sensitive tests ever available on disc for checking cartridge, stylus, and tone arm.
- ✓ Hum and rumble—foolproof tests that help you evaluate the actual audible levels of rumble and hum in your system.
- ✓ Flutter—a test to check whether your turntable's flutter is low, moderate, or high.
- ✓ Channel balance—two white-noise signals that allow you to match your system's stereo channels for level and tonal characteristics.
- ✓ Separation—an ingenious means of checking the stereo separation at seven different parts of the musical spectrum—from mid-bass to high treble.

ALSO:

- ✓ Stereo Spread
- ✓ Speaker Phasing
- ✓ Channel Identification

PLUS SUPER FIDELITY MUSIC!

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ever produced

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Featuring Tests Never Before Available Outside Of The Laboratory

UNIQUE FEATURES OF HiFi/STEREO REVIEW'S MODEL 211 STEREO TEST RECORD

- Warble tones to minimize the distorting effects of room acoustics when making frequency-response checks.
Warble tones used are recorded to the same level within ± 1 db from 40 to 20,000 cps, and within ± 3 db to 20 cps. For the first time you can measure the frequency response of a system without an anechoic chamber. The frequency limits of each warble are within 5% accuracy.
- White-noise signals to allow the stereo channels to be matched in level and in tonal characteristics.
- Four specially designed tests to check distortion in stereo cartridges.
- Open-air recording of moving snare drums to minimize reverberation when checking stereo spread.

All Tests Can Be Made By Ear

HiFi STEREO REVIEW's Model 211 Stereo Test Record will give you immediate answers to all of the questions you have about your stereo system. It's the most complete test record of its kind—contains the widest range of check-points ever included on one test disc! And you need no expensive test equipment. All checks can be made by ear!

Note to professionals: The Model 211 can be used as a highly efficient design and measurement tool. Recorded levels, frequencies, etc. have been controlled to very close tolerances—affording accurate numerical evaluation when used with test instruments.

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The Model 211 Stereo Test Record is a disc that has set the new standard for stereo test recording. There is an overwhelming demand for this record and orders will be filled by ELECTRONICS WORLD promptly upon receipt. At the low price of \$4.98, this is a value you won't want to miss. Make sure you fill in and mail the coupon together with your check (\$4.98 per record) today.

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Please send me _____ test records at \$4.98 each. My check (or money order) for \$_____ is enclosed. I understand that you will pay the postage. (Orders from outside the U.S.A. add 50c to partially defray postage and handling costs.)

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 for every high fidelity system



It is remarkable how effectively today's records can bring the sound of a live performance into your home. A fine record playing unit, such as Garrard's new Lab 80, the first Automatic Transcription Turntable, or one of the three other new Garrard models, will make a major contribution to your enjoyment. Combined with other suitable stereo components, the Garrard will bring you musical pleasures truly comparable to those you experience through the greatest living performances.



Lab 80—\$99.50



Type A70—\$84.50



AT60—\$59.50



Model 50—\$44.50

Prices less base and cartridge.

Detailed illustrations and descriptions of all four models are found in the new 32-page Comparator Guide. For your complimentary copy, write Garrard, Dept. GY-1505, Westbury, New York 11591.



CHANGERS & TURNTABLES

RECORD CHANGERS..... }
 TURNTABLES..... } **37**
 MANUAL TURNTABLES..... }

ACOUSTIC RESEARCH

AR Turntable

Two-speed (33 1/3 rpm & 45 rpm) turntable and arm combination; complete with oiled-



walnut base, transparent dust cover, and accessories such as needle force gauge, overhang adjustment device, etc.; meets NAB specifications for broadcast equipment on wow, flutter, rumble, and speed accuracy; 3.3 lb. machined, individually balanced aluminum platter is belt-driven from synchronous motors; insensitive to external shock or to acoustic feedback because of internal suspension; arm damping, which operates if arm is dropped, is released during play; less cartridge\$78.00
 Single speed, 33 1/3 rpm\$75.00

BOGEN

Model B62 Turntable

Continuously variable speed from 29 to 86 rpm; click-in position for 16 2/3, 33 1/3, 45,



78 rpm; 4-pole heavy-duty constant speed motor; nonferrous 7 1/4 lb. turntable; plug-in cartridge head; weight adjustment gauge; automatic cueing-flip switch raises and lowers arm; wow & flutter less than .2%; rumble -51 db; tracking force down to 1.5 grams; 15" x 3 1/2" x 13"; less cartridge\$67.95
 Walnut wood base\$ 5.90
 Dust cover\$ 5.50

Model B51-S Turntable

Continuously variable 29-86 rpm (fixed for 16 rpm); wow & flutter less than .4%; rumble 48 db below av. recording level; features 4-pole shielded motor; 3 1/4 lbs., 11 3/8" dia. turntable; die-cast zinc alloy



spring loaded; ball-bearing mounted tonearm; 4-pin plug-in cartridge head; 14 1/2" x 12 1/2" x 2 1/2" above deck & 2 1/4" below\$44.95
 Matching wood base.....\$ 5.25
 Extra plug-in shells.....\$ 2.75

DUAL

1009 Automatic Turntable

Manual & automatic single play and automatic changer operation with interchangeable spindles; dynamically balanced tonearm tracks under 1/2 gr.; accepts all high-compliance cartridges; interchangeable cartridge holder; four speeds (16, 33, 45, 78 rpm); variable over 6% range; strobe supplied; 7 1/2 pound nonferrous platter; motor resists line-voltage variations even exceeding 10%; direct-reading stylus force gauge 0-7 gr.; tracking error .4°/inch; pre-wired to permit shut-off of amplifier after play;



10 3/4" x 12 7/8" (3" below, 6" above deck); 110/220 v. a.c., 60 cycles.....\$99.50

1019 Auto/Professional Turntable

4-speed (78, 45, 33 1/3 & 16 2/3) design



featuring auto & manual operation in single play or changer modes; tonearm dynamically balanced in all planes; tracks & trips as low as 1/2 gr. stylus force; variable direct-reading stylus force adjustment; anti-skating compensation adjustment; 6% vernier pitch control; auto/manual cue-control operation; elevator-action changer spindle holds 10 records, lifts entire weight of stack off bottom record before changing; 7 lb. platter; prewired to shut off amp after last play. 10 3/4" x 12 1/2" x 6" above & 3" below deck. Less base.....\$129.50

1010 Auto/Standard Turntable

4-speed (78, 45, 33 1/3 & 16 2/3) design featuring auto & manual operation in single



play & changer modes. Elevator-action changer spindle holds 10 records, lifts entire weight of stack off bottom record before changing; prewired for shut-off of amp after last play; tracking range 2-7 grs.; tracking force applied in 1/2 gr. increments; no accessory gauge required; 10 1/2" x 12 3/4" x 6" above & 3" below deck. Less base..\$69.50

Accessories

AS-9 Automatic spindle for 45 rpm for all models\$4.80
 CH-9 Cartridge holder replacement for 1009\$3.00
 CH-10 Cartridge holder replacement for 1010\$3.00
 CH-19 Cartridge holder replacement for 1019\$3.00
 DCB-1 Combination walnut base and walnut-paneled plexiglass cover for all models\$29.50
 WB-49 Walnut-finish wood base for all models\$6.95
 WB-93 Oil-finish genuine walnut base for all models.....\$11.95
 DC-3 Deluxe dust cover for use with WB-93 base.....\$8.95

EMPIRE

Model 208 Turntable

Has three speeds; hysteresis synchronous motor; isolation-suspended motor and base plate; belt driven; 6 lb. aluminum turn-

2 Changers & Turntables

table; pop-up 45 rpm adapter spindle; rumble better than -65 db; wow and flutter less than .05%; satin chrome or satin gold finish; 14¹/₁₆" x 16¹/₁₆" x 2⁷/₈" above & 3¹/₂" below mounting board\$125.00

Model 398 Transcription System
Includes Model 208 turntable, Model 980 tonearm with Dyna-Lift, walnut base; size



17" w. x 15" d. x 8³/₄" h.\$185.00

Model 498 Transcription System
Includes Model 408 3-speed turntable, Model 980 tonearm, walnut base; size 16"

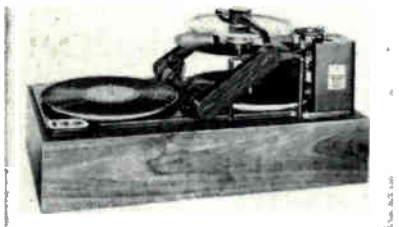


w. x 13³/₄" d. x 7¹/₂" h.\$169.95
Model 488 less base\$154.95

Model 408 Turntable
Available only as part of Models 488 and 498 transcription systems; compact size, 3-speed, belt-driven turntable; has 6 lb. aluminum turntable; pop-up 45 rpm adapter spindle; hysteresis synchronous motor; rumble better than -65 db; wow and flutter less than .07%.

FISHER

Model 70 Turnover Turntable
Automatically plays one or both sides of 7", 10", and 12" records intermixed;



holds up to 10 records (20 sides); more than 8 hours playing time; repeats one or both sides of each record if desired; only record in motion is one being played, permitting ideal stylus angle and pressure (3 grams) at all times; center spindle revolves with record, eliminating center-hole wear; electric trip mechanism leaves tonearm free during play; studio-quality turntable; two precision motors; 27" w. x 15³/₈" d. x 19³/₄" high over-all; single speed (33 rpm). Base optional at additional cost.....\$299.50

GARRARD

Model A70 Automatic Turntable
4-speed (16, 33¹/₃, 45 & 78 rpm) featuring dynamically balanced counterweighted



tonearm and weighted turntable; anti-skating device, stylus pressure gauge. Has plug-in cartridge shell, standard & manual spindles, manual 45 rpm adapter; less cartridge, base & 45 rpm automatic spindle.\$84.50

Model AT60 Automatic Turntable
4-speed (16, 33¹/₃, 45, 78 rpm); dynamically balanced tonearm; anti-skating device;



automatic intermix record operation; stylus pressure gauge & plug-in cartridge shell. Has standard & manual spindles; less cartridge, base & 45 rpm spindle.....\$59.50

Model 50 Automatic Turntable
4-speed (16, 33¹/₃, 45 & 78 rpm); counter-balanced tonearm, plug-in cartridge shell;



intermix; stylus pressure gauge; available less cartridge, base & 45 rpm automatic spindle\$44.50

Lab 80 Automatic Turntable



33¹/₃ & 45 rpm featuring manual cueing, counterbalanced wooden arm, 12" turn-

table, plug-in cartridge shell, magnetic end-of-record trip; stylus force pressure scale and anti-skating device; will change 7", 10" & 12" records. Has standard & manual spindles, manual 45 rpm adapter; less cartridge, base & 45 rpm spindle; 17" wide x 14³/₄" x 5¹/₂" above & 3¹/₂" below motorboard\$99.50

Wood Bases

- B9U for "Lab 80" unfinished.....\$5.95
- B9W for "Lab 80" walnut.....\$6.50
- B8U for "Type 70" unfinished.....\$4.95
- B8W for "Type 70" walnut.....\$5.50
- B10U for "AT60, 50" unfinished.....\$4.45
- B10W for "AT60, 50" walnut.....\$4.95

Accessories

- Mtg. boards available.....\$2.25
- 45 rpm spindles.....\$3.80
- Dust covers for all models.....\$4.95

KNIGHT

KN-990A Automatic Turntable
Automatic turntable; 4 speed (16, 33, 45, 78 rpm); tonearm adjustable from 0-5



grams; oversize 11" turntable; 4-pole motor; 13³/₈" x 12" x 4³/₂" above mtg. board, 3" below; controls: speed, function, tracking weight; plug-in pickup head\$49.95

LAFAYETTE

Model AC-10 Record Changer
Four speeds (16²/₃, 33¹/₃, 45, 78 rpm); automatic three-way shut-off; intermixes



records of same speed: Ronette ceramic turnover stereo cartridge; stylus pressure 5-7 grams; will play manually; 13¹/₂" x 12" x 7¹/₂"\$18.95
45 rpm spindle.....\$1.49
Walnut base.....\$4.50
Mahogany base.....\$3.95
Unfinished mounting board for AC-10 changer\$1.10

MARANTZ

SLT-12 Turntable/Tonearm



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1965 EDITION

Complete system includes straight-line tracking arm, 10 lb. rim-driven turntable, low-mass cartridge with ultra-high compliance, and walnut base. Turntable/arm mechanism floats on separate shock-mounted cast aluminum sub-chassis. Hysteresis synchronous motor; push-button operation: on, off, 33 rpm & 45 rpm. Positive cueing control sets stylus in desired groove, eliminating need to handle lightweight arm. Maintains tangency to groove radius within .05°. Tracking pressure 1 gr. or less; compliance 30 x 10⁻⁶ cm./dyne; elliptical diamond stylus; output 6 mv.; rumble —100 db. 18" w. x 14" d. x 6 1/2" h.\$295.00

MIRACORD

Model 10H Automatic Turntable

Can be used as manual single-record player (lifting arm starts turntable and at end



of play arm returns to rest and shuts off motor); automatic single-record player (where arm is operated automatically); continuous single-record player (record repeats automatically); automatic multiple-record player, accepts stack of up to 10 records; 6 lb. non-ferrous 12" turntable; hysteresis motor; stylus pressure gauge (2-6 grams); rumble —55 db; wow and flutter better than .1%; 14 1/2" w. x 12 1/2" d. x 5 3/4" above and 3 3/4" below mounting plate\$99.50
Lucite hinged cover\$14.95
DC-2 Clear plastic dust cover\$5.95
Walnut base 16 1/4" w. x 14 1/8" d. x 3 1/2" h.\$9.95
Walnut base with plexiglass hinged cover\$19.95
Mounting board\$3.00
Interchangeable plug-in head\$5.00
Automatic 45 rpm spindle\$5.00
Carrying case\$29.50

PW-40 Automatic Turntable

4-speed (16, 33, 45 & 78 rpm) design featuring manual or automatic operation. Will



play single record (automatic or manual), single record continuous, automatic multiple records (up to 10). Has automatic stop & lifting arm starts motor, a non-metallic 12", 6 lb. platter. Rumble —50 db; wow & flutter better than .1%. Stylus force 0 to 5 grs. Has stylus pressure gauge. 14 1/2" w. x 12 1/2" d. x 5 3/8" above mtg. plate & 3 3/4" below; right side clearance for arm 1"; supplied with tonearm less cartridge & base\$85.00
PW-40H Same as PW-40 but with hysteresis synchronous motor\$99.50
TL-1 Cueing device\$12.50

**the ELPA
PE-34**



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Includes 12
**great features normally found only
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- 4 Speeds.
- Belt **PLUS** idler wheel drive.
- A heavy cast and machined non-magnetic platter.
- A heavy-duty precision-built 4-pole induction motor.
- A vernier speed adjustment.
- Low resonance balanced arm.
- Built-in spring loaded stylus pressure adjustment gauge.
- Automatic tone arm lift at end of record.
- Semi-pneumatic cueing and indexed (7", 10", 12").
- Automatic fool-proof glide to and from record groove.
- Cueing lever incorporates positive tone arm lock.
- Full Year Guarantee.

The specifications prove it: There's a new concept in turntables—the PE-34 (backed by 50 years experience) . . . just like other Elpa Marketing Industries products that have set new hi-fi standards.

Don't let the price tag fool you . . . you can't do better at \$72. (± \$25.00 or 35%)

Stop in at your Franchised Elpa dealer and ask to see the new PE-34 in action. Price includes: Full Year Guarantee, Strobe Disc and 45 rpm adapter. Satin Walnut base optional at \$6.00. Base dimensions: 4" High x 15" Wide x 12 1/2" Deep.

DUST COVER AVAILABLE!
Style PC-34 Sturdy Plexiglass \$9.00

For complete literature and name of dealer nearest you write Dept. SD

**PERPETUUM-
EBNER**
a division of



Elpa Marketing Industries, Inc. New Hyde Park, N. Y.

2 Changers & Turntables

Other accessories same as for Model 10H.

Model 18H Automatic Turntable

Identical in performance & design to Model 10H except it does not change records (single-play only) and has added feature of cueing mechanism. A lever causes platform to rise for desired position over record. A silicone-damped piston lowers cartridge gently\$110.00
Accessories same as for Model 10H.

PERPETUUM-EBNER

PE-34 Turntable/Arm Assembly

4-speed (78, 45, 33½, 16½ rpm); belt plus idler wheel drive; 4-pole induction motor;



vernier speed adj.; automatic tonearm lift at end of record; cueing lever. Has cartridge mounting slide, stylus pressure adj. gauge. 13" x 10¾" x 3" above mtg. board & 3⅞" below. Includes 45 rpm adapter & strobe disc\$72.00
Walnut base 4" x 15" x 12½"\$6.00
Plexiglass dust cover.....\$9.00

RCA

Studiomatic Record Changers

4-speed (78, 45, 33 & 16 rpm) automatic/manual changer; plays all size records intermixed. Has illuminated strobe, muting sw.; ceramic flip-over cartridge with .7 mil diamond styli; chrome-plated finish. With walnut base. 4⅞" base, 8⅜" over-all x 15⅜" w. x 14⅜" d.\$79.95
Model MGL32\$79.95
Model MGL22 Same except does not have muting sw., Studio-Strobe, or chrome plating. Has walnut-grained base; 3⅜" base, 8⅜" over-all x 15⅜" w. x 14⅜" d.\$65.00

REALISTIC

1011 Deluxe Automatic Changer

Made in Germany by "Dual." 4-speed design with stylus pressure adjustment; elevator-action spindle; diamond mag. stereo cartridge. Features automatic intermix for records up to 12". 10½" x 12¾".



42R2556\$59.51
42R2336 Walnut base.....\$ 5.95
42R2552 45 rpm spindle.....\$ 4.80
42R2553 Extra cartridge holder.....\$ 3.00
42R2554 Plexiglass dust cover.....\$ 8.95

4-Speed Automatic Changer

Supplied with ceramic stereo cartridge; plays 16½, 33½, 45 & 78 rpm records; accepts 7", 10" & 12" records; 13" x 11¼" x 1¼" above & 4¼" below mtg. board.



42R2293\$24.95
42R2295 Walnut mtg. board.....\$ 3.95
42R2294 45 rpm spindle.....\$ 1.95
42R2295 Complete system.....\$29.95

Model 10 Automatic Turntable

Made in Germany; 4-speed (78, 45, 33½, 16½ rpm) design; will play 7", 10", 12" records in 4 modes of operation (manual, automatic or continuous single record play & automatic multiple disc play). Has 7 lb., 12" turntable, 42R2312.....\$69.95
42R2311 With Elac-222 cartridge.....\$72.95
42R2443 Walnut base.....\$ 6.95
42R0221 45 rpm spindle.....\$ 5.00
42R2314 Plexiglass dust cover.....\$ 5.95

REK-O-KUT

Model B-12H Stereotable

3-speed; hysteresis synchronous motor; 12" aluminum turntable; rubber mat; rim



driven by idler wheel; noise level: better than 59 db below average recording level; removable 45 rpm adapter; pilot light; dimensions for cabinet installation: left to right 17¾", front to back 16", height above deck 3", height below deck 6¼"; finish: silver-tone aluminum.....\$165.00
Base BH walnut.....\$18.95

Model B-12GH

All specifications identical to B-12H with the following exceptions: noise level -57 db; new design hysteresis synchronous motor; 4¾" below deck.....\$109.95
Base BH walnut.....\$18.95

Model B-16H Turntable

16" cast aluminum 3-speed turntable primarily for broadcasting and recording studio use; hysteresis synchronous motor; rubber mat; rim-driven by idler wheel; noise level: 50 db below average recording level; wow, flutter, and speed regulation meet NAB standards; built-in retractable hub for 45 rpm records; size of deck: 18¾"x20"; clearance required: above deck 1½"; below deck 6½"; finish: wrinkle gray; uses neoprene compound idlers; rotates on single-ball pivot.....\$275.00



Model C-7B Cabinet

Console cabinet designed to accommodate B-16H turntable without use of screws or bolts; 2 storage compartments; hinged doors with flush ring-latches; built-in electrical outlet; adjustable leveling domes; size: 33"h x22"w x20½"d; finish: metallic gray.....\$150.00
Model C-7BT (cut for any turntable).....\$165.00

Model CVS-12 Turntable

Variable speed turntable operates on either 50 or 60 cycle current; speed variable from 25 to 100 rpm at 60 cycles and from 20 to 85 rpm at 50 cps.....\$99.95

Model R-34 Turntable

Dual-speed (33½ & 45 rpm) design including tonearm & base; features hysteresis



synchronous, capacitor start/run motor; belt driven; wow & flutter .08% r.m.s.; noise - 60 db @ 1000 cps; tonearm features plug-in head, separate ground lead, & less than 1 gr. tracking pressure; walnut base\$89.95
DC-1 Plastic dust cover\$5.95

STANTON

Model 800B Stereotable

Complete record playing system which in-



cludes "Gyropoise" turntable, Model 200 "Unipoise" tonearm & walnut base; 15⅞" w. x 12¾" d x 6".....\$99.00

THORENS

Model TD-121 Turntable

Single-speed turntable (33½ rpm); same precision Swiss assembly as Model TD-124;



8-pound cast non-magnetic 12" turntable with combination belt and idler drive for isolation of motor vibration; adjustable speed control (± 3%); self-lubricating bronze bushings on main drive shaft; separate tonearm board; adjustable built-in leveling feet; metal strobe disc included; 15½" x 12¾" x 2¾" below base plate\$85.00
Base in walnut, ebony, mahogany.....\$12.50

Model TD-124 Turntable

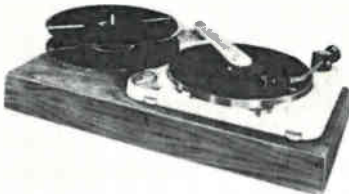
Four-speed transcription turntable; 11½ pound cast-iron and aluminum turntable



with built-in retractable hub for 45 rpm records and heavy rubber mat; extremely low wow, flutter, and rumble; induction-type roto-isolated drive motor; two-step speed reduction between motor and turntable—belt driven flywheel and stepped pulley-idler wheel speed shaft allows pulley to revolve at half the speed of conventional system—affording better contact with idler wheel; automatic disengagement of idler wheel; variable speed control ($\pm 3\%$) on all speeds with new eddy current brake design; self-contained 12" and 16" tonearm mounting boards; leveling knobs and built-in spirit level; base plate size 15½" x 12¾", required depth 2¼".....\$125.00
Base in walnut, ebony, mah.....\$12.50
TD-124 Series II. Similar to TD-124 but different color, knobs & escutcheon plate, a nonferrous platter, and new motor suspension\$125.00

TD-224 "Masterpiece"

Combination turntable & record changer; an unusual design in that record stacking is



completely separate from turntable; records are played automatically and changed individually; includes Model BTD-12S tonearm; built-in record cleaning device; illuminated stroboscope; variable speed control; features 4 speeds; plays up to eight 7" to 12" intermixed records automatically; level indicator; automatic shut-off; base size 27" w. x 14½" d. x 4¼" h.; max. height for operation 9¼".....\$250.00

TD-150AB Turntable/Arm System

Unisuspension 2-speed (33½ & 45 rpm) turntable with tonearm & base. Belt-driven

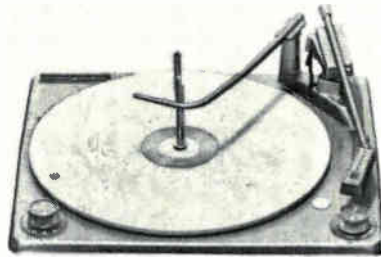


design, 12", 7½ lb. turntable. Tonearm balanced in horizontal & vertical planes. Has plug-in cartridge shell with provisions for adjusting vertical tracking angle. 15½" x 12¾" x 4¾" h.\$99.75
TD-150 Same without tonearm & base\$75.00

V-M CORP.

1575-3 Deluxe "Stere-O-Matic"

Automatic changer; plays all 4 speeds (16, 33½, 45, 78 rpm); 11" turntable. Tonearm



returns to rest post automatically after single record play & changer shuts off after last record has played. Wow .42% r.m.s.; flutter .21% r.m.s. & rumble .3% or less. Has tubular tonearm & diamond stylus. 8" h. x 13¼" w. x 12" (5¼" above mtg. board & 2¼" below) Retail price.....\$45.00
Model 1552. Similar in design to Model 1575 except has 9" turntable & 8½" h. Retail price.....\$32.50

WEATHERS

ML-66-A Low-Silhouette Turntable

Plug-in head accepts any make cartridge; has micrometer adjustment for normal range of tracking force; full-time vertical & lateral viscous-damped universal tonearm; no skating; base and tonearm of non-resonant walnut or oiled-walnut.....\$91.50
Model K-66 with low dynamic mass (C-66) cartridge; tracking pressure below 1.5 grams\$79.50

Model TP-2225 Stereo Turntable

Complete system, turntable, tonearm, cartridge, transistorized preamp & walnut base.



Has 12-pole synchronous hysteresis motor, viscous-damped tonearm, automatic shut-off, two pilot lights, headphone output connection. Response 20-20,000 cps ± 1 db; channel separation 40 db @ 8000 cps, 30 db @ 12,000 cps. Output .5 v. (50 kohms) at 5 cm./sec.; compliance 30 x 10⁻⁶ cm./dyne; stylus .5 mil; tracking force 1 gr. Single speed 33½ rpm. Special "seismic platform" isolates turntable from room vibration 500 to 1 ratio. 14" w. x 16" d. x 3½" h. (including arm).....\$149.50

"The Townsend" Turntable

Single speed 33½ rpm design. Rumble -50 db; wow & flutter .03%. Has uni-



versal cartridge mount for any make cartridge; adjustable stylus pressure & tracking angle. Walnut tonearm & base.
Model 82-1 without cartridge.....\$59.95
Model 82-2 with stereo cartridge.....\$69.95

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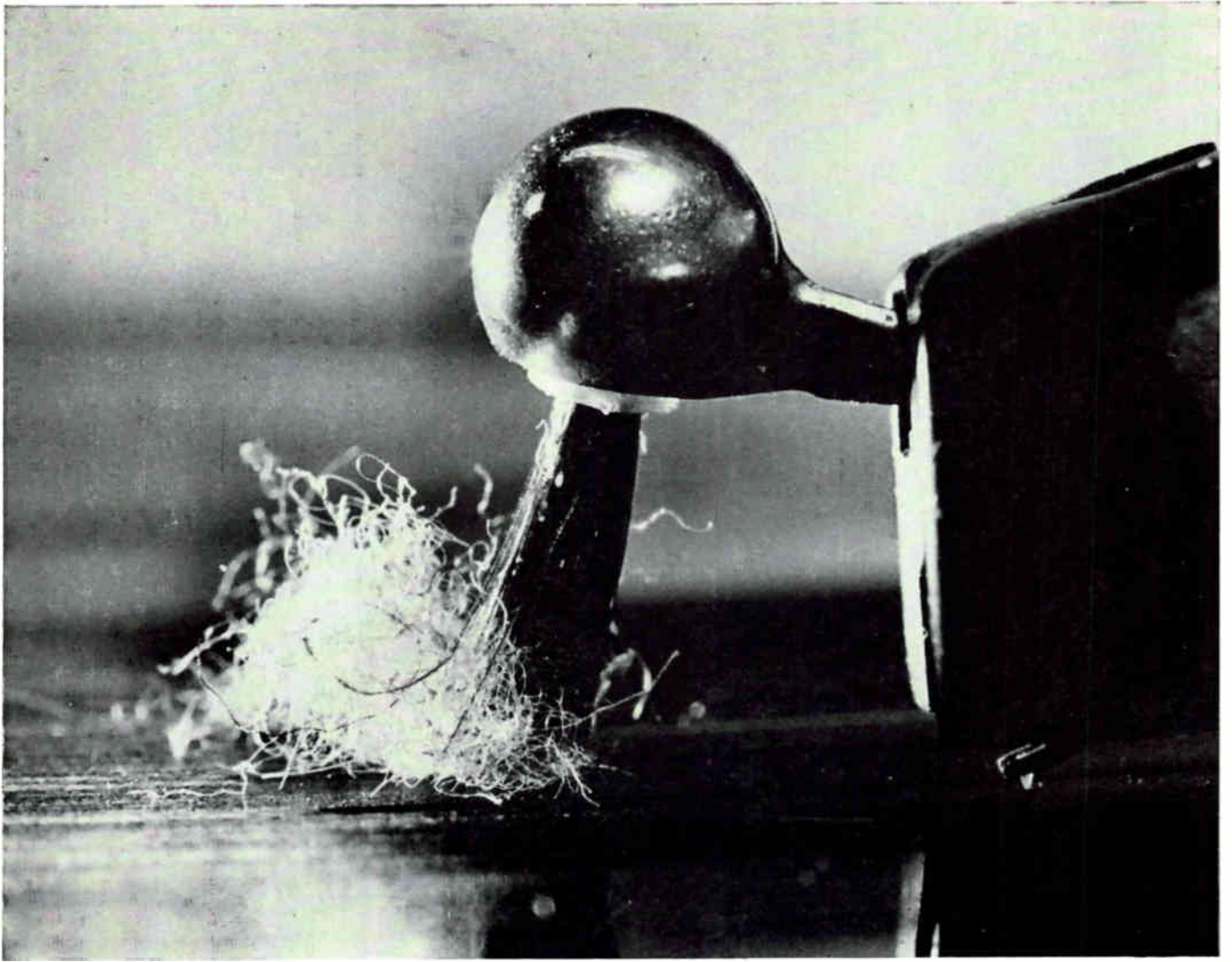
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LETTERS READY?—MAIL THEM EARLY!



You are looking at the world's only true longhair cartridge.

In this unretouched photograph, the long, black hair of the brush built into the new Stanton 581 is shown in action on a rather dusty record. Note that all the loose lint, fuzz and dust are kept out of the groove and away from the stylus. That's why the Longhair is the ideal stereo cartridge for your Gesualdo madrigals and Frescobaldi toccatas. Its protective action is completely automatic, every time you play the record, without extra gadgets or accessories.

The stem of the brush is ingeniously hinged on an off-center pivot, so that, regardless of the stylus force, the bristles never exert a pressure greater than 1 gram and always stay the right number of grooves ahead of the stylus point. The bristles provide just the right amount

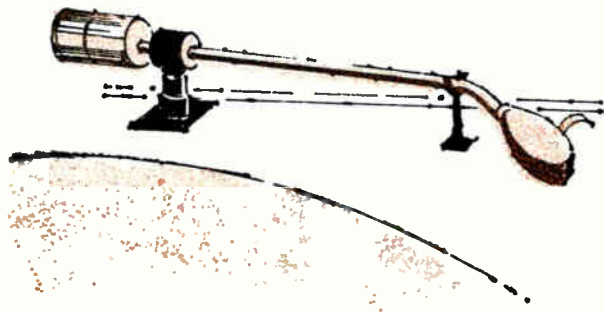
of resistance to skating, too.

But even without the brush, the Stanton 581 Longhair is today's most desirable stereo cartridge. Like its predecessors in the Stanton Calibration Standard series, it is built to the uniquely stringent tolerances of Stanton professional audio products. Its amazingly small size and light weight (only 5 grams!) make it possible to take full advantage of the new low-mass tone arms. And its frequency response is factory calibrated within 1 db from 20 to 10,000 cps and within 2 db from 10,000 to 20,000 cps. Available with 0.5-mil diamond (581AA) or elliptical diamond (581EL); price \$49.50.

For free literature, write to Stanton Magnetics, Inc., Plainview, L.I., N.Y.

Stanton

CIRCLE NO. 59 ON READER SERVICE CARD



CARTRIDGES, TONEARMS & ACCESSORIES

CARTRIDGES	43
TONEARMS	48
ACCESSORIES	50

ADC

"Point Four/E" Stereo Cartridge

For manual turntables. Induced magnet design; sensitivity 5 mv. @ 5.5 cm./sec.; channel separation 30 db, 50-8000 cps; response 10-20,000 cps \pm 2 db; elliptical stylus, contact radius .0002", lateral radius .0008"; vertical tracking angle 15°; tracking force $\frac{3}{4}$ to 1 $\frac{1}{2}$ gr. IM dist. less than 1% @ 14.3 cm./sec. velocity; compliance 30×10^{-6} cm./dyne\$60.00
"Point Four" with standard stylus.....\$50.00

600/E Stereo Cartridge

For automatic turntables & changers capable of operating at low tracking force. Induced



magnet design; sensitivity 7 mv. @ 5.5 cm./sec.; separation 30 db, 50-8000 cps; response 10-20,000 cps \pm 3 db; contact radius .0002", lateral radius .0008"; 15° vertical tracking angle; 1-3 gr. tracking force; IM dist. less than 1% @ 14.3 cm./sec.; compliance 20×10^{-6} cm./dyne.....\$39.50

770 Stereo Cartridge

For good quality record changers. Same as Model 600/E except 8 mv. sensitivity, .7-mil stylus, 2-6 gr. tracking force, compliance 15×10^{-6} cm./dyne.....\$29.50

ASTATIC

Model 45D "Cantata" Cartridge

Ceramic stereo design featuring miniature alpha ray nuclear source which keeps



grooves free from foreign particles by dissipating static charge from record surface; 20-20,000 cps; 0.2 volt output at mag-

netic input (1000 cps @ 5 cm./sec.); separation 30-35 db; tracking force 1 gram; diamond needle; supplied with two equalizing networks to convert ceramic to RIAA magnetic input\$44.50

DUAL

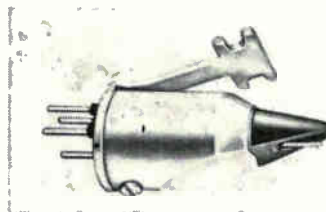
DMS-900 Magnetic Stereo Cartridge

Tracking pressure 1.5-5 grs.; response 20-20,000 cps \pm 3 db; output 6 mv. @ 5 cm./sec. and 1000 cps; separation 28 db @ 1000 cps; IM distortion 4% @ 5 cm./sec.; hor. compliance 4×10^{-6} cm./dyne; vertical compliance 3×10^{-6} cm./dyne; load 12,000-47,000 ohms; has .7-mil diamond stylus\$34.50

DYNACO

Stereodyne III Cartridge

Moving-iron stereo cartridge imported from B&O of Denmark; 15° stylus angle; 4

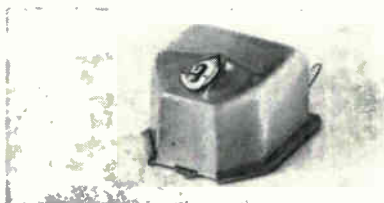


coils used in push-pull pairs; response \pm 2 db from 20 to 20,000 cps; output 7 mv. per channel at 5 cm./sec.; tracking force 1-3 gr.; recommended load 47,000 ohms; 0.7 mil diamond stylus.....\$19.95
Replacement diamond stylus 0.5, 0.7, or 3 mil available.....\$11.95
Stereodyne II cartridge similar to Stereodyne III except 30-15,000 cps; and 2.4 gr. tracking force.....\$17.95
Replacement styli for Stereodyne II..\$ 9.95

ELAC

Model 322 Stereo Cartridge

Moving-magnet design; less than 2% IM & 1% harmonic distortion; Response 20-



20,000 cps \pm 2 db; channel separations 25 db @ 1000 cps, 20 db @ 10,000 cps, 12 db @ 20,000 cps; output per channel 7 mv. @ 7 cm./sec.; compliance 14×10^{-6} cm./dyne

(lateral & vertical); stylus force 1.5-3 grs. with most arms (1 gr. with some); supplied with .52 mil radius diamond stylus\$34.95
Model 322.7 with .7 mil diamond stylus\$29.95
Model 322E with elliptical diamond stylus\$39.95

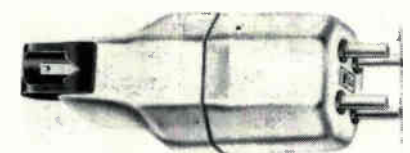
Model 240 Stereo Cartridge

Moving-magnet design. HD less than 1%; IM less than 2%. Response 20-15,000 cps \pm 1 db; channel separation 25 db @ 1000 cps, 12 db @ 20,000 cps; output 7 mv. (7 cm./sec.); compliance vertical & horizontal 14×10^{-6} cm./dyne. Stylus force 1.5-3 grams. .7 mil diamond stylus \$19.95

EMPIRE

Model 880 Stereo Cartridge

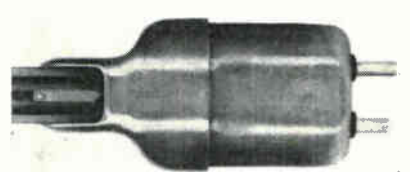
Response 10-25,000 cps \pm 1 $\frac{1}{2}$ db; output .01 volt per channel; .7 mil diamond styl-



us; $\frac{3}{4}$ to 6 gram tracking pressure; load impedance 47,000 ohms; channel separation 30 db or more; stylus compliance (vertical and horizontal) 10×10^{-6} cm./dyne; 4-terminal output; moving magnet design. Features 15° vertical tracking angle.....\$19.95

Model 880P Stereo Cartridge

Response 10-28,000 cps; channel separation more than 30 db; output 8 mv./channel;



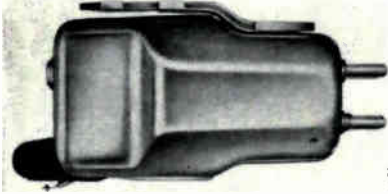
stylus compliance (vertical and horizontal) 15×10^{-6} cm./dyne; tracking force $\frac{1}{4}$ to 4 grams; .6 mil diamond stylus; 4-terminal output; load impedance 47,000 ohms. Features 15° vertical tracking angle.....\$19.95

Model 880PE Stereo Cartridge

Features 15° vertical tracking angle. Response 8-30,000 cps; output 8 mv./ch.; separation more than 30 db; 47,000 ohm load impedance; compliance 20×10^{-6} cm./dyne; tracking force $\frac{1}{2}$ to 4 grams; stylus $2 \times .9$ mil bi-radial elliptical diamond; 4-

3

Phono Cartridges



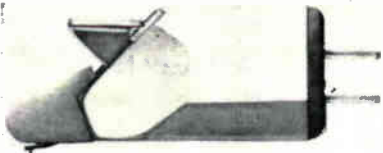
terminal output.....\$29.95

Model 888 Stereo Cartridge

Response 12-25,000 cps; output 8 mv./ch.; separation 30 db; 47,000 ohm load impedance; vert. & horiz. compliance 10×10^{-6} cm./dyne; 3/4 to 6 gr. tracking force. Features 15° tracking angle. Supplied with .7 mil diamond (brown) stylus\$19.95

Model 888P Stereo Cartridge

Response 10-28,000 cps; output 8 mv./ch.; separation 30 db; 47,000 ohm load im-



pedance; vert. & horiz. compliance 15×10^{-6} cm./dyne; 1/2 to 4 gr. tracking force. Features 15° tracking angle. Supplied with .6 mil diamond (orange) stylus\$21.95

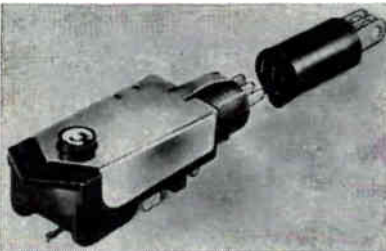
Model 888PE Stereo Cartridge

Response 8-30,000 cps; output 8 mv./ch.; separation 30 db; 47,000 ohm load impedance; compliance 20×10^{-6} cm./dyne; 1/2 to 3 gr. tracking force. Features 15° tracking angle. Supplied with .9 mil bi-radial elliptical diamond (yellow) stylus\$32.95

EUPHONICS

"Mini-Mass" Ceramic Stereo Cartridge

Tracks at 1 gr. with a low-mass arm. Compliance 17×10^{-6} cm./dyne. Response



20-20,000 cps; .7 mil diamond with 3-mil sapphire on separate shanks.

Model U-13 1000 pf., .3 v. output.....\$10.29

Model U-13-5 7500 pf., .15 v. output\$11.64

The high capacity unit is for transistorized circuitry.

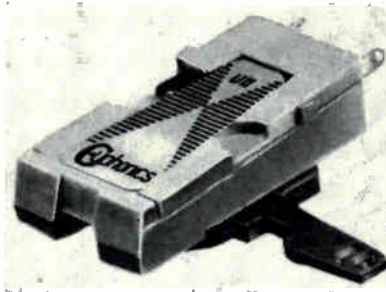
U-15-P Stereo Cartridge

More rugged design with .5 mil conical stylus. Response 20-20,000 cps ± 2 db. Separation 25 db @ 1 kc. (5 db @ 15 kc.); compliance 15×10^{-6} cm./dyne; tracking force .75-3 grs.; 15° tracking angle. Operates on semiconductor strain gauge principle and must be used with 12 v. d.c. supply\$20.00
U-15P (P1) Plug-in design for use with

TA-15 tonearm\$20.00
PS-15 Power source\$19.00

"Soft-Touch" Ceramic Stereo Cartridge

Features retractable stylus; response 20-20,000 cps; compliance 8×10^{-6} cm./dyne;



tracking force as low as 1.5 grs.; channel separation 25 db @ 1000 cps; has 7-mil diamond & 3-mil sapphire stylus.

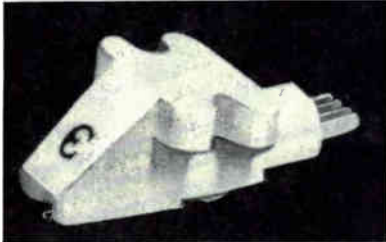
Model U-11R 1000 pf., .5 v. output.....\$10.29

Model U-113R 7000 pf., .2 v. output \$11.61

The high capacity unit is for transistorized circuitry.

U-15-LS Stereo Cartridge

Features bi-radial stylus; compliance 25×10^{-6} cm./dyne; response 20-20,000 cps \pm



2 db. Separation 25 db @ 1 kc. (10 db @ 15 kc.); tracking force .5-1.5 gr. or less; 15° tracking angle. Operates on semiconductor strain gauge principle and must be used with 12 v. d.c. supply\$36.00
U-15-LS (P1) Plug-in design for use with company's TA-15 tonearm\$36.00
PS-15 Power source\$19.00

GENERAL ELECTRIC

Model VR-225 Stereo Cartridge

Magnetic variable reluctance design; response 20-20,000 cps ± 3 db; output 5 mv. @ 3.8 cm./sec.; separation up to 25 db nominal; channel balance within 2 db 1000 cps; load impedance 47,000 ohms optimum; lateral compliance 4×10^{-6} cm./

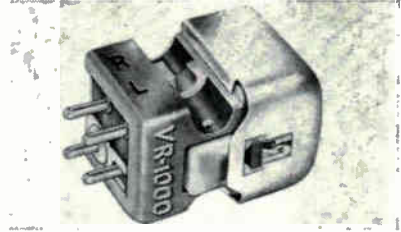


dyne; vertical compliance 3×10^{-6} cm./dyne; tracking force 2-4 grams; .5-mil replaceable diamond stylus.....\$17.95

Model VR1000-5 "Orthonetic" Stereo Cartridge

For use with professional-type turntables and arms and record changers that will track below 4 grams; response 20-20,000 cps ± 3 db; tracking force 1-3 grams; vertical compliance 6×10^{-6} cm./dyne; lateral compliance 6×10^{-6} cm./dyne;

47,000 ohm load impedance; output 1 mv./cm./sec.; separation 25 db at 1000



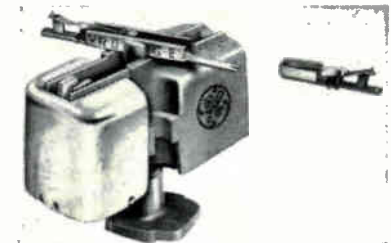
cps; channel balance within 2 db at 1000 cps; .5-mil replaceable diamond stylus\$29.95

Model VR1000-7 "Orthonetic" Stereo Cartridge

Similar to VR1000-5 except for use with any changer that will track from 3-7 grams; lateral compliance 4.5×10^{-6} cm./dyne; vertical compliance 4×10^{-6} cm./dyne; separation 20 db; has .7-mil replaceable diamond stylus.....\$24.95

Series VR-II Monophonic Cartridge

Variable reluctance magnetic design; single- and triple-play turnaround models; re-



sponse 20-20,000 cps; output voltage 10 mv. at 5.5 cm./sec.; lateral compliance 1.7×10^{-6} cm./dyne; vertical compliance $.5 \times 10^{-6}$ cm./dyne; load impedance 100,000 ohms with 300 pf. shunt capacity; 47,000 ohms with 400 pf.; 6200 ohms with 1000 pf.; tracking force 4 grams with 1-mil stylus and quality tonearm; 6 grams with 3-mil stylus and quality tonearm; 6-8 grams for dual 1- & 3-mil styli used with record changer; replaceable stylus.

Model 4G-050 (1 and 3 mil sapphire styli)\$12.95

Model 4G-052 (1-mil diamond; 3-mil sapphire styli).....\$16.95

Model 4G-053 (1-mil and 3-mil diamond styli)\$19.95

Model 4G-040 (3-mil sapphire).....\$9.95

Model 4G-041 (1-mil sapphire stylus)\$9.95

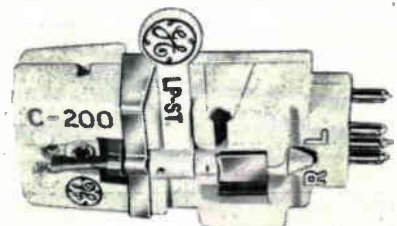
Model 4G-061 (1-mil diamond stylus)\$13.95

Model 4G-063 (3-mil diamond stylus)\$13.95

G-E stylus color code—Brown, .5 Dia.; Green, .7 Dia.; Black, 1.0 Dia.; Yellow, 2.5 Dia.; Violet, 3.0 Dia.; Blue, .7 Saph.; Red, 1.0 Saph.; White, 2.5 Saph.; None, 3.0 Saph.

Model C100A Stereo Ceramic Cartridge

Response 20-12,000 cps; output 450 mv.; channel balance 3 db at 1000 cps; Load



1 megohm, 100 picofarads; compliance 2.5×10^{-6} cm./dyne; Tracking force 5-6 gr. Replaceable stylus .7 mil Dia. & 3 mil Saph.\$15.90

Model C200 Stereo Ceramic Cartridge

Same as Model C100A except response 20-17,000 cps & output 300 mv.....\$15.90

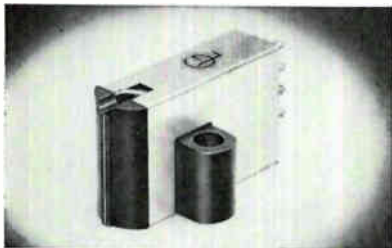
Model VR-227 Stereo Cartridge

Same as VR-225 except response 20-17,000 cps; lateral compliance 2.5×10^{-6} cm./dyne; vertical compliance 2×10^{-6} cm./dyne; tracking force 5-7 grams; .7-mil replaceable diamond stylus.....\$16.95

GRADO

Model "A" Stereo Cartridge

Response 10-50,000 cps; output without transformer, 400 ohm, 1 mv. @ 5 cmv.; with transformer, 6000 ohms, 4 mv. Recommended load 47,000 ohms to 1 megohm



with transformer. Tracking force 1-2 grams depending on tonearm. Vertical tracking angle 15° ; dynamic compliance 10×10^{-6} ; channel separation 25 db from 20 cps to 20 kc. Has twin-tip diamond stylus\$50.00

ORTOFON

Model SPU/GT Stereo Cartridge

Response 20-20,000 cps; channel separa-



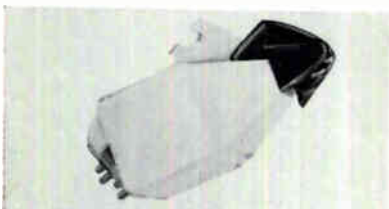
tion 20-25 db; load impedance 50,000 ohms; output at 1 kc. 7 mv. per channel; compliance 10×10^{-5} cm./dyne; stylus pressure 1 to 2 grams; 4-pin terminal; cartridge is supplied mounted and enclosed within plug-in head; will fit any Ortofon tonearm.....\$50.00 With elliptical stylus.....\$75.00

Model SPU/T Stereo Cartridge

Identical to Model SPU/GT but without plug-in head; can be mounted in almost any make of tonearm.....\$50.00 With elliptical stylus.....\$75.00

PICKERING

U38/ATG Series Stereo Cartridge



Designed especially for use with automatic turntables; response 20-20,000 cps; output 11 mv.; channel separation 35 db; magnetic "Fluxvalve" design.

revolutionary new semiconductor transducer breaks all barriers that limit existing phono cartridges



Euphonics MINICONIC®

Easily installed

- Phenomenal 13 Octave Range. DC to 50 kcps.
- Silicon Semiconductor Elements. 10,000 times the power of magnetics. World's most efficient, hum-free cartridge.
- Lowest Effective Tip Mass. Tracks 40 kcps 2nd harmonic pinch effects of 20 kcps fundamental—stylus tip stays in groove at all frequencies.
- Elliptical Biradial Diamond Stylus. No playback loss from outside to inside grooves.
- Energy Derived from External Power Source. Saves record grooves.



See your distributor or write for "The Story of Euphonics Miniconic"



TK-15-LS Lab Standard Phono System. TA-15 low-mass arm, with U-15-LS plug-in cartridge (biradial diamond) and PS-15 power source. For magnetic or auxiliary inputs. USER NET **87.50**

TK-15-P Professional Phono System. As above, but with U-15-P cartridge and .5 mil tip conical diamond stylus. USER NET **71.50**

CK-15-LS Lab Standard Phono Conversion Kit. U-15-LS cartridge (biradial diamond) for standard heads, and PS-15 power source. For magnetic or auxiliary inputs. USER NET **55.00**

CK-15-P Professional Phono Conversion Kit. As above, but U-15-P cartridge with .5 mil tip conical diamond stylus. USER NET **39.00**

MADE IN U.S.A.

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Kit w/walnut finished cabinet..... **\$44.95** Completely assembled unit in walnut finished cabinet **\$54.95**

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CIRCLE NO. 13 ON READER SERVICE CARD

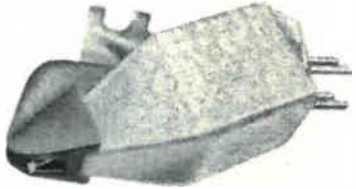
3

Phono Cartridges

Diamond stylus, tracking force from 1 to 3 grams\$17.95

380 C Series Stereo Cartridges

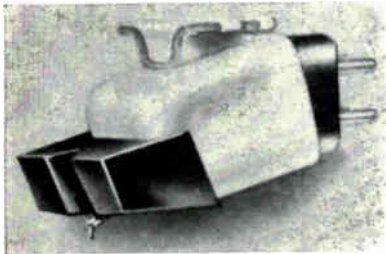
Frequency response 20-17,000 cps; output



18 mv.; channel separation 35 db; magnetic "Fluxvalve" design with removable "V-Guard" diamond stylus; for automatic record changers, 4-7 grams tracking force.\$11.75

V-15 15° Cartridges

15 degree tracking angle design. Has Mu-metal shielding & a replaceable floating stylus. Response 20-20,000 cps. channel

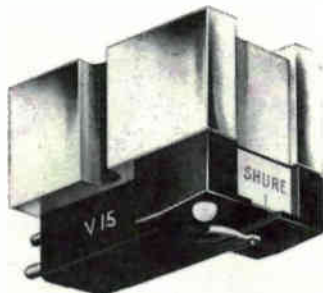


separation 35 db. AC-2 For inexpensive or old-style record changers where high output and heavier tracking force (3-7 gr.) are required. Output level is 7.5 mv.\$17.95
 AT-1 For automatic turntables or medium-priced systems where lighter tracking force (1-5 gr.) is desired. Has 6.9 mv. output & flat response\$19.95
 AM-1 For manual turntables & higher-priced systems. Tracking force ¾-3 gr. 5.5 mv. output; flat response & low mass (5 gr.)\$21.95
 AME-1 Elliptical bi-radial stylus; ¾-1½ grs. tracking force; flat response; low mass (5 grs.); 5.5 mv. output.....\$29.95

SHURE

Model V-15 Stereo Dynetic Cartridge

Features biradial elliptical stylus, 15° vertical tracking angle & scratch-proof re-

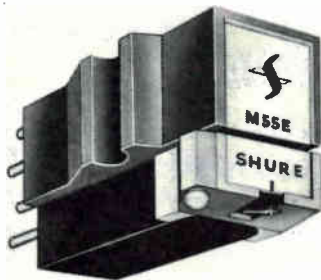


tractile stylus. Response 20-20,000 cps; output 6 mv./ch. @ 1000 cps (5 cm./sec.); channel balance within 2 db; separation over 25 db from 20-5000 cps, over 20 db 5000 to 10,000 cps; tracking force ¾-1½ grs. Compliance vertical & horizontal 25 x 10⁻⁶ cm./dyne; load impedance 47,000

ohms; Diamond stylus .7 mil frontal radius, .2 mil side contact radii, 1.0 mil wide between record contact points.....\$62.50
 Replacement stylus VN2E.....\$25.00

M55E Stereo Cartridge

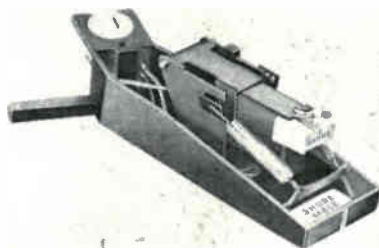
Similar in design & performance to Model V-15 except produced and tested under



normal manufacturing processes. The V-15 gets individualized attention both in manufacture and testing.....\$35.50
 Replacement stylus for N55E cartridge.....\$20.00

M80E "Gard-A-Matic" Cartridge

Stereo Dynetic design with elliptical stylus (.0007" x .0002" radius) for use in Garrard



Lab 80 & Model A70 Series Automatic Turntables. 15° cartridge; spring-mounted in tonearm shell. Features retractable stylus with safety bumper when forces in excess of 1½ grs. are applied. Response 20-20,000 cps; output 6.6 mv. @ 5 cm./sec.; channel separation 25 db; compliance 25 x 10⁻⁶ cm./dyne; tracking force 1½ grs. max.; load impedance 47,000 ohms.....\$38.00

M44 Series Stereo Cartridges

Features 15° tracking angle, retractile stylus. Response 20-20,000 cps, channel separation greater than 25 db. Appearance similar to M55E.

M44-5 compliance 25 x 10⁻⁶ cm./dyne; tracks ¾-1½ grs. with .5 mil diamond; output 6 mv./ch.....\$21.95
 Replacement stylus N44-5.....\$11.35
 M-44-7 cartridge compliance 20 x 10⁻⁶ cm./dyne; tracks at ¾-1½ grs. with .7 mil diamond; output level 9 mv/ch\$19.95
 Replacement stylus N44-7.....\$ 9.75
 N44-1 For mono LP records at 1½ to 3 grs. with .001" diamond.....\$9.75
 N44-3 For 78 rpm mono records at 1½ to 3 grs. with .0025" diamond.....\$9.00

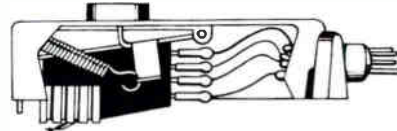
Model M3D Stereo Cartridge



May be used with mono or stereo records; frequency response 20 to 15,000 cps ±3 db; compliance (vertical and lateral) 4x10⁻⁶ cm./dyne; output 5 millivolts; tracking force 3-6 grams; recommended load impedance 50,000 ohms; 0.7-mil diamond stylus.....\$15.75
 N3D replacement diamond stylus.....\$7.95

M-99 "Gard-A-Matic" Cartridge Assembly

Designed for Garrard and Miracord automatic turntables; supplied mounted in shell; is scratch-proof, bounce-proof & will track



all records at 2 grs.; response 20-20,000 cps; tracking force 1.5-3 grs; separation 22.5 db @ 1 kc.

Model M99/A for Garrard Laboratory type A turntable, with .7-mil diamond stylus\$24.75
 Model 99/AT6 Same, for Garrard AT6, AT60, and Model 50.....\$24.75
 Model M99/M10 Same, for Miracord M10 & M10H.....\$24.75
 Model N99 Replacement stylus.....\$12.95

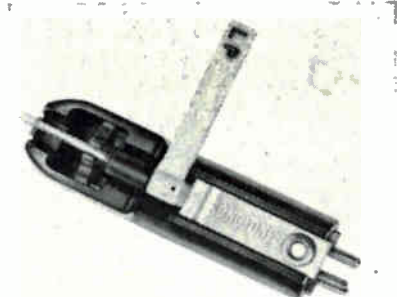
Model M7/N21D

Features a tracking force of 2½ grs. or less. Response 20-20,000 cps; output 4 mv. per channel; compliance 9 x 10⁻⁶ cm./dyne; separation over 20 db.....\$17.95
 N21D Replacement stylus.....\$12.50

SONOTONE

25T, 26T, 27T, 28T Stereo Cartridges

Designed for lightweight tonearms in manual or changer operation. Ceramic design.



Model 25T High compliance 15 x 10⁻⁶ cm./dyne; output .2 v.; separation 27 db; tracking force 1 to 3 grs.\$11.25
 Dual sapphire\$14.70
 Diamond/sapphire\$14.70
 Model 26T High output .5 v.; compliance 5 x 10⁻⁶ cm./dyne; separation 22 db; tracking force 3 to 6 grs.\$11.25
 Dual sapphire\$14.70
 Diamond/sapphire\$14.70
 Model 27T For transistor application; output .25 v.; compliance 5 x 10⁻⁶ cm./dyne; separation 22 db; capacitance 4500 pf.; tracking force 3 to 6 grs.\$12.00
 Dual sapphire\$15.45
 Diamond/sapphire\$15.45
 Model 28T Output .35 v.; compliance 9 x 10⁻⁶ cm./dyne; tracking force 2 to 4 grs.; separation 22 db.\$11.25
 Dual sapphire\$10.50
 Diamond/sapphire\$10.50

Model 24T Ceramic Stereo Cartridge

For transistorized amplifiers; output .25 v.; compliance 4 x 10⁻⁶ cm./dyne; separation 21 db; tracking force 4-7 grs. capacitance 4500 pf.\$10.50
 Dual sapphire\$10.50

Diamond/sapphire\$13.95

Model 35T Ceramic Stereo Cartridge
 High output for transistorized amplifiers: output 1 v.; compliance 1.5×10^{-6} cm./dyne; separation 20 db; tracking force 6-8 grs.; capacitance 850 pf.
 Dual sapphire\$12.00
 Diamond/sapphire\$15.45

Model 20T Stereo Crystal Cartridge
 Turnover-type cartridge for LP, 45 & 78 records. Direct replacement for Ronette, Vaco, and BSR type cartridges.
 20T1-S output of 1 v. (dual sapphire)\$4.40
 20T2-S output of 2 v. (dual sapphire)\$4.40
 21T1LB-S available without bracket (dual sapphire)\$4.10
 20T2LB-S available without bracket (dual sapphire)\$4.10

Model 14T Mono Crystal Cartridge
 Turnover-type cartridge for LP, 45 & 78 records. Direct replacement for Ronette, Vaco, and BSR type cartridges.
 14T-S output of 3.6 volt (dual sapphire)\$3.15
 14TLB-S available without bracket (dual sapphire)\$2.85

22T Stereo Ceramic Cartridge
 High-compliance stereo ceramic cartridge complete with snap-in mounting bracket; turnover type cartridge, plays all speeds; equipped with "Sono-Flex" needle; output 0.3 v.; compliance 10×10^{-6} cm./dyne; separation 24 db; tracking force 2-4 grs.
 22T-S (.7-mil and 3-mil sapphire).....\$8.75
 22T-S77 (dual .7-mil sapphire).....\$8.75
 22R-SD (.7-mil diamond and 3-mil sapphire)\$12.20

23T Stereo Ceramic Cartridge
 High-compliance stereo ceramic cartridge complete with snap-in mounting bracket and bottoming buttons; turnover-type cartridge, plays all speeds; equipped with "Sono-Flex" needle; output 0.4 v.; compliance 10×10^{-6} cm./dyne; separation 24 db; tracking force 2-4 grs.
 23T-S (.7-mil and 3-mil sapphire).....\$9.65
 23T-S77 (dual .7-mil sapphire).....\$9.65
 23T-SD (.7-mil diamond and 3-mil sapphire)\$13.10

Model 10T Stereo Ceramic Cartridge
 For stereo or mono records; "fuse clip" mounting bracket; frequency response 20-15,000 cps ± 2.5 db; output 0.5 v.; compliance 1.5×10^{-6} cm./dyne; channel isolation 18 db; recommended load 1-5 megohm; tracking force 5-7 grams.
 Model 10T2-S (0.7-mil sapphire, 3-mil sapphire)\$8.75
 Model 10T2-SD (0.7-mil diamond, 3-mil sapphire)\$12.20
 Model 10T2-S77 (0.7-mil sapphire, 0.7-mil sapphire)\$8.75
 Model 10T2-S177 (0.7-mil diamond, 0.7-mil sapphire)\$12.20

Model 3T Mono Cartridge
 Ceramic turnover cartridge; frequency response: 20 to 15,000 cps with gradual roll-off to 20,000 cps; compliance: 2.0 microcentimeters per dyne; output: 0.5 volt on microgroove records (5.5 cm/sec. recording level); 4-6 gram stylus pressure required; standard $\frac{1}{2}$ " or $\frac{3}{8}$ " mounting centers; diamond LP and sapphire 78 styli
 3T-5 (1-mil sapphire, 3-mil sapphire)\$9.75
 3T-5D (1-mil diamond, 3-mil sapphire)\$13.20

Model 1P and 2TA Mono Cartridge
 Model 1P is single-stylus cartridge, Model

2TA is two-stylus turnover-type; frequency response 30 to 15,000 cps ± 3 db; compliance 2×10^{-6} cm./dyne; output: 1 v.; tracking force 6-8 grams; recommended load 1-5 megohms; ceramic design.
 Model 1P-1S (1-mil sapphire).....\$6.10
 Model 1P-2S (2-mil sapphire).....\$6.10
 Model 1P-3S (3-mil sapphire).....\$6.10
 Model 1P-1D (1-mil diamond).....\$9.55
 Model 1P-3D (3-mil diamond).....\$9.55
 Model 2TA-S (2 sapphires).....\$7.40
 Model 2TA-SD (1-mil diamond, 3-mil sapphire)\$10.80

Model 8TA Stereo Ceramic Cartridge
 For use with stereo or mono records; turnover-type; frequency response 20 to 15,000 cps, roll-off beyond; compliance 3.0×10^{-6} cm./dyne; tracking force 3-5 grams for professional arms, 4-6 grams for changers; channel isolation 20 db; recommended load 1-5 megohms.
 Model 8TA-4S (0.7-mil and 3-mil sapphires)\$11.00
 Model 8TA-4SD (0.7-mil diamond and 3-mil sapphire)\$14.50

9TAFHC Stereo Ceramic Cartridge
 High-compliance turnover cartridge, handles all speeds; stereo and mono; equipped with "Sono-Flex" needle; response ± 2 db 20-7000 cps; compliance 15×10^{-6} cm./dyne; separation 30 db; load 1-5 megs for ceramic input; tracking force 1.5 to 3 grs. for professional arms, 3-4 grs. for changers.
 9TAFHC-S (.7-mil and 3-mil sapphire)\$11.75
 9TAFHC-S77 (dual .7-mil sapphire) \$11.75
 9TAFHC-SD (.7-mil diamond and 3-mil sapphire)\$15.15
 9TAFHC-D77 (dual .7-mil diamond).....\$16.50

9TAF Series Ceramic Cartridge
 Turnover design handles all speeds, stereo & mono; equipped with "Sono-Flex", flex-type, virtually breakproof phono needles; response 20-17,000 cps ± 2 db; separation 30 db; load 1-5 megs for ceramic input; tracking force 2-4 gr. for professional arms, 3-5 gr. for changers, compliance 5.5×10^{-6} cm./dyne.
 9TAF-SF .7-mil & 3-mil sapphires....\$11.15
 9TAF-S77 Dual .7-mil sapphires.....\$11.15
 9TAF-SD .7-mil diamond & 3-mil sapphire\$14.60
 9TAF-D77 Dual .7-mil diamonds....\$15.80

16TAF Series Ceramic Cartridge
 Turnover design equipped with "Sono-Flex", flex-type, virtually breakproof phono



needle; response 20-10,000 cps; separation 25 db; load 2 megs.; output voltage .6 volt; compliance 2.4; tracking force 4-6 gr. for professional arms, 5-7 gr. for changers.
 16TAF-S .7-mil & 3-mil sapphires....\$ 8.20
 16TAF-S77 Dual .7-mil sapphires....\$ 8.20
 16TAF-SD .7-mil diamond & 3-mil sapphire\$11.65

Model 18TA Stereo Ceramic Cartridge
 Specification same as for Model 16TA but with output of .10 volt; channel separation of 20 db; tracking force of 6-8 grams for professional arms, 7-9 grams for changers.
 Model 18TA-S (.7 mil and 3 mil sapphires)\$ 7.55
 Model 18TA-SD (.7 mil diamond, 3 mil sapphire)\$11.00

NEW!
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Gentlemen:

Enroll me now in the Universal Record and Tape Club. Enclosed is my check m.o. for \$3.00 covering lifetime record fee or \$4.00 to cover both record and tape fee. I understand this entitles me to buy all records and tapes at cost (savings up to 50% off manufacturers list prices) plus a few cents postage, without obligation to purchase any certain amount; that I can choose any records or tapes in print and that, further, I will receive absolutely free by return mail, the newest, complete Schwann Catalog as my bonus for acting immediately. (Harrison Catalog sent free to tape service subscribers).

Record Tape Both

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CIRCLE NO. 63 ON READER SERVICE CARD

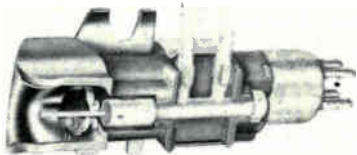
3

Phono Cartridges

Model 18TA-S77 (.7 mil and .7 mil sapphires)\$ 7.55

916TAF Series Ceramic Cartridge

Turnover design handles all speeds, stereo and mono; equipped with "Sono-Flex"



phono needle; response 20-15,000 cps \pm 2 db; output .45 volt; compliance 4×10^{-6} cm./dyne; channel separation 28 db; load impedance 2 mcgs.; tracking force 2-5 gr. for professional arms, 4-6 gr. for changers. 916TAF-S .7-mil & 3-mil sapphires. \$ 9.65 916TAF-S77 Dual .7-mil sapphires. \$ 9.65 916TAF-SID .7-mil diamond & 3-mil sapphire\$13.10

"Velocitone Mark IV" Ceramic Assembly

Permits use of Sonotone's stereo cartridge without modification of velocity or magnetic amplifier system of record player; assembly consists of 9TAFHC stereo ceramic cartridge and two factory-matched equalizers; response 20-6000 cps \pm 1/2 db and to 17,000 cps \pm 1 db, roll-off to 20,000 cps; output voltage 11 mv.; compliance 15×10^{-6} cm./dyne; tracking force 1.5-3 gr. for professional arms, 3 grams for changers.

9TAFHC-SDV (assembly with diamond/sapphire tips)\$23.15 9TAFHC-D77V (assembly with dual .7 mil diamond tips)\$27.75

21TR Stereo Ceramic Cartridge

Complete with retractable mounting bracket and bottoming buttons; turnover type cartridge, plays all speeds; equipped with "Sono-Flex" needle; output 0.6 v.; compliance 5.5×10^{-6} cm./dyne; separation 21 db; tracking force 4-7 gr.; Model 21T available with standard snap-in type mounting bracket.

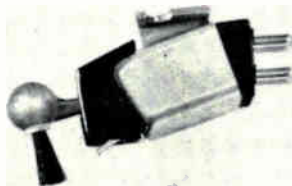
21TR-S (.7-mil and 3-mil sapphire)..\$8.75 21TR-SD (.7-mil diamond and 3-mil sap-

phire)\$12.20 21T-S (.7 mil and 3-mil sapphire)....\$8.20 21T-SID (.7-mil diamond and 3-mil sapphire)\$11.65

STANTON

581A "Longhair" Cartridge

Designed for calibrating records in recording studios. Response 20-10,000 cps



\pm 1 db (10,000-20,000 cps \pm 1 1/2 db); output .8 mv. cm. minimum; channel separation 35 db; 47,000 ohm impedance; 275 pf. cable capacitance; 850 ohms/channel d.c. resistance; 400 mhy./ch. inductance; 2-5 gr. tracking force. Features a free-riding long-haired brush mounted in front of plastic stylus V-Guard for removing lint or dust. Has conical stylus.....\$49.50 581EL Same as 581A except tracking force 1/4-1 1/2 gr. & has elliptical stylus.....\$49.50 581AA Same as 581EL, except has conical stylus\$49.50 Models 581EL & 581AA are available in complete ensemble. Both 78 rpm & LP styli are supplied\$60.00

WEATHERS

C-66 Cartridges

Stress-generator design; 20-20,000 cps \pm 2 db; tracks 1.5 gram; output 5 mv.; chan-



nel separation 35 db; 0.7-mil diamond stylus; 0.3 milligram tip mass; compliance more than 30×10^{-6} cm./dyne @ 1/4-gram tracking force, 15×10^{-6} cm./dyne @ 1.2-gram tracking force; matching networks (included) to low-level magnetic input\$22.50 C-10 cartridge only.....\$15.95

3

Tonearms

ADC

"Pritchard" Tonearm

Has removable plug-in head; walnut wood arm; adjustable rear counterweight; side-



thrust compensator; over-all arm length 10 3/4"; pivot to stylus tip 9"; tracking force 3/4 gram; will accommodate standard cartridges\$44.50

COMPONENTS CORP.

Model AS Auto-Set Tonearm Kit

Pivot bearing design and precise balance of cartridge eliminates vertical bounce;



spring adjustment of stylus force; continuous adjustment of tracking angle while record is playing; especially for stereo use\$9.50

DYNACO

Models TA-12 & TA-16 Tonearms

Both tonearms are manufactured by B & O and designed for use with a Stereodyne II



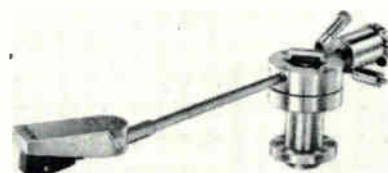
plug-in cartridge having different mounting assembly; has dynamic balance vertically and horizontally enabling constant groove contact; stylus force adjustment to fractions of gram; single hole mounting; combination of low inertial mass and a gyro mount.

TA-12 (12 inch).....\$39.95 TA-16 (16 inch professional).....\$49.95 TSD-30 3.0 mil diamond cartridge for 78's (separate).....\$19.95 TSD-05 (.5 mil diamond cartridge)\$19.95 TSD-07 (.7 mil diamond cartridge)\$19.95

EMI

Model A "Castagna" Tonearm

Features sapphire bearings in both vertical



PLEASE NOTE:

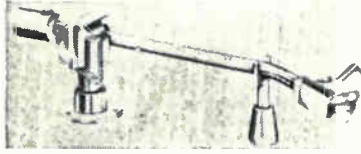
All prices quoted are those submitted by the manufacturer and reflect excise tax cuts where applicable. Unless noted otherwise, prices are audiophile net and are subject to change without notice. Because of shipping costs, prices do vary across the country. Prices listed are those prevailing in the company's immediate manufacturing area.

& horizontal gimbals and opposing magnets in post portion of arm. Magnets suspend the weight of arm & cartridge. Has adjustable 8° to 28° tracking angle; stylus pressure gauge (0 to 5 grs.); removable cartridge mounting plate & 5-wire plug-in audio cable.....\$125.00

EMPIRE

Model 980 Stereo Balance Arm

Counterbalanced arm allows adjustment for any cartridge from 2-25 grams; stylus



force adjustment 0-8 grams; arm offset at 23.8°; resonant frequency 6 cps; over-all length 12 3/8"; maximum tracking error ± .65°; includes "Dyna-Lift" device which automatically lifts arm from record at end of play; satin gold or satin chrome finish.....\$50.00

Model 98DL "Dyna-Lift"

Separate attachment for previous Model 98 tonearms; mechanical device automatically lifts arm from groove at end of record play; action is triggered magnetically.....\$10.00

EUPHONICS

TA-15 Tonearm

For 12" turntables; effective mass with cartridge 1 1/4 grs.; resonance 12 cps; vis-



ously damped ball-bearing pivots; adj. stylus force .5 to 3 grs\$32.50
TK-15-LS with U-15-LS (P1) cartridge and PS-15 power supply\$87.50
TK-15-P with U-15-P (P1) cartridge and PS-15 power supply\$71.50

GRADO

"Laboratory Series" Tonearm

Gun-stock walnut wood construction; for 12" records; tracking error ± .5°; low-



frequency resonance 11 cps; minimum tracking force 1/2 gram; has interchangeable cartridge slides and both vertical and lateral balance adjustments\$ 45.00
Extra cartridge slide\$ 2.95

GRAY

Model 208-S "Professional" Tonearm

A viscous-damped design with a slide & modular weights for mounting single-play



stereo or mono cartridges; arm response ± 1 db from 5 cps to upper limit of cartridge; tracking error from 0° at 2.5" radius to 1° 15' at 5.5" radius; resonance vertical & lateral 6 cps; 15" x 2 13/16"\$52.00

Model 212-TN Tonearm

Viscous damped with slide-in type cartridge assembly for 12" stereo or mono records; vertical resonance 20 cps; horizontal resonance 10 cps at 4 grams, tracking force per 5 x 10⁻⁶ cm./dyne compliance tracking error 1 deg., 28 min. @ 3.75" and 2 deg. 0 min. @ 5.5" radius. Model 212-TN aluminum finish with black trim.....\$37.50

ORTOFON

Model RMG-212 Stereo Arm

Counterweight is separated from tube by rubber damper to eliminate resonances;



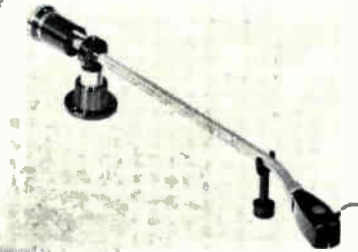
attached to counterweight is adjustable stylus pressure gauge adjustable for 0-7 grams; arm resonance 8 cps; maximum tracking error 1.19°; arm length 12" overall; plug-in head designed for use with any cartridge; employs ball-bearing gimbal suspension\$55.00

Model RMG-212T Stereo Arm

Same as Model RMG-212 except includes pre-drilled tonearm mounting board for Thorens Model TD-124 or TD-121 turntables\$60.00

Model RMG-309 Stereo Arm

Professional 16" stereo arm; tracks at 2 grams with plug-in Ortofon stereo car-



tridge; plug-in shells available to fit standard U. S. stereo cartridges; statically balanced by counterweight with spring-controlled stylus force (no table leveling required); micrometer stylus force adjustment reads directly in grams; adjustable height over mounting plate; rubber damping between arm and counterweight; approx. dimensions 12 3/16" pivot to record center 3" radius rear clearance.....\$60.00

Model SMG-212 Stereo Arm

12" stereo arm; takes Ortofon or any standard stereo cartridge; tracks at 2 grams; special arm shape makes turntable leveling unnecessary; turntable may be up to 30 degrees out of level before tracking difficulties arise; ball bearings on both horizontal and vertical pivots; adjustable height above mounting plate; unique counterweight adjustment can be calibrated by user for any cartridge to read stylus force directly in grams; approx. dimensions 8 3/8" pivot to record center, 3 1/4" rear clearance radius (max. for heaviest cartridges)\$30.00

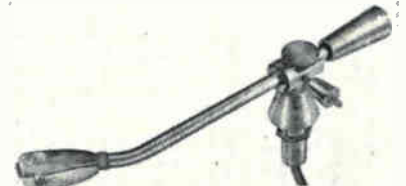
Model SKG-212 Stereo Arm

12" stereo arm; takes Ortofon or standard stereo cartridges; adjustable user-calibrated counterweight shows stylus force directly in grams; dimensions same as for Model SMG-212\$20.00

REK-O-KUT

Model S-320 Tonearm

Plugs into amp with permanently attached cable; has "Micropoise" dynamic balance,



spring-cushioned; calibrated from 0-6 grams; isolated counterweight; includes aluminum 4-wire plug-in shell; collar locks shell into arm; single hole mounting; features "Omni-Balance" for optimum bearing loads and lateral balance.....\$34.95

Model S-440 Tonearm

A modified version of the S-320 tonearm. Tracks at less than 1 gr. Resonance factor is below 12 cps. Removable cartridge shell handles any standard cartridge. Does not have "Micropoise" dynamic balance..\$27.95

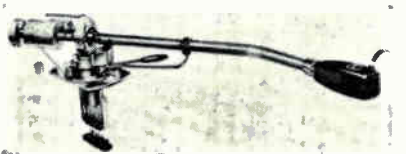
Model S-260 Tonearm

Same as S-320 for 16" table (less "Omni-Balance")\$39.95

SHURE

Model Shure-SME 3009/Tonearm

Made in England; tracking force 1/4 to 6 grams; anti-skating control; precision ball



races and knife edge bearings; accurate longitudinal and lateral balance control; minimal tracking error; subaudible resonance; convenient overhang adjustment; lever-operated cueing device; accepts all standard cartridges; 12" version; less

FEEL FREE

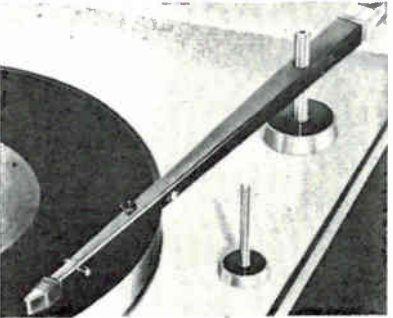
to write any of the manufacturers whose products are listed for additional details. Addresses of manufacturers and distributors are given on pages 6 and 8.

3 Tonearms

cartridge\$100.50
 Model Shure-SME 3012 for 16" records....\$110.50

Model M222/M226 "Studio Dynetic" Arm & Stereo Cartridge

Response 20-20,000 cps $\pm 2\frac{1}{2}$ db; channel separation better than 20 db at 1000



cps; output voltage 4.5 mv. per channel at 1000 cps; tracking force $\frac{3}{4}$ to 1 $\frac{1}{2}$ grams; vertical and lateral compliance 22×10^{-6} cm./dyne; includes M22 stereo cartridge and user-replaceable .0005" diamond stylus\$89.50
 Model M226 with 16" arm.....\$89.50

Models M232 & M236 Tonearm

Accepts all cartridges (mono or stereo); micrometer counterweight; direct-reading

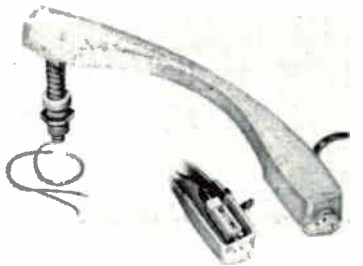


stylus force gauge: slide adjustment for stylus overhang; arm height adjustable; stylus tracking force adjustable 1-8 grams; for 12" records.....\$29.95
 Model M236 for 16" records.....\$31.95

SONOTONE

T14-T20T1-T20T2 Tonearm & Cartridge

Economy design with all-plastic manual tonearm; has compression rear mounting



post; tracking force 8-10 grs.; supplied with turnover crystal cartridge for LP, 78 & 33 $\frac{1}{3}$ records.
 T14T-S Mono, .35 v. output.....\$4.40
 T20T1 Stereo, 1 v. output.....\$5.70
 T20T2-S Stereo, 2 v. output.....\$5.70

STANTON

Model 200 "Unipoise" Tonearm

Ultra-lightweight design for tracking pressure of $\frac{1}{4}$ gram; simple adjustments balance arm in all planes; has calibrated (0-3 gram) stylus force adjustment; over-all weight with base and pivot assembly 6



oz.; for 12" records.....\$24.00

THORENS

TP-12 Tonearms

For 12" records; includes cueing control for lowering and raising arm from turn-

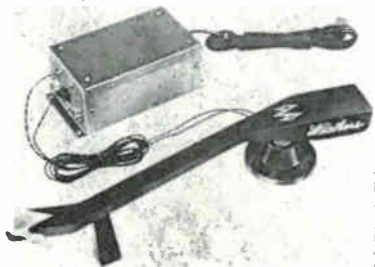


table, exclusive adjustable vertical tracking angle low-mass plug-in shell, and anti-skating device; maximum tracking error .5°/inch; offset angle of arm 25°15'; adjustable counterweight plus built-in calibrated stylus-force adjustment (0-8 grams) assembly in plug-in shell for adjusting proper stylus overhang. Supplied with mounting board for Thorens TD-121 and both series of TD-124 turntables\$50.00

WEATHERS

PS-11 Stereo Pick-up System

"Professional" design for use on any high-quality turntable; 20-20,000 cps ± 1 db;



10-40,000 cps ± 3 db; compliance 20×10^{-6} cm./dyne; moving mass 0.6 milligram; 40-35 db separation (20-15,000 cps); recommended tracking force $\frac{3}{4}$ -1 gram; output 1 v. with RIAA equalization, 8 mv. @ constant velocity; system includes matched transistorized preamp unit (2 $\frac{1}{4}$ " h. x 3" w. x 5 $\frac{1}{4}$ " l.); 0.5-mil diamond stylus; non-resonant bass wood arm (10" from pivot to front, 3" from pivot to rear); statically balanced; full-time vertical & lateral light viscous-damping action.....\$99.50
 Model PS-11-K Same as PS-11 but without tonearm.....\$70.00

MT-66 Universal Tonearm

Interchangeable plug-in head accepts any make cartridge; mounts on any turntable;



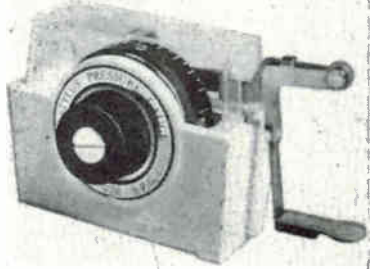
designed for cartridges capable of tracking under 3 grams; full-time lateral & vertical viscous damping; micrometer tracking force adjustment; no skating; no spring biasing; walnut wood finish; 11 $\frac{1}{2}$ " long; rubber tonearm rest included.....\$29.50
 P-1010 plug-in cartridge shell for use with P-675 stylus gauge.....\$2.00
 P-684 3-concentric-ring record cushion; supports 7", 10", 12" records; rubber; black or brown.....\$3.95

3 Phono Accessories

GARRARD

Model SPG3 Stylus Pressure Gauge

Stylus pressure gauge; large, legible scale; complete with 5 gram weight to be used



as standard to "zero" unit for complete accuracy\$2.95

GRADO

"Dustat" Record Cleaner

Reduces electrostatic charge and removes



dirt from records while playing; contains no radioactive materials.....\$6.95

LAFAYETTE

99-1011 Stylus Pressure Gauge

Returns with pickup in normal play posi-



tion; range 0-30 grams; no spring and minimum of moving parts.....\$0.99

NUCLEAR

Model 2U500 w/BFI Positioner



Flexible arm with heavy base holds model 2U500 ionizing unit over playing record.



Is supplied complete with ionizing unit\$19.75

Model 3R500 "Staticmaster"

Polonium treated jaguar hair brush. Designed to eliminate static and dust from records\$14.95

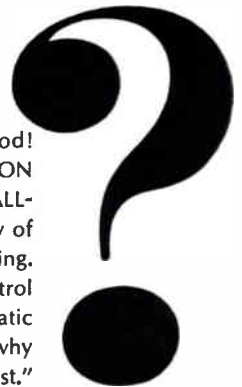
Compare these Sherwood specs! S-3300 IHF sensitivity $1.5 \mu\text{v}$ (30 db quieting). Stereo frequency response 20-15 kc $\pm \frac{1}{4}$ db., Capture ratio 2.4 db.. Drift $\pm .015\%$, Hum and noise -70 db, 16 silicon transistors plus 15 silicon diodes, \$167.50. Companion ALL-SILICON Solid-State amplifiers S-9900  90 watts \$229.50, S-9500 50 watts \$179.50, S-9000a  160 watts \$309.50.



S-3300
first
ALL-SILICON
FM TUNER



**WHY DID SHERWOOD
SAY "NO" TO
GERMANIUM**



No germanium transistors or nuvistor-tube hybrid designs for Sherwood! Instead, Sherwood insisted on the acknowledged reliability of ALL-SILICON Solid-State circuitry to make the new Model S-3300 the industry's **FIRST ALL-SILICON Solid-State tuner**. The S-3300 achieves the pacesetting sensitivity of $1.5 \mu\text{v}$ (IHF) with newly developed circuits that are immune to overloading. Sherwood's engineers even included an amplified dual automatic-gain-control system to maintain proper selectivity under the strongest signals, automatic stereo/mono switching, and silent-action interchannel hush. All reasons why we dare to say, "Sherwood ALL-SILICON Solid-State High Fidelity is the best."



Another first from Sherwood: The Tanglewood II 4-way speaker system features Sherwood's revolutionary omni-polar[®] high-frequency radiator with 160° dispersion to 22 kc. A pair of 10-inch woofers extends response to 24 cps @ -6db . In oiled walnut: \$219.50.

Sherwood

Sherwood Electronic Laboratories, Inc., 4300 North California Avenue, Chicago, Illinois 60618

CIRCLE NO. 57 ON READER SERVICE CARD

STEREO/HI-FI DIRECTORY

ROBINS

ESK-7 "Disk-Whisk" Kit

Automatic record cleaner clips to tonearm; has floating nylon brush & mohair cylinder. Anti-static liquid cleans and lubricates. Comes complete with cleaner, liquid, and instructions.....\$2.50

PSF-1 Record Friction Spots

Package of 144 thin, 1/2"-dia. self-stick polyfoam discs for placement outside of label area. Prevents slippage and record scratching\$1.00

SHURE

Model M-61 Stereo Preamp

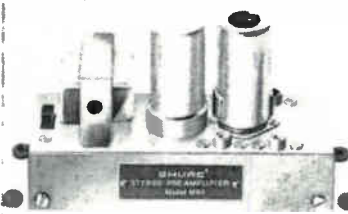
Transistorized unit with choice of a.c. line or battery powered supply; slide-selector sw. provides choice of three equalization inputs; phono RIAA equalization for conversion of ceramic to magnetic input; tape, NAB equalization; and flat amplification for microphone use; gain 45 db phono, 40 db tape, 63 db microphone.



Model M61-1 (for 105-125 v. operation).....\$27.50
Model M61-3 (for 30 v. battery, included).....\$26.50

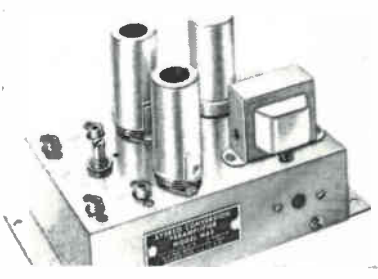
Model M-60 Stereo Preamp

Permits turntable location up to 50 feet from preamplifier; gain 17 db; frequency response 30-80,000 cps ± 1 db; input impedance 47,000 ohms; output impedance 5000 ohms; hum & noise level better than 64 db below rated output; channel separation better than 30 db; channel balance ± 1 db; Uses 1-ECC83 & selenium rectifier\$19.95



Model M65 Conversion Preamp

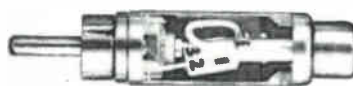
Provides equalization with amplification for converting ceramic cartridges to magnetic inputs; 60 db of amplification without equalization; provides preamplification and equalization functions for phono, tape, microphone; gain (phono) 44 db, (special) 45 db, (tape) 40 db, (mic.) 63 db; input impedance 47,000 ohms; output impedance 5000 ohms\$24.00



SWITCHCRAFT

Model 328A Audio Equalizer

Adapts ceramic phono cartridge to the magnetic phono input of any amplifier; converts signal from ceramic cartridge to a velocity response precisely fitted for RIAA equalization; one needed for mono, two for stereo applications.....\$1.77



C.E. WATTS

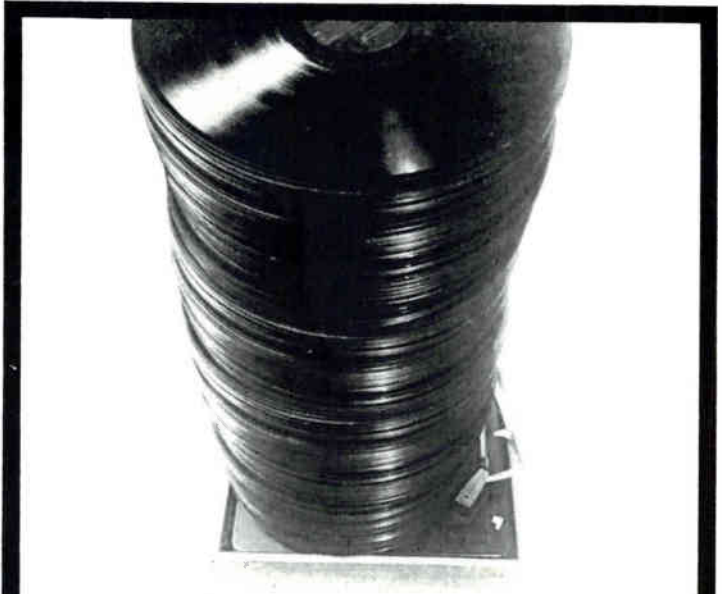
"Dust Bug"

An easy mounting record cleaner which tracks over the grooves. Anti-static agent used with "bug" supplied\$6.00



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1966 EDITION



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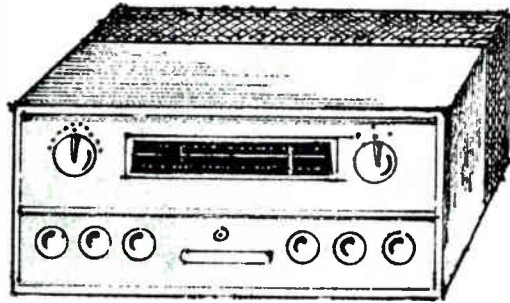
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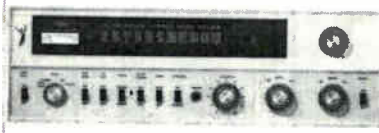
RECEIVERS

FM RECEIVERS
AM-FM RECEIVERS } **53**

ALTEC LANSING

711A FM Stereo Receiver

Transistorized design featuring 25 w./ch. music power (17.5 w./ch. r.m.s.); usable

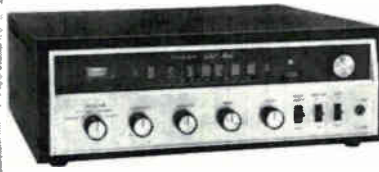


sensitivity 2.2 μ v.; harmonic dist. .15% (100% mod.); response 20-20,000 cps \pm 1 db; hum & noise 77 db below 1 w.; stereo separation 40 db @ 1 kc. Input sensitivity: phono 5 mv., tape head 2.2 mv., high level .5 v., damping factor 50; output impedance 4 to 16 ohms. Features automatic switching, stereo indicator, headphone jack & conventional operating controls\$378.00

BOGEN

RT 4000 FM Stereo Receiver

Transistorized design featuring 20 w./ch. music power, stereo indicator light & tun-



ing meter. FM usable sensitivity 2.5 μ v.; selectivity 225 kc. @ 3 db down; response 30-15,000 cps \pm 1 db; channel separation -35 db @ 1000 cps. Amplifiers: HD less than 1%, IM dist. less than 1%; power bandwidth 20-15,000 cps, response 15-30,000 cps \pm 1 db; sensitivity aux. 250 mv., mag. phono 3 mv., tape head 2 mv.; noise & hum -60 db (aux.), -60 db (phono). Output 4, 8, 16 ohms. Has additional tape monitor input, tape & headphone output, with conventional operating controls. 30 trans., 11 diodes. 16" w. x 14" x 4 1/8" h.\$279.95
Vinyl-clad walnut metal cabinet (EN13)\$14.95
Walnut wood cabinet (WE13).....\$29.95

RT 8000 AM-FM Stereo Receiver

Transistorized design featuring 35 w./ch. music power. Similar in design & perfor-



mance to Model RT-4000 except has AM tuner added. Power bandwidth 20-20,000 cps, response 15-50,000 cps \pm 1 db @ 1 w. Speaker sw. selects local, remote, all & phones. 32 transistors, 12 diodes; 16" w. x 14" d. x 4 1/8" h.\$319.95
Vinyl-clad walnut metal cabinet (EN13)\$14.95
Walnut wood cabinet (WE13).....\$29.95

RF-35 FM-Stereo Receiver

Combination of TP-35FM stereo tuner with AP-35 integrated stereo amplifier mounted



on single chassis. Has conventional operating controls.....\$209.95

RP-235 AM-FM Stereo Receiver

Similar to RF-35 Stereo receiver with AM tuner added. 15 1/2" w. x 5 1/4" x 15" d.



.....\$239.95
Vinyl-clad walnut cabinet (EN14) \$ 14.95
Walnut wood cabinet (WE14).....\$ 29.95

RP150-BM AM-FM Mono Receiver

Integrated design including amplifier; output power 15 watts continuous sine-wave;



harmonic distortion 2% at rated output response FM & phono 20-20,000 cps \pm 1 db; AM 20-4500 cps \pm 1 db; output impedances 8-16 ohms with tap for line-matching transformers; noise & hum -55 db; FM sensitivity 1.25 μ v. for 20 db of quieting (3 μ v. IHF), AM 5 μ v. for 20 db signal-to-noise ratio; controls: selector with equalization positions, volume, bass, treble, tuning, power, microphone; 13

tubes plus 3 crystal diodes; 15" x 4 3/4" x 11 1/2"\$179.95
Metal enclosure\$ 14.95

BURSTEIN-APPLEBEE

440S-6 AM-FM Stereo Receiver

22 w./ch.; response FM 20-20,000 cps \pm .5 db; separation 30 db; FM sensitivity



2 μ v. Ten front-panel controls; magic-bar tuning indicator. Stereo-sentry. 15" x 6 3/4" h. x 13" d.; less cabinet.....\$189.95
Brown metal cover.....\$ 8.95
Walnut wood cab.....\$ 14.95

700S-6 AM-FM Stereo Receiver

35 w./ch.; response FM & amplifier 20-20,000 cps \pm .5 db.; separation 30 db;



FM sensitivity 2 μ v. 12 front-panel controls; magic-bar tuning indicator for stereo-casts; 16" x 5 1/4" h. x 14" d.; less cabinet\$249.95
Brown metal cover.....\$ 12.95
Walnut wood cab.....\$ 19.95

EICO

2536 FM Stereo Receiver

18 w./ch. music power, 14 w./ch. continuous sine wave; 4 pairs inputs, 1 low level



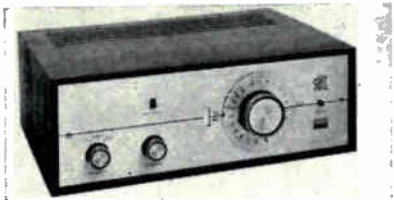
(2.3 mv. mag. phono); FM sensitivity 3 μ v. for 30 db quieting; stereo sensitivity 3 μ v. for synchronization; capture ratio 3 db; HD .6%; channel separation 30 db; amp response 15-40,000 cps \pm 1 db; power bandwidth at rated power (1% HD) 30-20,000 cps; IM .2%-1 w., 2%-14 w.; has 8 & 16

4 Receivers

ohm outputs; bar-type tuning and stereo program indicator; FM front-end and 4 i.f.'s through to ratio detector are supplied pre-wired & pre-aligned in kit; semi-kit\$139.95
 Factory wired\$189.95
 Metal cover\$ 7.50
 Walnut case\$ 19.95

2715 FM Mono Receiver

18 w. music power, 14 w. continuous sine wave; 3 inputs, 1 for ceramic/crystal phono



(240 mv. @ 1 megohm); FM sensitivity 3 μ v. for 30 db quieting; capture ratio 3 db; HD .6%; power bandwidth at rated power (1% HI) 30-20,000 cps; IM 2%-14 w.; has 8 & 16 ohm & 45 ohm (25 v.) unbalanced outputs; bar-type tuning indicator. Factory wired\$119.95
 Metal cover\$ 7.50
 Walnut case\$ 19.95

2716 FM Receiver

Includes mono FM tuner & paging amplifier; design identical to Model 2715 but with mic. stages & relay for paging switch at mic. (can be operated by foot switch); features program silencing when paging. Factory wired\$139.95
 Metal cover\$ 7.50
 Walnut case\$ 19.95

Model 3566 FM Stereo Receiver

All-transistor, transformerless design with automatic FM stereo/mono switching and



muting. Stereo indicator light, tuning meter, time-switching multiplex circuit; SCA & tape recorder (38 kc.) filters. FM sensitivity 2 μ v. for 30 db of quieting. Response 20-15,000 cps; S/N 60 db; capture ratio 4.5 db. Power output 37.5 w./ch. music power, 30 w./ch. sine wave @ 2% IM. 25 w./ch. sine wave @ 1% IM (all at 8 ohms, -2 db at 16 ohms). HD .15% @ 25 w. & 1000 cps; response 5-60,000 cps \pm 1 db; audio sensitivity mag. phono 3 mv. (10 mv. by removing jumper), tape & aux. 180 mv.

ALWAYS.....

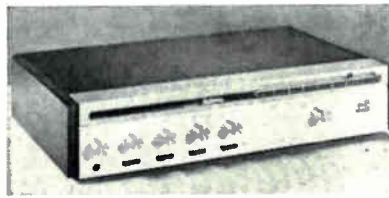
take along your copy of this Directory when shopping for hi-fi components. It is a comprehensive reference to technical details and complete prices.

Front end supplied prewired and pre-aligned. 16 1/2" w. x 13 1/4" d. x 5" h. Walnut cabinet optional.

Kit\$219.95
 Wired\$325.00

ELECTRO-VOICE

E-V 1177 FM Receiver



Combines Model 1144 25 w./ch. music power amp & Model 1155 FM tuner on single chassis. 3 3/8" h. x 15 3/4" x 10 1/4". With cabinet.....\$280.00
 E-V 1178 Same with AM tuner added\$315.00

ERIC

"Plainsman" 225AF AM-FM Stereo Receiver

All-transistor design featuring automatic multiplex switching circuitry; 25 w./chan-



nel music power & tape monitoring facility. Walnut vinyl enclosureList \$259.00

"Palomino" 225 FM Stereo Receiver

Same as "Plainsman" 225AF except does not include AM circuitryList \$229.00

FISHER

600-T FM Stereo Receiver

55 w./ch. music power at .5% HD. Has



novistor tube front-end with balance of circuit transistorized; automatic stereo/mono switching; tuning meter. FM sensitivity 1.8 μ v. for 30 db of quieting; S/N ratio 70 db (100% mod.); capture ratio 2 db; separation 40 db. Amplifier IM dist. .5% at rated output; power bandwidth 12-35,000 cps; hum & noise -90 db; input sensitivity: phono low 380 mv., phono high 5.5 mv., tape head 1.8 mv., aux. low 210 mv., aux. high 380 mv., tape monitor 800

mv. Features tape monitor, speaker selector sw. 16 3/4" w. x 5 1/2" h. x 11 1/2" d. Less cabinet\$459.50

Model 400 FM Stereo Receiver

32 1/2 w./ch. music-power control amplifier with multiplex circuitry & "Stereo Beam"



—a stereo/mono indicator light; sensitivity 1:8 μ v. for 30 db of quieting & 100% mod.; signal-to-noise ratio 70 db; selectivity (alternate channel) 60 db; image rejection 57 db at 100 mc.; HD less than .5%; separation 35 db @ 1000 cps; amplifier IM dist. .8% @ 26 w./ch.; over-all response 25-25,000 cps \pm 1 db; input sensitivity for 12.5 w./ch.: phono low 4.4 mv., phono high 14 mv., tape head 2.8 mv., aux. 280 mv.; has conventional controls & tuning meter. 17 1/2" x 5 3/4" x 13" d.; less cabinet.....\$279.50

Model 500C FM Stereo Receiver

37.5 w./ch. music-power control amplifier with multiplex circuitry & "Stereo Beacon" (indicates stereo/mono program & automatically switches to stereo or mono operation); sensitivity 1.8 μ v. for 30 db of quiet-



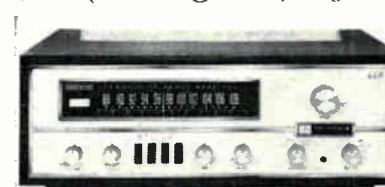
ing; signal-to-noise ratio 70 db; selectivity (alternate channel) 60 db; HD .5%; amplifier IM dist. .7% @ 17.5 w.; over-all response 25-25,000 cps \pm 1.5 db; channel separation @ 1 kc. 50 db; input sensitivity for rated output: phono 3.3 mv., tape head 2.5 mv., aux. 230 mv.; employs time-division multiplex circuitry; has conventional operating controls, inputs & outputs; 17 1/2" x 5 3/4" x 13 1/2" d.; less cabinet.....\$349.50

Model 800C AM-FM Stereo Receiver

Similar to Model 500C but with addition of AM tuner; less cabinet.....\$399.50

440-T FM Receiver

Transistorized, 35 w./ch. music power @ 4 ohms (25 w./ch. @ 8 ohms) design. Fea-



tures automatic stereo switching & stereo indicator; tuning meter; speaker selector sw. for pair of main or remote spkrs. Head-phone jack; high & low level mag phono inputs. FM usable sensitivity 2 μ v.; S/N 68 db; capture ratio 2.2. db; stereo separation 35 db @ 400 cps; over-all response 20-22,000 cps \pm 1.5 db. Amp. HD .8%; IM dist. .8%. Input sensitivity: mag. phono 4.5 mv. & 13.5 mv.; tape head 3 mv.; aux. 350 mv.; monitor 400 mv. Has program selector 5-pos. sw. (tape head, phono, FM-automatic, FM mono & aux.) and a 5-pos. mode/tape monitor sw. (mono, stereo, stereo tape, tape L & tape R). 16 3/4" x 5 1/2" x 12 3/8" d. Less case.....\$329.50

GROMMES

C-500 AM-FM Receiver

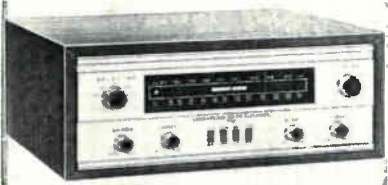
Features stereo indicator light; tuning bar indicator; 12 front-panel controls; time-



switching multiplex circuitry. 35 w./ch. music power; response 20-20,000 cps \pm .5 db @ 1 w. Power bandwidth 30-20,000 cps; HD .5% @ 1000 cps; IM dist. 1% @ rated power; channel separation 30 db or better. FM usable sensitivity 3 μ v. Input sensitivity: mag. phono or tape head .003 v., aux. or crystal phono .25 v. Has 4,8,16 ohm, stereo earphones, tape recorder & center-channel speaker outputs. 17" w. x 6 3/4" x 1 1/2" d. Walnut enclosure optional\$299.95
WC-4 Walnut cabinet.....\$ 24.50

C-502 AM-FM Receiver

Features stereo indicator light, tuning bar indicator, time-switching multiplex cir-



cuitry. 15 w./ch. music power. Response 20-30,000 cps @ 1 w.; power bandwidth 30-20,000 cps; HD .5% @ 1000 cps; IM 2% @ 10 w.; channel separation 30 db or better. FM usable sensitivity 4 μ v. Input sensitivity: mag. phono .003 v., tape head .0035 v., aux. .25 v. Has 4,8,16 ohms & tape recorder outputs; 15" w. x 6 1/2" x 1 3/4" d. Walnut enclosure optional.....\$219.95
WC-3 Walnut cabinet.....\$ 19.95

HARMAN-KARDON

"Stratophonic" SR-300 FM Receiver

Transistorized 18 w./ch. music power design with front-panel controls for hi- and



lo-cut, contour, on-off-volume, treble & bass, speaker balance & program selection; response 8-25,000 cps \pm 1 db at 1 watt, 10-23,000 cps at rated output. HD less than 1%; hum & noise -90 db; damping factor 25:1; square-wave rise time 5 μ sec.; usable FM sensitivity 2.9 μ v.; image rejection better than 40 db; spurious response rejection better than 60 db; multiplex separation 30 db; 14 1/2" x 4 1/2" x 9 3/4" d. Walnut enclosure optional.....\$259.00

"Stratophonic" SR-400 AM-FM Receiver

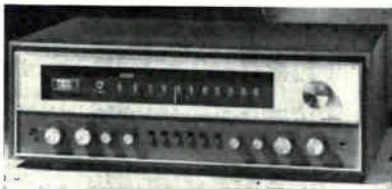
Transistorized, 18 w./ch. music power design featuring tuning meter, stereo indicator light, front-panel controls for hi- and low-cut, contour, on-off-volume, speaker balance, treble & bass, and program selection; tape-recorder output; response 8-25,000 cps \pm 1 db at 1 watt, 10-23,000 cps at



rated output; HD less than 1%; hum & noise -90 db; damping factor 25:1; square-wave rise time 5 μ sec.; usable FM sensitivity 2.9 μ v.; image rejection better than 45 db; spurious response rejection better than 60 db; multiplex separation 30 db; 14 1/2" x 4 1/2" x 11 1/2" d. Walnut enclosure optional\$289.00

"Stratophonic" SR-600 FM Receiver

Transistorized 25 w./ch. music power stereo design; response 5-60,000 cps \pm 1



db at 1 watt, 8-40,000 cps at rated output. HD less than 1%; hum & noise -90 db; damping factor 30:1; square-wave rise time 3 μ sec.; usable FM sensitivity 1.95 μ v.; image rejection better than 40 db; spurious response rejection better than 75 db; multiplex separation 35 db. 16 1/4" x 5" x 11 3/4" d. Has all conventional operating controls. Walnut enclosure optional.....\$349.00

"Stratophonic" SR-900 FM Receiver

Transistorized 37 1/2 w./ch. music power design with rocker switches for contour,

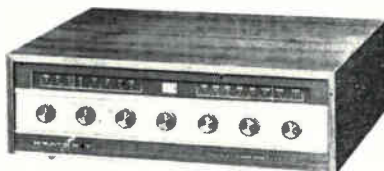


tape monitor, hi- and lo-cut, tone-control defeat, FM interchannel muting; other front-panel controls include: on-off switch, separate channel treble & bass, program selector, volume, speaker-system selector, speaker balance control & headphone jack. Frequency response 2-100,000 cps \pm 1 db at 1 watt, 5-60,000 cps at rated output. HD less than 0.2%; hum & noise -95 db; damping factor 40:1; square-wave rise time 2.5 μ sec.; usable FM sensitivity 1.85 μ v.; image rejection better than 70 db; spurious response rejection better than 85 db; multiplex separation 40 db; 16 1/4" x 5" x 11 3/4". Walnut enclosure optional.....\$429.00

HEATH

AR-13A Transistor AM-FM Receiver

Features stereo circuitry; 46 transistors, 17 diodes; automatic FM-stereo switching;

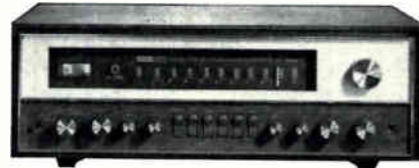


stereo indicator light; 3 stereo inputs (mag. phono, 2 aux.); 2 filtered tape recorder outputs; tuning meter (for AM & FM); local/distant sw.; phase adjust. sw.; SCA filter sw.; noise filter sw.; a.f.c. sw. Supplied with
(Continued on page 58)

Now—choose the finest in transistor components or complete system

harman kardon

STRATOPHONIC



Model SR900—FM—75 watts

This incredibly pure, spacious sound has captivated discerning ears throughout the nation. And only Harman-Kardon offers you such a wide choice of all-transistor components: FM or AM/FM stereo receivers in IHF output powers from 36 watts to 75 watts; an all-transistor 36-watt integrated stereo amplifier; and an all-transistor AM/FM stereo tuner—all with the performance that has created a new era in sound ... literally *sound unbound*. And now comes the latest addition to the Stratophonic Series ...

NEW!

Harman-Kardon Stratophonic COMPACT MUSIC SYSTEM complete with speakers



Model SC440 complete AM/FM system

Here for the first time is a complete full-component music system—36-watt all-transistor AM/FM stereo receiver with built-in Garrard AT-60 automatic turntable, plus a pair of radically new Harman-Kardon speakers designed especially for this remarkable system ... speakers which disperse the sound to produce the full stereo effect even in a small room. Hear Stratophonic Sound at your Harman-Kardon dealer's.

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**LEADER IN SOLID-STATE STEREO COMPONENTS
CIRCLE NO. 33 ON READER SERVICE CARD**

Stereo receivers—or tuner-amplifiers—are available at prices ranging from \$70 to \$597. Here is what you can expect in terms of quality and convenience at a price.

A GUIDE TO STEREO RECEIVERS

By BERNARD NEWMAN

THE PAST few years have witnessed the emergence of the stereo receiver as one of the most popular types of high-fidelity component. The reasons for this are easy to discover. The stereo receiver provides almost all the performance advantages and sonic virtues of separate components, and with a minimum of technical complexity. Although the stereo receiver is not meant to satisfy the seasoned audiophile in pursuit of the ultimate in flexibility and sonic excellence, for most of the music-listening public it is an ideal instrument around which to build a compact, economical, and easy-to-operate home music system. For radio listening, all that is needed in addition to it is a pair of speakers. Of course, to play records you must have a record player. A tape recorder can also be hooked into the system at any time.

Stereo receivers are sometimes called tuner-amplifiers, and the latter term is the more descriptive one. A stereo receiver contains, on one chassis, a tuner section for picking up radio broadcasts and a full-fledged stereo amplifier section. In effect, the modern stereo receiver offers practically all the fine qualities of separate components and has the advantages of being easier to install and operate.

Virtually every audio manufacturer has one or more models of stereo receivers for sale. They range in price from a modest \$70 to almost \$600 for an impressive luxury item.

Faced by the sheer number of units available, an interested person may understandably find it rather difficult to know how to begin to choose a stereo receiver. The problem is further compounded by the complex nature of the stereo receiver and the many factors to be considered before any intelligent selection can be made. As a starting point, it might be helpful to divide stereo receivers into four somewhat arbitrary price categories and see what is available in each group. The categories are:

Bottom Dollar: under \$200
Bargain Buy: \$200-\$300
Solid Middle Class: \$300-\$400
Upper Bracket: \$400 and up

Bottom Dollar & Bargain Buy

Bottom Dollar receivers are available, for the most part, as "private-brand" items from the large electronics-supply mail-order companies.

In evaluating Bottom Dollar receivers, one must look at their limitations as well as their obvious price advantage. The amplifier power output of these units is relatively low, requiring the use of high-efficiency speakers. In addition,

the FM tuner sections are usually of moderate to low sensitivity (averaging 5 to 6 microvolts), and are likely to give best stereo results only in relatively strong signal areas. However, if these limitations are understood, Bottom Dollar stereo receivers can provide listening quality superior to that produced by most commercially available consoles—and at a lower price.

When we begin to compare Bargain Buy receivers—units in the \$200-\$300 price range—with Bottom Dollar models, we note some significant changes. Tube-operated units in this class have larger output transformers, which means more output power, particularly in the bass. And their tuner sections are more elaborate: in addition to having more convenience features—such as tuning indicators, stereo-broadcast indicators, and perhaps automatic switching (to stereo when a stereo station is tuned in)—Bargain Buy receivers have greater sensitivity (enabling them to receive distant stations) and are less likely to pick up static.

Middle Class & Upper Bracket

Above the Bargain Buy category is the Solid Middle Class. Receivers in this group are capable of a level of performance that is adequate to almost any need. The FM-tuner sections boast sensitivities in the neighborhood of two microvolts (which is about as good as you can get) and have excellent capture ratios, stereo separation, and selectivity. The amplifier sections have low distortion and ample power reserves at both high and low frequencies, and can drive virtually any type of speaker system. The control facilities, and the inputs and outputs, are sufficient to satisfy the needs of the most elaborate system. In addition, all of the receivers in this class offer such conveniences as automatic FM-stereo switching and front panel headphone jacks.

Upper Bracket receivers benefit from the latest advances in electronics technology. In general, their specifications compare favorably with those of the finest individual components. The receivers in this category are usually all-transistor designs and, as can be seen from their price tags, they do not come cheap. For several reasons, both technical and economic, transistor units cost more than comparable tube receivers. However, transistors have certain characteristics that tubes do not. Because transistors run cool, they offer potentially longer trouble-free life, not only for themselves but for all components in the receiver. In the tuner section this could mean optimum performance over a long period without the need for periodic tube replacement and realignment. Further, transistor amplifiers do not require output transformers, thus eliminating what

some designers consider to be one of the prime impediments to distortion-free amplifier response.

Installing a stereo receiver is in general a much easier task than installing separate components. However, certain precautions are necessary. All components with tubes, particularly amplifiers, generate heat. A stereo receiver that uses tubes runs especially warm because of the necessarily large number of tubes. Further, the greater its power output, the hotter the unit is likely to get. It is highly recommended, therefore, that stereo receivers (and, for that matter, any other component that uses tubes) never be installed in an enclosed place. If a receiver is to be installed in a cabinet, be careful to make provision for

proper ventilation. In those instances where the physical dimensions of the cabinet are small, it is good practice to install a fan to insure a steady flow of cooling air.

Since stereo receivers vary in power-output capabilities, some thought should be given to matching the receiver to the speakers. Some speakers are less efficient than others—that is, they require more amplifier power to produce a specified sound volume. Be sure, therefore, to select speakers that will not overtax the receiver's power capabilities. By the same token, do not use speakers whose quality is not up to that of the receiver. If low-grade speakers are connected to a high-quality stereo receiver, the full potential of the receiver will not be realized. *cr*

STEREO RECEIVER SPECIFICATIONS

AS AN AID to understanding manufacturers' literature, the terms most frequently encountered in dealing with stereo receivers are defined below.

Power Output: Among the various ways of measuring the wattage of an amplifier, the most rigorous is *continuous power*—sometimes also called *sine-wave power* or *r.m.s. power*. This tells the amount of audio output the amplifier can produce continuously. However, unless some distortion level is specified at which the power is attained, even these figures are not comparable. A number of manufacturers feel that allowance should be made for the fact that amplifiers are able to exceed their continuous-power rating for brief bursts of loud sound—such as drumbeats, cymbal crashes, and the like. To express the amplifier's power reserve for such musical contingencies, the *IHF music-power* rating was devised. For any given amplifier, the music-power rating will therefore be a higher figure than the continuous-power rating. To add to the confusion, some advertisements list a third standard of power measurement, called *peak power*, which is usually twice the continuous power.

When stating the power capabilities of a stereo receiver, it is more or less customary to add the outputs of the two channels. A receiver that delivers 25 watts per channel is thus billed as a 50-watt receiver. Because of the variety of rating systems in use, the same receiver might be listed as a 20-watt unit (delivering 20 watts per channel continuous power), and also as an 80-watt unit (40 watts per channel peak power).

Frequency Response: All statements of frequency range should be followed by a plus-or-minus (\pm) db figure. To state that the frequency response is 20 to 20,000 cps is meaningless, since nothing is said about the all-important *uniformity* of response. But if the statement reads "20 to 20,000 cps ± 1 db," you know that at no point in the whole frequency range does the response deviate any more than one decibel from a uniformly "flat" characteristic.

Distortion: As with frequency response, make sure that you know at what output level the specified distortion measurements are taken. A manufacturer may claim that the distortion of his amplifier is so low as to be "unmeasurable." Yes, but maybe the amplifier volume was so low that it was also unheard. Normally, distortion figures should be stated for full rated output. However, particularly in transistor amplifiers, it is also useful to know distortion measurements at low listening levels—say, 1 to 5 watts. There are two types of distortion: intermodulation (IM) and harmonic (HD). The IM figure will generally be higher if both are given.

Controls: The arrangement and variety of controls differ between otherwise similar receivers. Whether you prefer the versatility of many controls or the simplicity of few controls is largely a matter of personal taste. Make sure, however, that all the controls necessary to your intended use are provided. For instance, if your system is to include a tape recorder, a tape-monitor switch or a

tape-head input on the receiver may be among your requirements. Or if you plan to place loudspeakers at widely separated locations, a powered center-channel output may be essential. A master volume control (acting on both channels) and a separate balance control are preferred to two interlocked volume controls (one for each channel) because the separate balance control makes it simpler to keep speakers accurately balanced regardless of volume level.

IHF FM Tuner Sensitivity: The IHF sensitivity rating is a standard means of specifying a tuner's ability to pick up weak or distant stations. Technically, it is the amount of input signal a tuner requires to achieve an audio output with a signal-to-noise ratio of 30 db. The lower the figure in microvolts, the greater the tuner's sensitivity. With non-IHF ratings, such as "20-db quieting," the sensitivity figure given may have to be doubled to convert it to the IHF standard. In other words, a tuner that is rated at 2 microvolts for 20 db quieting and another that is rated at 4 microvolts IHF (30 db quieting) may be identical in actual sensitivity. Sensitivity, incidentally, has long been the most overstressed FM specification. Minor differences in sensitivity specifications (of one microvolt or less) will make little or no practical performance difference, and should be disregarded.

Selectivity: Selectivity is a measure of the tuner section's ability to separate stations that are close together on the dial. The FCC tries to allocate station frequencies so that stations covering the same geographical area will be on alternate—not adjacent—channels. A figure of 50 db or more for adjacent-channel rejection is good, and anything below 40 db is considered poor.

Multiplex: Multiplex is a method of broadcasting in which two or more programs are transmitted simultaneously on the same frequency and from the same FM transmitter. This technique makes it possible for one station to send out both the left and right channel of a stereo program.

Capture Ratio: The tuner's ability to sort out two stations on the same frequency, and to suppress the weaker station, is called its capture ratio. The lower the numerical figure, the better the tuner's capture ratio.

Stereo Separation: This is a measure of the degree of isolation, in decibels, between left and right channels—there should be a minimum amount of interaction or leakage between the two channels. In general, the greater the separation, the more pronounced the stereo effect will be.

Stereo Indicators: Almost all recent receivers have some method of indicating the reception of an FM stereo signal. Usually, this is accomplished by a signal light that comes on during stereo broadcasts. Other receivers may use an audible tone to signal the presence of stereo; still others may use a modified squelch circuit, which will cut off all stations except those transmitting stereo.

4 Receivers

pre-assembled FM front-end & a 4-stage AM-FM i.f. strip. Power/ch. 20 w. @ 8 ohms, 13.5 w. @ 16 ohms, 9 w. @ 4 ohms (Heath rating). Music power output 33 w. @ 8 ohms, 18 w. @ 16 ohms, 16 w. @ 4 ohms (all at .7% IHD @ 1 kc.). Power response 10-60,000 cps ± 3 db @ rated output. HD less than .3% @ 1 kc. IM dist. less than 1% (both at rated output). Separation 60 db @ 1 kc.; input sensitivity (20 w./ch./8 ohm): mag. phono 6 mv., aux. .25 v.; 4.8, 16 ohm outputs; FM tuner response 20-15,000 cps ± 3 db; capture ratio 13 db; sensitivity 2 μ v. for 30 db of quieting; 17" x 5 $\frac{3}{4}$ " h. x 14 $\frac{3}{4}$ ". Kit.....\$184.00

KENWOOD

KT-10 AM-FM Stereo Receiver

All-transistor; automatic FM stereo/mono switching; SCA noise filter; tuning meter;



42 transistors & 22 diodes; a.f.c.; low filter; high filter; 20 w./ch. music power. FM sensitivity 1.9 μ v. for 20 db quieting; response 20-20,000 cps $\pm \frac{1}{2}$ db; separation more than 35 db @ 400 cps; HD less than 1%; audio sensitivity: mag. phono & tape head 1.5 mv., xtal phono 20 mv., aux. & tape play 100 mv.; 17 $\frac{1}{4}$ " w. x 14" d. x 5 $\frac{1}{2}$ " h.\$269.95

KW-44 AM-FM Stereo Receiver

14 watts/channel music power; 20-20,000



cps ± 1 db. FM usable sensitivity 2.5 μ v.; capture ratio 2.5 db. Stereo separation 31 db at 400 cps. Input sensitivity: aux. 100 mv., mag. phono 1.5 mv., crystal phono 15 mv. Has SCA filter; front-panel headset jack; speaker "on-off" sw.; tuning meter; a.f.c.; wideband ratio detector. Tone controls, loudness control, and provision for monitoring FM. 16 $\frac{1}{2}$ " w. x 14" x 5 $\frac{3}{16}$ "\$179.95

KW-55A AM-FM Stereo Receiver

20 w./ch. music power (17 w./ch. r.m.s.)

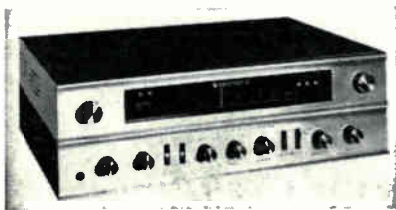


at 1% HD. FM usable sensitivity 1.8 μ v. Stereo separation 38 db at 400 cps. Input sensitivity: aux. 100 mv., tape play 100 mv., mag. phono 1.5 mv., tape head 1.5 mv., crystal phono 20 mv. Features FM mono/stereo automatic switching with stereo indicator, variable a.f.c., multiplex noise filter, nuvistor front-end, ratio detector, tape monitor circuit, speaker "on-off", headset jack, tuning meter & loudness control. Response 20-20,000 cps ± 1 db.

Has all conventional controls. 17 $\frac{3}{4}$ " w. x 5 $\frac{3}{16}$ " x 14"\$219.95

TK-80 FM Stereo Receiver

40 w./ch. music power (32 w. r.m.s. @ .9% HD single-channel operation). Re-

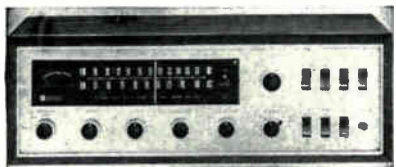


sponse 20-60,000 cps ± 1 db (15-120,000 cps ± 3 db). FM usable sensitivity 1.8 μ v. Stereo separation 38 db @ 1 kc. Input sensitivity: mag. phono & tape head 1.5 mv., aux. 100 mv. Features automatic mono/stereo switching with stereo indicator. Two sets of stereo speaker output terminals with provision for switching; tuning meter, tape record output, headset jack & silicon power transistor for main amplifier. Has all conventional controls. 17 $\frac{3}{4}$ " w. x 5 $\frac{3}{16}$ " x 14"\$339.95

KNIGHT

KN-376 AM-FM Stereo Receiver

Transistorized design; 35 w./ch. music power (20 w./ch. r.m.s.). Response 20-



20,000 cps at rated output; HD 1% at rated output; IM dist. 1% at normal listening level; power bandwidth 30-20,000 cps $\pm \frac{1}{2}$ db. Input sensitivity: mag. phono 4 mv., tape head 4.5 mv., aux. #2 .5 v., aux. #1 1 v.; hum & noise -75 db on tuner Output 4, 8, 16 ohms. FM usable sensitivity 3 μ v.; capture ratio 3 db. Has automatic multiplex switching with stereo indicator light; headphone jack; 32 transistors & 10 diodes. 5" x 16 $\frac{3}{4}$ " x 13". Less case.....\$269.95
Oiled walnut case.....\$ 22.75
Brown metal case.....\$ 9.95

KNI-333 AM-FM Stereo Receiver

Features 16 w./ch. music power. Response 20-30,000 cps; HD less than 1% at rated



output; hum & noise -55 db mag. phono (-70.5 db aux); inputs: mag. phono, ceramic or low-level auxiliary, high-level aux., tape recorder. Outputs 8 or 16 ohms. Has stereo headphone jack, tape-source monitoring, 13 tubes plus tuning eye, 2 silicon rectifiers & 8 diodes. FM sensitivity 2.5 μ v. for 20 db quieting; image rejection better than 30 db. Features time-switching multiplex circuitry with stereo indicator; channel separation 30 db. 5 $\frac{3}{8}$ " x 15 $\frac{13}{16}$ " x 13 $\frac{9}{16}$ ". Supplied with metal case. \$149.95
Walnut case.....\$ 14.95

KNIGHT-KIT

KU-45A AM-FM Stereo Receiver

All-in-one unit consisting of AM-FM

multiplex tuner and 3 $\frac{1}{2}$ -watt stereo amplifier; a.f.c.; pre-aligned front end; separate bass and treble controls; tape head input; two aux. inputs; magnetic phono input; stereo/mono switch; sine-wave power out-

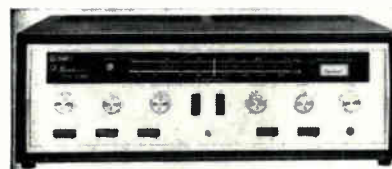


put 16 w./ch.; output 4-8-16 ohms, plus 8-16 ohm center-channel output; satin gold and mocha panel; 4 $\frac{3}{4}$ " x 16 $\frac{1}{2}$ " x 13"; less case.

83YU752 KC-45A Kit.....\$129.95
83YX021 Wood case.....\$ 14.95
83YX646 Metal case.....\$ 6.95

KG-964 AM-FM Stereo Receiver Kit

Features transistorized design: 32 w./ch. music power (18 w./ch. r.m.s.); stereo



headphone jack; SCA filter; tuning meter for FM and AM; automatic stereo indicator light; factory assembled and tuned AM-FM i.f. strip; 4.8, 16 ohm outputs; pre-amplifier provides inputs for magnetic cartridge, tape heads, and high-level auxiliary source. Has high-impedance stereo tape outputs and conventional operating controls. Amplifier section: response 20-20,000 cps ± 1 db at rated output; 20-50,000 cps @ 1 w. IM dist. less than 1%; IM dist. less than 1.5%; hum & noise high-level inputs 75 db below rated output, low-level better than 60 db below. Tuner: usable sensitivity 1.25 μ v.; response 20-20,000 cps ± 1 db; HM dist. less than 1%; stereo separation 35 db; 46 semiconductors are used; 5" x 16 $\frac{3}{4}$ " x 15".

Less case.....Kit \$189.95
Oiled walnut wood case.....\$ 19.95

LAFAYETTE

LR-800 AM-FM Stereo Receiver

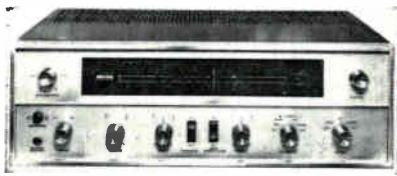
Features 35 w./ch. music power; nuvistor front end; stereo indicator (audible tone



signal), variable a.f.c. Bar-type tuning indicators. FM sensitivity 1.5 μ v. for 20 db quieting. Stereo response 50-15,000 cps ± 1 db; HD less than 5% @ 1 kc. Amplifier hum & noise -8 db (high level), HD 1% at rated output; 8 & 16 ohm output (sw. selected). Controls: bass, treble, balance, rumble & noise filters, loudness, input selector & mode sw. Has phono-tape & aux. inputs. 17" w. x 5 $\frac{7}{8}$ " h. x 14".....\$189.95

LR-400 AM-FM Stereo Receiver

15 w./ch. with nuvistor front end; FM sensitivity 2.5 μ v. for 20 db quieting; variable a.f.c.; 25 db channel separation @ 400 cps; a stereo search circuit identifies a multiplex station with a tone signal through speakers. Response 20-20,000 cps ± 2 db; HD 1%; hum & noise -55 db (phono in-



put) —68 db (aux.); 8 or 16 ohm output. Has tuning eye & headphone jack. 17¼" w. x 5½" h. x 12¼" d.\$159.95

LR-300 AM-FM Stereo Receiver

7½ w./ch. with FM sensitivity of 3 µv. for 20 db of quieting. A stereo search circuit



identifies a multiplex station with a tone signal through speakers. Tuner section channel separation 25 db @ 400 cps. Response 20-20,000 cps ± 2 db; HD 1%; hum & noise —55 db (phono input) —75 db (aux.); 8 or 16 ohm output; headphone jack; 16¾" w. x 5½" h. x 12¼" d.\$124.95

McINTOSH

MX110 FM Stereo Receiver

Combines FM tuner with multiplex circuitry and stereo preamp; tuner sensitivity 2.5 µv. @ 100% modulation; response 20-20,000 cps ± ½ db; distortion less than .5% @ 100% modulation; input sensitivity for preamp aux. 2.5 v., phono 1 &



phono 2 2.5 mv., tape head 2.5 mv., and tape monitor 2.5 v.; preamp response 20-20,000 cps; preamp distortion less than .2% at rated output; hum & noise 80 db below rated output for high-level inputs; operating controls are: input selector, bass & treble tone controls, muting, low- and high-frequency filters, loudness, tape monitor, phasing, tuning, volume, and mode selector\$399.00
Cabinet extra.....\$25.00

OLSON ELECTRONICS

RA-664 FM Stereo Receiver

10 w./ch.; stereo indicator light; tuning meter; a.f.c.; inputs for mag. & ceramic



cartridge & tape recorder output. FM sensitivity 10 µv. for 20 db quieting; response 20-20,000 cps; 4, 8, 16 ohm outputs; grey metal cabinet; 16" x 4¾" x 11¾" d.\$103.29

RA-655 AM-FM Stereo Receiver

22.5 w./ch. Featuring stereo indicator light, bar-tuning indicator, and conventional op-



erating controls. FM sensitivity 2µv. for 20 db of quieting. Response 30-20,000 cps. HD 1%; 4, 8, 16 ohm output; tape record input; grey cabinet; 16¾" x 5½" x 13" d.\$158.84

RA-665 AM-FM Stereo Receiver

37.5 w./ch. Features stereo indicator light; bar tuning indicator; headphone jack. Sensi-



tivity 10 µv. for 20 db of quieting. Response 20-20,000 cps; HD 1%; 4, 8, 16 ohm outputs & tape outputs. Has conventional operating controls. 17¾" x 5½" x 15" d.\$206.68

RA-727 FM Stereo Receiver

Transistorized design featuring 22 w./ch. music power; function indicator lights;



tuning meter; balance meter; stereo indicator light. FM sensitivity 1 µv. for 20 db quieting. Response 30-30,000 cps; channel separation 32 db; dist. .5% at 1000 cps; input sensitivity: phono 8 mv., aux. 300 mv. Walnut cabinet.....\$187.99

RCA

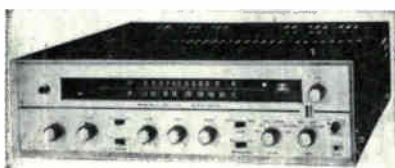
MG67 AM-FM Stereo Receiver

Transistorized design with automatic stereo switching; FM stereo indicator; tuning meter; push-button a.f.c.; separate bass & treble, loudness & balance controls; inputs for headphones, phono & tape recorder. FM sensitivity .5 µv.; 20 db S/N (72 ohm antenna); selectivity 200 kc.; audio response 20-15,000 cps; stereo separation 35 db @ 1 kc. Amplifier 20 w./ch.; hum & noise 66 db below rated output; response 20-20,000 cps. Recommended RCA speakers XFK22, XFK23 & MGS40. Walnut cabinet. 11¾" h. x 32" w. x 12" d.....\$275.00

REALISTIC

STA-50Y AM-FM Receiver

50 w./ch. design. FM sensitivity 2 µv.; HD .75%; hum —60 db. Amp. response 20-20,000 cps ± 1 db; dist. .9% total r.m.s. @ 400 cps. Sensitivity: mag. phono 3 mv.



Grommes-Precision

The President Line
"Solid State"



Model 1000 FM Stereo Tuner

The ultimate in FM stereo tuners. Combines all the advantages of tubes and transistors. Nuvistors are used in the RF section and silicon transistors in the multiplex and audio stages. Tuning is smooth and precise with double bearing flywheel and precision tuning meter. No drift circuitry excludes the need for AFC. Exclusive sensitivity controls adjust for distant stations or silent tuning between stations. Stereo sentry light indicates when stereo is tuned in.

Less cabinet197.50
Walnut cabinet 22.50

Model 2000 AM-FM Stereo Tuner

Less cabinet249.95
Walnut cabinet 22.50



Model 3000 Integrated 100 Watt Stereo Amplifier

Finest 100% transistorized integrated stereo preamplifier power amplifier available. Wider frequency response, lower distortion, higher continuous and peak power, clean transient response and higher damping factor for tighter speaker control. Full set of controls enables listener to fully adjust the sound to the individual taste.

Less cabinet279.50
Walnut cabinet 22.50

The Custom Line

Model C-107 AM-FM Stereo Tuner

Transistorized

Tuning is smooth and precise with graduated scale D'Arsonval meter. Stereo sentry lamp automatically illuminates when stereo is tuned in. Wide band circuitry and time switching multiplex section provide stereo separation of more than 30 DB.

Less cabinet199.95

Model C-106 AM-FM Stereo Tuner

Less cabinet119.95

Grommes-Precision

Dept. SD-66, 9101 King St., Franklin Park, Ill.

Send me complete President Line
details on: Custom Line

Name _____

Street _____

City _____ State _____ ZIP _____

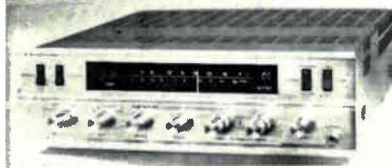
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4

Receivers

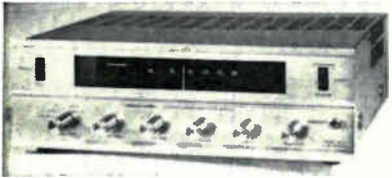
@ 500 cps; aux. 180 mv. @ 1000 cps; 4, 8, 16 ohm outputs. Features tuning meter & sub-channel switch for checking stereo broadcasts. Supplied with case.
31M2000\$179.95

STA-30 AM-FM Receiver



15 w./ch. stereo design featuring stereo indicator light, vu meters & conventional operating controls. FM sensitivity 2.5 μ v. Amp. response 20-20,000 cps \pm 1 db; IM dist. 1.5%. Input sensitivity: mag phono 3 mv. @ 500 cps, tape head 2.2 mv. @ 500 cps, tuner 189 mv. & aux. 180 mv. Has 4, 8, 16 ohm outputs & all preamp tubes d.c. filament operated.
31R2030\$149.95
31R2037 Walnut cabinet\$ 15.95

STA-20 FM Receiver



7.5 w./ch. design featuring stereo indicator light, a.f.c. & tuning indicator. FM sensitivity 3.5 μ v. for 20 db quieting. Amp. response 20-20,000 cps \pm 1 db; dist. 1%; hum & noise -72 db (aux.) -52 db (phono). Input sensitivity: .85 v. aux., 4 mv. mag. cartridge. Has 4, 8, 16 ohm outputs.
31R2025\$99.95
31R2035 Walnut cabinet.....\$14.95

H. H. SCOTT

Model 340B FM Stereo Receiver

Combines FM tuner, multiplex circuitry, dual-channel amplifier system; FM tuner



section same as that used in Model 350D; usable sensitivity 2.2 μ v., 1 μ v. for 20 db of quieting; capture ratio 6 db; response 30-15,000 cps \pm 1 db; signal-to-noise ratio 60 db; harmonic distortion .8%; meter-type tuning indicator; subchannel noise filter for multiplex; power amplifier 35 watts per channel (IHF music power); response 20-20,000 cps \pm 1 db; harmonic distortion .8%; preamplifier section has 4 stereo inputs, rumble filter, scratch filter, separate bass and treble, tape monitor, subsonic cut-off; loudness control: sensitivity for phono or tape head 3 μ v.; powered center-channel output for direct connection to loudspeaker; derived center-channel output; front-panel headphone output with speaker/earphone switch; phase reverse; 17 1/2" x

6 1/4" x 16 1/4"; Type "G" case extra..\$349.95

Model 344-B FM-Stereo Receiver

Solid-state tuner/amplifier with nuvistor front end and silicon output transistors. No



audio transformers required. Combines FM tuner, automatic switching, multiplex circuitry, dual-channel amplifier system. Usable sensitivity 2.2 μ v.; S/N ratio 60 db; cross modulation rejection 80 db; selectivity 45 db; stereo separation 35 db; harmonic distortion .8%; response 30-15,000 cps \pm 1 db; meter tuning indicator; sub-channel for stereo. Amplifier 42.5 w./ch. music power (25 w./ch. r.m.s.); response 20-20,000 cps \pm 1 db; harmonic distortion .8%; hum & noise down 80 db; four stereo inputs plus switchable sensitivity for phono, noise filter, separate bass and treble; tape monitor; derived center channel; front-panel phone jack with speaker "on-off" remote position. 15 1/2" w. x 5 1/2" h. x 13 1/2" d. Type "C" case extra.....\$374.95

Model 348 FM-Stereo Receiver

Solid-state FM multiplex tuner/amplifier; compact design for installation on a 10 1/2"



bookshelf. Extruded front-panel with black leatherette; dynaural interstation noise suppression; tuner specifications same as 312-B, amplifier section same as 260. 18 1/4" w. x 6 1/4" h. x 11 1/4" d. "K" size case extra.....\$479.95

Model 388 AM-FM Stereo Receiver

Solid-state AM-FM multiplex tuner/amplifier identical to 348 except has AM front-

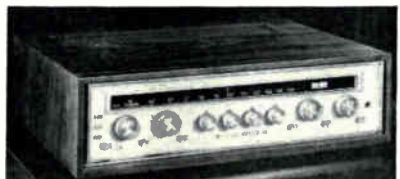


end and no interstation noise suppression. AM section has usable sensitivity of 20 μ v.; volume sensitivity 4 μ v.; tuning range 530-1360 kc. 18 1/4" w. x 6 1/4" h. x 11 1/4" d. "K" size case extra.....\$499.95

SHERWOOD

S-8000 IV FM Stereo Receiver

40 w./ch. music power (36 w./ch. sine wave). Features stereo indicator light; source indicator light & interchannel hush. FM sensitivity 1.8 μ v. for 30 db quieting; capture ratio 2.4 db; separation 40 db; IID 33% (100% mod.). Amplifier response



20-20,000 cps \pm .5% at 36 w.; HD .5% @ 36 w. from 20-20,000 cps; IM dist. 1.5% @ 36 w.; hum & noise 75 db below 1 w. output; sensitivity: phono 1.2 mv., aux. .3 v.; damping factor 5; 4, 8, 16 ohm output; inputs: dual-channel phono, tape head, tape monitor, aux. Controls: tuning, loudness, phono gain, bass, treble, stereo balance, hush, on/off, selector, function, tape monitor, phase, lo & hi filter. 16 1/2" w. x 4" h. x 14"\$329.50
Walnut-tone leatherette case.....\$ 9.50
Walnut wood cabinet.....\$ 29.50

S-7700 II AM-FM Stereo Receiver

Same as Model S-8000 IV except has additional AM circuitry. Less case.....\$347.50

STRADFORD

MXR-388 AM-FM Stereo Receiver

10 w./ch. music power; FM sensitivity 2 μ v. for 30 db quieting; audio response 15-15,000 cps \pm 1 db; dist. less than 1%; 8 ohm/ch. output; hum 90 db below rated output. Inputs for ceramic or crystal phono cartridge or from output of tape recorder preamp. Over-all size 15 1/2" w. x 7 1/2" h. x 10"\$184.50
Metal case\$ 5.00
Walnut cabinet\$ 32.00

MXR-391 AM-FM Stereo Receiver

15 w./ch. music power. Performance similar to Model MXR-388. Has additional low-level inputs for mag. phono. 12" deep\$248.00
Metal case\$ 4.75
Walnut cabinet\$ 31.75

V-M CORP.

1484 AM-FM Receiver

Transistorized, 37.5 w./ch. music power stereo design. FM sensitivity 2.5 μ v. for 30



db quieting; response 20-20,000 cps \pm 1 db; HD 3% at rated output; stereo separation 36 db @ 1 kc. Features automatic stereo switching with indicator light, a.f.c., a.g.c. & tuning meter. Outputs for two separate stereo speaker systems & tape recorder; high-level inputs for phono & aux. Self-cased in walnut-grained vinyl-clad steel\$199.95

1488 AM-FM Receiver

Transistorized stereo design. FM sensitivity 12 μ v. for 30 db quieting; response 50-



20,000 cps; stereo separation 30 db @ 1 kc. Has automatic stereo switching with indicator light, a.f.c., a.g.c. Outputs for stereo speaker system, high-level stereo inputs. Walnut-grained vinyl-clad steel case\$159.95



You'll never know how beautiful
a room can be...

until you fill it with music
from this miraculously small,
modestly priced, solid-state,
50 Watt AM/FM Stereo Receiver.
The New E-V 1178.

E-V The E-V 1178 is no taller than a coffee cup, no bigger than an open book. But listen. There's power and sensitivity to spare, plus every control you need to satisfy your highest musical standards.

The handsome case with solid walnut end-panels is standard. So is our full-time stereo light, easy-to-use tuning meter, movable station locators, and a host of other features.

You do have one option. Choose the

E-V 1178 with AM and FM Stereo for \$315.00, or select the E-V 1177 with FM Stereo only for just \$280.00. Either way you get 50 watts of fun that may well last you a lifetime.

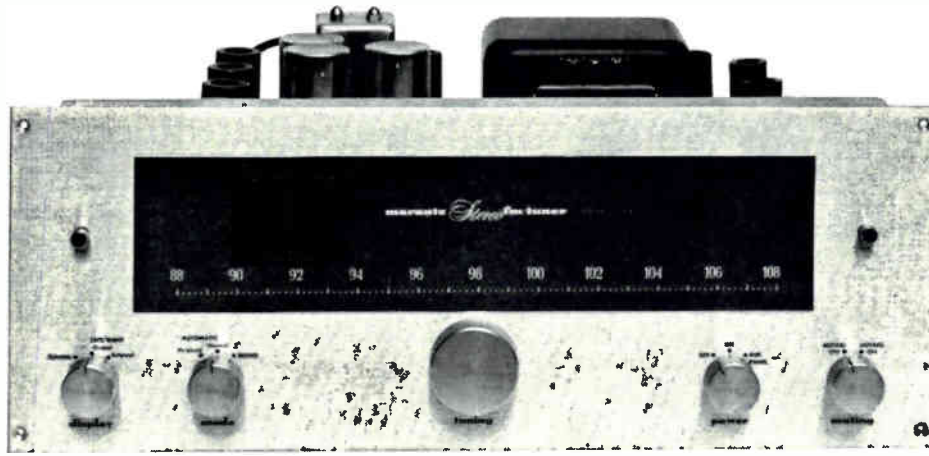
Write today for free literature on the entire line of Electro-Voice solid-state electronics and co-ordinated loud-speaker systems. They make the difference that high fidelity is all about!

Also New From Electro-Voice
E-V 1155 Stereo FM Tuner, just 8¼" wide,

\$160.00. E-V 1156 AM/FM Stereo Tuner, \$195.00. Matching E-V 1144 50 Watt Stereo Control Amplifier, \$124.50.

ELECTRO-VOICE, INC., Dept. 1054EE
649 Cecil Street, Buchanan, Michigan 49107

Electro-Voice[®]
SETTING NEW STANDARDS IN SOUND



MARANTZ 10-B TUNER: "... rather spectacular results."

Q. Mr. Marantz, your new 10B stereo FM tuner has caused quite a stir in the hi-fi industry. Now that a large number are in the field, what reactions have you received?

Mr. Marantz: The overwhelming reaction has been one of surprise from owners who found our claims were not exaggerated. One user wrote he had "... taken with a grain of salt your statement that reception was as good as playback of the original tape or disc. However, after using the tuner for several days I felt I owed an apology for doubting the statement." This is typical.

Q. What success have users had with fringe area reception?

Mr. Marantz: Letters from owners disclose some rather spectacular results. From the California coast, which is normally a very difficult area, we have had many letters reporting clean reception from stations *never reached before*. An owner in Urbana, Illinois told us he receives Chicago stations 150 air miles away with a simple "rabbit ears" TV antenna. Another in Arlington, Virginia consistently receives fine signals from Lancaster, Pennsylvania, 125 miles away; Philadelphia, 200 miles away, and three stations in Richmond 100 miles over mountains, which he said "come in as good as local stations."

Q. For the benefit of these readers interested in the technical aspects, what



are the reasons for this improved fringe area performance?

Mr. Marantz: Technical people will find it self-evident that the rare four-way combination of high sensitivity—better than $2 \mu\text{V}$, IHF—both phase linearity and ultra-sharp selectivity in our new advanced IF circuit, and a unique ability to reach full quieting with very weak signals—50 db @ $3 \mu\text{V}$, 70 db @ $24 \mu\text{V}$ —virtually spells out the 10B's superior reception capabilities. Engineers will also appreciate the additional fact that our circuitry exhibits very high rejection of "ENSI," or equivalent-noise-sideband-interference.

Q. Considering the 10B's excellent fringe area performance, shouldn't one pick up more stations across the dial?

Mr. Marantz: Yes. The report published in the April edition of *Audio Magazine* claimed to have logged 53 stations with an ordinary folded dipole used *in the reviewer's apartment*, which was "more than ever before on any tuner!"

Q. I appreciate, Mr. Marantz, that the 10B's built-in oscilloscope tuning and multipath indicator is very valuable in achieving perfect reception. How big a factor is this device in the total cost of the 10B?

Mr. Marantz: Well, first we should note the fact that no manufacturer would offer a quality tuner without tuning and signal strength meters. Therefore, what we should really consider is the difference in price between ordinary tuning meters, and our infinitely more useful and versatile Tuning/Multipath Indicator, which is only about \$30! While our scope tube and a pair of moderately priced d'Arsonval meters costs about the same—slightly under \$25—the \$30 price differential covers the slight additional power supply complexity, plus two more dual triode tubes with scope

adjustments and a switch. The rest of the necessary associated circuitry would be basically similar for both types of indicator. The price of the 10B tuner is easily justified by its sophisticated precision circuitry and extremely high-quality parts.

Q. With the 10B's exceptionally high performance, does it have any commercial or professional application?

Mr. Marantz: Yes, very much so. In fact, a growing number of FM stations are already using 10B's for monitoring their own broadcast quality. One station wrote that they discovered their 10B outperformed their expensive broadcast monitoring equipment, and were now using it for their multiplexing setup adjustments and tests.

Q. Just how good is the general quality of FM stereo broadcast signals?

Mr. Marantz: As I have remarked on previous occasions, the quality of FM broadcasting is far better than most people realize. The Model 10B tuner has proven this. What appeared to be poor broadcast quality was, in most instances, the inability of ordinary FM receiving circuits to do the job properly. The Model 10B, of course, is based on a number of entirely new circuit concepts designed to overcome these faults.

Q. In other words, the man who uses a MARANTZ 10B FM tuner can now have *true* high fidelity reception?

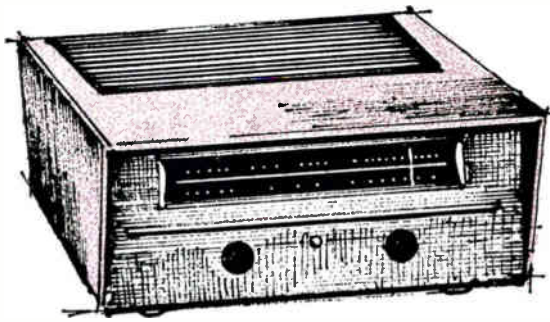
Mr. Marantz: Yes, very definitely—even under many conditions where reception may not have been possible before. This, of course, opens up a tremendous source of material for the man who wants to tape off the air, and who needs really good fidelity. He can, as many of the 10B owners are now doing, build a superb library of master-quality tapes, especially from live broadcasts.

New price: \$600—no excise tax.

marantz

MARANTZ, INC. SUBSIDIARY OF SUPERSCOPE • INC.
25-14 BROADWAY, LONG ISLAND CITY, NEW YORK

CIRCLE NO. 46 ON READER SERVICE CARD



TUNERS

FM TUNERS.....	} 63
AM-FM TUNERS.....	
FM-STEREO TUNERS.....	

ALTEC LANSING

314A "Emperor Royale" FM Stereo Tuner

Sensitivity 1.2 μ v. for 20 db of quieting; channel separation 30 db from 50 to 15,000 cps; time-division type multiplex circuitry; supplied with metal cabinet; excise tax included in price.....\$359.00

BOGEN

Model TP35 FM-Stereo Tuner

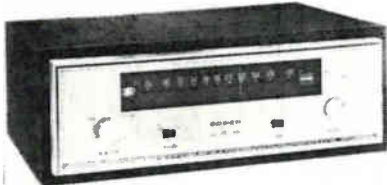
Features automatic stereo/mono switching, time-division circuitry & stereo indicator



tuning eye. Usable sensitivity 3 μ v.; dist. .5%. Response 30-15,000 cps \pm .5 db; hum & noise -60 db; selectivity 220 kc. @ -3 db down; Controls are mono/stereo sw., a.f.c., tuning & power. 15" w. x 11 1/4" d. x 4 3/4"\$129.95
Vinyl-clad metal cabinet.....\$ 14.95

Model FT60 FM Tuner

Transistorized stereo design. Sensitivity 2 μ v. for 20 db of quieting; dist. .5%; sepa-

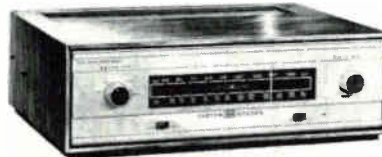


ration 35 db @ 1000 cps; Features 4 wide-band i.f. stages, wide-band ratio detector, a.f.c., time-switching multiplex design; tuning meter; stereo indicator light and automatic stereo/mono switching. Usable sensitivity 2.5 μ v.; response 30-15,000 cps \pm 1 db; selectivity 225 kc. @ -3 db down. Front-panel controls: mono/stereo sw., a.f.c. & tuning control. Has 15 transistors & 11 diodes. 15" w. x 10" d. x 4 3/8".....\$199.95
Vinyl-clad walnut metal cabinet....\$ 14.95
Walnut cabinet\$ 27.95

BURSTEIN-APPLEBEE

Model 400A-6 AM-FM Tuner

FM response 20-20,000 cps \pm 0.5 db, AM 20-6000 cps \pm 3 db; distortion .5% IM or harmonic; separation 30 db or better;



hum & noise 60 db below 100% modulation. Controls: on-off, a.f.c. on-off, selector (AM, FM, FM stereo tuning); 8 tubes, 8 semiconductors. 13 1/2" w. x 10 3/4" d. x 4 3/4" h. Has tuning eye and stereo-sentry. Tuner less cover.....\$79.95
Brown metal cover.....\$ 4.95
Oiled walnut wood cabinet.....\$14.95

CHANNEL MASTER

6612 AM-FM Tuner

Features stereo indicator; tuning eye & a.f.c. Usable FM sensitivity 3 μ v.; response 30-12,000 cps \pm 1 db; hum & noise 50 db below 1 v.; HD 1% at 100% mod.; channel separation 30 db. Has 12 tubes; 8 diodes; 14" x 4 3/4" x 14 1/4".....\$119.95

DYNACO

Model FM-1 FM Tuner Kit

Low-distortion, drift-free FM tuner; etched-circuit construction; high usable sensitivity;



EM-84 tuning eye permits precision alignment without test instruments; slug-tuned pre-aligned coils four i.f. stages; balanced-bridge wide-band discriminator; feedback audio stage for 2-volt, low-impedance output; front-panel volume control; cover included; kit\$ 74.95
FM-1/A Factory assembled\$109.95
PM-4 Panel mount accessory kit for any Dynatuner combination\$ 4.95
PK-40 Deluxe panel & knob kit (supplied as standard on FM-3 tuner).....\$ 9.95

Model FM-3 FM Stereo Tuner Kit

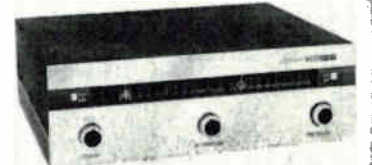


Completely integrated design combining FM-1 tuner & FMX-3 multiplex circuitry; etched circuit boards are used throughout; sensitivity 4 μ v. for 30 db of quieting at 100% modulation; response 10-40,000 cps \pm 1 db; noise 70 db below 100% mod.; distortion at 100% mod. .5% IM & HD from 10 μ v. to .1 v. input; has simplified alignment procedure without requiring test instruments; kit\$ 99.95
Factory wired\$154.95

EICO

Model ST-97 FM Stereo Tuner

Prewired, pre-aligned front end and i.f. strips; employs wide-band ratio detector;



stereo indicating pilot lamp; controls: tuning, separation, a.f.c.-on-off, stereo/mono, and power; IHF sensitivity 3 μ v. (1.5 μ v. for 20 db quieting); signal-to-noise ratio -55 db; harmonic distortion .6%; IM distortion .2%; response 20-15,000 cps; channel separation 30 db; output .7 to 1 vlt; 5 1/8" h. x 15 3/4" w. x 11 3/8" d. Kit\$ 89.95
Factory wired\$139.95

Model HFT-90A FM Tuner

Sensitivity 1.5 microvolts for 20 db quieting; frequency response 20 to 20,000 cps

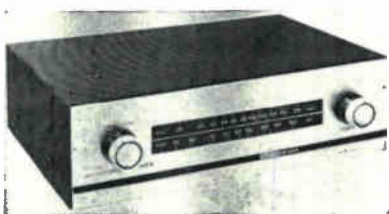


\pm 1 db; i.f. bandwidth 260 kc. at 6 db points; detector bandwidth 400 kc.; maximum drift 20 kc. from cold start; hum 60 db below 1 vlt; pre-wired front end; pre-aligned front end, i.f., and ratio detector; DM-70 tuning eye that travels along dial; flywheel tuning; a.g.c.: 300 ohms input; outputs are cathode follower to amplifier and multiplex; tubes are ECC85/6AQ8, 3-6AU6, 6AL5, 6C4, 6X4, DM-70. Kit\$39.95
Factory wired\$64.95
Cover\$ 3.95

Model HFT-92A AM-FM Tuner

Combination HFT-90A FM tuner with AM facilities; "eye-tronic" tuning on both AM

5 Tuners



and FM; stabilized low-limiting threshold for weaker stations reception; pre-wired, pre-aligned front end; FM sensitivity 1.5 μ v. for 20 db quieting; AM sensitivity 20 μ v. for 0.8 volt output with 20 db signal-to-noise ratio; frequency response AM section 20-5000 cps; hum 60 db below 1 volt; AM output 0.8 volt with 20 μ v. input; AM total harmonic distortion below 2% for 70% modulation.

Kit\$59.95
Wired\$92.95

Model HFT-94A AM Tuner

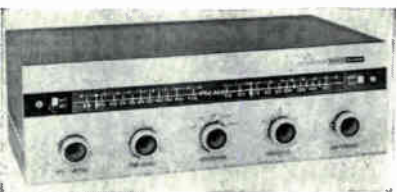
Matches Model HFT-90A FM tuner; narrow or wide bandwidth selector; sensitivity



3 μ v. at 30% modulation for 1 volt out; frequency response 20-9000 cps; less than 1% harmonic distortion at 100% modulation; 8000 ohms output impedance; tubes are 2-6BA6, 6BE6, 12AU7, DM70 exclamation bar tuning eye; 3 $\frac{3}{8}$ " x 12" x 8 $\frac{1}{4}$ " cabinet & panel style similar to model HFT-92A\$39.95
Factory wired\$64.95
Walnut cabinet for Models HFT-90A; HFT-92A; and HFT-94A.....\$12.50

Model ST-96 FM-AM Tuner

Pre-wired, pre-aligned front end shielded in die-cast housing; includes a.f.c., a.g.c.,



tuning eye indicator, narrow and wide AM bandwidth, 10 kc. AM whistle filter; FM section sensitivity, 1.5 μ v. for 20 db quieting; FM frequency response 20-15,000 cps; FM output level 1 v. for 5 μ v. input, 30% mod.; AM output 1 v. for 3 μ v. input, 30% mod.; 15 $\frac{7}{8}$ " x 5" x 14". Has separate AM & FM tuners (kit)\$ 84.95
Factory wired and tested\$119.95

2200 FM Stereo Tuner



Sensitivity 3 μ v. for 30 db quieting; stereo sensitivity 3 μ v. for synchronization; HD .6%; channel separation 30 db; response 20-15,000 cps \pm 1 db; front-end and 4 i.f.'s through ratio detector supplied pre-wired & pre-aligned in kit; audio output 1.5 v.; has bar-type tuning & stereo program indicator; semi-kit\$ 84.95
Factory wired\$109.95
Metal cover\$ 7.50
Walnut case\$ 19.95

ELECTRO-VOICE

E-V 1155 FM Tuner

Transistorized design matching 1144 amplifier. Has automatic mono/stereo switching



with stereo indicator light & tuning indicator. Usable sensitivity 3 μ v. (2 μ v. for 20 db quieting); HD 1 $\frac{1}{2}$ % at 100% modulation. Capture ratio 2.5 db; channel separation 30 db. @ 1 kc.; controls are: tuning, "on-off", mono/stereo, a.f.c. "on-off", local/distant switch. Left & right channels can be paralleled for mono operation. 3 $\frac{3}{8}$ " h. x 8 $\frac{1}{4}$ " w. x 10 $\frac{1}{4}$ " d.....\$160.00
E-V 1156 Same with AM tuner added\$195.00

ERIC

ST-100 FM Stereo Tuner

All-transistor design featuring automatic multiplex switching, tuning meter & stereo

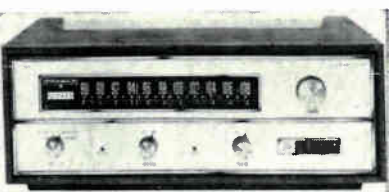


indicator light. 2 $\frac{3}{8}$ " h. x 10 $\frac{1}{2}$ " x 7" d.List \$99.00

FISHER

FM-100-C FM Stereo Tuner

Features automatic stereo/mono switching; transistorized "time-division" multiplex cir-



cuit; controls: on/off, tuning; 3-position mode sw. & 3-position input selector. Response 20-15,000 cps. Sensitivity: 1.8 μ v. for 30 db quieting. HD .5% (100% mod.); separation 40 db at 1 kc. 4 $\frac{13}{16}$ " x 15 $\frac{1}{8}$ " w. x 11 $\frac{1}{8}$ " d. Less cabinet.....\$229.50

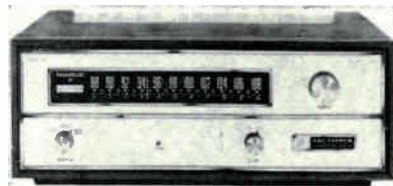
FM-200-C FM Stereo Tuner

Features automatic stereo-mono switching; automatic stereo broadcast scanner (mutes mono stations to permit only reception of stereo stations); tuning meter; nuvistor front-end & transistorized "time division" multiplex circuit. Response 20-15,000 cps; sensitivity 1.8 μ v. for 30 db quieting; HD

.4% (100% mod.); separation 40 db @ 1 kc. Similar in appearance to FM-100-C. 4 $\frac{13}{16}$ " h. x 15 $\frac{1}{8}$ " h. x 11 $\frac{1}{8}$ ". Less cabinet\$279.50

FM-90-B FM Stereo Tuner

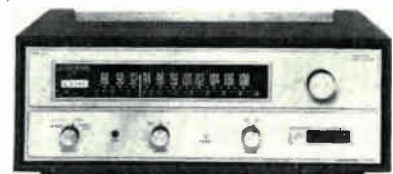
Has automatic stereo/mono indicator, tuning meter; "time-division" multiplex cir-



cuitry. Response 20-15,000 cps; sensitivity 2.0 μ v.; separation 35 db at 1 kc. HD .5% (100% mod.). 15 $\frac{1}{8}$ " w. x 4 $\frac{13}{16}$ " h. x 11 $\frac{1}{8}$ ". Less cabinet.....\$169.50

TFM-200 FM Stereo Tuner

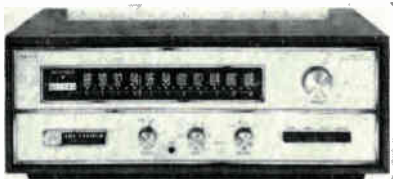
Transistorized design featuring automatic stereo/mono switching; stereo indicator; nuvistor front-end; tuning meter; front-



panel tape output. Usable sensitivity 1.8 μ v.; S/N 70 db (100% modulation); stereo separation 40 db @ 400 cps; capture ratio 2.2 db. Audio output 2 v. Has 14 transistors, 12 diodes, 1 tube & 2 nuvistors. 15 $\frac{1}{8}$ " x 4 $\frac{13}{16}$ " x 11 $\frac{1}{8}$ " d. Supplied less cabinet\$229.50

TFM-300 FM Stereo Tuner

Has nuvistor front-end with balance of circuit transistorized. Has automatic stereo/



mono switching; variable threshold muting; tuning meter. Sensitivity 1.8 μ v. for 30 db quieting; S/N ratio 70 db (100% mod.); HD .4% (400 cps, 100% mod.); separation 40 db; capture ratio 2 db. 15 $\frac{1}{8}$ " w. x 4 $\frac{13}{16}$ " h. x 11 $\frac{1}{8}$ " d. Less cabinet.....\$279.50

KM-60 FM Stereo Tuner Kit

Sensitivity 1.8 μ v. for 30 db quieting (1.2 μ v. for 20 db of quieting); HD less than .5% at 400 cps & 100% modulation; controls: on/off, tuning, mono/stereo selector,



stereo filter. Has multiplex circuitry. 15 $\frac{1}{8}$ " w. x 4 $\frac{13}{16}$ " h. x 13"; less cabinet. Kit\$159.50

Model FM-1000 FM Stereo Tuner

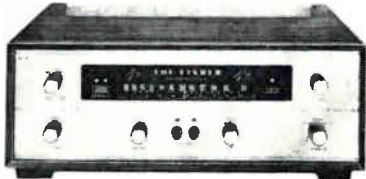
Studio Standard Series; features built-in multiplex circuitry; 1.5 μ v. sensitivity;



four tuned circuits; seven i.f. stages; 5 limiters; 1.3 db capture ratio; a.f.c.: drift .004% (with a.f.c.) & .02% (without a.f.c.)\$389.50

MF-300 Remote Control FM Stereo Tuner

Features a remote control for station tuning; "Tune-O-Matic" uses a center-of-

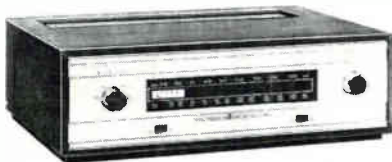


channel detector, synchronous motor with gear train; tuner has "Stereo Beacon", a stereo/mono indicator light; supplied with 40' cable & remote-control station selector unit (RK-10); transmitter-receiver Model RK-20 is optional equipment (not supplied) and is used to remotely control both volume-"on-off" & tuning; tuner performance same as FM-200C; 15 1/8" x 4 1/16" x 13" d.; less cabinet\$329.50
 RK-20 Wireless remote control.....\$129.50
 RK-15 Wired remote accessory unit: controls volume, tuning, & "on-off"; each station\$ 14.95
 MF-320 Includes wireless remote control, MF-300 tuner, and one-piece control panel in walnut cabinet\$479.50

GROMMES

C-106 AM-FM Tuner

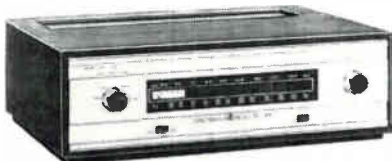
Stereo design with FM usable sensitivity of 4 μ v. Response 20-20,000 cps \pm .5 db;



channel separation 30 db. Controls are: selector (AM, FM mono, FM stereo). Features magic bar tuning with stereo indicator light. 15" x 4 7/8" x 11" d.....\$119.95
 WC-2 Walnut cabinet.....\$ 17.95

C-107 AM-FM Tuner

Designed to match their C-41 amplifier. Features transistorized design, tuning meter,



stereo indicator light & time-switching circuit. FM usable sensitivity 2 μ v. Re-

sponse 20-20,000 cps \pm .5 db; HD .5%; IM dist. 1%; signal-to-noise ratio 60 db; channel separation 35 db; output 1 v.; 15" x 4 7/8" x 11" d.....\$199.95
 WC-2 Walnut cabinet.....\$ 17.95

Model 2000 AM-FM Tuner

Combination nuvistor & transistorized design featuring stereo indicator light, time-switching multiplex circuit. Output level controls & tuning meter. FM usable sensitivity 2 μ v.; response 20-20,000 cps; HD .5%; IM dist. 1%; channel separation 35 db; hum & noise -60 db; output 1 v. adjustable; 15" x 6 1/2" x 13 1/4" d.....\$249.95
 Model 1000 Same as Model 2000 except



does not include AM circuits.....\$197.50
 Walnut cabinet\$ 24.50

HARMAN-KARDON

"Stratophonic" ST-2000 AM-FM Tuner

Transistorized design featuring tuning meter & automatic stereo indicator; front-



panel switches for AM-FM, Stereo/Mono, on-off. Usable FM sensitivity 2.9 μ v.; image rejection better than 45 db; spurious response rejection better than 60 db; multiplex separation 30 db; 13 1/4" x 4 3/8" x 10 1/2". Walnut enclosure optional....\$189.00

HEATH

Model AJ-11 AM-FM Tuner

FM sensitivity 2.5 μ v. for 20 db quieting; AM output 1 volt for 750 μ v. input; har-

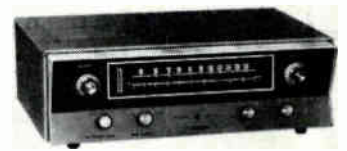


monic distortion less than 1%; AM broad and narrow tuning; independent AM & FM tuning controls; AM and FM level control on rear-chassis apron; a.f.c.; cathode-follower output: tubes 2-6BA6, 1-6BE6, 2-6BN8, 2-6ME5, 1-6CY5, 1-6EZ8, 3-6AU6; full-wave voltage-doubler power supply. Has separate AM & FM circuits. Kit\$65.95

Model AJ-12 FM Stereo Tuner

Features FM multiplex circuitry, stereo in-

dicator light, phase control, adjustable a.f.c.,



filtered output, tuning indicator & circuit-board type assembly; front end is supplied assembled & pre-aligned; output voltage 1 v.; image ratio -45 db; HD less than 1%; response 20-20,000 cps \pm 1 db; a.f.c. correction factor 100 kc./v.; AM suppression -27 db; hum & noise -48 db; sensitivity 3.5 μ v. for 30 db of quieting; separation 30 db @ 1 kc.; has cathode-follower outputs
 Kit\$65.95

Model AJ-32 AM-FM Stereo Tuner

Features FM multiplex circuitry; stereo phase control; stereo indicator light; variable a.f.c.; printed-circuit construction; filtered output; built-in antennas; front end is pre-assembled & pre-aligned; FM output 1



v.; image ratio -45 db; HD less than 1%; i.f. rejection -65 db; response 20-20,000 cps \pm 1 db; a.f.c. correction factor 100 kc./v.; AM suppression -27 db; hum & noise -48 db; sensitivity 3.5 μ v. for 30 db of quieting; has cathode-follower outputs
 Kit\$84.95

Model AJ-41 AM-FM Stereo Tuner

Complete AM, FM, FM stereo; features stereo indicator light; separate AM and



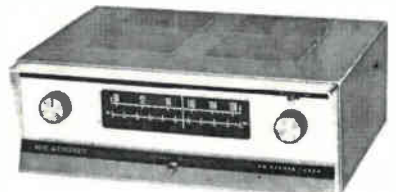
FM tuning meters; FM squelch circuit; FM response 20-20,000 cps \pm 2 db; 2 μ v. sensitivity for 20 db of quieting; uses three printed-circuit boards and pre-assembled, pre-aligned FM tuning unit; 5 1/4" h. x 15 1/2" w. x 14 1/2" (kit)..\$112.50

Model AJ-14 FM Stereo Tuner

Complete FM, FM stereo. Has automatic stereo indicator; stereo phase control; filtered outputs; 4-stage i.f. section. Sensitivity 5 μ v. for 30 db of quieting. HD 1%; hum & noise -55 db; pre-aligned, pre-assembled front-end tuner & circuit board construction; 12" w. x 3 1/4" h. x 9 3/4" d.
 Kit (less cab.)\$49.95
 AE-25 Walnut veneer cabinet\$ 7.95

Model AJ-13 FM Stereo Tuner

Features a.f.c. on-off sw.; selector sw. (on-off, FM, stereo) & tuning control. Sensitivity 2.5 μ v. for 20 db of quieting; mono response 30-20,000 cps \pm 1 db, stereo re-



**Always mention STEREO/HI-FI DIRECTORY
 when visiting your high-fidelity dealer.**

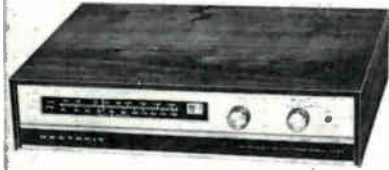
5 Tuners

sponse 50-15,000 cps \pm 2 db. HD 1% at 1000 cps; separation 25 db at 1000 cps. Has stereo indicator light.

Kit\$47.00

Model AJ-33 Transistor AM-FM Tuner

Features stereo circuitry, 23 transistors, 8 diodes, a.f.c., stereo indicator light; filtered stereo tape recorder outputs; a.g.c., adj. FM squelch; tuning meter and pre-built, pre-

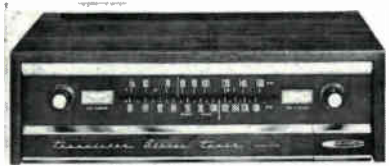


aligned FM front-end & AM-FM i.f. circuit. Has emitter-follower output of 1.5 v. Sensitivity 3 μ v. for 30 db of quieting; response 20-15,000 cps \pm 3 db; THD less than 1%; channel separation 30 db @ 1 kc.; 15- $\frac{1}{2}$ " w. x 3 $\frac{3}{4}$ " h. x 11 $\frac{1}{2}$ ".

Kit\$94.50

Model AJ-43D AM-FM Stereo Tuner

Features stereo circuitry; automatic stereo switching, stereo indicator light. Pre-assembled FM tuning unit & 4-stage i.f. circuit board; separate AM & FM tuning meters, filtered outputs for beat-free recording; a.f.c., a.g.c., stereo phase control. Has 25 transistors & 9 diodes. Built-in AM & FM antenna. All secondary controls are under



hinged front-panel. FM sensitivity 1.5 μ v. for 20 db of quieting; 2 μ v. for 30 db of quieting; image rejection 35 db; i.f. rejection 80 db; capture ratio 3 db; Bandwidth 300 kc. at 6 db down (full quieting). HD less than 1% (full quieting), emitter-follower output, output voltage .5 v. Separation 40 db at 50 cps to 2 kc., 30 db @ 10,000 cps & 25 db @ 15 kc. Hum & noise -55 db.

Kit (less cab.)\$109.00
AE-11 Walnut cabinet\$ 12.95
AE-15 Metal cabinet\$ 6.95

Model AJ-53 AM Tuner

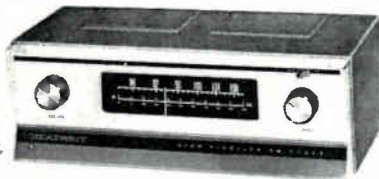
Features "fidelity" selector switch with choice of "normal" bandwidth and sensi-



tivity or wide-band reception. Has self-powered circuit with enough audio output for "private" earphone listening independent of hi-fi amplifier. Kit.....\$26.50

Model AJ-63 FM Tuner

Mono design; convertible to stereo by addition of AC-11 multiplex adapter; has a.f.c. & cathode-follower output; tuning unit is pre-assembled & pre-aligned; sensitivity 3.5 μ v. for 30 db of quieting; image ratio 45 db;



a.f.c. correction factor 75 kc./v.; AM suppression 25 db; response 20-20,000 cps \pm 2 db; HD less than 1.5%; IM 1%; output .5 v. 4 $\frac{1}{2}$ " x 13 $\frac{1}{2}$ " x 6". Kit.....\$37.50

KENWOOD

TK-500 FM Stereo Tuner

Transistor design with nuvistor front-end. Features automatic FM stereo/mono switching; SCA noise filter; tuning meter; sensitivity .6 μ v. for 20 db of quieting; response 20-20,000 cps \pm $\frac{1}{2}$ db; separation better



than 35 db @ 1000 cps; HD .6%. Output voltage is 2 v. @ 100% modulation. 15 $\frac{1}{4}$ " w. x 12 $\frac{1}{4}$ " d. x 5 $\frac{3}{4}$ " h.\$174.95

KW-550 AM-FM Stereo Tuner

Similar in appearance & operation to Model TK-500 except all tube operation instead of transistorized\$139.95

KLH

Model Eighteen FM-Multiplex Tuner

Fully transistorized, designed as an accessory for Models Eleven, Fifteen, and any quality phono system that can accommodate an FM stereo tuner; venier planetary tuning, zero-center tuning meter, and signal beacon. Controls: power on/off-volume, mono/stereo, MX noise filter; 300-ohm input terminals for ext. antenna; 8 $\frac{3}{8}$ " w. x 4" h. x 5 $\frac{1}{2}$ " d.; walnut.....\$116.95

KNIGHT

KN-245A AM-FM Stereo Tuner

9 tubes, 8 diodes, 1 silicon rectifier; FM sensitivity 2 μ v. for 20 db of quieting; re-



sponse 20-20,000 cps \pm 1 db; distortion 1% at 100% modulation; hum -55 db; FM bandwidth 280 kc.; stereo separation 30 db; combination tuning indicator and stereo indicator light; outputs: mono or stereo; matches KN-940A stereo amplifier; less case\$99.95

KN-265A AM-FM Stereo Tuner

17 transistors, 8 diodes, 1 selenium rectifier; FM sensitivity 2 μ v. for 30 db of quieting;



response 20-25,000 cps \pm .5 db; distortion .5% at 100% modulation; hum -58 db below 100% modulation; FM bandwidth 300 kc.; stereo separation 30 db; outputs: two low impedance & 2 high impedance for stereo taping off-the-air; stereo indicator light; tuning meter; matches KN-999 stereo amplifier; less case.....\$179.95
Walnut case.....\$ 14.95
Metal case.....\$ 5.95

KNIGHT-KIT

Model KG-50 AM-FM Stereo Tuner

FM sensitivity 3 μ v. (IHF) for 30 db of quieting; ratio detector; separation 30 db;

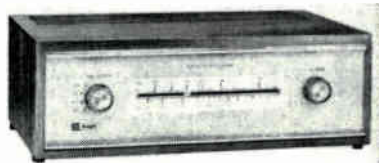


response 50-15,000 cps; hum and noise 50 db below 1 volt; ferrite loop antenna; has cathode-follower outputs.

83YX720 KG-50 (kit).....\$64.95
83YX019 Metal case.....\$ 4.95
83YX018 Deluxe walnut case.....\$ 9.95

Model KG-65 AM-FM Tuner

Tuned r.f. stage on FM; a.f.c.; cathode-follower output plus output for stereo



multiplex adapter; flywheel tuning; built-in ferrite antenna; time saving printed-circuit boards; neon-glow dial pointer; sensitivity 4 μ v. for 30 db of quieting (IHF); 3 μ v. sensitivity for 10 db signal-to-noise ratio on AM; response 20-20,000 cps; tubes: 6AN8; 6BE6, 6BA7, 12AT7, 2-6AU6, ECC82/12AU7, 6AL5; 6X4 rectifier.

83YX315-KG-65 (kit).....\$49.95
83YX019 Metal case.....\$ 4.95
83YX018 Deluxe walnut case.....\$ 9.95

KG-765 Transistor AM-FM Stereo Tuner

Factory aligned front end and i.f. strip;



positive a.f.c., a.g.c., and multiplex indicator; 14 transistors, 18 diodes; r.f. FM front end; IHF antenna sensitivity 2.5 μ v. for 30 db of quieting; response 20-20,000 cps; hum and noise 60 db below 1 volt
83YX765 KG-765 (kit).....\$ 94.95
Assembled\$139.95
83YX081 Deluxe walnut case.....\$ 12.95
83YX084 Metal case.....\$ 5.95

LAFAYETTE

LT-250 FM Stereo Tuner

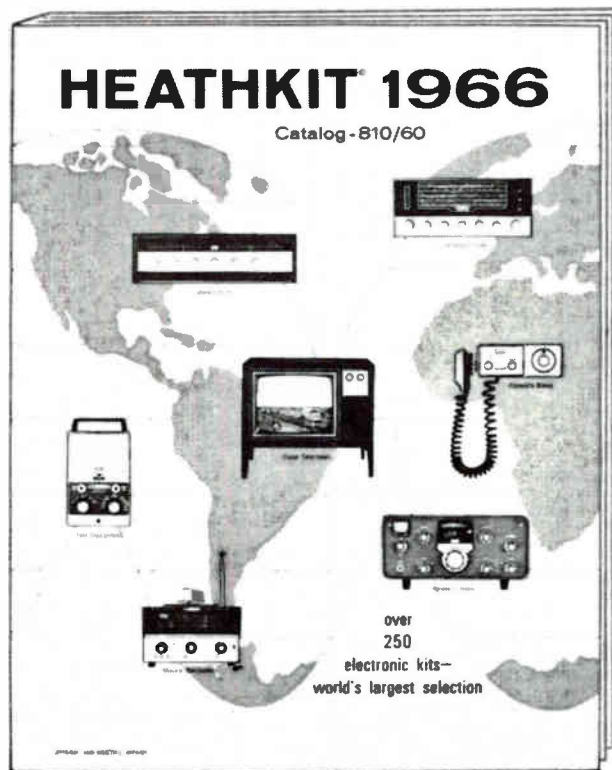
Features automatic stereo indicator light & an audible tone stereo search indicator (through both speakers). Has tuning indicator; multiplex noise filter; variable a.f.c. Response 20-20,000 cps; channel separation 38 db @ 400 cps; less than 1% dist. Controls: mode selector (mono, stereo search),

(Continued on page 70)

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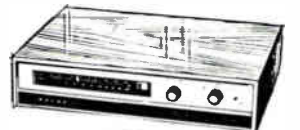
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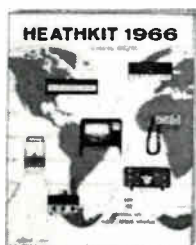


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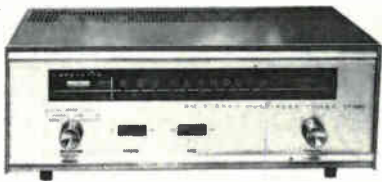
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Prices & specifications subject to change without notice.

CL-217



5 Tuners



FM stereo, FM stereo noise filter), a.f.c., on/off, tuning blend control. Complete with dark beige enclosure. 12 3/4" w. x 4 7/8" h. x 9 1/2"\$79.95

LT-325 AM-FM Stereo Tuner

Features stereo tuning indicator & an audible tone stereo search indicator (through



both speakers). Less than 1% dist.; channel separation 38 db @ 400 cps. Controls: mode selector (AM, FM, FM stereo & stereo search), variable a.f.c., on/off, multiplex noise filter on/off, tuning. Supplied with dark beige enclosure.....\$89.95

LT-100A AM-FM Mono Tuner

FM sensitivity 3 μ v. Response 20-20,000 cps \pm 1 db. HD 1% @ 400 cps; has ter-

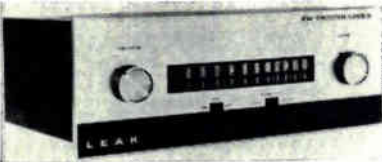


minimal for connecting to multiplex adapter. 12 1/2" w. x 4 3/8" h. x 9 1/2" d.....\$57.95

LEAK

"Trough-Line 3" FM Mono Tuner

Has a.f.c. & trough-line tuning indicator. Sensitivity 1.5 μ v. for 20 db quieting; out-

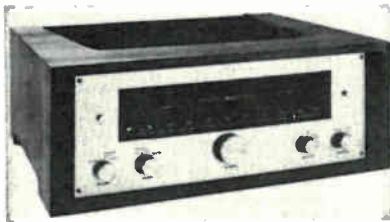


put 1 v. r.m.s. cathode-follower; local/distance sw.; has connection for multiplex stereo adapter. 11 1/2" x 4 1/4" x 8 1/4" d.\$159.00

MARANTZ

Model 10B FM-Stereo Tuner

Features new phase-linear i.f. passband filter; permanent i.f. alignment unaffected by tube changes, etc. Has unique oscilloscope tuning/multipath indicator and 10" linear dial. IHF sensitivity 2 μ v.; capture ratio 1.5 db; quieting 50 db @ 3 μ v., 70 db @ 24 μ v.; distortion less than 0.2% through 15 kc. Separation 30 db at 15 kc. Six i.f. stages; 9 limiters; radar-type balanced-bridge diode mixer; automatic stereo switching and muting accomplished with photo-



electric circuits. Front panel 15 3/8" x 5 3/4"; chassis 14 3/8" x 5 1/4" x 15" d.\$600.00

McINTOSH

MR67 FM Stereo Tuner

Features nuvistor tube for 1st r.f. stage; a stereo program indicator light; multi-



path signal indicator; signal-strength indicator; station tuning indicator; response 20-20,000 cps \pm 1/2 db; usable sensitivity better than 2.5 μ v. @ 100% modulation (3% total noise & distortion); i.f. bandwidth 200 kc. flat top response (-3 db at 200 kc.); dist. less than .5% @ 100% modulation \pm 75 kc. deviation; capture ratio 1.7 db @ 100% modulation; hum better than 70 db below 100% modulation; output 2.5 v.; channel separation 30 db @ 1000 cps; peak-detecting, self-matrixing multiplex circuit is used; 16" wide x 5 5/16" high x 13" deep.\$299.00

Cabinet extra.....\$ 25.00

MR71 FM Stereo Tuner

Features automatic stereo/mono switching; multipath signal indicator; stereo indicator

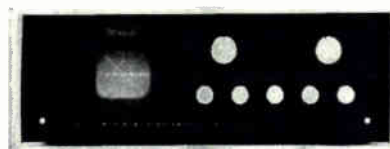


light, tuning meter & signal-strength indicator. Sensitivity 2.5 μ v. for 20 db of quieting; response 20-20,000 cps \pm .5 db. Dist. less than .5% @ 100% modulation; capture ratio 1.5 db @ 100% modulation; hum -70 db; output 2.5 v. (low impedance); separation 30 db @ 1000 cps. Peak-detecting, self-matrixing multiplex circuitry. Has SCA & multiplex filters. Front panel size 16" x 5 5/16" with chassis 13" deep.\$399.00

Walnut cabinet.....\$ 25.00

MI3 Multi-path/Tuning Indicator

To be used with an FM tuner to detect & display multi-path signals; by rotating or repositioning FM antenna, multi-path distortion can be reduced; also can be used as tuning indicator and an audio display indicator; a 3" cathode-ray tube is heart of unit; over-all dimensions: 15 1/2" x 5 1/8" x 11 1/2"



d.\$249.00
Cabinet extra.....\$ 25.00

OLSON ELECTRONICS

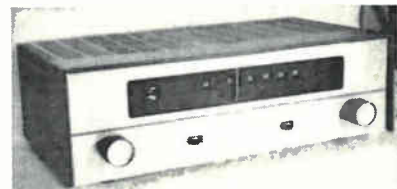
Model RA-580 AM-FM Stereo Tuner

Features tuning meter, FM noise filter, and a.f.c. Sensitivity 2 μ v. for 20 db of quieting.



Response 20-20,000 cps. 14 9/16" w. x 10 3/8" d. x 5 1/8"\$84.59

Model RA-628 FM Stereo Tuner



Separation 30 db @ 1000 cps; circuit employs 7 tubes and 5 diodes. Has meter-type tuning indicator; 13 1/2" w. x 9" d. x 4 1/4"\$65.79

REALISTIC

TM-8D AM-FM Tuner

Features automatic stereo indicator, tuning indicator & variable a.f.c. sw. Response



30-15,000 cps \pm 2 db; S/N 50 db; sensitivity 1.5 μ v. for 20 db quieting. Usable sensitivity 2.5 μ v., usable multiplex sensitivity 5 μ v.; channel separation @ 400 cps 30 db; 14 1/2" x 5" x 10"; supplied with metal cabinet.

31R2010\$99.95

31R2011 Walnut cabinet\$14.95

TM-6 FM Tuner

Features automatic stereo indicator, tuning indicator & a.f.c. Response 30-15,000 cps \pm 2 db; S/N 52 db; sensitivity 3 μ v. for 20 db quieting; channel separation 28 db; HD 1%. 14 1/4" x 8 1/2" x 5"; with case.

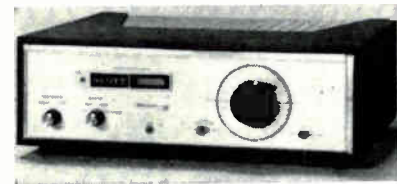
31R2006\$69.95

30R1200 Walnut cabinet\$14.95

H. H. SCOTT

Model LT-110B FM Stereo Tuner

Usable sensitivity 2.2 μ v.; capture ratio 6 db; special circuitry to permit flawless tape



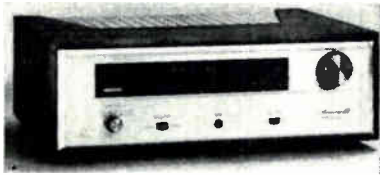
recording; multiplex section pre-assembled and pre-aligned; stereo noise filter and subchannel noise filter same as Model 350D; all wires pre-cut to correct length; tube sockets, terminals, etc. are pre-riveted at factory; 15 1/2" x 5 1/4" x 13 1/4"; Type "C" case extra.

Kit.....\$129.95

STEREO/HI-FI DIRECTORY

Model 350D FM Stereo Tuner

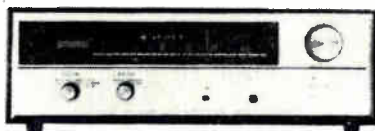
Usable sensitivity 2.3 μv ; includes built-in multiplex section; 80 db rejection spurious



response; 6 db capture ratio; automatic multiplex reception; special circuitry to eliminate whistles when making tape recordings; sub-channel noise filter reduces noise on sub-channel without affecting system's frequency response; stereo noise filter reduces noise without affecting stereo separation; has sensitive tuning indicator and stereo indicator; Type "C" case extra.....\$199.95

312B Transistorized FM Tuner

Features stereo operation, special stereo noise filters; stereo indicator light; zero



center tuning or signal strength; front-panel tape recorder output jacks; separate level controls for ea. channel; 4-nuistor front-end & silicon transistors in i.f. circuit. Usable sensitivity (IHF) 1.9 μv ; cross-modulation rejection 80 db; S/N ratio 65 db; capture ratio 2 db; selectivity 30 db; separation 35 db. Has two front-panel controls: function (off, normal, sub. ch. filter, stereo noise filter) and selector (mono & automatic stereo).....\$249.95

Model LT-112 FM-Stereo Tuner

Solid-state FM multiplex tuner as a kit; silicon transistors used in pre-wired, pre-



tested i.f. amplifier; pre-assembled and pre-aligned nuistor front-end; time switching multiplex circuits pre-assembled and pre-aligned. Front-panel meter switchable for center tuning-signal strength, or aligning; front-panel tape recorder jack; usable sensitivity 2.2 μv ; capture ratio 4 db; cross modulation rejection 80 db; selectivity 45 db; stereo separation 35 db; signal-to-noise ratio 65 db; noise filter & sub-channel noise filter; stereo indicator; 15 1/2" w. x 5 1/4" h. x 13 1/4" d. "C" size case extra.....\$179.95

Model 315 FM-Stereo Tuner

Solid-state tuner; slide-rule dial; signal-strength meter; stereo indicator; automatic

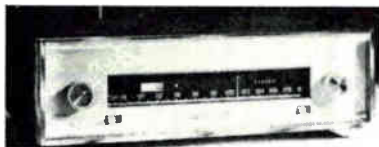


stereo switching; sub-channel filter; usable sensitivity 2.5 μv ; harmonic distortion .8%; capture ratio 6 db; selectivity 45 db; stereo separation 35 db; cross modulation rejection 80 db; signal-to-noise ratio 65 db; 15 1/2" w. x 5 1/4" h. x 9" d.....\$184.95

SHERWOOD

Model S-3000 V FM Stereo Tuner

Has 11 tubes plus rectifier; circuitry same as S-2100 II except AM circuits are omitted;



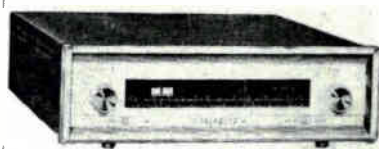
14" x 4" x 10 1/2" d.; less case.....\$165.00
With walnut leatherette case.....\$172.50

Model S-3000 III FM Tuner

Similar in appearance to S-3000 V; adaptable for FM stereo multiplex with insertion (internally) of A-3MX multiplex adapter; circuitry same as S-3000 V FM section; 14" x 4" x 10 1/2" d.; less case.....\$120.50
With walnut leatherette case.....\$128.00

S-2100 II AM-FM Stereo Tuner

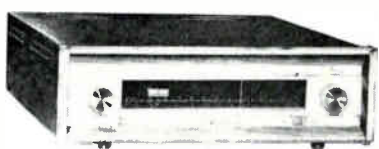
Features stereo indicator light; low-distortion FM multiplex circuitry; FM interchan-



nel hush; zero-center tuning meter; sensitivity: FM .95 μv for 20 db quieting, 1.8 μv for -30 db noise & distortion (IHF); AM 2 μv @ 60% mod. for .5-v. output; selectivity: FM 200 kc. @ -3 db, AM wide 15 kc. @ -6 db, AM narrow 5 kc. @ -6 db; FM detector 1 mc. peak-to-peak; capture ratio 24 db; FM dist. .33% @ 100% mod.; 14 tubes plus silicon rectifier & 9 diodes; 14" x 4" x 12 1/2" d.; less case.....\$209.50
With walnut leatherette case.....\$217.00

Model S-2000 IV AM-FM Tuner

Has 12 tubes plus rectifier; circuitry same as S-2100 II except multiplex circuits omitted;



14" x 4" x 10 1/2" d.; less case.....\$170.50
With walnut leatherette case.....\$178.00
Also available mounted on 5 1/4" or 3 1/2" rack panel\$178.00

V-M CORP.

1487 AM-FM Tuner

Transistorized stereo design; FM sensitivity 12 μv for 30 db quieting; response 20-



20,000 cps \pm 1/2 db; stereo separation 30 db @ 1 kc. FM bandwidth 265 kc. @ 6 db down. Has stereo broadcast indicator light, a.f.c., a.g.c., Armstrong circuitry with limiter & Foster-Seeley discriminator; walnut-grained vinyl-clad steel case matches V-M 1485 integrated amp.....\$129.95

now there are 3 time & tool-saving double duty sets

New PS88 all-screwdriver set rounds out Xcelite's popular, compact convertible tool set line. Handy midgets do double duty when slipped into remarkable hollow "piggyback" torque amplifier handle which provides the grip, reach and power of standard drivers. Each set in a slim, trim, see-thru plastic pocket case, also usable as bench stand.



PS88

5 slot tip,
3 Phillips screwdrivers

PS120

10 color
coded nutdrivers

PS7

2 slot tip,
2 Phillips screwdrivers,
2 nutdrivers

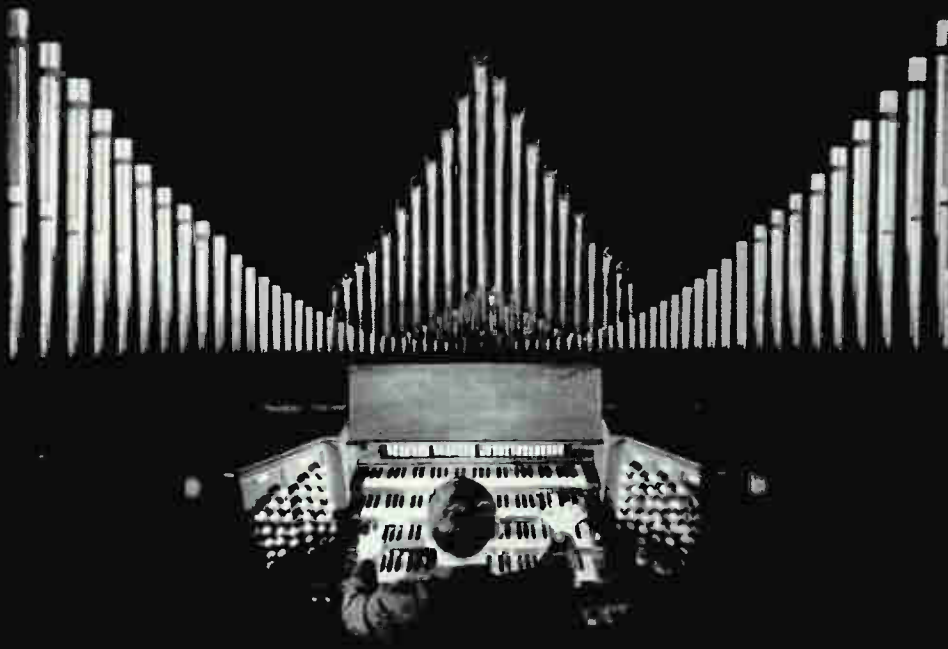
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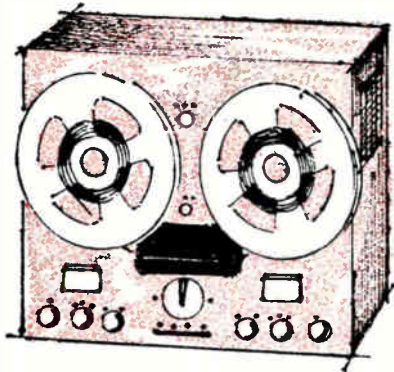
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with radial XL-2* sound projection!

Listen to the soaring splendor of a Cathedral organ sounding Bach's magnificent *Hallelujah* through the sensational new Sony radial XL-2 sound projection speaker systems. From the highest treble piping to the volcanic power of the bass, you hear every breathtaking sound. Look — at the precise functional design of the *facia* panel, with finger-tip controls for maximum ease and efficiency. Touch — the concentric, computer-type knobs, responsive to the most sensitive adjustment. Know — that this superb instrument is from world-famous Sony, perfect for any recording or playback situation. A complete-in-one portable and home four track solid state stereo tape system, with microphones and Sony radial XL-2 stereo sound projection speakers: *All the best from Sony for less than \$239.50!* Other outstanding features of the Sony Sterecorder 260 include: two professional V.U. meters, automatic shut-off sentinel switch, automatic tape lifters, bass and treble tone controls, vertical and horizontal operation, FM stereo recording inputs, two tape speeds, 20 watts of music power. *An exciting new concept in stereo separation! For nearest dealer write Superscope Inc., Dept. 53, Sun Valley, California.

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TAPE MACHINES

RECORDERS, PLAYERS, TRANSPORTS 73
 RAW TAPE 99
 TAPE ACCESSORIES 104



AMPEX

PR-10 Series Tape Deck/Preamps

Two-speed compact design with 4-position head assembly with separate erase, record & playback heads; extra position for optional 4-track stereo playback or special requirements: has 3" vu meters; response 30-15,000 cps ± 2 db @ 15 ips, 40-12,000 cps @ 7.5 ips, 40-6000 cps @ 3.75 ips; signal-to-noise ratio 55 db @ 15 & 7.5 ips (half-track or 2-track), 50 db @ 3.75 ips; wow & flutter .15% @ 15 ips, .18% @ 7.5 ips, 25% @ 3.75 ips; output +4 dbm into 600-ohm balanced or unbalanced load; rack space: transport $8\frac{3}{4}$ " x 19" x 6" d.; electronics $5\frac{1}{4}$ " x 19" x $5\frac{1}{2}$ " d.

Model PR-10-1 full or half-track; single channel electronics include built-in mixer to mix line and mic or two mics: has two inputs—low-imp. microphone & unbalanced bridging with provisions for plug-in line transformer or low-imp. plug-in microphone preamp; without case.

- Cat. #96001-09 full track 7.5 & 15 ips. \$1045.00
- Cat. #96001-03 half track 3.75 & 7.5 ips. \$1045.00
- Cat. #96001-01 half track 7.5 & 15 ips. \$1045.00

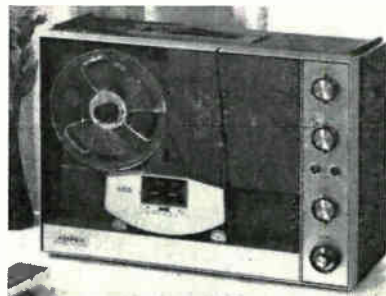


Model PR-10-2 two channel, fits same rack space as PR-10-1; stereo or mono recording; has one input per channel; inputs are unbalanced bridging with provision for plug-in line transformers or low-impedance plug-in mic. preamps; features sound-on-sound, cue tracks, and other special effects.

- Cat. #9600-03 two track, 3.75 & 7.5 ips. \$1245.00
- Cat. #96000-01 two track 7.5 & 15 ips. \$1245.00
- Remote control (in box with 30' cord) \$85.00
- Cat. #4018004-01 four track $3\frac{3}{4}$ & 7.5 ips. Has three 4-track record-erase-playback heads, a 2-track playback head & a head switch. Has 1 line input for each channel. Microphone preamps or line transformers may be used with line inputs. \$1295.00

Model 2000 Series Tape Recorders

3-speed ($7\frac{1}{2}$, $3\frac{3}{4}$ & $1\frac{1}{2}$ ips) design featuring automatic tape threading, automatic end-of-reel tape reverse, and manual switch for tape reverse at any time desired. Machine adds inaudible pulse onto any tape which



is then used to actuate end-of-reel reversal. 2400' tape at $3\frac{3}{4}$ ips will provide 6 hr. of continuous play. Has automatic shutoff and optional slide-projector actuator, built-in preamps, power amps & speakers. Records 4-track stereo & mono, plays 4-track stereo & 4-track, half-track & full-track mono. Response 30-18,000 cps ± 2 db @ $7\frac{1}{2}$ ips; S/N 52 db @ $7\frac{1}{2}$ ips; power output 8 w./ch. continuous r.m.s. Flutter & wow .08% @ $7\frac{1}{2}$ ips.

- Model 2050 tape deck with stereo preamps \$439.00
- Model 2070 portable self-contained system; black vinyl-clad wood cabinet, carrying handle, dust cover, two built-in spkrs. & one #2001 mic. \$499.00
- Model 2075 same as Model 2070 except has tan finish & walnut cabinet. \$519.00
- Model 2080 same as Model 2050 except has walnut cabinet. \$469.00

Model 622 Portable Speaker/Amp

Designed for use with Model 602 Series recorder; 10-watt amplifier with frequency



response of 20 to 20,000 cps ± 0.5 db; hum and noise 70 db below 10 watts; harmonic distortion less than 1%; speaker frequency response: 65 to 10,000 cps; level and tone controls; a.c. convenience outlet; external speaker jack bypasses internal speaker; input impedance 20,000 ohms; output impedance 12 ohms; 13" x 16" x 8" \$189.50

Model 602-2 Tape Deck/Preamps

Stereophonic tape recorder using Model 602-1 tape transport and two Model 602-1 electronic chassis for stereo record/playback; two-track erase head, record and



playback heads; all performance specifications identical to Model 602-1.

- Cat. #6022-01 7.5 ips, portable case \$875.00
- Cat. #6022-07 3.75 ips, portable case \$875.00
- Cat. #6022-02 7.5 ips, supplied unmounted \$795.00

602-1 Mono Tape Deck/Preamp

Full-track or half-track recorder; 3 heads; erase, record, playback; frequency



response: 40 to 15,000 cps, 40 to 10,000 cps ± 2 db, no more than 4 db down at 15,000 cps; wow and flutter under 0.17% r.m.s.; signal-to-noise ratio: full track, over 57 db below peak recording level at 3% total harmonic distortion; half track, over 55 db; vu meter; separate record and playback preamplifiers; reel size: 7"; timing accuracy: ± 3.6 seconds in 30 minute recording; microphone and high level inputs with full mixing provisions; vertical or horizontal operation; separate playback preamp permits instantaneous comparison between incoming program material and actual recording; headphones jack; output: +4 dbm into 600 ohm load from tapes recorded at program level.

- Cat. #602-01 Half-track, 7.5 ips, portable case \$625.00
- Cat. #602-17 Half-track, 3.75 ips, portable case \$625.00
- Cat. #602-03 Half-track, 7.5 ips, unmounted \$575.00
- Cat. #602-02 Full-track, 7.5 ips, portable case \$625.00
- Cat. #602-04 Full-track, 7.5 ips, un-

6 Tape Machines

mounted\$575.00
 Cat. #602-04 Full-track, 3.75 ips, un-
 mounted\$575.00

800 Series Tape Recorders

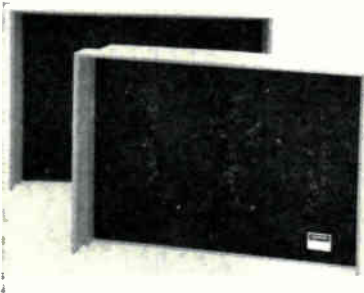
Four-track stereo, 1/2 track & mono; transistorized; dual capstan drive, no pressure pads; vu meters; 3-speed (7 1/2, 3 3/4, 1 1/2 ips). Response 50-15,000 cps ± 4 db @ 7 1/2 ips. Signal-to-noise -46 db @ 7 1/2 ips. Wow & flutter .2% @ 7 1/2 ips.
 Model 850 deck only with preamps..\$269.00
 Model 860 portable deck with preamps, power amps & 2 #701 mics.....\$289.00
 Model 865 furniture deck with preamps,



power amps & 2 #701 mics.....\$309.00
 Model 890 portable deck with preamps, power amps, finger-tip reversing & 2 #710 mics.....\$369.00

813 Speaker System

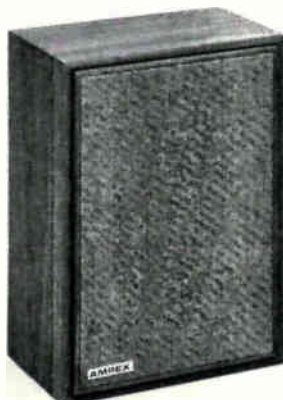
Portable slide-on type; impact resistant molded plastic frame. 9" x 6" oval speaker



.....pair \$29.95

815 Speaker System

Bookshelf design with 3" tweeter & 6" wide-range speaker. Solid walnut. fiberglass



filledpair \$69.00

1100 Series Tape Recorders

Four-track stereo, 1/2 track & mono; auto-

matic threading; electronic & manual reversing; transistorized; dual capstan drive, no pressure pads; vu meters; 3 speed (7 1/2, 3 3/4, 1 1/2 ips); has provision for automatic slide projector actuator. Performance at 7 1/2 ips: response 50-15,000 cps ± 4 db, S/N -46 db. wow & flutter .2%.
 Model 1150 deck only with preamps.....\$399.00
 Model 1160 portable deck with preamps,



power amps & two #2001 mics.....\$449.00
 Model 1165 furniture deck with preamps, power amps & two #2001 mics.....\$469.00

1110 Speaker System

Suitcase design, brown vinyl-clad reinforced wood cabinet with 3" tweeter, 5 1/2" mid-



range, 5 1/2" woofer & 2-pos. h.f. attenuator swpair \$150.00

1113 Speaker System

Impact-resistant molded plastic case with 9" x 6" dual-cone speaker. Response 50-15,000 cpspair \$60.00

1000 Series Speaker System

Infinite baffle, solid walnut cabinet with 3" tweeters, 5 1/2" mid-range, and 5 1/4" woofer. Has 2-pos. h.f. attenuator sw., 4000-cps crossover & fiberglass filled cabinet.

Model 1015 charcoal black grille cloth.....pair \$89.00

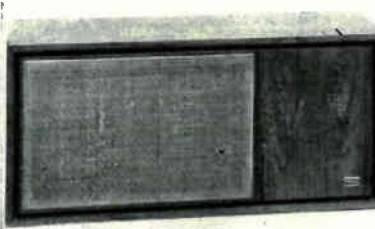
Model 1016 imitation cane grille cloth.....pair \$89.00

2000 Series Speaker System

Solid walnut, sealed back, fiberglass filled cabinet with 8" wide-range speaker & 3" tweeter (2000-cps crossover). Has 3-pos. h.f. attenuator sw. Available with charcoal black (#2010) or cane (#2011) grille clothca. \$79.00

3000 Series Speaker System

Solid walnut, infinite baffle, fiberglass filled design with 10" woofer, 3" tweeters, h.f.



level control. Available with cane (#3010)

or charcoal brown (#3011) grille clothca. \$160.00

Accessories

#701 mic.: Omnidirectional dynamic type, 3 3/4" x 3/4" dia., with stand.....\$9.95
 #2001 mic.: Omnidirectional dynamic type, 7" x 1 1/2" dia., with stand.....\$34.95
 #140 headset: Dynamic stereo with foam ear pads; stereo phone plug adapter..\$29.00
 #141 headset: Dynamic with foam ear pads & stereo balance control at headset..\$39.00
 Recording Accessory Kit: Complete maintenance kit. Includes head demagnetizer, head cleaner, tape splicer, leader tape, splicing tape, and cotton swabs.....\$22.50
 Slide Projector Actuator Model 100: Designed for use with Ampex 2000 and 1100 recorders and major makes of 35 mm. slide projectors. Adds music, narration with automatic slide changing to 35 mm. slide presentations\$12.95

AMPLIFIER CORP.

Model 312 "Transflyweight" Transistorized Recorders

Operates from small dry replaceable or rechargeable batteries; multi-purpose vu



meter; battery-operated amplifier; single head for recording and playback; 5" reel; rewind indicator; 8 lbs.; attache carrying case.

Model 312-AV Dual-track; 1 5/8 ips; 50-2500 cps; flutter 0.25%.....\$488.00

Model 312-BV Dual-track; 1 1/2 ips; 50-4000 cps; flutter 0.2%\$438.00

Model 312-CV Dual-track; 3.75 ips; 50-7500 cps; flutter 0.15%\$448.00

Model 312-TDV Dual-track; 7.5 ips; 50-10,000 cps; flutter 0.1%\$458.00

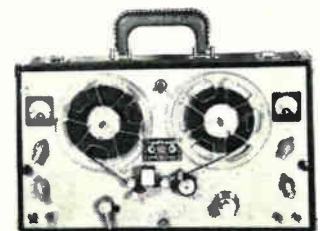
Model 312-SDV Single-track; 7.5 ips; 50-10,000 cps; flutter 0.1%\$458.00

Model 312-EV Single-track; 15 ips; 50-15,000 cps; flutter 0.1%\$498.00

With aluminum case add\$ 31.00

Model 312-ST "Transflyweight" Stereo Recorder

Portable design; battery operated; will record and play back stereo or mono; 1/4



track; 5" reel size; single play/record head; response 50-10,000 cps ± 2 db @ 7.5 ips; signal-to-noise ratio 55 db; wow and flutter .1% @ 7.5 ips; microphone (50/200 ohm) only input per channel with 4 millivolts sensitivity; (15,000 ohm) 2.5 v. output per channel; has 30 transistors; built-in vu meters for each channel; rechargeable batteries; single-speed (1 5/8, 1 1/2, 3.75, 7.5, or 15 ips) design; prices range from \$624.00 to \$684.00. 110 volt a.c. power pack.....\$30.00



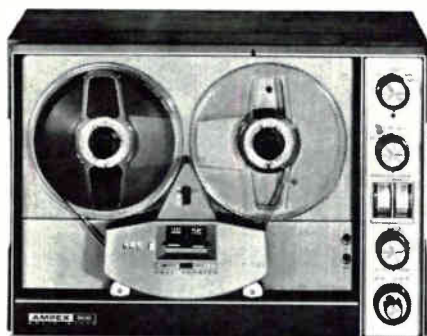
Shopping for
a tape recorder?
Here's all
you need to know:

Ampex is the one professionals use!

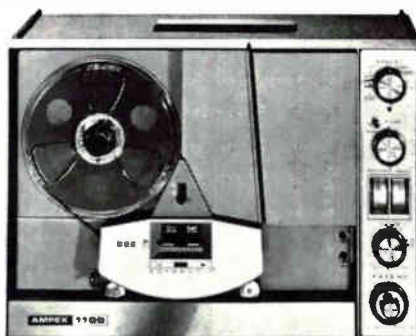
It's a fact! 'Most all of the music you hear every day was originally recorded on Ampex tape equipment. And now, your nearby Ampex dealer can show you a full line to choose from for home use. Start with our lowest priced #860. Like all Ampex tape recorders, it features dual capstan drive and solid die-cast construction. It makes stereo and mono recordings, plays them back in shimmering high fidelity . . . and costs less than \$300, complete with detachable slide-on speakers. For just a little more,

you can have our #1160, which is even easier to use; it has automatic threading and automatic reversing. (You don't have to switch reels to play the other tracks!) And, if you're a "nothing but the best" believer, believe us: you'll be more than happy with our #2070. It offers sound quality on a par with professional equipment and power enough to thrill a small auditorium. To round out the picture, there's also a full line of accessories . . . all in the professional tradition of Ampex.

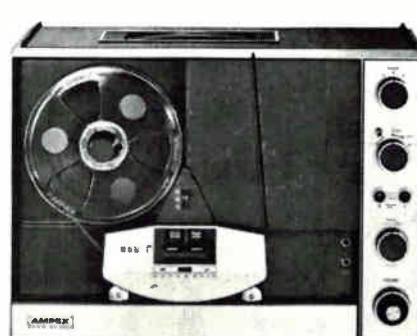
800 SERIES



1100 SERIES



2000 SERIES



tape recorders / speakers / microphones / headsets / blank tape / accessories / stereotapes

AMPEX CORPORATION, 2201 LANOHEIER ROAD, ELK GROVE VILLAGE, ILLINOIS 60007

ask anyone who knows

AMPEX

6 Tape Machines

Model 612 "TransMagneMite" Transistorized Mono Recorders

Transistorized portable tape recorder; spring-wound motor; multi-purpose vu meter; battery-operated amplifier; 5" reel size; rewind indicator; 17 lbs. Model 612-AV Dual-track; 1 7/8 ips; 300-



2500 cps; flutter 0.25%\$495.00
 Model 612-BV Dual-track; 1 7/8 ips; 100-3000 cps; flutter 0.2%\$445.00
 Model 612-CV Dual-track; 3.75 ips; 50-7500 cps; flutter 0.15%\$455.00
 Model 612-TDV Dual-track; 7.5 ips; 50-10,000 cps; flutter 0.1%\$465.00
 Model SIV Single-track; 7.5 ips; 50-10,000 cps; flutter 0.1%\$465.00
 Model 612-EV Single-track; 15 ips; 50-15,000 cps; flutter 0.1%\$505.00
 In weathertite sealed aluminum case add\$ 50.00

CHANNEL MASTER

"Majorca" 6548 Mono Tape Recorder

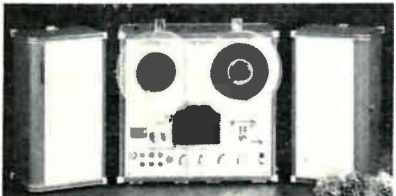
3-speed (1 1/8, 3 3/4, 7 1/2 ips), 2-track design featuring automatic level control; 4" x 6"



spkr.; 2.2 w. output; record level indicator; digital counter; 7" reel; pause button; monitor control; response 50-12,000 cps @ 7 1/2 ips; S/N 40 db; wow & flutter .25%. Has automatic tape lifters; 50,000-ohm mic inputs; 8-ohm radio input; 3-megohm phono input. Amplifier can be used as p.a. system. Solid wood vinyl-covered cabinet. 13 3/8" x 14 3/8" x 7 7/8"\$149.95

"Sir Realist" 6470 Tape Recorder

Transistorized; 2-speed (7 1/2 & 3 3/4 ips); 1/4-track, 2-channel stereo record & play-



back; 2-track mono record & playback. Design has 2 vu meters for record & playback; digital counter; mic & aux. inputs; 2-1000-ohm line outputs; 2-8-ohm outputs

for ext. spkr.; headphone jack & 3 w./ch. power amp. Response 50-15,000 cps @ 7 1/2 ips; S/N 47 db; channel separation 65 db @ 1000 cps; 4" extended-range spkrs. are used in removable lids. Solid wood vinyl-covered cabinet. 14 1/2" x 13" x 13 3/4". Supplied with 2 mics.\$219.95

CONCERTONE

Model 400 "Cosmopolitan" Radio/Recorder

Portable, transistorized, battery or 117 v. a.c.-operated, 2-speed (1 1/8 & 3 3/4 ips),



half-track design. Uses 5" reels and has 3 1/8" x 2 3/4" speaker; a stop-start dynamic-type microphone equipped with remote-control switch (foot sw. optional). Response 150-3500 cps @ 1 1/8 ips, 150-7000 cps @ 3 3/4 ips. Wow & flutter .6%. Output 300 mw. Has built-in AM receiver that can be used as a radio-only if desired; four 1.5-v. batteries provide 15 hours continuous use. Has dual-purpose recording level & battery condition meter & indexing tape counter. 11 1/16" x 7 7/8" x 3 3/8". wt. 10 pounds.\$197.50

Series 800 Tape Recorder

Features 6 heads (2 play, 2 record, 2 erase); "Reverse-O-Matic" (play or record 4-track



stereo tapes in either direction automatically). Features remote controllable & built-in add sound and add echo. 2 speed (3 3/4 & 7 1/2 ips). Response 30-18,000 cps @ 7 1/2 ips; Flutter & wow less than .2% r.m.s. @ 7 1/2 ips; S/N 50 db; output level 1 v. Has 2 line & 2 mic inputs & transistorized record & play preamps. 19 1/4" h. x 14 1/4" w. x 8 3/8" d.

Model 801 is self-contained with integral speakers and 5. w. monitor amplifiers in carrying case. complete with 2 dynamic mics\$499.95
 Model 802 tape deck. Does not have carrying case and speaker/amplifiers; microphones are optional equipment. 14 9/16" h. x 13" w. x 5 1/8" d\$429.95

CONCORD

Model 555 Tape Recorder

Transistorized preamps; 3-speed (7.5, 3.75, 1 1/8 ips) design with built-in amplifiers and speakers; record/playback, 1/4-track stereo or mono; separate erase & record/play stacked heads; response 40-16,000 cps ± 2 db @ 7.5 ips, 50-7000 cps ± 3 db @ 1 1/8 ips; wow & flutter .2% r.m.s. @ 7.5 ips, .35% @ 1 1/8 ips; signal-to-noise ratio better than 50 db; HD less than 2% @ 3 db



below rated output; two inputs/ch. (47-ohm to ext. amp and 8 ohms to ext. spkr.); 30A5 output tubes are used; split speakers in case cover for remote placement; 5w./ch. output; takes up to 7" reels & has 2 vu meters; features sound-on-sound recording; supplied with two dynamic mics. & mahogany carrying case; 11 1/2" h. x 13 3/8" w. x 14"\$249.95

Model 102 Mono Tape Recorder

Transistorized design; 2 speed (7 1/2 & 3 3/4 ips), dual-track mono; response 50-10,000



cps; wow & flutter .3 @ 7 1/2 ips. Has mic. & aux. inputs; earphone monitor output; built-in amplifiers with 10" x 2 1/2" spkr.; level indicator; complete with crystal mic. & earphone; 5 1/2" x 12 1/2" x 11"\$79.95

Model 220 Mono Tape Recorder

Three speeds (7.5, 3.75, 1 1/8 ips); permits playing time of 2 hours at 7.5 ips with



2400 foot, 7" tape; response 40-15,000 cps @ 7.5 ips; 40-5000 @ 1 1/8 ips; built-in 4" x 6" speaker; electronic-eye level indicator; digital tape counter; includes dynamic microphone and earphones; 12" x 13" x 7 1/2"\$149.95

Model 444 Tape Recorder

Same as Model 555 except 2-track design. Response 50-15,000 cps ± 2 db @ 7 1/2



ips. S/N 40 db.....\$199.95

330 Portable Mono Recorder

All-transistor, battery operated, 2-speed (1 1/8 & 3 3/4 ips), mono, full-track design.



Features automatic voice-operated start/stop; automatic slide advance; automatic movie sync and automatic threading. Optional 117 v. a.c. operation; up to 6 hrs. playing time; 5" reels; vu meter & battery condition indicator. Response 50-10,000 cps. Uses "D" type batteries. Supplied with stop/start mic., leather pouch, earphone, special slide-projector plug, sensing tape. 12" x 8 3/4" x 3 3/4". 6 lbs.....\$199.95
AC-3 117 v. a.c. adapter.....\$ 14.95
FT-2 Remote foot control\$ 14.95
TP-2 Telephone pickup.....\$ 7.95
Model 320. Economy version of 330 without remote control mic.....\$130.00
VM-10 Remote control mic.....\$ 29.95

Model 884 Tape Recorder

All-transistor, 3-speed (1 1/8, 3 3/4 & 7 1/2 ips) design with separate 1/4-track record



& playback heads. Features 2 separate record & 2 playback preamps; A-B switch for comparing source versus tape when monitoring; sound-on-sound, vu meters. Two 7" speakers & 7 1/2 w./ch. stereo amplifier. Response 30-20,000 cps @ 7 1/2 ips; S/N 60 db; wow & flutter .15% @ 7 1/2 ips; HD 1.5% at 30 db below rated output. Input mic (20 kohm) & aux. (100 kohm). Supplied with 2 dynamic mics, extension cord for right-channel extension speaker \$399.95

F-85 "Sound Camera"

1 1/8 ips recording speed. Mono dual-track portable design operated from 4 standard



flashlight batteries (a.c. adapter optional equip.); 12 hours battery life; 2 3/8" max. reel; transistorized circuits similar to Model 330. Has record level & battery life indi-

cator. 5" x 7" x 3"; 2 lbs.; supplied with dynamic mic & carrying case.....\$39.50

120 Mono Tape Recorder

Transistorized, 3 speed (7 1/2, 3 3/4 & 1 1/8 ips); has 6 1/2" x 4" speaker, digital tape



counter, level indicator, mic & aux. inputs & earphone monitor output. Response 50-12,000 cps @ 7 1/2 ips. Supplied with lightweight hardwood case; 14" x 6 1/2" x 11"; 17 lbs.....\$79.50

994 Tape Recorder

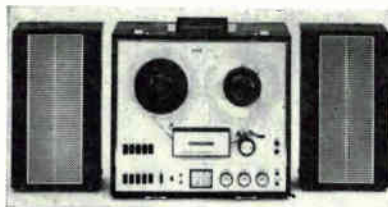
Automatic, transistorized, 3 speed (7 1/2, 3 3/4 & 1 1/8 ips) stereo design. Automatic opera-



tion provides: record up to 12 hrs. on a single reel without stopping, continuous preselected play from 1 hr. to all day, plays both sides of stereo tape without changing reels, automatic threading, reverse & stop. Has sound-on-sound, two vu meters, 7 1/2 w./ch. output, tone controls; operates as p.a. system; 4 speakers (2 woofers, 2 tweeters); 2 dynamic mics, output jacks to hi-fi amp, 4 heads (2 record/playback & 2 erase). Response 40-16,000 cps ± 2 db @ 7 1/2 ips; S/N 55 db; wow & flutter .15% r.m.s. @ 7 1/2 ips; has mic & aux. inputs; 8 ohm output impedance; 15 1/2" w. x 11 1/2" x 17" d.....\$349.50

R-1100 Automatic Tape Recorder

Transistorized design with automatic features similar to Model 994. Has 3 hysteresis



synchronous motors; record & playback preamps; A/B source tape monitoring; two degrees of built-in echo; sound-on-sound; level indicators; automatic tape lifters; 2 mic & 2 line inputs with mixing facilities; each speaker has its own power amp (6 transistors), tone control & an 8-ohm output for external speaker. Features four 1/4-track heads (erase, record, 2 playback — ch. 1 & 3, 2 & 4); 2 speed (7 1/2 & 3 3/4 ips); response 40-16,000 cps ± 2 db @ 7 1/2 ips; wow & flutter .15% r.m.s. @ 7 1/2 ips; S/N 60 db; 16 3/4" w. x 14 3/4" h. x 7 1/2" \$479.50
Optional accessories: remote stop/start control & panel assembly for custom installations.

Model R-1000 Is same as R-1100 but does not include power amps & speaker systems\$399.50

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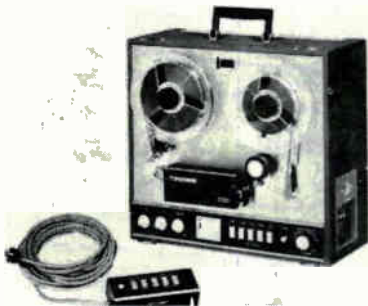
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CIRCLE NO. 22 ON READER SERVICE CARD

6 Tape Machines

R-2000 Automatic Tape Deck/Preamps

Designed for studio & broadcast work. Dual speed (7½ & 3¾ ips); four ¼-track heads



(erase, record & 2 playback—ch. 1 & 3, 2 & 4). Equipped with plug-in head assembly that may be replaced as desired (half-track & full-track assemblies available). Response 30-16,000 cps ± 2 db @ 7½ ips; wow & flutter .12% r.m.s. @ 7½ ips; S/N 60 db; ½ sec. start/stop time; rewind 45 secs for 1200". Has 2 high-impedance balanced or unbalanced line & 2 (10,000 ohm) unbalanced mic. inputs (can be intermixed); low-impedance cathode-follower outputs; 3 hysteresis-synchronous motors; level indicators; automatic reversal; 4 preamps (2 record & 2 playback); A/B monitoring & remote control up to 10' for rewind, fast-forward, stop, operate, record & reverse play. Accessories available as optional equipment: panel assembly for custom installations, full-track & half-track heads, and 15 & 7½ ips speeds. 17" w. x 15¼" x 7" d.\$695.00

CRAIG PANORAMA

TR-404 Tape Recorder

All-transistor, battery operated; 2" x 5" x 3½", 1½ lbs.; operates on four standard



penlite batteries. Comes equipped with leather carrying case, shoulder strap & microphone\$29.95

"Vista" TR-505 Mono Tape Recorder

Transistorized, battery-operated (6-"D"



cells) with self-contained a.c. adapter, 2-speed (1⅞ & 3¾ ips), double-track design. Has level meter & battery indicator. Up to 4 hours recording on 5" reel; with mic.; phone pickup & foot switch accessories available. 5" x 12" x 10½" d., 10 lbs.\$159.95

"Vista" TR-520 Mono Tape Recorder

Transistorized, battery-operated 2-speed (1⅞ & 3¾ ips) design. Has vu meter for recording & battery life indicator. Has remote-control mic, earphone & batteries. Available accessories include a.c. adapter, foot switch, telephone pickup. 11½" w. x 9½" d. x 4½", 10 lbs.\$59.95

"Vista" 525 Mono Tape Recorder

Transistorized, 2-speed (1⅞ & 3¾ ips) featuring automatic level control; ideal for



group discussions. Has level & battery indicator. With mic. 5½" x 11¼" x 9", 8 lbs.\$69.95

TR-490 Mono Tape Recorder

Transistorized, half-track, battery-operated design with built-in mic. & 2¼" speaker.



Supplied with earphone & remote-control mic. Employs self-threading tape cartridge with 30 minutes capacity. 250 mw. output & separate record & play heads. Has leather case & shoulder strap. 6½" x 3¾" x 1½". 2 lbs.\$79.95

C-502 Car Tape Player

Transistorized 2-channel stereo amp, dual-stereo playback heads; electronic track se-



lector & self-activating cartridge system.\$119.00

C-501 Similar design with push-button track changer\$ 99.50

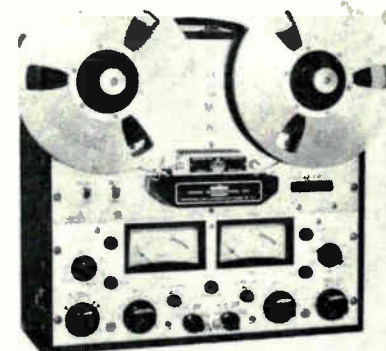
"Vista" 910 Tape Recorder

Features 2-speed (3¾ & 7½ ips), transistorized, 4-track record/play stereo or mono; 2-4" x 6" spkrs.; vu meter; reset counter; radio & mic. Response 50-15,000 cps; 117 v. a.c. operated; 17" x 14" x 5½" d. Supplied with plastic leatherette case....\$179.95

CROWN

SS700 Series Solid-State Recorders

Three heads with push-button transport: operate, fast-forward, rewind, and stop. Three motors, differential magnetic braking, automatic stop, three speeds. Handles up to 10½" reels: wow & flutter .09% @



7½ ips. Synchronous-drive motor. Available with either mono electronics or stereo control center. Performance on quarter-track stereo: response at 7½ ips 50-25,000 cps ± 2 db; S/N 54 db. Six-channel stereo control center. Basic unit with 6 unbalanced line inputs, 2 mixing inputs per channel with a selection of aux. line, microphone, or RIAA equalization. Outputs 0 level 600 ohm unbalanced or up to +18 dbm with headphone amp. Controls: input #1, input #2, input #3, input #4, output channel #1, output channel #2, play, record, read bias, read erase channels #1 and #2, three-speed equalization, bass & treble controls, also output selector for source, tape, tape output, or source and tape. Two 5-inch vu meters.

SS701 Full-track mono.....\$750.00
SS702 Half-track mono.....\$750.00
SS722 Two-track stereo.....\$895.00
SS724 Quarter-track stereo.....\$895.00
Complete series of players-only available.

"Mus-O-Matic" Series



Automatic, self-reversing transport: player only; playback response 30-15,000 cps ± 2 db @ 7.5 ips, 30-11,000 cps & 3.75 ips; three-motor mechanism with hysteresis synchronous capstan motor; foolproof automatic self-reversing system; standard rack mounting 7.5 & 3.75 ips; controls—rewind, stop, operate, forward; power on/off; operate switch on/off; transistor preamp, cathode-follower output; 19" w. x 7½" d. x 12½" h.
Model "A314" Half-track mono....\$495.00
Model "A324" Four-track stereo..\$520.00

SS800 Series Solid-State Recorders

Can be remote-controlled. Front-panel speed shift, photocell automatic stop. Three



motors, differential magnetic braking, three speeds. Handles up to 10½" reels; wow & flutter .06% at 15 ips, .09% at 7½ ips. Available with either mono electronics or stereo control center. Performance on quarter-track stereo: record/play response at 7½ ips 30-30,000 cps ±2 db. Six-channel stereo control center. Basic unit with 6 unbalanced line inputs, 2 mixing inputs per channel with a selection of auxiliary, line, microphone, or RIAA equalization. Outputs 0 level 600 ohm unbalanced or up to +18 dbm with headphone amp. Controls: input #1, input #2, input #3, input #4, output channel #1, output channel #2, play, record, read bias, read erase channels #1 and #2, three-speed equalization, bass & treble controls, also output selector for source, tape, tape output, or source and tape; two 5-inch vu meters. Available with low-impedance mic. input and balanced 600-ohm output.

SS801 Full-track mono.....\$1050.00
 SS802 Two-track mono.....\$ 985.00
 SS822 Two-track stereo.....\$1295.00
 SS824 Quarter-track stereo.....\$1295.00
 SS844 Four-channel in-line.....\$2800.00
 Complete series of players-only available.

SS1000 Solid-State Recorders

Can be remote-controlled; photocell automatic stop; three motors; differential magnetic braking; three speeds; adjustable braking to accommodate many different types of tape. Accommodates 7 to 10½" reels; wow & flutter .06% @ 15 ips, .09% @ 7½ ips. Synchronous-drive motor. Available with either solid-state mono electronics or stereo control center.

SS1001 Full-track mono.....\$1540.00
 SS1002 Half-track mono.....\$1450.00
 SS1022 Two-track stereo.....\$1780.00
 SS1024 Quarter-track stereo.....\$1780.00
 SS1044 Four-channel in-line.....\$3220.00
 Complete series of players-only available.

700 Series Tape Recorders

Record and play response 20-30,000 cps ±2 db @ 15 ips; 30-17,000 cps ±2 db @ 7.5 ips; and 30-9,000 cps ±3 db @ 3.75 ips; has three-motor transport; differential magnetic braking; automatic stop; separate bass & treble boost on record and playback; d.c. filaments; three-speed record/play equalization; 15, 7.5, & 3.75 ips (1½ ips available); fast forward and rewind, 1200' in 38 sec.; handles up to 10½" reels; maximum wow & flutter: .06% @ 15 ips, .09% @ 7.5 ips, 18% @ 3.75 ips; tim-



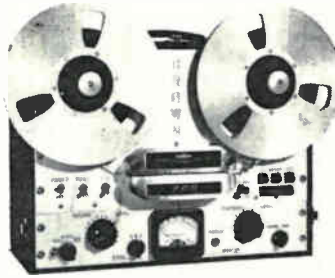
1966 EDITION

ing accuracy 99.8% for synchronous motor; signal-to-noise ratio 56 db @ 15 ips, 54 db @ 7.5 ips, 51 db @ 3.75 ips; overall distortion less than 1.5%; inputs—two high-impedance input channels, mic. or phono and mic or play; cathode-follower-type output; controls—forward, stop, play/record, thread/idle, stop, rewind switch, bias lock, mic. 1 play, mic. 2 phono, treble, bass, play/record, equalization (three speeds), reel size switch.

Model 701 Full-track mono.....\$635.00
 Model 702 Half-track mono.....\$525.00
 Model 712 Two-track stereo.....\$775.00
 Model 714C Four-track stereo with two- and four-track stereo playback.....\$795.00
 Complete series of players-only available.

"BX800" "Broadcaster" Series

Record and playback frequency response 30-28,000 cps ±2 db @ 15 ips; 30-16-



000 cps ±2 db @ 7.5 ips; 30-8000 cps ±3 db @ 3.75 ips; direct off-the-tape third head monitor; A-B switch; sound-on-sound with stereo models; "Touch" control with all-electric relay and solenoid operation; remote-control facilities; photocell automatic stop in all functions; standard rack mount; tape speeds 15, 7.5 & 3.75 ips (1½ ips available); handles up to 10½" reels; maximum wow & flutter .06% @ 15 ips, .09% @ 7.5 ips, .18% @ 3.75 ips; timing accuracy 99.8%; signal-to-noise ratio (NAB) 60 db @ 15 ips and 7.5 ips, 55 db @ 3.75 ips; distortion (over-all off tape) less than 1.5%; inputs: two input channels, either low impedance microphone or balanced bridge; output 600-ohm balanced line output and cathode-follower output; controls: push-button—stop, rewind, play, & forward; rotary—mic., phono, record (P and R position), play, A-B, equalization (three speeds); switches—cue, reel size, power on-off; 19" w. x 7½" d. x 14" h.

Model "BX801" Full-track mono \$1035.00
 Model "BX802" Half-track mono \$ 945.00
 Model "BX822" Two-track stereo \$1395.00
 Model "BX824" Four-track stereo \$1340.00

SS1400 Series Solid-State Recorders

Accommodates 14" reels, quarter-inch tape, and half-inch and one-inch tape for industrial models. Can be remote-controlled. Front-panel speed shift, photocell automatic stop in all models; three motors, differential braking; three speeds; adjustable braking to accommodate many different types of tape; wow & flutter .06% @ 15 ips, .09% @ 7½ ips. Synchronous drive motor. Available with either solid-state mono electronics or stereo control center.

SS1401 Full-track mono.....\$1640.00
 SS1402 Half-track mono.....\$1550.00
 SS1422 Two-track stereo.....\$1880.00
 SS1424 Quarter-track stereo.....\$1880.00
 SS1444 Four-channel in-line.....\$3320.00
 SS1483 Three-channel half-inch.....\$3500.00
 Complete series of players-only available.

DUAL

TG12A Four-Track Stereo Recorder

Three-speed (1½, 3.75, 7.5 ips) stereo/mono record/playback with dual-channel



— first choice
 of those who
 demand the best!

SOLID STATE RECORDERS

WITH MODULAR DESIGN FOR THE ULTIMATE IN QUALITY + DEPENDABILITY + PERFORMANCE — PRICED \$495 TO \$5,000

- 👑 **SX600 SERIES** — Designed for professional quality and economy price.
- 👑 **SS700 SERIES** — Designed for the serious audiophile.
- 👑 **SS800 SERIES** — Designed to please the most critical in listening or recording.
- 👑 **SS1000 SERIES** — Designed for ultimate in lab, data and other professional recording.
- 👑 **SS1400 SERIES** — Designed for extra-duty lab, data and industrial use... 14" reels.
- 👑 **SA300 SERIES** — Designed with automatic reversing for continuous background music systems.
- 👑 **SA1300 SERIES** — Designed with automatic reversing for extra-long continuous playback... 14" reels.



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Put a Crown in Your Future!

CIRCLE NO. 19 ON READER SERVICE CARD

6 Tape Machines

amplifiers & speakers; has automatic shut-off; response 40-20,000 cps @ 7.5 ips, 40-16,000 cps @ 3.75 ips; signal-to-noise ratio 52 db @ 7.5 ips; wow & flutter .15% @ 7.5 ips; features sound-on-sound & sound-with-sound; 13" x 15" x 10".....\$349.95 TG-12 Deck only.....\$245.00

DYNACO

Transistorized Tape Recorder

Imported from B&O of Denmark; fully transistorized, 3-speed complete recorder with built-in power amplifiers; three inputs



(200-ohm mike, RIAA equalized phono, radio tuner) mixed via professional-type slide potentiometers; provision for sound-on-sound and echo; two record-level meters; hysteresis synchronous motor; separate record and playback heads; tape-input monitoring; preamp output; all plug-in circuit boards; 40-16,000 cps ± 2 db; r.m.s. flutter less than 0.075%; peak-to-peak flutter less than 0.2%; S/N ratio 50 db.\$498.00

EICO

Model RP-100 Tape Deck

Provides stereo/mono $\frac{1}{4}$ -track record, playback, erase; also $\frac{1}{2}$ -track stereo/mono



playback; speeds $7\frac{1}{2}$ " and $3\frac{3}{4}$ " ips; takes 7" reels; separate record/playback heads; separate record and playback transistor electronics to monitor while recording; permits sound-on-sound recording; dual meters; push-button controls; rewind and fast forward 1200' per minute; frequency response 30-15,000 cps ± 2 db at $7\frac{1}{2}$ ips, 30-10,000 cps ± 2 db at $3\frac{3}{4}$ ips; timing accuracy 0.3%; has automatic end-of-tape switch; wow and flutter under .15% r.m.s. at $7\frac{1}{2}$ ips, under .2% r.m.s. at $3\frac{3}{4}$ " ips.\$450.00 Model RP-100K (semi-kit includes transport assembled, control electronics and stereo playback amplifiers in kit form)\$299.95

FANON-MASCO

FTR-409 "Ambassador" Recorder

3-speed ($7\frac{1}{2}$, $3\frac{3}{4}$ & $1\frac{1}{8}$ ips) 4-track stereo recorder with amplifiers & speakers. Features sound-with-sound; vu meters; counter; automatic shut-off; 6" oval speakers;



pause control. Records 4-track stereo & mono. Response 40-14,000 cps @ $7\frac{1}{2}$ ips; S/N 50 db; separation 50 db. 17" h. x 15" w. x $10\frac{1}{2}$ " d. Supplied with 2 dynamic microphones\$299.95

FTR-408 "Envoy" Recorder

Dual-speed ($7\frac{1}{2}$ & $3\frac{3}{4}$ ips) mono, dual-track design. Features 5" reels; level indicator; mic & radio inputs; 4" speaker. Response 200-9000 cps @ $7\frac{1}{2}$ ips; S/N 38 db; 1 w. output; wow & flutter .3%. $12\frac{1}{2}$ " x 9" x 6", wt. 11 lbs. Supplied with dynamic mic\$69.95

FTR-404B "Diplomat" Recorder

Dual-speed ($3\frac{3}{4}$ & $7\frac{1}{2}$ ips) mono design; dual track; 7" reels; vu level meter; counter; 6" oval speaker; high-level input. Response 100-12,000 cps @ $7\frac{1}{2}$ ips; 3.5 w. output; S/N 48 db; wow & flutter .25% r.m.s.; separation 45 db; 15" w. x $12\frac{1}{2}$ " d. x $6\frac{1}{4}$ " h. Supplied with dynamic mic\$114.95

FTR-403 "Escort" Portable Recorder

Battery operated or a.c. with adapter; $3\frac{1}{4}$ " reels; dual-speed ($3\frac{3}{4}$ & $1\frac{1}{8}$ ips); level meter; battery life indicator; 4 hours recording. Response 150-8000 cps; 250 mw. output; S/N 40 db; wow & flutter .3%. Uses 6 "D" cells with life of 15 hrs. 5" x 9" x 3", wt. 5 lbs. Supplied with remote-control dynamic mic, earphone & radio connector cable. Optional equipment: a.c. power adapter, remote-control foot sw., telephone pickup, leather case with shoulder strap.....\$99.95

FERROGRAPH

Series 5 Mono Recorder

Two-speed (3.75 & 7.5 ips), 3-motor design; wow & flutter .16%; response 40-10,000 cps ± 3 db @ 3.75 ips, 40-15,000 cps @ 7.5 ips; dual inputs (.003 v. & 1 v. peak); output speaker or $2\frac{1}{2}$ v. @ 15 ohms; includes amplifier & speaker. Model 5A/N.....\$425.00

GRAETZ

Model M50K Tape Recorder

Four-track, two-speed (7.5 & 3.75 ips) record/play stereo design; has mono or stereo inputs for microphone, radio, phono; external speaker outputs; has provision for foot-control pause accessory; response essentially flat from 40 cps to beyond audibility; wow & flutter less than $\pm .5\%$;

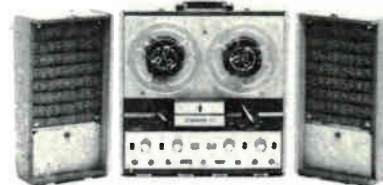


includes built-in preamp and power amplifier for both channels; 5 watts total output; single speaker; built-in mixing facility; electrical tape end stop; adapter cord available which permits tracks 1 & 3 or 2 & 4 to be played simultaneously through the built-in speaker; also available is a polytonal sound blender adapter for trick recordings, sound-on-sound, or sound-with-sound; tubes—6FG6, 2-6227, 2-12-AX7, 2-6AB4, 2-6DL5.....\$399.90

INTER-MARK

"Cipher VII" Tape Recorder

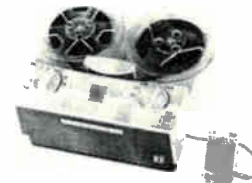
Dual-speed ($7\frac{1}{2}$ " & $3\frac{3}{4}$ ips); 4-track stereo & mono record and playback. Has



pause control; vu meters; counter; built-in amplifiers & speakers. Response 60-14,000 cps @ $7\frac{1}{2}$ ips; flutter & wow .2% @ $7\frac{1}{2}$ ips; S/N 45 db. Inputs for 2 mics. & 2 high level. Can be used as p.a. system. Complete with carrying case & 2 dynamic microphones. 16" w. x 16" x 11" d.....\$239.95

"Cipher V" Tape Recorder

Two-speed ($1\frac{1}{8}$ & 3.75 ips) dual-track mono design; features automatic pause, re-



ording level light, 5" reel, 6" x 3" speaker; frequency range 70-8000 cps @ 3.75 ips, 70-4000 cps @ $1\frac{1}{8}$ ips; supplied with dynamic mic, flight-type luggage carrier, earphone; $5\frac{1}{2}$ " x $9\frac{1}{2}$ " w. x $8\frac{1}{2}$ " d.; $9\frac{1}{2}$ lbs.\$79.50

"Cipher I" Tape Recorder

Three-speed (7.5, 3.75, $1\frac{1}{8}$ ips), mono two-track design; features recording level light,



counter, 6" x 4" speaker; output 5 w.; frequency range 70-13,000 cps @ 7.5 ips, 70-4000 @ $1\frac{1}{8}$ ips; supplied with monitoring earphone, dynamic mic, and leatherette covered wood cabinet; $6\frac{1}{2}$ " h. x $13\frac{3}{4}$ " w. x 13" d.\$129.95 "Cipher I-H" Same as "Cipher I" except for an all-transistor amplifier\$139.95

"Cipher VII-T" Tape Recorder

4-track, 3-speed ($7\frac{1}{2}$, $3\frac{3}{4}$, $1\frac{1}{8}$ ips) with 2 detachable speakers. Has 2 heads, $\frac{1}{4}$ -track stereo/record with $\frac{1}{2}$ & $\frac{1}{4}$ track stereo playback; 2 vu meters; 2-5" spkrs. Response 35-15,000 cps @ $7\frac{1}{2}$ ips; wow &

STEREO/HI-FI DIRECTORY

SOMEDAY, THERE MAY BE OTHER FULLY AUTOMATIC TAPE RECORDERS LIKE THE NEW CONCORD 994



The 994 gives you automatic reversing Plays or records automatically three different ways Stops by itself where you want it to Threads itself automatically And, the 994 is available now!

With the transistorized 994, Concord introduces a new dimension to tape recording. Some might call it modernization, some might call it automation. We think of it as *convenience*—in playing, in recording, in starting and stopping, in threading, in hours of uninterrupted listening. You can't compare it to anything because the 994 is as different from the conventional stereo recorder as the old crank-type Gramophone is from the modern record changer.



AUTOMATIC PROGRAMMING. You can program the 994 to play or record one side of a tape from beginning to end and stop automatically. Or, to play/record first one side of the tape, reverse, play the other side, then stop automatically. Or, to play/record forward and back, forward and

back, continuously, as long as you like—an hour, six hours, or all day. You may change direction of tape any time you like by merely pressing the direction change buttons. These same lighted buttons automatically show you direction of tape travel.

PUSH-BUTTON KEYBOARD. The operating controls are literally at your fingertips. This is the one recorder you can operate without arm waving, and with one hand! As far as threading, that's even simpler—the 994 threads itself automatically.



After all this, we didn't just stop in designing the 994. We kept going. As a result, the 994 offers superb performance and every conceivable feature required for your listening and recording pleasure. Here's a brief sample: three speeds with automatic equalization, four professional heads, two VU meters, digital tape counter, cue control, sound-on-sound, exclusive Concord Trans-A-Track recording, 15-watt stereo amplifier, professional record/monitoring system. The 994 may also be used as a portable PA system, with or without simultaneous taping.



TWO-WAY STEREO SPEAKERS. The split lid of the 994 houses a pair of true two-way speaker systems, each containing a tweeter, woofer, and crossover network. A pair of highly sensitive *dynamic* microphones is included.



The 994 is priced under \$450.* An identical recorder, Model 990 comes without speakers or microphones and is priced under \$400.* Both are at your dealer's now. So why wait? Drop in for a demonstration and find out for yourself what *fully automatic tape recording by Concord* is all about! Or, for complete information, write Dept. SD.

For Connoisseurs of Sound

Other Concord models from \$50 to \$800.

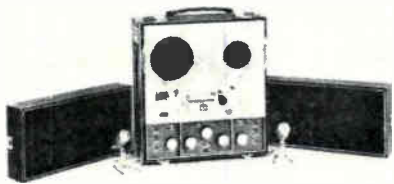
CONCORD 994

CONCORD ELECTRONICS CORPORATION, 1935 Armacost Avenue, Los Angeles, California 90025
IN CANADA: Magnasonic Industries, Ltd., Toronto/Montreal

*Prices slightly higher in Canada.

THE SIGNATURE OF QUALITY ■ Tape Recorders/Industrial Sound Equipment/Dictation Systems/Communications Devices/Closed Circuit Television
CIRCLE NO. 74 ON READER SERVICE CARD

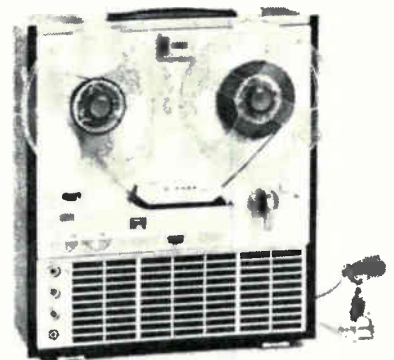
6 Tape Machines



Flutter .25% @ 7½ ips; 3 w./ch.; S/N 50 db; Features sound-with-sound and is supplied with 2 dynamic mics.....\$299.95

"Cipher II" Mono Tape Recorder

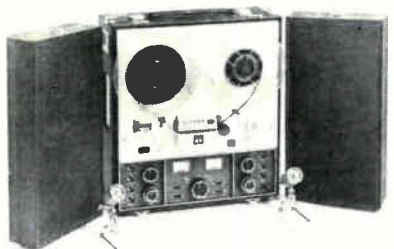
Transistorized 2-track, 2-speed (7½ & 3¾ ips). 2 w. output; response 100-10,000



cps @ 7½ ips; S/N 40 db @ 1000 cps; has 4" x 6" speaker; mic & radio inputs; ext. speaker & earphone outputs; vu meter; digital counter; 7" reel. Supplied with dynamic mic & earphone. 15¼" x 13¼" x 6"\$109.95

"Cipher VIII-T" Tape Recorder

Transistorized, 4-track, 3-speed (7½, 3¾, 1½ ips) design with detachable



speakers. Has 3 heads: erase, play, record; 5 w./ch.; response 35-15,000 cps @ 7½ ips; S/N 52 db; wow & flutter .2% @ 7½ ips. Features sound-with-sound & sound-on-sound; vu meters; 2-5" spkrs. Supplied with 2 dynamic mics. 20¼" x 15½" x 8½"\$350.00

KNIGHT

KN-4401 Stereo Tape Recorder

Built-in record/playback preamps; 4-track record/play & erase heads; two speeds (7½ & 3¾ ips); response 50-15,000 cps @ 7½ ips; vertical or horizontal mounting; flutter & wow 0.2% r.m.s.; S/N better than 40 db; controls: record-play-off; volume 1 & 2; stereo/mono; mic/tape head. Inputs: mic/tape-head 1 & 2; high-level 1 & 2 (at rear). Takes 7" reels; 13" x 13" x 6¼"; less base\$169.95
Walnut base.....\$ 15.95



Carrying case.....\$ 19.95

KNIGHT-KIT

"Superba" KG-415 Tape Deck/Preamps

Solid-state stereo design with pre-assembled Viking tape transport. Has six solid-state



plug-in modules, including headphone amplifier and bias test oscillator modules. Features separate monitor switch with monitor-level controls, mixing facilities, push-to-reset digital counter, easy-edit head cover. Three 4-track hyperbolic-contoured heads permit direct tape monitoring, echo, sound-on-sound recording. Six-position "selector" control with record and playback operation shown by illuminated windows. Two vu level indicators for record and playback of each channel. Response: 50-18,000 cps ± 2 db @ 7½ ips; 50-14,000 cps ± 2 db at 3¾ ips. Flutter & wow .2% r.m.s. @ 7½ ips. Signal-to-noise ratio 50 db. Has modular 1-ke test oscillator for precise adjustment of head voltages, dual preamps drive low-impedance stereo headphones. 17 transistors & 6 diodes. 14½" x 14" x 8½".

Kit\$249.95
Walnut Base\$19.95

KORTING

Model 260 Tape Deck-Preamps

Stereo, 4-track with 2 heads; similar to TR3000 but does not include mics, speakers, and power amps; does have preamplifiers for record & playback.....\$219.95
270DC with gray carrying case.....\$229.95

88-B Portable Mono Recorder



Transistorized battery or a.c.-operated; amplifier operates 80 hours & motor up to 20 hours on one set of batteries. Plays 70 min. on ¼" dual-track tape; 2½" reel; 1½ ips; 10 mw. output. Response 100-6000 cps; mic. serves as speaker on playback. Supplied with remote-control mic. earphone. Various accessories, including carrying case, ext. amp.-speaker, telephone adapter, foot control. 117-v. a.c. adapter, etc., available. 1¾" x 4¼" x 7½"\$69.95

TR2000 Tape Recorder

Similar in design & performance to Model TR3000 except has only single channel am-



plifier & speaker; has stereo heads for 2nd channel record & playback; can convert stereo tapes to mono for self playback; 14¼" w. x 12½" d. x 7½" h.; supplied with one low-impedance dynamic mic. & gray carrying case.....\$199.95

TR3000 Tape Recorder

Two-speed (7.5 & 3.75 ips); plays 4-track & 2-track stereo & mono; records 4-track



stereo & mono; has stereo amplifiers & speakers; features p.a. amplifier & sound-on-sound dubbing; response 30-20,000 cps ± 3 db @ 7.5 ips. 40-15,000 cps @ 3.75 ips; wow & flutter .2% @ 7.5 ips; S/N ratio 45 db; 10 w. output; 16½" x 12" d. x 6¼" h.; supplied with two low-impedance mics.....\$299.95

TR4000 Transistorized Tape Recorder

Three-speed (7.5, 3.75 & 1½ ips); 4-track record & playback with stereo amplifiers & speakers; features 3 heads (erase, record,



playback); separate bass & treble controls in record position; one knob for synchronized dubbing; completely transistorized; record level meters; remote pause; variable echo or reverb effects; response 30-20,000 cps @ 7.5 ips. 40-7000 cps @ 1½ ips ± 3 db; wow & flutter .1% @ 7.5 ips; S/N ratio 45 db; 10 watts audio output; 117 v. operation; 18" x 13" d. x 8" h.; supplied with two low-impedance microphones\$399.95

WHERE CAN YOU BUY 40 SOUND QUALITY FEATURES?

1. Modular construction featuring complete plug-in record amplifier, reproduce amplifier, and bias oscillator 2. Fully solid-state electronics 3. Hysteresis synchronous metering capstan drive 4. Solenoid operated tape gate, brakes and pressure roller 5. Separate reel drive motors 6. Safely handles all tape, including half mil 7. Front panel microphone jacks 8. Mixing inputs for high level line 9. Front panel mode switch with tally lights 10. Monitoring from tape or source 11. Separate channel monitor and output switches 12. Durable, easily cleaned, easy-on-the-eye professional vinyl finish 13. Standard readily available American transistors and components 14. Superior tape guiding 15. Military type fail-safe differential band brakes 16. Sturdy die-cast main plate 17. Signal switching available at remote socket 18. Position for optional fourth head 19. Remote "start-stop" 20. Local-remote front panel control 21. Pushbutton transport controls 22. Record safety interlock 23. New "cue" transport control 24. Large, rugged hardened stainless steel capstan 25. Ball bearing inertial stabilizer flywheel 26. Payout compliance arm and tape break shut-off 27. Automatic capstan motor stop for tape run-out 28. Take-up compliance arm 29. Regulated

power supply 30. Emitter follower outputs 31. Stereo-mono front panel earphone switch 32. Simultaneous record and playback 33. Double flywheel capstan drive 34. Switchable equalization 35. Auxiliary emitter-follower outputs 36. Auxiliary high impedance inputs 37. Standard "hi-fi" connectors 38. Large "operator" type knobs 39. Earphone monitor jack on front panel 40. V.U. meter for each channel

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SOUND-ON-SOUND & SOUND-WITH-SOUND

FOR QUARTER-TRACK STEREO OR MONAURAL OPERATION

TAPE SPEEDS: 3.75 and 7.5 inches per second.

REEL SIZE: 5-, 7- and 8-inch E.I.A. hubs.

HEADS: Four. Selectable ¼-track Erase, ¼-track Record and ¼-track Play are Standard. Accessory two-track Stereo Play available as fourth head.

DIMENSIONS: 19" wide, 15-¾" high, 12" deep.

Unprecedented in our industry, Magnecord, America's first manufacturer of magnetic tape recorders, now introduces a unique model. The NEW Magnecord 1024 offers you the highest possible quality at the lowest conceivable price! For professional sound, design simplicity, moderate price, engineered performance and quality throughout — BUY the most versatile of them all . . . BUY the NEW 1024!



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1024

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\$648.

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6 Tape Machines

212 "Conferette" Mono Recorder

Features talk/listen/stop/reverse/review/erase remotely controlled from microphone



phone; battery operated transistorized; for voice only; has battery level indicator; built-in loudspeaker; automatic end-of-reel stop; 6 1/4 lbs.; 3 1/4" h. x 5 1/2" d. x 12 3/4" w.; 117 v.; 12 or 6 v. auto battery adapters available\$169.95
 Model 216 Similar to Model 212 but designed for 117 v. a.c. operation or from rechargeable batteries or direct from car battery; has built-in battery recharger.\$199.95

LAFAYETTE

RK-142 Mono Tape Recorder

Two-speed (3.75 & 7.5 ips), dual-track mono record/playback design; has 4" x 6"



speaker, record level indicator, provision for external speaker; signal-to-noise ratio 42 db @ 7.5 ips; wow and flutter .2% or better @ 7.5 ips; complete with dynamic microphone and case; 11 3/4" x 9 7/8" x 7 1/8"\$59.95

"Criterion 1000B" Recorder

Records 4-track stereo and mono; plays 2- & 4-track stereo & 4-track mono. Features



3 speeds (7 1/2, 3 3/4 & 1 3/8 ips); transistorized stereo preamps; automatic shut-off. Response 50-15,000 cps ±3 db @ 7 1/2 ips; S/N 50 db; wow & flutter .2% @ 7 1/2 ips. Has 2 mic. & 2 high-level inputs; two 6" x 4" oval speakers. 6 w./ch. output; counter; level meters; mic./radio mixer control; record/play & erase heads. Supplied with 2 dynamic mics & teakwood cabinet. 17 3/4" w. x 7 3/4" h. x 12 3/4"\$189.95

Model RK-137A Tape Recorder

Two-speed (3.75 & 7.5 ips) four-track recorder & playback design; features



pause button, electronic switching between tracks 1-4 and 3-2; separate record and erase heads; vu meter; will record and playback mono 4-track; has amplifiers and speaker for single channel playback; will play back stereo with external second-channel audio system that has input for tape head; signal-to-noise ratio 42 db; outputs for extension speaker, monitor, and second-channel stereo playback; furnished complete with removable top cover & microphone; 13 1/2" w. x 6 1/2" h. x 10 3/8" d.\$89.95

Model RK-650 Tape Recorder

Four-track, 2-speed (7.5 & 3.75 ips) push-button operated; will record and play back



stereo or mono; features sound-with-sound recording; automatic tape cut-off switch; separate record/play and erase heads; index counter and level indicators each channel; dual-channel transistorized preamps, vacuum-tube power amps for record and playback (speaker not included); response 40-18,000 cps @ 7.5 ips, 40-12,000 cps @ 3.75 ips; wow & flutter less than .2% @ 7.5 ips; signal-to-noise ratio 45 db; audio output 2 watts/channel; 15 1/8" w. x 6 1/4" h. x 11 1/8" d. (5 1/2" below panel); less case.....\$109.95
 With carrying case.....\$124.95

RK-600A Tape Recorder

Two-speed (7 1/2 & 3 3/4 ips), 4-track design. Records 4- & 2-track stereo. Plays 4-



& 2-track stereo, 2-track & full-track mono. Features separate record/playback & erase heads; pause control; individual level indicators; hi & low level inputs for mic., tuners, etc.; monitor outputs; sound-with-sound. Response 40-15,000 cps @ 7 1/2 ips; separation 45 db; wow & flutter .25%; S/N 45 db; 1.5 w./ch. output. Supplied complete with built-in amplifiers & two 4" x 6" oval speakers, vinyl covered case & 2 dynamic microphones\$99.88

Model RK-675 Tape Recorder

Deluxe push-button 4-track, 2-speed design (7.5 & 3.75 ips); records 4-track stereo and 4-track mono; features sound-with-sound recording; automatic shut-off of tape transport; two-channel transistorized preamps and vacuum-tube power amps; response 40-18,000 cps @ 7.5 ips, 40-12,000 cps @ 3.75 ips; signal-to-noise ratio 45 db; wow and flutter less than 0.2% @ 7.5 ips; controls: pause, two record buttons with safety interlocks, push-button, rewind/stop/play, stop/fast forward, tone control switch, 2 volume controls; has two 4" x 6" speakers; four input jacks; four output jacks; complete with simulated leather case and two microphones; 16 1/8" w. x 7" h. x 12 1/8" d.\$159.95

LEAR JET

Stereo 8 Cartridge Tape Player

Transistorized design for car, boat, or airplane installation. 8-track stereo or mono. 3 3/4 ips; continuous play design. Has automatic or push-button program selector; up to 2 hrs. and 40 min. mono play. Wow & flutter .3%. Supplied with mtg. bracket & 4 door-mounted speakers with grilles (one for each door in 4-door model cars). 8" w. x 7 1/4" d. x 2 3/4"\$159.00
 With AM radio.....\$179.00

MAGNECORD

"1022" Stereo Tape Recorder

Similar to Model "1021" in design & performance but for stereo operation. 2-speed



(7 1/2 & 15 ips); wow & flutter .17% @ 7 1/2 ips, .15% @ 15 ips; response 30-16,000 cps ± 2 db @ 7 1/2 ips & 35-22,000 cps @ 15 ips. Heads: selectable 2-channel erase, 2-channel record, 2-channel play & 1/4-track play\$788.00
 With case\$848.00

"1024" Stereo Tape Recorder

Similar in design & performance to Model "1021" except for stereo operation. 1/4-track stereo or 4-track mono operation. Heads selectable 1/4-track erase, 1/4-track record, 1/4-track play. Optional 2-channel stereo play head available installed in 4th head position. Inputs: mic. (50 kohms), high impedance mixing bridge & aux. bridge. Outputs: emitter-follower & aux. emitter-follower (.5 v.).....\$648.00
 With 4th head installed.....\$673.00
 Case\$ 60.00

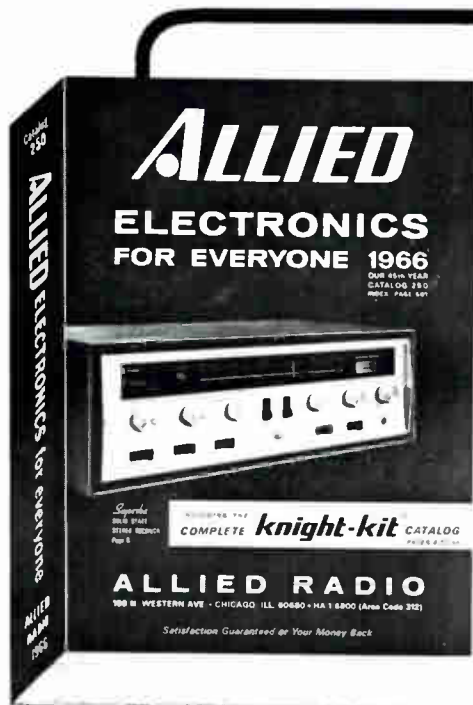
"1028" Stereo Tape Recorder

2-speed (7 1/2 & 15 ips) tube design. Wow & flutter .15% @ 7 1/2 ips & .1% @ 15 ips; response 35-16,000 cps ± 2 db @ 7 1/2 ips & 35-18,000 cps @ 15 ips; S/N 55 db; reels 5", 7" & 10 1/2"; rewind time 2400' in less than 1 minute. Inputs: high & low imp. mics & high-impedance balanced & unbalanced bridge. Outputs: cathode-follower, 2.5 v. & 150/600 ohms balanced. 17 3/8" w. x 12 3/8" h. x 12" d.

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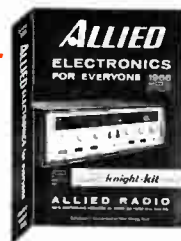
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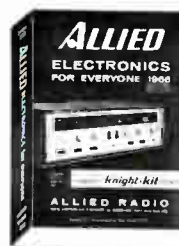
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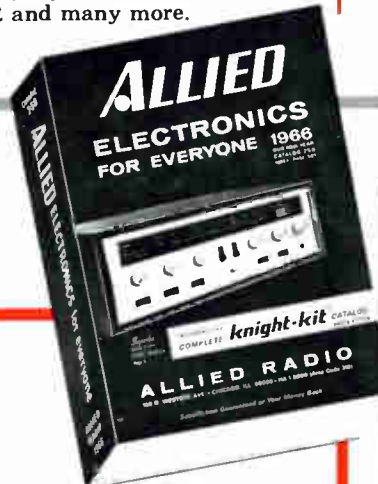
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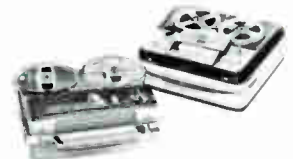
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6 Tape Machines



"1028-2X" 2-track stereo or 1/2-track mono; less case\$ 995.00
 "1028-24X" with 4th head (1/4-track stereo play), less case\$1075.00
 "1028-4X" 1/4-track stereo or 4-track mono, less case\$ 995.00
 "1028-42X" with 4th head (2-track stereo play), less case\$1075.00
 Case optional.....\$ 50.00

"1048" Stereo Tape Recorder

Same as Model "1028" except for tape speeds 3 3/4 & 7 1/2 ips; response 40-16,000 cps ± 2 db @ 7 1/2 ips. 12" deep. Available versions & prices same as Model "1028" tape recorder.

"1021" Mono Tape Recorder

Two-speed (3 3/4 & 7 1/2 ips) mono recorder; full-track record & erase and half- or full-



track playback. Wow & flutter .2% @ 7 1/2 ips; response 45-18,000 cps ± 2 db @ 7 1/2 ips; S/N 53db for both speeds. Inputs: low-imp. mic., balanced bridge, unbalanced bridge, mixing bridge & aux. bridge. Outputs: 150/600 ohm balanced & aux. A & B unbalanced. All-transistor design featuring built-in cueing speaker with separate volume control & amp. (amp will drive an external speaker); phone jacks; mixing input with separate gain control; simultaneous record & playback; adjustable impedance input & output transformers; vu meter; remote "start/stop."
 Transport size 19" w. 10 1/2" h. x 7 1/2" d.; amplifier size 19" w. x 5 1/4" h. x 12" d.\$708.00
 With case\$768.00

MARTEL

Model 301 Mono Recorder

4-speed (7 1/2, 3 3/4, 1 1/2 & 1 1/8 ips); transistorized 1/2-track portable design. Has dual-purpose record level vu meter & battery condition indicator, pause control, 5" reel capacity, remote-control mic; radio, phono & mic. inputs; six 1.5-v. "D" batteries; 4" x 5" speaker. Response 60-14,000 cps @ 7 1/2 ips; S/N 40 db; playing time 8

1966 EDITION



hrs. @ 1 1/8 ips; 12" x 5 1/4" x 10 1/4"; 12 1/2 lbs.\$199.50

MIRANDA

Model "Mirandette C" Portable Recorder

2-speed (3 3/4 & 1 1/8 ips); dual-track, battery or 117-v. a.c. operated. Dual-purpose



recording level & battery quality indicator with digital counter. Response 200-6000 cps ± 5 db; wow & flutter .3%; 2 3/4" x 4" speaker (500 mw. @ 5% dist.); S/N 40 db. Uses 3" reel, 4 D-cell batteries & has 6 transistors & 1 diode; 9 3/8" x 8 3/8" x 3 3/4". wt. 7 1/4 lbs. Supplied with remote-control dynamic mic., leather carrying strap, shoulder grip, and a.c. cord.....\$169.95
 Carrying case.....\$ 11.95
 Foot control.....\$ 6.95
 Telephone pickup.....\$ 5.95

NEWCOMB

TX10 Series Tape Deck/Preamps

Features 10 1/2" tape reels; record & playback level meters; mixing controls for dual



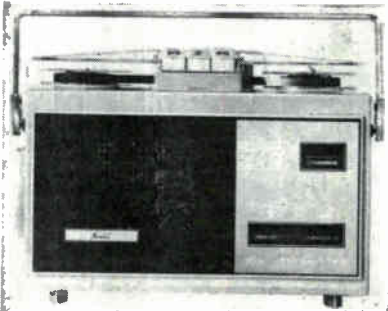
mic & line inputs with individual control knobs; sound-on-sound; 3 heads (record, playback, erase); bias indicator lights. Monitor before recording or off the tape; 2-speed (7 1/2 & 3 3/4 ips); 4-digit counter; automatic shutoff. Response 30-18,000 cps ± 2 db @ 7 1/2 ips; wow & flutter .15% @ 7 1/2 ips; S/N 55 db; HD 1%; output 5 v. from cathode followers. Size unmounted 12 1/2" x 16" x 8".

TX10-2 1/2-track stereo; 3 3/4 & 7 1/2 ips; less case.....\$750.00
 TX10-4 1/4-track stereo; 3 3/4 & 7 1/2 ips; less case\$750.00
 TX10-215 1/2-track stereo; 7 1/2 & 15 ips (special order only); less case.....\$825.00
 TX10-415 Same as TX10-215 except 1/4-track\$825.00
 CA-133 Portable case.....\$25.00
 SA-80B Portable 20 w./ch. music power stereo amp with portable case; 8 1/2" x 16 3/4" x 16 3/8".....\$199.50
 J-200 Portable 2-way speaker system with tweeter control & case; 14 1/4" x 20" x 10 1/4"\$79.50
 K-400 Portable 3-way speaker system with tweeter control & case; 16 3/8" x 23 1/2" x 10 1/4"\$129.50
 SA-80B-J2 Complete reproducing system; 1 SA-80B, 2 J-200 with cables, wt. 71 lbs\$368.40
 SA-80B-K2 Complete reproducing system; 1 SA-80B, 2 K-400 & cables, wt. 102 lbs\$468.40
 Misc. accessories available.

NORELCO

"Continental 101" Portable Recorder

Transistorized, 2-track, 1 1/8 ips design. Response 80-8000 cps; S/N 45 db. 6 D-type



batteries are used to provide 40 hours of recording. Uses 4" tape reel for 3 hrs. recording. Has combination level & battery condition indicator & dynamic mic. Wt. 7 lbs. 11" w. x 3 3/4" d. x 8".....\$99.50
 Accessories available: Leather carrying case, remote mic. sw., a.c. adapter & headphones.

"Continental 401" Tape Recorder

Completely transistorized, 4-track stereo/mono record & playback; 4-speed (7.5,



3.75, 1 1/2, & 1 1/8 ips); includes complete stereo amplifiers & two speakers (1 speaker in cover); can be used as p.a. amplifier, and has interlock pause button, mixing facilities, multiplexing facilities; stacked heads; automatic end of tape stop & sound-on-sound; response 50-18,000 cps @ 7.5 ips, 60-4500 cps @ 1 1/8 ips; signal-to-noise better than -48 db; wow & flutter less than .14% @ 7.5 ips.\$219.50

"Continental 201" Mono Tape Recorder

4-track mono record/playback & stereo head output. Has single channel amplifiers & speaker. 2-speed (7 1/2 & 3 3/4 ips) design. Response 60-16,000 cps ± 3 db; wow & flutter .14% r.m.s.; S/N 40 db. Features pause control, magic-eye level indicator;

6 Tape Machines



public address system; tape counter & mixing facilities for mic, radio, or phono. Accessories available: telephone pickup, foot control, headset. Two-tone wood case 15 3/4" x 13 3/4" x 6 3/4"\$149.50

"Continental 95" Mono Tape Recorder

2-track mono record & playback, 3 3/4 ips speed. Response 80-12,000 cps; wow & flutter .2%; S/N 45 db. Features pause control, 4" speaker, and automatic record level control. Supplied with dynamic mic.\$79.50



Model 150 Mono Tape Recorder

Model 150 Mono Tape Recorder

Portable battery-operated design featuring snap-in type tape cartridge. Has 2 tracks, 1 7/8 ips speed; 2 x 30 minutes playing time. Response 100-7000 cps ± 3 db; S/N 45 db; wow & flutter .35% r.m.s. Supplied with moving-coil mic, carrying case & 4 prepacked 1/8" tape cartridges. Misc. accessories available. Battery life approx. 20 hrs. 7 3/4" x 4 1/2" x 2 1/4"; 3 lbs.\$119.50



OKI

Model 222 Mono Recorder

4-track, 2-speed (7 1/2 & 3 3/4 ips) design featuring transistorized OTL amplifier; pause control; counter; vu meter; mic. & aux. inputs; sound-on-sound; sound-with-sound; 5" speaker. Response 50-15,000 cps @ 7 1/2 ips; S/N 47 db; 1.5 w./ch. output; wow & flutter .12% r.m.s. @ 7 1/2 ips. Has 2 heads: 1/4-track 2-channel stereo record/play & erase heads for 4-track mono record/play & 4-track stereo playback through external preamps; separation 50 db. 11 3/8" x 12 3/8" h. x 7" d. Supplied with

one dynamic mic.List \$179.95

Model 111 Mono Recorder

2-track, 2-speed (7 1/2 & 3 3/4 ips) design featuring transistorized, output-transformerless amplifier; pause control; counter; level meter; mic. & aux. inputs; 5" speaker. Response 60-13,000 cps @ 7 1/2 ips; S/N 40 db; 1.5 w. output; wow & flutter .2% @ 7 1/2 ips. Has two heads (1/2-track record/play & erase). 11 7/8" w. x 2 3/8" h. x 6". With dynamic mic.List \$129.95



Model 555 Stereo Recorder

4-track, 2-speed (7 1/2 & 3 3/4 ips) design featuring transistorized OTL amplifiers; detachable stereo speakers; sound-on-sound; sound - with - sound; automatic shut-off; counter; 2 vu meters; p.a. operation; dual mic. & aux. inputs. Response 20-22,000 cps @ 7 1/2 ips; S/N 50 db; 3 w./ch. output; ch. separation 60 db; dual 6 1/2" x 2" speakers; wow & flutter .12% @ 7 1/2 ips. Dual heads: 1/2-track stereo record/playback & erase for 4-track individual mono & stereo record/playback. Supplied with 2 dynamic mics. Optional equipment: transistorized cigarette lighter inverter for 12-v. operation. Over-all size 11 3/8" w. x 13 3/4" h. x 12 1/2" d. with speakers.List \$349.95



Model 333 Stereo Recorder

4-track, 2-speed (7 1/2 & 3 3/4 ips) design featuring transistorized OTL amplifier, detachable stereo speakers; pause control; sound-on-sound; sound-with-sound; 2 vu meters; dual mic. & aux. inputs; response 50-15,000 cps @ 7 1/2 ips; S/N 47 db; 1.5 w./ch.; two 5" speakers; wow & flutter .12% r.m.s. @ 7 1/2 ips. Has 1/4-track record/play & erase heads for 4-track individual mono & stereo record/playback. Supplied complete with 2 dynamic mics. 11 3/8" w. x 12 3/8" h. x 12 1/2"List \$289.95



Model 300 Stereo Recorder

Solid-state design—two 5" speakers; two heads; 4-track mono and stereo record and



Model 300-D Tape Deck/Preamps

Model 300-D Tape Deck/Preamps

Similar to Model 300 except does not include power amplifiers & speakers. Response 40-18,000 cps @ 7 1/2 ips. Preamp outputs .05 v. (5000 ohms). 11 3/8" x 6" x 10 3/8" with walnut base.....\$159.95

Model 888 Tape Recorder

4-track, 3-head transistorized design. Features digital counter, automatic shut-off, vu record-level meters; input sound monitor, sound-on-sound, sound-with-sound; 2 speeds (7 1/2 & 3 3/4 ips). Response 40-18,000 cps ± 2 db @ 7 1/2 ips; wow & flutter .1% @ 7 1/2 ips; output 3 w./ch. music power; S/N 50 db. 13" w. x 6" x 11 3/4". Supplied with two SP-888 external speaker systems. Response 40-20,000 cps; 15 w. music power capacity. 8 ohms. Has 5" bass/mid-range driver & 2 1/2" direct metallic radiation dome tweeter (5000 cps crossover). 6 3/8" x 7" x 11 3/8"\$489.95
SP-888 Speakers.....\$ 69.95

RCA

YGS11 Mono Tape Recorder

Transistorized, battery-operated, 3" reel design. Features vu meter for record level & battery condition; 2 speed (3 3/4 & 1 7/8 ips); optional adapter for 117 v. operation; 2 3/8" 8-ohm speaker. Includes 4 "C" cells, earphone & mic with remote sw. 2 3/4" x 9 3/4" x 9 3/4". 4.9 lbs.\$49.95



YGS21 Mono Tape Recorder

Transistorized, battery-operated; 3" reel with solid-state motor drive (has no gov-



ernors for longer motor life). Features 2-speed (3 3/4 & 1 7/8 ips); 9 v. operation (adapter for 117 v. operation optional); record indicator light; 4" oval speaker. Includes 6 "D" cells, carrying case with shoulder strap & mic with remote sw. 3 1/2"

x 10 3/8" x 8 1/2". 4 lbs. (less batteries)
.....\$69.95

YGB11 Mono Tape Recorder

Transistorized, cartridge-type design. Features automatic tape & amp. shut-off; vu



meter; 2-speed (3 3/4 & 1 7/8 ips); 4" speaker; response 50-15,000 cps. Supplied with tape cartridge, mic & vinyl-covered wood case. 7 3/8" x 16" x 11 13/16"\$99.95

YGB29 Mono Tape Recorder

Transistorized, cartridge-type design. Features automatic tape & amp shut-off; vu



meter; digital counter; 6" x 4" speaker; 2-speed (3 3/4 & 1 7/8 ips); response 50-15,000 cps. Can be used as a p.a. system. Supplied with tape cartridge, mic with remote sw., earphone & vinyl-covered wood cabinet. 7 3/8" x 17 1/2" x 11 13/16"\$129.95

YGH31 Mono Tape Recorder

Transistorized design with pause sw., vu meter, digital counter; 6" x 4" speaker;



response 50-15,000 cps. Has separate controls for volume & tone, and track selector. Can be used as p.a. amp & has "sing-along" sw. for voice transmission through spkr. Supplied with mic & vinyl-covered wood case. 8 3/4" x 18" x 14"\$129.95

YGD43 Tape Recorder

Transistorized, stereo, cartridge-type design. Has four speakers: two 9" x 6" and



two 3 1/2" in swing-out wings with 12' cables. Features automatic tape & amp. shut-off; p.a. & "sing-along" sw. for transmit-

ting through spkrs; sound-on-sound; vu meter; digital counter; 2 speed (3 3/4 & 1 7/8 ips); response 50-15,000 cps. Supplied with tape cartridge, 2 mics & vinyl-covered wood cabinet with tilt-down tape deck. 15 1/2" x 28 7/8" x 9 3/4"\$199.95

YGG45 Tape Recorder

Transistorized, stereo design with 4 speakers: two 9" x 6" & two 3 1/2" in swing-out



wings with 12' cables; features 3 speeds (7 1/2, 3 3/4 & 1 7/8 ips); sound-on-sound; p.a. & "sing-along" sw.; automatic shut-off; vu meter; digital counter. Response 50-15,000 cps; supplied with 2 mics & vinyl-covered wood cabinet with tilt-down tape deck. 15 1/2" x 28 7/8" x 9 3/4"\$199.95

MGC71 Tape Deck/Preamps

Same as YGD43 except does not include



stereo power amplifiers and speakers. Walnut base. 6 3/8" x 13 3/8" x 11 13/16".....\$149.95

MGG72 Tape Deck/Preamps

Same as YGG45 except does not include



stereo power amplifiers and speakers. Walnut base. 7 1/2" x 13 13/16" x 14 13/16" ..\$169.95

"Fortnighter" (1YC1) Tape Recorder

Similar in design & performance to Model 3YD1 except does not include stereo power amps & speakers; preamps are, however, included; 7 1/8" x 9 3/4" x 11 3/8"\$169.95

"Trendliner II" (1YB2) Recorder

Four-track, 2-speed (3.75 & 1 7/8 ips) mono record/playback design for use with tape cartridge; features start and stop by remote control (remote switch on microphone); digital tape counter; dual-ray recording monitor; earphone jack; complete with ceramic microphone; similar in appearance to Model 1YB1; response 50-15,000 cps @ 3.75 ips at preamp; 7 1/8" h. x 9 3/4" w. x 11 3/8" d.\$129.95

"Prompter" (1YB1) Tape Recorder

Similar in design & performance to Model

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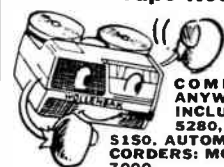
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1200' acetate (plastic), 7 inch	.99
1200' MYLAR, 1 1/2 mil. (strong)	.98
1200' MYLAR, 1/2 mil. tensilized, 5"	1.59
1800' acetate (plastic), 7 inch	1.19
1800' MYLAR, 1 mil. thick, 7 inch	1.59
2400' MYLAR, untensilized, 7 inch	1.99
2400' MYLAR, tensilized, 7 inch	2.79
3600' MYLAR, tensilized, 7 inch	3.89
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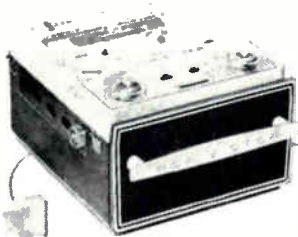
6 Tape Machines

1YB2 except does not have remote control; all tape cartridge machines provide 2 hours



playing time at 3.75 ips & 4 hours @ 1 1/4 ips\$ 99.95

"Cordon Bleu" (3YD1) Recorder
Record/playback cartridge design; features stereo & mono 4-track record/playback; 2-



speed (3.75 & 1 1/8 ips); digital counter; has dual speakers, one in removable lid on 10' cord; response 50-15,000 cps @ 3.75 ips at preamp; supplied with 2 ceramic microphones; 17 1/2 lbs. 8 3/4" h. x 9 3/8" w. x 11 3/4" d.....\$199.95

REVERE

3000 Mono Tape Recorder
2-track record/playback, dual speed (7 1/2 & 3 3/4 ips); response 40-15,000 cps ± 3



db @ 7 1/2 ips; wow & flutter .3%; S/N 46 db; high & low level inputs. Has 8 w. output & 8-ohm jack for external spkr. Preamp output can be run to aux. amp. Heavy-duty metal & molded plastic case; 7 1/2" x 14" x 14 1/2" with mic. Available only through audio-visual dealers.....\$185.00

REVOX

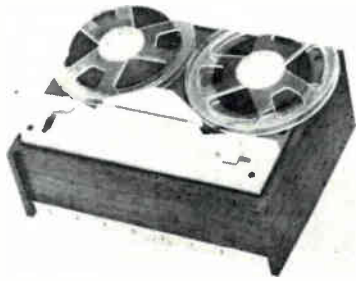
G-36 Tape Recorder
2- or 4-track (7 1/2 & 3 3/4 ips) stereo design. Has 3 heads (record, play, erase); 3 inde-



pendent motors, direct drive (no belts used); reel sizes up to 10 1/2" with reel size selector; two vu meters. Speed accuracy ± 0.3%; wow & flutter ± 0.1% at 7 1/2 ips. Response 40-15,000 cps at 7 1/2 ips. S/N 50 db. Has record & play amplifiers; 6-watt built in mono amplifier & spkr. (Separate external speaker required for stereo playback.) Sound-on-sound, sound-with-sound, and echo. Includes carrying case. 18 1/2" x 12 1/4" x 11 1/2".....\$500.00

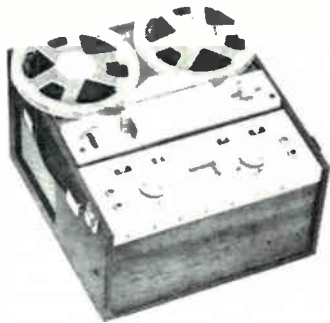
RHEEM CALIFONE

3160 Tape Recorder
Features three heads, three motors; fully automatic; sound-over-sound; sound-on-sound; remote control; automatic cut-off; 16 3/4" x 14" x 9".....\$499.95



pendent motors; direct drive (no belts used); reel sizes up to 10 1/2" with reel size selector; two vu meters. Speed accuracy ± 0.3%; wow & flutter ± 0.1% at 7 1/2 ips. Response 40-15,000 cps at 7 1/2 ips. S/N 50 db. Has record & play amplifiers; 6-watt built in mono amplifier & spkr. (Separate external speaker required for stereo playback.) Sound-on-sound, sound-with-sound, and echo. Includes carrying case. 18 1/2" x 12 1/4" x 11 1/2".....\$500.00

3550 Tape Recorder
Features 4-track stereo/mono record/play; vu meter; 3 speeds (7 1/2, 3 3/4 & 1 1/8 ips);



ord lock for those to wish to use their own record amplifiers; three-position digital counter; 12 1/4" x 8 3/8" x 11 3/32" (above mounting surface); 4 1/32" (below mounting surface)\$69.95

3200 Tape Recorder
Stereo tape recorder with three-speed op-



tion; edit lever; large high-frequency speakers; sound-with-sound; vu meter; FM

multiplex ready; digital counter; frequency response 40-18,500 cps; 16 3/4" x 13 3/4" x 7 1/2"\$269.95

3100 Tape Deck/Preamps

Stereo professional tape deck; top & bottom mounting brackets; full metal shield-



ing for component area; 1/4" lip on deck and amp for ease of mounting; three-speed option; edit lever; sound-on-sound; sound-with-sound; 2 vu meters; FM multiplex ready; frequency response 40-18,500 cps; 2 hi-level outputs; 2 lo-level; low-impedance outputs; 15" x 12 1/2" x 8".....\$249.95

3110 Tape Deck/Preamps

Professional stereo record/play tape deck; top & bottom mtg. bracket; full metal shielding for component area; 40-18,000 cps; monitor amplifier; FM multiplex ready; automatic shut-off; vu meter; 4 speed; 13 3/4" x 13 3/4" x 6 3/4".....\$189.95

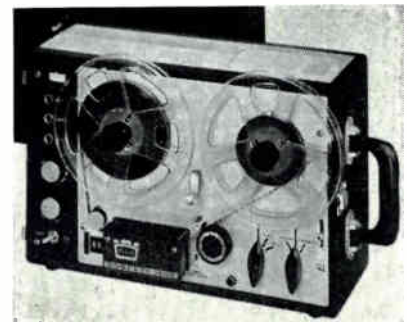
3170 Tape Recorder

Features three heads, three motors; fully automatic; sound-over-sound; sound-on-sound; remote control; automatic cut-off; features magic replay—plays both directions stereo; entire tape or any selection of music; automatic shut-off of all stereo units after playing complete tape both directions; 16 3/4" x 14" x 9".....\$599.95

ROBERTS

Model 1600 Tape Recorder

Half-track, mono, 3-speed (7 1/2, 3 3/4 & 1 1/8 ips) design with amp & 4" x 6" (8



ohm) speaker. Has level meter, edit guide, pause control, 2 heads (record/playback & erase). Response 50-15,000 cps ± 4 db; S/N -45 db; 2 w. output; wow & flutter .2%. 15 3/4" x 10 1/2" x 8 1/2"\$169.95

Model 400X Stereo Recorder

Features 22,000 cps Cross Field record head design; echo-chamber effects; replay double reverse for automatic, continuous 4-track stereo tape replay; repeat (replays any part of tape over & over); sound-on-sound; sound-with-sound; special bias for FM recording. Dual speed (7 1/2 & 3 3/4 ips). Has stereo amplifier, two 6" (8 ohm) speakers; 2 vu meters; automatic stop; edit guide; 3 heads (record-play-erase) S/N -45 db;



8 w./ch. output; 2 v. preamp output; wow & flutter .1%; channel separation 50 db; 17 1/4" x 16" x 12 1/4".....\$799.95
 Model 400 Same except without Cross Field & only amplifiers solid-state. Response 40-18,000 cps \pm 3 db.....\$699.95
 Model 455 Same as 400 Except without automatic forward & reverse play....\$599.95

Model 770 Stereo Recorder

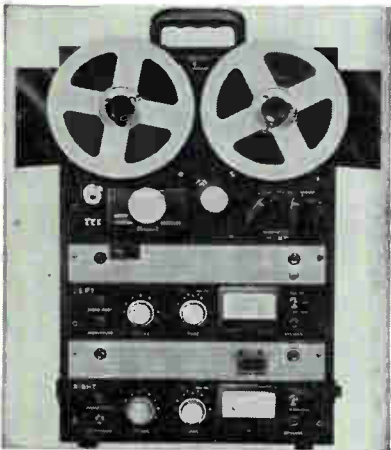
Features 22,000 cps Cross Field record head design; 2 vu meters; 4-digit counter; 3



speed (7 1/2, 3 3/4 & 1 1/2 ips); mute-monitor p.a. sw.; automatic stop; pause edit; stereo amplifiers; two 5" x 7" (8 ohm) speakers; 3 heads (record/playback-erase-special bias). S/N -50 db; 3 w./ch. output; wow & flutter .12%; ch. separation 65 db; 20 1/2" x 13 1/4" x 11".....\$449.95

Model 720 Stereo Recorder

Features sound-with-sound; stereo amplifiers; two 4" (8 ohm) speakers; 3-speed



(7 1/2, 3 3/4 & 1 1/2 ips); automatic stop; pause edit; 2 heads (record/playback-erase). Response 40-15,000 cps \pm 2 db; S/N 50 db; 3 w./ch. output; wow & flutter .12%; ch. separation 60 db; 20" x 14" x 9".....\$339.95

Model 1670 Stereo Recorder

2-speed (7 1/2 & 3 3/4 ips) design with stereo

1966 EDITION

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6 Tape Machines

amplifier & two 8" coax. (8 ohm) speakers. Has automatic stop; two vu meters; edit guide; pause control; special bias for FM recording. Response 30-22,000 cps ± 3 db; S/N -45 db; 2 1/2 w./ch. output; wow & flutter .2%; ch. separation -55 db. Has 2 heads (record/play, erase); features sound-with-sound; 30" x 14 1/4" x 7"\$359.95

Model 1650 Stereo Recorder

2-speed (7 1/2 & 3 3/4 ips) design with stereo amp & two 5" x 7" (8 ohm) speakers. Has two vu meters; automatic stop; edit guide; pause control; 2 heads (record/playback, erase). Response 30-18,000 cps ± 3 db; S/N -45 db; 2 1/2 w./ch. power; wow & flutter .2%; ch. separation -55 db. Features sound-with-sound & 3-way speaker switch. 16 1/4" x 13 3/4" x 7 1/2"\$299.95
Model 1651. Same as Model 1650 but with detachable, hinged speaker systems..\$329.95

1630 Tape Recorder

Features 3 speeds (7 1/2, 3 3/4 & 1 1/2 ips); stereo design with automatic shutoff; edit/



pause lever; vu meter; digital counter. Response 40-18,000 cps ± 3 db @ 7 1/2 ips; wow & flutter .2% @ 7 1/2 ips; S/N -45 db; input sensitivity 150 mv. for phono/radio & 3 mv. for mic. for 0 vu. Has 2 high-imp. mic & 2 high-imp. high-level phono/radio inputs; 13 1/4" x 7 1/2" x 13 3/4"\$229.95

Model 1630W. Same as Model 1630 except with walnut cabinet & without internal speakers\$249.95

Model 1620 Tape Recorder

Complete 4-track mono & stereo record & play system with stereo speakers; vu meter;



digital counter; 2 speed (7 1/2 & 3 3/4 ips). Response 50-15,000 cps ± 3 db @ 7 1/2 ips; wow & flutter .2% @ 7 1/2 ips; S/N -42

db; input sensitivity .15 v. radio/phono & 3 mv. mic for 0 vu. Has 2 high-impedance inputs for both mic & high-level radio/phono; automatic shutoff; 13 1/4" x 13 3/4" x 9 1/16"\$199.95

6000 Series Tape Recorders

4-speed (7 1/2, 3 3/4, 1 1/2, 1 1/8 ips) portable, battery-operated designs with Cross Field record head system. Response 40-20,000 cps ± 2 db @ 7 1/2 ips; S/N -45 db; wow & flutter .18% @ 7 1/2 ips; 4 w./ch. output. Features 3 heads; 1/4-track record & play; 17 hours recording time @ 1 1/8 ips; 5" reel; 4 tracks; 6 v. rechargeable battery (117 v. adapter available); index counter; 32 transistors & diodes. Input sensitivity .1 mv. mic & 60 mv. radio/phono; 4" h. x 9 3/8" x 10" d. 11 lbs., 2 oz. less battery.

Model 6000 M. Mono design with 5" oval spkr., mic & batteries.....\$299.95

Model 6000 S. Stereo design with mike, rechargeable battery, battery charger, a.c.

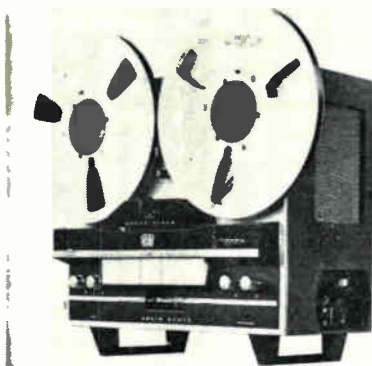


adapter, 2 power amps, one built-in speaker\$359.95

Second spkr. to complete stereo system\$14.95

5000 Tape Recorder

Features 22,000 cycle transistorized professional recording studio Cross Field stereo



operation; takes all size including 10 1/2" reels without adapters. 3 speed; electrical speed change; 4-digit counter; 2 vu meters; hysteresis-synchronous direct-drive capstan motor; 2 large speakers; equalized preamp outputs; 4 heads; 16 w./ch. output..\$699.95

1510 Mono Tape Recorder

Cross Field performance in a pocket tape recorder. Has capstan drive so tapes can be re-



played on any other tape machine. Features both standard speeds; 3 1/4" reels; built-in mic and speaker for record & playback; vu meter; battery check; battery & case..\$79.95

Note: All Roberts stereo models, unless otherwise specified, record 4-track stereo, play back 4-track & half-track stereo; record 4-track mono; play back 4-track, half-track & full-track mono. 15 ips speed optional on all models.

SAXON

"555" Mono Tape Recorder

All-transistor, 3-speed (1 1/2, 3 3/4, 7 1/2 ips) portable design. Has 5" reels, record level meter, counter and will operate from six standard "D" cell batteries, 12 v. auto battery via cigarette lighter, or 117 v. a.c. Response 60-14,000 cps @ 7 1/2 ips. Has inputs for radio, phono, foot-operated remote control, telephone pickup. Mono design with built-in 3" x 6" speaker (3 v. output) & 2 heads-record/play & erase. Complete with dynamic remote-control mic., earphones, leather case, batteries, cigarette lighter connector cord and carrying case. Optional equipment: foot sw., telephone pickup, ext. speaker 11 1/4" x 10 1/2" x 3 1/16". 13.3 lbs.\$169.95

"755" Tape Recorder

Transistorized, 3-speed (7 1/2, 3 3/4 & 1 1/2 ips) battery-operated portable design. Features 3 w./ch., separate record/play & erase heads, two detachable 3" x 6" speakers; 1/4-track stereo & mono; high & low impedance inputs; 5" max. reel; vu meter; 15 hr. battery life. Can operate from 12 v. car battery or 117 v. line. Response 50-15,000 cps ± 2 db @ 7 1/2 ips; S/N -45 db; wow & flutter .24% @ 7 1/2 ips. Supplied with 2 mics, earphone & patchcords; 15 1/2" x 12 1/2" x 8 1/2", weight 20 lbs.\$259.95

SONY

777-S2 Tape Deck/Preamps

All-transistorized 2-track record and 2- and 4-track playback; 2-speed (7.5 & 3.75



ips) design; features special "Electro-Bilateral" head construction; three motors; complete remote control; sound-on-sound; mic & line mixing; tape and source monitoring; 3" vu meters; response 50-15,000 cps ± 2 db @ 7.5 ips; signal-to-noise ratio 50 db; flutter & wow less than .15% @ 7.5 ips; has built-in stereo preamp and output jacks for connection to external power amps; 16" w. x 17 3/4" h. x 9" d.; weight 43 lbs.Less than \$695.00

777-S4 Tape Deck/Preamps

Same as Model 777-S2 except 4-track stereo record and 2- and 4-track playbackLess than \$695.00

Model MX-777 Mixer

Accessory for Models 777-S2 and 777-S4 tape recorders; six-channel all-transistor

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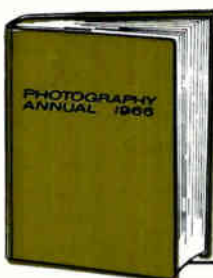
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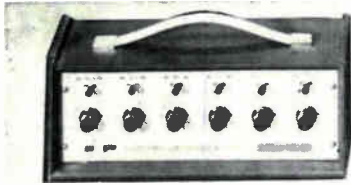
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SD-66

6 Tape Machines



stereo/mono design; contains six matching transformers for balanced microphone inputs and recorder outputs plus individual level controls; channel selector switch for each input; switch for mixing one microphone into both channels; complete with case\$175.00

Model 200 Tape Recorder

Four-track stereo/mono record/playback system; features built-in stereo amplifier &



speakers (15' separation); 2 vu meters; sound-on-sound; two speeds (7.5 & 3.75 ips) & counter; response 50-14,000 cps @ 7.5 ips; flutter & wow less than .19% @ 7.5 ips; signal-to-noise ratio 45 db; inputs: 2 mic & 2 high-level line; supplied with two F-96 dynamic mics....Less than \$199.50

211-TS "Slide Sync" Tape Recorder

Has built-in electronic slide sync pulse generator for programming an automatic slide



projector; does not require metallic stripping on tape; features sound-on-sound; built-in amp & speaker; two speeds (3.75 & 1 1/2 ips); response 70-8000 cps; inputs: mic & high-level; outputs external speaker, high-impedance earphone monitor & automatic projector; 10" w. x 8 1/4" x 4 1/4"; supplied with microphone & projector connecting cord\$89.50

263-E Tape Deck/Preamps

Features 2-speed (7 1/2 & 3 3/4 ips); 4-track stereo or mono; built-in stereo preamps;

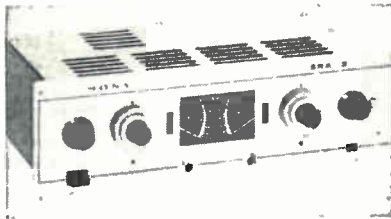


3-head design; automatic shutoff; automatic

tape lifter; pause control; 7" reels & digital counter. Response: heads capable of 30-18,000 cps @ 7 1/2 ips; flutter & wow less than .17% @ 7 1/2 ips. Half-track erase, record, playback heads. 14" w. x 11" d. x 6 1/2" h. Walnut cabinet base.....\$129.50

Model SRA-3 Recording Amp

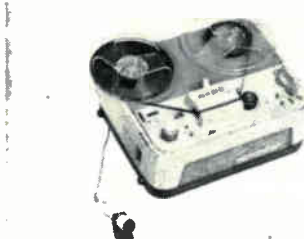
Designed as a companion to Model 263-E tape deck; for 4-track stereo & mono



recording & playback. Also compatible with earlier Models 262-D & 263-D tape decks. Has microphone & high-level inputs. Response 30-18,000 cps.....\$109.50

Model 102 Mono Tape Recorder

Two-track mono, 2-speed (7.5 & 3.75 ips) design; features built-in amplifier & speak-



er; mike & line mixing; vu meter; pause control; response 50-12,000 cps @ 7.5 ips; flutter and wow less than .2% @ 7.5 ips; inputs mic. & line; outputs line & external speaker; supplied with F-96 dynamic micLess than \$129.45

Model 600 Tape Deck/Preamps

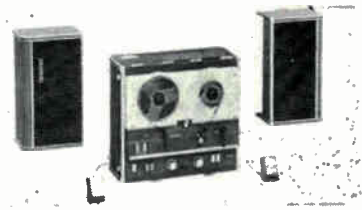
Four-track stereo/mono record/playback design; features two speeds (7.5 & 3.75 ips); mic. & line mixing; source & tape monitoring; two vu meters (switchable for



reading input or recorded signal); sound-with-sound; sound-on-sound; automatic shut-off; cathode-follower line outputs & special equalized magnetic phono input; response 30-18,000 cps @ 7.5 ips; S/N ratio 50 db; wow & flutter .17% @ 7.5 ips; inputs: two high-level line, 2 mics or magnetic phono (switch selected); outputs: two 600-ohm "0" db line, 600-ohm binaural earphone monitor; supplied with carrying case & two Model F-87 dynamic cardioid pattern mics; has stereo preamps but does not have built-in power amps or speakersLess than \$450.00

Model 500A Tape Recorder

Four-track stereo/mono record & playback; 2-speed (7.5 & 3.75 ips) design; has built-in stereo amplifiers & speakers which can be detached for 15' separation; features mic & line mixing; sound-on-sound; two vu meters; automatic end-of-reel shut-off; response 50-14,000 cps ± 2 db @ 7.5 ips; S/N ratio 50 db; wow & flutter .17% @



7.5 ips; inputs: 2 mic & 2 high-level aux.; outputs: two 600-ohm line, two 8-ohm ext. speakers, 8-ohm binaural headphone jack; supplied with carrying case & two dynamic microphones\$399.45

Model 905-A "Voice Command" Mono Recorder

Battery operated, transistorized design that starts & stops by voice command. Has



a.g.c. which automatically re-adjusts gain for changes in recording level. Has 4 rechargeable pen-size batteries; monitor speaker; remote stop/start sw. on mic. Features 2-speed (3 3/4 & 1 1/2 ips); mic & aux. inputs; 3 1/4" reels; response 90-9500 cps. Supplied with detachable amplifier/speaker unit, leather case & batteries....Less than \$159.50

250A Tape Deck/Preamps

All-transistor stereo design; with record & playback preamps. 4-track; vu meters; auto-



matic shutoff; automatic tape lifters; single-knob operation; 7 1/2 & 3 3/4 ips; flutter & wow .19% @ 7 1/2 ips; response 50-14,000 cps; S/N 50 db. Has mic. & line inputs. 14 1/2" x 6 1/2" x 9" h.Less than \$139.50

135 "Sonymatic" Mono Tape Recorder

Dual-track, 2 speed (7 1/2 & 3 3/4 ips) design; response 90-9500 cps @ 3 3/4 ips; S/N 40 db; flutter & wow .3%. Has a.v.c. (auto-



matic record level); 2 inputs (mic. & aux.); 5" max. reel; pause control; tape counter; dynamic mic.; 9½" w. x 11" d. x 5½" h.; with carrying case.....\$59.50

"ServoMatic" 800 Mono Tape Recorder

Battery or a.c. operation; 3 speed (7½, 3¾, 1½ ips); transistorized; 5" max. reel. Re-



sponse 50-12,000 cps @ 7½ ips; flutter & wow .15% @ 7½ ips; has automatic record level (a.v.c.) with defeat sw. for recording music; vu meter for level & battery voltage indication. Supplied with cardioid dynamic mic with remote start/stop sw. 12¼" x 10½" x 4¼".....\$225.00

260 Tape Recorder

Transistorized; 10 w./ch. music power; 4-track, 2-speed (7½ & 3¾ ips) design. Re-



sponse 50-15,000 cps ± 2 db; flutter & wow .17%; S/N 50 db. Has two vu meters; automatic shut-off; automatic tape lifter; 21½" x 15½" x 7." Less than\$239.50

"Tapemates" 123 Mono Tape Recorders

Transistorized, 2-speed (3¾ & 1½ ips); 2 hours record time. Response 80-8000 cps;



has a.v.c. (self-adjust record level). Designed for voice in form of talking letters, therefore recorders are sold in pairs (one to keep & one to give to a friend). Has mic. input & monitor output. 8" x 7½" x 4"; 4 lbs.....ea. \$39.95

900 "Sonymatic" Mono Tape Recorder

Transistorized; either a.c. or battery operated; 2-speed (3¾ & 1½ ips) design. Response 90-9500 cps @ 3¾ ips; flutter & wow .25% @ 3¾ ips. Has automatic record level (a.v.c.) circuit; 3¼" max. reel; 2 hour capacity on reel. Dynamic mic with remote stop/start sw. Vinyl carrying case;

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6 Tape Machines



8 3/4" w. x 8 3/4" x 3 3/4"; 5 1/2 lbs.....\$67.50

TANDBERG

Series 8 Mono Tape Recorders

Two-speed (3.75 & 1 1/2 ips) mono design; response 40-10,000 cps \pm 2 db @ 3.75



ips, 40-5500 cps \pm 2 db @ 1 1/2 ips; wow & flutter better than .2% @ 3.75 ips; built-in 7" x 4" speaker; 3 watt output; signal-to-noise ratio 50 db below max. recording level; has recording level indicator; crystal microphone, four-digit counter; 15" l. x 11 1/2" w. x 6 3/4" h.

Model 821 Two-track.....\$208.60

Model 821F Two-track with built-in solenoids; foot pedal for remote control.....\$279.80

Model 841 Four-track.....\$225.65

Model 841F Four-track with built-in solenoids; foot pedal for remote control.....\$296.90

TC-58 With luggage-type carrying case.....\$24.50

Model 74B Tape Recorder

Three-speed (7.5, 3.75, & 1 1/2 ips), 4-track stereo & mono record/playback with out-

put amplifiers & stereo 7" x 4" built-in speakers; has automatic tape stop, pause control, counter, level indicators. Permits sound-on-sound. Response 40-16,000 cps \pm 2 db @ 7.5 ips; 40-10,000 cps @ 3.75 ips & 40-5000 cps @ 1 1/2 ips. Wow & flutter .15% @ 7.5 ips, .2% @ 3.75 ips, .3% @ 1 1/2 ips; inputs 2 mics, .00125 v. r.m.s., 3.3 megohms-2 line, adjustable .007-7 v. r.m.s., 500,000 ohms. Signal-to-noise ratio at least 53 db. Playback outputs 4 ohms. Has teakwood cabinet with TC57B luggage carrying case.....\$449.50

CM-6 Crystal mic. (30-12,000 cps) \$ 15.00

Model 74B Tape Recorder

Three-speed (7.5, 3.75, & 1 1/2 ips), 4-track stereo & mono record/playback with out-

put amplifiers & stereo 7" x 4" built-in speakers; has automatic tape stop, pause control, counter, level indicators. Permits sound-on-sound. Response 40-16,000 cps \pm 2 db @ 7.5 ips; 40-10,000 cps @ 3.75 ips & 40-5000 cps @ 1 1/2 ips. Wow & flutter .15% @ 7.5 ips, .2% @ 3.75 ips, .3% @ 1 1/2 ips; inputs 2 mics, .00125 v. r.m.s., 3.3 megohms-2 line, adjustable .007-7 v. r.m.s., 500,000 ohms. Signal-to-noise ratio at least 53 db. Playback outputs 4 ohms. Has teakwood cabinet with TC57B luggage carrying case.....\$449.50

CM-6 Crystal mic. (30-12,000 cps) \$ 15.00

Model 74B Tape Recorder

Three-speed (7.5, 3.75, & 1 1/2 ips), 4-track stereo & mono record/playback with out-

put amplifiers & stereo 7" x 4" built-in speakers; has automatic tape stop, pause control, counter, level indicators. Permits sound-on-sound. Response 40-16,000 cps \pm 2 db @ 7.5 ips; 40-10,000 cps @ 3.75 ips & 40-5000 cps @ 1 1/2 ips. Wow & flutter .15% @ 7.5 ips, .2% @ 3.75 ips, .3% @ 1 1/2 ips; inputs 2 mics, .00125 v. r.m.s., 3.3 megohms-2 line, adjustable .007-7 v. r.m.s., 500,000 ohms. Signal-to-noise ratio at least 53 db. Playback outputs 4 ohms. Has teakwood cabinet with TC57B luggage carrying case.....\$449.50

CM-6 Crystal mic. (30-12,000 cps) \$ 15.00

Model 74B Tape Recorder

Three-speed (7.5, 3.75, & 1 1/2 ips), 4-track stereo & mono record/playback with out-

put amplifiers & stereo 7" x 4" built-in speakers; has automatic tape stop, pause control, counter, level indicators. Permits sound-on-sound. Response 40-16,000 cps \pm 2 db @ 7.5 ips; 40-10,000 cps @ 3.75 ips & 40-5000 cps @ 1 1/2 ips. Wow & flutter .15% @ 7.5 ips, .2% @ 3.75 ips, .3% @ 1 1/2 ips; inputs 2 mics, .00125 v. r.m.s., 3.3 megohms-2 line, adjustable .007-7 v. r.m.s., 500,000 ohms. Signal-to-noise ratio at least 53 db. Playback outputs 4 ohms. Has teakwood cabinet with TC57B luggage carrying case.....\$449.50

CM-6 Crystal mic. (30-12,000 cps) \$ 15.00

Model 74B Tape Recorder

Three-speed (7.5, 3.75, & 1 1/2 ips), 4-track stereo & mono record/playback with out-

put amplifiers & stereo 7" x 4" built-in speakers; has automatic tape stop, pause control, counter, level indicators. Permits sound-on-sound. Response 40-16,000 cps \pm 2 db @ 7.5 ips; 40-10,000 cps @ 3.75 ips & 40-5000 cps @ 1 1/2 ips. Wow & flutter .15% @ 7.5 ips, .2% @ 3.75 ips, .3% @ 1 1/2 ips; inputs 2 mics, .00125 v. r.m.s., 3.3 megohms-2 line, adjustable .007-7 v. r.m.s., 500,000 ohms. Signal-to-noise ratio at least 53 db. Playback outputs 4 ohms. Has teakwood cabinet with TC57B luggage carrying case.....\$449.50

CM-6 Crystal mic. (30-12,000 cps) \$ 15.00

Model 74B Tape Recorder

Three-speed (7.5, 3.75, & 1 1/2 ips), 4-track stereo & mono record/playback with out-

put amplifiers & stereo 7" x 4" built-in speakers; has automatic tape stop, pause control, counter, level indicators. Permits sound-on-sound. Response 40-16,000 cps \pm 2 db @ 7.5 ips; 40-10,000 cps @ 3.75 ips & 40-5000 cps @ 1 1/2 ips. Wow & flutter .15% @ 7.5 ips, .2% @ 3.75 ips, .3% @ 1 1/2 ips; inputs 2 mics, .00125 v. r.m.s., 3.3 megohms-2 line, adjustable .007-7 v. r.m.s., 500,000 ohms. Signal-to-noise ratio at least 53 db. Playback outputs 4 ohms. Has teakwood cabinet with TC57B luggage carrying case.....\$449.50

CM-6 Crystal mic. (30-12,000 cps) \$ 15.00

Model 74B Tape Recorder

Three-speed (7.5, 3.75, & 1 1/2 ips), 4-track stereo & mono record/playback with out-

put amplifiers & stereo 7" x 4" built-in speakers; has automatic tape stop, pause control, counter, level indicators. Permits sound-on-sound. Response 40-16,000 cps \pm 2 db @ 7.5 ips; 40-10,000 cps @ 3.75 ips & 40-5000 cps @ 1 1/2 ips. Wow & flutter .15% @ 7.5 ips, .2% @ 3.75 ips, .3% @ 1 1/2 ips; inputs 2 mics, .00125 v. r.m.s., 3.3 megohms-2 line, adjustable .007-7 v. r.m.s., 500,000 ohms. Signal-to-noise ratio at least 53 db. Playback outputs 4 ohms. Has teakwood cabinet with TC57B luggage carrying case.....\$449.50

CM-6 Crystal mic. (30-12,000 cps) \$ 15.00

Model 74B Tape Recorder

Three-speed (7.5, 3.75, & 1 1/2 ips), 4-track stereo & mono record/playback with out-

put amplifiers & stereo 7" x 4" built-in speakers; has automatic tape stop, pause control, counter, level indicators. Permits sound-on-sound. Response 40-16,000 cps \pm 2 db @ 7.5 ips; 40-10,000 cps @ 3.75 ips & 40-5000 cps @ 1 1/2 ips. Wow & flutter .15% @ 7.5 ips, .2% @ 3.75 ips, .3% @ 1 1/2 ips; inputs 2 mics, .00125 v. r.m.s., 3.3 megohms-2 line, adjustable .007-7 v. r.m.s., 500,000 ohms. Signal-to-noise ratio at least 53 db. Playback outputs 4 ohms. Has teakwood cabinet with TC57B luggage carrying case.....\$449.50

CM-6 Crystal mic. (30-12,000 cps) \$ 15.00

Model 74B Tape Recorder

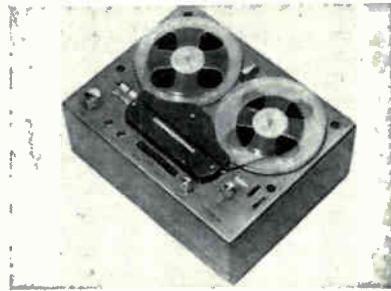
Three-speed (7.5, 3.75, & 1 1/2 ips), 4-track stereo & mono record/playback with out-

put amplifiers & stereo 7" x 4" built-in speakers; has automatic tape stop, pause control, counter, level indicators. Permits sound-on-sound. Response 40-16,000 cps \pm 2 db @ 7.5 ips; 40-10,000 cps @ 3.75 ips & 40-5000 cps @ 1 1/2 ips. Wow & flutter .15% @ 7.5 ips, .2% @ 3.75 ips, .3% @ 1 1/2 ips; inputs 2 mics, .00125 v. r.m.s., 3.3 megohms-2 line, adjustable .007-7 v. r.m.s., 500,000 ohms. Signal-to-noise ratio at least 53 db. Playback outputs 4 ohms. Has teakwood cabinet with TC57B luggage carrying case.....\$449.50

CM-6 Crystal mic. (30-12,000 cps) \$ 15.00

64 & 62 Tape Deck/Preamps

Record/playback machine; three speeds (7.5, 3.75 & 1 1/2 ips); four-track stereo/



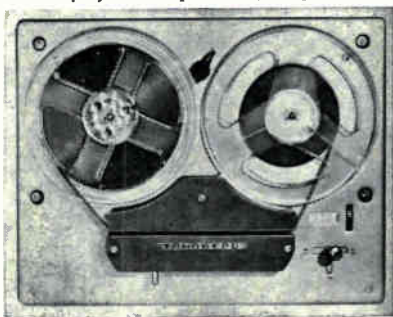
mono record & 2 - and 4-track stereo/mono playback; has separate record, playback, erase heads; built-in facilities for sound-on-sound, echo effects, track adding, direct monitor, and remote control; features FM-MX filter input for direct recording of FM multiplex stereo programs; dual-channel record & playback preamps; response 40-16,000 cps \pm 2 db @ 7.5 ips; 40-10,000 cps \pm 2 db @ 3.75 ips; 40-5500 cps \pm 2 db @ 1 1/2 ips; output 1.5 v. cathode-followers; flutter & wow .1% r.m.s. @ 7.5 ips, .2% @ 3.75 ips, .25% @ 1 1/2 ips; signal-to-noise ratio at least 53 db; has two each microphone, hi-level, & hi-level with filter inputs.

Model 64\$498.00

Model 62 All specifications the same as for Model 64 except with half track heads.....\$498.00

Model 65 Stereo Playback Deck

Three-speed (7.5, 3.75, 1 1/2 ips), 4-track stereo playback tape deck; response 30-



20,000 cps @ 7.5 ips, 30-15,000 cps @ 3.75 ips, 50-7000 cps @ 1 1/2 ips; hysteresis synchronous motor; lever knob for playback, fast forward, fast reverse; 4-digit revolving counter; complete mechanical drive; over-all size of the deck 16" x 12" x 6".

.....\$199.50

UHER

Model 4000S Portable Tape Recorder

All-transistor, 2-track, 4-speed (7 1/2, 3 3/4, 1 1/2 & 1 1/4 ips) mono design; powered by

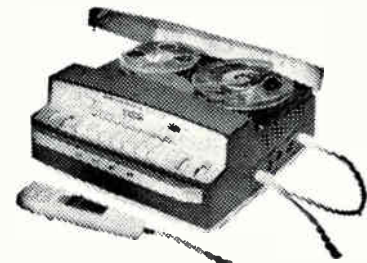


five flashlight cells or rechargeable battery (6-24 v.) or separate 115-volt power supply; electromagnetic start/stop remote control by means of microphone or remote switch; vu meter and power supply indicator; acoustic switch available for sound control for start and stop of tape; response 40-20,000 cps \pm 3 db @ 7 1/2 ips; 40-17,000

cps @ 3 3/4 ips; 40-10,000 cps @ 1 1/2 ips; 40-4500 cps @ 1 1/4 ips; S/N 56 db; wow & flutter .15% @ 7 1/2 ips; output speaker 1 watt; inputs: microphone .07 mv. @ 2000 ohms; radio 1.3 mv. @ 7000 ohms; phono 25 mv. @ 1 megohm; 4 hours playing time with flashlight cells; 10 1/2" x 8 1/2" x 3 3/4"; weight without batteries 6 lbs.; complete with remote control dynamic microphone, leather case, shoulder strap, a.c. power unit, battery charger, and "Dryfit" storage battery\$420.00

"Universal 5000" Recorder

All-transistor, 2-track, 3-speed (1 1/2, 1 1/4 & 3 3/4 ips), 6" reel design. Response 40-



16,000 cps @ 3 3/4 ips; S/N 50 db; wow & flutter .2% @ 3 3/4 ips; output 1.5 w. Has digital counter, automatic recording level control, provisions for automatic slide projector control; vu meter & inputs for low-impedance mic., radio, phono, telephone pickup, loudspeaker & earphones; 6" x 10" x 12"\$299.95

Model 8000 Tape Recorder

Four-track stereo/mono record & playback; completely transistorized; separate record/playback heads; features built-in impulse transmitter for automatic slide-projector synchronization; echo effect; remote control; sound-on-sound; automatic shut-off; has built-in stereo speakers, 2 w./ch.; 3 mic. inputs; radio & phono inputs; headphone output; 2 remote speaker outputs; 4 speeds (7.5, 3.75, 1 1/2 & 1 1/4 ips); will accept 7" reels; response 50-20,000 cps \pm 3 db @ 7.5 ips & 50-4000 cps @ 1 1/4 ips; wow & flutter .15% @ 7.5 ips; S/N 50 db; 117-volt a.c. operation, 14" x 15" x 7"; 23 lbs.; supplied with one dynamic mic. & portable case\$420.00

6000 Mono Tape Recorder

Transistorized, 2-track, single-speed (3 3/4 ips), 7" reel design; response 40-14,000 cps



\pm 2 db; S/N 45 db; wow & flutter \pm .2% r.m.s.; 2 1/2 w. output. Has digital counter, automatic end of tape shut off, vu meter. 3 inputs (mic, phono, radio) and 2 outputs. Speaker & earphones. 14" x 15" x 7"\$160.00

7000 Tape Recorder

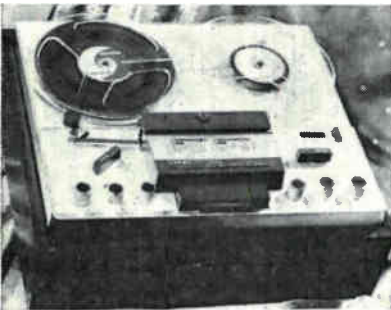
Transistorized, 4-track for stereo or mono record/playback, 2-speed (7 1/2 & 3 3/4 ips); 7" reel design; response 40-18,000 cps \pm 3 db @ 7 1/2 ips; S/N 45 db; wow & flutter \pm 0.15% r.m.s.; output 2 w./ch. Has 4-



digit counter, automatic end of tape shut off, vu meter, 3 inputs (mic, radio, phono), 2 outputs (speaker & hi-impedance amplifier output). Permits sound-on-sound & has optional, automatic synchronization for slide projectors; 14" x 15" x 7"\$250.00

9000 Tape Deck/Preamps

Transistorized stereo tape deck with preamps. 4-track, 2-speeds (7½ & 3¼ ips).

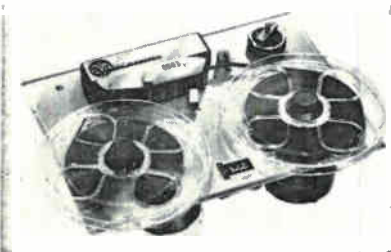


7" reel design. Response 20-20,000 cps ± 2 db @ 7½ ips; wow ± .08% r.m.s.; flutter ± .11% r.m.s. HD 0.15%. Has built-in tape cleaner, tape tension equalizer, adjustable azimuth of the playback head for pre-recorded tapes, plug-in amplifier modules, separate level control for each channel, vu meters, end of tape shut off, digital counter. 3 inputs (mic, radio, phono), 3 outputs (earphones, amp outputs with provisions for monitoring off the tape, and amp outputs without monitoring). Permits sound-on-sound\$500.00

VIKING

Model 87 Series Tape Decks

Two-speed (7.5 & 3.75 ips); 4-pole motor (hysteresis synchronous motor available



at extra cost); flutter & wow .2% r.m.s.; long-term speed regulation .5%; digital counter and tape run-out switch; handles up to 7" reels; wt. 12½ lbs.; panel size 13" x 9½".

Model 87P Playback only, half-track mono head\$138.00
 Model 87R Record/playback, half-track mono, 2 heads.....\$144.00
 Model 87Q Playback only ½- & ¼-track mono & stereo, 1 head.....\$141.05
 Model 87RQ Record ½-track mono, playback ¼- & ½-track mono & stereo; 3 heads\$165.25
 Model 87ES Record/playback ½-track mono & stereo, 2 heads.....\$157.85
 Model 87RMQ Record ¼-track, playback ¼" & ½-track mono & stereo, 3 heads

.....\$170.30
 Model 87ERQ Record ½-track, playback ¼- & ½-track mono & stereo, 3 heads\$178.65
 Model 87ESM Record/playback ½-track mono & stereo, 3 heads.....\$185.50
 Prices quoted are for tape decks only; for recording with Model 87RQ, ERQ, RMQ, & ES, use RP83-3 record/playback amplifier; for other models use RP83. For stereo design, use two amplifiers.

Model 87 "Super-Pro" Tape Recorders

All models supplied with carrying case; additional bottom chassis permits input and output connections to be made from front; center storage compartment; all models record and play mono and stereo; all three-head models permit sound-with-sound and sound-on-sound recording. Model 87ES tape deck with two RP83 amplifiers\$382.35
 Model 87ERQ tape deck with two RP83-3 amplifiers\$407.15
 Model 87RMQ tape deck with two RP83-3 amplifiers\$398.80
 Model 87ESM tape deck with two RP83-3 amplifiers\$414.00

Model 88 "Stereo Compact" Tape Recorders

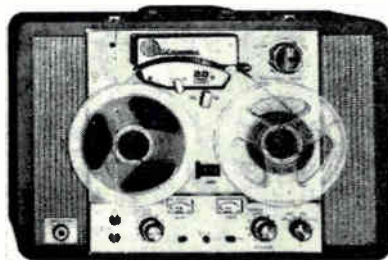
Same as "Super-Pro" series except single dual-channel preamp system is used; con-



trols: record/playback, gain control, function selector, stereo microphone inputs, stereo/mono switch, record warning light, normal-duplicate switch (can record directly from heads of another deck); two vu meters; sound-on-sound, sound-with-sound; Series 88 tape decks have head-shift control. Two models available Model 88 RMQ Three ¼-track heads. Records ¼-track only, stereo/mono. Plays ¼- or ½-track stereo or mono.....\$339.95
 Model 88ERQ ½-track erase & record heads, ¼-track playback head. Records ½-track mono or stereo. Plays ½-track or ¼-track mono or stereo.....\$347.95
 Oiled walnut enclosure.....\$18.95
 Oiled walnut cabinet with folding cover\$29.95

Model 880 Stereo Compact

Same as Model 88 except has transistorized



stereo power amplifiers & stereo speakers. Model RMQ ¼-track record/play....\$425.00
 Model ERQ ½-track record & ¼ & ¼-track play.....\$433.00

Only OKI

has a complete lightweight solid-state portable stereo tape system under 25 lbs.



Only OKI

has 2 unique detachable two-way speaker systems for true stereo sound.



Only OKI 555 plays so great, weighs so little!

Guaranteed for one full year!

And its price is less than you'd expect to pay. \$349.95*.

Oki has a fine choice of other solid state tape recorders, starting at \$129.95*. See and hear them now at your Oki dealer.

*manufacturer's suggested list price (one year parts, 6 months labor)

OKI CHANCELLOR AA66

Chancellor Electronics, Inc.

457 Chancellor Ave., Newark, New Jersey

Name _____

Address _____

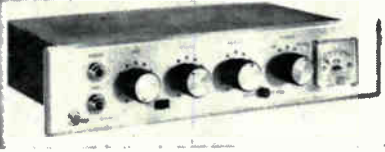
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CIRCLE NO. 14 ON READER SERVICE CARD

6 Tape Machines

Model RP83 Record/Playback Preamp

Response: recording, 30-16,000 cps ± 3 db @ 7.5 ips; 30-12,000 cps @ 3.75 ips;



playback, 25-20,000 cps @ 7.5 ips, 25-14,000 cps @ 3.75 ips; output 1 v. to power amplifier; monitor output 1 v. to headphones; high- and low-level inputs with individual level controls; vu meter; 3-position selector switch; playback output level controls; signal-to-noise ratio 50 db @ 7.5 ips with signal recorded 6 db below saturation; harmonic distortion 1%; tube design. 11 $\frac{1}{16}$ " x 2 $\frac{3}{16}$ " x 5 $\frac{1}{2}$ " d. behind panel; two required for stereo operation; for use with 2-head designs.....\$92.50

Model RP83-3 Record/Playback Preamp

Same as Model RP83 except for 3-head designs.\$94.50

"Retro-Matic" 220 Tape Recorder

Features two-directional automatic playback; remote control; simultaneous recording & playback; photoelectric run-out sensor; level meters; 7.5 ips & 3.75 ips dual-speed, quarter-track stereo operation; response 20-25,000 cps ± 3 db record/playback @ 7.5 ips; monitor output 6 w./ch. to 4 or 8 ohm speakers or 4 to 600 ohm phones; output to music system 1 v./ch. low impedance; input sensitivity: high level, 100 mv., 250K; low level, 1 mv., 2 megohms; 55 db signal-to-noise ratio; dist. 1% at "0" vu; flutter & wow less than .2% r.m.s. @ 7.5 ips; 7" reel size; 15" h. x 16" w. x 8" d. behind panel.....\$860.00
Remote control center.....\$ 59.95
Walnut case.....\$ 31.95
Portable case.....\$55.75

C-800 Spkr./Amp System

Portable case with built-in power amps & spkrs. for Model 88.....\$99.50

Studio 96 Professional Tape Deck

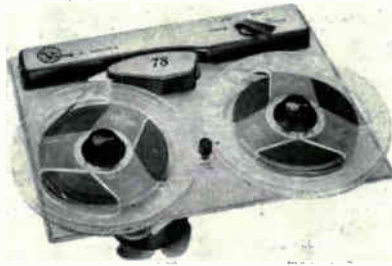
Rugged design, 10 $\frac{1}{2}$ " reel capacity; choice of dual-speed operation (7 $\frac{1}{2}$ -15 ips, 7 $\frac{1}{2}$ -3 $\frac{3}{4}$ ips, or 3 $\frac{3}{4}$ -1 $\frac{1}{2}$ ips). Has connector for remote control of play-stop, fast forward-stop-rewind. Will accept up to 4 heads—any choice. S/N 55 db @ 7 $\frac{1}{2}$ ips; flutter & wow .1% @ 7 $\frac{1}{2}$ ips. Face plate 19" x 12 $\frac{1}{4}$ ". Price varies depending on heads used—ranging from \$605.95 for a dual $\frac{1}{2}$ -track design to \$598.95 for 4-head $\frac{1}{4}$ -track combination.

Model 78 Tape Deck

Two speed (7 $\frac{1}{2}$ & 3 $\frac{3}{4}$ ips); 4-pole motor; flutter & wow less than .2% r.m.s.; speed regulation .5%; 7" reel max. Can be used vertically or horizontally. Will accommodate up to 3 separate heads. Panel 13" w. x 9 $\frac{1}{2}$ " h. x 3 $\frac{3}{4}$ " deep behind panel (front knob clearance 1 $\frac{1}{8}$ ").

Model 78P Playback only $\frac{1}{2}$ -track mono\$85.00
Model 78R Record/play $\frac{1}{2}$ -track mono\$90.00
Model 78Q Playback only $\frac{1}{4}$ -track mono or stereo\$101.00

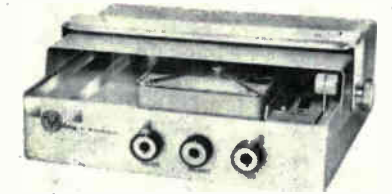
Model 78RQ Record/play $\frac{1}{2}$ -track mono; play $\frac{1}{4}$ -track stereo & mono.....\$113.80
Model 78HQ Record/play $\frac{1}{4}$ -track stereo & mono\$110.50
Model 78RM Record/play/monitor $\frac{1}{2}$ -track mono.....\$ 99.05



Model 78S Playback only $\frac{1}{2}$ -track stereo or mono\$102.80
Model 78ES Record/play $\frac{1}{2}$ -track stereo & mono.....\$113.55
For record/play preamps use Model RP83 or RP83-3.

"Auto-Tape 500" Car Tape Player

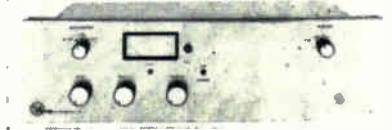
Transistorized, 3 $\frac{3}{4}$ ips speed, 4-track stereo design featuring a self-threading type



cartridge. Response 60-10,000 cps. 4 w. output; 9 $\frac{3}{8}$ " w. (10 $\frac{3}{4}$ " with mtg. bracket) x 9" d. x 4" h. with mtg. hardware. Supplied with 2 chrome grille spkrs.; stereo cartridge; mounting hardware. Charcoal black finish\$149.95
Stainless steel finish.....\$159.95
2 additional speakers.....\$17.95

RP110 Mono Tape Record/Play Amplifier

Transistorized design for use with tape transports having separate erase, record &



playback heads such as Model Studio 96. Response 30-16,000 cps @ 7 $\frac{1}{2}$ ips; S/N 55 db below peak recording level @ 7 $\frac{1}{2}$ ips. Standard model.....\$299.00
There are many variations from Standard in form of options & accessories.

RP120 Tape Record/Play Amp



Similar to RP110 except dual channel (stereo) design.....\$399.00

V-M CORP.

1471 Tape Deck/Preamps

4-track stereo or mono record/playback system including stereo preamps. Features 3-speed (7 $\frac{1}{2}$, 3 $\frac{3}{4}$ & 1 $\frac{1}{2}$ ips): sound-with-sound; automatic shut-off; pause button; monitor sw.; level indicators; counter; with external power amp & speaker can be used



as a p.a. system. Response 50-15,000 cps; S/N 50 db; separation 50 db; wow & flutter .3% r.m.s. at 7 $\frac{1}{2}$ ips; inputs permit recording from mic., phono, radio, or TV. 8" h. x 13" w. x 14 $\frac{1}{4}$ " d.....\$179.95
1475 Aluminum tape-deck base.....\$12.50

760 "Charger" Mono Tape Recorder

Transistorized cordless design. Will operate up to 4 hours on its own rechargeable nick-



el-cadmium "power cell"; $\frac{1}{2}$ -track; 2 speed (3 $\frac{3}{4}$ & 1 $\frac{1}{2}$ ips). Inputs: mic. with remote sw.; high-level for radio, TV, ceramic cartridge; outputs: earphone & ext. spkrs. Features combined volume level/charge indicator; 3" speaker; black vinyl-clad aluminum lid & bottom cover plate; 10 $\frac{3}{8}$ " x 6" x 2 $\frac{3}{4}$ "; weight less than 7 pounds.....\$129.95

WOLLENSAK

7100 "Cartridge" Tape Recorder

Completely automatic tape changing system; automatically threads the tape, plays,



rewinds, rejects the completed cartridge and repeats the process through as many as 20 stereo music selections during a 15-hour period; speed 1 $\frac{1}{8}$ ips; cartridge 3 $\frac{3}{4}$ " square x $\frac{1}{2}$ " thick; features new type recording head $\frac{1}{50}$ th diameter of a strand of human hair; specially developed magnetic tape; precision index counter; wow & flutter 0.3%; S/N ratio 48 db; music power output 9 w. per channel; 5 watts continuous @ 5% HD; inputs: microphone 2 mv. @ 10 megs, phono-radio 1 v. @ 1 meg; outputs: aux. 1 v. nominal, speaker 8 ohms; response 40-15,000 cps ± 3 db @ 1 $\frac{1}{8}$ ips; 7" x 14 $\frac{1}{2}$ " x 14 $\frac{1}{4}$ " (approx.); weight approx. 32 lbs.
Model 7100 Recorder-player with 2 mics\$399.95
Model 7000 Recorder-player deck model with 2 mics.....\$339.95
M-30 Player only, deck model.....\$269.00

STEREO/HI-FI DIRECTORY

7200 "Cartridge" Tape Recorder

Automatic cartridge changer. Will play 48 minutes/stereo cartridge & up to 96 minutes/mono (15 hours/loading). Single speed 1 7/8 ips, 2-track stereo or mono record/playback. Response 40-15,000 cps ± 3 db; wow & flutter .3%; S/N 48 db. Has 2 dual-channel inputs (mic & radio/phonos) & 2 outputs ca. channel. (Preamp 1 v. & external speaker, 9 w./ch. music power, 5 w./ch. sine wave @ 5% HD). Supplied with 2 ext. speaker systems (ea. 6" x 9" elliptical & 3" tweeter). 19" x 10 3/4" x 5 3/4". Recorder 16" x 15 1/2" x 8 1/2".



Recorder 16" x 15 1/2" x 8 1/2". \$459.95

1980 Stereo Recorder

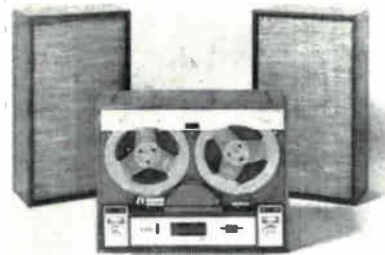
Records & plays 2- & 4-track mono & stereo tapes; features digital counter, two- & four-



track head control; external speaker output; external amplifier output; hi-level input; low-level input; sound-with-sound; public address; 3.75 & 7.5 ips speeds; two internal speakers; two external speakers; provision for remote foot pedal; response 40-18,000 cps ± 3 db @ 7.5 ips; 40-13,000 cps @ 3.75 ips; wow & flutter 0.3%; S/N ratio 48 db; crosstalk 50 db; power output 22 watts total (11 watts music power per channel); 5 watts continuous at 5% harmonic distortion; inputs: low-level 2 mv., 10 megohms, hi-level 1 v., 1 megohm; outputs: 8 ohms, preamp 0.5-1.5 volts; 2 1/4" x 13 3/4" x 9 3/8". \$339.95

1288 Tape Recorder

Records in 4-track stereo or mono from any sound source. Features: vu meters, digital

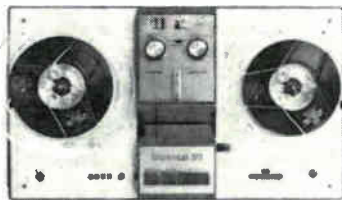


counter, tabular controls. Two-speed operation (3 3/4 & 7 1/2 ips). Response 50-17,000 cps @ 7 1/2 ips ± 3 db; wow & flutter less than .3%; S/N greater than 48 db. Has two inputs (mic & radio-phonos) and two outputs (ext. 8-ohm speaker, preamp). 16 1/4" x 13" x 7 1/2". Walnut finish with matching separated speakers. \$259.95

5150 Mono Tape Recorder

Transistorized with four recording speeds: 1 1/2, 1 7/8, 3 3/4 & 7 1/2 ips. Central control panel, vu meter, 4-digit counter, automatic shut-off. Response 40-17,000 cps ± 3 db @ 7 1/2 ips. Wow & flutter less than .25% @ 7 1/2 ips. Mic, radio-phonos inputs, ext. speak-

1966 EDITION



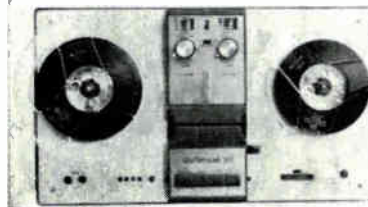
er (8 ohm), preamp outputs. Will accept tuner for playing or recording. 16" x 7" x 10"; with microphone. \$149.95

5200 Tape Deck/Preamps

For custom installation; all-transistor circuitry; four recording speeds; will record and play back (through external amplifiers & speaker systems) 4-track stereo & mono. Response same as 5150. Two inputs each channel (mic, radio-phonos). 18 3/8" x 7 3/8" x 9 1/4". \$179.95

5250 Tape Recorder

Self-contained 4-track stereo recorder with built-in speakers and amplifiers. 2 1/2 w./



ch. music power. Individual volume & tone controls, vu meters. Accepts tuner for record or playing. Response, etc. same as 5150. 16" x 7" x 10". \$189.95

5280 Tape Recorder

Walnut cabinetry, detachable stereo wing speakers. Similar to 5250 tape recorder, with stereo headphone provisions. 19 3/4" x 10" x 10 1/4". \$219.95

5300 Tape Recorder

Walnut slim line styling, separated multiple speaker systems featuring electronic cross-over network. Response, etc. same as 5280. Designed for wall mounting. 20" x 8 1/8" x 10 3/8". \$279.95
Matching AM-FM tuner with MPX & a.f.c., plays through recorder's own amplifier. Instantly ready for recording. \$169.95
Matching tape storage cabinet. \$34.95
Recorder, tuner, and storage cabinet feature walnut sliding doors that may be removed for equipment operation.

1570 Mono Tape Recorder

2-track record/playback; 18 w. r.m.s. @ 5% HD. Has automatic shut-off. 2 speeds



(3 3/4 & 7 1/2 ips; response 40-15,000 cps ± 3 db @ 7 1/2 ips; wow & flutter .03%; S/N 48 db; mic & radio/phonos inputs; outputs .5 to 1.5 v. Preamp & 8 ohms to extension speaker. Has twin built-in speakers. Supplied with slip-over vinyl cover & misc. accessories. 6 1/2" x 10 1/4" x 11 3/4". Available only through audio-visual dealers. \$199.00

6 Raw Tape

AMERICAN

Acetate Base (1.5-mil)

1-A 150', 3" reel	.....\$ .55
2-A 250', 3 1/4" reel	.....\$ .75
3-A 300', 4" reel	.....\$1.10
6-A 600', 5" reel	.....\$1.75
12-A 1200', 7" reel	.....\$2.75
15-A 1500', 7" reel	.....\$3.50

Acetate Base Long-Play (1-mil)

L-2A 225', 3" reel	.....\$ .70
L-3A 350', 3 1/4" reel	.....\$1.00
L-4A 450', 4" reel	.....\$1.40
L-9A 900', 5" reel	.....\$2.50
L-18A 1800', 7" reel	.....\$4.10
L-20A 2000', 7" reel	.....\$5.17

Mylar Base Long-Play (1-mil)

L-2M 225', 3" reel	.....\$ .75
L-3M 350', 3 1/4" reel	.....\$1.15
L-9M 900', 5" reel	.....\$2.70
L-18M 1800', 7" reel	.....\$4.60
L-20M 2000', 7" reel	.....\$5.80

Mylar Base (1.5-mil)

1-M 150', 3" reel	.....\$ .60
6-M 600', 5" reel	.....\$2.10
12-M 1200', 7" reel	.....\$3.35

Mylar Base Double-Play Tensitized (.5-mil)

D-3MT 300', 3" reel	.....\$1.25
D-5MT 500', 3" reel	.....\$1.60
D-6MT 600', 4" reel	.....\$2.30
D-12MT 1200', 5" reel	.....\$4.30
D-18MT 1800', 5" reel	.....\$5.90
D-24MT 2400', 7" reel	.....\$7.50
D-30MT 3000', 7" reel	.....\$9.50
D-36MT 3600', 7" reel	.....\$10.95

Mylar Base Double-Play (.5-mil)

D-12MS 1200', 5" reel	.....\$2.75
D-24MS 2400', 7" reel	.....\$5.10

Acetate High-Output (1.5-mil)

HO-6A 600', 5" reel	.....\$2.25
HO-12A 1200', 7" reel	.....\$3.50

Mylar High Output (1.5-mil)

HO-6M 600', 5" reel	.....\$2.65
HO-12M 1200', 7" reel\$4.25

Acetate Low-Print "Master" (1.5-mil)

LP-12A 1200', 7" reel\$4.40
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Mylar Low-Print "Master" (1.5-mil)

LP-12M 1200', 7" reel\$7.70
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AMPEX

Series 500 Recording Tape

Available on .5, 1, and 1.5-mil Mylar in regular and slow-speed oxides; designed for super-critical home recording.

Regular Oxide:

Type 531-13 on 1.5 mil, 600', 5" reel	.....\$2.65
Type 531-15 on 1.5 mil, 1200', 7" reel	.....\$4.25
Type 541-13 on 1.0 mil, 900', 5" reel	.....\$3.40
Type 541-15 on 1.0 mil, 1800', 7" reel	.....\$6.20
Type 541-15M on 1.0 mil, 1200', 7" reel	.....\$3.50
Type 551-13 on 0.5 mil, 1200', 5" reel	.....\$5.45
Type 551-15 on 0.5 mil, 2400', 7" reel	.....\$9.50

6 Raw Tape

Slow-Speed Oxide:

Type 536-15 on 1.5 mil, 1200', 7" reel.....	\$4.75
Type 545-15 on 1.0 mil, 1800', 7" reel.....	\$6.90
Type 545-15M on 1.0 mil, 1200', 7" reel.....	\$3.95
Type 556-15 on 0.5 mil, 2400', 7" reel.....	\$10.75

Series 900 Recording Tape

Designed for large-library home recording.
Type 911 1.5-mil acetate.

150', 3" reel.....	\$0.65
600', 5" reel.....	\$1.75
1200', 7" reel.....	\$2.95
Type 921 1.0-mil acetate.	
225', 3" reel.....	\$0.80
900', 5" reel.....	\$2.50
1800', 7" reel.....	\$4.25

Type 931 1.5-mil Mylar.	
600', 5" reel.....	\$2.25
1200', 7" reel.....	\$3.65

Type 941 1.0-mil Mylar.	
225', 3" reel.....	\$1.00
900', 5" reel.....	\$2.85
1800', 7" reel.....	\$4.95

Type 951 0.5-mil tensilized Mylar.	
300', 3" reel.....	\$1.35
1200', 5" reel.....	\$4.50
2400', 7" reel.....	\$7.95

AUDIOTAPE

Master 1.5-mil Mylar Tape

Made on 1.5 mil Mylar base; durable in wide temperature range.

Type 671M, 600 ft., 5" reel.....	\$3.20
Type 1271M, 1200 ft., 7" reel.....	\$5.10

Double Recording (.5-mil tempered Mylar)

Made on tempered Mylar; allows twice as much recording per reel; stronger than double length tape.

Type 331T, 300 ft., 3" reel.....	\$ 1.60
Type 631-T, 600 ft., 3 1/4" reel.....	\$ 2.95
Type 1231T, 1200 ft., 5" reel.....	\$ 5.45
Type 2431T, 2400 ft., 7" reel.....	\$ 9.50

Triple Recording ("tempered" Mylar)

Three times as much recording time per reel as standard plastic-base tape, plus same extra strength as other "tempered" Mylar tapes.

Type 633T, 600 ft., 3 1/4" reel.....	\$2.95
Type 1833T, 1800 ft., 5" reel.....	\$6.95
Type 3633T, 3600 ft., 7" reel.....	\$11.95

Longer Recording (1-mil plastic base)

Provides 50% more recording time per reel; 1-mil cellulose acetate base; maximum economy for applications where high strength is not required.

Type 941, 900 ft., 5" plastic reel.....	\$3.50
Type 1841, 1800 ft., 7" plastic reel.....	\$5.50

Longer Recording (1-mil Mylar)

Made on 1-mil Mylar polyester film; provides 50% more recording time per reel; exceptional strength and durability plus longer storage life.

Type 261, 225 ft., 3" plastic reel.....	\$1.00
Type 961, 900 ft., 5" plastic reel.....	\$3.60
Type 1861, 1800 ft., 7" plastic reel.....	\$ 6.20

Standard Recording (1.5-mil Mylar)

High-strength super-durable magnetic tape that meets the highest professional standards of performance; withstands extreme temperatures; virtually immune to humidity; gives maximum tape life under any conditions of use or storage.

Type 671, 600 ft., 5" plastic reel.....	\$2.65
Type 1271, 1200 ft., 7" reel.....	\$4.25

Double Recording (.5-mil Mylar)

Made on .5-mil Mylar; twice as much recording time per reel as standard plastic-base tape; suitable for extended-play applications where tape tension is not excessive.

Type 1231, 1200 ft., 5" reel.....	\$3.50
Type 2431, 2400 ft., 7" reel.....	\$6.50

Standard Recording (plastic base)

Professional-quality recording tape; maximum fidelity, uniformity, frequency response and freedom from noise and distortion; 1.5 mil acetate.

Type 151, 150 ft., 3" plastic reel.....	\$.70
Type 351, 300 ft., 4" plastic reel.....	\$1.35
Type 651, 600 ft., 5" plastic reel.....	\$2.25
Type 1251, 1200 ft., 7" plastic reel.....	\$3.50

Low-Noise Tape

Provides high signal-to-noise ratio and reduced hiss level; on 1.5-mil plastic base.

Type 1257, 1200 ft., 7" reel.....	\$4.30
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BURGESS

Series No. 111 1.5-mil Plastic

111-1.5 150', 3" reel.....	\$.70
111-2.5 250', 3 1/4" reel.....	\$1.25
111-3 300', 4" reel.....	\$1.35
111-6 600', 5" reel.....	\$2.25
111-8.5 850', 5 3/4" reel.....	\$2.85
111-12 1200', 7" reel.....	\$3.50

Series No. 190 1.0-mil Extra-Play Plastic

190-2.25 225', 3" reel.....	\$.90
190-9 900', 5" reel.....	\$3.50
190-12 1200', 5 3/4" reel.....	\$4.25
190-15 1500', 7" reel.....	\$4.50
190-18 1800', 7" reel.....	\$5.50

Series No. 102 1.5-mil Mylar

102-6 600', 5" reel.....	\$2.65
102-8.5 850', 5 3/4" reel.....	\$4.25
102-12 1200', 7" reel.....	\$4.25

Series No. 150 1.0-mil Extra-Play Mylar

150-2.25 225', 3" reel.....	\$1.00
150-3.75 375', 3 1/4" reel.....	\$1.75
150-9 900', 5" reel.....	\$3.60
150-12 1200', 5 3/4" reel.....	\$4.65
150-15 1500', 7" reel.....	\$5.15
150-18 1800', 7" reel.....	\$6.20

Series No. 200 .5-mil Double-Length Tensilized Mylar

200-3 300', 3" reel.....	\$1.60
200-6 600', 4" reel.....	\$3.05
200-12 1200', 5" reel.....	\$5.45
200-17 1700', 5 3/4" reel.....	\$7.05
200-24 2400', 7" reel.....	\$9.50

Series No. 290 .5-mil Triple-Length Tensilized Mylar

290-6 600', 3 1/4" reel.....	\$2.50
290-36 3600' 7" reel.....	\$11.95

Series No. 131 1.5-mil Plastic

131-12 1200', 7" reel.....	\$4.40
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Series No. 138 1.5-mil Mylar

138-12 1200', 7" reel.....	\$5.10
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Series No. 175 1.5-mil Polyvinyl

Chloride Film Base

175-6 600', 5" reel.....	\$2.40
175-12 1200', 7" reel.....	\$3.75

Series No. 141 1.5-mil Plastic

141-6 600', 5" reel.....	\$1.75
141-12 1200', 7" reel.....	\$2.95

Series No. 140 1.0-mil Extra-Play Plastic

140-9 900', 5" reel.....	\$2.50
140-18 1800' 7" reel.....	\$4.25

Series No. 142 1.0-mil Extra-Play Mylar

142-9 900', 5" reel.....	\$2.85
142-18 1800', 7" reel.....	\$4.95

Series No. 144 .5-mil Double-Length Mylar

144-12 1200', 5" reel.....	\$4.50
144-24 2400', 7" reel.....	\$7.95

KODAK

Type 31A Low-Print Tape

1.5-mil Durol base.	
31A1 150', 3" reel.....	\$.60
31A6 625', 5" reel.....	\$1.85
31A6NB 625', 5" reel (no box).....	\$1.65
31A12 1250', 7" reel.....	\$2.95
31A12NB 1250', 7" reel (no box).....	\$2.45

Type 21A Tape

1-mil Durol base.	
21A9 900', 5" reel.....	\$2.55
21A9NB 900', 5" reel (no box).....	\$2.20
21A18 1800', 7" reel.....	\$4.35
21A18NB 1800', 7" reel (no box).....	\$3.85

Type 34A High-Output, Low-Noise Tape

1.5-mil Durol base.	
34A6 625', 5" reel.....	\$1.85
34A6NB 625', 5" reel (no box).....	\$1.65
34A12 1250', 7" reel.....	\$2.95
34A12NB 1250', 7" reel (no box).....	\$2.45

Type 21P Tape

1-mil polyester base.	
21P9 900', 5" reel.....	\$2.85
21P18 1800', 7" reel.....	\$4.95

Type 11P Tape

.5-mil polyester base.	
11P4 400', 3" reel.....	\$2.00
11P12 1250', 5" reel.....	\$4.60
11P25 2500', 7" reel.....	\$7.95

Type 12P Triple-Play Tape

.5-mil polyester base.	
12P6 600', 3 1/4" reel.....	\$2.50
12P18 1800', 5" reel.....	\$5.95
12P36 3600', 7" reel.....	\$9.95

RCA

"Red Seal" Series

1-mil Long-Play Acetate Base

10A-2.25 225 feet, 3" reel.....	\$0.55
10A-3.75 375 feet, 3 1/4" reel.....	\$1.15
10A-9 900 feet, 5" reel.....	\$ 3.50
10A-18 1800 feet, 7" reel.....	\$ 5.50

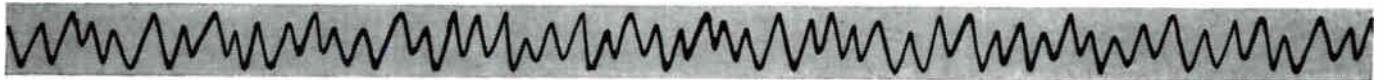
1.5-mil Professional-Grade Acetate Base

15A-1.5 150 feet, 3" reel.....	\$ 0.70
15A-3 300 feet, 4" reel.....	\$ 1.35
15A-6 600 feet, 5" reel.....	\$ 2.25
15A-12 1200 feet, 7" reel.....	\$ 3.50

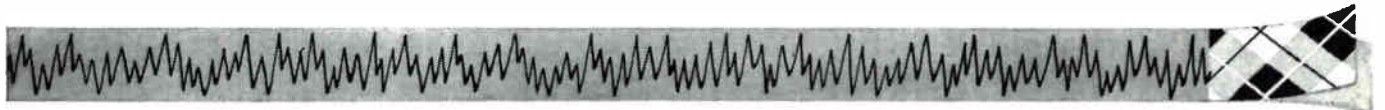
1.5-mil Professional-Grade Acetate Base

Low-noise, low-print	
15ALN-12 1200 feet, 7" reel.....	\$4.40

Mylar (Polyester) .5-mil Tensilized



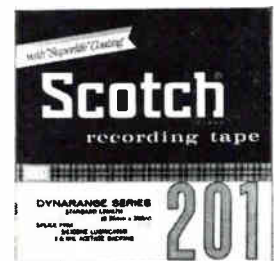
Now, there's a tape that lets you



record twice the music per foot.

**How? It's so sensitive you can cut
recording speed in half with no loss in
fidelity. Your budget will applaud.**

Savings start with this box.



SCOTCH® Brand "Dynarange" Series Recording Tape is the name on the box. The tape that just prepared your recorder for the best performance of its life. This new tape makes all music come clearer, particularly in the critical soprano or high-frequency range. So much clearer, you can now record at $3\frac{3}{4}$ ips and enjoy all the fidelity until now possible only at $7\frac{1}{2}$ on your recorder. Your dealer has a demonstration reel that proves the case.

And by cutting your recording speed in half, you won't need as much tape—can save 25% or more in costs. Or, you can use new "Dynarange" Tape at $7\frac{1}{2}$ —and discover sound quality you didn't know your recorder had.

The technical achievement behind all this...

we've cut background tape noise (what little there is in "SCOTCH" Recording Tape) in half so the listening's better. And we made the wear-life better, too! 15 times greater than ordinary tape. Exceedingly low rub-off keeps equipment clean. Lifetime Silicone lubrication assures smooth tape travel, protects against head wear and extends tape life. Comes in new sealed pack so the tape is untouched from factory to you. Hear new "Dynarange" Tape demonstrated at your dealer. Then try a roll on your own recorder.

"SCOTCH" AND THE PLAID DESIGN ARE REG. TMS OF 3M CO., ST. PAUL, MINN. 55119. ©1965, 3M CO.

Magnetic Products Division 

6 Raw Tape

Extra-Long Play

5TM-3	300 feet, 3" reel.....	\$ 1.60
5TM-6	600 feet, 4" reel.....	\$ 3.05
5TM-6A	600 feet, 3 1/4" reel.....	\$ 2.95
5TM-12	1200 feet, 5" reel.....	\$ 4.75
5TM-24	2400 feet, 7" reel.....	\$ 8.75

Mylar (Polyester) 1-mil Long-Play

10M-2.25	225 feet, 3" reel.....	\$ 1.00
10M-9	900 feet, 5" reel.....	\$ 3.60
10M-18	1800 feet, 7" reel.....	\$ 6.20

Mylar (Polyester) 1.5-mil Professional-Grade

15M-6	600 feet, 5" reel.....	\$ 2.65
15M-12	1200 feet, 7" reel.....	\$ 4.25

"Vibrant Series" Full-Frequency Recordings Acetate (plastic) Base

V15-A-6	600 feet, 1.5-mil, 5" reel....	\$1.50
V15-A-12	1200 feet, 1.5-mil, 7" reel.....	\$2.50
V10-A-9	900 feet, 1-mil, 5" reel.....	\$1.95
V10-A-18	1800 feet, 1-mil, 7" reel.....	\$3.75

Mylar (Polyester) Base

V10M-9	900 feet, 1-mil, 5" reel.....	\$2.25
V10M-18	1800 feet, 1-mil, 7" reel....	\$4.25
V5TM-12	1200 feet, .5-mil tensilized, 5" reel	\$3.95
V5TM-24	2400 feet, .5-mil tensilized, 7" reel	\$6.95

Polyester Base Cartridge Tape

K10M-2.75	Special reel for use with RCA cartridge tape recorder.	
275', 2 1/4"	reel.....	\$2.07
10M5.6C	Snap-load cartridge, 560'	\$4.50

SARKES TARZIAN

"Standard Play" 1.5-mil Acetate Tape

1131-01	150 feet, 3" reel.....	\$.43
1131-06	600 feet, 5" reel.....	\$1.40
1131-12	1200 feet, 7" reel.....	\$2.33
1131-24R	2400 foot reel.....	\$6.83

"Long Play" 1-mil Acetate Tape

1121-02	225 feet, 3" reel.....	\$.60
1121-09	900 feet, 5" reel.....	\$2.10
1121-18	1800 feet, 7" reel.....	\$3.45
1121-36R	3600 foot reel.....	\$8.00

"Long Play" 1-mil Mylar Tape

1321-02	225 feet, 3" reel.....	\$.67
1321-09	900 feet, 5" reel.....	\$2.40
1321-18	1800 feet, 7" reel.....	\$4.13
1321-36R	3600 foot reel.....	\$9.67

"Extra Long Play" .5-mil Mylar Tape

1411-03	300', 3" reel.....	\$1.07
1411-06	600', 3 1/4" reel.....	\$1.93
1411-12	1200', 5" reel.....	\$3.63
1411-24	2400', 7" reel.....	\$5.70
1411-36	3600', 7" reel.....	\$8.70

"SCOTCH" TAPES

No. 111 "All-Purpose" Tape

Excellent freq. response, low modulation noise & high sensitivity; silicone lubrication process; 1.5-mil acetate backing.

111-150	150', 3" reel	\$ 0.70
111-600	600', 5" reel	\$ 2.25
111-1200	1200', 7" reel	\$ 3.50

No. 102 "All-Purpose" Tape

For applications where extreme toughness & improved resistance to the effects of excessive temperature and humidity change

are required; high-strength polyester film backing; magnetic characteristics identical to No. 111 also features 1.5-mil polyester backing.

102-600	600', 5" reel	\$ 2.65
102-1200	1200', 7" reel	\$ 4.25

No. 120 "High-Output" Tape

Signal-to-noise ratio of from 6 to 12 db greater than conventional recording tapes; designed for critical recording applications where greater signal strength is essential; 1.5-mil acetate backing.

120-600	600', 5" reel	\$ 2.25
120-1200	1200', 7" reel	\$ 3.50

No. 131 "Low-Print" Tape

Acetate backing; reduces print-through to a point below noise level on most professional machines.

131-1200	1200', 7" reel	\$ 4.40
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No. 138 "Low-Print" Tape

Same recording characteristics as No. 131 but has tough 1.5-mil polyester backing.

138-1200	1200', 7" reel	\$ 5.10
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No. 200 Recording Tape

Double-length, double-strength tape with tensilized polyester backing.

200-1200	1200', 5" reel	\$ 5.45
200-2400	2400', 7" reel	\$ 9.50

No. 140 "Stereo-Quality" Tape

Extra-length tape which provides 50% more playing time; similar to No. 141; 1-mil acetate backing.

140-900	900', 5" reel	\$2.50
140-1800	1800', 7" reel	\$4.25

No. 144 "Double-Length, Double-Strength"

Stereo quality, double-strength; .5-mil tensilized polyester backing.

144-1200	1200', 5" reel	\$4.50
144-2400	2400', 7" reel	\$7.95

No. 190 "Extra-Length" Tape

High-potency oxide coating only half as thick as standard coatings (but with equivalent magnetic properties) coupled with a thinner backing of tough acetate; approximately 30% thinner than conventional acetate tape, nearly 80% as strong; 50% increase in recording and playback time with no noticeable print-through effect; magnetic properties are virtually identical to those of No. 111 magnetic tape.

190-900	900', 5" reel	\$ 3.50
190-1800	1800', 7" reel	\$ 5.50

No. 150 "Extra-Length, Extra-Strength"

Magnetic recording tape offering 50% more recording time and featuring 1-mil polyester backing for improved resistance to changes in temperature and humidity and also for greater strength.

150-900	900', 5" reel	\$ 3.60
150-1800	1800', 7" reel	\$ 6.20

No. 290 "Triple-Length" Tape

The tape that gives maximum play on a given reel size. Especially suited for continuous recording of lengthy conferences, meetings, conventions; .5-mil tensilized polyester backing.

290-1800	1800', 5" reel	\$ 6.95
290-3600	3600', 7" reel	\$11.95

"Living Letters" Tape

Packaged in plastic containers; three tape lengths available for variety of uses, providing up to maximum recording time on a 3" reel. Plastic container provides high-impact, re-usable mailer.

111-150-LL	150', 3" reel	\$0.90
200-300-LL	300', 3" reel	\$1.85
290-600-LL	600', 3" reel	\$2.95

"Dynarange" Tapes

Although originally engineered for professional use, these tapes are now available for home recording. Available in 1.5-mil plastic (No. 201) and polyester backings (No. 202), as well as 1-mil polyester (No. 203). Provides high-fidelity recording even at 3 1/2 ips.

201 1.5-mil Acetate		
201-1/4	600', 5" reel.....	list \$2.80
201-1/4	1200', 7" reel.....	list \$4.40
202 1.5-mil Polyester		
202-1/4	600', 5" reel.....	list \$2.85
202-1/4	1200', 7" reel.....	list \$5.10
203 1-mil Polyester		
203-1/4	900', 5" reel.....	list \$4.25
203-1/4	1800', 7" reel.....	list \$7.35

SONY

PR-150 Recording Tape

Extra-heavy formula Oxi-coat homogenized oxide coating. Polyester backing, "lubricushion" impregnated lubricant.

1800', 7" reel.....	\$2.95
900', 5" reel.....	\$1.75
300', 3 1/4" reel.....	\$.95
300', 3" reel (designed for "Tapemates" correspondence; comes in self-mailing box	\$.85

SOUNDCRAFT

"Standard" Tape

1.5-mil acetate base; professional quality; economy priced.

S-1 150 ft., 3" reel.....	\$0.70
S-6 600 ft., 5" reel.....	\$2.10
S-9 900 ft., 5 1/4" reel.....	\$2.73
S-12 1200 ft., 7" reel.....	\$3.50

"Standard-50" Tape

Long-play version of "Standard" tape on 1-mil acetate base.

S5-2 225 ft., 3" reel.....	\$0.90
S5-9 900 ft. 5" reel.....	\$3.29
S5-18 1800 ft., 7" reel.....	\$5.17

"Lifetime" Tape

For use where utmost strength and quality are necessary; 1.5-mil Mylar base; "Micro-polished" oxide coating for perfect high-frequency response.

L-1 150 ft., 3" reel.....	\$0.75
L-6 600 ft., 5" reel.....	\$2.65
L-12 1200 ft., 7" reel.....	\$4.25

"Plus-50" Tape

Made on 1-mil Mylar for 50% more playing time per reel; combines long play with great tape strength.

PL-2 225 ft., 3" reel.....	\$1.00
PL-9 900 ft., 5" reel.....	\$3.40
PL-18 1800 ft., 7" reel.....	\$5.80

"Triple-Play" Tape

.5-mil Mylar base

TP-6 600 ft., 3 1/4" reel	\$2.29
TP-18 1800 ft	\$3.40
TP-24 2400 ft., 5 1/4" reel	\$6.96
TP-36 3600 ft., 7" reel	\$10.00

"Plus-100-X" Tape

Similar to "Triple-Play" but with twice the tensile strength; base is .5-mil Mylar.

XP-3X 300 ft., 3" reel.....	\$1.60
XP-18X 1800 ft., 5 1/4" reel.....	\$7.48
XP-24X 2400 ft., 7" reel.....	\$9.50

"Golden Tone" Tape

High quality special tape; 25% more high-frequency out & 7 db better signal-to-noise ratio; 7" reel.

GTA-12 1.5-mil acetate base, 1200'....	\$4.70
GTM-18T 1-mil tensilized Mylar base, 1800'	\$7.50
GTM-24T .5-mil tensilized Mylar base, 2400'	\$11.40



**Capture the strength
and delicacy
of every sound**

with exclusive new Sony LUBRI-CUSHION[®] recording tape

A revolutionary process from the research laboratories of world-famous Sony has produced a recording tape with a silicone impregnated lubricant which cannot wear off! Intimate head-contact, so essential for full-range true fidelity, can now be maintained — and without excessive recorder head wear.* ■ Sony's new method of tape manufacture includes a special Sony slitting technique, Sony-permatizing, and an extra-heavy homogenized coating (Sony Oxi-Coat) on flexi-strength polyester, which assures a balanced full-frequency recording/playback with no 'drop-outs' of sound. ■ Truly, Sony PR-150 enables you to capture the strength and delicacy of every sound. Visit your dealer today — and *hear* the difference.

*Excessive recorder head wear is caused by inferior tape. Sony PR-150, a professional recording tape, has been developed to eliminate this problem. A special bonus coupon book, allowing a substantial discount on 12 reels of tape, may be obtained by writing Sony/Superscope, Inc., Magnetic Tape Division, Dept. 53, Sun Valley, California.



*Ask for Sony's new Tape booklet.



CIRCLE NO. 68 ON READER SERVICE CARD

6 Tape Accessories

AMPLIFIER CORP.

Model 150A "Magneraser" Junior
Bulk-type magnetic tape eraser; field intensity 750 gauss; duty cycle on one min.,



off five min.; can also be used to demagnetize sound film up to 35 mm. on plastic or metal reels; 4 3/4" x 4 3/8" x 2 1/2"; 117-v. operation\$18.95

Model 200C "Magneraser"

Bulk tape eraser; operating voltage 100-130 volts; operating frequency 50-60 cps; 2" high, 4" dia.

Model 200C.....\$24.00
Also available: Model 220C, identical in price and specifications except for operating voltage of 200-260 volts instead of 110-130 volts a.c.

Model 300A "Magneraser" Senior

Heavy-duty design; 800 gauss; on 7 min., off 7 min.; for use on reels up to 10 1/2"



and 1/4" and 1/2" wide tapes as well as sound films up to 35 mm.; 7" dia. x 3 3/4"; 117-v. operation.....\$49.00

AUDIOTAPE

Audio Head Alignment Tape

Prerecorded at 2 kc., 10 kc., 15 kc., recorded at 15" per second; intervals between tones are 5 seconds duration; 300 ft. on 4" reel.....\$10.00

Audio Head Demagnetizer

Demagnetizes tape recorder heads; re-

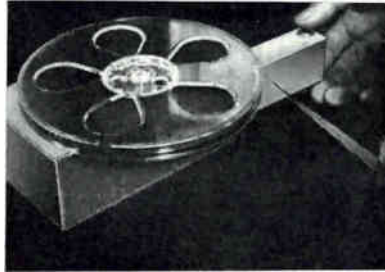


quires only plug-in to conventional a.c. outlet\$10.00

AUDIOTEX

Model 30-114 Tape Demagnetizer

Handles all reel sizes up to 10 1/2"; erases to -52 db level; complete with 6-foot



cord; includes an on-off push-button switch\$33.00

Model 30-112 Head Demagnetizer

Has curved top to reach most heads; soft plastic coating on tip to prevent head



damage; built-in push-button switch; 6-foot cord.....\$11.95

CONCERTONE

Model 18 Head Demagnetizer

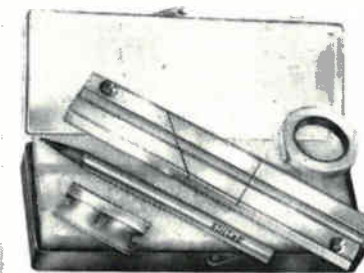
Pencil-type will demagnetize any tape recorder head\$4.95

Tape Timer-Strobe

For determining accuracy of tape speed; uses dial and features strobe for instant visual speed check; times length of tape in minutes and seconds\$19.95

EDITALL

KS-2 Editing Kit



For 1/4" tape. Includes 4" x 3/4" x 1 1/4" block, marking pencil, roll of splicing tape & cutting blade.....\$7.50
Other versions available.

FANON-MASCO

RA-34 Head Demagnetizer

117-v. a.c. operated; 4 1/2" l. x 2" dia., wt. 8 oz.....\$4.50

RA-33 Bulk Tape Eraser

117-v. a.c. operated; flux density of 3500 gauss @ 1 cm. 5 1/2" x 5 1/2" x 4 1/2" h.\$19.95

LAFAYETTE

99-1516 Bulk Tape Eraser

Provides tape noise level 4-6 db below noise level from recorder erase heads; pilot light; fused; draws 6 1/2 amps; de-



signed for 110-120 volts, 60-cycle a.c. operation\$18.95

NORTRONICS

Model P-6 Conversion Kit

Converts all Pentron mono and 2-track stereo tape recorders to 4-track stereo playback; patch cord and jack set to connect to external stereo playback amplifier included\$29.70

Model P-7 Conversion Kit

For Pentron recorders; includes 4-track stereo erase head; replaces mono erase head; used with P-6, permits stereo erase during stereo recording.....\$15.00

Model W-2 Conversion Kit

Converts Webcor Series 210, 2020, 2100, 2600, and 2700 to 4-track stereo playback only; may not be used for recording unless external amplifiers are used (not included)\$27.50

Model W-6 Conversion Kit

Converts all Webcor 2800, 2900, 2000 (old Series, except 2020) to stereo playback; assembly includes head-shifter to play back 2-track and 4-track tapes; original mono recording and playback are retained\$36.00

Model W-7 Conversion Kit

For Webcor 2800, 2900, and old 2000 Series (except 2020); 4-track stereo erase head; replaces mono erase head; used with W-6, permits stereo recording when additional amplifier (not included) is used; original 2-track mono erase facilities are retained\$18.00

Model WR-40 Conversion Kit

Converts all mono Wollensak and Revere tape recorders to 4-track stereo playback;



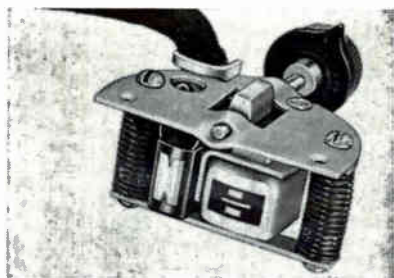
a tape head playback amplifier such as the Model PL-100 is required for playback of second channel (not included in the kit)\$32.50

Model WR-35 Conversion Kit

Converts all stereo Wollensak and Revere 2-track tape recorders to 4-track stereo playback\$25.50

Model WR-60 Conversion Kit

Converts all 2-track Wollensak and Revere models to 4-track stereo; includes three-position head shifter for 2-track stereo, 4-track stereo, and 4-track mono opera-



tion; allows stereo recording with additional amplifier (not included).....\$49.50

Model T60F Oscillator Transformer

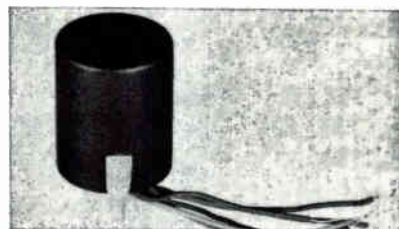
For 12AU7A tube circuit use with all record, record/playback, and erase heads listed; freq. range 70-100 kc. depending on impedance\$4.50

Model T60E Oscillator Transformer

65-kc. bias for recording and erase current for either high or low impedance heads; one-tube oscillator circuit diagram included\$4.50

Model T60-T2 Oscillator Transformer

Similar to Model T60E but designed for transistor circuitry; 40-100 kc.; will d-



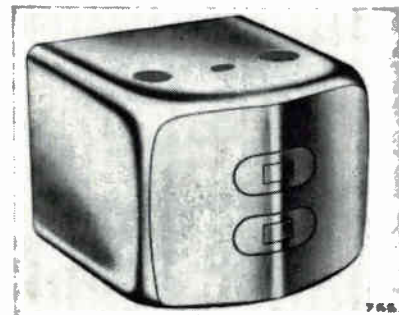
liver 25 to 150 volts to erase and record heads\$4.50

Model AT-100 Alignment Tape

7.5 ips full-track for checking record/play heads of all types; 40-10,000 cps; recorded for checking azimuth, equalization, and head wear.....\$4.95

1000 Series Record/Play Heads

Four-track stereo, laminated core, high-quality heads with all-metal hyperbolic



face construction; replaces older CSQ, TLB & TLD-1 designs.

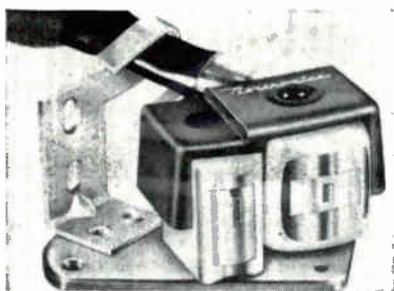
#1000—High impedance; 800 mhy. inductance; 100 μ n. gap; for use with vacuum-tube circuits; no-mount type\$21.00

#1001—Medium impedance; 400 mhy. inductance; 100 μ n. gap; for use with vacuum-tube or transistor circuits; no-mount type\$21.00

#1002—Low impedance; 100 mhy. inductance; 100 μ n. gap; for use with transistor circuits; no-mount type\$21.00
All above with rear mount.....\$22.50

Model RPE-20 Replacement Kit

Direct replacement mono record/play and



erase kit for Wollensak and Revere recorders; complete assembly mounted on special plate, wired and ready to install \$15.60

Model WR-30 Conversion Kit

Converts all mono Wollensak & Revere tape recorders to full-track record/play....\$57.00

Model V-6 Conversion Kit

Converts all mono and 2-track stereo V-M recorders to 4-track playback; includes patch cord and jack set for connecting to external stereo playback amplifier....\$25.50

Model V-7 Conversion Kit

For V-M recorders; 4-track stereo erase head; replaces mono erase head; used with V-6, permits stereo erase during stereo recording; includes synchronizing cable, isolation capacitor, and erase jack \$14.50

1200 Series Record, Record/Play Heads

Four-track stereo, laminated-core heads with all-metal, hyperbolic face construction; replaces older TLB, CSQ, and 1100 styles. Appearance same as Model 1000.

#1200 High impedance; 800 mhy. inductance; 100 μ n gap; for use with vacuum-tube circuits. No-mount type.....\$28.20

#1201 Medium impedance; 400 mhy. inductance; 100 μ n. gap; for use with vacuum-tube or transistor circuits. No-mount type\$28.20

#1202 Low impedance, 100 mhy. inductance; 100 μ n. gap; for use with transistor circuits. No-mount type\$28.20

#1203 Low impedance record only; 50 mhy. inductance; 500 μ n. gap; for use with vacuum-tube or transistor circuits. No-mount type\$28.20

#1205 Medium impedance; 200 mhy. inductance; 500 μ n. gap; for use with vacuum-tube circuits. No-mount type \$28.20

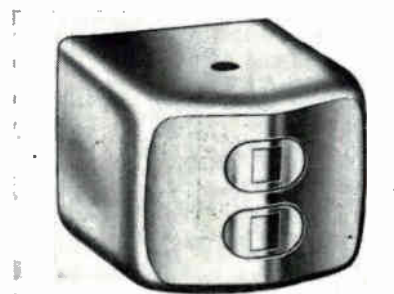
#1207 Medium-low impedance; 200 mhy. inductance; 100 μ n. gap; for use with transistor circuits. No-mount type.....\$28.20
Same as above with rear mount.....\$29.70

1800 Series Record/Play Heads

Two-track stereo; laminated core; all-metal heads; hyperbolic face construction; replaces older TLA and TLD-S styles.

#1800—High impedance; 800 mhy. inductance; 100 μ n. gap; for use with vacuum-tube circuits; no-mount type\$23.30

#1801—Medium impedance; 400 mhy. inductance; 100 μ n. gap; for use with



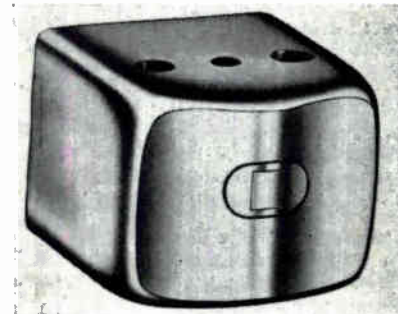
vacuum-tube or transistor circuits; no-mount type\$23.30
#1802—Low impedance; 100 mhy. inductance; 100 μ n. gap; for use with transistor circuits; no-mount type.....\$23.30
Same as #1800, #1801, #1802 except rear mount\$24.80

2600 Series Record/Play Heads

Two-track mono; laminated core; heads with all-metal hyperbolic face construction; replaces older SLA style.

#2600—High impedance; 800 mhy. inductance; 100 μ n. gap; for use with vacuum-tube circuits; no-mount type \$15.90

#2601—Medium impedance; 400 mhy. inductance; 100 μ n. gap; for use with

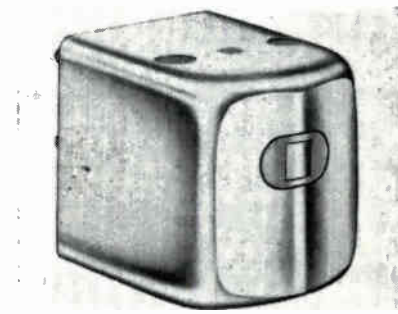


vacuum-tube or transistor circuits; no-mount type\$15.90

#2602—Low impedance; 100 mhy. inductance; 100 μ n. gap; for use with transistor circuits; no-mount type.....\$15.90

#2603—Special record only head; 50 mhy. inductance; 500 μ n. gap; for use with vacuum-tube or transistor circuits; no-mount type\$15.90

3000 Series Record/Play Heads



Two-track mono; laminated core, all-metal heads, hyperbolic face construction; replaces older SLS style.

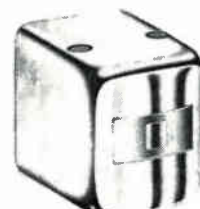
#3000—High impedance; 800 mhy. inductance; 100 μ n. gap; for use with vacuum-tube circuits; no-mount type \$8.40

#3001—Medium impedance; 400 mhy. inductance; 100 μ n. gap; for use with vacuum-tube or transistor circuits; no-mount type\$8.40

Same as #3000 and #3001 except rear mount\$9.90

3100 Series Record/Play Heads

Two-track mono; solid core heads with cylindrical metal face construction; center track.



6 Tape Accessories

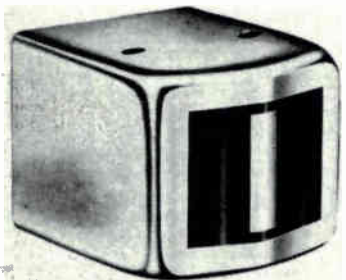
#3100 High imp.; 1000 mhy.; 160 μ n. gap for use with vacuum-tube circuits; no-mount type.....\$8.40
 #3101 Med. imp.; 400 mhy.; 160 μ n. gap; for use with vacuum-tube or transistor circuits; no-mount type.....\$8.40
 Same as above with rear mount.....\$9.90

3200 Series Record, Record/Play Heads

Two-track mono, laminated core heads with all-metal hyperbolic face construction; replaces older SLS style.
 #3200 High impedance, 800 mhy. inductance; 100 μ n. gap; for use with vacuum-tube circuits. No-mount type\$15.90
 #3201 Medium impedance; 400 mhy. inductance; 100 μ n. gap; for use with vacuum-tube or transistor circuits. No-mount type\$15.90
 #3203 Low impedance record only; 50 mhy. inductance; 500 μ n. gap; for use with vacuum-tube or transistor circuits. No-mount type\$15.90
 Same as above with rear mount.....\$17.40

4100 Series Record/Play Heads

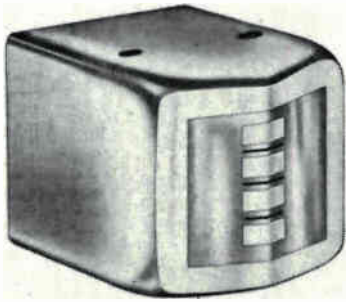
Full-track mono; laminated core heads with plastic, hyperbolic face construction; replaces older SF style.
 #4100—Medium impedance; 250 mhy. in-



ductance; 160 μ n. gap; for use with vacuum-tube or transistor circuits; no-mount type\$34.70
 #4101—Special record only head; 70 mhy. inductance; 500 μ n. gap; for use with vacuum-tube or transistor circuits; no-mount type\$34.70
 Same as #4100 and #4101 except rear mount\$36.20

5601 Series Record/Play Heads

Four-channel; laminated core heads with all-metal hyperbolic face construction.
 #5601 Special record-only head; low im-



pedance 50 mhy.; 500 μ n. gap spacer; for use with vacuum-tube or transistor circuits; no-mount type.....\$99.00
 #5602 Low imp.; 90 mhy.; 100 μ n. gap spacer; for use with vacuum-tube or transistor circuits; no-mount type.....\$99.00
 #5603 Med. imp.; 370 mhy.; 100 μ n. gap spacer; for use with vacuum-tube or transistor circuits; no-mount type.....\$99.00

Same as above with rear mount.....\$105.00

5700 Series Record/Play Heads

Three-channel premium hyperbolic face construction. For stereo record/play plus



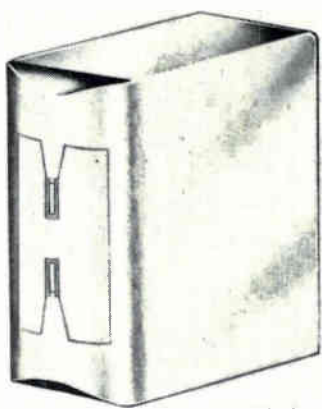
cue channel on broadcast cartridge machines.
 #5701 Medium impedance, record/play; 370 mhy., 100 μ n. gap spacer; for vacuum-tube or transistor circuits.....\$99.00
 #5702 Low impedance record/play; 100 mhy., 100 μ n. gap spacer for transistor circuits\$99.00
 #5703 Low impedance record only; 50 mhy., 500 μ n. gap spacer for vacuum-tube or transistor circuits\$99.00

#8000 Series Heads

A series of record/play, record only, and erase heads for professional and broadcast equipment. Available in impedances and track configurations to match Ampex, Brush, Concertone, Crown, Magnecord, Muzak, Presto, and RCA heads or tape transports. Consult your dealer for prices. Erase heads are available in standard case (.560 x .285 face), the "L" case (.620 x .375 face), and the new "B" size (.490 x .578 face) that corresponds to the standard R/P or combination head case size.

1400 Series Erase Heads

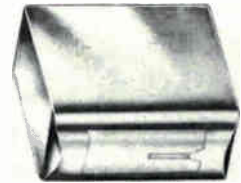
Four-track stereo; laminated core; double gap; premium quality with full metal face construction; replaces older SEQ and SE-50 styles.
 #1400—High impedance; 80 mhy. inductance; 30,000 ohms impedance at 60 kc.;



for use with vacuum-tube circuits; 60 kc. operating voltage: 90-150 volts; no-mount type\$12.00
 #1401—Medium impedance; 10 mhy. inductance; 2800 ohms impedance at 60 kc.; for use with vacuum-tube or transistor circuits; 60 kc. operating voltage: 28-42 volts; no-mount type.....\$12.00
 Same as #1400 and #1401 except rear mount\$13.50

3600 Series Erase Heads

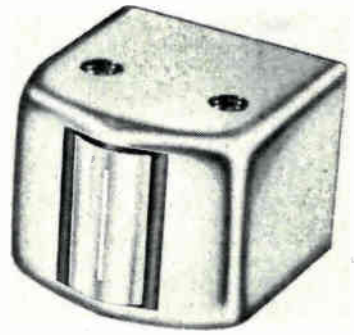
Two-track mono; laminated core; premium quality with full metal face construction; double gap; replaces older MEH and ME-100 styles.
 #3600—High impedance; 80 mhy. induct-



ance; 25,000 ohms impedance at 60 kc.; for use with vacuum-tube circuits; 60 kc. operating voltage: 100-150 volts; no-mount type.....\$8.00
 #3601—Medium impedance; 8 mhy. inductance; 2000 ohms impedance at 60 kc.; for use with vacuum-tube or transistor circuits; 60 kc. operating voltage: 32-48 volts; no-mount type.....\$8.00
 Same as #3600 and #3601 except rear mount\$9.50

4400 Series Erase Heads

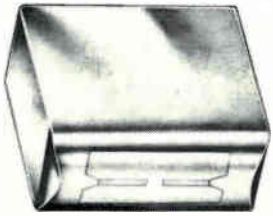
Full-track mono; laminated core; double gap; premium quality with full metal face construction; replaces older MEF and ME-250 styles.
 #4400—High impedance; 40 mhy. inductance; 12,000 ohms impedance at 60 kc.; for use with vacuum-tube circuits; 60 kc. operating voltage: 100-150 volts; no-mount type.....\$14.00
 #4401—Medium impedance; 3.6 mhy. inductance; 1000 ohms impedance at 60 kc.; for use with vacuum-tube or transistor circuits; 60 kc. operating voltage: 32-48



volts; no-mount type.....\$14.00
 Same as #4400 and #4401 except rear mount\$15.50

2200 Series Erase Heads

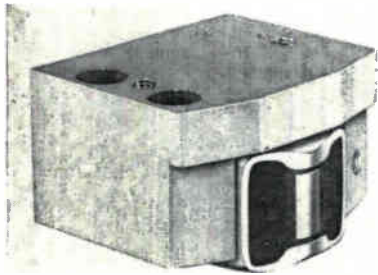
Two-track stereo; laminated core; double gap; premium quality with full metal face construction; replaces older SEH and SE-100 styles.
 #2200—High impedance; 80 mhy. inductance; 25,000 ohms impedance at 60 kc.;



for use with vacuum-tube circuits; 60 kc. operating voltage: 100-150 volts; no-mount type\$12.00
 #2201—Medium impedance; 8 mhy. inductance; 2000 ohms impedance at 60 kc.; for use with vacuum-tube or transistor circuits; 60 kc. operating voltage: 32-48 volts; no-mount type.....\$12.00
 Same as #2200 and #2201 except rear mount\$13.50

"Quik-Kit" Adjustable Head Mounting Assembly

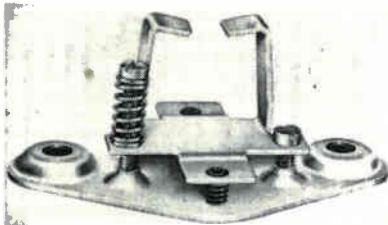
For updating tape decks to use Nortronics



no-mount heads. Includes provision for adjustment of tape head for wrap, height, tilt, and azimuth.....\$2.25

"Quik-Kit" 76 Head Mounting Kit

A precision cast aluminum block and hardware to fit Nortronics heads to the Ampex



300, 350, 400, 3000, and 3200 series tape transports\$12.00

"Quik-Kit" 82 Head Mounting Kit

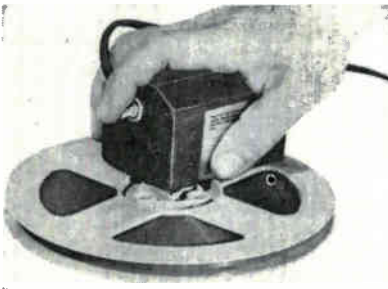
Adapts Tandberg Models 6, 64, 74, 84 to use Nortronics no-mount heads.....\$2.00

"Quik-Kit" 116 Head Mounting Kit

To adapt various models of Roberts, Akai, Metzner, and Terracorder to use the Nortronics no-mount heads.....\$12.00

ROBINS

Model ME-55 Eraser



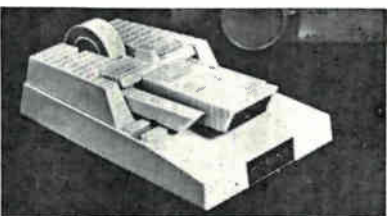
Hand-held bulk eraser for 1/4" tapes\$16.66

Model TK-5 Strobetape Kit

Consists of five lengths of 25-inch nonmagnetic leader tape with strobe markings plus small neon light which flickers at a rate of 120 times per second; designed to be spliced into a roll of tape. The strobe markings will indicate relative speed of the tape machine\$2.25

Model TS-8D Deluxe Tape Splicer

Cuts tape diagonally; features "See-Thru" windows indicating cut and trim positions;



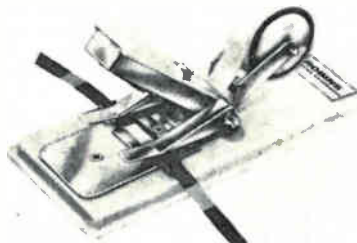
blade centering adjustment; unit has replaceable cutter cartridge and blade.

1966 EDITION

.....\$12.75

Model TS-4S Tape Splicer

Similar in performance to Model TS-8D. Does not have "See-Thru" windows; sup-



plied with roll of 3/8" x 100" splicing tape\$9.50

TS-6 Tape Splicer

Adjustable for 40° or 90° cut. Complete with 25 cut, self-stick patches\$5.00

Model ME-99 Bulk Tape Eraser

Demagnetize up to 1/2" wide; can erase background noise on old tapes; takes up to



10 1/2" reels; size 3 3/4" x 5 1/4" x 6 3/4"\$43.50

Model ME-77 Bulk Tape Eraser

Low-cost version of Model ME-99; accepts reels up to 7"\$24.50

Model HD-6 Head Demagnetizer

Allows user to demagnetize tape recorder



heads; plugs into a.c. line.....\$10.00

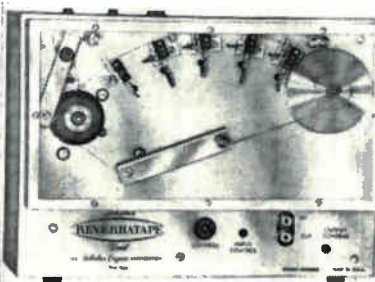
Model HD-3 Head Demagnetizer

Low-cost version of Model HD-6 demagnetizer\$6.00

SCHOBER

RV-3 "Reverbatape" Unit

Electronic reverberation system using a multi-head tape recorder; reverberation time adjustable from 0 to 6 seconds; sensi-



tivity .3 to 3 volts r.m.s. adjustable; 500,000 ohm input impedance; emitter-follower output; gain 1; has 1 record, 3 playback, 1 erase head, and 13 transistors, with walnut case. (through dealers).....\$279.95 Available in kit form (direct).....\$140.00



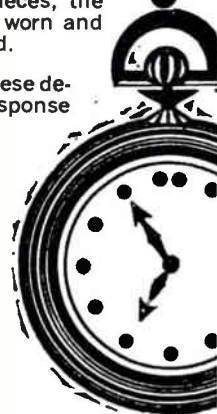
Now is the TIME to check your tape head!

Tape heads do wear out because of the abrasive action of the tape as it passes over the head face. When this occurs, the finest equipment cannot deliver top performance, and the brilliant realism of tape is lost.

Check your tape head for these obvious defects:

- Groove worn into head by tape ... causes severe loss of highs, uneven gain between channels.
- Look for the gap. If you can see a vertical black line dividing the pole pieces, the head is definitely worn and should be replaced.

If you find any of these defects, optimum response and maximum listening enjoyment can be restored to your tape equipment with high quality easy-to-install tape heads by Nortronics.



Nortronics replacements, complete with all necessary mounting hardware and instructions, are available for more than 700 popular tape recorders. You can purchase the replacements from your Hi-Fi Dealer, Radio-TV Servicemen or Camera Store.



8159-F 10th Ave. No., Minneapolis, Minn. 55427

CIRCLE NO. 48 ON READER SERVICE CARD

Waste not
(WATTAGE)

Want not
(MUSICAL PURITY)

Let's consider *efficiency*... defined as "the quantity of sound obtained from a speaker system per amplifier watt". By itself, efficiency is not a measure of speaker quality... but it can be the factor which brings a better standard of performance to your entire music system. Wharfedales are described as "high efficiency speakers". This means: (1) They perform perfectly at low wattage. (2) They project a full rich sound from a relatively small enclosure. (Even the "large" W90 is a modest size.) (3) They provide more sound per amplifier dollar. You can buy lower powered versions of the amplifier of your choice, applying the savings to upgrade all of the components in your music system including the speakers. (4) They handle the highest power safely... without break-up or distortion. If you belong to the

"high power" amplifier school, note that the massive magnets which give these speakers their higher efficiency will keep your amplifier power under full control through any musical selection, by magnetic damping. And it is well to remember that high efficiency speaker systems certainly are indicated if you wish to realize the full advantages of the latest solid state circuitry.

Through greater efficiency, a Wharfedale speaker system can bring you substantial dividends in sound from a smaller investment in power than you may be contemplating. This is a valuable point to remember when ordering your components.

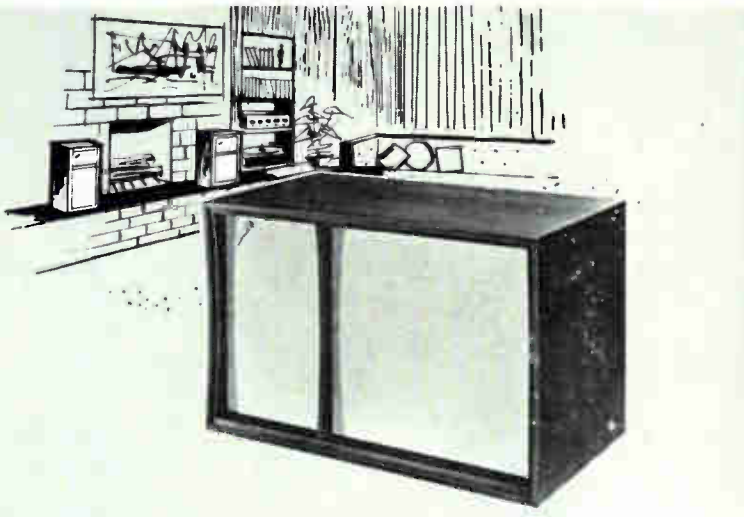
Wharfedale

For Comparator Guide with full specifications, write Wharfedale, Div. British Industries Corp., Dept. WY-1505, Westbury, New York 11591.

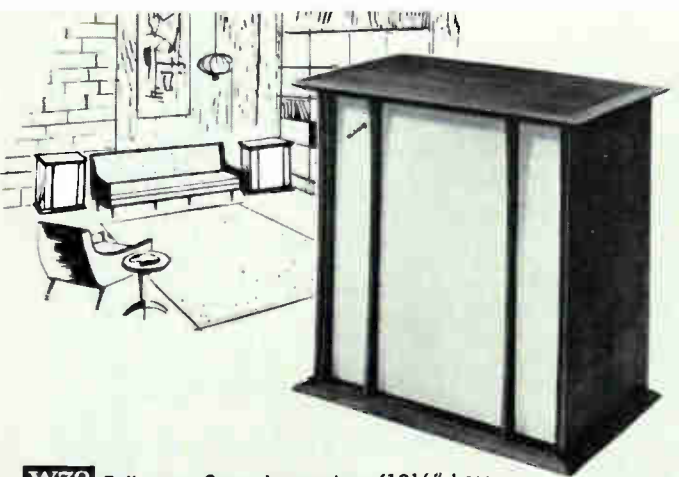


W90 shown on optional mounting base

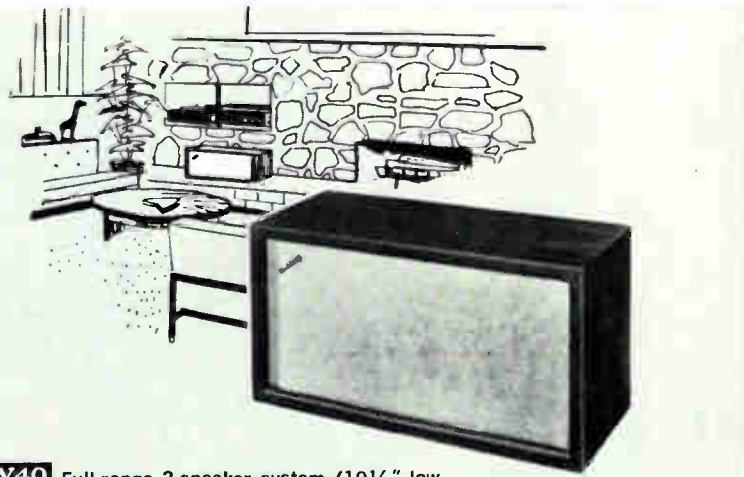
W90 6-speaker system (two 12½" bass; two 5½" mid-range; two Super 3 treble), superbly matched and integrated with a magnificent sand-filled enclosure. Oiled or Polished Walnut, \$272.50; Utility model, \$256.50.



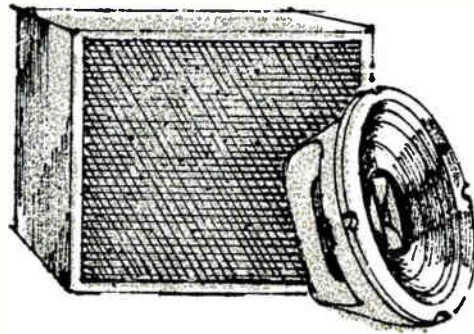
W80 Full-range 2-speaker system (12½" bass; 5" mid-range tweeter) in exclusive sand-filled enclosure. Oiled or Polished Walnut, \$122.50; Utility model, \$106.50.



W70 Full-range 3-speaker system (12½" bass; 10¼" mid-range; Super 3 treble) in exclusive sand-filled enclosure. Oiled or Polished Walnut, \$172.50; Utility model, \$153.50.



W40 Full-range 2-speaker system (10½" low frequency; 5" mid-range tweeter) in exclusive sand-filled enclosure. Oiled or Polished Walnut, \$83.50; Utility model, \$72.50.



SPEAKERS/CABINETS

LOUDSPEAKERS.....	} 109
ENCLOSURES.....	
SPEAKERS SYSTEMS.....	
CROSSOVER NETWORKS.....	

ACOUSTECH

Model X Electrostatic Speaker

Full-range stereo design using solid-state amplifier systems attached to base of each

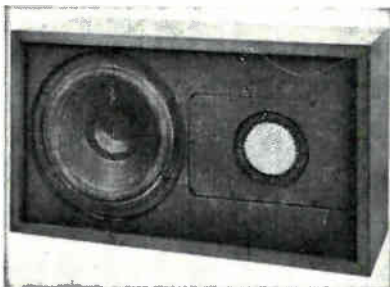


speaker. Electronic crossover networks are used for the separate woofer & tweeter amplifiers in each channel. Provides extra half octave of fundamental bass. Driven directly from output of control center, but max. impedance is 200 ohms (must be used with Acoustech Model VI control center). Size 6 ft. high including base x 26 3/4" x 4" deep. Oiled walnut with neutral boucle grille. Complete system (2 speaker panels & 2 dual power amplifiers)\$1690.00

ACOUSTIC RESEARCH

Model AR-2X Speaker System

Appearance & performance nearly matches Model AR-3. Has 10" acoustic suspension woofer & a 3 1/2" cone tweeter. Response 42-15,000 cps ± 2 1/2 db (down 10 db at



30 & 17,000 cps at 10 w. input); HD 2% down to 60 cps (3% down to 50 cps @ 10 w.); dispersion 90°. Impedance 8 ohms. Use with amplifier 20 w./ch. or more. 24" x 11 1/2" d. x 13 1/2" h. Mahogany or birch\$ 96.00
Walnut, Korina, cherry, teak\$102.00
Unfinished pine\$ 89.00
Unfinished hardwood available on request.

Model AR-2AX Speaker System

Same as Model 2A except a 1 3/8" dome-type super tweeter is added. Response of



tweeter is 6000-20,000 cps ± 1.5 db (crossover 7500 cps). Has level controls for mid-range and super tweeters.

Mahogany or birch\$122.00
Walnut, Korina, cherry, teak\$128.00
Unfinished pine\$109.00

Model AR-4 Speaker System

Two-way design. An 8" acoustic suspension woofer and a 3 1/2" direct-radiator tweeter



with level control. Crossover 1500 cps, 8 ohms. For use with amplifiers of 15 w./ch. or higher. 19" x 9" d. x 10". Walnut \$57.00
Unfinished pine\$51.00
Unfinished birch available on request.

Model AR-3

Acoustic suspension three-way system; 38 to 1000 cps, ±1 1/2 db; 1000 to 20,000 cps, ±2 db; usable range down to 30 cps; one 12" woofer, one 2" and one 1 3/8" dome radiator for mid and high frequencies; built-in three-way crossover with level controls for mid and high ranges; 4 ohms im-



pedance; less than 2% harmonic distortion from 60 to 20,000 cps at 20 watts input, less than 3% to 42 cps; recommended amplifier power, at least 25 watts per stereo channel; 14" by 11 3/8" by 25"; 60 lbs.; 3/4" hardwood veneer.

Mahogany or birch\$216.00
Walnut, oiled walnut, cherry, korina, or oiled teak\$225.00
Unfinished pine\$203.00

ACOUSTICA ASSOCIATES

500 Series Speaker Systems

360° radiation pattern featuring 1" high-compliance woofer & wide-range 360° dispersion cylindrical electrostatic mid & high freq. speaker (300 cps crossover). Response 30-30,000 cps; 8 ohms. 15 w. program material minimum.

Model 500 Standard walnut finish...\$189.50
Model 510 Danish modern walnut...\$239.50
Model 520 Traditional walnut and antique white\$289.50

Model 100 Speaker System

Novel approach combines dual-speaker system built into electric lamp, providing 360° sound disper-

sion. 6" high-compliance woofer built within lamp base. Wide-range 360° dispersion electrostatic mid & high freq. speaker form translucent lamp shade. 5 to 7 feet radiating area depending on model. 300 cps crossover; 8 ohms. Response 60-30,000 cps. Base wood, in walnut or antique white; shade off-white fabric, gold trim. 42" h. with 15" dia. shade. 19" high\$229.50



Series 200. Same as Model 100 except response 40-30,000 cps. Base leather finish, white, red, green, black, or brown...\$179.50

Series 300. Same as Model 100 except response 35-30,000 cps. Base glazed ceramic vase, stoneware white, blue, green, gold, or turquoise. Shade white with gold rim. 49" high with 18" dia. shade, 22" high\$199.50

Series 400. Same as Model 100 except response 50-30,000 cps. Supplied with 15' gold chain for hanging. Lamp 19" high with 13" dia. shade, 19" high.....\$169.50

ADC

Model ADC-18 Speaker System

Features unique rectangular woofer; frequency range 20-20,000 cps; has walnut

7 Speakers & Cabinets



cabinet; available in either of two styles shown; 40" x 17" x 12 1/2"\$250.00

Model 325 Speaker System

Bookshelf design; 2-way system with 6" cone woofer (59 cps resonance) & 3" high-compliance cone tweeter with center dome. Response 45-20,000 cps ± 4 db; power requirements 10 to 60 w.; 8 ohms; LC crossover network. 19" x 10 1/2" x 8"; 3/4" oiled walnut\$49.50

Model 303-A "Brentwood" System

Bookshelf design with 8" high-compliance woofer, with wide-dispersion, high-flux Mylar dome tweeter. Response 35-20,000 cps ± 3 db; power requirements 6 to 60 w.; 8 ohms. 23 3/4" x 13" x 11 3/4". Oiled walnut\$95.00

ALTEC LANSING

Model 412C

12-inch Biflex cone-type speaker with second compliance ring in the center of the



cone to give mechanical crossover at 1000 cycles and permit 2-way performance with a single voice coil; 25 watts; 25 to 14,000 cycles; 8-ohms impedance; 3-inch edge-wound ribbon voice coil; cast aluminum frame.\$57.00

Model 415C "Biflex" Speaker

15-inch Biflex cone-type speaker with second compliance ring in the center of the



cone to give mechanical crossover at 1000 cycles and permit 2-way performance with a single voice coil; 25 watts; 25 to 14,000 cycles; 8-ohms impedance; 3-inch edge-wound ribbon voice coil; cast aluminum frame; free-air resonance 25 cps\$67.50

Model 511B "Sectoral" Horn

Designed to load 806A driver down to 500 cps with upper limit at 22,000 cps;



cast of heavy resonant-free aluminum; dispersion 90° horizontal and 40° vertical\$36.00

Model 811B "Sectoral" Horn

Similar to Model 511B except cut-off is at 800 cps; used with 806A driver and 800 cps crossover to complement either one 416A or one or two 414A bass speakers\$24.00

Model 601C "Duplex"

12-inch two-way speaker; 12-inch woofer with a high frequency driver and horn in



a single heavy cast frame; complete with 3000 cycle crossover network, frequency response from 30 to 22,000 cycles; 20 watts continuous sine-wave power; 8 ohms; cone resonance 39 cps\$114.00

Model 602C "Duplex"

Coaxial 15-inch speaker; range from 20 to 22,000 cps; 15-inch woofer and a newly



designed exponential sectoral horn coupled to a high frequency driver through a 3000 cps dividing network; 25 watts continuous sine-wave power; 8 ohms; cone resonance 28 cps\$132.00

Model 416A Woofer

15-inch woofer; power rating 30 watts; 16-ohms impedance; response 20-1600 cps;



special rim compliance prevents cone breakup; 3-inch diameter copper cone; ribbon voice coil is edge-wound; cast aluminum frame; free-air resonance 25 cps\$63.00

Model 414A Bass Speaker

A 12" equivalent of Model 416A; response 30-4000 cps depending on crossover used\$54.00

Model 605B Duplex

15" coaxial speaker; 35 watts continuous sine-wave and up to 50 watts peak power; 16 ohm impedance; magnet weight 2 1/2 lbs.



low frequency, 1/2 lb. high frequency; depth 10"; response 20-20,000 cps; free-air resonance 25 cps\$168.00

Model 755C 8" "Pancake" Speaker

Wide-angle sound dispersion; 15 watts;



response 40-15,000 cps; 8 ohms; 2" voice coil; cone resonance 52 cps; depth 2 1/4"\$32.25

Model 806A Driver Systems

Extends to 22,000 cps; features ribbon voice coil & aluminum alloy diaphragm; 16 ohms; 30 watts; can be used with 811B horn & N-800E (800 cps) crossover;



for woofer use 416A or 415C biflex speaker; the 806A driver can also combine with 511B sectoral horn & N-500D (500 cps) crossover; use either one or two 416A bass speakers\$57.00

846A "Valencia" Speaker System

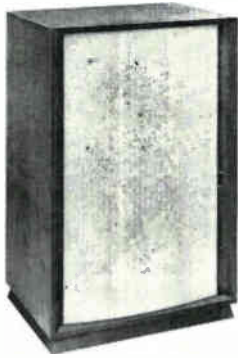
2-way system combining 811B sectoral horn with 806A h.f. driver & a 416A low-freq.



spkr. (800 cps crossover). Response 30-22,000 cps; 30 w. capacity; 8 or 16 ohm operation. 29 3/4" h. x 27 1/2" w. x 19" d. \$333.00 Cabinet only (Model 859A)\$147.00

843A "Malibu" Speaker System

Has same speakers as Model 838B "Carmel" but new cabinet. 40" h. x 25" x 18" d.



.....\$357.00

845A "Verde" Speaker System

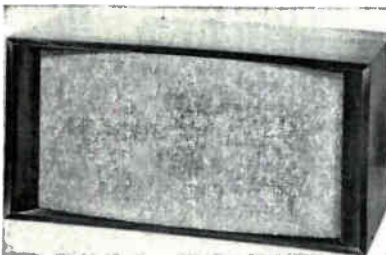
Features an extremely low-freq. woofer in a heavily damped ported reflex cabinet. Will



reproduce freq. down to 45 cps. The high-frequency unit is a 2000B tweeter. Crossover is 2000 cps. Response 45-18,000 cps; 8 ohms; 20 watt capacity; walnut; 11 1/4" x 23" x 11 1/4" d.\$96.00

Model 836A "Lido" Speaker System

Bookshelf design; speakers have radiating area of over 76 sq. inches; extended fre-



quency response; high efficiency; 12 3/8" x 26" x 12 3/8"; 15 watt power rating; available in walnut.....\$112.50

841B "Coronado" Speaker System

Has a 414 12" bass speaker & 3000 sectoral horn & driver: response 40-22,000 cps; 20



w. power rating; N-3000 crossover network is used; walnut. 26" h. x 19" w. x 14" d.\$214.50

847A "Seville" Speaker System

2-way system: a 414-type 12" bass spkr. & Model 3000 sectoral horn & driver. Re-



sponse 40-22,000 cps; 20 w. capacity; 8 ohms. 26" x 19" x 14" d.\$333.00

A-7 "Voice of the Theatre" System

Utility model of the Altec 2-way theatre system; employs a direct radiating expo-



ponential horn enclosure combined with a modified bass reflex principle; 15" 416A woofer, N-800D 800 cps crossover network, and 806A driver with 811B horn; frequency range from 35 to 22,000 cps; 30 watts power rating; 16 ohms impedance; horizontal dispersion 90°; vertical dispersion 40°; 6 db adjustable high-frequency attenuation; 30" w x 24" d x 52 1/4" h; gray finish.....\$288.00

Model A-7W same as Model A-7 except housed in walnut cabinet. Horn is internal-



ly mounted\$372.00

Model 2000B Tweeter

Direct-radiating; aluminum dome and paper cone; built-in capacitor crossover;



A speaker this different has to sound great!

What appears to be only the translucent shade of an exquisitely designed decorator lamp is also a wide-range electrostatic loudspeaker in its most ideal shape. Magnificent high fidelity radiates from the entire surface of the lamp shade, providing flawless 360° sound **everywhere** in the room. There are absolutely no dead spots!

Outstanding features include • 40-30,000 cps frequency response • Wide-range electrostatic lamp shade speaker, with 10 sq. ft. radiating area, has true 360° sound dispersion • High-compliance electrodynamic bass speaker is mounted within lamp, also has 360° dispersion • 300 cps crossover • Translucent shade is 19 inches high, less than 1/4-inch thick •

Acoustica Omnisonic® lamp-speakers* are available in many decorator colors and elegant table and hanging lamp styles. From \$129.50. High fidelity speakers have never looked this good . . . or sounded this great! Write for free illustrated brochure.

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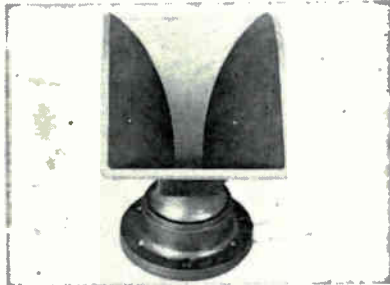
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CIRCLE NO. 2 ON READER SERVICE CARD

7 Speakers & Cabinets

power capacity 14 watts; frequency range 1500-18,000 cps; 8 ohms.....\$22.50

Model 3000B Tweeter

Aluminum diaphragm; multicell-type horn; 20 watts when used with N-3000E net-



work; response 3000-22,000 cps; 8-ohms impedance; edge-wise wound voice coil; requires 3000 cycle crossover network; dispersion 90° horizontal, 40° vertical; 3³/₁₆" h. x 4⁷/₁₆" w. x 4⁵/₁₆" d.\$26.50

838B "Carmel" Speaker System

Two-way system, infinite baffle design; combining two 414A bass speakers and one



806A driver mounted on 811B horn; response 30-22,000 cps; 30 watts power rating; N-800E crossover is used; available in walnut; 25³/₄" h. x 35" w. x 17³/₄" d.\$346.50

837B "Avalon" Speaker System

Identical to Model 838B except only one 414A speaker is used\$303.00

Model 858B Speaker Cabinet

Same as Model 838B except cabinet only; will house any Altec Biflex or Duplex 12" or 15" speaker.....\$114.00

N-500D Dividing Network

Designed for use with 806A h.f. driver & 511B horn; 12 db/octave slope; externally mounted h.f. shelving control has four steps of 1¹/₂ db for adjustment to room acoustics; 16 ohms; 500 cps crossover; 2³/₄" h. x 6¹/₄" w. x 6¹/₄" d.\$52.50

N-800E Dividing Network

Same as 500D except 800 cps crossover for use with 806A driver & 811B horn; 6" h. x 4³/₄" w. x 2⁵/₈" d.\$46.50

N-3000E Dividing Network

Designed especially for 3000B h.f. speaker; 8 ohms; attenuation 10 db continuously variable; 3000 cps crossover; 2³/₁₆" h. x 4⁷/₁₆" w. x 2⁵/₁₆" d.\$21.00

Model 802D H.F. Driver

Response 500-22,000 cps; 16 ohm impedance; 1.75" v.c.; 30 w. power with N-500D or N-800D network; use N-500D with



511A or 511B horn for 500 cps crossover & N-800D with 811B horn for 800 cps crossover; 4¹/₂" dia., 3¹/₁₆" deep.....\$75.00

Model A7-500 Speaker Systems

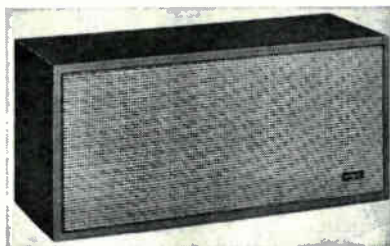
Similar in design & appearance to Model A7. Has 802D driver & 511B sectoral horn, with 500 cps crossover. 54¹/₄" h. x 30" w. x 24" d. Theatre gray. wt. 142 lbs..\$315.00

Model A7-500W same as Model A7-500 except housed in walnut cabinet with horn internally mounted. Cabinet same as for Model A-7W\$399.75

ARGOS

Model TX-1 2-Way System

Bookshelf system with walnut wood-grain vinyl finish; 24" h. x 11" x 9"; 8" 45-cps



woofer, 3¹/₂" tweeter (Jensen) with crossover network; tube vented; response 45-17,000 cps; 8 ohms.....\$29.95
Model TX-1E Enclosure only.....\$19.95

Model TX-2 2-Way System

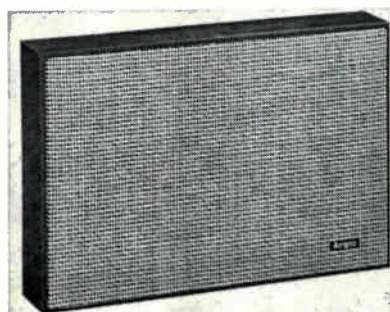
Bookshelf system with oiled walnut enclosure; 24" h. x 11" w. x 9"; 8" 45-cps woofer, 3¹/₂" tweeter (Jensen) with crossover network; tube vented; response 45-17,000 cps; 8 ohms.....\$44.50
Model TX-2E Enclosure only.....\$29.95

Model TX-3 2-Way System

Enclosure has walnut wood-grain vinyl finish; 12" woofer, 3¹/₂" tweeter (Jensen) with crossover network; tube vented; response 50-17,000 cps; 8 ohms.....\$39.95
Model TX-3E Enclosure only.....\$24.95

Model HFVB-8SV "Space Saver"

Compact music extension speaker system



with built-in volume control; 8" woofer, 3¹/₂" tweeter (Jensen) with crossover net-

work; 8 ohms; enclosure in either walnut or whitened birch finish; 12" h. x 18" w. x 3³/₄" d.....\$17.95

Model TX-4 3-Way System

Bookshelf or floor model size in oiled walnut; 25" h. x 14³/₄" w. x 9" d.; 12" woofer, 8" solid-back midrange, 3¹/₂" direct-radiator type tweeter (Jensen) with crossover network; tube vented; response 35-17,000 cps; 8 ohms.....\$79.95
Model TX-4E Enclosure only.....\$39.95

Model PHF-1 "Petite"

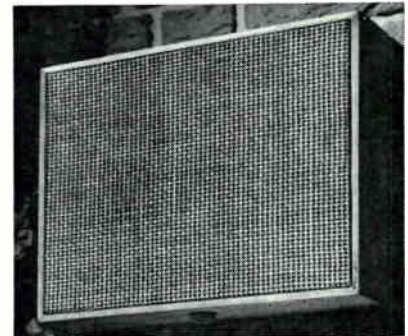
Mounts on wall, stands on table or floor; 12" h. x 18" w. x 3¹/₄" d.; oiled walnut



enclosure houses Jensen-designed woofer and tweeter; crossover network; response 50-17,000 cps; recessed volume control; 8 ohms\$29.95

Model PAT-10 "Patio" Outdoor Speaker

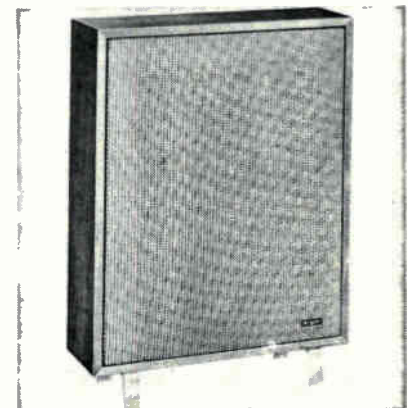
Redwood enclosure, cane grille, marine-grade plywood; full-range 8-ohm 8" mois-



ture-resistant speaker; built-in volume control. 10¹/₂" x 14" x 3¹/₂"\$14.95

Model TX-12 3-Way System

Floor model system of oiled walnut; 24" x 19" x 5⁵/₈"; cane grille; curved metal legs; includes 12" woofer, 8" midrange, 3¹/₂"



tweeter (Jensen) with crossover network; tube vented; response 40-17,000 cps; 8 ohms\$54.95

(Continued on page 116)

SHOWROOM TACTICS FOR THE SPEAKER BUYER

By JOHN MILDER

As a sometime salesman of audio equipment, I have found that speakers cause the average shopper more problems than any other component. Caught between the technical scuttlebutt of well-meaning but often ill-informed friends and the double-talk of an occasional hard-sell audio salesman, the neophyte speaker shopper usually finds it difficult to come to a rational decision on what to buy. However, there are some simple guidelines one can follow, and I would like to outline some practical approaches for the man in search of a satisfying speaker system.

Ask the Right Questions

A good part of your showroom strategy, first of all, should consist of the questions you ask. If you have little or no experience in speaker selection, however, the most important of the following suggestions might well be those that emphasize what *not* to ask. I strongly advise you, for example, *not* to begin your showroom visit by asking a salesman what *he* thinks about a particular speaker. For the inexperienced buyer, the danger in asking this question is that it has a strange faculty for bringing out the worst in any salesman. Even a good salesman may be tempted to deliver an opinion in the kind of technical language that will confuse a nontechnical customer. And sometimes a salesman, instead of admitting he has no real basis for an opinion, is likely to answer in generalities that sound more sensible than they really are. My favorite example of the latter is the salesman who solemnly assured me a few years ago that a certain expensive speaker system could not reproduce the sound of drums well because its enclosure worked on the horn principle. This is the brand of illogic to avoid at all costs, and the best way to do so is to avoid asking any salesman for sweeping opinions.

Something else not to ask about is a speaker's frequency response. If you have listened to a speaker for five minutes, you have already gained more information about it than you could possibly get from written descriptions or graphs. And I have rarely heard a salesman admit that *any* speaker had *any* response limitation—unless, of course, he wanted to sell a more expensive system. One last question not to ask is how many speakers there are in a particular speaker system. More speakers do not necessarily make for better sound, so knowing how many speakers are used in a system doesn't tell you anything significant about it. If you begin by asking about the number of speakers, a salesman will be sorely tempted to play the kind of numbers game popularized by the makers of mediocre console phonographs, who use multiple speakers (but of poor quality) to impress the unwary customer. If anything, a large number of speakers in a low-price system is an indication that its performance may well be less satisfactory than that of a single good speaker.

How, then, do you begin a session in a showroom? Simply by taking a long look to see how many systems are on display, and in which price range. A good store, however small, should have at least three systems of different brands in each of the four basic price ranges.

Your next check should be to determine how speakers are demonstrated in the showroom. It is not necessary that the store have elaborate facilities for A-B comparisons of speakers, but if it does, you should find out whether the switching arrangement compensates for the varying efficiencies of the speakers. If the efficiencies are not equalized, direct comparisons will almost always cause the louder of two speakers to sound better, whatever its actual merits. And however highly you rate your critical facilities, you will find it extremely difficult to compensate in your own mind for the difference in loudness. If you want to make a valid comparison under these conditions, the best course is to forego A-B switching in favor of simply repeating the same musical passage over the two speakers—preferably at some length. My own feeling is that repetition is preferable to rapid A-B comparisons even when the latter are made under ideal conditions. Repetition gives you a chance to sort out your impressions of speakers and to pinpoint the reasons for their characteristic sound quality. The A-B test, on the other hand, may lead you to value the more spectacular of any two speakers—and real tonal fidelity is often not spectacular.

BE AWARE, too, that there is such a thing as a point of diminishing sonic returns. After a certain standard of reproduction quality has been reached, further improvements (which can be small indeed) come only at high cost. Of course, it is impossible to know in advance just how much you will end up paying for a speaker, but you should know what degree of quality to expect in the different price categories, and you should also have some idea of the point at which you want to stop paying for improved sound. To further this objective, here is a summary of the price-quality relationships that characterize today's market.

\$50 area: Most speakers in this lowest price category have heretofore been either severely restricted in frequency range or seriously distorted. But it is now possible to find several low-cost systems that produce clean, low-distortion sound. In general, they have a slightly lightweight sound character, but they sound pleasant and "open," owing to their good high-frequency response. Their bass can usually be improved by careful placement and/or judicious use of the amplifier's tone controls.

\$50-\$100: What the better \$50-\$100 systems offer, in comparison with the previous category, is higher output and lower distortion at low frequencies—which permits

them to be driven hard enough to fill a moderate-size room with the sound of an organ pedal. Again, the sound quality to expect (and listen for) is a pleasant, unspectacular open character.

\$100-\$150: Many of today's most popular speaker systems are in this range, probably because it is here that most listeners feel they are getting the most for their money. A number of systems in this range offer sound that is clean and detailed from the top to the bottom of the frequency spectrum. The best systems are very solid in the bass, but not boomy or exaggerated. You can (and should) expect to hear and feel all but the lowest organ pedal notes.

\$150 and up: Here is the range in which you can expect to hear everything, without compromise. It goes without saying that speakers in this class require the most critical listening, for you must decide just what *you* want to pay for. Keep in mind that price, in this range, is not necessarily a guide to quality. Sonic qualities that might be worth, say, an extra two hundred dollars to someone else might not be worth anything to you.

IF you have never entered a hi-fi showroom, the above summary may still leave you with only a fuzzy idea of how much to spend for speakers. But there is a relatively simple way to move toward an early decision on the matter. Right at the beginning of your first trip to an audio store, pick two—any two—of the above price categories and ask to hear a representative speaker from each. If you are immediately unhappy about the sound you hear from the speaker in the lower of the two price ranges, or if, on the other hand, the sound of the more expensive speaker does not seem to justify its added cost, you have accomplished more in a few minutes than you would by studying brochures, advertisements, and test reports for a week. And you can move either up or down from your preliminary decision. If you feel, for instance, that the sound you hear in the \$50-\$100 range is pleasant and adequate, you should also check the lowest-price category. Or if the speakers in one range leave you feeling dissatisfied, you can move upward until you find the range that meets your requirements. I would recommend that you make a preliminary check of two categories at the outset even if you feel that you want (and can afford) the very best. This may prove to you that a five-hundred-dollar system is not five times better than a hundred-dollar system.

From this first check of quality to your final decision on what speaker to buy, you should listen to speakers through only two kinds of associated equipment. Either pick the best equipment in the store to demonstrate all speakers at their best, or choose the equipment—particularly the amplifier and cartridge—you intend to use at home. If you choose the former, of course, you will not only have the chance to hear the speakers at their best, but also will be able to judge later whether you want to spend more than you anticipated for the rest of your audio system. If you listen with the associated equipment you own or intend to buy, you have eliminated any questions about the matching of components—particularly any doubts about an amplifier's suitability for driving a given speaker.

Efficiency & Power

Whatever your preliminary decision on price, there are a number of things you should ask the salesman. Be sure to ask about speaker efficiency, but be aware that the varying efficiencies of speakers are the result of varying approaches to speaker design, and have nothing necessarily to do with quality. However, the amount of amplifier power you will need is determined by the speaker's efficiency, the volume level at which you intend

to use it, and the size of your listening room. Most speaker manufacturers specify some minimum power required to drive their speakers. In some cases, however, this figure is the *bare* minimum requirement—for a small room and moderate volume levels. This is often the case with budget-price speakers, since their manufacturers are understandably reluctant to suggest a high-power amplifier whose price is not in keeping with an economy hi-fi system. Here is an instance where a good salesman can be of great help. He is likely to know how powerful an amplifier you need.

If the salesman is knowledgeable, you should also ask him about a speaker's power-handling capacity. There are good speakers, particularly in the lower-price ranges, that simply are not meant to fill a large room with high-volume sound. This does not necessarily mean that they will be damaged by being overdriven by the amplifier, but it does mean that they will distort badly when reproducing high levels or low bass. Again, this is something a good salesman will know. If he does not, and you have doubts about a speaker, check its specifications carefully or write a letter of inquiry to the manufacturer. When checking specifications, do not confuse a speaker's maximum power-handling *ability* with its minimum power *requirements*.

Listening Tests

Before you begin any extensive listening tests, ask about the records and tapes that are available as demonstration material. If you own or can borrow records whose sound you are familiar with on a good hi-fi system, by all means bring them with you to the store. If you don't bring your own records, ask to hear a representative sampling of musical material—including solo piano and voice as well as large-scale orchestral music. In general, avoid spectacular records in speaker demonstrations, particularly flamboyant percussion records and gimmick discs whose sounds have no existence in real life. Any speaker might sound impressive with this kind of material, but you will have little or no basis for critical comparison. For demonstrations of low-frequency performance, avoid theater-organ recordings, whose heavy mid-bass content may mask a speaker's lack of real low-bass response.

When the final listening session gets under way, you should be aware that your first impression of a speaker—whether it is bright, dull, rich, or thin—might have been based on the characteristics of the recording rather than those of the speaker. A good speaker should sound neither “first-row” nor “last-row” in character. But a *recording* may have either of these properties, and a bad recording can make any speaker sound too brilliant or tinny. Before you dismiss any speaker for sounding bad, listen to it with more than one kind of program material.

WHEN a speaker impresses you with its sound in one part of the frequency range, ask yourself if its startling highs, mid-range, or bass is really a sign of unnatural, exaggerated response. A good speaker should have no coloration or sound of its own that seems to be present on all kinds of recordings. In any price range, the virtues to look for are clean, unpeaked response, low distortion, and detail in reproduction. The elusive goal is natural, unobtrusive sound that emphasizes no part of the frequency spectrum at the expense of another. It is usually a good idea to listen at the greatest length to—and expect the most from—the speakers that do *not* sound flashy on first hearing.

If a speaker that *should* sound good (and has in a friend's living room) sounds thin in a demonstration, ask the salesman about its placement in the showroom.

It is impossible to give all the speakers in a store equally favorable acoustic placements, and those located near intersecting surfaces (wall and wall, wall and ceiling, wall and floor) will usually sound fuller and richer than those placed along a wall or well out in a showroom. If the system can be easily moved, by all means ask the salesman to move it. Needless to say, you may also want a different placement if a system that you know to be good sounds boomy. When a reputable speaker sounds bad in all showroom locations, and particularly if it sounds thin or lacking in mid-range, you may possibly want to check it in another store.

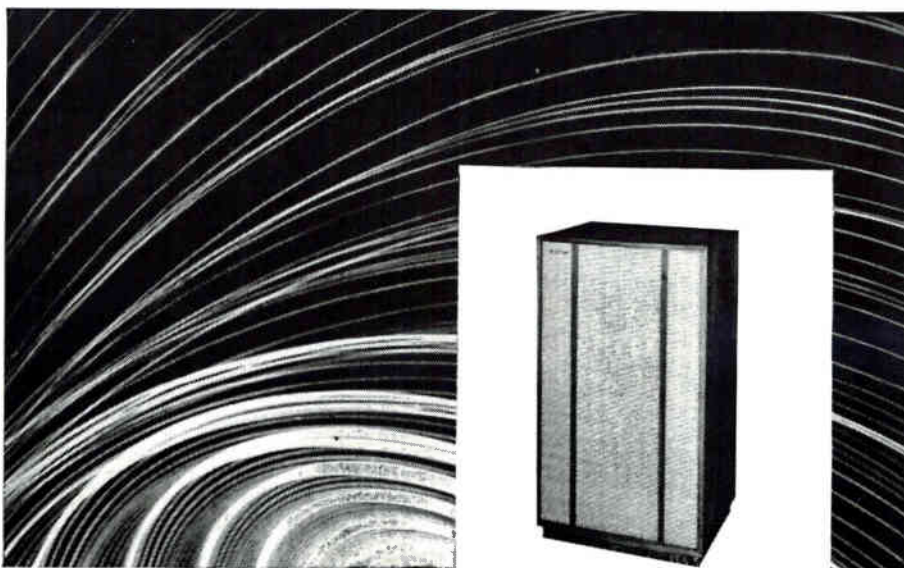
If a disappointing speaker is of the type supplied unmounted by its manufacturer, ask if it is mounted in the kind of cabinet the manufacturer recommends. Too many audio stores still have a tendency to install unmounted speakers in any convenient box for demonstration. If you like the sound of a particular speaker in a large enclosure, it is overwhelmingly likely that it will not have the same bass response in a smaller enclosure, but few salesmen are eager to admit just how great a change the smaller loudspeaker enclosure can make.

High-Frequency Dispersion

Finally, check the speaker's high-frequency dispersion. In the average living room, the over-all sound of a speaker will depend to a great extent on the sound reflected by the walls, and it is vital that the high frequencies be well scattered. If they are not, the more easily spread mid-frequencies may predominate, producing a raucous sound. In a large showroom, or one that has a high ceiling, your main impression of a speaker's high-frequency response may come almost entirely from the high tones you hear from a point directly on the speaker's axis. To make sure that the highs are actually well dispersed, walk back and forth in the showroom and check the sound at several locations off the speaker's axis. You must expect some loss of highs and a slight loss of definition with even the best speakers, but there should be little change in the speaker's over-all character.

While the preceding suggestions hardly constitute a magic formula, I think they are worth following during a visit to a showroom. The best way to settle the merits of any speaker, of course, is to take it home for a trial. But if, like the great majority of listeners, you must make your decision in the store, it can be done without sorcery or ritual. The rule, as with all other audio components, is to take your time and *listen*.

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7 Speakers & Cabinets

Model TX-5 2-Way System

Compact "cube" measuring 13 3/8" h. x 12 3/8" w. x 10" d.; oiled walnut enclosure; 8" woofer, 3 1/2" tweeter (Jensen); crossover network; response 50-17,000 cps; 8 ohms\$32.50

ARGUS-X

X-3B Speaker System

Shelf model using two Argus-X 8" speakers with multi-segmented suspensions, dual cones, and double-wound voice coils and two 2" super tweeters; response 28-20,000 cps; oiled walnut finish all four sides; 25" x 14" x 11" d.....\$200.00

X-5B Speaker System

Floor model with 3" detachable pedestal; has three Argus-X 8" speakers with multi-



segmented suspensions, dual cones, and double-wound voice coils and two 2" super tweeters; response 20-20,000 cps; oiled walnut finish; 18" x 24" x 16" d.....\$300.00

"Custom 450" Speaker System

Variable dynamic infinite damping enclosure with two 12" woofers, one 8" mid-range, and three tweeters. Response 15-20,000 cps. Available in almost any finish. 20" w. x 30" h. x 16" d.\$450.00

"Custom 600" Speaker System

Variable dynamic infinite damping enclosure with one 15" and one 12" woofer, two 8" mid-range, and four tweeters. Response 15-20,000 cps. Available in almost any finish. 25" w. x 40" h. x 16" d.\$600.00

BENJAMIN

Model 208 Speaker System

High-efficiency design with 8" mid-range/woofer & a high-frequency tweeter. Response 30-20,000 cps. Walnut. 21 3/4" x 11 1/2" x 8 3/4" d.\$59.50

BOZAK

B-207A Two-Way Coaxial Speaker

Coaxial speaker; 15" mounting frame; depth 7"; for use with amplifiers 20 watts or more; 40-20,000 cps; 8-ohm impedance; composed of B-199A woofer and B-200Y twin-tweeter; crossover at 2500 cps; fits standard cut-outs for 12" and 15" speakers; infinite baffle enclosure recommended, minimum 5 cu. feet, optimum 9 cu. feet.....\$94.50

B-209B Mid-Range Speaker

Mid-range speaker; 6 1/2" diameter, 3 1/2" deep; unique "sandwich" cone; for 20- to 40-watt systems with Bozak crossover network; 200 to 3500 cps; 8- and 16-ohm

models available; 1 1/2-lb. Alnico V magnet; rubber suspension gives superb transient response.....\$52.50

B-200Y Tweeter

Twin-cone tweeters for use with amplifiers 20 watts or more; 2000-20,000 cps;



8-ohm impedance (two 16-ohm sections in parallel); two 8-oz. Alnico V magnets; direct-radiating dual cones; 120° radiation; rubber damping prevents peaking and metallic harshness.....\$33.50

B-199A Woofer

12" woofer; 5 3/4" deep; variable-density cone; for use with amplifiers 20 watts or more; 40-4500 cps; 8 or 16 ohm impedance; 1 1/2-lb. Alnico V magnet; unique voice-coil construction; cast aluminum frame\$54.50

B-300 Speaker System

Infinite baffle enclosure; 3/4" plywood; one B-207A 15" coaxial speaker; 40-20,-



000 cps; can convert to model B-302A. Styling same as C-305 equip. cabinets. B-300 Urban—24" w. x 20" d. x 30" h.; walnut or mahogany.....\$179.50 B-300 Urban (Enclosure only).....\$ 85.50 B-300 Italian Provincial; 24" w. x 18 1/2" d. x 31" h.; cherry.....\$199.50

B-302A Speaker System

Similar to B-300 with addition of B-209B mid-range speaker and N-10102A crossover network.

B302A Urban 24" w. x 20" d. x 30 1/4" h.\$261.50 B-302A Italian Provincial; 24" w. x 18 1/2" d. x 31" h.; cherry.....\$281.50

B-200YA Tweeter Array



Eight cone-type tweeters; power rating 60-watts; 1500 to 20,000 cps; 8-ohm impedance; eight 8-oz. Alnico V magnets; cast aluminum frame; 180° horizontal dispersion at 16 kc.....\$142.50

B-800 Full-Range Speaker

8" speaker; 8 or 16 ohm impedance 50-15,000 cps; 8 1/2" dia. x 3 3/4" deep; for use with amplifiers 15 watts or more.....\$47.50

B-305 Speaker System

Walnut or mahogany infinite-baffle enclosure; 35-20,000 cps; 3-way speaker sys-



tem; 800 cps and 2500 cps crossover frequencies; two B-207A coaxial speakers, one B-209B mid-range speaker; wide-angle listening area of 120°; 16-ohm impedance; 36" w. x 20" d. x 30" h.

B-305 Urban—walnut or mah.....\$397.50 B-305 Urban (Enclosure only)\$126.50 B-305 Italian Provincial\$427.50

N-10102A Crossover Network

Universal dividing network; convertible for B-302A or B-305 system; 800 and 2500 cps crossover; 8 or 16 ohms; can be converted to 400 and 2500 cps crossover for 8-ohm system by addition of N-25\$29.50

N-103 Crossover Network

Crossover 400 and 2500 cps; 16 ohms; used on B-305 system.....\$37.50

N-104 Crossover Network

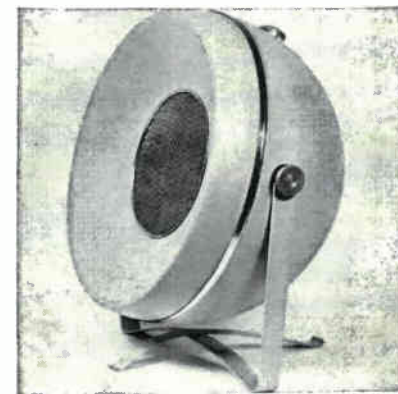
Crossover 400 and 2500 cps; 8 ohms; used on B-310AP system.....\$37.50

N-25 Crossover Network

Capacitor bank for use with N-10102 when 400-2500 cps crossover and 8 ohms is desired.....\$11.60

B-1000 "Bard" Outdoor Portable Speaker

Rigid 18" dia. hemispheric housing; 21" high, 12" front-to-back; 22 lbs.; input by



phone jack (plug supplied); 8 ohms; power input 40 watts max; response 80-15,000 cps; B-800 driver; adjustable friction-type trunnion; weatherproof cone; (Continued on page 119)

After two months of what **Popular Science** described as "the most extensive listening tests ever made by any magazine," a panel of experts chose components for stereo systems in several price categories. The components in the highest rated system were to be the best available no matter what the price.* "Where there was a more expensive component that produced a detectable improvement in sound," stated **Popular Science** authors Gilmore and Luckett, "it was chosen."

AR-3 speakers and the AR turntable were the choices for **Popular Science's** top system.

The **Popular Science** panel was not alone in its findings. Two other magazines — **Bravo!** and **Hi-Fi Tape Systems** — selected components for the best possible stereo system; AR-3 speakers and

THE AR-3's WERE CHOSEN AS BEST.

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Two of **Popular Science's** five-member panel check speakers.

the AR turntable were the choices in each case. **Gentlemen's Quarterly** chose the AR turntable for its top (\$3,824) system, but relegated AR-3's to its "medium-cost" (\$1,273) system. (The complete lists of selected components, as they appeared in these four magazines, are available on request.)

The AR turntable by itself has been reviewed by leading authorities as the best in the entire field regardless of price.

Yet you can spend many times the price of these AR components. AR-3 speakers are \$203 to \$225 each, depending on finish (other models from \$51), and the two-speed AR turntable is \$78 including arm, base, and dust cover.

*Speakers limited to "compacts" for reasons of practicality in the home.

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sandalwood beige or white eggshell with gold trim.....\$79.50

Bozak Panel Systems P-302AP

Contains one B-207A, one B-209B, and crossover networks mounted on a 3/4" panel; 5 cu. foot cavity required; panel 27 1/2" h. x 23" w.\$182.50

P-305P

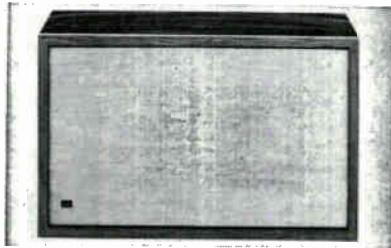
Contains two B-207A, one B-209B and crossover network mounted on a 3/4" panel; 8 cu. foot cavity required; panel 24" h. x 34 1/2" w.....\$279.50

P-310AP

Contains four B-199A, two B-209B, one B-200YA and crossover network mounted on a 3/4" panel; 16 cu. foot cavity required; panel 47" h. x 31" w.....\$555.00

B-211 "Sonata II"

Bookshelf design includes B-199A bass & a single B-200Y treble speaker with LC



crossover 6 db/octave at 2500 cps; response 50-16,000 cps; 8 ohms; 20 w. r.m.s. power rating. 23 1/8" x 14 1/4" x 11 1/2" d. Walnut\$97.50

B-312 "Concerto II"

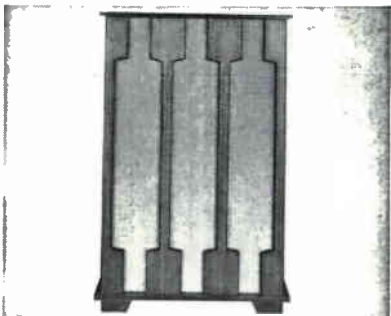
Includes a B-207A coaxial speaker; 45-16,000 cps; crossover 6 db/octave at 2500 cps; 8 ohms; 20 w. r.m.s. power. 24 1/2" x 17 1/4" x 12 1/2" d. Walnut\$147.50

B-313 "Concerto III"

3-way system includes one B-207A coaxial & a B-209B mid-range speaker; N-10102A crossover, 6 db/octave at 800 & 2500 cps. Response 45-16,000 cps; 8 ohms, 20 w. r.m.s. rating. Cabinet same as B-312 system\$197.50

Model 4000 "Symphony No. 1" Speaker System

Has two B-199A woofers, one B-800 full-range 8" speaker; eight B-200 tweeters;



and special crossover network; useful frequency 35-20,000 cps; crossovers at 400 and 1500 cps; 8 ohms; for use with amplifiers 30 watts or more; 44" h. x 28" w. x 16" d.; available in walnut or mahogany.\$495.00

BURSTEIN-APPLEBEE

34A61 12" Diffaxial 3-Way Speaker

Response 28-40,000 cps; high efficiency; Sphericon tweeter to 22,000 cps ± 2 db; 35



watt music-power rating; crossover 1000 cps (mechanical), 3000 cps (electrical); 6 1/8" d\$49.95

34B261 8" Speaker

2-way dual-cone design; University built with 2" voice coil; response 70-12,000 cps;



30 w. capacity; 8 ohms; 55 cps free-air resonance; mechanical crossover 1500 cps; 2 1/2" deep.....\$14.95

34B262 12" Speaker

2-way dual-cone design with 2" voice coil; response 35-14,000 cps; 30 w. capacity; 45 cps free-air resonance; 8 ohms; mechanical crossover 1500 cps; 3 3/8" d.....\$15.75

34B263 12" Speaker

3-way, similar to 34B262 but with Sphericon tweeter mtg. across front. Response



35-40,000 cps; 30 w. capacity; crossovers 1500 & 4500 cps; 8 ohms; 45 cps free-air resonance; 3 3/8" d.....\$24.95

40C198 Speaker System

4-way design; with 12" woofer, 6" mid-range, mid-high-freq. unit & 3 1/2" ultra h.f. tweeter; 30 w. capacity; response 20-25,000 cps. Has brilliance control & finished four sides; walnut; 24" x 17" x 11" d.\$49.95

40C197 Speaker System

Similar in design & size; 4-way system with 15 w. capacity; 8 ohms.....\$39.95

40C90 "Rhapsodie" Speaker System

3-way design with 12" woofer & 2 independent high-freq. speakers: 3 1/2" cone tweeter & a wide-dispersion Sphericon super tweeter; 3000 cps LC crossover; response 30-20,000 cps; 30 w. capacity; 8 ohms; has high-freq. level control; 25" x 15 1/2" x 12 1/8"; walnut.....\$74.95

40C89 "Master" Speaker System

Bookshelf 3-way design with 8" woofer & two independent cone-type direct-radiating h.f. speakers; response 40-17,000 cps; 20 w. capacity; 8 ohms; 2000 & 5000 cps crossover; has high-freq. level control; 11 1/2" x 21 3/4" x 8 3/8" d.; walnut....\$54.95

40C196 Speaker System

Bookshelf 3-way design with 8" Norelco speaker; 3 1/2" hard-back tweeter & a mid-range unit. Response 30-20,000 cps; 6-8 ohms impedance; 10 w. capacity; has h.f. level control; 16" x 11" x 11" d.; walnut\$29.95

40C91 "Maestro" Speaker System

3-way design with 12" woofer, 8" direct-radiator mid-range (500-5000 cps) & Sphericon super tweeter; response 25-40,000 cps; 40 w. capacity; 8 ohms; walnut; 24" x 17" x 11 1/4" d.....\$99.95

49A135 "Directoire" Speaker System

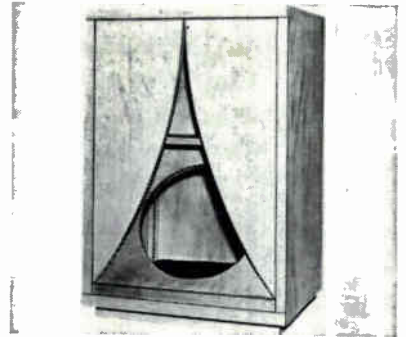
Ducted-port design with BA 12" 3-way Diffaxial made by University; response 28-



40,000 cps; 35 w. capacity; walnut finished 4 sides; 14" h. x 24" w. x 12" d.....\$ 82.00
Two for.....\$159.95

Karlson Enclosure Kits

Made exclusively for Burstein-Applebee. Fundamental loading extends down to



1/2 of speaker's free-air resonance. 40B223 for 8" speakers; 1/2" panels; 17 1/4" h. x 11 3/4" w. x 10" d. Kit.....\$19.95
40A221 for 12" speakers; 24 3/4" x 16 3/4" x 13 3/4" d.; 3/4" panels. Kit.....\$49.50
40A222 for 15" speakers; 33" x 22 1/2" x 18"; 3/4" panels. May be adapted for 10" or 12" speakers. Kit.....\$69.50

CHANNEL MASTER

Model 6633 Speaker System

Ducted-port enclosure; 8" speaker with 2" coax tweeter; electrical crossover 3000 cps;



10 watts; 8 ohms; 23 1/2"x10"x11" deep; available in walnut finished formica..\$52.50

Model 6636 "Slim Jim" Speaker System

Bookshelf speaker 5" deep; patented

7 Speakers & Cabinets

"acoustic transformer" dynamic air cou-



pling; response 50-15,000 cps; 8 1/2" x 15" x 5" d.; walnut finished formica.....\$29.95

CUSTOM CRAFT

All speakers have cavity-generating designed bass section with isolated tweeters & midrange speakers. Enclosures are acoustically sealed. 8 or 16 ohm outputs. Minimum of 15 w. recommended to drive speakers.

GH-100 Speaker System

2-way design with 8" woofer & 5" hard-cone midrange tweeter. Response 40-20,000 cps. 25 w. program material capacity. 18 1/4" x 18" x 11" d.
Oiled walnut or teak.....\$179.00
Unfinished birch.....\$176.95

GH-200 Speaker System

3-way design with 8" woofer, 5" hard-cone midrange, and 3" dome tweeter; response



35-25,000 cps; 25 w. program material capacity. 18 1/4" x 20" x 11".
Oiled walnut or teak.....\$209.00
Unfinished birch\$205.00

GH-200B Speaker System

3-way bookshelf design with 8" woofer, 5" hard-cone midrange, and 3" dome tweeter. Response 35-25,000 cps; 25 w. program material capacity. 24 1/2" x 12" x 11 1/2".
Oiled walnut or teak\$209.00
Unfinished birch\$205.00

GH-300 Speaker System

3-way design with 8" woofer, 5" hard-cone midrange, and 3" dome tweeter; response



30-25,000 cps; 25 w. program material ca-

capacity. 30 1/2" x 18" x 16".

Oiled walnut or teak.....\$229.00
Unfinished birch.....\$224.95

GH-400 Speaker System

3-way design with 12" woofer, 5" hard-cone midrange, and 3" dome tweeter; response 25-25,000 cps; 30 w. program material capacity. 30 1/2" x 21 1/2" x 16".
Oiled walnut or teak.....\$259.00
Unfinished birch.....\$254.95

"Golden Horn Triaudio"

3-way, 4-speaker cavity-generator system: two 5" hard-cone midrange, 1-3" dome



tweeter, and 1-12" woofer. Has variable midrange and tweeter controls. Response 20-25,000 cps; 30 w. program material capacity. 33" x 24" x 18".
Available in oiled walnut, oiled teak, and unfinished birchLess than \$400.00

DELCO

Model 6869 Speaker

12" woofer; response 30-4500 cps; 20 watts\$29.50

Model 6871 Crossover Network

Input and output impedances 8 ohms; crossover 6 db per octave attenuation, 2000 cps.\$14.50

Model 8007 Speaker

Extended-range 8" design covering 50-12,500 cps; 4-ohm voice coil, 10 watts.\$16.00

Model 6868 Two-Way System

Covers 30-20,000 cps; includes Model 6869 woofer, special horn tweeter of 2000-20,000 cps, special crossover network and treble control.....\$66.50

EICO

Model HFS-6 Speaker System

Three-speaker ducted-port bass reflex, slim cabinet design; has 10" woofer (30 cps free-air resonance); 8" mid-range & hemispherical dome type ultra-tweeter; has LC crossover @ 600 cps and bridging capacitor tweeter crossover @ 4000 cps; 8 ohm impedance, normal efficiency, & tweeter level control; supplied with cabinet built & finished; 40 w. music power rating; 13 1/2" x 23 1/4" x 5 3/4" kit.....\$59.95
Factory wired\$89.95

Model HFS-8 Speaker System

Two-speaker, ducted-port bass reflex, slim cabinet design; 8" woofer (60 cps free-air resonance) & 2" cone-type tweeter; has bridging capacitor tweeter crossover; 8 ohms; high-efficiency design; 25 watts music power rating; 13" x 22 1/2" x 6 1/2" d.; Factory wired\$44.95

Model HFS-10 Speaker System

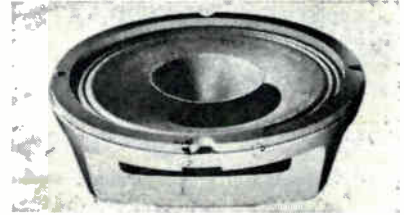
Two-speaker, bass reflex design; 6 1/2" woofer (75 cps free-air resonance) & 2" cone

tweeter; has bridging capacitor tweeter crossover; 8 ohms, high efficiency; 18 watts music power rating; 12" x 18" x 5 1/4" d.; factory wired\$29.95

ELECTRO-VOICE

Model MC8 8" Speaker

Dual-cone design; response 50-13,000 cps; 24 watts peak capacity; 75 cps resonance;



crossover—mechanical at 6000 cps; 8 ohms; 3 3/8" deep.....\$14.00

Wolverine LS8 8" Speaker

Dual-cone 8" wide-range speaker; response 45-14,000 cps; power rating 40 w. peak; resonance 75 cps; impedance 8 ohms; 3 1/2" deep\$20.00

Wolverine LT-8 8" Speaker



Has 3 separate radiating elements with an electrical crossover at 5000 cps and a mechanical crossover at 2000 cps. Resonant freq. 65 cps; response 45-18,000 cps; 8 ohms; 40 watt peak power. Woofer has 2" v.c. & dome horn tweeter 1" v.c. Sensitivity 45 db. Has a high-freq. level control..\$30.00

Model SP8B "Radax Super-Eight"

8" dual-cone; capacity 40 watts peak; response 35-13,000 cps; resonance 50-65 cps; 16 ohms impedance; sensitivity 47 db; 1 lb., 6 oz. ceramic magnet; crossover 4500 cps; required baffle opening 7"; depth 4 3/8".\$31.00

Model LS12 12" Speaker

Response 40-14,000 cps; EIA sensitivity rating 45 db; free-air resonance 65 cps;



power handling capacity 40 watts peak; impedance 8 ohms; mechanical crossover 6000 cps; 12 1/4" dia., 3 1/2" deep; 11" baffle opening.....\$21.00

Model LT12 12" Speaker

Three-way speaker; combines design features of Wolverine full-range speakers plus "deep-dish" cone and HIF1 tweeter; response 40-18,000 cps; power handling capacity 40 watts peak; free-air resonance 60 cps; EIA sensitivity 45 db; impedance 8 ohms; mechanical crossover 2000 cps; electrical crossover 3500 cps; built-in crossover and three-position tonal balance switch; 12 1/4" dia., 5 1/2" deep.

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You're on the threshold of a new realm of excitement in music and sound. Empire has created for you the world's most perfect high fidelity components. Combining unparalleled sound with refreshing furniture styling.

The New Empire Grenadier 8000P—truly the most significant advance in stereophonic reproduction. Its exclusive "Dynamic reflex stop system" allows you to adjust the bass and treble response to suit your individual room acoustics. Empire's revolutionary die-cast divergent acoustic lens assures fuller frequency and separation, plus broader sound propagation. Lets you sit anywhere—hear everything.

The Empire Royal Grenadier 9000—classically designed, elegantly styled. Let the magic of this wide angle speaker system invade your presence with its majestic sound and richness of tone. Truly, one of the world's greatest speaker systems.

High Fidelity reported—"...and what a speaker... voices sounded quite natural with no coloration evident; orchestral music was balanced and full; transients came through cleanly; the organ sounded authentic. Overall, the sonic presentation was excellent."

No less perfect than the Grenadiers are the **Incomparable Troubadors**—complete record playback systems.

The famous Empire 398—outstanding! Too perfectly engineered for even a whisper of distortion... too handsomely finished to hide behind cabinet doors. **The Empire 498**—no larger than a record changer—tailor made for console or equipment cabinets.

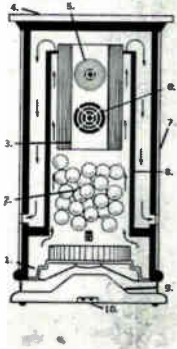
The Troubadors consist of the Empire 3 speed professional "silent" turntable... Empire 980 dynamically balanced arm with sensational dynalift... and the new Empire 888P "Living" cartridge featuring the exclusive magnetic cone stylus. No other cartridge can reproduce the entire musical range as precisely and with such clarity.

High Fidelity reported—"...the 888pe Living Cartridge offers the critical discophile one of the best sounding pickups available today."

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The New Empire Grenadier 8000P



- OUTSTANDING FEATURES**
1. 12 inch mass loaded woofer with floating suspension, four inch voice coil and world's largest (18 lbs.) speaker ceramic magnet structure.
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 3. Die-cast acoustic lens.
 4. Imported marble top.
 5. Ultra-Sonic domed tweeter
 6. Full presence mid range radiator.
 7. Damped enclosure.
 8. Dynamic Reflex Stop System.
 9. Front loaded horn.
 10. Complete symmetry of design with terminals concealed underneath.



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7 Speakers & Cabinets

.....\$36.00

Model SP12B "Radax Twelve"
12" dual-cone; capacity 60 watts peak; response 35-15,000 cps; resonance 40-50 cps; 16 ohms impedance; sensitivity 49 db; 1 lb., 6 oz. ceramic magnet; crossover 4500 cps; baffle opening 11"; depth 6 3/4".....\$37.00

Model SP12 "Radax Super-Twelve"
12" dual-cone; capacity 80 watts peak; response 35-13,000 cps; resonance 35-45 cps;



16 ohms impedance; sensitivity 53 db; crossover 4000 cps; baffle opening 11"; depth 7 1/2".....\$65.00

Model 12TRXB 3-Way Speaker
Combines SP12B, T35-type high-frequency driver, and integral 6 db/octave crossover with level control; response 35-20,000 cps; 60 watt peak; 16 ohms; resonance 40-50 cps; sensitivity 52 db; crossovers: 2000 cps mechanical and 3500 cps electrical; woofer magnet 1 lb., 6 oz. ceramic; tweeter 3.16 oz. Alnico V.....\$66.00

Model 12TRX
12" three-way combines SP12, T35 high-frequency driver, and integral X36 crossover with level control; 80 watts peak; response 30-20,000 cps; resonance 35-45 cps; 16 ohms impedance; sensitivity 53 db; mechanical crossover at 2000 cps; electrical crossover 3500 cps.....\$120.00

Model LS15 15" Speaker
Wide-range design 35-14,000 cps; 40 watts peak capacity; free-air resonance 50 cps;



crossover—mechanical at 4500 cps; 8 ohms impedance; 6 1/2" deep.....\$28.00

Model SP15B "Radax Fifteen"
15" dual-cone; capacity 60 watts peak; response 30-15,000 cps; resonance 30 cps; 16 ohms impedance; sensitivity 51 db; 1 1/2 lb. ceramic magnet; crossover 3500 cps; baffle opening 13 1/2"; depth 7 3/8".....\$47.00

Model 15TRXB
Combines an SP15B with 2000 cps mechanical crossover and integral T35-type high-frequency driver; 6 db/octave high-pass filter; level control built-in.....\$80.00

Model SP15 "Radax Super-Fifteen"
15" dual-cone; capacity 80 watts peak; re-



sponse 25-15,000 cps; resonance 25 cps; 16 ohms impedance; sensitivity 53 db; 4 3/8 lb. ceramic magnet; crossover 3500 cps; baffle opening 13 1/2"; depth 8 1/4".....\$84.00

Model 15TRX
15" three way; capacity 80 watts peak; frequency response 30-15,000 cps; resonance 25 cps; 16 ohms impedance; sensitivity 55 db; magnet 4 lb., 10 oz. ceramic; mechanical crossover 2000 cps; electrical crossover 3500 cps; AT37 level control and X36 crossover included; depth 8 1/4"; shipping weight 27 lbs.....\$130.00

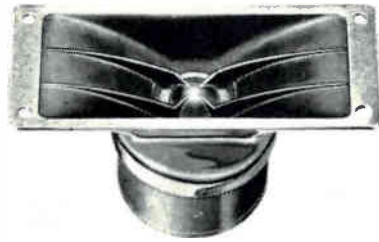
Model 30W Woofer
30" woofer; 9 lb., 4 oz. ceramic magnet; power capacity up to 200 watts peak; frequency response 15-300 cps; 16 ohms impedance; free-air resonance 15 cps; recommended crossover 100-300 cps.....\$250.00

TC35 Dynamic Cone-Tweeter



5" dia. 2 1/4" max. depth; EIA sensitivity rating 42 db; power handling capacity 40 watts peak; 8 ohms impedance.....\$23.50

Model T35
Compression type driver with horn; frequency response to 20 kc; 16 ohms im-



pedance; sensitivity 56 db; 6.8 oz. magnet; crossover 3500 cps; size 2" h. x 5 1/4" w. x 2 1/4" d.; driver diameter 2 1/4".....\$30.00

Model T350
Compression-type driver with horn; response to 23,000 cps; 16 ohms impedance;



sensitivity 60 db; 1 lb. magnet; crossover 3500 cps; 2 3/8" h. x 7 1/2" w. x 4 1/2" d.; driver diameter 3 1/2".....\$66.00

Model 8HD Diffraction Horn
Diffraction principle effects 120° disper-

sion; crossover 700-800 cps; cut-off 600

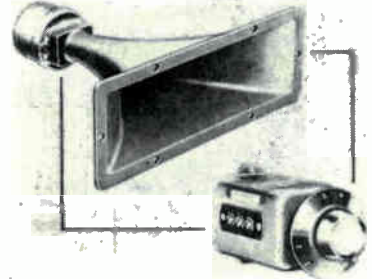


.....\$21.00

Model T25A
High-frequency driver; capacity 60 watts peak; response 700-10,000 cps; 16 ohms impedance; sensitivity 57 db; 1 lb. Alnico V magnet; 3 3/4" dia.; depth 4 1/8", throat dia. 1 3/8".....\$51.00

Model HF1 Wolverine High-Frequency Step-Up Kit
Extends range beyond audible limit; consists of TW35 tweeter and CR35 crossover-level control; response 3500-18,000 cps; requires opening 1 3/4" x 4 1/4".....\$26.50

Model MF1 Mid-Range Step-Up Kit
Provides increased output in presence range; consists of MR11 driver and CR10



crossover-level control; requires baffle opening 9 1/2" x 3".....\$28.50

Model BB1 & BB4 Building Block Kits
Additive kits to expand mid- and high-frequencies of existing system; each package is complete with matched crossover unit, AT37 level control, wiring harness, and full instructions.
BB1 Tweeter (T35, X36).....\$44.00
BB4 Mid-Range (T25A, 8HD, X8).....\$108.00

Model X8 Crossover
Single crossover, 800 cps; 16 ohms impedance in and out.....\$39.00

Model X36 Crossover
For use with v.h.f. drivers; crossover 3500 cps; impedance 16 ohms in and out.....\$12.00

Model X1020 Crossover
For use with 30 w. woofers; crossover of 100 or 200 cps allowing speakers to be used as "super woofers" with any existing system; 16 ohms impedance in and out.....\$61.50

Model X1835 Crossover
Full half-section throughout; crossover points 100, 800, 3500 cps; impedances 16 ohms in and out; 17" h. x 9 1/2" w. x 3 3/4" d.....\$61.50

Model XT1 Stereo Mixer Transformer
Combines 2-channel (stereo) program material into monophonic output; can be used to combine bass frequencies of two channels into a single full-range system; it is a 1:1 phase transformer connected between amplifier & speaker; for use with 4, 8, or 16 ohm systems. (Can not be used with transistor equipment.).....\$16.50

NEWEST CONCEPT IN SPEAKER DESIGN



MAXIMUS

With CAPS® (Cushioned Air Pneumatic Suspension)

PACKS MORE SOUND IN SMALLER SPACE THAN ANY OTHER SPEAKER SYSTEM!

ULTRA COMPACT



The MAXIMUS 1

sounds so "alive" you won't believe your ears...
—yet it's so small you can hide it on a shelf
and hardly know
it's there.

Actual size:
10½" x 5½" x 7¼"

First of a new generation of Speaker Systems designed for modern living. Delivers depth and brilliance never before possible in a speaker system this size. Designed for the new high powered Solid-State Receivers and Amplifiers as well as present tube components.

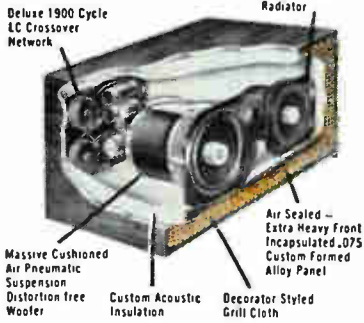
Only 10½" x 5½" x 7¼" . . . fits everywhere . . . book shelf . . . end table . . . wall! True bass from the specially designed MAXIMUS woofer, Exceptionally large 3½ lb. magnet structure provides high acoustic efficiency and power capability. Unique L-C crossover network transfers power at 1900 CPS to a newly developed back-loaded mid-range/high frequency unit. Ideal for wide range mono . . . two for stereo. 45-20,000 CPS. Designed for 8 to 16 ohms.

Net Price \$59.50

the MAXIMUS 2 — This middle-size brother to the compact MAXIMUS 1 handles twice the power, extends the bass range down to 35 CPS. It measures only 14½" x 11" x 8". 35-20,000 CPS. 8 to 16 ohms.

Net Price \$109.00

the MAXIMUS 3—Biggest brother . . . but still only 18" x 12¾" x 10" . . . the MAXIMUS III employs 4 MAXIMUS I woofers to give extraordinary precise critical damping for perfect transient response. Has 4 woofers and 2 mid-range and high frequency units. 30-20,000 CPS. 8 to 16 ohms impedance. Net Price \$169.00



ULTRA LOW DISTORTION SPACE-SAVERS

The MAXIMUS 7 Bookshelf 3-way Speaker System

Less than ¼% distortion from 50 CPS to 35,000 CPS
Less than 3% distortion at 30 CPS

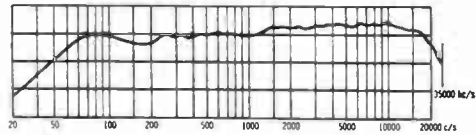
The new UTC cushioned air pneumatic suspension design used in the MAXIMUS 7 speaker system brings the hitherto unattainable ideal right to your unbelieving ears. Extended bass response with swings of 3 to 75 watts at a distortion level that is less than three-quarters of one per cent. This has never been attained up to now, even in speaker systems five times the price of the MAXIMUS 7, and all within a cabinet that is one-third to one-fifth the size of comparable fine speaker systems. The array of laboratory checked components comprising this system includes a heavy 12" pneumatic suspension woofer with a 9½ lb. ceramic magnet structure; two shielded back-loaded bi-polar



Custom Acoustic Insulation

Mid-Treble Unit With Bi-Polar Lens

Dome Lens Multicellular Horn Tweeter



mid-treble wide dispersion lens radiators and a dome lens compression type multicellular ultra high treble horn. To complete this deluxe system, 3-way LC crossovers are provided at 1800 and 8000 cycles coupled to continuously variable mid and treble cycles KONToured ACOUSTIC controls to satisfy individual listening requirements. Uniform response from 25 to 35,000 cycles. Total distortion less than ¼% from 50 to 35,000 cycles. Distortion at 30 cycles less than 3%. Impedance: 8 to 16 ohms. Size: 24" x 14" x 12". Finished on all 6 sides, oiled walnut cabinet with airtight sealed enclosure and custom designed removable decorator style grill. Net Price \$189.00



ALL NEW Snap-off and Removable Grill Frame with fully finished Walnut Speaker Panel.

The latest in creative design has been put into the Bookshelf MAXIMUS 4, 5, 6 and 7. A new snap-off removable grill so as to allow you to select the grill panel to blend with your room decor. All Speakers are Oiled Walnut finished on 6 sides. Impedance: 8 to 16 ohms.

MAXIMUS 4

MAXIMUS 5

MAXIMUS 6



the MAXIMUS 4 — 3-Way Speaker System features the newest 8" version in the family of CAPS woofers. The total inter-modulation distortion from 100 to 20,000 cycles is less than ½%. The distortion at 40 cycles is less than 3%. The pneumatic suspension woofer has an ultra efficient 3½ lb. double duty ring magnet structure with a total flux of 17,000 gauss. At 1800 and 5000 cycles the audio drive is transferred to 2 shielded back-loaded mid-range lens speakers. Incorporate a continuously variable KONToured ACOUSTIC control. Frequency response: 35 to 20,000 cycles. 40 watts IHFM. Size: 21¾" x 11¾" x 11¾". Net Price \$97.50

the MAXIMUS 5 — 3-Way Speaker System — Exceeds all extant laboratory standards for a low distortion popular priced space-saving speaker system. It has high power capability, superb transient control, and exceptionally clean bass response in the critical region of 30 to 50 cycles. It will handle 50 watts IHFM of audio music, and requires only 3 watts of input drive to fill a large listening area with exciting sound. Features a CAPS woofer with a 5 lb. double duty ceramic magnet structure. The electrical crossover point is at 1800 and 5000 cycles through an LC continuously variable KONToured ACOUSTIC control to 2 shielded back-loaded mid-treble lens speakers. Response virtually flat from 30 to 20,000 cycles. Size: 24" x 14" x 12". Net Price \$129.00

the MAXIMUS 6 — 3-Way Speaker System — Boasts tremendous, vital, uncanny bass, precise transient control, and virtually flat response from 25 to 22,000 cycles. The CAPS woofer will handle 75 watts of IHFM music power and responds to high power excursions at less than ¼% distortion. Requires only 3 watts of audio driving power to fill a large listening area with superb sound. The MAXIMUS 6 utilizes a pneumatic suspension woofer having a 9½ lb. double duty ceramic magnet structure, two shielded back-loaded wide dispersion bipolar mid-treble lens speakers, and 3-way LC crossovers at 1800 and 8000 cycles with continuously variable mid-treble KONToured ACOUSTIC controls for individual acoustic listening requirements. Size: 24" x 14" x 12". Net Price \$169.50

For complete literature and name of dealer nearest you write Dept. SD

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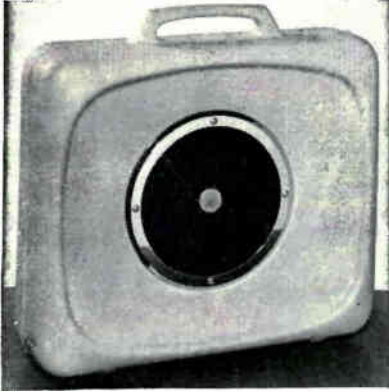


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809 Stewart Ave., Garden City, New York

7 Speakers & Cabinets

"Sonocaster" Speaker

Portable design for outdoor applications. All parts are weatherproof. Has dual-cone



8" speaker. Response 70-15,000 cps; 30 watts peak power; 8 ohms; sensitivity 46 db. 16 3/4" h. x 17" d.; Beige.....\$36.00

"Sonocaster I" Speaker System

Identical in design & appearance to "Sonocaster" except has lighter magnet structure. Response to 13,000 cps. Grey color....\$25.00

"Musicaster" Outdoor Speaker

Weatherproof speaker for outdoor use; frequency response 60 to 13,000 cps; impedance 8 ohms; dispersion 120°; uses back loaded folded horn design; diecast aluminum horn; 21 1/2" h. x 21 1/2" w. x 8 1/2" d.; shipping weight 34 lbs.....\$60.00

"Musicaster II"

Same features as "Musicaster" except has v.h.f. driver to extend range to 18,000 cps.\$81.00

"E-V Seven" Speaker System

2-way acoustic-suspension system with high-compliance 8" bass driver, 3 1/2" cone tweeter (2000 cps crossover). Response 50-15,000 cps; 50 w. peak; 8 ohms. Has variable h.f. level control. 10" h. x 19" x 9" d. Oiled-walnut four sides.....\$65.00

"E-V Five" Speaker System

Combines 10" high-compliance woofer & 3 1/2" cone-type tweeter with electrical crossover. Response 30-17,000 cps; 60 w. peak; 8 ohms. Has variable h.f. level control. Bookshelf design. 14" x 25" x 12" d. Oiled-walnut four sides.....\$108.00

The "E-V Four"

Three-way system with 12" woofer, compression driver & diffraction horn for mid-range and 5" cone tweeter; 3-way crossover (800 & 3500 cps) & two step-type level controls; response 30-20,000 cps; 8 ohms; 60 watts peak power capacity; 14" h. x 25" w. x 13 1/2" d.; complete in oiled walnut or mahogany.....\$138.00 Unfinished birch.....\$124.00

KD9A "Marquis" Speaker Enclosure Kit

Kit version of "Marquis" along-the-wall enclosure. Performance & appearance similar to KD6 "Aristocrat." Accepts all 12" speakers plus Model BB1 & BB4 Building Block Kits. 29 1/2" x 19" x 15 1/8" d. Kit\$63.00

KD Enclosure Kits

Kits of pre-cut clear-grain unfinished birch

for building standard EV enclosures; complete with glue, screws, and detailed instruction book. KD6 "Aristocrat" corner cabinet; takes 12" full range speakers or 2- and 3-way systems with 12" woofers.....\$51.00 KD9 "Marquis"; takes all 12" speakers plus EV Models BB1 and BB4 building-block kits.....\$54.75

Enclosure Construction Plans

"Aristocrat"\$2.00
"Marquis"\$2.00
"Patrician"\$2.00

The "E-V Six"

High-efficiency 4-way system with special 18" foam-cone woofer; an 8" driver to



cover 250-800 cps; a combination driver & diffraction horn to cover 800-3500 cps; and a compression v.h.f. driver and diffraction horn; response 30-20,000 cps; 70 watts peak; 8 ohms; has 4-way crossover; 30" h. x 32" w. x 17 1/2" d.; walnut, mahogany or fruitwood in traditional styling\$333.00

"Georgian 400" Speaker System

Completely compression-operated four-way system; use 18W 18" low-frequency



driver which crosses over at 250 cps to 8" speaker which reproduces mid-bass range; 800 cps crossover feeds frequencies from 800-3500 cps into T25A driver with 8HD diffraction horn; above 3500 cps the T350 "Super Sonax" v.h.f. driver takes over to provide extended high frequencies out to and beyond the range of audibility; system includes crossover network using full half-sections throughout and three AT37 L-pad attenuators for adjustment of presence and brilliance to balance room acoustics; impedance 16 ohms; power handling capacity 35 watts program, 70 watts peak; available in walnut, mahogany; 42" h. x 28" w. x 21" d.....\$555.00

"Patrician 800" Speaker System

Uses Model 30W woofer to achieve high efficiency in the 20 cps region, responds down to 15 cps and lower; mid-bass is achieved by use of 100-cps first crossover frequency with 12 db/octave attenuation on either side; 12" mid-bass speaker in padded, separate enclosure provides uniform response from 100-800 cps; T250 treble driver using 8HD diffraction horn, covers frequency above 800 cps; T350 tweeter extends response to an upper limit of 23,000 cps; although de-

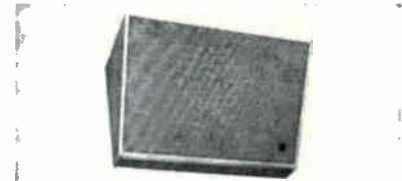
signed for corner operation, can be used in almost any room location; bass enclosure consists of an air-tight 15 cu. ft. chamber behind woofer; 10 1/2" straight-axis horn



with 300 sq. in. throat area and mouth area of 464 sq. in.; occupies 5.3 sq. ft. of floor space; 51" h. x 33" w. x 27 3/4" d.; shipping weight 315 lbs.; available in walnut, mahogany, cherry in traditional (photo) or contemporary style.....\$995.00

"Sentry I" Speaker System

Designed specifically for monitor use in recording & broadcast studios; wall or ceiling



mounting with 12" speaker, diffraction horn high-frequency driver; response 30-20,000 cps; has matching transformer; 16, 150 & 600 ohm impedance; hardwood cabinet, unfinished; 21 3/4" x 37" x 17" d.\$248.33

"Sentry II" Speaker System

Same design as "Sentry I" except cabinet is rectangular for floor, table, or shelf mounting; finished all four sides; 32" x 20" x 13"\$265.00

"Marquis" Enclosure

Designed to produce optimum results with separate 12" driver, full-range coaxial, and



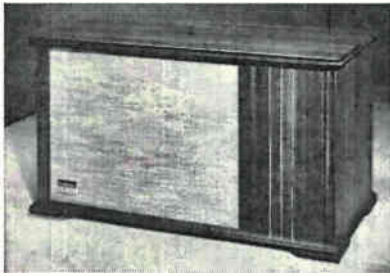
extended range three-way speaker system; enclosure only; 29 1/2" h. x 19" w. x 15 1/8" d.; mahogany or oiled-walnut.....\$81.00

"Stereon 850" Speaker System

Three-way speaker system designed to complement "Patrician 800" or "Georgian 400" to expand to stereo; uses mid-bass, treble, and very-high-frequency components of the "Patrician 800" (SP12, T250 with 8HD and T350) with crossover and level controls; response 100-23,000 cps; 17" w. x 16 7/8" x 30" h.; mahogany, walnut, fruitwood in traditional or contemporary styling.....\$420.00

The "Coronet" Speaker System Kit

Pre-finished kit assembled without tools; available with any 8" full-range speaker; has provision for adding tweeter, crossover



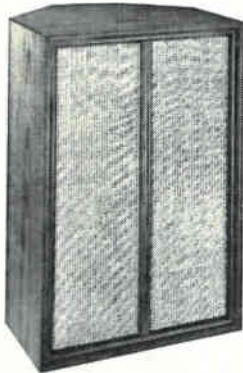
& level control; available in walnut finish; 12½" x 22¼" x 10⅞" d.
 Coronet I with Michigan MC8 speaker\$42.75
 Coronet II with Wolverine LS8 speaker\$48.00
 Coronet III with SP8B speaker.....\$57.00
 Coronet IV with LT8 three-way speaker\$57.00

"E-V Two" KD Speaker System Kit

Pre-finished oiled walnut cabinet with 2-way speaker system. Has 12" woofer & compression-type high-frequency driver & step level control. Response 30-15,000 cps; crossover 800 cps; 60 w. peak; 8 ohms. 14" x 25" x 13½" d. Could be converted to "E-V Four" with TC35 v.h.f. driver. Kit\$91.50

KD6A "Aristocrat" Cabinet

Folded-horn corner design. For use with all 12" drivers such as SP12 or SP12B coaxial



speakers. 12TRX or 12TRXB 3-way reproducers & Model BB1 & BB4 Building Block Kits. 29½" x 19" x 15⅞" d....\$60.00

EMI

Model 319 Speaker System

Bookshelf design, completely enclosed and heavily damped, 2-way system; low freq. speaker 13½" x 8⅞" elliptical with aluminum center cone and high-compliance suspension; tweeter 3⅜" cone design; response 50-15,000 cps; 8 ohms; 23" x 11½" x 10¼" d.; in oiled walnut.....\$99.75

Model 630 Speaker System

Similar in appearance and design to Model 319; has 10¼" x 6⅞" low-frequency speaker; response 60-15,000 cps; 20½" x 11" x 9⅞" deep; in oiled walnut....\$69.75

Model DLS 529 Speaker System

Bookshelf type; walnut veneer with metal grille; 24"x13"x12¼" d; combines one woofer (13½"x8⅞" elliptical driver with aluminum cone, plastic suspension) and two 3½" tweeters; crossover operates from 4500 cps upward; response 40-15,000 cps; high-efficiency-type system; made by EMI of England.....\$159.00

Model 711A 3-Way System

Four separate speakers are used, a 13½" x

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\$5.90 to \$14.90
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These high fidelity speaker systems, individually cost 27% to 43% less than systems of comparable performance . . . and even less when bought in pairs.

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\$5.90



TX-1 two-way bookshelf-sized system

- Special 45 cycle, 8" woofer; 3½" tweeter; crossover network.
- Overall 45-17,000 cycle response.
- Walnut wood-grain vinyl finish 24" x 11" x 9" deep enclosure.
- Miniature legs provided.
- Audiofile net each—\$29.95; pair \$54.00.

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\$6.00



TX-5 two-way modern module speaker system

- A contemporary "fits-anywhere" 12⅞" x 13⅜" x 10" deep walnut cabinet.
- 8" woofer; 3½" tweeter; crossover network.
- Response 50-17,000 cycles.
- Attractive cane grille.
- Audiofile net each—\$32.50; pair \$59.00.

Save
\$9.95



TX-12 three-way console speaker system

- 12" woofer; 8" solid back midrange; 3½" tweeter; crossover network.
- Response 40-17,000 cycles.
- Handsome 24" x 19" x 5⅞" walnut cabinet.
- Graceful brass legs.
- Audiofile net each—\$54.95; pair \$99.95.

Save
\$14.90



TX-4 three-way deluxe speaker system

- Covers the full tonal range from 35-17,000 cycles.
- Has 12" woofer; 8" solid back midrange; 3½" direct radiator type tweeter.
- Beautifully sculptured 25" x 14¼" x 9" deep hand-rubbed, oiled walnut enclosure.
- Distinctive cane grille.
- Audiofile net each—\$79.95; pair \$145.00.

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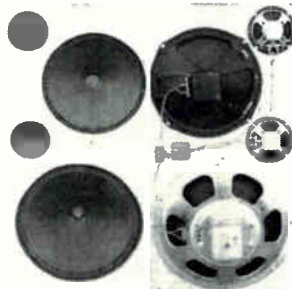
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MODEL "BIG SOUND" S20-66
30 WATTS
29 TO 20,000 CPS
\$19⁹⁵

- ★ 4-MATCHED SPEAKERS
- ★ 15 INCH OXFORD WOOFER with 20 Oz. ALNICO V MAGNET and
- ★ 1½" VOICE COIL
- ★ 12 INCH HARD CONE MID-RANGE
- ★ 4 INCH and 5 INCH TWEETERS

New 1966 Model "Big Sound" High Fidelity Speaker System that will out do systems selling for \$100.00. All American made speakers working together to reproduce good music. The two tweeters for the very high notes, the 12" mid-range has a 6.8 Oz. Alnico V magnet and a special hard-cone for frequencies down to 1,500 cps. The 15" Oxford Woofer has a 20 Oz. Alnico V magnet and a 1½" voice coil, for the base notes down to 29 cps and lower. The system is ready wired and will work in any baffle you want to build. Matched 8 ohm impedance. Great wattage amplifiers are not required. This system sounds good with 10 watt hi-fi amplifiers. "Big Sound" Model S20-66, Ship. Wt. 20 lbs. Not AVAILABLE. Shipped Express only. Sale Price \$19.95. Why not order 2 for \$39.90 for Stereo?

1966

176 PAGE
CATALOG

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CIRCLE NO. 43 ON READER SERVICE CARD

7 Speakers & Cabinets

8 1/8" elliptical woofer with 1 1/2" v.c. and



aluminum cone, a 10 1/4" x 6 5/8" mid-range, and a pair of 3 3/8" high-freq. speakers; has an LC crossover network (1200 & 6000 cps) and a 4 push-button level control; adjustable pedestal base is included for either horizontal or vertical operation; 28 5/8" x 14 1/4" x 15" d.; 8 ohms.....\$249.00

Model 812 Speaker System

2-way design with a 6 1/2" & a 3 3/8" cone-type speakers. Crossover 4500 cps; response 80-15,000 cps; 8 ohms; 14 1/2" x 10 1/2" x 8" d.; walnut cab.....\$49.95

Model 1 Baffle Speaker System

For custom installations—3/4" baffle board supplied with all components (identical to



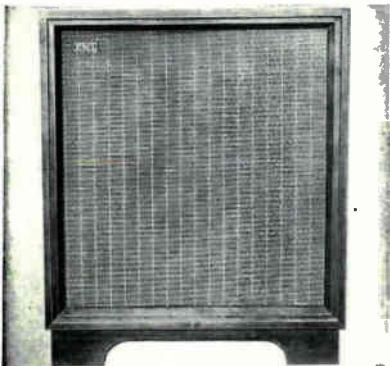
those in Model DLS-529; mounted and wired. Recommended for use with 1 3/4 cu. ft. air-tight enclosure; 11 3/8" x 22 3/8"; 4 ohm impedance.....\$115.00

Stereoscope Model DLS-1

Monitor loudspeakers with built-in amplifiers; EMI 25-watt amplifier (0.1% distortion) is installed in the base of each column enclosure; requires use of 4 adjustable frequency correcting networks to attain uniform frequency response 30-15,000 cps (adjusted at factory); woofer cone resonance 25 cps; 2 tweeters; by arranging the 3 speakers vertically one above the other, the horizontal polar characteristic is maintained uniformly over a wide range of frequencies; column is mounted on 4 casters so it can be moved easily; 50" x 13 1/4" x 17"; wt 110 lbs.....\$594.00

Model 901 Speaker System

Infinite cabinet design with removable



bottom panel for bass reflex operation. Has one elliptical 19" x 14" woofer, 20 cps resonance, and four specially damped 3 3/8" cone-type tweeters. Response 28-20,000 cps; 8 ohms. Includes both mid-range & high-frequency controls. LC crossover at 1800 cps; 34" h. x 28" x 19 1/4". Walnut finish\$395.00
Speakers & crossover only\$285.00

EMPIRE

Model 8000 "Grenadier" Speaker System

Features 12" high-compliance woofer with 4" v.c.; direct-radiator midrange & domed tweeter. Response 30-20,000 cps; 8 ohm impedance; power capacity 100 w. music power. 29" h. x 15 1/4" dia. Walnut\$185.00



Model 9000 "Royal Grenadier"

Similar in design to Model 8000 except has a 15" woofer; response 20-20,000 cps; 29" h. x 22" dia. walnut.\$275.00

Model 9000M with marble top\$285.00

Model 8000P "Grenadier" System

Similar to Model 8000 except response 25-20,000 cps; 29" h. x 16" dia.; wt. 85 lbs. instead of 65 lbs. Walnut with marble top\$235.00

Model 8000PW with walnut top\$225.00

Model 8200 "Grenadier"

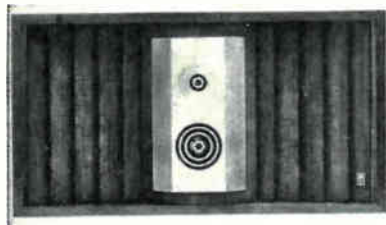
Bookshelf design with same speaker system & performance as Model 8000. 24 3/4"



w. x 14" h. x 12 1/8". Walnut\$185.00

Model 8400 "Grenadier"

Similar to Model 8200; response 25-20,000 cps. Has 3-position treble level control. De-



signed for horizontal use. 25" w. x 13 3/4" x 12 3/4" d.\$205.00

8000/12W Low-Frequency Driver

12" mass loaded woofer with floating suspension; 4" v.c.; 8 ohms; 60 w. capacity; free air resonance 25 cps; 4" deep\$69.95

8000/15 Low-Frequency Driver

15" mass loaded woofer with floating sus-

pension; 4" v.c.; 8 ohms; 75 w. capacity; free air resonance 20 cps; 6" deep. For enclosures ranging from 3 to 8 cubic feet in size\$84.95

9000/MHX Speaker

Mid-freq./high freq. wide-angle driver has mid-range direct radiator & ultrasonic

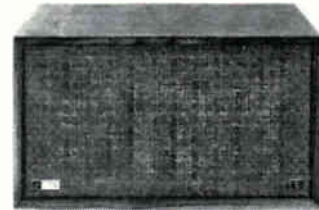


domed tweeter with acoustic lens & built-in crossover (450 & 5000 cps) networks. Response 450 to 20,000 cps; 60 watt capacity. 140° lens dispersion. 10 3/8" h. x 6 1/4" w. x 3 1/4" d.\$89.95

FISHER

XP-6 Speaker System

3-way design; 10" woofer (20 cps free-air



resonance), 5" mid-range, and 1 1/2" soft-dome type tweeter. LC crossovers at 300 & 2500 cps; 8 ohms; response 35 cps to beyond audibility; mid-range speaker sealed off from other speakers. 23" x 13" x 10 1/2" d.; Scandinavian walnut.....\$99.50

XP-7 Speaker System

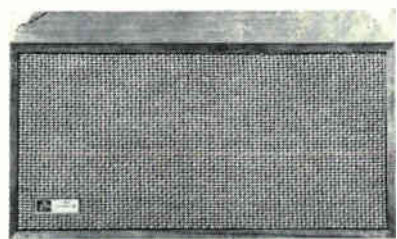
3-way design; 12" high-compliance woofer (20 cps free-air resonance), two 5" cone mid-range & 1 1/2" soft-dome tweeter. LC crossovers at 300 & 2500 cps; 8 ohms; response 30 cps to beyond audibility. Cabinet similar to XP-6. 24 1/2" x 14" x 12" d.\$139.50

XP-9 Speaker System

3-way design; 12" woofer (18 cps free-air resonance), three 5" cone mid-range & 1 1/2" soft-dome tweeter. LC crossovers at 300 & 2500 cps; 8 ohms; response 28 cps to beyond audibility. Cabinet same as XP-7\$199.50

XP-5 Speaker System

Two-way system with 8" woofer (25 cps free-air resonance) & a 2 1/2" wide-disper-



sion cone tweeter. Response 38-18,500 cps; 8 ohms; 2000 cps crossover; 10" x 20" x 9" d.
Oiled walnut\$54.50
Unfinished birch\$49.50

Model XP-10 Console Speaker System

Features 3 speakers: 15" woofer, 8" mid-range, 2" dome-type tweeter; has 3-way



L/C crossover (200 & 2500 cps); response 28 cps to beyond audibility; walnut finish; 30 1/4" x 24 3/8" x 14 3/8" d.\$249.50

Model KS-1A "StrataKit" Speaker System

Three speakers, 10" woofer with 4 1/2 lb. magnet structure, 5" mid-range, 3" super-tweeter; three-way crossover; response 40-18,000 cps; "Slim-Line" design; 18" x 24" x 5 3/4" deep; kit.
 Unfinished birch\$59.50
 Unfinished walnut\$64.50
 Assembled finished birch\$84.50
 Assembled finished walnut\$89.50

FRAZIER

"Del Mar" Speaker System

Response 40-15,000 cps with 8-ohm output impedance: 23 3/8" w. x 23 3/4" h. (includ-



ing legs) x 11 3/8" d.; walnut finish

.....\$79.50
 Model F-8-3X Utility full-range version (black box) modified Helmholtz type 15 w. power capacity; 19" w. x 23 3/8" h. x 11 3/8" d.\$63.00

Model F-8-3Y Wide-range utility version (black box): response 40-17,000 cps, with "Del-Mar II" components added....\$ 87.00

"Super Midget" Speaker System

Response 52-12,000 cps, 10 w. power capacity with 8-ohm output impedance; 15 3/8" x 7 3/16" x 9 1/2" d.; walnut finish\$29.95
 Unfinished birch.....\$26.95

"Monte Carlo" Speaker System

Response 50-15,000 cps, 12 w. continuous power capacity and 8-ohm output impedance; has four concealed plastic feet; shipped two to the carton: 15 3/8" x 10 3/4" x 11 3/8" d.; walnut finish.....\$49.75 ea.
 Unfinished walnut.....\$42.50 ea.

"La Fiesta" Speaker System

Response 50-15,000 cps with 8-ohm output; Helmholtz-type resonator; 23 3/8" x 10 1/2" x 11 3/8" d.; packed in matched pairs for stereo; walnut finish 4 sides\$74.50 ea.
 Unfinished walnut.....\$65.00 ea.

F-3T Ceiling Speaker

For flush-mounting 360° radiation; has 8" woofer & 3 1/2" tweeter; 50-12,000 cps; 15 watts capacity; 8 ohms; 13 1/2" sq., 3 3/8" into ceiling & 2 1/2" below; 9" dia. cut-out

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7 Speakers & Cabinets

required\$40.00

"Corsair" Speaker Systems

Has 10" woofer & cone-type tweeter; woofer has 30 cps free-air resonance; crossover at 2000 cps (12-db attenuation each side); high-frequency attenuator; requires 1/2 w. to drive & will handle 20 w.; 8-ohm impedance; 11 3/8" w. x 23 3/4" h. x 11 3/8"; oiled walnut with cane fabric type grille. "Corsair I" 30-15,000 cps.....\$119.95 "Corsair II" 30-17,000 cps.....\$129.95

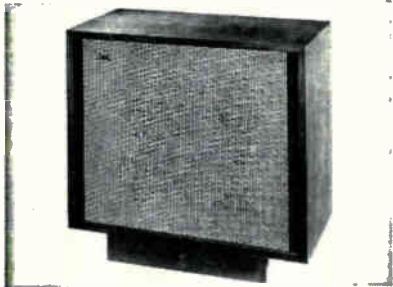
"Mark V" Speaker System

Has a special 12" woofer, two mid-range cone speakers, and a high-frequency horn along with separate attenuators for mid-range and treble response; input 1/2 w. required for normal listening; power capacity 20 w.; 16 ohms; response 30-17,000 cps; crossover at 200 and 3300 cps; 14" w. x 26 1/2" h. x 12".

Oiled walnut with cane fiber type grille\$174.95
Black utility design for custom installations\$144.95

"Manhattan" Speaker System

Modified Helmholtz design with two slit-type tuning tubes, one on each side. Has full-range 8" speaker; 3 1/2" high-frequency cone speaker & a high-pass filter. Usable



response 40 to above 15,000 cps; .4 w. for normal listening level; 8 ohm; 23 3/8" w. x 19" h. x 11 7/8". Oiled walnut with cane fiber-type grille\$94.50
Base extra\$ 5.00

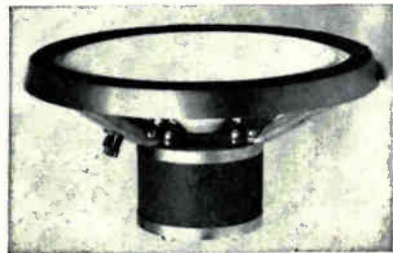
HARTLEY

Model 218MS 18" Woofer

Response 15-3000 cps. Has heavy cast aluminum frame, 14 lb. Alcomax III magnet, tri-polymer cone with magnetic suspension\$195.00

Model 220 MS 10" Speaker

Full-range speaker; dual voice coil & cone; heavy cast-aluminum basket; 6.1 lb. Alcomax II magnet; 16,000 lines/sq. in. flux



density; tri-polymer cone with magnetic suspension; 8-ohm voice coil; response at low end to 16 cps\$135.00

Model 312 12" Speaker

Cast aluminum frame; polymerized cone;

double-U cloth suspension; 6.1 lb. magnet; full-range 25-20,000 cps; 8 ohms\$99.95

Model 310 Speaker

Chemically treated polymerized paper-cone version of Model 220MS speaker less "Magnetic Suspension".....\$85.00

Capri Shelf Model Enclosure

Totally enclosed cabinet containing 35' absorbent material; 24" x 13" x 12"; in oiled natural walnut with bamboo grille, finished on all sides. With Model 310 speaker.....\$130.00 With Model 220MS speaker.....\$180.00

Concertmaster Speaker Systems

Mark III oiled-walnut modern design with Model 218MS & 220MS speakers. Acoustically treated with Soundsorbers; 38" h. x 29" w. x 16"; crossover @ 350 cps.\$495.00

Mark IV Same as Mark III except traditional design.....\$525.00

Holton "A" Speaker System

For use with 220MS speaker; heavily braced, damped cabinet in natural woods;



24"x13"x34" over-all dimensions including legs.
Cabinet with 220MS speaker.....\$245.00
Cabinet with 310 speaker.....\$195.00
Cabinet with 312 speaker.....\$215.00
Cabinet with two 220MS speakers, crossover, and Soundsorbers.....\$395.00

Holton "B" Speaker System

Same as Holton "A" except modern styled cabinet.

Holton, Jr. Speaker System

Uses Model 220MS speaker; oiled, rubbed walnut finish with cane front grille; also available with new 310 speaker which is chemically-treated version of Model 220MS; frequency response 25-25,000 cps.; power capacity 25 watts; Model 310 speaker has dome-shaped center high frequency radiator; 10" diameter; 30"x15" x12" over-all dimensions.

With Model 220MS speaker.....\$195.00
With Model 310 speaker.....\$135.00
With Model 312 speaker.....\$155.00

HEATH

Model AS-2AU Speaker System

Acoustic-suspension design in infinite baffle; uses 4 speakers—10" woofer, 2-5" cross-fire mid-range & super tweeter; has built-in crossover network; response 40-20,000 cps; 8 ohms; recommended min. power 20 w.; LC crossover 2000 & 7500 cps; dispersion 90°; has individual level controls for tweeter & mid-range; cabinet factory pre-assembled; 13 1/2" x 24" x 11 3/4" d.; kit unfinished hardwood\$89.95
Finished walnut\$96.50

AS-2U Acoustic Suspension System

Frequency response 40-15,000 cps crossover frequency 2000 cps; recommended amplifier power 20-40 watts; 2-5" cone

tweeters mounted in array; 10" acoustic suspension woofer has 1.1 lb. Alnico V magnet; resonant frequency when mounted 58 cps; horizontal dispersion 90 degrees; shpg. wt. 44 lbs.; cabinet factory pre-assembled; unfinished kit\$69.95

Model AS-41 Speaker System

11" x 8" x 6 1/2" d.; in finished or unfinished cabinets; features 6" x 9" extended-range dual-cone speaker, 6.8 oz. magnet; response 60-16,000 cps; handles 12 watts peak; impedance 8 ohms; for use as extension speaker or for converting mono system to stereo; 8 lbs.; cabinet factory pre-assembled; kit.

Model AS-41U (unfinished).....\$10.95
Model AS-41W (walnut).....\$12.95

Model AS-51 Speaker System

Ducted-port bass reflex bookshelf style enclosure; frequency response: 50 to 12,000 cps; power rating: 25 watts of program material; impedance: 16 ohms; 8" Jensen low-frequency speaker with 6.8 oz. Alnico V magnet, Jensen high-frequency horn-loaded compression driver with 4.7 oz. Alnico V magnet; built-in high pass filter and L-pad; 1/2" plywood; factory pre-assembled cabinet 11 1/2" x 23" x 11 3/4" d.

Unfinished kit.....\$39.95
Model AS-51W (walnut kit).....\$46.95

AS-10 Acoustic Suspension System

Utilizes acoustic suspension principle; 10" acoustic suspension bass speaker and two 3 1/2" cone-type high-frequency speakers, housed in infinite baffle enclosure, covering 30-15,000 cps; "dispersal-array" of tweeter permits either upright or horizontal operation; high-frequency control allows adjustment of highs; cabinets are factory-assembled and finished on four sides; kit assembly involves wiring simple crossover network and installing speakers; unfinished kit.....\$59.95
Model AS-10W (walnut).....\$64.95

AS-21 "Legato-Compact" System

New speaker system retains performance characteristics of the earlier model while



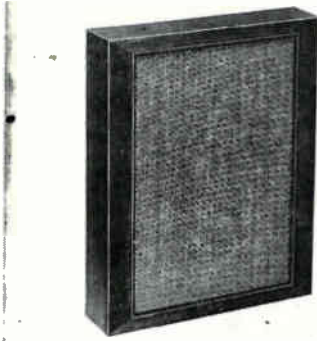
adding contemporary styling and compact size; two 12" Altec Lansing low-frequency speakers cover 30-800 cps; Altec Lansing exponential horn and high-frequency driver cover 800-22,000 cps; high-efficiency speakers permit use of 3-watt amplifiers to drive system; handles up to 30 watts program material; factory-assembled cabinets in pre-finished walnut; cabinet of 3/4" furniture-grade plywood; crossover network factory wired; 32" x 19" x 32 3/8"; 142 lbs.

Model AS-21W (walnut kit).....\$239.95
Model AS-31 All components except cabinet for custom installation.....\$184.95

Model AS-22U "Profile" System

Slim design; 5" deep; will stand on floor,

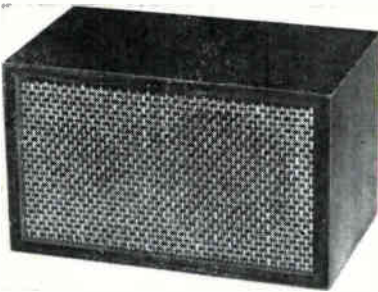
set vertically or horizontally on table or bookshelf, or hang on wall; 3-way system;



10" woofer, 6" mid-range, 3½" tweeter; closed back; cabinet factory pre-assembled; kit (unfinished whitewood).....\$49.95
Model AS-22W (walnut).....\$54.95

Model AS-81 Speaker System

Features a 6" woofer & 3" tweeter. Power capacity 6 w. peak; 8 ohm imp.; response



65-14,500 cps ±6 db. Cabinet is supplied completely assembled. 10¼" w. x 6½" h. x 6¾"

Model AS-81U Unfinished Kit.....\$17.50
Model AS-81W Walnut finish kit.....\$19.95

JANSZEN

Model Z-600 Speaker System

Model 350 woofer with two 130 electrostatic speakers sealed in a fiberglass-filled enclosure; includes power supply and high-pass filter; response 30 to beyond 30,000 cps; LRC high-pass filter; has mechanical woofer roll-off & broad crossover region (1000-2000 cps); 70° H.F. dispersion; 8 ohms; 26¾" h. x 20" w. x 13" d.; walnut and oiled-walnut finish.....\$195.00

Model 33 Electrostatic Speaker System

Mid- and high-range only; 1200 to beyond 30,000 cps; less than .5% HD @ 50 watts input below 10,000 cps; will handle 100 watts music power; includes built-in power supply; 8 ohms impedance.

Model 33OW Oiled walnut.....\$68.25
Model 33U Unfinished, black.....\$59.95

Model 130 Tweeter

Push-pull, constant charge electrostatic tweeter; capacity 50 watts; frequency re-



sponse 500 to 30,000 cps; harmonic distortion less than 0.5% at 50 watts input below 10,000 cps; dispersion 120°; a.c.-operated bias supply, LRC high-pass filter;

power supply draws 2 watts, 117 volt 60 cycle a.c.; size 7¼" x 22" x 13"; shpg. wt. 16 lbs.

Model 130M (Mahogany).....\$184.00
Model 130W (Walnut).....\$188.00
Model 130UA (Flat Black).....\$169.00
Model 130U (Flat Black in rectangular cabinet 7¼" x 23½" x 10").....\$161.00

Model 350 Dynamic Woofer

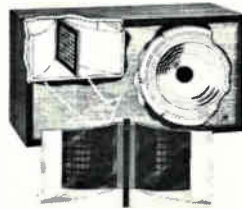
11" cone woofer designed for use with 2.2-cubic foot (or larger) fiberglass-filled enclosure; frequency range 30 to 2000 cps with mechanical roll-off above 2000 cps; fundamental woofer resonance 45 cps; magnet structure weighs 3¼ lbs.; flux density 10,800 gauss; power handling; up to 100 watts peak on complex music; impedance 8 ohms.....\$37.00

Model Z-700 Speaker System

Includes one Model 350C cone woofer integrally sealed in a fiberglass-filled enclosure with two Model 130 electrostatic radiators, power supply & high-pass filter. Response 30-30,000 cps; 8 ohms; music power 100 watts. Has LRC high-pass filter for electrostatic only. Mechanical roll-off on woofer with broad (1000-2000 cps) crossover. 117 v., 50-60 cps operation; 44 lbs. Size 15" x 26" x 13¼". Walnut\$169.95
Utility, unfinished, unselected birch \$154.95

Model Z-500 Speaker System

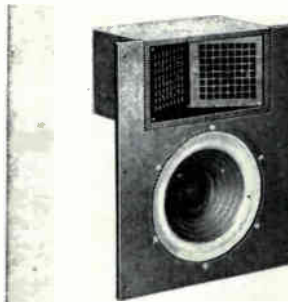
Single push-pull radiator version of elec-



trostatic mid/high-range tweeter combined with 11" dynamic woofer; response 30-30,000 cps; 72° sound dispersion of tweeters; sound from both sides of flat radiator deflects toward listener from parabolic curved walls that form tweeter housing; built-in power supply and high-pass filter drive electrostatic tweeter; 24¾" l. x 13½" h. x 11¾" d.; available in walnut, mahogany, maple, or birch; prices start at\$124.95

JanKit 41

Consists of electrostatic two-element model mid/high frequency driver supplied in



cabinet and Model 350 woofer both mounted on single panel mounting board; designed for custom installations; cabinet should be at least 2 cubic feet in volume; over-all dimensions 19½" h. x 16" w. x 7½" d.\$114.95

JanKit 51

Combines Model 350 11" dynamic woofer & one Model 33U single-radiator electrostatic mid/high-range tweeter mounted on ½" wood panel for custom installation; 30 to beyond 30,000 cps; 8 ohms, with broad



crossover 1000-2000 cps; includes built-in power supply & high-pass filter; 20¼" x 16" x 7".....\$94.95

JENSEN

PR50A Bookshelf Speaker System

2-way design. 5¼" low freq. & a modified E100 ultra tweeter. Response 40-20,000 cps; crossover 2000 cps; 8 ohms; power capacity 30 w. 7¾" d. x 9¾" h. x 18½". Walnut finish\$69.50

PR150A Speaker System

12" woofer (15 cps resonance) with MH-400 aspheric "Sono-Dome" midrange/v.h.f. speaker. Response 25-20,000 cps; crossover 2000 cps; power capacity 35 w. 8 ohms. 11¼" d. x 14" h. x 25".

Oiled walnut\$149.50
Unfinished\$129.50

PR-400 Speaker System

3-way system. 15" Flexair woofer (20-1000 cps ± 2 db), MH-400 midrange, E-100



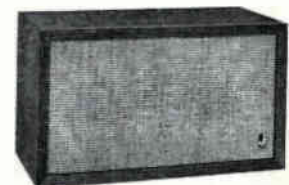
"Sono-Dome" tweeter (7-20 kc.). Response 20-20,000 cps; crossovers 1000 & 5000 cps. Power capacity 40 w. 8 ohms. 14½" d. x 29½" h. x 34". Walnut finish.....\$315.50

PF/2 Thin Speaker System

Four-way, 5-speaker design. Polyform woofer, midrange, 2 tweeters & "Sono-Dome" ultra tweeter. Response 20 cps to beyond audibility; crossovers 600, 4000, 10,000 cps; power capacity 25 w. 8 ohms. 22¼" w. x 26¾" h. x 3¾".....\$169.50

Model TF-3A 3-Way Speaker System

Bookshelf system; has 10" woofer, 2-3½" midrange units, and spherical sec-



tor tweeter; crossovers at 2000 and 10,000 cps; power rating 25 watts; high frequency control on rear; impedance 8 ohms; 13½" x 23¾" x 11¾"; 38 lbs.

TF-3A (unfinished)\$ 99.50
TF-3A (oiled walnut)\$115.50

7 Speakers & Cabinets

Model KT-33 Components Kit

Complete with instructions for building enclosure and installing speakers; includes C12-NF 12" woofer, P8-UM 8" midrange, RP-103B compression driver tweeter, hi-frequency control, crossover network; with cabinet-building directions\$112.50

KTF-3A Speaker Kit

Includes a high-compliance woofer; two special midrange units; ultra tweeter; M.F./H.F. balance control; crossover network; enclosure vent tube; complete enclosure construction details\$69.50

Model C12-NF "Flexair" Woofer

12" cone woofer; power rating 30 watts; frequency response in Jensen Bass-Super-



flex cabinet 20 to 2000 cps; Flexair suspension system; resonance 20 cps; impedance 16 ohms\$44.75

Model G-600

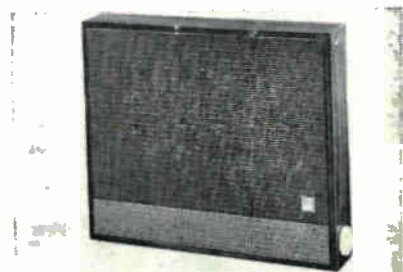
Triaxial 15" 3-way speaker; 35 watts; response 30 cps to upper hearing limit;



16-ohm impedance; 3½ lb. DP-Alnico-V magnet; 15" cone woofer; throbore compression-driver mid-channel unit with separate horn for 1000 to 4000 cps range; compression super-tweeter; tweeter and midrange controls; depth 11½"; shipping weight 33 lbs.\$175.00

Model X-20 "Slim" Compact System

Includes one woofer and two tweeters; 6-watt rating; can be used with 4, 8, or



16 ohm outputs; 12½" h.x15¾" w.x2½" d.; 11½ lbs.; oiled-walnut finish.....\$49.95

Model P8-RL

8" woofer; 4" deep; 6¾" baffle cutout required; 20 watts; 50 to 3000 cps; 8-ohm impedance; 65 cps, viscous edge damped diaphragm\$9.75

Model P8-RM Mid-Range

8" direct radiator mid-range; power rating 40 watts; uniform output from 200 to 4000 cps; cover provides acoustic isolation; ½ lb. DP-Alnico-V magnet; impedance 16 ohms; 5" deep\$13.60

Model P8-UM Mid-Range

8" direct radiator mid-range power rating 30 watts; for 600 to 4000 cps range; cover provides acoustic isolation; 2½ oz. DP-Alnico-V magnet; output impedance 16 ohms; over-all depth of speaker 4½ inches \$8.45

Model P12-RL

12" woofer; 6¼" deep, 10½" diameter



baffle cutout required; 20 watts; 40 to 2500 cps; 16-ohm impedance; resonance 60 cps.\$15.00

Model P15-LF "Flexair" Woofer

15" cone woofer; power rating 40 watts; frequency response in Jensen Bass-Superflex cabinet 16 to 2000 cps; Flexair suspension system; speaker resonance 16 cps; output impedance 16 ohms\$79.50

Model P35-VAH

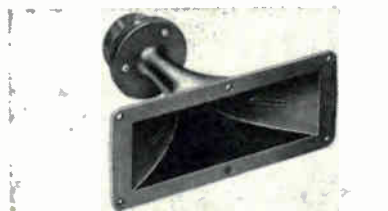
Direct radiating cone type tweeter; 3½" square x 2¼" deep, 3¾" diameter baffle cutout required; 15 watts capacity; response 2000 to 14,000 cps; 16-ohms impedance\$5.95 Net

Model G-610B

Triaxial 15" 3-way speaker; 40 watts; 16-ohm impedance; crossovers at 600 and 4000 cps; heavy duty curvilinear diaphragm unit for lows, compression driver unit for mid-range and compression driver for high end; baffle opening 13¼"; depth 10¾"; crossover and control networks\$330.00

Model RP-103B

Compression type tweeter; cloth base plastic diaphragm; 30 watts; 2000 to 15,000



cps; 16-ohm impedance; shipping weight 3 lbs; 3"x7¼"x6¾"; baffle cutout 6"x2".\$19.95

Model RP-302A

High frequency unit covering the range from 4000 cps to the highest audible frequencies; coverage angle 120°; impedance 16 ohms; for use with A-402 network; 40 watts power rating. 2¼ lbs.\$36.00

Model E10 Ultra Tweeter

Plastic dome radiator from 10,000 cps to beyond audibility; for use with 4-16 ohm speakers up to 30 w.; has built-in crossover; 16 ohms; 4¼" o.d., 2" deep.....\$24.95

"Delta" Series Loudspeakers

Model DL-220 3-element 12" coaxial design. Compression, omnidirectional h.f.



horn, midrange secondary modulator, low frequency resonance 25 cps. Response 25-16,000 cps; 8 ohms; 20 w. 5½" deep.....\$39.95

Model DL-120 dual-cone, 12" speaker. Similar to DL-220 except without h.f. horn. Response 40-15,000 cps; 8 ohms; 20 w.\$24.50

Model DL-80 dual-cone 8" speaker. Response 50-15,000 cps; 8 ohms; 20 w.; 3½" deep\$16.75

Model SG-80 Dual-Cone 8" Speaker

Has Flexair woofer with concentrically mounted auxiliary cone for high end; response 40-12,000 cps; 12 watt program capacity; 3¾" depth; 8 ohms.....\$21.75

Model SG-84 8" Coax

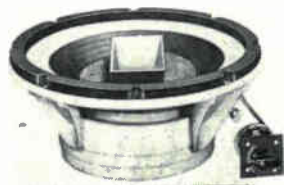
Flexair woofer combined with electrically independent direct radiator tweeter provides



response 40-14,000 cps; has h.f. balance control; built-in crossover at 2000 cps; 12 watt program rating; 8 ohms; 3¾" depth\$32.50

Model SG-88 8" Coax Speaker

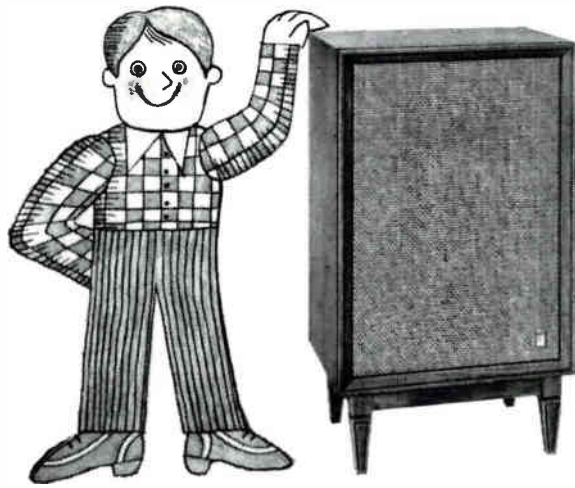
Features low crossover compression driver horn-loaded tweeter in an 8" unit; electrical



crossover from high-compliance low-resonance Flexair woofer is 2000 cps; frequency range 35-15,000 cps; has h.f. balance control; 20 watts program capacity; 8 ohms.\$46.75

Model A-61 600 cps Crossover

Two channel, 180° constant-resistance type with 12 db/octave attenuation; crossover point at 600 cps; 5¼"h.x7"w.x4¾"d.; 5¼ lbs.\$26.00

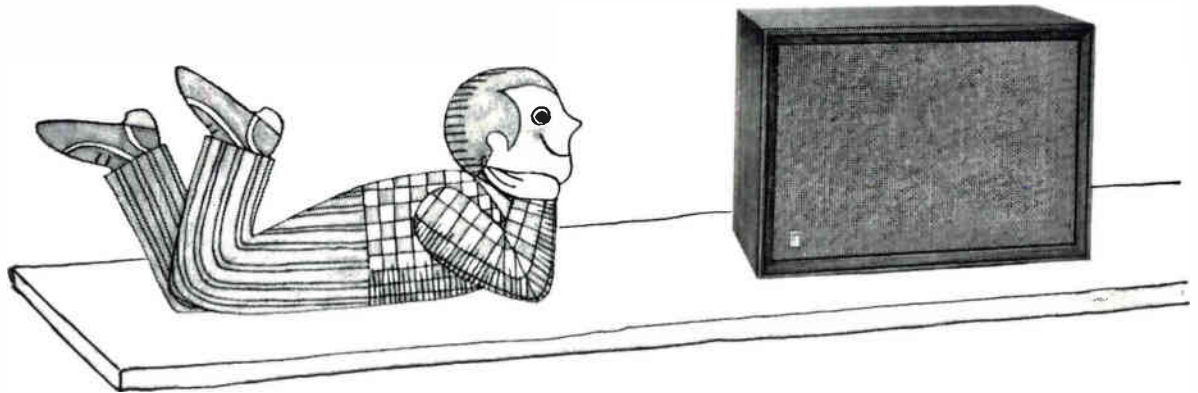


HI-BOY



LOW-BOY

OR SNUG ON A SHELF



Jensen PR-300 Loudspeaker system combines decorative freedom with the fine, big sound you want from your hi-fi system.

Sophisticated and luxuriously styled, the PR-300,3-speaker system with 12" woofer is as much at home in the richly urban manner of an in-town apartment or the casual informality of a country home.

The handsome oiled walnut cabinet is accompanied by a Mediterranean styled floor base. This unique accessory permits you to creatively arrange the PR-300 in either the Hi-Boy or Low-Boy positions. Without the floor stand your PR-300 fits snugly on a shelf. 25½" x 18¼" x 14¾"—*that's the size of it.* \$225.50 *that's the price of it.* Jensen PR-300—*that's the name of it.* 5 year guarantee—*that's the best of it.* See and hear it at your local Hi-Fi dealer.



JENSEN MANUFACTURING DIVISION / THE MUTER COMPANY / 6601 SOUTH LARAMIE AVENUE, CHICAGO, ILLINOIS 60638
Canada: Radio Speakers of Canada, Ltd., Toronto • Argentina: Ucoa Radio, S.A., Buenos Aires • Mexico: Fapartel, S.A., Naucalpan, Mex.
CIRCLE NO. 37 ON READER SERVICE CARD

7 Speakers & Cabinets

Model A-204 2000 cps Crossover

Two-channel type; high-pass section transmits everything over 2000 cps to tweeter, everything below to woofer; 180° constant-resistance type; 4 3/8" h. x 3 1/2" w. x 3 1/4" d.; 2 1/4 lbs.\$16.00

Model A-402 4000 cps Crossover

Two-channel type; high-pass transmits everything above 4000 cps to tweeter, everything below to woofer; 180° constant-resistance type; 3 lbs.\$15.00

Model A-640 Crossover

Crossover unit for 3-way systems with crossovers at 600 and 4000 cps; power rating 40 watts; 12 db/octave slope; impedance 16 ohms; 5 1/4" x 7" x 4 3/8"\$39.50

Model ST-946 Balance Control

Provides attenuation of tweeter in systems with power ratings up to 30 watts; impedance 16 ohms.\$4.20

Model ST-947 Balance Control

Provides attenuation of tweeter and mid-range in systems with power ratings up to 40 watts; impedance 16 ohms.\$5.75

Model SG-210 3-Element 12" Coax

Two-way, 3-element system; Flexair woofer provides high compliance and low reso-



nance; has curvilinear-radiator separate tweeter & mechanically coupled mid-range radiator; electrical crossover at 2000 cps; h.f. control on cord for external mounting; frequency range 20-14,000 cps; 20 watts program capacity; 8 ohms.\$47.50

Model SG-220 3-Element 12" Coax

Features compression-driver horn-loaded super-tweeter in conjunction with mechan-



ically coupled mid-range radiator and Flexair high-compliance low resonance woofer; electrical crossover at 4000 cps; frequency range 20-15,000 cps; h.f. balance control; 20 watts program capacity; 8 ohms.\$57.50

SG-222 Multicell Horn 12" Coax

Compression driver tweeter horn extends through woofer core and terminates in six-



cell mouth for wide angular dispersion of high frequencies; has low electrical and acoustical crossover frequency of 2000 cps; h.f. level control; response 30-15,000 cps; 25 watts program capacity; 8 ohms.\$76.50

Model SG-223 Reflex Horn 12" Coax

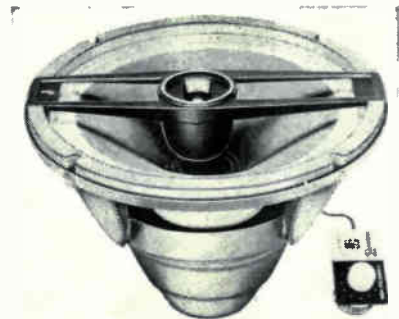
Two-way coaxial speaker with horn-loaded low-crossover tweeter and high-compliance



low-resonance Flexair woofer; electrical crossover to reflex horn tweeter 2000 cps; has h.f. control; response range 20-15,000 cps; 30 watts program capacity; 8 ohms.\$84.50

SG-300 "Triaxial" Speaker

12" design with 3 independent speakers. SG-300 woofer (20 cps resonance), 6"



long midrange horn & tweeter. Has a balance control to either boost or attenuate high frequencies. Response 20-20,000 cps; crossovers 600 & 4000 cps; power capacity 40 w.; 8 ohms; 8 1/8" deep.\$109.50

X-11A Speaker System

Two-way system; has built-in hangers on back for easy wall mounting; bass response comes from special woofer with moving system matched to enclosure; 3" tweeter provides highs to 14,000 cps; high-efficiency design rated at 6 watt capacity; has volume control; walnut finish; impedance 4 to 16 ohms; 6 1/2" x 13 1/16" x 4"\$35.50

Model TF-4 Speaker System

Five-speaker, 4-way bookshelf design; response ranges from 25 cps to inaudibility; crossovers at 600, 4000, 9000 cps; has high-compliance Flexair woofer, 8" mid-range, two tweeter units, and "Sono-Dome" ultra-tweeter; high frequency control on back; 25 watts capacity; 8 ohms; 16" x 25 1/2" x 8 1/2"; rattan grille fabric; oiled walnut\$135.50

Model TF-4U Unfinished gum hardwood; rattan grille fabric.\$114.50

Extended-Range Speakers

All are 8-ohm direct-radiator designs.
 C5-TX 5", capacity 6 w.\$ 8.00
 C6-TX 6", capacity 7 1/2 w.\$ 8.75
 C8-RX 8", capacity 12 w.\$15.45
 C8-SX 8", capacity 11 w.\$14.50
 C10-SX 10", capacity 12 w.\$15.30
 C12-RX 12", capacity 14 w.\$17.55
 C12-SX 12", capacity 13 w.\$16.50

PR300 Hi-Boy/Low-Boy Speaker System

3-speaker, 3-way system with 12" woofer, MH-400 "Sono-Dome" mid-range, and



E-100 ultra-tweeter. Response 20-20,000 cps. Capacity 35 watts. Equipped with base for horizontal or vertical positioning. 25 1/2" x 18 1/4" x 15 5/16"\$225.50

BF-1280 Speaker Enclosure

Enclosure is designed for all Jensen Sigma and Delta 8" and 12" unitary loudspeakers. Genuine walnut veneer hardwood cabinet. 16 1/4" h. x 25 1/2" w. x 10 1/2" d.\$69.50

600-XL "Super Bookshelf"

4-speaker, 4-way system with 12" woofer, horn-loaded mid-range, an RP-302A super-tweeter, and an E-100 ultra-tweeter. Response 20-20,000 cps. Crossovers 600, 4000, and 10,000 cps. Power capacity 40 watts, 8 ohms. 16 1/4" h. x 25 1/2" w. x 11" d.\$269.50

PR-200 Speaker System

Bookshelf, 3-speaker, 3-way system with 12" woofer, MH-400 mid-range, and E-100 ultra-tweeter. Response 25-20,000 cps, 8 ohms, capacity 35 watts. 14" h. x 25" w. x 10 13/16" d.\$179.50

KARLSON

Model X-15 Speaker System

Features an internal curved paneling, a heavy-duty 15" speaker and a coaxially mounted tweeter. Response 12 cps to beyond audibility; dispersion 160° in the horizontal plane and 120° in elevation with axis tilted upward. Capacity 100 watts music power, 60 w. continuous at 400 cps. Will handle peak transients up to 150 watts. Efficiency 40%, can be used with any power amplifier. Design follows patented acoustic coupling with tapered opening. 27 3/4" x 19 3/8" x 14".

X-15 Oiled walnut.\$249.50
 X-15UB Unfinished birch.\$234.95
 X-15UT Utility charcoal gray.\$224.50

Model AP-9C Asymmetric Projector

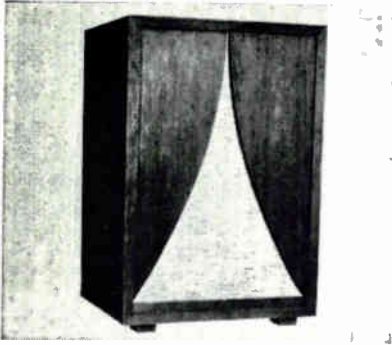
Flush mounting ceiling speaker which projects sound forward in very broad fan-like beam horizontally and narrow in the vertical plane with highs directed to most distant points. May also be mounted on a variety of surfaces with round face plate, commonly used with 12" speakers. For stereo use in home, office, auditoriums, and commercial applications. Response 50-15,000 cps, 12 w., dynamic range 100 db, 12 db feedback rejection in positions behind speakers. 8 ohms. 12" x 12" face plate, 6 1/4" deep. White satin finish\$29.50

Model AP-W Asymmetric Projector

Designed for wall mounting. Applicable to large auditoriums, lecture halls, etc. and for economical installations of commercial stereo and background music. Response 75-15,000 cps, 12 w. 140° dispersion in horizontal plane controlled in vertical as in Model AP-9C; 100 db dynamic range; 8 ohms. 15 1/2" x 10 1/2" x 8". Pastel grey, beige.\$49.50

Model "15" Speaker Enclosures

Designed for use with all 15" speakers less than 11" in depth, and will extend bass to



1/2 mechanical resonance of these speakers; improved high-frequency dispersion to 120°; 22 1/2" x 33" x 18". Can also be used with 12" speakers and adapter.

15-WT Oiled walnut with tapered front	.....\$129.00
15-WG Oiled walnut with full grille	.....\$129.00
15-U Unfinished birch.....	\$99.50
15-K Deluxe birch kit.....	\$69.50
15-BSC-U Unfinished basic unit in high density particle board, no trim.....	\$69.50
15-BSC-K Basic kit for above.....	\$44.95

Model "12" Speaker Enclosures

Same coupling and dispersion features as Model "15" but dynamic range of bass slightly reduced; fundamental loading extends to 2/3 speaker resonance instead of 1/2; response to 20 cps obtainable with high-compliance speakers; 24 3/4" x 16 3/4" x 13 3/4"; 44 lbs.; for 12" speakers; 10" with adapter.

Model 12WG Oiled walnut with full-grille front	.....\$89.40
Model 12U Unfinished birch.....	\$69.50
Model 12BSCU Unfinished particle board for built-in installations; without trim or feet	.....\$49.50
Model 12K Birch kit.....	\$49.50
Model 12BSCK Basic kit.....	\$31.95

Model "8" Speaker Enclosures

Designed for use with 8" speakers. Characteristics similar to Model "12"; bass to 40 cps obtainable with good 8" speakers. 17 1/4" x 11 3/4" x 9 1/2".

8-WG Walnut finish on birch, full grille	.....\$37.50
8-U Unfinished birch.....	\$29.95
8-K Birch kit.....	\$21.95

KLH

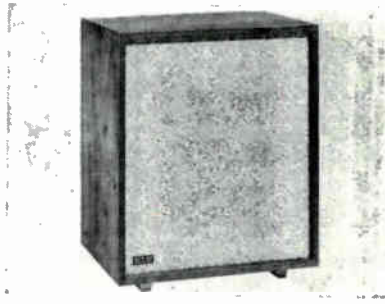
Model Four Speaker System

Full-range, two-way system housed in 13 1/2" h. x 25" w. x 12" d. cabinet; low frequency speaker is 16-ohm 12" acoustic suspension type; two high-frequency speakers are 1 3/4" cone-type direct radiators; LCR crossover network is integral part of system; permits increase or decrease of 2.5 db in the levels above 1500 cps and above 6000 cps; provision is made to allow connection to high-and-low-frequency sections separately; 16 ohms impedance; hardwood enclosures finished all four sides.

Unfinished birch.....	\$231.00
Mahogany, walnut, oiled walnut.....	\$231.00

Model Seven Speaker System

Full-range, two-way system housed in 24 3/4" h. x 21 1/2" w. x 11 1/8" d. cabinet; low-frequency speaker is 12" acoustic suspension type; high-frequency section contains two 1 3/4" cone-type direct radiators; LCR crossover network is integral part of system and has provisions to in-



crease or decrease high-frequency level 2 1/2 db; impedance 8 ohms.
Unfinished birch\$189.00
Mahogany\$203.00
Walnut, oiled walnut.....\$203.00

Model Nine Electrostatic

Electrostatic speaker system that reproduces entire audio range; for adequate re-



production of very low frequencies total radiating area of 28 sq. ft. is used (14 sq. ft. in rear); radiation front and rear is equal; consists of two complete full-range speakers with built-in power supplies and step-up transformers; two sections can be joined or separated completely for use in stereo systems; impedance nominal 16 ohms and is primarily resistive in audio range; maximum 30 ohms, minimum 16 ohms; recommended amplifier power per section 40 to 75 watts; 70" x 23 1/2" x 27 1/8" each panel; mahogany, walnut, oiled walnut.....\$1140.00

Model Seventeen

Full-range, two-way system with 10" long-excursion acoustic suspension woofer and 1 3/4" direct-radiator tweeter with elastomeric suspension; LCR crossover network is integral part of system and permits an increase or decrease of 2 1/2 db in high-frequency level without shelving in crossover region; grille cloth is removable to permit user to change as desired. 11 3/4" w. x 23 1/4" h. x 8 1/4" d.; finished all four sides; oiled walnut.....\$69.95

Model Six Speaker System

Full-range, two-way system housed in 23 1/2" w. x 12 3/8" h. x 11 1/8" d. cabinet; low-frequency speaker is 12" acoustic suspension type; high-frequency section contains single direct radiator with 1 3/4" cone; LCR crossover network is integral part of system and has provisions to increase or decrease high-frequency level 2 1/2 db; impedance 8 ohms; cabinet similar in appearance to Model Four speaker system; hardwood enclosures finished all four sides.

Unfinished birch	.....\$122.00
Mahogany	.....\$134.00
Walnut, oiled walnut, cherry	.....\$134.00

Model Fourteen S

Dual system using high-compliance, full-range direct radiators each having effective diameter of 3"; a passive network reshapes power output of amplifier to match low-frequency power requirements of drivers;

designed with 8 ohms impedance and for use with 12 to 30 watt amplifiers; 14" x 18" x 3 3/4"; oiled walnut enclosure of ducted-port design.....\$49.50

Model Fourteen B

Full-range speaker system; identical to Model Fourteen S except for cabinet shape; 8" x 14" x 8 1/4".....\$49.50

KLIPSCH

Klipschorn Corner Speaker System

Employs folded corner horn bass section, straight axis mid-range, and tweeter horns; response 32.7-21,000 cps; ideal for mono or stereo especially when used with compatible third speaker bridged for center speaker use; over 30 acoustic watts output can be delivered; priced from \$514 for "Decorator's Model" in unfinished fir to \$852 for hand-rubbed systems. All models are functionally identical.

Cornwall II 3-Way Speaker System

Smooth response down to 30 cps; ported exhaust unloading at approximately 8 cps;



employs the same drive components as the Klipschorn; with new K-600 mid-range horn and improved tweeter. Transient response is excellent and distortion is nominal above 16 cps. Available upright as shown or in lowboy configuration. 36" x 24" x 15 1/2". Price from \$408 in choice of four furniture finishes to \$311 for theater black fir.

Model H (Heresy) 3-Way System

Total enclosure bass system with same h.f., mid-range, and tweeter drivers as Klipschorn. Response 45-20,000 cps. Finished all four sides in four finishes. Compatible with Klipschorn and Cornwall for stereo. Available at no extra charge with speaker special network for center speaker use. 21" x 15" x 11" deep. Price \$221 in furniture finishes to \$188 for theater black fir.

Rebel 7 2-Way System

Totally enclosed design using a bass speak-



er and horn-type tweeter. Oiled walnut; 21" x 15" x 13" d.\$160.00

KNIGHT

Model KN-612HC 3-Way High-Compliance Speaker

Woofer is 12" cone type; compression

7 Speakers & Cabinets

type tweeter; "whizzer" mid-range; built-in electronic crossover; power capacity 35



watts; over-all response 30-20,000 cps; woofer magnet 4.5 pound ceramic; 16 ohms.\$59.95

KN-839 Full-Range 8" 3-Way Speaker
8" woofer, 3 1/2" whizzer, and compression horn-type tweeter with level control; me-



chanical crossover 2000 cps, electrical crossover 3500 cps; response 45-18,000 cps; 8 ohms\$19.95

KN-809A 2-Way 8" Speaker



Die-cast frame speaker with separate mid-range cone. Response 50-13,000 cps; 15 w. program capacity; 8 ohms.....\$8.95

KN-830BHC 3-Way 12" Speaker

High-compliance design; with mid-range cone & high freq. tweeter; response 25-



18,000 cps; 8 ohms; 20 watts program capacity\$22.50

KN-822HC 2-Way Speaker

High-compliance design with separate mid-range cone. 30 cps resonance. Response 25-13,000 cps; 8 ohms; 20 w. program capacity\$12.95

KN-888HC 3-Way 12" Speaker

High-compliance design with separate mid-



range cone & high freq. tweeter. 25 cps resonance freq. Response 25-19,000 cps; 25 w. program capacity; 8 ohms.....\$34.95

KN-2300AK Speaker System

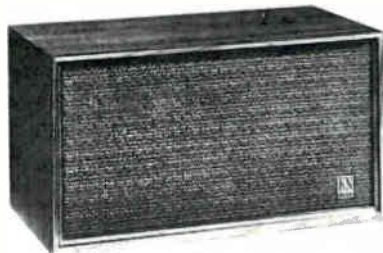
Acoustic suspension design with 12" high-compliance woofer, a compression mid-range horn & a dome-type tweeter with h.f. level control. Response 25-20,000 cps. Requires 10 w./ch. amplifier; 8 ohms impedance; 14" x 25" x 13 1/2". Kit.....\$69.95
Pre-assembled\$79.95

KN-2260K Speaker System Kit

Has 12" high-compliance woofer, 8" mid-range & a compression horn tweeter with pre-assembled electrical crossovers. Cabinet 17" x 25" x 8". Kit.....\$59.95
Pre-assembled\$69.95

KN-2350A Speaker System

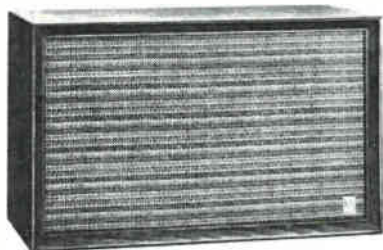
Acoustic-suspension bookshelf design with 12" high-compliance woofer, compression



driver mid-range with level control & a compression-type tweeter with its level control. Response 20 cps to beyond audibility. 14 w./ch. amplifier required. 8 ohms impedance. 14" x 25" x 13 1/2"\$99.95

KN-2330K Speaker System

3-way design; 12" woofer, 8" mid-range, 3 1/2" tweeter; 8 ohms; 30 watts capacity;



3/4" walnut veneer construction; 14 1/2" x 24" x 10". Has level control. Ready to oil with oil supplied. Kit.....\$49.95

KN-2380 Speaker System

3-way design; 15" woofer, a compression driver mid-range, and a dome radiator tweeter. 50 watts capacity; resonance frequency 16 cps. Response 20 cps to beyond audibility. 30" x 20 1/2" x 14". Includes 3" dull ebony stand. Can be used as upright or lowboy. Walnut.....\$149.95

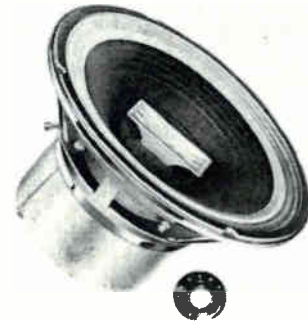
KN-1290K Speaker Enclosure

Vented port design; acoustic lined. 14 1/4"

x 24" x 12 1/4". Comes sanded ready to oil with oil supplied. Grille cloth supplied mounted on baffle board. Walnut veneer. Kit\$19.95

KN-615HC 3-Way Speaker

15" high-compliance woofer (25 cps free-air resonance), crossing over at 2000 cps



to a mid-range cone & an electrical crossover at 3500 cps to a compression-type v.h.f. tweeter. 50 w. capacity, 16 ohms. 8 1/4" depth.....\$69.95

LAFAYETTE

Model SK-58A

12" coaxial speaker; power rating: 20 watts; frequency response: 30 to 15,000 cps; impedance: 8 ohms.....\$29.95 Net

SK-128

8" Duaxial full range speaker; power rating 20 watts integrated program material;



over-all frequency response 40 to 16,000 cps ± 3 db; resonance 45 to 65 cps; crossover 2500 cps; brilliance control; recommended enclosure bass reflex; impedance 8 ohms.....\$19.50

99-0022 Crossover Network

Crossover network for two-way and three-way systems; 8 or 16 ohms; crossover rate 6 db per octave; crossover frequencies for two-way systems are 2000, 3000, and 5000 cps; for three-way systems 350 and 2000-3000 cps; 350 and 5000 cps; 700 and 2000-3000 cps, 700 and 5000 cps; mid-frequency and treble level controls; metal cabinet; removable front panel for mounting level controls on front or side of speaker enclosure.....\$14.95

99-0053 Speaker Switch

7-position speaker selector switch; can switch up to 3 speakers in 7 combinations (1, 2, 3, 1-2, 2-3, 1-3, all); compensates for changes in impedances without need for dummy load resistors; mounted on 2 1/4" x 4 1/2" electrical outlet plate; heavy duty silvered contacts and terminal board with screw terminals.....\$1.39

Model CAB-19 Enclosure

Bass reflex design accommodates 2- and 3-way speaker systems; cut-outs for 15"

7

Speakers & Cabinets

and 8" speakers with adapter boards for 12" and 5" speakers: size: (less 7" legs) 23½" w. x 28¾" h. x 16¼" d.; ¾" birch; finishes: mahogany, blonde.

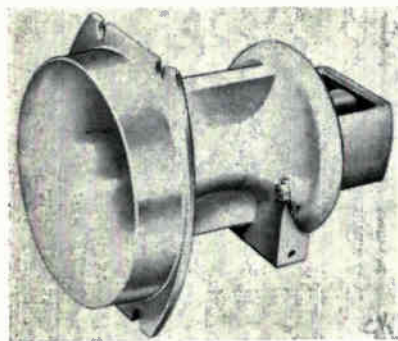
Net
Assembled, finished (CAB-19)\$49.50
Assembled, unfinished (CAB-13).....\$39.50
Kit form (CK-10)\$29.50

99-0049 3" Cone Tweeter

Metal-cased 3" cone tweeter: power rating: 20 watts; frequency response: 2000 to 16,000 cps; impedance: 8-16 ohms; for use with crossover network, having crossover point of 2000 cps.....\$5.95 Net

99-6250 Tweeter

Compression-type wide-angle radiator for high frequencies: frequency response 1500



to 20,000 cps; recommended crossover 2500 cps; power rating 20 watts in 3-way system; voice coil impedance 8 ohms.....\$9.95

Model SK-180 "Trihelix" Speaker

10", 3-way speaker with 3 mechanically and electronically independent speakers



mounted within single 10" frame; 2" tweeter; 5" mid-range; built-in electrical crossover at 1500 and 5000 cps; response 20-20,000 cps; 30-12,000 cps ±3 db; free air resonance 35-55 cps; 8 ohms; 20 watts 99-0020W\$32.50

6½" Coaxial Speaker

6½" woofer; 2" tweeter; response 50 to 16,000 cps; woofer resonance 70 cps; impedance 8 ohms; power rating 8-10 watts; screw-type terminals; requires 5½" diameter cut-out; 99-0028.....\$6.95

Model SK-98 Two-Way Speaker

Dual-cone 8" speaker; response 40 to 16,000 cps; sensitivity 99.5 db/watt; resonance 55-70 cps; impedance 8 ohms; screw-type terminals; requires 6¾" diameter cut-out; 99-0027\$9.95

"Slenderette II" Speaker System

Three-speaker, 3-way system; has 8" high-

compliance woofer, a 6" mid-range driver, and a 3" tweeter: crossover 400 & 2000 cps; response 50-15,000 cps; 18 watts continuous sine-wave capacity; supplied in walnut finish, all four sides, and with wall mtg. bracket; 21¼" x 14¼" x 4½" d. 21-0101WX\$34.95

SK-216 Speaker

12" 3-way design made in England; woofer, midrange radiator, and tweeter



are axially mounted; 20-20,000 cps; 5 lb. ceramic magnet; 3" voice-coil; has 2000 cps mechanical crossover and 5000 cps electrical crossover: free air resonance 35 cps; 16 ohms; with brilliance control\$54.50

Model "Eliptoflex" Speaker System

Bookshelf design enclosure with Model SK-210W 3-way speaker; cabinet finished all four sides; 14" h. x 23¾" w. x 13½" d.; available in mahogany, walnut, blonde\$64.95
Unfinished birch\$59.50
Same cabinet with Model SK-180 10" Trihelix speaker\$66.50
Cabinet only\$36.50

"Slenderette III" Speaker System

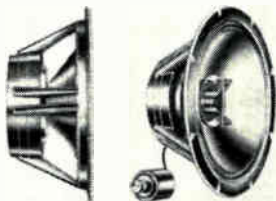
Dual speaker, 2-way system; has 6½" high-compliance woofer and a 2½" cone tweeter with crossover network; freq. response 50-10,000 cps; 8 ohms; 12" x 18" x 5¼" d.; walnut finish on all four sides 99-0009WX\$17.95

SK-130 8" Wide-Range Speaker

Response 40-18,000 cps; 15 watts; free-air resonance 55 cps; 1" voice-coil; 16 ohms; made in England; 4" deep\$12.95

Model SK-215 15" 3-Way Speaker

Built in England; has 6 lb. ceramic magnet: free-edge cone suspension: 3" main



voice coil; 12 db/octave crossover network with high-frequency level control; horn-loaded tweeter: free-air resonance 25 cps; response 20-20,000 cps; crossover 200 & 5000 cps; 50 watt capacity; 16 ohms; depth 6½"\$64.50

"Decorette II" Speaker System

Five-speaker, 3-way slim design; 2-8" woofers, 6" open back mid-range (500-7500 cps) driver, dome lens compression horn tweeter (1000-10,000 cps) and 3½" cone-type tweeter (5000-35,000 cps); response 40-20,000 cps; 30 watts continuous power capacity; 8 ohms; 25" h. x 17" l. x 4¾" w.; walnut finish and with four 1" dia. legs.....\$59.95

"Mini-Duct" Speaker System

Ducted port bookshelf enclosure with

Model SK-128 8" Biaxial speaker; cabinet finished on all four sides: 23" w. x 11½" h. x 11½" d.; available in walnut, mahogany\$39.50
Unfinished birch\$37.50
Cabinet only; reducing boards are supplied so that cabinet will accept 8" woofer, a 6" midrange, and variety of tweeters\$24.95
Cabinet only (unfinished birch).....\$21.50
Cabinet supplied with SK-98 8" wide-range speaker; walnut.....\$34.25

"Decorette V" Speaker System

5-speaker system: four 6½" low-resonance speakers & one 2½" cone-type tweeter. Response 50-18,000 cps; 15 w. continuous power capacity; 8 ohms; supplied in walnut cabinet with removable legs. 17¾" w. x 21¼" h. x 4¼"\$39.95

"Criterion 20" Speaker System

Miniaturized bookshelf design. Response 45-20,000 cps; has 4" woofer & back-loaded mid-range/high-freq. speaker (2800 cps crossover). Walnut cabinet finished 4 sides; 8 ohms; 11¼" x 5¾" x 7½" d.\$24.95

"Criterion 50/100/200" Series Speaker Systems

Bookshelf, ducted-port bass-reflex design; ¾" solid wood; walnut finish 4 sides. "Criterion 50" 2-way system with 8" woofer & enclosed 4" cone tweeter (3000 cps crossover); response 30-18,000 cps; 20 w. capacity; 8 ohms; 19" x 10¾" x 8¾" d.\$29.95
"Criterion 100" 2-way system with 10" woofer & 4" enclosed cone tweeter (2800 cps crossover); response 25-19,000 cps; 30 w. capacity; 8 ohms; 19" x 10¾" x 8¾" d.\$49.95
"Criterion 200" 3-way system with 12" woofer, 2½" v.c.; 8" mid-range & 3" metallic dome-type tweeter (crossover 700 & 5000 cps). Response 25-25,000 cps; 40 w. capacity; 8 ohms; 24" x 14" x 12" d.\$69.95

"Criterion XL-360" Speaker System

5-speaker system with 360° sound dispersion. Has 4 dual-cone 6" x 3" speakers in top section for 3000-20,000 cps coverage & 8" woofer face down in lower section covers 32-3000 cps. Sound is dispersed by diffuser beneath woofer through ports in all 4 sides of cabinet. Cabinet filled with acoustic damping material. 20 w. capacity; 8 ohms\$69.95



LAHTI

U-2 Speaker System

Fully enclosed system with 8" woofer, 3" cone tweeter & capacitive crossover at 3000 cps. Patented design has woofer front-loaded by an inverted exponential horn terminating in a 2¾" dia. sharp-edged radiating opening. Response 95-15,000 cps ±5 db. 9¼" h. x 11¼" w. x 7¾" d. Oiled walnut finish.....\$39.95

U-4 Speaker System

Features 12" woofer, two 8" mid-range & two 3" tweeters. Response 40-13,000 cps ±6 db. 15 w. music power capacity. 8 ohms. ¾" particle board, walnut finish. 27¾" + 3" base x 23¼" x 14¼" d.\$199.00

WHAT SCIENTIST IN HIS RIGHT MIND

**would turn his back on Fame and Fortune . . .
move to Hope, Arkansas . . . and devote his life to
building the world's most perfect speaker systems?**

PAUL W. KLIPSCH, SCIENTIST, ENGINEER, FANATIC. A man holding patents on everything from electronic instruments to the world famous KLIPSCHORN and Klipsch speaker systems.

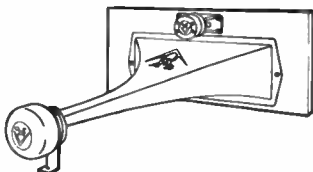
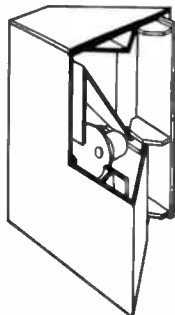
Klipsch built his first loudspeaker back in 1920 from earphones and a long cardboard tube. For the next 19 years he immersed himself in the study of basic speaker design principles.

By 1939 Klipsch had finally synthesized the basic laws of physics into the most theoretically correct loudspeaker ever designed.

Now the job was to make the prototype. In Klipsch' own words, "I built her with a borrowed handsaw, hundreds of screws and plenty of elbow grease. I filled my mistakes with glue and sawdust. I don't know how I did it, but the baby was air tight . . . and damned efficient!"

But Klipsch was not completely satisfied.

For 8 years he labored at perfecting the bass response (30 to 400 cps). Finally he got what he wanted . . . smooth, undistorted sound and magnificent bass fundamentals so low and powerful that they could reproduce even the Tibia pedal tones of a huge pipe organ.



Accurate reproduction of the important mid-range (400-5000 cps) underwent even more research and design analysis. Klipsch spent 15 years developing this mid-range horn and the tweeter (5000 to 20,000 cps) to their present state of perfection.

CHOICE OF EXPERTS—Result of this 23 year labor of love is the KLIPSCHORN. Acclaimed by audio experts as the finest speaker system in the world, because of its unique high efficiency exponential corner-horn design. Continually chosen by leading professional musicians as the only system which can truly recreate the

total sound of a great symphony orchestra at concert hall listening levels.

The KLIPSCHORN has the lowest distortion and widest full power frequency response of any speaker system in the world . . . 1/10 of 1% FM distortion* from 30 to 20,000 cycles per second at over 115 decibels of sound output. It would take a loudspeaker 8 times larger than the KLIPSCHORN to accomplish anywhere near the same sound quality.

KLIPSCHORN is neither a shoe-box nor a clothes closet. It is not too small or too large. It is the optimum size for the reproduction of music.

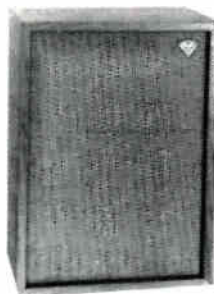
KLIPSCHORN is not a bargain basement system. It retails from \$514 to over \$800. But if you are a music lover with a truly discriminating ear . . . or if you seek to cultivate one . . . the KLIPSCHORN is made for you. Ultimately you'll be satisfied with nothing less, price be hanged.

WIDE STAGE STEREO AND THE HERESY—When Paul Klipsch heard ordinary two-speaker stereo, he realized it was painfully inadequate. He knew that to reproduce a live performance, the whole wall of the living room must come alive with sound.

In his laboratory he developed Wide Stage Stereo. To achieve this kind of stereo experts have long recognized the need for three full range speakers . . . two located diagonally in the corners and one in the center. For a center speaker, Klipsch developed his first non-corner speaker, the Heresy.

Naturally, the Heresy is a Klipsch quality low distortion high output speaker. It is a 3-way system with 1/10 of 1% distortion* throughout its 50 to 20,000 cps range.

Klipsch enthusiasts with space problems soon began to use the Heresy (Model H)



independently of its larger brother. As one apartment dweller said, "When I realized I couldn't use a KLIPSCHORN, I knew the only other speaker to own was the Heresy."

The Heresy is 11" x 15" x 21". Its retail price is \$221.

QUELLING A CONTROVERSY—

For years a controversy had raged among speaker designers as to which was the best, a horn or an enclosure type speaker. Klipsch had proved the answer to that one with the KLIPSCHORN. But now he was challenged to create an enclosure type speaker.

He set as his goal "maximum performance per cubic foot." The result was the beautiful Cornwall. Easily the finest enclosure speaker ever produced.

This loudspeaker is a 3-way system with extremely smooth response from 30 to 20,000 cps. The Cornwall is only 6 dbi less efficient than the mighty KLIPSCHORN. It has the lowest distortion* of any enclosure system available. The Cornwall may be purchased for \$416.

We sincerely hope you will listen to our systems and compare them with others. You will then know why Klipsch is acknowledged as creator of the speakers by which all others must be judged.



**KLIPSCH
& ASSOCIATES**
Box 96 SD-66
Hope, Arkansas

Please send me complete information on the KLIPSCHORN, Heresy and Cornwall speaker systems. Also include the name of my nearest Klipsch Authorized Audio Expert.

KLIPSCH & ASSOCIATES
Box 96 SD-66
Hope, Arkansas

NAME _____

ADDRESS _____

CITY _____

STATE _____

OCCUPATION _____

AGE _____

*In Klipsch speakers all forms of distortion are minimized especially FM and AM distortion which are many times as objectionable as simple harmonic distortion. Technical papers available on this subject.

JAMES B. LANSING

D216 8" Speaker

Extended-range with 2" edgewound aluminum ribbon voice coil and dural high-frequency dome. Resonance 55 cps, 12 watts continuous power, 8-16 ohms..\$36.00

D123 12" Speaker

Extended-range with 3" edgewound aluminum ribbon voice coil and dural high-



frequency dome. Resonance 40 cps, 20 watts continuous power, 8-16 ohms..\$72.00

D131 12" Speaker

Identical to 15" D130 except for outer diameter\$96.00

D130 15" Speaker

Extended-range with 4" edgewound aluminum ribbon voice coil and dural high-



frequency dome. Resonance 37 cps, 25 watts continuous power, 8-16 ohms \$102.00

LE8T 8" Full-Range Speaker

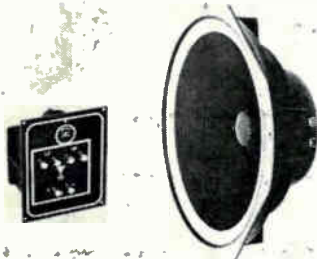
Special cone design and long-throw suspension for full-range response in small en-



losures. Two-inch edgewound aluminum ribbon voice coil and dural dome, plus pure silver impedance-controlling ring, extend upper range past limits of hearing. Resonance 37 cps, 20 watts continuous power, 8-16 ohms.....\$66.00

LE14C Integrated Speaker System

Consists of 14" long-throw Linear Efficiency woofer and high-frequency direct

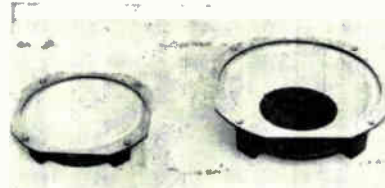


radiator combined in single assembly. Includes separate 1200-cps crossover. LF resonance 25 cps, 30 watts continuous pow-

er, 8-16 ohms.....\$150.00

LE8-7 Passive Radiator

Replaces ducted port in small enclosures. Adds acoustic loading in the bass range,



increasing low-frequency efficiency. For use with LE8T 8" speaker in 0.8 to 1.2 cubic foot enclosures.....\$9.00

LE10-7 Passive Radiator

Similar to LE8-7, but for use with LE10A 10" low-frequency speaker in 1.0 to 1.5 cubic foot enclosures.....\$9.00

001 2-Way Speaker System

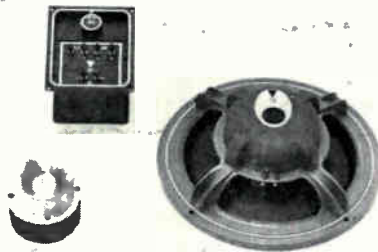
Consists of 15" 130A low-frequency driver with LE175DLH high-frequency assembly



and N1200 (1200 cps) crossover network. High-frequency assembly has heavy driver with edgewound aluminum ribbon voice coil, cast aluminum exponential horn and 14-element acoustic lens for 90° uniform dispersion. 25 watts continuous power, 8-16 ohms, efficient system for use in horns or reflex enclosures.....\$267.00

002 2-Way Speaker System

An efficient system designed for use in compact reflex enclosures of 2.5 to 5 cubic



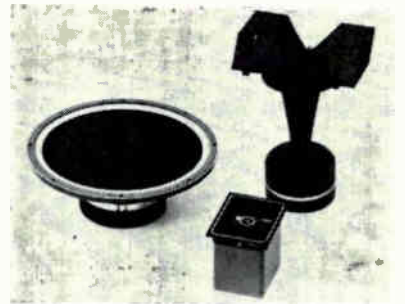
feet. Includes 12" D123 extended-range loudspeaker, 075 ring radiator tweeter, and N2400 (2500 cps) crossover network. 075 is a complete assembly consisting of exclusive ring-shaped diaphragm with 1 3/4" edgewound aluminum ribbon voice coil operating directly into machined aluminum exponential horn. 20 watts continuous power, 8-16 ohms.....\$159.00

030 2-Way Speaker System

An efficient system designed primarily for use in reflex enclosures of 4 cubic feet or more, such as the C37 cabinet used with Model D37030 speaker system. Consists of D130 15" extended-range speaker, 075 ring radiator tweeter, and N2400 (2500 cps) crossover network. 25 watts continuous power, 8-16 ohms.....\$189.00

S7 2-Way Speaker System

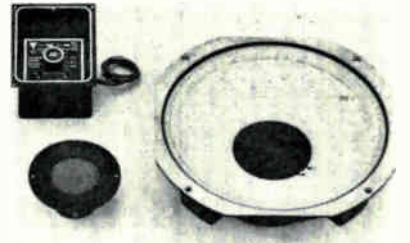
Consists of LE15A 15" Linear Efficiency



woofer, LE85 high-frequency driver with HL91 horn and lens, and LX5 (500 cps) crossover network. LE15A has 20 cps resonance, 4" edgewound copper ribbon voice coil and 19.5 lb. magnetic assembly. LE85 uses 1 3/4" aluminum ribbon voice coil and pure silver impedance-controlling ring to maintain flat response through highest frequencies. Intended for use in 6-8 cubic foot closed cabinets. Power capacity 60 watts, 8-16 ohms.....\$387.00

S12 2-Way Speaker System

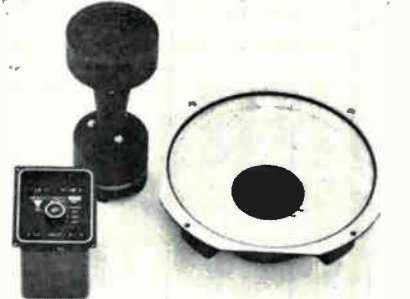
Linear Efficiency components are similar to those used in Lancer 99. Model LE14A



14" woofer has 4" copper ribbon voice coil and specially treated cone for peak-free response. LE20 direct-radiator tweeter gives smooth distribution of high frequencies over wide angle. The two units are controlled by LX8 crossover for imperceptible transition through crossover region. Power capacity 30 watts, 8-16 ohms. For use in enclosures as small as 1.7 cubic feet\$156.00

S16 2-Way Speaker System

Model LE14A 14" Linear Efficiency woofer is matched to LE175DLH high-frequency



assembly by LX7 (500 cps) crossover network. System delivers full-range response in enclosures as small as 2 cubic feet. Power capacity 30 watts, 8-16 ohms.....\$309.00

"Lancer 33" Speaker System

Bookshelf type system using driver identical in performance to LE8T. Removable grille gives access to transducer for inspection or testing. 12 3/4" x 23 1/2" x 11 3/4" deep.

Oiled walnut.....\$93.00
Unfinished fir.....\$84.00

"Lancer 77" Speaker System

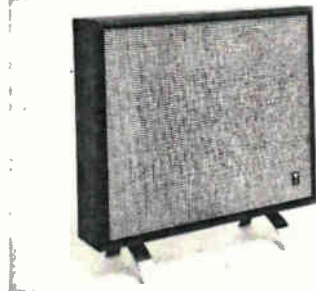
Two-way loudspeaker system uses transducers identical in performance to LE10A

7 Speakers & Cabinets

10" Linear Efficiency woofer, LE20 tweeter, and 2000-cps crossover with adjustable high-frequency control. In addition, the LE10-7 10" passive radiator doubles the radiating area of the woofer in the 30-150 cps region for improved low-frequency performance. Available in mahogany, ebony, tawny walnut, and oiled walnut finishes. 14" x 23 1/2" x 11 3/4" d.....\$156.00
In unfinished fir.....\$147.00

"Trimline 54" Speaker System

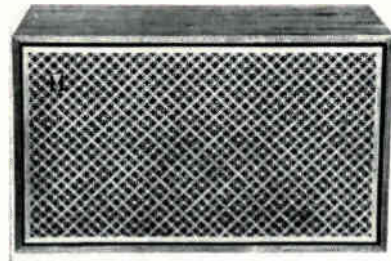
Combines a Linear Efficiency full-range 8" driver (identical in performance to LE8T)



with LE8-7 passive radiator for full-range performance from shallow enclosure. Finished four sides in oiled walnut. 23 3/4" x 20" x 5 1/8" d.....\$117.00

"Lancer 99" Self-Energized System

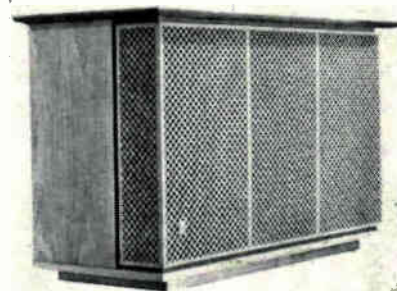
Furnished as a matched pair of oiled walnut systems with matched transistorized



audio power source built in. Loudspeaker components are identical in performance to S12 system, and power source is JBL Stereo Energizer. Each system 14" x 23 1/2" x 12" d. Complete Energized stereo pair.....\$675.00

"Olympus S7" Speaker System

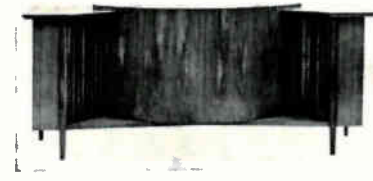
Massively built enclosure houses S7 components. Available with fabric grille or



with hand-carved wood fretwork grille as shown. Furnished in oiled walnut or tawny walnut. 19 3/4" x 40" x 27 1/4".
C50 enclosure only, fretwork grille \$258.00
Complete with S7 components installed.....\$645.00

"Metregon" Stereo Reproducer

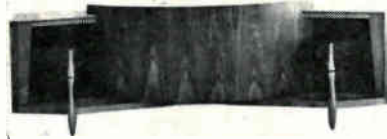
Exclusive Radial Refraction system integrates sound from two sets of loudspeakers



into a single three-dimensional sound source. The JBL S92 system installed, loudspeaker components consist of LE14A woofer, LE175 high-frequency driver with special cast exponential horn, and LX7 (500 cps) crossover network in each channel. 30 watts continuous power, 8-16 ohms. C45 cabinet only in oiled walnut....\$594.00
Complete system with S92 components installed (30" x 74" x 22 1/2").....\$1230.00

"Paragon" Stereo Reproducer

Two sets of professional loudspeaker components are combined with unique Radial



Refraction enclosure to make "ultimate" stereo loudspeaker system suitable for professional stereo monitoring or elaborate home music systems. Each channel uses LE15A bass driver, 375 mid-range and high-frequency driver, and 075 ring radiator for upper overtones. Crossover frequencies 500 and 7000 cps. System almost 9 feet wide and weighs over 500 lbs.\$2250.00

"Apollo S12" Speaker System

A smaller version of the "Olympus," the Apollo enclosure will accept a variety of



JBL loudspeaker systems, including the S12 Linear Efficiency components. Furnished in oiled walnut or tawny walnut with fabric grille or hand-carved wood fretwork grille as shown. 26 1/2" x 23 3/8" x 18" d.
C51 enclosure only, fretwork grille \$225.00
Complete with S12 components and mounting adapter installed.....\$384.00

"D53LE14C" Speaker System

Features LE14C speaker system installed. Finished four sides in oiled walnut or tawny walnut with contrasting grille fabric. 23 1/2" x 14" x 12 1/4" deep.
C53 enclosure only.....\$ 48.00
Complete with LE14C installed.....\$198.00

"Harkness 001" Speaker System

Enclosure loads the back of the low-frequency speaker with a true exponential horn for maximum bass efficiency. The 001 components are installed. Available in tawny walnut or oiled walnut. 28 3/4" x 37 3/8" x 20" d.
C40 enclosure only.....\$201.00
Complete with 001 components installed

.....\$468.00

"D38002" Speaker System

Compact system consists of reflex enclosure with the 002 components installed. Enclosure features distinctive shadow box styling, with 3/4" stock. Tawny walnut or oiled walnut with turned satin aluminum legs. 24 1/8" x 23 3/4" x 15 1/8" d.
C38 enclosure only.....\$93.00
Complete with 002 components and mounting adapter installed.....\$258.00

"D37030" Speaker System

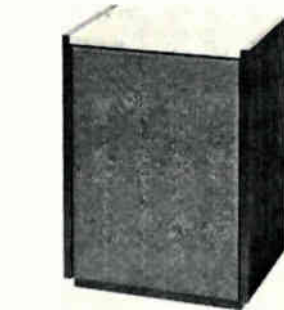
Lowboy reflex enclosure featuring 030 loudspeaker components. Furnished in oiled



walnut or tawny walnut with turned satin aluminum legs. 28 7/8" x 36" x 16" d.
C37 enclosure only.....\$156.00
Complete with 030 components installed.....\$345.00

"Dorian S16" Speaker System

Enclosure features top panel of solid polished Adriatic Travertine marble. Side



panels of tawny walnut or oiled walnut, with charcoal or beige grille. 24 1/4" x 17 1/2" x 12 1/2" d.
C56 enclosure only.....\$75.00
Complete with S16 components installed.....\$384.00

LEAK

"Mk II Sandwich" Speaker System

Completely sealed, air-tight enclosure with dual high-efficiency speakers (1 l.f. & 1



h.f.); response 30-18,500 cps ±2.5 db; 70 watts continuous power capacity; 15 ohms impedance; free-air resonance 19 cps; crossover 900 cps; both speakers have

special polyfoam cone with thin aluminum "sandwich" skins for added strength and reduced breakup distortion; 15" x 26" x 12" d.; choice of Scandinavian woods.....\$199.00

OLSON ELECTRONICS

S-548 (Castle Bell) 8" Speaker

Features double-wound voice coil; flexedge cone plus exponential high-frequency whizzer; full-range sound; response 30-15,000 cps; 12 watt capacity; 8 ohms.....\$5.98

Model S-599 Horn Tweeter

Enclosed in metal housing; can be mounted to front of cabinet or on attached stand:



requires 3" mounting hole; response to 15,000 cps; 8 ohms; 4" x 3 1/2".....\$3.99

Model S-496 Coaxial Speaker

6 1/2" design. Response 50-16,000 cps. Features 2" shielded tweeter and LC-type crossover network; capacity 10 watts; 8 ohms\$6.85

Model S-570 Speaker System

Response 50-18,000 cps; oiled-walnut cabinet; high-compliance 8" woofer and special horn-loaded compression driver tweeter; built-in crossover; 10" h. x 18" w. x 6 1/4" d.; capacity 15 watts; 8 ohms.....\$37.88

S-677 Speaker System

Ultra compact size; bookshelf design. Response 65-18,000 cps; 5 w. r.m.s. capacity (15 w. music power); 8 ohms. 3/8" laminated walnut cab. 6" w. x 9" x 5" d..\$14.98

QUAM-NICHOLS

Model 69C6X Speaker

6" x 9" dual-cone, extended-range speaker; capacity 12 watts; frequency response 50-15,000 cps ± 5 db; 8-ohms. Baffle opening 5 7/8" x 8 1/16" x 3" deep.....\$13.95 List

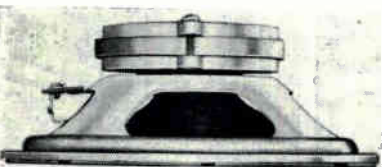
Model 8A4CO 8" Coaxial

Dual-cone type speaker with built-in crossover network; 50-15,000 cps ± 5 db; 10



watt rating; resonance 70 cps; 4 5/16" deep\$22.95

Model 8C12X Speaker



8" extended-range design; 15 w. capacity; 50-14,000 cps ± 5 db; 3 1/8" deep....\$20.00

Model 12C12X Speaker

12" dual-cone, extended-range speaker; capacity 18 watts; response 30-16,000 cps ± 5 db; 8-ohms; depth 4 1/2"....\$26.00 List

Model 12C12L Speaker

12" woofer, 15 watts; response 30-3000 cps ± 5 db; resonance 55 cps; 4 1/2" deep\$26.00

Model 15C12L Speaker

15" woofer, 15 watts; response 20-4000 cps ± 5 db; free-air resonance 50 cps; 8 ohms; depth 7 1/2".....\$45.00

Model 3A15T Tweeter

3 1/2" tweeter; response 2000-18,000 cps ± 5 db; 10 watts; resonance 1100 cps; 14 ohms\$5.75

Model 5A15T Tweeter

5" tweeter; response 2000-18,000 cps ± 5 db; 10 watts; 14 ohms.....\$6.50

RCA

MGS40 3-Way Speaker System

Fully enclosed cabinet with 15" woofer, wide-angle 1000-cps exponential horn & 3 1/2" tweeter. Response 20-20,000 cps; crossovers @ 1000 & 8000 cps; 8 ohms; walnut finish. 26 1/4" x 28 1/16" x 15" d.....\$125.00

XFK21 2-Way Speaker System

Bookshelf design with an 8" duo-cone bass & mid-range and two 3 1/2" tweeters. Crossover 5000 cps; response 70-20,000 cps; 8 ohms; Walnut veneer on particle board; 10 1/16" x 19 1/16" x 11 3/8"\$39.95

XFK22 2-Way Speaker System

Has 10" duo-cone & two 3 1/2" tweeters; response 60-20,000 cps; 5000 cps crossover; 8 ohms; walnut veneer on particle board; 12 1/2" x 24 1/16" x 14 3/4" d.....\$49.95

XFK23 3-Way Speaker System

Has 12" oval woofer, 7" oval mid-range & 3 1/2" tweeter. Response 45-20,000 cps; crossovers 500 & 5000 cps; 8 ohms; walnut veneers on particle board; 26 1/4" x 22 1/16" x 15" d.....\$69.95

MGS10 2-Way Speaker System

Bookshelf design with 9" oval duo-cone & a 3 1/2" tweeter (5000 cps crossover). Response 80-20,000 cps; 8 ohms. Walnut grained finish. 8 3/4" x 17 3/4" x 6 1/2" d.\$25.00

REALISTIC

"Solo-1" Speaker System

2-way speaker system with 8" woofer and coaxially mounted "whizzer"; frequency response 50-14,000 cps; 14 1/2" x 11" x 10 1/2"; shpg. wt. 12 lbs.; mahogany..\$19.95 Oiled-walnut\$22.00

"Solo-2" Speaker System

Consists of 8" coaxial speaker; frequency response 45-16,000 cps; 8 ohms; 20" x 11" x 10"; mahogany.....\$29.95 Oiled walnut\$33.00

"Solo-3" Speaker System

Consists of 8" woofer & two 45° mounted tweeters. Response 40-17,000 cps; 8 ohms; 12 watt capacity. 22 1/2" x 13" x 11 1/2". Mahogany\$39.95 Oiled Walnut\$44.00

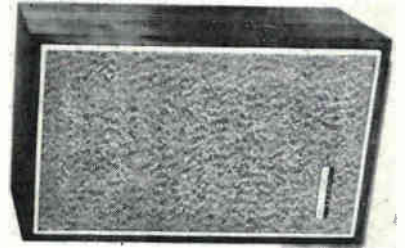
"Solo-4" Speaker System

Compact, rear-loaded reflex-type enclosure;

response 100-12,500 cps; 8 ohms; 10 watts power handling capacity; oiled-walnut finish; 6 1/4" x 7 1/2" x 15 3/4"\$12.95

"Solo-5" Speaker System

Combines 6" woofer & cone tweeter. Has high-frequency level control; response 40-



15,000 cps; 8 ohms; 12 w. capacity. 16" x 10" x 6 13/16". Walnut.....\$49.90

"Solo-10" Speaker System

Designed by KLIH. Combines 10" woofer & cone tweeter. Response 20-15,000 cps; 8 ohms; 60 w. capacity. 23 1/4" x 12" x 8 3/4" d. Walnut.....\$79.95

"Electrostat-2" Speaker System

Features four-element electrostatic tweeter with built-in crossover and attenuator: re-



sponse 45-25,000 cps; high-compliance 8" woofer; 120 degrees dispersion; 22 1/4" x 13" x 12 1/2"; oiled walnut or mahogany\$59.95

"Electrostat-5" Speaker System

Combination "slim design" enclosure (5 1/2" deep) with woofer and two electrostatic tweeters; response 50-20,000 cps; 8 ohms; 12 watts; high-frequency level control; walnut finish with cane-type grille; 16" x 16" x 5 1/2".....\$34.95

"Planoramic-3" Speaker System

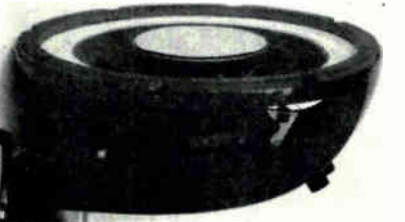
Slim, 3-speaker design (2 1/2" cone tweeter, 8" mid-range & 8" woofer). Response 50-15,000 cps; 8 ohms. 12" x 17 3/4" x 4 1/2". Walnut finish.....\$29.95

"Planoramic-6" Speaker System

Slim, 6-speaker design (two 2 1/8" closed-back cone tweeters, 2-8" mid-range & 2-8" woofers). Response 30-18,000 cps; 8 ohms; 17 3/4" x 21" x 4 1/2" d. Walnut finish\$39.95

8" Coaxial Speaker

8" low-freq. with coaxial mounted tweeter. Response 35-20,000 cps; 8 ohms; 30 w. capacity; epoxy boxed.



7 Speakers & Cabinets

40R1188\$15.95

8" Whizzer Cone Speaker



Response 35-17,000 cps; 8 ohms; cast-iron frame. 40R1187\$12.95

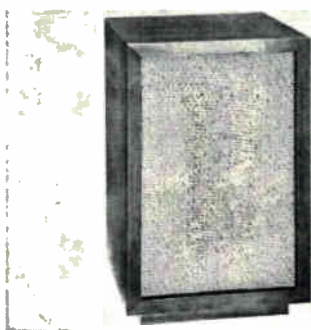
ROCKFORD

Model 128 Speaker Enclosure

Bookshelf type vented-port design for 8" speaker; 20 1/4" x 9" x 10"; finished on all four sides: walnut, mahogany, blonde, or ebony\$25.50
 Model 212 Same as 128 except will accommodate 12" speaker; 12" x 14 1/4" x 24"\$35.00

112 Speaker Enclosure with Base

Vented-port design for 12" speaker &



tweeter; 16" x 24" x 13 1/2"\$48.00

SCHOBER

LSS-10 Speaker System

Designed primarily for use with electronic organs; one 12" bass speaker plus 8" treble



speaker with 250 cps electrical LC crossover network; response 32-13,000 cps; 40 watts organ tone; ducted port enclosure tuned to 32 cps; 8 ohm impedance; 24" x 19" x 36"; sold direct only and as a semi-kit. 3/4" thick wood, walnut finish.
 LSS-10W (walnut finish)\$150.00
 LSS-1K Kit including speakers, crossover, and construction plans for cabinet....\$69.50

LSS-100 Speaker System

4-way speaker: 15" bass speaker, 8" mid-

range, horn-type treble unit, and horn-type super-high tweeter; crossovers at 250 cps, 1 kc., and 3.5 kc.—all-electrical LC network; response 32-20,000 cps; 100 watts organ tone; ducted port enclosure tuned to 32 cps; 16 ohm impedance; 29 1/2" x 22" x 47"; sold direct only. 3/4" thick wood, walnut finish\$300.00

RV-3C Reverberation Tone Cabinet

Speaker system including one 12" speaker, Schober "Reverbatape" unit RV-3, and 40-



watt transistor amplifier; equipped with six-input mixer for use with multi-channel organs, electric guitars, high-fidelity, and other applications. Available through dealers\$555.00

H. H. SCOTT

Model S-2 Speaker System

Three-way system using a 12" high-compliance woofer; two midrange drivers mounted on acoustically isolated, angled mounting boards; high-dispersion spherical tweeter; multiple crossover networks; response over entire audible range; continuous tweeter and midrange controls; 23 3/4" x 14 1/2" x 12 1/2".
 Mahogany, walnut.....\$199.95

Model S-5 Speaker System

Two-way loudspeaker system employing a specially designed low-resonance woofer and tweeter; has crossover network and high-frequency level control; 8 ohm impedance; response 60-15,000 cps ±5 db; 10" x 16" x 6 3/4"; oiled walnut.....\$59.95

SHERWOOD

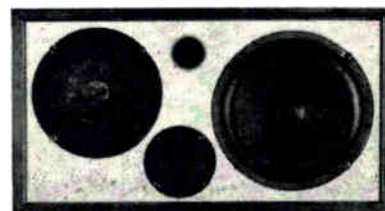
Model SR3 "Ravinia" Speaker System

Three-way design; 12" woofer with free air resonance of 21 cps; 8" mid-range; 3" cone tweeter; electrical crossover network 12 db/octave, 60 & 3500 cps; response 45-17,500 cps ±2 1/2 db; 12-16 ohms; 50 watts program material; IM distortion less than .5% at 5 watts input; harmonic distortion 4% at 30 cps with 10 watts input; brilliance level control; 3/8" dia. port to re-inforce low end; all speakers mount from front; cabinet walls 1" thick; 15" x 26 1/4" x 13 1/4".

SR3W Walnut finish.....\$139.50
 SR3B Unfinished birch.....\$129.50
 SR3U Utility design, less grille.....\$119.50
 SR3K Three-speakers & crossover, less cabinet\$79.50
 Console table.....\$19.95
 Island pedestal.....\$ 9.95

Model SR2 "Berkshire" Speaker System

Same as "Ravinia" except for size (24" x 13" x 9 1/2"); response 53-17,500 cps ± 2 1/2 db; handles 50 watts program material; 10 watts min. recommended; walnut finish



.....\$99.50
 Unfinished birch\$89.50
 Utility Blk., no grille.....\$89.50
 Three speakers & crossover kit.....\$69.50

"Tanglewood" Speaker System

4-way system: two 10" woofers with staggered resonance (17 1/2 & 18 1/2 cps resonance); crossover 200 cps to an 8" mid-woofer; crossover 600 cps to 8" midrange & crossover 3500 cps to 3" ring-radiator tweeter. Each speaker individually chambered. Response 29-17,500 cps ±2 1/2 db; 75 w. capacity; 8 ohms; has brilliance level control; 24" w. x 31" h. x 13" d.

SR4-W Walnut\$219.50
 SR4-B Birch unfinished.....\$209.50
 SR4-U Black lacquer, no grille.....\$199.50
 SR4-K Kit, 6 spkrs. & crossovers....\$109.50

SONOTONE

Model WR8-BH 8" Speaker

Power rating 20 watts average program, frequency range 55 to 15,000 cps; resonance 70 cps; impedance 8 ohms; flux density 12,000 gauss; 1" voice coil....\$13.50

Model CA-12A Speaker

Coaxial 12" loudspeaker; inductor-capacitor dividing network; elliptical tweeter; frequency range 35 to 20,000 cycles; resonant frequency: 50 cycles; crossover frequency: 2000 cycles; power handling: 40 watts average program, 80 watts peak; flux density: woofer—12,000 gauss; tweeter—9500 gauss; impedance 16 ohms.\$31.00

SE-880 & SE-80 Speaker Systems

3/4" non-resonant panels, oiled walnut; lock-mitre joints; "Tufflex" acoustical lining; sculptured finished grille cloth; low frequency design.

Beverly Hills Model SE-880. Response 45-20,000 cps; power handling 40 watts (80 watts peak); 8 to 16 ohms; two 8" coaxial cone-type: 11" x 24" x 17 1/2"\$69.75
 Scarsdale Model SE-80. Response 45-20,000 cps; power handling 20 watts (40 watts peak); 8 ohms; 8" coaxial cone type; 11 1/2" x 12 1/2" x 20 1/2"\$49.75

"Sonomaster" RM-1 Speaker System

High compliance, acoustic suspension system with 6" woofer (50 cps resonance) & 2 1/2" cone tweeter. Response 45-20,000 cps; 8 ohms; crossover 5000 cps; capacity 40 watts music power. Recommended for use with 10 w. or higher amplifier. 14 1/2" x 10 1/2" x 7 1/4" d.; walnut.....\$44.50
 RM-1K Kit same as RM-1 except has unfinished birch veneer cabinet. Kit....\$35.50

"Sonomaster" RM-2 Speaker System

Features 8" high-compliance woofer (50 cps resonance) with 3 1/2" cone tweeter. Response 40-20,000 cps; 8 ohms; crossover 4500 cps; capacity 50 w. music power; 19" x 11 1/2" x 8 1/2" d.; walnut.....\$56.50

"Sonomaster" RM-0.5 System

High-compliance acoustic suspension system with 4" woofer & 2" cone tweeter. Response 55-20,000 cps; 8 ohms; crossover 5000 cps; capacity 20 watts music power. 10 1/2" x 7 1/2" x 7" d.; walnut.....\$39.75

TANDBERG

Model CS40 Speaker System

Contemporary style corner speaker system; frequency response: 60 to 16,000 cps; uses single 8" coaxial speaker with mechanical crossover and metal diffusion grille for dispersion of highs; copper ring used in air gap of speaker magnet to reduce self-inductance of voice coil for high frequency response at full energy; light weight permits mounting of enclosure near ceiling; rear of enclosure constructed with one-piece 3/4" plywood with 90 degree corner bend; volume of enclosure: 4 cubic feet; size: 39.4" h. x 20.9" w. x 9.46" d.; weight: 27 1/2 lbs.; finishes: light elm or fine grain mahogany.....\$87.50

Model 165BK 8" Dual-Cone Speaker

Main cone has extra tweeter cone; flux density 11,000 gauss; maximum applied voltage 5 volts; efficiency 5%.....\$21.50

Model 165B 8" Coaxial Speaker

Consists of bass and mid-range unit with tweeter coaxially mounted; built-in 12 db/octave filter with crossover frequency at 3000 cps\$31.50

TANNOY

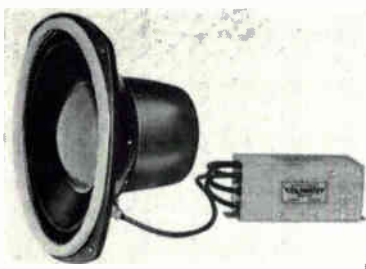
"Chatsworth" Speaker System

Dual-ported bass reflex design; may be used vertically or horizontally; 26" x 12" x 18"; walnut.

Enclosure only.....\$59.75
Enclosure with 12" Dual-Concentric Monitor speaker.....\$199.75
Enclosure with 10" Dual-Concentric Monitor speaker.....\$177.00

10" Dual-Concentric Monitor Speaker

Coaxial speaker—tweeter voice-coil diameter 2", woofer voice-coil diameter 2 1/2"; re-



sponse 27-30,000 cps; IM product less than 2%; crossover frequency 1800 cps; resonance 27 cps; magnet assembly 6 1/4 lbs.; polar distribution -2 db @ 10,000 cps for 60 degrees; power handling capacity 20 watts; adjustable high-frequency control; impedance 16 ohms; recommended mounting infinite baffle type as low as 1 1/2 cu ft.; shipping weight 13 lbs.....\$112.75

12" Dual-Concentric Monitor Speaker

Coaxial speaker with bass resonance of 35 cps; IM distortion less than 2%; tweeter



voice-coil diameter 2"; woofer v.c. diameter 2"; woofer designed for true piston operation; surround treated with stable lossy resin to prevent subsidiary resonance; power rating 30 watts; flux density 11,500 gauss for woofer, 15,000 gauss for tweeter;

dispersion at 60° -3 db at 10,000 cps; crossover 1700 cps; 16 ohms; response 25-20,000 cps; depth 7 1/2"\$138.00

15" Dual-Concentric Monitor Speaker

Coaxial speaker with bass resonance of 32 cps; IM distortion less than 2%; tweeter voice coil 2" dia.; woofer voice coil 2" dia.; woofer designed for true piston operation; surround treated with stable lossy resin to prevent subsidiary resonance; power rating 50 watts; flux density 13,500 gauss for woofer, 18,000 gauss for tweeter; dispersion at 60° -4 db at 10,000 cps; crossover 1000 cps; 16 ohms; response 23-20,000 cps; depth 9".....\$179.00

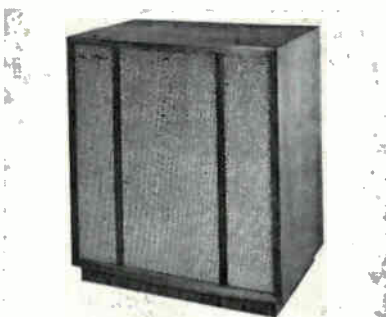
"Belvedere" Senior Speaker System

Designed for use with 15" Dual-Concentric Monitor speaker in stereo reproduction; baffle available for use with 12" speaker; 31 1/2" x 23 3/4" x 16"; oiled walnut.

Enclosure only.....\$87.50
Enclosure with 12" Dual-Concentric Monitor speaker.....\$231.00
Enclosure with 15" Dual-Concentric Monitor speaker.....\$268.50

"Dalton" Enclosure

Bass-reflex type designed for use with either 10" or 12" Dual-Concentric Moni-



tor speakers; 23 3/4" x 23 3/4" x 16"; solid back-to-front legs 2 1/2" high; oiled walnut only\$75.00
Enclosure with 12" Dual-Concentric Monitor speaker.....\$215.00
Enclosure with 10" Dual-Concentric Monitor speaker.....\$192.25

"Autograph" Speaker System

A 15" Dual-Concentric Monitor speaker in a front- & rear-loaded cabinet. The rear horn radiates all frequencies below 350 cps (down to 30 cps) while the front-loaded horn radiates frequencies up to 1000 cps. The high-frequency unit of the Dual-Concentric horn then takes over. Response 30-20,000 cps; efficiency 10%, 16 ohms, 50-watt capacity, 60" h. x 39" w. x 24" d. Walnut\$695.00
Enclosure only.....\$516.00

"Autograph Professional" System

Similar to the "Autograph" except two 15" speakers are used. 100 w. capacity, 8 ohms\$870.00

Model "GRF" Speaker System

Design principle similar to "Autograph" for use with 15" Dual-Concentric Monitor speaker; response 30-20,000 cps ±3 db; 50 watts; 8% approx. efficiency; effective loading down to 35 cps; 42" x 23 3/4" x 17"; oiled-walnut.....\$385.00
Enclosure only.....\$206.00

"GRF Professional" Speaker System

Similar to the "GRF" system except has more complicated horn development. 30-20,000 cps. 52" h. x 22" x 32" w. Walnut\$544.00
Enclosure only.....\$375.00

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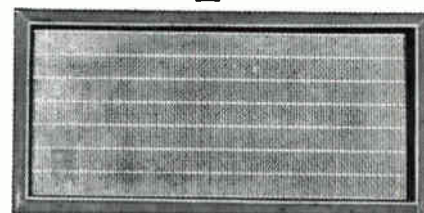
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7 Speakers & Cabinets

"York" Speaker System

Bass-reflex design with 15" Dual-Concentric Monitor speaker. 42" x 23 3/4" x 15" d. Walnut\$279.00
Enclosure only.....\$ 98.00

"Cadet" Speaker System

Infinite-baffle approx. 1 1/2 cu. feet; operates on principle of pressure loading and acoustic absorption of back radiation; designed to be used with 10" Dual-Concentric Monitor speaker; 23 3/4" x 13 1/2" x 11"; oiled-walnut only; with speaker\$149.75
Enclosure only.....\$ 35.00

"Cornetta" Speaker System

Horn-loaded enclosure designed around the 10" Dual-Concentric Monitor speaker. Response 30-20,000 cps ±3 db; power handling capacity 20 w.; effective loading down to 30 cps; 34 3/4" h. x 16 1/2" d. x 18 1/2" w. Walnut finish.....\$269.50
Enclosure only.....\$155.00

UNIVERSITY

All prices shown are "selling price" unless otherwise indicated.

Model UXT-5 Super Tweeter

Response from 4500 to 17,500 cps; dispersion 120° horizontal and 50° vertical; 8 ohms; power rating 25-50 watts depending on crossover.....\$27.25

Model HF-206 Hypersonic Tweeter

Response 3500 cps to beyond audibility; dispersion 120° horizontal and 50° vertical; power rating 25-50 watts depending on crossover; 8 ohms; 6" x 3 3/16" x 6 9/16" \$42.25

"Diffusicone-12" Wide-Range Speaker

Response 28-15,000 cps; power rating 35 watts; 8-16 ohms; 7 1/8" deep.....\$48.75

Model 6201 Coaxial Speaker

Compression tweeter and 12" woofer; response 28-18,500 cps; built-in crossover network with "Brilliance" control; power rating 30 watts; 8-16 ohms; 6 1/8" deep \$71.25

Model 312 "Diffaxial" Speaker

Sphericon tweeter is projected through the center of the 12" woofer; mid-range reproduction is handled by "Diffusicone" section; built-in crossover network and variable "Brilliance" control; mechanical crossover at 1000 cps and electrical at 5000 cps; response 28-40,000 cps; power rating 35 watts; 8-16 ohms; 6 1/8" deep \$90.00

Model 315-C Wide-Range Speaker

15" woofer with T-50 "Hypersonic" driver and horn; response 25-20,000 cps; adjustable tweeter balance; 6 1/2 lbs. of Alnico V magnet material; power rating 50 watts; 8-16 ohms; 12" deep.....\$192.50

Model 4401 Tweeter

One-piece die-cast horn with 120° horizontal and 50° vertical dispersion; hermetically sealed construction; response 2000-15,000 cps; 8 ohms; power rating 25 watts; 6" x 2 3/4" x 6 1/16"\$23.50

"Medallion XII" Speaker System

3-way speaker system consisting of 12" high-compliance woofer, 8" mid-range, Sphericon super tweeter; frequency response 28-22,000 cps; snap-on speaker grilles to match Provincial, Modern, or Contemporary furnishings; mahogany, walnut, oiled-walnut, fruitwood; grilles separate\$167.75
Unfinished\$161.50
Select-A-Style frame for French Provincial in fruitwood\$ 17.25
Select-A-Style frame for Early American in fruitwood\$ 17.25
Select-A-Style frame for Italian Provincial in mahog., wal., oiled walnut, fruitwood\$ 17.25
Select-A-Style frame for Swedish Modern in mahog., wal., oiled walnut, fruitwood\$ 17.25
Above styles unfinished\$ 16.00
Select-A-Style frame for Contemporary in mahogany, walnut, oiled walnut, fruitwood\$ 12.25
Unfinished\$ 9.80
Wood base for Medallion XII (all finishes)\$ 17.25
Unfinished base\$ 16.00

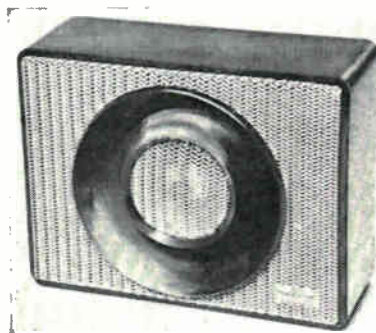
"Medallion Monitor" System

3-way system. 12" high compliance woofer, 8" mid-range, direct-radiator Sphericon super tweeter. Crossover 6 db/octave. Oiled walnut\$159.75

T-202 "Sphericon" Super Tweeter

Domed phenolic diaphragm and spherical diffractor; frequency response 3000-44,000 cps; 120° dispersion; 4 1/8" diameter; built-in crossover network; 3 lbs.....\$31.00

Model T-203 "Sphericon" Super Tweeter



Similar to Model T-202 except housed in case for exterior use; 30 watt rating; 8 ohm impedance.

Model T-203E (ebony).....\$31.00
Model T-203W (walnut).....\$31.00

Model S-9S 15" Speaker System

Consists of Model C-15W, Model T-30 "Cobreflex," Model HF-206 speakers; front-loaded folded-horn type; assembled and wired; unfinished; 40" x 30" x 24". \$560.00

Model 308 3-way "Diffaxial" Speaker

Employs compression tweeter and 8" woofer; mechanical crossover at 1000 cps and electrical at 5000 cps; response 30-17,000 cps; power rating 35 watts; 8-16 ohms; 6 1/8" deep.....\$51.25

"Diffusicone-8"

Response from 30-15,000 cps; power rating 35 watts; 8-16 ohms; 4 1/2" deep.....\$33.75

Model MM2-PPS Speaker

Completely waterproof for use at swimming pools. Polypropylene plastic housing; heavy 18-foot cable with third wire for ground-



ing; power capacity 30 watts; impedance 16 ohms; bracket or flush mounted. List price\$74.25

"Mustang" Speakers

Model M-8. 8" high efficiency; 8 ohms. 2 1/2" deep. Response 70-10,000 cps. Hand-



dles 30 w.\$21.25
Model M-8D. 8" high-efficiency dual-range speaker. 8 ohms. 2 1/2" deep; response 70-12,000 cps; crossover at 1500 (mechanical). Handles 30 w.\$25.00
Model M-12. 12" high efficiency; 8 ohms; 3 3/8" deep; response 35-10,000 cps. Handles 30 w.\$26.25
Model M-12D. 12" high-efficiency dual-range speaker. 8 ohms. 3 3/8" deep. Response 35-14,000 cps; crossover at 1500 cps (mechanical). Handles 30 w.\$28.75
Model M-12T. 12", 3-way diffraxial. 8 ohms. 3 3/8" deep; response 35-40,000 cps. Crossovers at 1500 & 4500 cps. Handles 30 w.\$41.25
Model MS. "Sphericon" super-tweeter; 8 ohms; 3 1/16" d., 3 13/16" dia.; response 3000-22,000 cps. Handles 30 watts.....\$20.00

"Companionette" Speaker System

Two-way speaker system; 8" high-compliance woofer; direct-radiator tweeter; 1.1 cubic foot enclosure; response 40-17,000 cps; crossover frequency 2000 cps; power capacity 30 watts program material; 8 ohms; 16" x 11" x 11"; oiled walnut\$78.50

"Mini-Flex" Speaker System

Three-way speaker system with special viscous-treated moving seal type woofer cone rim suspension; dual-cone mid-range; high-frequency speaker; separate level controls for mid-range and tweeter; response 35-20,000 cps; crossovers at 1000 & 7000 cps (6db/octave slope); power capacity 30 watts; 8 ohms; cabinet .4 cubic foot; 15" x 9 1/16" x 5 1/16"; oiled walnut.....\$82.25

"Mini-Flex II" Speaker System

Special 6 1/2" woofer with 3 1/2" mid-range cone and super tweeter. Crossovers at 800 & 2000 cps. Response 45-18,000 cps. 8 ohms. Handles 30 watts. 0.4 cu. ft. enclosure 15" x 8 1/2" x 6" d.\$61.50

"Senior IIA" Speaker System

Three-way speaker system; 12" woofer, 3 1/2" mid-range, Sphericon super tweeter; response 30-22,000 cps; 8 or 16 ohms; crossover 3000 cps; brilliance control; 25" x 15 1/2" x 12 1/8".



Enjoy it.

The Lively Sound of 66! New from UNIVERSITY — A lively trio of new, enjoyable compact 3-way speaker systems. Modern Scandinavian styling in rich, natural oiled walnut with contemporary boucle grille. Three sizes that go anywhere.

The SENIOR 66 Description — New high compliance 12" woofer, high efficiency mid-range, patented Super Tweeter. ■ 30 watts IPM*. ■ 22-24,000 cps. ■ 23¾" x 15⅞" x 11½" D. ■ Brilliance/Presence control. ■ Selling Price \$123.50

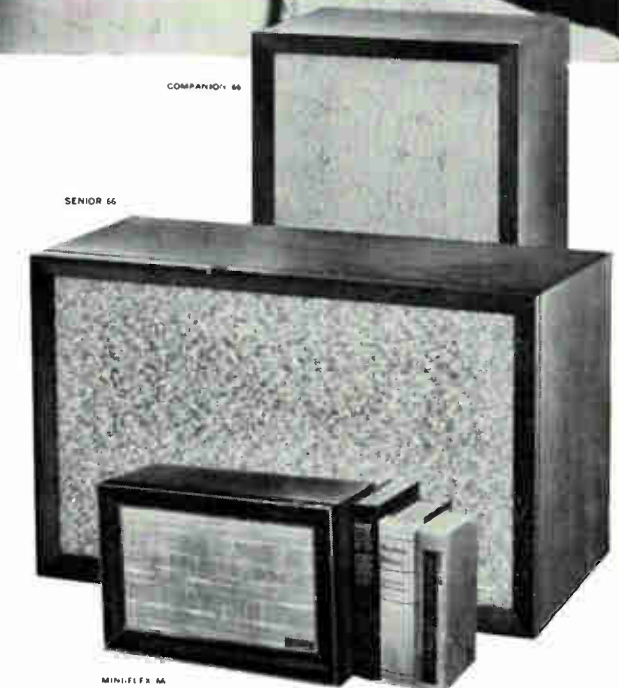
The COMPANION 66 Description — New high compliance 10" woofer, high efficiency mid-range, new 3½" wide-angle tweeter. ■ 30 watts IPM* — 24-20,000 cps. ■ 24" x 13½" x 11½" D. ■ Brilliance Control. ■ Selling Price \$99.50.

The MINI-FLEX 66 Description — Exclusive mass-loaded long throw woofer, direct radiator mid-range, new 3½" wide-angle tweeter ■ 20 watts IPM* — 40-18,000 cps. ■ 15" x 9½" x 6" D. ■ Sealed air suspension system — ebony trim on oiled walnut. ■ Selling Price \$61.50
*IPM — Music Power

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Oiled walnut\$123.50
Unfinished\$110.25

"Companion IIA" Speaker System

Three-way speaker system with RRL ("Radiation Resistance Loading"); has 10" woofer, 3" mid-range, 3½" tweeter; response 35-18,000 cps; 8 or 16 ohms; crossover at 3000 cps.
Oiled walnut\$99.50
Unfinished\$87.25

Model T-50 Hypersonic Driver

Heavy duty high efficiency driver for use with H-600 horn; response from 600 cycles to inaudibility; 8 ohms; 1½"-18 throat; 4½" diameter; 4½" deep.....\$61.25

"Syl-O-Ette" Speaker System

Two-way speaker system in ultra-thin decorator-styled cabinet; choice of interchangeable grille fabric frames; may be used on wall or floor, horizontally or vertically; 8" woofer, 6½" mid-range, subsidiary tweeter-radiator; response 40-20,000 cps; power capacity 30 watts program material; crossover at 500 cps; 23" w. x 29" h. x 4" d. Oiled walnut with decorator cane grille.....\$112.00
Unfinished with decorator cane grille.....\$112.00
Walnut with petit point grille.....\$112.00
Unfinished with petit point grille.....\$112.00
Oiled walnut with neo-classic grille.....\$112.00
Unfinished with neo-classic grille..\$112.00

"Tri-Planar" Speaker System

Three-way, ultra-thin system with 2 woofer panel radiators (234 sq. in. radiation) and a 2¾" tweeter; open-back doublet-type design; response 45-17,000 cps; 4-8 ohms; power rating 20 watts; 15" x 23" x 1¾".
..... \$91.50

Mediterranean Speaker System

3-way system; 12" high-compliance woofer, 8" mid-range (separately housed),



Sphericon super-tweeter. Electrical adjustable bass. Brilliance & presence controls; response 28-20,000 cps; 8 ohms; handles 50 watts.

Antique white\$360.00
Antique butternut\$312.00

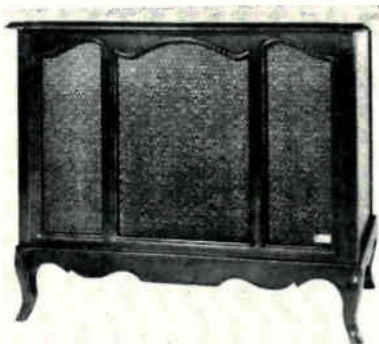
"Classic Dual-12" Speaker System

Similar in styling to "Classic Mark II" but more compact; three-way system; 12" large-excursion woofer, 12" high-compliance woofer/mid-range; Sphericon super tweeter; response 30-40,000 cps; 4 or 8 ohms; RRL tuned ducted-port enclosure; 2.8 cubic feet; 3-step mid-range control and continuously variable tweeter control; power capacity 50 watts program material; 23¾" x 31¼" x 15½"; oiled walnut\$285.75

"Classic Mark II" Speaker System

Three-way high-compliance speaker system; 15" woofer, 8" mid-range; Sphericon super tweeter; response virtually flat from 20-40,000 cps; power requirements 10 to 60 watts; crossover 150 cps; 4-8 ohms; has presence and brilliance controls; 35" w x 28¼" h. (with legs) x 17½" d.; oiled walnut\$368.75

"Classic Mark II" Speaker System



Same as above but French Provincial design; 36" x 29" x 16" d. Fruitwood finished cherry.....\$402.00

Model T-30 Driver

Mid-range and high-frequency driver for use in 2, 3, or 4-way systems; response



200 to 15,000 cps; use with H-600 or "Cobreflex" horns; 8 ohms; 3½" diameter; 3¾" deep.....\$38.50

Model H-600 Horn

Mid-range and high-frequency horn with 600 cps cut-off; die-cast design with reciprocating flare design for uniform dispersion; fits any driver with standard 1¾"-18 throat\$23.50

Model C-8W 8" Woofer

For use as woofer in compact system or as mid-range in low-cost three-way system; suitable for crossover to 5000 cps; response to 50 cps with proper baffling; power rating 25 watts; 8 ohms; 4¼" deep.....\$18.75

Model C-8M 8" Mid-Range Speaker

Response 500-5000 cps; power rating 50 watts program material; depth 4¼"\$21.00

Model C-12SW Dual Voice Coil Woofer

12" adjustable response woofer; high end may be limited to 700, 2500 or 5000 cps to complement tweeter; 1½ lb. Alnico V magnet; response 30 to 6000 cps; 8 ohms; power rating 30 watts; 6½" deep..\$49.75

Model C-15W Woofer

15" dual impedance woofer; may be used in any system from 4 to 20 ohms; response from below 25 to 1500 cps; power rating 50 watts; 6 lb. Alnico V magnet; 10½" deep\$106.00

Model C-12HC Dual Voice Coil Woofer

High compliance 12" woofer; "Uniferrox-7" magnet material; response to 3000 cps permits use in two-way systems; dual impedance coil; 4-20 ohms; power rating 60

watts; 5½" d.\$62.25

Model C-15HC Dual Voice Coil Woofer

High compliance 15" woofer; "Uniferrox-7" magnet material; response to 800 cps; dual impedance coil; 4-20 ohms; operating power should be from 10 watts up. 8½" deep\$111.00

N-1 Adjustable High Pass Filter

Two-way dividing network with tweeter control; crossovers at 2500, 5000, and 10,000 cps at 8 ohms; 1250, 2500, 5000, at 16 ohms; 5000 and 10,000 cps at 4 ohms; fits panels up to ¾" thick; 3¾" x 3¼" x 3"\$17.25

Models N-2A and N-2B Networks

Adjustable L/C dividing networks; N-2A is 6 db/octave two-way L/C network; may be used in pairs as 12 db/octave low or high-pass filter; crossover 350 or 700 cps at 8-16 ohms; 700 cps at 4 ohms; N-2B is 6 db/octave two-way L/C network; may be used in pairs as 12 db/octave network or singly as 12 db/octave low or high-pass filter; crossovers are 1250, 2500, or 5000 cps at 8 ohms; 2500 or 5000 cps at 16 ohms; 2500 cps at 4 ohms; N-2A and N-2B may be used in combination for three-way systems.

Model N-2A\$23.50
Model N-2B\$17.25

Model AP-8 Balance Control

Attenuator pad to regulate speakers of different efficiencies and for balancing sound for room acoustics and personal taste; ideal for N-2A and N-2B networks....\$4.75

Model N-3 "Acoustic Baton"

Three-way L/C dividing network with variable controls for high and mid-range;



crossover between woofer and mid-range either at 350 or 700 cps; tweeter crossover at 5000 cps; fits panels up to ¾" thick; 8 ohms; 7" x 5" x 3"\$39.75

Model MLC Speaker System

Weatherproof coaxial speaker for outdoor use; frequency response 150-15,000 cps; power rating 15 watts; impedance 8 ohms; dispersion 120 degrees; 12¼" x 9½" x 10½"\$62.50

Model WLC Outdoor Speaker

50-15,000 cps; 30 watts; 90 degree dispersion; completely weatherproof; hi-fi quality; 8 ohms.....\$275.00

Model CLC Outdoor Speaker

Balanced "compression" folded-horn design; completely weatherproof; response 55-14,000 cps; 30-watt power capacity; 120 degree dispersion; 8 ohms; 22¾" x 12" x 11" deep\$99.50

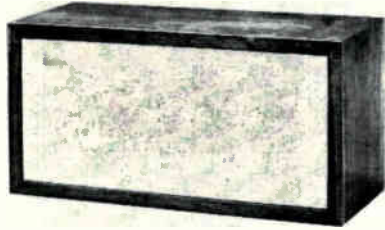
"Cobreflex" Horn

Designed for use as mid-range horn in three-way systems or as high frequency horn in two-way systems; crossover as low

as 350 cps; 120° horizontal and 60° vertical dispersion\$44.50

"Ultra-D" Speaker System

10" Ultra-Linear response woofer; 4" direct-radiator mid-range cone; 3½" super



tweeter; crossover @ 1000 and 5000 cps; brilliance & presence control; response 35-19,000 cps; 8 ohms. Handles 32 watts music power. 23½" x 11½" x 9¾" deep. Oiled walnut\$87.25

UTAH

G Series Speakers

GT5FN-2 5" tweeter; 3000-19,500 cps; 30 peak audio watts; 8 ohms.....\$ 7.95
 GM8J 8" mid-range; 500-13,500 cps; 25 watts (program material); 8 ohms.....\$ 8.95
 G12P5 12" coaxial; 25-19,500 cps; 40 peak audio watts; 8 ohms.....\$23.50
 G15R 15" woofers; 20-4000 cps; 50 peak audio watts; 8 ohms.....\$30.00

Dual-Diameter Speakers

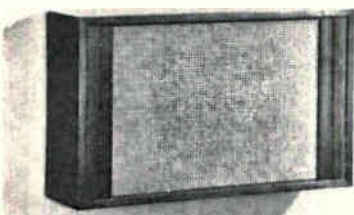
Dual-cone speakers with single voice coil and magnet structure; impedance 8 ohms.
 D8LA (8" full range, 40-16,000 cps, 25 w.)\$14.25
 D8P 8" full-range; 35-16,000 cps; 37 w.\$14.95
 D12LA (12" full range, 30-16,000 cps, 30 w.)\$16.20
 D12P 12" full-range; 30-14,000 cps; 40 w.\$16.50
 All speaker power ratings are peak audio watts.

Crossover Networks

LC type designs for 2- or 3-way systems; air-core coils; potted can assembly; use one 600 cps and one 5000 cps for 3-way system; for "G Series" speakers use 8-ohm crossover; 2½" x 2" x 2".....\$9.00
 X-608 (8 ohms, 600 cps).....\$9.00
 X-5008 (8 ohms, 5000 cps).....\$9.00

SH4C-W "Thin" Speaker System

Can be used on bookshelf or mounted vertically or horizontally on wall; 45-



17,000 cps; 12 watts audio peak power; features 38JC-3 Celesta speaker with cloth roll suspension; 12" x 20" x 5¼"; 8-ohm system; walnut finish.....\$39.95

"Celesta" Series Speakers

C8JC-1 Extended range 8", 35-15,000 cps. Res. freq. 65 cps; 30 w. peak audio\$12.95
 C8JC-2 Two-way 8" coax; 35-19,000 cps. Res. freq. 65 cps; 30 w. peak audio\$13.95
 C8JC-3 Three-way 8" coax; 35-20,000 cps. Res. freq. 55 cps; 30 w. peak audio.....\$18.95

C12JC-1 Extended range 12"; 30-14,000 cps. Res. freq. 50 cps; 35 w. peak audio\$19.95
 C12PC-2 Two-way 12" coax; 25-19,000 cps. Res. freq. 50 cps; 45 w. peak audio\$24.00
 C12PC-3 Three-way 12" coax; 25-20,000 cps. Res. freq. 25 cps; 45 watts peak audio\$29.95
 All 8" speakers are 3¾" deep and all 12" 5½" deep.

Heritage PR01 Speaker System

High-compliance, sealed system. Has 2-way, 3-speaker system with snap out grille panel for fast color change. 10" woofer has sealed, cloth-roll suspension, 2 lb. Alnico V magnet and 2" v.c. 3½" tweeters have new Alnico VIII magnets. 12" x 12" x 24". 30-19,500 cps. 40 watts peak audio power; walnut\$94.95

Heritage PR02 Speaker System

Compact (7" deep) version of PR01; 8" woofer has 6.8 oz. Alnico V magnet, sealed, cloth-roll suspension. The two 3½" tweeters use new Alnico VIII magnets. 35-19,500 cps; LC type crossover; 25 watts peak power; 12" x 24" x 7"; walnut\$54.95

Model PT2 Speaker System

Wall-mounted design 12" x 18" x 3"; bass reflex port; uses 8" woofer and 3" x 5" tweeter; crossover at 2000 cps; 8 ohms; 8 watts peak power; walnut or blonde finishes\$16.32

Model PT4 Speaker System

Deluxe version of PT2; has two 3½" tweeters for response to 18,500 cps; will handle 10 watts audio peak power; 12" x 20" x 3½"; walnut finish.....\$19.95

"Heritage I" Speaker System

Bookshelf design with 3 speakers—12" woofer & two 5" tweeters. 30-18,500 cps; 40 watt capacity; 8 ohms; LC-type crossover. Made of ¾" walnut veneer plywood with 1" fiberglass on 3 inside surfaces; 15" h. x 25¾" w. x 14". Model HS1A-W\$79.95

"Heritage II" Speaker System

Floor design with legs. Has 4 speakers. Response 25-20,000 cps; 50 watt music power; 8 ohms; LC crossover network. Made of ¾" walnut veneer plywood with 1" fiberglass on 3 inside surfaces. 30½" h. x 21" w. x 18¾". Model HS2W.....\$159.95

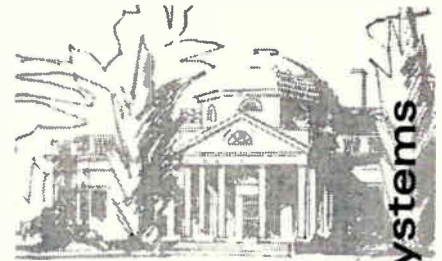
"Heritage III" Speaker System

Floor design with legs. Has 8 speakers. Response 20-20,000 cps; 80 w. music power; 8 ohms; LC-type crossover. Made of ¾" walnut veneer plywood and 1" fiberglass on 3 inside surfaces. 30½" h. x 33" w. x 18¾". Model HS3W.....\$229.95

UTC

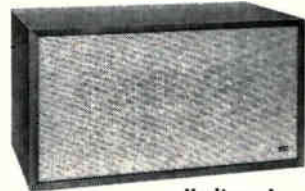
"Triaxiom" Series

Complete range of three-way speakers for every preference and budget; response 20-20,000 cps (unless noted otherwise); "Rigidflex" woofer cones; axially mounted compression tweeter.
 Triaxiom 8 (8", 40-20,000 cps, 15 watts)\$ 29.50
 Triaxiom 250C (12", cone resonance 35 cps, 35 watts)\$ 64.50
 Triaxiom 550C (12", cone resonance 35 cps, 45 watts)\$ 79.50
 Triaxiom 555C (15", cone resonance 25 cps, 50 watts)\$ 89.50
 Twinaxiette 8 (8" twin-cone, 40-18,000 cps, 15 watts).....\$ 18.95



Pinnacle of SOUND imagery!

From the traditional house of sound comes the fabulous HERITAGE SERIES of sound systems. UTAH has a tradition of producing the finest quality speakers and cabinets and this new series is part of that heritage. Both bookshelf and console models set new standards in total quality. Each high styled cabinet is individually assembled. Tweeters have a "double shell" construction with fiberglass between the chassis and outside cover to minimize reflections. High flux density and a special cone clamping technique contribute toward the high efficiency. Woofers have massive Alnico V magnetic circuits and large diameter voice coils for effortless reproduction. Utah's cross-over networks are tailored to the reproducers and enclosures for best system "balance" and minimum distortion.



Heritage I
 Bookshelf Model
 3-speaker system
 12" woofer
 2-5" tweeters



Heritage II
 For the expert connoisseur
 4-speaker system
 Frequency response:
 25/20,000 cps
 Power handling:
 50 watts



Heritage III
 A new level of music enjoyment
 8-speaker system
 Frequency response:
 20/20,000 cps
 Power handling:
 80 watts

Write or call for complete information



HUNTINGTON, INDIANA

CIRCLE NO. 73 ON READER SERVICE CARD

Utah's HERITAGE Hi-Fi/Stereo Sound Systems

7 Speakers & Cabinets

"Maximus 1" Speaker System

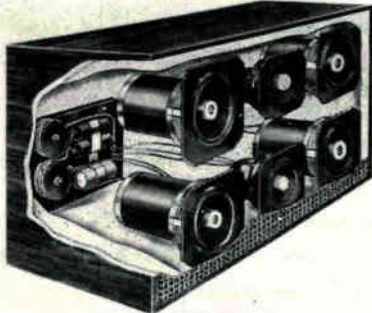
Specially designed "Maximus" woofer crosses over at 1900 cps to a back-loaded midrange/high freq. unit. Response 45-20,000 cps; 15 w.; LC crossover, 10 1/2" x 5 1/2" x 7 1/4"\$59.50

"Maximus 2" Speaker System

Handles twice the power of "Maximus 1." Has 2 "Maximus" woofers. Response 35-20,000 cps. 14 1/2" x 11" x 8"\$109.00

"Maximus 3" Speaker System

Employs 4 "Maximus" woofers & 2 mid-range/high freq. units. Response 30-20,000



cps; 60 watts; Dist. less than 1/2% 150-20,000 cps (5% @ 30 cps); 18" x 12 3/4" x 10"\$169.00

Axiom 80

9 1/2" speaker, 20 to 20,000 cps; 15 watts peak power handling; fundamental resonance 20 cps; flux density 17,000 gauss; utilizes 3 pairs of double action cantilevers to provide a custom built, hand assembled, true free-edge cone speaker to handle lowest bass tones with minimum distortion\$69.95

"Maximus 4-5-6-7" Speaker Systems

Features a cushioned-air pneumatic suspension technique, 2-way grille & walnut finish all six sides.

"Maximus 4" 2-way system, 8" woofer & a shielded back-loaded mid-treble lens speaker; LC crossover 1800 cps; variable level control; response 35-20,000 cps; 8 to 16 ohms; 40 w. capacity; 21 3/4" x 11 3/4" x 11 3/4"\$97.50

"Maximus 5" 2-way system, 50 w. capacity; needs 3 w. to drive; has woofer & shielded closed-back mid-high-freq. lens speaker. LC crossover @ 1800 cps. Response 30-20,000 cps; 8 to 16 ohms; 24" x 14" x 12"\$129.00

"Maximus 6" 3-way system, 75 w. capacity (3/4% dist.). Has woofer & 2 shielded back-loaded bipolar mid-treble lens speakers. LC



crossover 1800 & 8000 cps. Variable level control; 8-16 ohms; 24" x 14" x 12"\$169.50
 "Maximus 7" 3-way design; 75 w. capacity (3/4% dist.). Has 12" woofer & 2 shielded back-loaded bipolar mid-treble wide-dispersion lens radiators & a dome lens compression-type multi-cellular ultra-high treble horn. LC crossovers 1800 & 8000 cps. Has variable mid & treble level controls. 25-35,000 cps; dist. 3% @ 30 cps; 8-16 ohms; 24" x 14" x 12"\$189.00

V-M CORP.

Model 62 "Silhouette"

Combines a 10" woofer, 6" mid-range, and 3 1/2" tweeter with ultra-thin enclosure that can be hung on wall, built into wall, or left free standing; response 30-16,000 cps; crossover 600 cps and 5000 cps; 25 watts program power rating; 8 ohms; 26 3/4" h. x 20 1/2" w. x 4 3/4" d.; walnut finish Retail price.....\$85.00

Model 43 Speaker System

Slim design; 6" woofer & 3 1/2" tweeter; response 50-14,000 cps; crossover 2500 cps; power 15 w. program; 8 ohms; walnut with cane grille; 20" h. x 15" w. x 4 1/2" (21 5/16" with legs). Retail price.....\$49.95

Model 33 Speaker System

Shelf design; 6" woofer, 5 1/2" mid-range, 3 1/2" tweeter. Response 50-14,000 cps; crossover at 2500 cps; power 10 w. program; 8 ohms. Hardwood walnut finish with cane grille; 8 3/8" h. x 15 3/8" w. x 5 1/2" Retail price.....\$29.95

WHARFEDALE

Model W40 Mk II

Can be used vertically or horizontally; sand-filled panels; 10 1/4" low-frequency driver;



5" tweeter; 23 1/2" x 12 1/2" x 10 1/8" deep; available in oiled or polished walnut; 8 ohms; power requirements 5 w. or more; crossover 1500 cps; has treble control. Speakers are physically isolated from each other\$83.50
 Unfinished utility model (birch).....\$72.50

Model W60 Mk II

Shelf-size speaker system with sand-filled panel, containing 12 1/2" and 5" speakers,

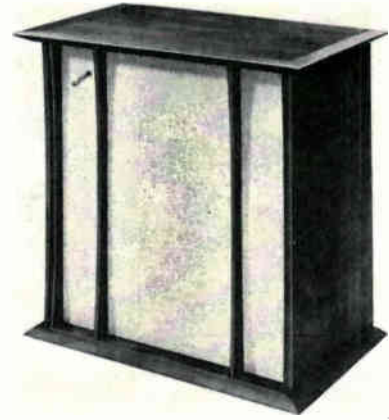


matched to enclosure; resonance 25 cycles; 8 ohms; oiled or polished walnut. Power required 5 w. or more; crossover 1500 cps. Has treble attenuator. 14 1/2" x 13" x 24"

.....\$122.50
 Sanded unfinished birch.....\$106.50

Model W70 Mk II

3-way sand-filled panel system; 12 1/2" low-freq. driver, 10 1/4" midrange & 3" cone-



type tweeter. Resonance of woofer 25 cps, of midrange 27 cps. 8 ohms. Requires 6 w. to drive; crossover 1500 & 6000 cps (LC type). Has treble attenuator. Oiled or polished walnut; 23 7/8" h. x 24" w. x 14 1/2" d\$172.50
 Sanded birch utility model.....\$153.50

Model W90 Mk II

Features sand-filled enclosure & a dual 3-way, 6-speaker system: 2-12 1/2" low-freq. drivers, 2-5 1/2" midrange & 2-3" cone tweeters. Resonance freq. of woofer 25 cps. Crossovers at 500 & 6000 cps (LC type). 4 ohms. Requires less than 10 watts to drive & has treble and midrange attenuators. Oiled or polished walnut.....\$272.50
 Sanded birch utility model.....\$256.50

Mounting Base

For use with Models W60,W70,W90 systems; two leg assemblies are supplied with connecting dowel; can be used with speakers mounted vertically or horizontally by shortening the connecting dowel; available in walnut\$10.50
 Unfinished sanded birch model.....\$ 9.50

Super 3 Tweeter

Cone-type 3" tweeter; flux density 14,500 gauss, total flux 75,500 gauss; smooth high-frequency response is achieved by eliminating the conventional centering device; may be used with 2- or 3-way systems as high-frequency tweeter; impedance 8 ohms; 2 1/4" deep\$26.50

Super 8/RS/DD Full-Range

Cone type 8" speaker with aluminum voice coil; bass resonance 50-60 cps; 10-15 ohms impedance; flux density 14,500 gauss, total flux 60,000 gauss. Depth 3".....\$26.50

Super 10RS/DD Full-Range

10" dia. speaker; 10-15 ohms; resonance 38-43 cps; depth 5 1/4"\$47.50

Super 12RS/DD Full-Range

12" dia. speaker; 12-15 ohms; resonance 26-36 cps; depth 7"\$89.50

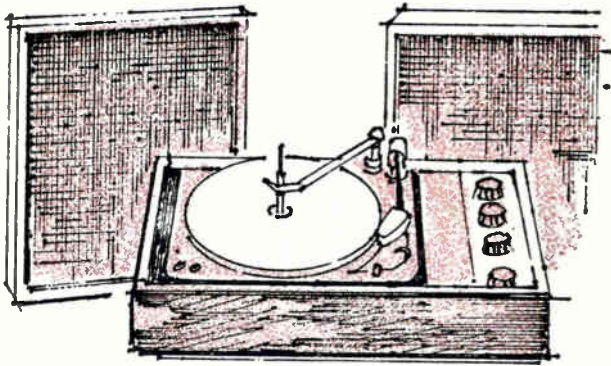
Model W12/RS Woofer

Low-frequency speaker; 12" dia. 12-15 ohms; resonance 26-34 cps; speaker depth 6 1/2"\$52.50

Model W15/RS Woofer

Low-frequency speaker; 15" dia.; 15 ohms; resonance 26-32 cps; depth 7 1/2".....\$89.50

HI-FI SYSTEMS.....147



BENJAMIN

Stereo 200 Phono/Amplifier

Integrated design combining an auto/manual turntable with a transistorized



stereo amplifier. Supplied with a Miracord record changer, arm, and Elac 222 stereo-magnetic, diamond stylus cartridge. Amplifier 18 w./ch. music power (14 w./ch. r.m.s.) at 1% distortion. Response 10-22,000 cps \pm 1 db. Sensitivity: phono 5 mv., aux. 200 mv. Output 8 or 16 ohms. Has tape output, basic operating controls. Walnut cabinet with plexiglass lift cover. 18 3/8" w. x 16" d. x 9 1/2".....\$219.50

Stereo 200-FM Phono/FM/Amp

Same as Model 200 phono/amp except a transistorized FM stereo tuner has been



added. Tuner has automatic stereo switching, stereo indicator, a.f.c. sw. Usable sensitivity 3.5 μ v.; HD 1%; response 30-20,000 cps \pm 1 db; channel separation 25 db. Miracord PW-40 record changer is used..\$329.50

BOGEN

VP18 Portable Phono Player

Transistorized mono, 10 w. r.m.s. design.



Bogen B51 turntable is used with a ceramic cartridge. Amp has high-impedance mic input & 8-ohm output. Response 45-18,000 cps \pm 1 1/2 db. Speaker is a 12". 15 3/4" w. x 16 1/2" x 10 3/4" h., 117 v. operation. 31 lbs.\$140.90

VP25 Portable Phono Player

Transistorized mono 20 w. r.m.s. design. Bogen B51 turntable is used with a G-E variable reluctance cartridge & dual sapphire styli. Amp. response 45-18,000 cps \pm 1 db; inputs: 5 mic., radio/tape. Has 4,8,16 ohm & 25 v. balanced, 70 v. outputs for multiple speaker operation. Single portable case with 12" speaker in lid. 15 3/4" w. x 16 1/2" d. x 10 3/4" h., 40 lbs. 117 v. operation\$177.25

VP50-DS Portable Phono Player

Same as VP25 except 40 w. r.m.s. & supplied with dual speaker system mounted



in separate cabinet.....\$249.25

Various accessories are available. Note: Models VP25 & VP50DS could operate from 12-15 v. d.c. but an inverter is required to operate phono on 12-15 v. d.c.

CHANNEL MASTER

6538 AM-FM Stereo System

Features a.f.c.; tuning eye; stereo indicator. FM usable sensitivity 9 μ v.; 1.2 w./ch. out-



put; hum & noise -40 db; HD 1.5% at 100% modulation; channel separation 30 db; removable speaker lids house 6" wide-range speakers. Has 12 tubes, 9 diodes; 21 1/2" x 10 1/2" x 9" includes spkr. cabinets; walnut cabinets.....\$169.95

ELECTRO-VOICE

"Entertainer I" Phono System

Combines transistorized 15 w./ch. music



power stereo amplifier, a Garrard automatic turntable & 2 portable speaker systems. Has separate bass & treble controls. Turntable plays all 4 speeds (78, 45, 33 1/2 & 16 2/3) & provides intermix of up to 8 records of all sizes. Has ceramic stereo turnover cartridge with diamond stylus; 8" coaxial speakers (6000 cps crossover) with 10' cord. Response 7-15,000 cps; HD 1.5% at rated output; channel separation 35 db @ 1000 cps; hum & noise 60 db below rated output. Amp/turntable 15 7/8" x 20 1/2" x 9". Speakers each 16 3/4" x 17" x 5 7/8". Speaker modules can be carried as single unit. Molded Terra-Brown airplane luggage-type cases..\$199.00

ERIC

"Dictionary of Music"

Includes designs similar to ST-100 FM Stereo tuner & SA40P integrated stereo



amplifier but encased in two books. The bound end is hinged to permit access to controlsList \$218.00

FISHER

Model 50 Phono System

Portable design combining a Garrard 4-



speed, automatic turntable; Pickering diamond stylus magnetic cartridge; 15 w./ch. music power stereo amp & two speaker systems. Turntable has automatic "off" switch & will intermix 7", 10" & 12" records. Transistorized amplifier has bass, treble, balance & volume controls, 6-pos. mode sw., headphone & mic jacks, speaker "on-off" sw. & 2 high-level inputs for tuner or tape recorder. Each speaker has 6" wide-range unit with 10' cord. Supplied with durable Royalite carrying case. 23 3/4" w. x 8" h. x 14 1/4". 35 lbs.....\$199.50

Model 75 Phono System

Similar to Model 50 except for speakers & cabinet. Each speaker has an 8" bass driver



& a 2 1/2" treble. Response down to 40 cps. Cabinets are oiled walnut, contemporary design; changer/amp. 24 1/2" w. x 5 1/2" h. x 14 3/8" d.; speakers 16 1/4" x 10 3/8" x 9 3/8" d.\$249.50

HARMAN-KARDON

"Stratophonic Compact" SC440 System

Consists of an all-transistor AM-FM stereo receiver of 36 watts (18 w./ch.) music



power (80 w. EIA); built-in Garrard AT-60 automatic turntable; and a pair of Harman-Kardon speakers; response 8-25,000 cps \pm 1 db at 1 watt, 10-23,000 cps at rated output; HD less than 1%; damping factor 25:1; usable FM sensitivity 2.9 μ v. IHF; multiplex separation 30 db; receiver/turntable module 18" w. x 16" d. x 5" h.; speaker system 20" w. x 9" d. x 12" h. Dust protector optional.....\$399.00

KLH

Model Fifteen Compact

Compact stereo unit with integrated speaker systems & amplifiers; control center houses KLH automatic turntable mechanism with 4-pole motor; low-mass tonearm with



Pickering V-15 cartridge & diamond-stylus. Transistorized stereo amplifier. Controls: volume, balance, bass & treble (each with 15 db boost or cut), mono/stereo sw., phono/aux. sw.; stereo/aux. inputs also available on control panel; stereo headphone & stereo record/speaker outputs on rear panel; speaker system consists of two 3" drivers in ducted port enclosures; speakers may be separated up to 40 ft. with cables supplied; cannot be used with other amplifiers; dimensions: control center—4" h. x 18" w. x 14" d.; speaker enclosures (each)—8" h. x 14" w. x 8 1/4" d. Oiled walnut.....\$229.95

Model Twenty Stereo System

Complete system consisting of master control center & two speaker systems; control center contains KLH automatic turntable with low-mass tonearm & Pickering cartridge with diamond stylus; transistorized stereo preamp/amp with music power output of 40 watts, 100 watts peak; FM multiplex tuner with zero-center tuning meter, stereo signal beacon, built-in antenna, and vernier planetary tuning. Rotary controls: loudness-compensated volume, balance, bass, treble, and program selector. Slide switches: mono/stereo mode and power on/off. Output jacks for stereo headphones, stereo tape recording, speakers; two aux. inputs plus ext. 300-ohm antenna connection. Loudspeakers: 10" acoustic suspension woofer with special cone and magnetic circuit, 1 3/4" direct-radiator tweeter, plus special LCR crossover to permit increase or decrease of 2 1/2 db in high-frequency level without shelving in crossover region; speakers must be used only with Model Twenty amplifier. Dimensions: control center—4" h. x 18 1/4" w. x 14" d.; each speaker enclosure—23 1/8" h. x 11 3/4" w. x 9" d. Choice of oiled walnut or mahogany\$399.95

Model Eleven W Compact

Cabinet version of the Model Eleven portable; designed for permanent placement; components are identical to those in Model Eleven. Dimensions: control center—4" h. x 18" w. x 14" d.; speaker enclosures (each)—8 1/2" h. x 15" w. x 4" d.....\$199.95

Model Eleven Portable Phono

Transistorized stereo design with 4-speed KLH automatic turntable (built by Gar-



rard), a Pickering V-15 pickup, integrated amplifiers, two sealed speaker systems, each using KLH, full-range 3" speaker. Case of vinyl-clad "Contourlite". Stereo auxiliary inputs (high-level), 40' of speaker cable. 28 lbs.....\$199.95

Model Eleven-FM

Same as Model Eleven stereo portable phono except FM-stereo tuner built in. (Tuner same as Model Eighteen except for control features.) Tape outputs, stereo auxiliary inputs. Weighs only 29 pounds.....\$279.95

Model Nineteen

Basic circuitry same as Model Fifteen except FM multiplex tuner added. (Tuner same as Model Eighteen except for control features.) Tape outputs, auxiliary stereo inputs. No separate headset jack; headphones may be substituted for speakers.....\$229.95

LAFAYETTE

"PRO 50" Stereo Phono System

10 w./ch. transistorized design with Garrard 4-speed automatic record changer and



two speaker systems. Record changer has automatic intermix of 7", 10" and 12" records, automatic shut-off & turnover cartridge for LP & 78 rpm records. Each spkr. contains an 8" woofer & 3 1/2" tweeter. Amp. has 4 controls: loudness, bass, treble, balance plus FM tuner input jack & selector sw. for addition of FM tuner. 21" w. x 3 3/8" h. x 13 1/2" d. Speaker enc. size 15 1/2" h. x 13" w. x 4 1/2" d. Walnut wood cabinets\$129.95

OLSON ELECTRONICS

AM-229M Stereo Amp/Speaker

Complete integrated design: preamps, power amplifiers & speakers. Speakers have



2nd voice coil generating distortion-canceling voltage which is fed back to amplifier. 15 w./ch. Response 30-25,000 cps; hum & noise —60 db; 8-ohm output. Amp. inputs: mag or crystal phono, tuner, tape & aux. Walnut speaker cabinet 19 3/4" x 11 3/4" x 6". Amp. 14 3/4" x 9 3/4" x 5 3/8".....\$149.98

RCA

MGJ44 Phono/Amp System

Combination of MGL22 automatic/manual record changer & transistorized 6 w./ch. amplifier system. Has separate bass & treble controls, loudness & balance controls & switched headphone jack. Response 20-20,000 cps; stereo separation 40 db @ 1 kc.; hum & noise 80 db below rated output. Both mounted in single walnut grained cabinet. 5 1/16" base, 9 3/16" over-all x 21 5/16" w. x 14 3/16" d. Recommended speakers RCA MGS10, XFK21 or XFK22.....\$119.95

RHEEM CALIFONE

1990 Phono System

Three-piece solid-state phono unit with Garrard changer & strain-gauge cartridge; 50 w./ch. drive two full-range speakers; all three in walnut cabinets; phono/amp size 7" x 14" x 13 1/2".....\$399.95

1989 Phono System

Three-piece manually operated solid-state stereo phonograph; strobeselector variable



speed motor & turntable; strain-gauge type cartridge; 50 w./ch. drives two full-range high-compliance speaker systems; walnut cabinets; phono/amp size 14" x 13½" x 7"\$349.95

H. H. SCOTT

Stereo Compact

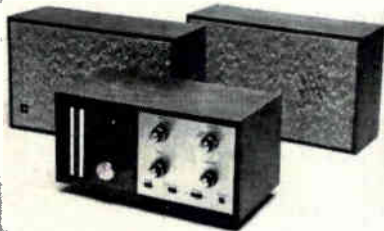
Complete stereo system including speakers; solid-state amplifier; optional solid-state



tuner; high-compliance magnetic cartridge with diamond needle; professional turntable; automatic stereo switching and indication; tuner tuning meter; three stereo inputs; front-panel phone/tape output jack; speaker "on-off" switch; separate bass & treble controls; speaker balance switch; tuner sensitivity 2.8 μv.; stereo separation 30 db; frequency response 20-20,000 cps; distortion .5% normal listening levels; hum & noise 80 db; 24" w. x 8¾" h. x 15" d.; speakers 14" w. x 8¾" h. x 5" d.....\$274.95 Stereo compact with FM-stereo tuner\$399.95

Model 2400

Bookshelf type component stereo system including speakers and tuner/amplifier combi-



nation. Oiled walnut cabinetry; automatic stereo switching & indicator; two stereo inputs; front-panel phone/tape recorder jack; separate bass & treble controls; noise filters; tuner sensitivity 2.8 μv.; frequency response 20-20,000 cps; distortion at normal listening level less than .5% tuner/amplifier 12¾" w. x 7" h. x 7" d.; speakers 14" w. x 8¾" h. x 5" d.....\$299.95

SHURE

M100 Series Phono Systems

Combines a "Dual 1009" automatic turntable; Shure V-15 stereo cartridge; 20 w./



ch. music power (12 w./ch. r.m.s.) transistorized stereo amp & two speaker systems with an 8" woofer & two 3" tweeters in ea.

Response 30-20,000 cps ± 2 db; HD 2% max.; IM dist. 3%; sensitivity: phono 5 mv.; tuner 350 mv. & mic 750 mv.; input imp; tuner & phono 47,000 ohms; mic 270 ohms; channel separation 35 db. M101W Record player & amplifier in walnut cabinet 11" h. x 21½" w. x 16" d.; 78 lbs.....\$295.50 M100W Same with two speaker systems; walnut cab. 10¼" x 21¼" w. x 8¾" d.; ea. 17 lbs.....\$399.95 M101L Record player & amplifier in portable case; 8¾" x 20¾" x 15½" d.; 55 lbs.....\$259.50 M100L Same with two speaker systems in portable cases; 9¾" x 20¾" x 7" d.; ea. 20 lbs.....\$349.95

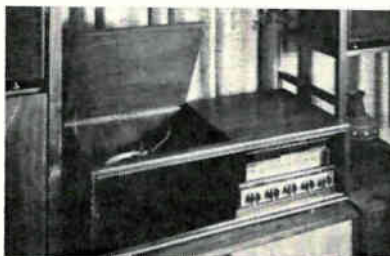
SYLVANIA

Component Stereo Portables

Transistorized design with Garrard custom professional changer, diamond LP stylus; air-suspension speaker systems. Exponent 4/40 Has tilt-down record changer, 20 w./ch. EIA, headphone, tuner/tape inputs. Black\$199.50 Bronze or white.....\$209.50 Exponent 4/30 Has tilt-down lid; 10 w./ch. EIA; headphone, tuner/tape inputs. Gray\$169.50 Exponent 4/20 Has 10 w./ch. EIA; Blue\$149.50

CS10 AM-FM-Phono System

Contemporary, transistorized modular component system with 40 w./ch. EIA.

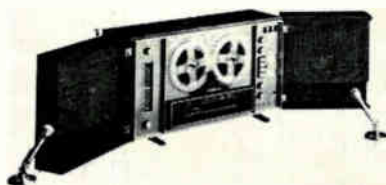


Has 10-position push-button control center, FM/a.f.c. sw., FM stereo indicator light, Garrard custom professional changer, automatic shut-off single-play spindle, Pickering mag. cartridge, diamond LP stylus. 4 jacks for remote & ext. speakers; mono-stereo tape input & output jacks. Walnut\$359.50 Ext. spkr. available\$109.50 to \$249.50 a pair

V-M CORP.

754 Tape Recorder/Radio Combination

Transistorized, three-speed (7½, 3¾ or 1½ ips), four-track stereo design with AM-



FM stereo tuner. Features "Add-A-Track" & direct off-the-air recording. Response 50-15,000 cps. Has high-level inputs for mic., phono, aux.; outputs for external amp, speakers, headphones & V-M Slide Projector Synchronizer; pause switch & dual vu meters; four speakers in detachable enclosure; walnut grained pyroxylin covered case. Needed accessories included....\$419.95 Model 744. Same as Model 754 but without tuner. Covered in black pyroxylin....\$319.95

NEVER MONITOR TAPES WITHOUT KOSS STEREOPHONES!

Why? Koss Stereophones tell you what the recording head is putting on your tape. Insures proper volume level, tells you if outside noise is going on the tape, helps you adjust for smooth bass and treble response.

Use them for playback and editing, too!



PRO-4 STEREOPHONES \$45.00

SP-3X STEREOPHONES \$24.95

KOSS electronics inc.

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228 PAGE CATALOG

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FM EXPERTS AGREE

ON THE JFD



LICENSED UNDER ONE OR MORE OF U.S. PATENTS 2,958,081; 2,985,879; 3,011,168; 3,108,280; 3,150,376. RE: 25,740 AND ADDITIONAL PATENTS PENDING IN U.S.A. AND CANADA. PRODUCED BY JFD ELECTRONICS CORPORATION UNDER EXCLUSIVE LICENSE FROM THE UNIVERSITY OF ILLINOIS FOUNDATION.

NATIONALLY ACCLAIMED LPL-FM LOG PERIODIC ANTENNA

"I would like to take this opportunity to tell you how pleased I am with the new JFD-LPL-FM 10 antenna."

**Geoffrey M. Nathanson—Editor and Publisher
FM & FINE ARTS**

"The Log-Periodic FM 8 has brought the signal in with amazing clarity, and strength."

**Seymour N. Siegel, Director
STATION WNYC-FM**

"We have just finished a thorough test of your LPL-FM 10 and can confidently state that it is all that you have said."

**A. L. Stewart, Chief Engineer
STATION WEKZ-AM-FM**

"I have found the LPL-FM 6 log periodic antenna to meet all these requirements. I am very happy with this antenna and I highly recommend it."

**Robert M. Kanner,
Engineering Maintenance Supervisor
RADIO STATION WMCA**

"Our tests indicate that the full wavelength elements used in

this new line provide twice the gain of the best 10-element f-m yagis."

**Ed Walter, Editor
ELECTRONIC DISTRIBUTING MAGAZINE**

"I now know there really is a Santa Claus, because he brought me the best FM reception that I have ever had with my JFD LPL FM 10 Antenna."

**Paul Dean Ford, Licensee
WPFR (FM)**

"We have been testing your new LPL-FM 10 Log Periodic antenna with very good results."

**Guy Dryden, Chief Engineer
WTBC AM-FM**

"I wish to thank you for the opportunity of trying the new JFD FM 10. As you know, in this area we have a severe multi-path problem and I feel this new JFD antenna will help this problem in many locations."

**W. T. Jones
MUSI-CAL PLANNED MUSIC PROGRAMMING**

Features full-wave log-periodic L-dipole system.

Derived from the powerful logarithmic periodic array used to track America's missiles and satellites through space — discovered by the Antenna Research Laboratories of the University of Illinois.

No wonder! The all-new JFD LPL-FM antenna is log-periodic engineered to give you up to 41% more gain, plus the directional selectivity, and wideband response your system needs for fidelity FM stereo or mono performance.

The secret is in the full-wave log periodic L-dipole cells that work with amazing frequency-independent efficiency and directivity over the entire 88-108 mc. FM/FM stereo range. Result: the purest FM sound your system has ever reproduced—on more stations—near or far.

FOUR LPL-FM ANTENNAS TO CHOOSE FROM

Model	Range (up to)	List
LPL-FM 10 (illustrated)	to 175 miles	\$49.95
LPL-FM 8	to 150 miles	\$39.95
LPL-FM 6	to 125 miles	\$29.95
LPL-FM 4	to 75 miles	\$19.95

JFD ELECTRONICS CORPORATION

15th Avenue at 62nd Street, Brooklyn, New York 11219 U.S.A.

JFD FM TELE-AMP AMPLIFIERS

Assure fully-separated, drift-free stereo in signal-starved areas by compensating for 30% signal loss inherent in multiplex broadcasting. Feed up to 2 FM receivers.

outdoor model FT-1
1-Transistor \$34.95, list
indoor model HF-1
Deluxe 1-Transistor \$24.95, list
indoor model EF-1
Economy 1-Transistor \$17.95, list

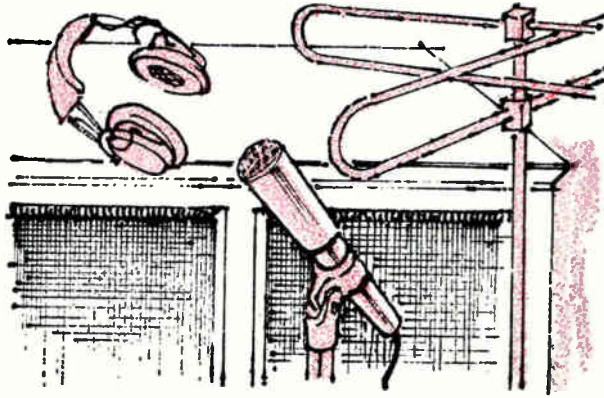


JFD SIGNAL SPLITTER & FM BAND PASS FILTER

Shuts out unwanted signals. Also separates signal of TV/FM antenna for input into separate TV and FM systems.
model SSTVFM \$5.95, list



ACCESSORIES

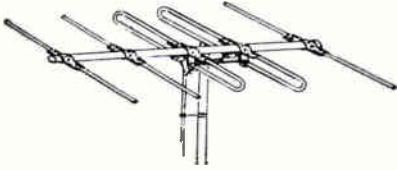


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APPARATUS DEVELOPMENT

FM/Q "Metropolitan"

Designed for city and suburban FM stereo multiplex; broadband yagi; 300 ohms; five



elements; rustproof construction featuring all-aluminum assembly.....\$14.95

FM/Q "Dynaplex" Antenna

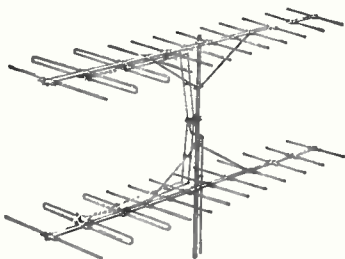
Broadband coverage 8½ db gain; high front-to-back rejection; 100% rustproof design with all stainless steel hardware; single\$32.50
Two-bay stacked.....\$66.96

FM/Q "Junior" Antenna

72 or 300 ohm FM operation; forward gain: 6½ db average; 88 to 108 mc. range; minimum interference and noise pickup; aluminum construction; 65"x67"; 4½" lbs.\$19.96

FM/Q "Super Mark I"

12-element wideband yagi; delivers optimum gain without booster for highest S/N level; stainless steel hardware for rustproof permanence; 12 db gain; 300 ohms..\$49.96



Two-bay stacked array with stacking harness, 14½ ft. mast, complete installation kit.\$149.96

FM/Q "Long Ranger"

Designed for single-frequency operation in long distance fringe reception; forward gain: 12 db; 10-element yagi design; operating bandwidth: 5 mc.....\$49.96

FM/Q 300/72 Ohm Baluns

Outdoor mast mounting and indoor models designed to be used in converting from the standard 300 ohm to 72 ohm impedances; equipped with BNC coax cable

connectors; strong "U" bolt mounting.
Outdoor\$11.95
Indoor\$ 6.98

FM/Q Crossed Dipole Turnstile

Omnidirectional duo-dipoles for local or city service.....\$10.50

FM/Q Cub

Folded dipole FM antenna designed for local service; rugged construction.....\$5.98

FM/Q Dipole & Reflector

Heavy duty seamless drawn aluminum tubing, hardware, 3 db gain ideal for city and metropolitan reception.....\$7.50

CHANNEL MASTER

4400G Turnstile Antenna Kit



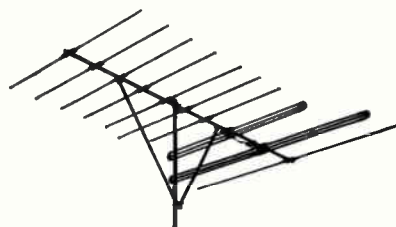
Omnidirectional; for metropolitan and suburban areas; includes all mounting hardware; 50-foot lead-in; swivel base mount; guy ring and clamp, 50-foot guy wire, etc.\$13.75
4403-G antenna only.....\$ 9.03

Model 4401G "Futuramic" Antenna



Same as Model 4402G except 5-element\$16.50

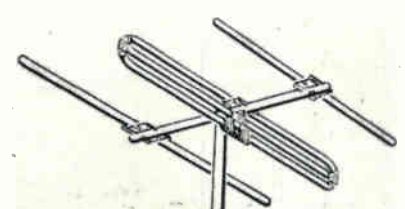
Model 4402G "Futuramic" Antenna



Directional twin-driven Z-match dipoles;

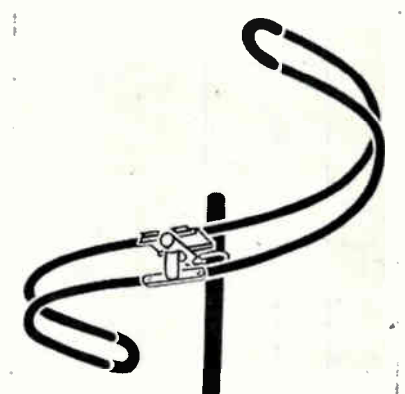
for extreme fringe areas; ten elements \$27.65

Model 4404G "Futuramic" Antenna



Same as Model 4402G except 3-element \$12.50

Model 4405G "Sigma" Antenna



S-type; omni-directional design for metropolitan and suburban reception.....\$7.36

4406G "Sigma" Antenna Kit

Same as Model 4405G but includes accessories: 5-foot mast, 50-foot transmission line, swivel base mount, guy ring, 50-foot guy wire, etc.\$12.08

"Omni-Ray" Antennas

Unique antenna design features bidirectional figure-8 reception pattern which can be

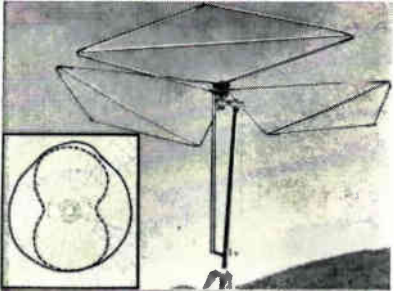


rotated in 22.5° steps; antenna does not move, just reception pattern; beam is aimed for strongest signal pick-up, beam the null to knock out interference; pro-

9 FM Antennas

vides strong pick-up of FM stereo stations lying in different directions—without rotator; control console located at set.
 Model 3620 stacked antenna with connector rods assembled.....\$34.95
 Model 3622G kit, includes stacked antenna, wall mount, mast, special transmission wire & insulators.....\$39.95
 Model 3621G single-bay kit with wall mount, mast, special transmission line & insulators\$26.95

Model 4407G FM "Rondo"
 Omnidirectional design using 3 diamond-shaped individual dipoles; maximum gain

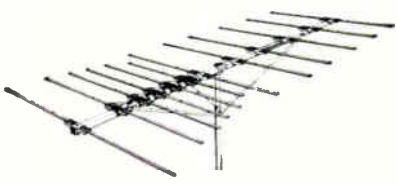


compares favorably with the strongest sides of their turnstile antenna but provides up to 7.4 db more gain than the turnstile antenna's weak side; polar reception pattern is more uniform.....\$15.95

Model 0023B "Telstar" Booster
 High-gain, antenna-mounted, transistorized booster for FM & TV; has four-set coupler, 117-v. operation.....\$39.95
 Model 0025 Similar in design but for FM only; has 2-set coupler.....\$29.95

FINCO

FMSL-12 FM Antenna
 FM "Stereo Log" multiple drive broadband (88 to 108 mc.) antenna featuring extreme-



ly narrow pattern, maximum gain, and exceptionally high front-to-back ratio (up to 26 db). 5 driven elements, 6 directors, 1 reflector. 13 ft. boom, 87 inch turning radius. Gold Corodized.....\$49.95

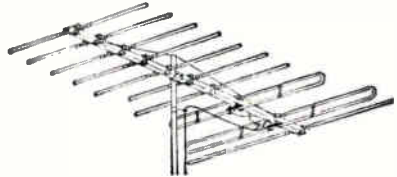
FMSL-10 FM Antenna
 FM "Stereo Log" multiple drive broadband, very narrow pattern, very high gain, and very high front-to-back ratio (up to 25 db). 5 driven elements, 4 directors, 1 reflector. 10 ft. boom, 70 inch turning radius. Gold Corodized\$39.95

FMSL-8 FM Antenna
 FM "Stereo Log" multiple drive broadband, very narrow pattern, high gain, and very high front-to-back ratio (up to 25 db). 5 driven elements, 2 directors, 1 reflector. 8 ft., 4 in. boom, 60 inch turning radius. Gold Corodized\$29.95

FMSL-5 FM Antenna
 FM "Stereo Log" multiple drive broadband, narrow pattern, high gain, and high front-to-back ratio (up to 19.1 db). 3 driven ele-

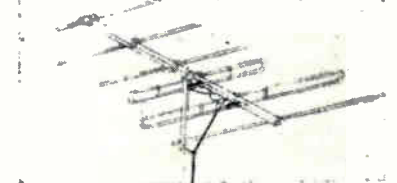
ments, 1 director, 1 reflector. 4 ft., 6 in. boom, 48 inch turning radius. Gold Corodized\$17.95

Model FM-5
 10-element deluxe gold Corodized antenna; twin drive elements; maximum gain



over full FM band; wt. 8 1/2 lbs.....\$36.35

Model FM-4G Antenna
 Twin drive FM antenna with impedance control "T" match stubs; aluminum con-

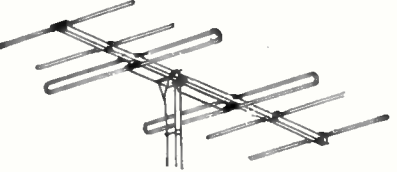


struction with gold corrosive-resistant finish "Corodizing"; 6-element, wideband (88 to 108 mc.) yagi.....\$24.90

Model FM-3 Antenna
 Broadband 4 element FM yagi; narrow directivity pattern; aluminum construction; gold Corodized; 5 lbs.....\$13.00

FM-FDR FM Antenna
 FM folded dipole and reflector antenna; up to 3 1/2 db gain; aluminum construction.....\$7.23

FM4-4BD FM Antenna
 Bi-directional (where FM signals are desired from two opposite directions); yagi



design for 75 mile coverage. 10 ft. boom. Gold Corodized.....\$28.95

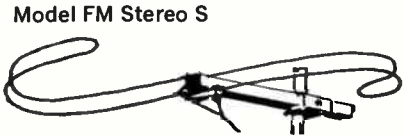
Model FMT-1 Antenna
 All-direction FM antenna kit with two folded dipoles at right angles with quar-



ter wave phasing stub for 360 degree pick-up pattern without rotation; supplied with 50 ft. of 300-ohm twin-lead 5 ft. mast, and mounting hardware; gold Corodized; 6 lbs.....\$12.95

Model FMT-A
 Mounts on TV mast; preassembled, snap-out design; matched for all-directional signal pickup; kit includes FM antenna, 50' twin-lead, 2 mast insulators, 3 screw-in insulators, mounting brackets. Similar to model FMT-1 but mounts on your own TV mast; gold Corodized.....\$12.95

Model FMT (antenna only).....\$9.72



All-direction S-type design; high gain; gold Corodized.\$3.75
 SK-Kit includes 50 feet of 300-ohm twin-lead; one mast stand-off insulator; four screw-eye stand-off insulators.....\$5.75

JERROLD

Model DSA-FM FM Antenna Preamp
 Mast-mounted outdoor FM preamplifier for reception of distant FM stations; gain 25 db minimum; bandwidth 88-108 mc., frequency response 1 db max. p/v; input impedance 75 or 300 ohms; output impedance 75 or 300 ohms; maximum output 0.5 v. r.m.s.; tubes: 6BQ7A, 6CB6\$109.50
 Model 406A Indoor version with same electrical specifications as DSA-FM except for self-contained power supply; 3" x 4" x 10 1/2"\$76.30

Model TX FM Antenna Coupler
 Passive-type bandpass filter; separates FM & TV signals from a TV antenna with negligible signal losses; 300-ohm impedance\$5.95

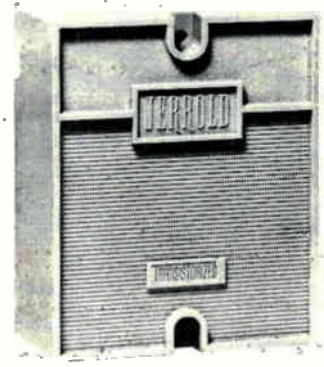
Model APM-106 TV/FM Preamp
 Completely transistorized, mast-mounted with remote power supply; input and output 300 ohms balanced; basically a TV booster but provides 12 to 18.2 db on FM band; power consumption 3 watts; 2N1742 transistor\$39.95

LPM-106 TV/FM Preamp
 Economy version of APM-106. Similar, but recommended for areas with no signal overload problems.\$29.95

Model MF-2 Antenna Coupler
 Passive-type which simply divides signal for TV and FM: circuit loss 4 db.....\$4.50

Model MF-4 Antenna Coupler
 Similar to Model MF-2 but will divide into 4 signals, FM or TV.....\$5.75

TA-24 TV/FM Amplified 4-Set Coupler
 Supplies strong signals to as many as four TV and/or FM sets from single antenna.



Transistor circuit amplifies signals and provides proper match and isolation. Each set gets 3 to 8 db more signal than it would have received if connected directly to antenna; effective for improving FM stereo signals\$24.95

TA-12 TV/FM Amplified 2-Set Coupler
 Similar to TA-24 but supplies signal to only

Only complete line of FM ANTENNAS finest in every price range!



**AWARD WINNING
FINCO FM-4G
ANTENNA
\$24.90 list**

Featuring FINCO's Exclusive Gold Corodizing

**Award Winning
FINCO FM-5
\$36.35 list**



**Model FMSL-5
\$17.95 list**



**Model FMSL-8
\$29.95 list**



FINCO

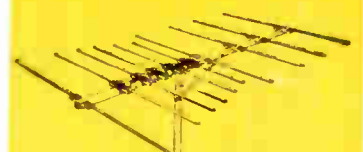
Discover the difference that a FINCO Antenna makes in FM sound. FINCO's maximum gain means a substantially greater signal over the full 88 to 108 MC band. Regardless of your location, you bring in more stations — with exacting station separation — free from multi-path reflections. Choose a superb FINCO FM Antenna, and get perfect FM sound.

Include a FINCO FM Band Pass Filter and stop FM interference by blocking out unwanted signals from TV stations, citizens band, amateur transmitters, electric motors, fluorescent lamps, automobile ignitions, etc. You'll never hear a signal that's cleaner, clearer, purer.

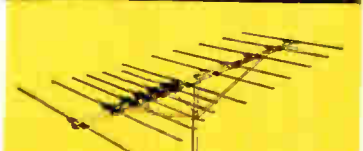
FINCO is the name to look for, when you want the very best in FM reception.

THE FINNEY COMPANY
34 West Interstate Street • Bedford, Ohio

Write for Bulletin #20-213, Dept. S1



**Model FMSL-10
\$39.95 list**



**Model FMSL-12
\$49.95 list**



**Model 3007
Band Pass Filter \$6.95 list**
Eliminate FM Interference with
FINCO's Band Pass Filter

9 FM Antennas

two sets\$17.95

SRX FM Antenna Amplifier

Increases FM signal power by 15.5 db average. Extends range of FM stereo reception. Includes input filter which isolates TV from FM signals. May be used with either FM or broadband TV antenna. Two outputs to permit both FM and TV sets to be connected. (Note: May interfere with reception of TV channel 6.)\$29.95

FAX-5 Coloraxial FM Yagi

Stratophonic FM yagi designed for FM stereo reception in suburban to medium-

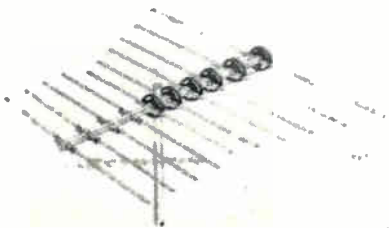


fringe areas. Has flat response & gain of 6 db across entire FM band.....\$13.50

FMP Paralog FM Antenna

Basically a broadband log-periodic antenna with added parasitic elements to improve gain characteristics. Retains bandwidth & impedance match inherent in log-periodic design.

FMP-8 for fringe areas.....\$29.95

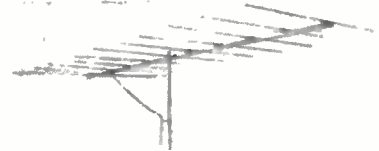


FMP-10 for deep-fringe areas.....\$39.95
FMP-16 for extreme fringe areas.....\$59.95

Model FM-5 FM Antenna

Antenna has flat response and gain of 6 db across the entire FM band (88-108 mc.) with 300-ohm balanced impedance. Completely pre-assembled\$11.50

Model FM-10 FM Antenna

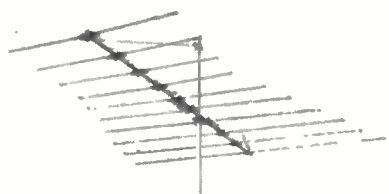


High-gain (9 db) version of stratophonic Model FM-5\$19.95

JFD ELECTRONICS

LPL-FM10 Log-Periodic FM Antenna

Frequency-independent, full-wave, "L."



log-periodic dipoles for uniform FM performance, 88-108 mc. Gold-aro-dized finish.

10 elements for deep-fringe reception to 175 mi. Gain: 9.6 db. Horiz. beamwidth ($\frac{1}{2}$ power): 37.5°. Front-to-back ratio: 26 db.; v.s.w.r. 1.5:1List \$49.95

LPL-FM8 Log-Periodic FM Antenna

Similar to LPL-FM-10 with 8 elements for fringe reception up to 150 mi. Gain: 9.1 db. Horiz. beamwidth ($\frac{1}{2}$ power): 40.5°. Front-to-back ratio: 20 db.; v.s.w.r. 1.8:1 List \$39.95

LPL-FM6 Log-Periodic FM Antenna

Similar to LPL-FM10 with 6 elements for near-fringe reception to 125 mi. Gain: 7.7 db. Horiz. beamwidth ($\frac{1}{2}$ power): 43°. Front-to-back ratio:18 db; v.s.w.r. 1.5:1 List \$29.95

LPL-FM4 Log-Periodic FM Antenna

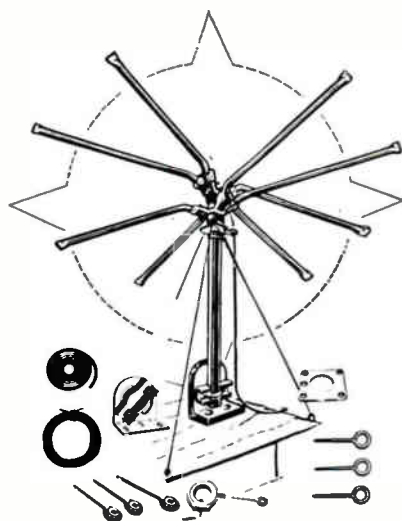
Similar to LPL-FM10 with 4 elements for suburban-local reception to 75 mi. Gain:



6.3 db. Horiz. beamwidth ($\frac{1}{2}$ power): 46°. Front-to-back ratio: 16.6 db; v.s.w.r.: 1.6:1 List \$19.95

AFM100 Antenna Kit

"Stereo-Cone" gold-aro-dized, omnidirectional antenna, with 5-ft. mast and univer-



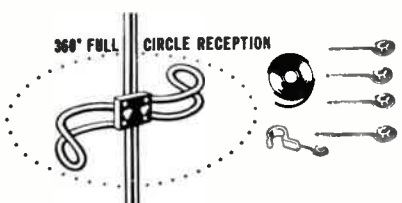
sal wall/roof mount. Includes misc. hardware, 50 ft. of 300-ohm twin-lead. For all-new installationList \$15.95

AFM150 Antenna Kit

Gold-aro-dized "Stereo-Cone" antenna including misc. hardware; for existing TV-antenna installations.....\$11.95

AFM450 "S" Antenna Kit

Gold-aro-dized stereo all-direction "S" kit



for existing TV-antenna installations \$6.95

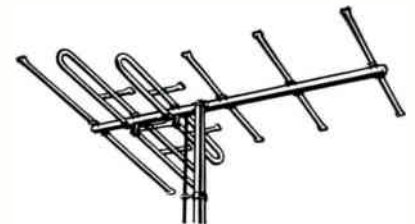
AFM175 Antenna Kit

Same as Model AFM150 but includes 50 feet of 300-ohm twin-lead plus additional hardware\$13.95

AFM475 "S" Antenna Kit

Gold-aro-dized deluxe stereo all-direction kit for existing TV-antenna installations\$8.95

AFM350 Yagi Antenna



Gold-aro-dized six-element wide-spaced yagi for fringe FM areas.....\$23.50

AFM650 Yagi Antenna

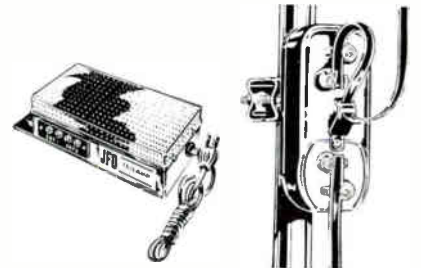
Gold-aro-dized stereo ten-element wide-spaced yagi for deep fringe FM areas \$32.50

AFM400 "S" Antenna Kit

Gold-aro-dized stereo all-direction "S" kit for new installations; includes misc. hardware, mast, 50 feet of 300-ohm twin-lead, guy wire & base mount.....\$11.95

FT-1 Outdoor FM Antenna Amplifier

Transistorized low-noise, drift-free booster. Includes F1 all-weather amplifier for mast



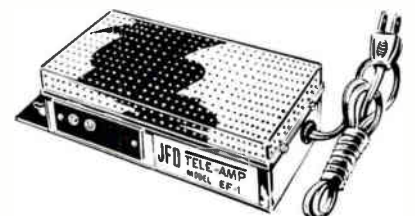
mounting and PTV indoor power supply which applies low operating voltage through conventional antenna wire. FM band gain: 16 db. Noise figure: 5.3 db. 300-ohm input plus two 300-ohm output connections List \$34.95

HF-1 FM Antenna Amplifier

Transistorized home amplifier. Transformer-operated power supply. Gain: 15 db. Noise figure: 5.1 db. 300-ohm input and output List \$24.95

EF-1 FM Antenna Amplifier

Transistorized home amplifier. Gain 15 db.



Noise figure: 5.6 db. 300-ohm input and output List \$17.95

SSTVFM FM/TV Splitter-Coupler/Combiner

Tuned-band splitter separates FM signal and TV signal from single antenna system into separate outputs without loss. May also be used as loss-free combiner of sep-

arate TV and FM antennas into single transmission line. No-strip terminals. All-



weather housing permits indoor or mast mounting. 300-ohm input and output connections. Insertion loss: 1 db. TV-to-FM isolation: 25 db. Flat response $\pm \frac{1}{2}$ db List \$5.95

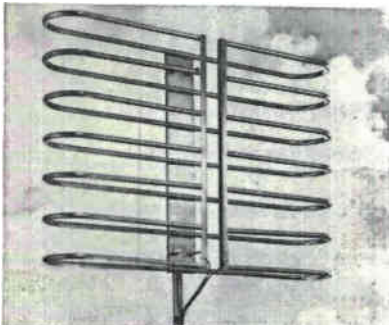
SC80 FM/VHF/UHF Splitter-Coupler/Combiner

Tuned-band splitter separates FM, VHF-TV, and UHF-TV signals from combination antenna system into separate outputs without loss. May also be used as loss-free combiner of separate FM, VHF-TV, and UHF-TV antennas into single transmission line. No-strip terminals. All-weather housing permits indoor or mast mounting. 300-ohm input and output connections. Insertion loss: $\frac{1}{2}$ db. Isolation: 20 db. Flat response $\pm \frac{1}{2}$ db.List \$7.95

MARK

Model ST7B FM Antenna

Omnidirectional 7-element, slotted cylinder design for improved reception of FM multi-



plex signals; can be used indoors or outdoors; aluminum construction; 30" w. x 22" h. x 5 1/2" d.; comes complete with hardware\$24.95

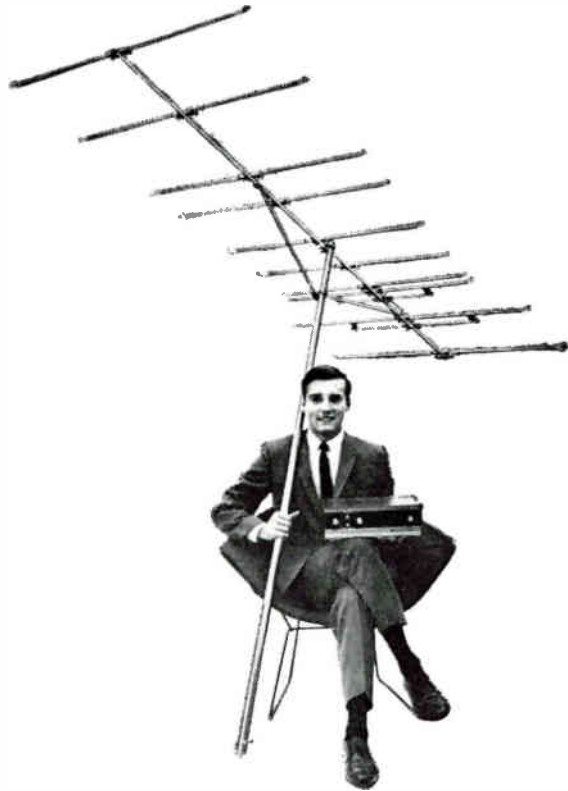
WINEGARD

AP-320 Stereotron Amplifier

FM antenna preamplifier designed to boost the signal by a minimum of +18 db; two 13CW4 nuvistors are used; mounts directly on driven element of antenna; built-in two-set coupler and a.c. receptacle on power supply; 300 ohms in and out.....\$39.95

FM3A "Turnstile"

Non-directional FM antenna for local and primary reception areas; gold vinylized



CAN YOU HAVE PERFECT FM SOUND?

TRY THE ALL NEW WINEGARD STEREOTRON AND FIND OUT!

You've got an FM tuner. Let's say it's the best that money can buy. But for some reason the sound isn't "just so". Maybe it hisses. Or maybe the pureness of that FM signal is being distorted. This can happen to any FM tuner... even in strong signal areas. The cause—an inadequate FM antenna.

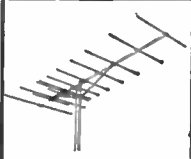
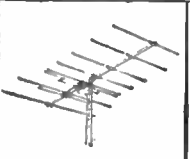
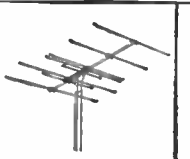

The cure... a Winegard Stereotron FM antenna. Stereotron's two powerful driven elements give it the highest front-to-back ratio of any FM antenna. It reduces multi-path distortion, eliminates hiss and noise.

If you're miles from the nearest FM station and never dreamt of receiving beautiful FM sound, you should know this: Winegard Stereotrons are GUARANTEED to bring in 85% of all FM stations within a 200 mile radius when used with the Stereotron antenna amplifier.

Winegard Stereotron antennas carry a 100% guarantee. If you're not completely satisfied, your money will be refunded. Write today for technical specs, gain charts, polar patterns, VSWR, etc., and get a brochure on FM reception plus an FM station log and map absolutely FREE.

STEREOTRON ANTENNAS

AMPLIFIERS

 <p>MODEL SF100 32.50</p>	 <p>MODEL SF80 24.95</p>	 <p>MODEL SF60 19.95</p>	 <p>2 MODELS from 39.95</p>
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Winegard Co.

3000 Kirkwood • Burlington, Iowa

CIRCLE NO. 77 ON READER SERVICE CARD

9 FM Antennas

elements; complete kit includes antenna, universal roof mount with leak-proof fasteners; 50' of 300-ohm twinlead; and all mounting hardware.....\$18.85

SF-80 FM Antenna

High-gain, directional FM and FM stereo antenna for deep fringe and fringe area



reception; average gain of +8 db across entire FM band; v.s.w.r. of 1.25:1 assures good impedance match; sharp directivity, high front-to-back ratio with absence of interfering side lobe; gold vinylized elements with iridized hardware.....\$24.95
SF-100 10-element array.....\$32.50
SF-60 6-element array.....\$19.95

AP-375 Stereotron Amplifier

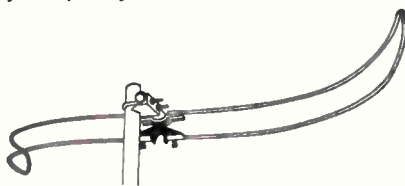
Same as Model AP-320 but 75 ohms in and 75 ohms out for use with coaxial cable\$44.95

FM3T Offset "Turnstile"

Antenna only; same as Model FM3A but with offset mount; up to four bays can be stacked without the necessity of using stacking bars\$12.55

FR-1K FM "Ranger" Antenna

Non-directional FM antenna for local and primary reception areas; gold anodized ele-



ments and iridized hardware; offset mount for easy installation on mast with TV antenna or on separate mast; wrap-around mast clamp; complete kit includes antenna, 50' 300-ohm twinlead, and 3 stand-offs\$8.95

Model FR-1

Antenna only, otherwise the same as Model FR-1K\$6.95

RD-300 "Red-Head" Amplifier

Transistorized FM antenna preamplifier for fringe areas; designed to boost signal by an average of +18 db; fully protected against damage due to lightning flashes, static discharges, and power line surges; v.s.w.r. better than 1.5:1; mounts on any antenna mast or side of house; built-in two-set coupler; housed in red polystyrene case\$29.95

CA-FMB Coupler

Designed to couple a TV and an FM antenna on the same mast with a single downlead and to split the signal to run separate lines to the TV and FM sets; TV & FM are isolated from each other; insertion loss .5

db on TV and 1 db on FM; housed in waterproof high-impact polystyrene case; can be mounted with stainless steel bracket or mounting screws provided.....\$4.50

FM340 FM "Supercharger"

Boosts FM signal 8 times. For secondary fringe & deep fringe areas. Transistorized



design with 16 db min. gain & 300 ohms input & output. Response flat $\pm \frac{1}{2}$ db, 88-108 mc.....\$17.95

TR2-13 General-Purpose Trap

Designed to attenuate any selected frequency in the v.h.f. TV-FM bands for the purpose of eliminating interference without affecting adjacent frequencies; can be used to attenuate strong local TV station overriding a weak FM station; consists of three independent traps which together cover entire v.h.f. TV-FM spectrum; any trap can be used individually or in conjunction with the others; housed in waterproof high-impact polystyrene case; can be mounted on mast or inside; 300 ohms in and out.....\$7.50

K2-FM Antenna

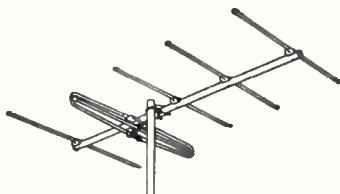
FM directional antenna for local and suburban reception areas; ideal for use with a



rotor for close-in areas; factory pre-assembled; has wrap-around mast clamp\$5.05

K5-FM Antenna

FM directional antenna for primary and near fringe reception areas; high-gain 5-



element yagi; ideal for use with a rotor; factory pre-assembled; has wrap-around mast clamp.....\$13.80

BC-107 Color-Coupler

Transistorized two-set coupler designed to split signal to run separate lines to TV and



FM sets without signal loss; minimum of +7 db gain provides enough signal for each outlet, even in deep fringe areas; each outlet isolated from the other by 12 db; can also be used for two TV or two FM sets; mounts on wall.....\$17.95

9 Equipment Cabinets

AUDIO ORIGINALS

Model 202B Cabinet

Contemporary design; has adjustable 2-position equipment shelf; space for chang-



er or turntable; speaker area 25 $\frac{3}{4}$ " x 14 $\frac{1}{2}$ "; equipment shelf 33" x 15" (6" or 9" positions); available in oiled walnut; shipped knocked down, easily assembled; over-all size 64" x 32 $\frac{1}{2}$ " x 15" d.....\$69.50

Model 303 Cabinet

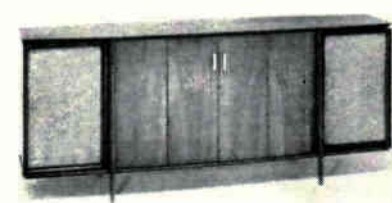
Scandinavian design featuring pull-out record player shelf; speaker area 25 $\frac{3}{4}$ " x 16 $\frac{1}{4}$ "; component shelves 17 $\frac{3}{4}$ " wide (5 $\frac{1}{2}$ " or 7 $\frac{1}{2}$ " positions); pull-out shelf 17 $\frac{3}{4}$ " wide; over-all size 72 $\frac{1}{2}$ " x 32 $\frac{1}{2}$ "



x 16"; available in oiled walnut; shipped knocked down, easily assembled.....\$134.50

Model 303D Cabinet

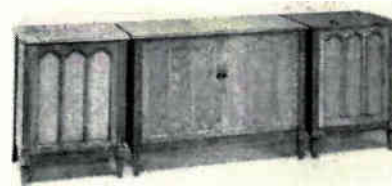
Scandinavian design with folding doors and pull-out changer/turntable shelf; speaker



area 25 $\frac{3}{4}$ " x 16 $\frac{1}{2}$ "; component shelf 20 $\frac{3}{4}$ " w., adjustable; pull-out shelf 17 $\frac{3}{4}$ " w.; over-all size 77" x 32 $\frac{3}{4}$ " x 18"; available in oiled walnut; shipped knocked down; easily assembled.....\$174.50

Model 505I Equipment Cabinet

Italian Provincial with double-lift tops; right-hand to accommodate all components;



changer/turntable area 19 $\frac{3}{4}$ " w. x 16 $\frac{1}{4}$ " d. (positioned 6 $\frac{1}{2}$ " above and 3 $\frac{1}{2}$ " below board); left-hand control or tape deck area 19 $\frac{3}{4}$ " w. x 16 $\frac{1}{4}$ " d. adjustable; component shelf 19 $\frac{3}{4}$ " w. x 17" d., adjustable; record area 19 $\frac{3}{4}$ " x 13 $\frac{1}{2}$ " x 17"; over-all size 43 $\frac{1}{2}$ " x 31 $\frac{3}{4}$ " x 20 $\frac{3}{4}$ "; finished in "Old

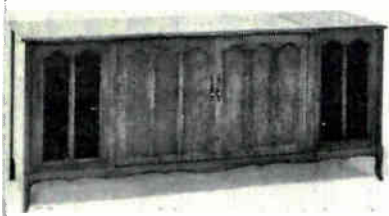
World Butternut"\$109.95
 Model 505D Same except Scandinavian design in walnut, completely assembled\$209.95
 Model 505F Same except French Provincial design in fruitwood.....\$229.95

505 Speaker Enclosures

Matches 505I equipment cab.; bass reflex or infinite design; 5.3 cu. ft. For 15" speaker plus mid-range & tweeter; cut-out provided for 12" speaker. 24 1/4" x 31 3/4" x 20 3/4". "Old World Butternut" finish.....\$109.95
 Design to match 505D equipment cab. in walnut\$ 99.95
 Design to match 505F equipment cab. in fruitwood\$109.95

606I Console Cabinet

Italian Provincial styling with single lift-top; right-hand: changer/turntable area 19 3/4" w. x 16 1/4" d. (positioned 6 1/2" above and 3 1/2" below board); left-hand: control or tape deck area 19 3/4" w. x 16 1/4" d., adjustable; component shelf 19 3/4" w. x 17" d., adjustable; record area 19 3/4" x 13 1/2" x 17"; speaker enclosure has 3/4" thick panels and acoustically lined; bass reflex or infinite baffle design; baffle boards to accommodate 12" speaker plus mid-range and tweeter; cut-out for 12" speaker; "Old World Butternut"\$319.95
 Model 606D Same except Scandinavian design, walnut\$299.95
 Model 606F Same except French Provincial

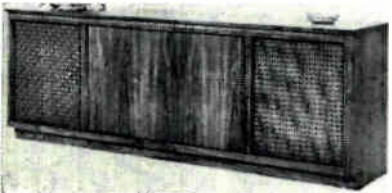


design, fruitwood\$329.95

BARZILAY

"Design Two" Cabinet

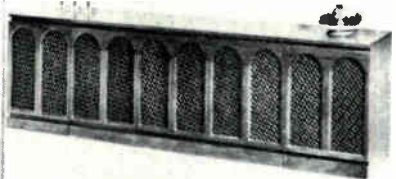
Single design with two center sections for equip. & 2 speaker cabinets. Top or front



mounting of components. Has sliding door & lift top. Black walnut 81" l. x 28 3/4" h. x 18 3/4" d. Center section 18 1/2" w.
 Kit\$220.00
 Factory assembled Model C150\$396.00

Model 300E Cabinet

Three separate cabinets with 3-section center equipment cabinet & top lift & doors.



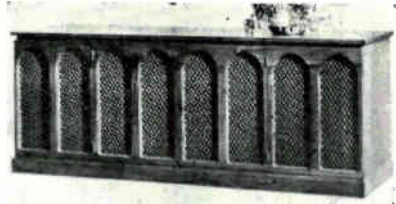
Walnut; 30" h. x 96" w. x 20" d. ..\$606.00
 Model 306I Equip. cab.\$347.00
 Model 3062 Spkr. cab. for 15" & 12" speakers\$260.00

Model 910 Cabinet

Classic Moorish arches of solid walnut.

1966 EDITION

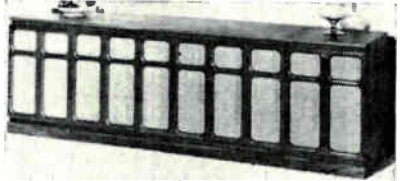
Speaker sections are bottomless for anti-



feedback insertion of enclosed systems. 29 1/2" h. x 78" w. x 18" d.\$435.00
 Model 910S Same with built-in speaker enclosures for 15" or 12" spkr.\$465.00

Model 200E Cabinet

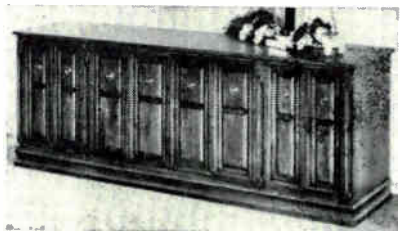
3 separate section design with front doors



& lift top. 29" w. x 29" h. x 20" d.\$575.00
 Model 206I Equip. cab.\$347.00
 Model 2062 Spkr. cabinet for 15" or 12" spkrs.\$248.00

"Sarabande" Collection

Model C-1000 "Da Vinci" Hand finished walnut with 4 raised-panel folding doors.



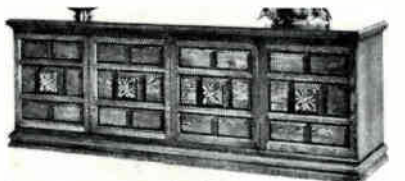
Left side of center section supplied with panel & shelves for components. Right side has pull-out drawer for record player & record storage. End sections accept 12" or 15" spkrs. 29" h. x 77 1/4" w. x 20".
\$602.00

Model C-2210 "Athenia" Mediterranean console; two-section lift top; end sections



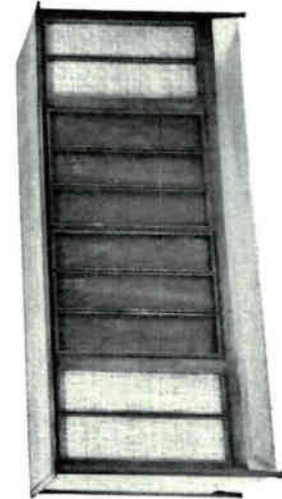
accept 12" or 8" speakers; 78" w. x 26 1/2" h. x 18" d.\$555.50

Model C-4400 "Sevilla" Solid oak doors. Spanish design. End doors fold flat against



sides to reveal spkr. enclosures for 12" or 15" designs. Compartment area available from front. 29" h. x 78 1/2" w. x 20".
\$568.00

Model C-5500 "Triana" console: Spanish



stunning all-in-one stereo component center MODEL 606-D

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equipment cabinets • speaker enclosures • consoles • cabinets galore. Danish and Provincial styles in new decorator finishes.

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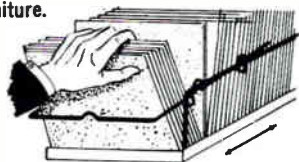
CIRCLE NO. 51 ON READER SERVICE CARD

Quick-See Album File



FRONT-VIEW, FLIP-THROUGH SELECTION

Stop stooping, squinting, straining, to find albums stacked on edge. Quick-See units glide in and out of cabinet or wall for fast, simple selection... you see the full face of your album without removing it. Ends jacket-bottom wear, too. Installs anywhere in five minutes. Sturdy welded steel and ball-bearing construction, brass finish. Nine models for LP's and tape, hold up to 125 albums... available separately or in special cabinet furniture.



Dealer inquiries invited
KERSTING MFG. CO.

504-R So. Date, Alhambra, California

CIRCLE NO. 39 ON READER SERVICE CARD

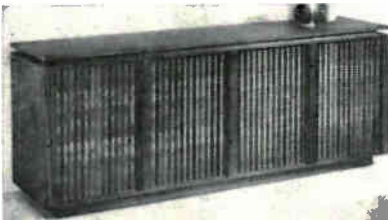
9 Equipment Cabinets



styling; lift-top access to electronics; end sections accept 15" or 12" speakers; 78½" w. x 29" h. x 20" d.\$624.00

Model 800 Cabinet

Has 4 tambour doors, one 2-section equipment area & 2 spkr. housings with bottom-



less design. Separate enclosed spkr. systems are placed inside for anti-feedback operation. 29" h. x 78" w. x 20"\$473.00
Model 800-811 Same but includes 2 separate 12" spkr. enclosures\$530.00
Model 800EC Same but 2 additional equipment compartments in place of speaker sections. Has 3 lift tops\$566.50

Design One/b Ensemble

Consists of K61/b equipment cabinet and two K-62/b speaker cabinets. All sections



made of black walnut, pre-polished but unfinished; 8'6" x 18½" x 28¾".
Kit\$299.00
Same but factory assembled. Model 100E/b\$499.00
K-61/b equipment cabinet provides 5' of record storage behind three sliding doors. Optional front or top mounting for electronics; single lift-top. Over-all size 58¾" x 18½" x 28¾".
Kit\$179.00
Same but factory assembled. Model 161/b\$308.00
K-62 speaker cabinet; 22" w. x 18½" d. x 28¾" h.
Kit (pair)\$120.00
Factory assembled Model 162/b (pair)\$191.00

Design 5 Ensemble

Consists of K-71 equipment cabinet and two K-72 speaker cabinets. Front mounting for components behind disappearing tambour doors on equipment cabinet. Over 5 cu. ft. volume in speakers with adjustable tube-port loading. 6' x 18" d. x 29" h.
Kit\$286.00
Factory assembled 700E\$438.00
K-71 equipment cabinet; 48" w. (kit)\$173.00
Factory assembled Model 761\$249.00

K-72 speaker enclosures (kit) (pair)\$113.00
Factory assembled Model 762 (pair)\$189.00

K-89 Record Storage Cabinet

Multi-purpose 6' cabinet; furnished with center shelf and record dividers; optional



equipment including tape drawer, changer drawer, mounting panel, and speaker enclosures available.

Kit\$129.50
Factory assembled Model 889\$197.00

Model H-600 Console

Two-section lift-top access to components; end doors fold over center doors when set is



in use; ebony accents; 75" w. x 27½" h. x 18" d.\$335.00

BOZAK

Model C-305U Equipment Cabinet

"Urban" styling; with double doors and single or double top lifts; over-all size 30"h. x 36½"w. x 20"d.; available in walnut or mahogany.....\$185.00

Model C-305IP Equipment Cabinet

Similar to Model C-305U except Italian Provincial styling; over-all size 38"w. x 20"d. x 31"h.; available in cherry..\$245.00

ELECTRO-VOICE

KD10 Equipment Console Kit

Pre-finished oiled-walnut equipment cabinet designed to match "Marquis", KD9A &

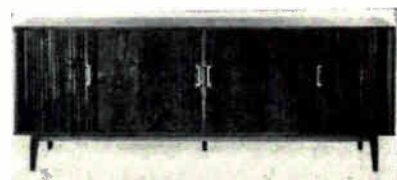


KD6A speaker enclosures. May be assembled using ordinary household tools. 29½" h. x 21" w. x 18¼" d. Kit.....\$75.00

FURN-a-KIT

Various cabinet designs are supplied in kit form; available from 2' to 7' wide in 1' steps for speakers, equipment, or combinations. Kits are supplied sanded in walnut or oak woods.

Contemporary Equipment Cabinet



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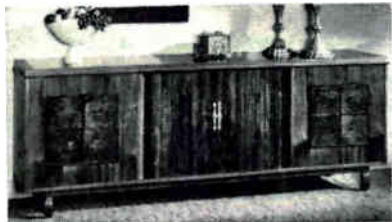
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9 Equipment Cabinets

Cabinet is 7' long & will house complete hi-fi component system. Kit\$151.00

Provincial Equipment Cabinet

Cabinet is 7' long & will house complete

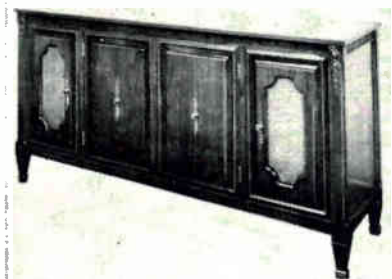


hi-fi component system. Kit.....\$169.00

GRECO

"Montoro" Custom Cabinet

Custom cabinet for individualized requirements; includes cut-outs; Italian Provin-



cial; any finish; 72" w. x 36" h. x 19 1/2" d.....\$460.00

"Solofra" Custom Cabinet

Custom cabinet for individualized requirements; includes lift-top Formica bar;



Italian Provincial; any finish; 84" w. x 33" h. x 18" d.....\$648.00
Company can supply basic cabinetry in contemporary classic, modern Danish, Early American, Italian, Spanish, and French Provincial to specifications.

"Launeston" Custom Cabinet

Breakfront cabinet for individualized requirements: Regency style, any finish: bot-



tom piece 84" x 33" x 20" d.; top piece with bar center 72" x 48" x 16" d.; crocheted wood inserts on doors.....\$1480.00

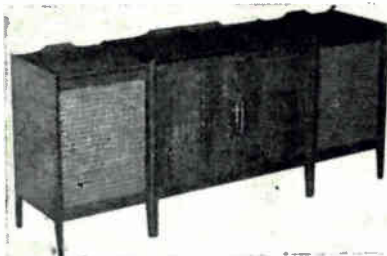
"Carina" Custom Cabinet

Cabinet for individualized requirements: Italian Provincial; any finish; 84" x 33" x 18" d.....\$570.00

HEATH

Equipment Cabinet

Factory-assembled, ready-to-use equipment and matching speaker cabinets designed



for mono or stereo systems; available in hand-rubbed walnut; "gallery" rails; front doors with recessed planes and striated vertical scoring; curved brass door handles mounted on bas relief door edges; 3/4" stock used on all exterior panels and supports; solids for edgings; furniture-grade veneers for front and side panels and shelves; ventilated rear half-panel of Masonite; center cabinet will house complete stereo or mono hi-fi system except speakers; changer compartment will accept most record changers; storage compartment holds records and tapes; or accessory slide-out drawer may be used for tape recorder; two shelf compartments hold tuners and preamps or combination amps; separate power amp compartment takes most stereo power amps or mono amp; speaker-wing cabinets for 12" and 15" speakers; adapter rings for 8" or 12" speakers; special port for horn-type tweeter; instructions for modifying tube-vented design to match any speaker resonance.
Model AE-20W center cabinet (walnut)\$99.50
Model AE-40W 15" speaker cabinets (walnut)—each\$44.95

Early American Stereo Furniture

Factory assembled, ready to use equipment center and matching speaker cabinets. Ac-



cepts all Heathkit stereo hi-fi components, plus most other makes. Constructed of maple veneers and solids with a Salem maple finish and "Lancaster-Antique" solid-brass handles. Equipment center will accommodate tuner, amplifier, tape recorder, record changer. Speaker cabinets handle 12" or 15" speakers; special port for horn-type tweeter; instructions for modifying tube-vented design to match any speaker resonance.
Model AE-13S Center cabinet.....\$115.00
Model AE-23S Speaker cabinets (each)\$ 55.00

KERSTING

Model E-1 Record Cabinet

Constructed of walnut veneer in hand-rubbed oiled walnut and oiled ebony finishes; birch veneer in blonde or mahogany finishes; holds 185 LP records; 22 1/4" h. x 32" w. x 16" d.; contains one "Quick-See" retractable album file allowing front-view flip through selection of records; other

compartment has conventional storage
.....\$54.95
Early American Maple.....\$69.00



Early American Maple with Captain's rail\$76.00
Tambour door (legs).....\$91.90
Tambour door (base).....\$91.90
Retractable album files are available separately for custom installations. Designed for 12" LP's, 45 rpm's & tape. Nine different designs are available and vary in price from\$7.95 to \$16.95

KNIGHT

KN-1520K Cabinet Kits

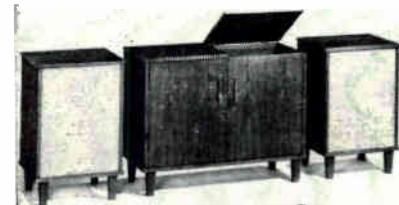
Early American design with 3/4" pre-finished maple. 28 1/4" x 36 3/4" x 16 3/8".
Kit\$84.95



Spkr. cabinet 28 1/4" x 18 1/2" x 16 3/8".
Kit KN-1521K.....\$39.95

KN-1510K Cabinet Kits

Contemporary design with 3/4" oiled walnut. 28 1/4" x 36 3/4" x 16 3/8".
Kit\$74.95



Pre-assembled\$99.95
Spkr. cabinet 28 1/4" x 18 1/2" x 16 3/8".
Kit KN-1511K.....\$34.95
Pre-assembled\$46.95

KN-1540K Equipment Cabinet

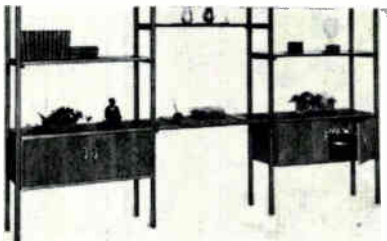
Highly styled contemporary equipment cabinet; 39" w. x 26 1/8" h. x 19" d. Will ac-



commodate any of the new large receivers. Features: tapered legs, two lift tops, panel or shelf mounting. Ready to oil walnut veneer with oil supplied. Supplied with motorboard, shelf, and custom panel.
Kit\$49.94
Assembled\$69.95

Room Divider/Shelf Ensemble

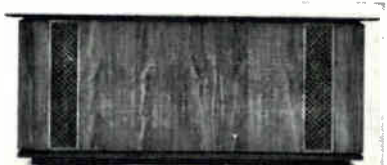
Consists of 69" poles, walnut veneer shelves, and equipment cabinet in walnut veneer. Component parts can be arranged for many desirable room settings. One cabinet kit must be ordered for each ensemble. Components are supplied sanded, ready to oil, with oil supplied. Equipment cabinet is 38" w. x 18 3/8" d. x 15" h.; two compartments, 17 3/8" d. x 13 1/2" h.; 1 shelf; bric-a-brac back. 69" poles.....\$14.90 pr.
Walnut veneer shelves.....\$10.95 ea.
Equipment cabinet kit, walnut veneer.....\$49.95



JAMES B. LANSING

C58 "Delphi" Equipment Cabinet

Follows the same styling as "Olympus" and "Apollo" loudspeaker enclosures. Overhanging top is divided into three separate counterbalanced lift lids. There are also two concealed doors in front of cabinet for maximum versatility. Available in oiled walnut or tawny walnut. 26 1/2" x 64 3/8" x 20" d.....\$396.00



ROCKFORD

Model 500 Equipment Cabinet

Combination record and equipment cabinet; lower left can hold up to 150 LP records; top left could house tape recorder, record changer, or turntable; top right 18 3/8" wide x 13 3/8" high; has adjustable shelf; over-all size 40 1/2" wide, 32 1/2" high, 20 1/2" deep. Currently available in walnut, mahogany, blonde, and ebony finishes with legs or base.



Model 500L with legs.....\$163.50
Model 500B with base.....\$174.00

Model 501 Speaker Enclosure



Matching unit for Model 500 equipment cabinet; houses up to 15" speaker and any size tweeter; over-all size: 20" wide x 32 1/2" high x 20 1/2" deep. Cabinets available in oiled walnut, mahogany, blonde, and ebony finishes and a choice of legs or base.

Model 501L with legs.....\$79.50
Model 501B with base....\$84.00

Models 600 & 601 Enclosures

Matching speaker cabinets and equipment enclosures in Italian Provincial design; speaker cabinets house up to 12" speakers; 17" wide x 27 1/4" x 17" deep; equipment cabinet—top right compartment with lift top for record changer, turntable or tape recorder; inside dimensions 14 3/8" x 17 1/4" x 6"; lower right space for 100 LP records; left side for amplifiers, tuners, etc.; over-all size, 38" wide, 27 1/4" high, 17" deep; available in fruitwood, walnut, mahogany, blonde, ebony, or Normandy antique walnut.



Model 600 Equipment cabinet.....\$126.50
Model 601 Speaker cabinet.....\$ 67.50

1966 EDITION


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beautifully
with

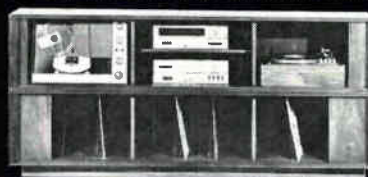
BARZILAY

COMPONENTS CABINET KITS

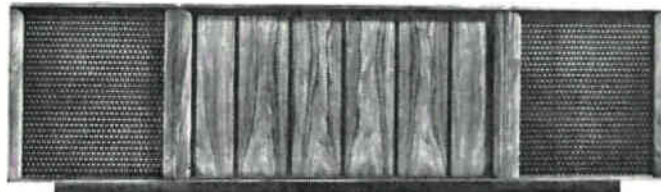
Give your fine components the setting they deserve, an equipment cabinet of consummate craftsmanship, of award-winning furniture design. Build it yourself with a Barzilay kit. Everything is supplied—precision-cut, factory-polished select grain walnut panels and tambour doors, and the same finishing oils and materials used to make factory-built Barzilay cabinets the criteria of the industry. All you need is a screwdriver to put your kit together. Step-by-step instructions make it unbelievably easy. Right—unbelievably . . . The more you tell admiring friends how easy it was, the more credit you'll get for your cleverness and modesty.



The popular, versatile Barzilay K-89. Use one or more, luxuriously long, seat-height low . . .



. . . or stack a pair of K-89s. Kit is furnished with 4 vertical dividers and a shelf. Available are speaker enclosure kits, control panel, pull-out drawers for tape machine and record changer.



Barzilay Design 5 kit . . . a dramatic cabinet with disappearing tambour doors that appear to be solid panels of matched walnut . . . speaker enclosure grilles are solid wood fretwork. All Barzilay kit designs are available as factory-built and finished cabinets. Write for new free Barzilay catalogs.

BARZILAY CO., P.O. BOX 48, GARDENA, CALIFORNIA
CIRCLE NO. 11 ON READER SERVICE CARD

9 Equipment Cabinets

Models 700 & 701 Enclosures

Matching equipment and speaker cabinets in Danish modern design; equipment cabinet size



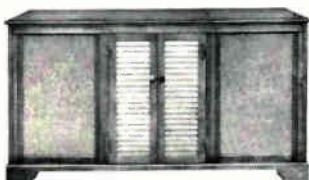
inet size 38 1/4" w. x 28 1/4" h. x 17 3/4" d.; speaker cabinet 17" x 28 1/4" x 17 3/4" d.; for 12" speaker; oiled-walnut finish.
Model 700 Equipment cabinet.....\$144.50
Model 701 Speaker cabinet.....\$ 74.50

Model 720 Equipment Cabinet

Contemporary design; center compartment inside dimensions 18 3/8" w. x 13 1/2" x 17" d. for amplifier & tuner; tape deck compartment (upper left) 17 1/2" w. x 16 1/4" d. with 4" above & 5 1/2" below mounting board; phono compartment (upper right) 17 1/2" w. x 16 1/4" d. with 6 1/2" above & 3 1/4" below mounting board; storage for 100 records; speaker compartments for 12" designs; 57 1/2" w. x 31 3/4" h. x 18 1/2" d.; oiled walnut.....\$249.90

Model 820 Equip./Speaker Cabinet

Early American style with dual lift tops for record player & tape deck; over-all size



57 3/4" x 31 3/4" x 18 3/4" d.; component area 18 3/8" w. x 13 1/2" h. x 17" d.; phono area 17 1/2" w. x 6 1/2" above mtg. board and 3 1/4" below x 16 1/4" d.; tape deck area 17 1/2" w. x 4" above mtg. board and 5 1/2" below x 16 1/4" d.; record storage space 18 3/8" w.; speaker enclosure designed for 12" speakers; available in maple or walnut \$271.00

Model 810/811 Equip./Speaker Cabinets

Early American ensemble; upper right compartment has lift top; inside size 17 1/8" w.



x 14 3/8" d. x 6" h.; lower right has space for 100 records; upper left compartment has removable shelf; inside dimension 17 3/8" w. x 14 1/2" h.; has blank face panel; lower left is additional storage space; over-all size 38 3/4" x 27 1/2" x 17 1/4" d.; matching speaker enclosures will house up to 12" speakers; 17 1/2" x 27 1/2" x 17 1/4"; available in maple finish.

Model 810 Equipment cabinet.....\$151.50
Model 811 Speaker cabinet.....\$ 77.00

Model RC-510 Record Cabinet

Holds up to 200 records; each side equipped with wire dividers; available for wall hanging or with legs; 40 3/4" w. x 16 1/2" d. x



16" h. (22" with legs); available in oiled walnut, mahogany, blonde, and ebony; with legs.....\$75.00
For wall mounting.....\$71.00

Model RC-511 Speaker Cabinet

Matching design for RC-510 record cabinet; either wall or floor mounting; 15 1/4" w. x 16 1/2" d. x 16" h. (22" h. with legs); with legs.....\$39.95
For wall mounting.....\$36.00

Model RC-520 Record Cabinet

Upper compartment 20" w. x 18" d. with adjustable 6" to 13" height; lower com-



partment 20" w. x 13" h. x 18"; over-all size 22" w. x 32 1/2" h. x 19 1/2"; available in oiled walnut, mahogany, blonde, and ebony\$86.00

540 Lowboy Cabinet

Over-all size 61" w. x 17 1/8" d. x 24 3/8" h. Lift component compartment for re-



ceiver or tuner & amplifier 18 3/4" w. x 16" d. x 14" h. Center 18" w. x 15 3/8" d. x 6 1/2" h. above mounting board, 7" below. Right side 16 1/2" w. x 15 3/8" d. x 2 1/2" above board, 11" below. Record storage to right of turntable 5" w. x 15 3/8" d. x 13" h. Walnut\$138.00

530/531 Ensemble

Contemporary design, walnut finish. Cabinet 41" w. x 19 3/8" d. x 29 1/4" h. Lift top



with stay-put hinge. Top left for tape deck 19 1/4" w. x 16 3/8" d., height adjustable. Top right for changer or turntable 19 1/4" w. x 16 3/8" d. x 6 1/2" h. Bottom left component area, front mounting, 24" high. Bottom right storage area.

Model 530\$192.00
Speaker cabinet, matching design; 19 1/2" w. x 19 3/8" d. x 29 1/4" h. Holds up to 15" speaker with adjustable tweeter panel. Internally baffled & ported; lined with 1" fiberglass. Model 531\$84.00
Also available in kit, prefinished walnut.

Model 120/101 Equip./Speaker Cabinets

Upper compartment has removable extra shelf; inside dimension 18 3/8" w. x 13 3/8" h.



h.; has drop front & blank face panel; lower pull-out drawer with blank mtg. board; over-all cabinet size 20" w. x 32 1/2" h. x 18" d.; matching speaker cabinets designed for up to 15" speakers & any size tweeter; 20" x 32 1/2" x 18" d.; available with removable base or legs; walnut, mahogany, blonde, or ebony.

Model 120L with legs.....\$81.50
Model 120B with base.....\$86.00
Model 101L with legs.....\$73.50
Model 101B with base.....\$79.00

TOUJAY

Multi-Cube

Cabinets in walnut, teak & rosewood. 24" w. x 21" d. x 17" h. can be used in floor-



standing, stacked & wall-hung combinations. Available with fittings for speakers, turntables & component amps, tuners, tape recorders & record storage. Speaker units available with optional rotating bases\$125.00
Basic kit.....\$ 89.00

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9

Microphones

ALTEC LANSING

Model 681A Microphone

General-purpose, moving-coil dynamic design; response 50-18,000 cps; output im-



pedance 150/250 or 20,000 ohms (specify impedance); output -55 dbm/10 dynes/cm.²; omnidirectional; 1 1/8" dia. at top, 7 3/8" long; dark green baked enamel and brushed chrome; comes complete with 15-foot cord\$46.50
Desk stand extra.....\$15.00
"On-off" switch kit.....\$8.25

Model 682A Microphone

Similar in design and style to Model 681A; response 45-20,000 cps; output impedance 30/50, 150/250, and 20,000 ohms (selectable by cable plug); two-tone baked enamel finish, black and dark green or dark brown and platinum, or brushed chrome; has sintered bronze filter for protection against moisture and blasting.....\$54.00

Model 683A Microphone

Similar in style to Model 681A; cardioid dynamic design; response 45-15,000 cps; 30/50, 150/250, and 20,000 ohms (selectable by cable plug); output -54 dbm/10 dynes/cm.²; front-to-back discrimination 20 db; same finishes available as for Model 682A; has sintered bronze filter for protection against moisture and blasting\$76.50

AMERICAN MICROPHONE

Model D-4 Microphone

Dynamic type; response 60-12,000 cps; output level -52 db; omni-directional; height 4"; 12 1/2' cable; available high- or low-impedance; rugged.....\$18.60

Model D-11 Microphone

Omnidirectional, dynamic hand-held general-purpose type; 80-10,000 cps; push-to-talk switch; 2 3/8" dia. x 2" x 5"; includes 15' three-conductor shielded cable.
D-11H high impedance.....\$21.60
D-11L low impedance.....\$21.60

Model D-12 Microphone

Dynamic lavalier type; compact 3 2/32" long; response 60-12,000 cps; output level -55



db @ high-impedance; includes lavalier and accessories.

D-12H high impedance.....\$35.70
D-12L 50 ohms.....\$35.70

D-20 Omnidirectional Microphone

Dynamic design. Response 80-12,000 cps;

1966 EDITION

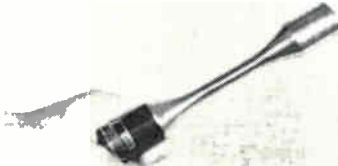
output -58 db (ref. 1 v./dyne/cm.²);



25,000 ohm imp.; an adjustable 2-pos. desk stand, floor-stand coupler, and lavalier cord assembly are supplied; 6 3/8" x 1 5/16", 5 1/2 oz.List \$20.00

Model D-22 Microphone

Dynamic type; frequency response 50 to 12,000 cps; omnidirectional; output level



-55 db at high impedance; available in high- or low-impedance; over-all height 8 1/4"; 25' single conductor cable.....\$59.70

Model D-55 Microphone

All-purpose unidirectional dynamic design; 50-12,000 cps; impedance may be changed



to low or high; 7 1/2" long x 1 3/8" dia.\$51.00
D-55 G Same as above in attractive gold casing\$51.00

B213S Mic.

Ceramic hand-held microphone; response 80-9000 cps; high-impedance; 5-foot coiled cord; ceramic type with d.p.s.t. push-to-talk switch....\$10.05

300 Mic. Clamp

Detachable, lightweight; adapter fits any 1" dia. mic. providing mtg. to 3/8"-27 desk or floor stand List \$7.50
301 Snap-in clamp. Similar to 300 but cut back to allow snap-in mtg. of 1" dia. microphone List \$7.50
310 Similar to 300 but for 3/4" diameter microphones List \$6.00
311 Similar to 301 but for 3/4" diameter microphones List \$6.00

513 Filter

For use with low-impedance microphones; has sw. to match 50, 150, or 250 ohms impedance. When used in line between pre-amp & mic it will reject unwanted noise below 100 cps List \$7.00

"Which microphone should I use for tape recording?"



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Microphones '66 — a hook every owner of a tape recorder should have. Send coupon today!



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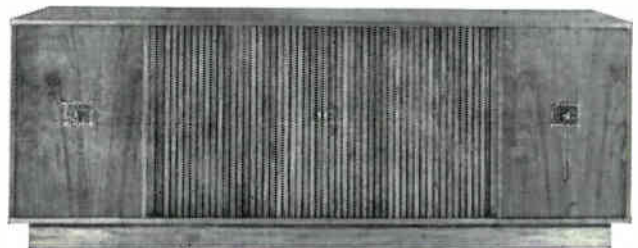
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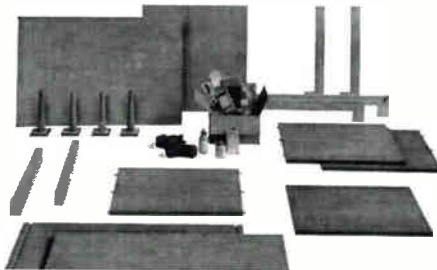
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All you need is a screwdriver to house your equipment in fine cabinetry at superb savings. Furn-a-Kit know-how gives you the custom built look in hi-fi cabinets, break-fronts, bedroom and dining room pieces, wall furniture, many others . . . even if you've never done anything more ambitious than hang a picture. Dozens of styles to choose from. Results are guaranteed or money back. For a complete catalog of Contemporary, Traditional and Period designs send 25¢ to Dept. D 19 Bronx address.

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9

Microphones

ASTATIC

988 "Vogue" Dynamic Microphone

Omnidirectional design with "pop-proof" and "blast-proof" diaphragm; insensitive



to moisture and temperature; convertible from hand to stand to lavalier use; detachable cable connector; response 40-17,000 cps; impedance selector for 50-150-250 ohms; output -56 db at 1 mw./10 dynes/cm.²; furnished complete with 20-foot cable, stand adapter, lavalier assembly; 9¹¹/₃₂" h. x 1¹/₃₂" dia.....\$150.00

888 "Tempo" Dynamic Microphone

Similar to Model 988 except response 50-15,000 cps; impedance selector for 50-200-



high-impedance; output -58 db.\$110.00

788 "Metro" Dynamic Microphone

Similar to Model 988 except response 60-13,000 cps; impedance 150 or high-imped-



ance; output -58 db; has built-in "on-off" switch\$79.50

Model 77 Series Microphones

Dynamic cardioid design; front-to-back pickup differential 18 db; rugged and insensitive to temperature and moisture; blast-proof diaphragm; essentially flat from 30-15,000 cps; impedance selector switch: high-impedance position (40,000 ohms), open circuit voltage -48 db @ 1 volt/dyne/cm.²; low-impedance position (30-50 ohms) power level into 50 ohms -52 db @ 1 mw./10 dynes/cm.²; medium-impedance position (150-250 ohms), -53 db.

Model 77\$82.50
 Model 77L\$72.50
 Model G77 Complete with grip-to-talk desk stand, 8-foot cable.....\$97.45
 Model 77 (Gold finish).....\$92.50
 Model 77L (Gold finish).....\$82.50
 All "L" models furnished less "on-off" switch, cable, and adapter; intended for use with the company's Model G grip-to-talk desk stand.

DYNACO

Models 50 & 53 Microphones

Both models are ribbon; bidirectional; B & O manufactured; response ±2.5 db 30-13,000 cps; output 56 db below 1 volt/μbar at high impedance or with matching transformer; 7³/₄"x1³/₁₆"; switch provides music, close-talk, and off positions.

Model 50 (50 ohms balanced only).....\$59.95
 Model 53 (with internally switched matching transformer for 50 and 250 ohms balanced, 40,000 ohms unbalanced)\$69.95
 Model SS-1 Stereo spacer & dual mount for 50 or 53 microphones\$14.95
 MT-1 matching transformer (50-50,000

ohms)\$14.95

Model 200 Microphone

Dual-ribbon mike designed by B & O for stereo operation; bidirectional with figure-8 pattern; top section can be rotated through 100° with respect to lower section so optimum 90° angle or any point in between may be chosen; lower section includes phasing switch and another for muting, normal operation and a close-talk position; unplug top for mono use; response 30-13,000 cps ±2 db; in "talk" position response is rolled off 3 db/octave below 1 kc.; impedance 150/200 ohms; sensitivity Gm = -156 db; 10"x1³/₁₆"\$149.95
 Model 100 Mono version\$ 89.95
 MT-2 Matching transformer (dual-200 ohm to high-Z)\$ 24.95

ELECTRO-VOICE

642 Dynamic Microphone

Highly directional design combining cardioid & distributed front opening design char-

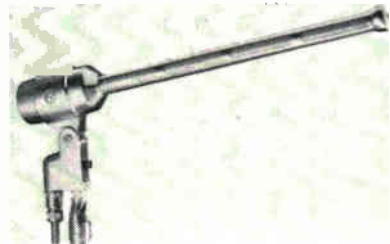


acteristics (unidirectional up to 500 cps, directional beyond). Response 30-10,000 cps or choice of 5 or 10 db low-freq. reduction steps by screwdriver adj.; 50, 150 & 250 ohms imp.; output -48 db; supplied with 30' three-conductor cable. 3³/₁₆" dia. x 17⁷/₈". Must be used with Model 356 or 327List \$390.00

Model 356 Suspension shock mount for boom or floor stand when no windscreen is used.....List \$50.00
 Model 327 Windscreen package includes shock mount & windscreen.....List \$100.00

Model 644 "Sound Spot" Mike

Combination cardioid & distributed front opening have better than 2.5 times the



working distance of pressure-type microphone; 20 db cancellation rear & sides above 700 cps; cardioid pattern below 700 cps; response 40-10,000 cps; output -53 db; dual high & low impedance selectable; 2⁵/₁₆" x 16"\$110.00

668 Cardioid Microphone

For boom use. Has wind screen & built-in equalizer for choice of four response curves in both low- and high-freq. ranges; response 40-12,000 cps; output -51 db; 50, 150 & 250 ohm imp. Supplied with 20' three-conductor cable & shock-isolating boom mount; 3³/₄" dia. x 9³/₈"List \$495.00
 667A Same as 668 except permits selection of 3 low-freq. & 2 high-freq. response

curvesList \$345.00

635A Omnidirectional Microphone

Has 4-stage pop & dust filter; for hand or



stand. Response 60-15,000 cps (rising); output -55 db; low-impedance. Supplied with Model 310 clamp & 18' three-conductor cable. 6" l. x 1¹/₈" dia., 6 oz.....List \$82.00

Model 666 Super Cardioid

Dynamic; unidirectional; for boom, stand, or hand use; frequency response 30 to 16,000 cps; output -58 db; impedance 150 ohms, taps for 50 and 250 ohms; variable directivity increases working distance yet permits closeup without distortion; cast aluminum case; grey; 20 foot cable; built-in Cannon UA-3 connector; includes clamp-on stand mount with ³/₈"-27 thread and ¹/₂" pipe thread adapter.....\$255.00
 Model 666R Same as 666 with high response rising at high end. For voice work.\$255.00

Model 665 Cardioid Microphone

Lower cost professional microphone incorporating same design features as Model 666; response 50-14,000 cps; appearance similar to Model 664.....\$150.00

Model 664 Cardioid Microphone

Dynamic; unidirectional; frequency response 40 to 15,000 cps; output -58 db; 150 ohm and high impedance; diaphragm shielded from dust; filter to minimize wind blast; on-off switch; pressure cast case; assembly includes hinge; 16 foot cable; size 7¹/₄"x1¹/₈"; weight 26 oz.

Chrome finish\$85.00
 Model 664G Gold finish.....\$90.00

Model 676 Cardioid Dynamic Mike

Response 40-15,000 cps; output -58 db; 150 ohms or high impedance, changed in cable connector; has 3-position switch which controls low-frequency attenuation to overcome rumble & feedback; 7³/₈" x 1¹/₄" Satin chrome finish.....\$100.00
 Model 676A Non-reflecting grey finish.....\$100.00
 Model 676G Gold finish.....\$110.00

Model 655C Slim-Trim TV Dynamic

Response 40-20,000 cps; output -58 db; can be used on stand, in hand, or on boom; easily concealed in studio props; pop-proof grille; impedances 50, 150, 250 ohms; impedance easily changed; clamp-on stand mount includes ³/₈"-27 thread and ¹/₂" pipe thread adapter; 10¹/₂" long, 1" dia.; 20-foot cable\$200.00

Model 654A Slim-Trim Broadcast

Dynamic omnidirectional; frequency response 50 to 16,000 cps; output -58 db; impedance 150 ohms; gray; 18 foot cable; size 7"x1"; net weight 15¹/₂ oz.\$100.00

Model 636 "Slimair" Dynamic

For p.a., recording, and general use; response 60-13,000 cps; output -58 db; pop-proof head; wide pickup range; on-off switch; satin chrome finish; tilttable head;



Hi-Z or Lo-Z by changing one wire in connector; 16-foot cable; 10 1/4" long including stud; 1 1/4" max. dia.\$72.50
Model 636G Gold finish.....\$77.50

Model 630 Dynamic Mike

Response 60-11,000 cps; output -55 db; has "off-on" switch; available in high-im-



pedance or 150 ohms (matches 50-250 ohms); low impedance balanced to ground; 2" x 6 1/2".....\$52.50

Model 623 Slim Microphone

Dynamic; omnidirectional; frequency response 60 to 12,000 cps; output-56 db;



high and low impedance; cast case; hinge head; on-off switch; built-in MC-4 connector 3/8"-27 thread; satin chrome; 16 foot cable; size 7 1/2"x1 1/4"; weight 15 oz.\$57.00

Model 641 Dynamic Mike

Dynamic type; high output level; wide range response; for p.a., home recording,



communications; integral on-off switch; response 70-10,000 cps; output level -57 db; omnidirectional; 16-foot cable; Hi-Z or balanced 150 ohms (matches standard low impedances)\$35.00

Model 638 Microphone

Omnidirectional, dynamic design. Response 70-10,000 cps. Supplied either in 150 ohms or Hi-Z. Output -57 db. Has 16' cable. 3 3/8" l. x 3 1/8" h.\$33.50

Model 649B Microphone

Dynamic, miniaturized, rugged lavalier design. Response 100-9000 cps ± 5 db;



matches all low-impedance 50 through

250 ohms. Line balanced to grd. & phased. Sensitivity -155 db. Omnidirectional. Supplied with neck cord assembly & 30' 2-conductor shielded cable; 2 1/4" long x 3/4" dia.\$105.00

Model 647A Microphone

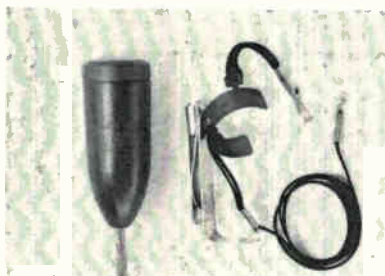
Omnidirectional, dynamic lavalier design. Response 70-10,000 cps; Hi & Lo imped-



ance selected at cable. Sensitivity -155 db; output (Lo. imp.) -61 db (0 db = 1 mw./10 dynes/cm.²). Supplied with 18 ft., 3-conductor shielded cable, neck cord & belt clip; 3 3/4" long x 3/4" dia.....\$82.50

Model 624 Dynamic Lavalier

Response 100-7000 cps; output -56 db; features wire mesh head acoustically treated



for wind & moisture protection; available in high impedance or 150 ohms; not balanced to ground; 3 3/8" x 1 1/2".....\$42.50

Model 729 Ceramic Microphone

Cardioid design; wide-angle front pickup; response 60-8000 cps; high-impedance; on-off switch; output -60 db; 7 3/4" l. x 1 1/2" w. x 1 3/8" d.; single-conductor shielded 8 1/2 ft. cable; also available with relay operating switch and three-conductor (one shielded) cable.....\$24.50

Model 727 Slim Ceramic

Similar in appearance to Model 729; withstands extremes of temperature and humidity; response 60-8000 cps; output -55 db; high-impedance only; 5-foot cable; available with or without on-off switch; 7 3/4" x 1 3/8" x 1 1/2"; supplied with desk stand and floor stand coupler.....\$18.00
Model 727SR With relay control switch\$20.00

Model 715 "Century" Ceramic

Use in any position (in hand, on table, on stand, or overhead); ceramic element; 60-7000 cps; output -55 db; Hi-Z; 5-foot cable; nondirectional; rugged and lightweight; 3" x 2 3/16" x 1".....\$13.00
Model 715S With switch.....\$15.00

Model 712 Ceramic Mike

Low-cost ceramic unit; meets need for p.a., home recording, paging, general use; handheld; moisture-sealed ceramic; response 70-7000 cps; high output -55 db; Hi-Z; 3" x 2 1/4" x 1 1/8"; 5-foot cable.....\$7.50

951 Cardioid Crystal Microphone

Wide-range, all-purpose p.a. mic. Response



50-11,000 cps; output -60 db; high impedance; "on-off" sw.; 16' cable; 1 3/4" dia., 5 3/8" l.; 1 1/4 lbs.List \$54.50

911 Crystal Microphone

Response 50-10,000 cps; output -50 db;



high impedance; 16' cable; 1 1/2 lbs.List \$32.50

926 Slim Crystal Microphone

For general-purpose use; response 60-8000 cps; output -60 db; high impedance; 1 3/16" dia. x 1" l.; with tiltable head & 16' cable; 10 oz.List \$29.50

920 "Spherex" Crystal Microphone

Omnidirectional pickup. Response 60-10,000 cps; output -50 db; wire mesh head treated for wind & moisture protection. Has high capacity & high impedance; 2 1/4" dia., 16' cable; 8 oz.List \$27.50

924 Lavalier Crystal Microphone

Supplied with neck cord, support clip & 18' cable. Has wire mesh head for wind &



moisture protection. Response 60-8000 cps; output -60 db; high imp.; 1 3/32" dia. x 3 3/32", 8 oz.List \$20.00

Model 805 Contact Mike

For guitar, banjo, other stringed instru-



ments; Hi-Z; sealed crystal; chrome finish; 15-foot cable.....\$20.00

Model 335A Blast Filter

Designed for use with Models 630, 641, 638 & 634 microphones. Will not affect freq. response\$12.50

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Microphones

Model 355 Windscreen

Designed for use with Models 655C, 654A, 636, 623 & 926. Reduces wind blast with-



out altering freq. response. Acts also as a protective device.....\$11.00

Model 524A Windscreen

Designed for use with Models 664, 665 &



666. Also protects against dust, magnetic particles & mechanical shock.....\$12.00

502A Matching Transformer

For use where long cable runs are required. Designed for low-impedance microphones



(50, 150, 250 or 500 ohms) to 40,000 ohm amplifier input. 30-20,000 cps.....\$17.50

FARGRAM

Parabolic Microphone



Reflector design for use with transistorized battery-operated tape recorders. Spun aluminum 24" reflector with sighting gunsight on microphone. Impedance 200 ohms; reflector depth 5"; wt. 5 lbs; at 100 ft. from 500-5000 cps sensitivity of mic. is increased 15 db with reflector. To be used with any heavy-duty camera tripod with pan-tilt head. Supplied with mic., reflector & gunsight, microphone holder.....\$89.50

KNIGHT

KN-4550 Dynamic Microphone

Features cardioid pattern & two separately tuned chambers. Response 45-14,000 cps with -55 db output. Has "on-off" sw.; provisions for high or low impedance. 7 1/4" x 1 1/8". Shipped with 18' cable.....\$34.95

KN-4545 Microphone

Recording and p.a. microphone; highly directional; 70-15,000 cps response; dual impedance (250 or 20,000 ohms) "on-off" switch. 6 3/8" x 1 1/4". With desk stand, 8' cable (less connector).....\$24.76

KN-4510 Ceramic Microphone

Lightweight design with high-impedance output of -56 db. Response 50-11,000 cps. 5 1/4" x 1 1/16". Supplied with swivel-mount stand, 7' cable & 1/4" phone plug.....\$9.50

KN-4520A Microphone

Dynamic element, Mylar diaphragm, and 80-12,000 cps response; for recording, p.a.,



and auditorium use. Output level -57 db. Omnidirectional. Dual impedance (3000 or 25,000 ohms). With desk stand, lavalier cord assembly; 4 1/2' cable. 5" x 1 5/16" dia.\$10.85

NORELCO

D-12 Dynamic Microphone

Directional type with cardioid characteristics. 40-15,000 cps ± 3 db. Front-to-back ratio, 18 db over entire frequency range. Impedance 50-250 ohms. Sensitivity -77 db (1 volt/dyne/cm.²).....\$99.00

D-119ES Dynamic Microphone

Cardioid type; multi-impedance; 5-pin Cannon connector; 40-16,000 cps ± 3 db. Impedance 50, 200 ohm or Hi-Z. Sensitivity -75 db (1 volt/dyne/cm.²). With speech/music switch\$65.00

D-24B Dynamic Microphone

Directional type with cardioid characteristics. With bass roll-off switch. Frequency range 30-16,000 cps ± 2.5 db. Impedance 60 or 200 ohms. Sensitivity -75 db (1 volt/dyne/cm.²)\$150.00

D-19E/200 Dynamic Microphone

Cardioid type 40-16,000 cps ± 3 db. Impedance 60 or 200 ohms. Sensitivity -75



db (1 volt/dyne/cm.²). With speech/music switch\$58.00

OLSON ELECTRONICS

M-203 Crystal Microphone

Hand-held design with push-to-talk sw. 2 of 4-wire cable are used to start/stop battery operated tape recorder. Response 40-6000 cps. Output level -50 db. 5 3/8" x 1 1/2" x 1".....\$2.95

M-164 Dynamic Microphone

Dual impedance (600 & 50,000 ohms); response 50-10,000 cps; output -55 db; 2 1/2" diam. x 5 3/4"\$12.98

RCA

77-DX Polydirectional Microphone

Features uni-directional, bi-directional, or non-directional pickup patterns changed by a selector switch; three frequency response variations on the basic pickup patterns may also be obtained, thus nine different directional characteristics may be utilized; output impedance is factory connected for 250 ohms but may be reconnected for 30 to 150 ohms; effective output levels are -50

dbm in the bi-directional pattern, -53 dbm in the uni- and non-direction patterns (EIA ratings, -144 db, -147 db, and -150 db respectively); response 30-20,000 cps; hum level pickup -128 dbm; supplied with 30 feet of three-conductor shielded cable, less plug; 1 1/2" x 3 3/4" x 2 1/4" d. Satin chrome finish\$206.00
Low-luster gray finish.....\$197.00

BK-6B Dynamic Microphone

Lightweight (23 oz.) microphone 2 1/8" x 1 5/16" in size; effective output level is -67



dbm (EIA rating, -158 db); response 60-15,000 cps; 250-ohm output impedance may be changed to 30 or 150 ohms by a change of cable connections; hum pickup is low (-112 dbm); supplied with 30' of three-conductor cable, less connector; has lanyard & fastener.....\$86.00

BK-12A Dynamic Microphone

Non-directional, lightweight design. 60-18,000 cps; output -60 dbm (10 dynes/cm.²)



at 1000 cps. 150 ohm. For use with 30 to 250 ohm unloaded inputs. Supplied with clip-type lanyard, tie clip holder & cable clip. 3/4" dia., 1 1/2" long, 30' cable\$95.00

SK-30 Dynamic Microphone

Omnidirectional, lightweight design. 60-12,000 cps; output -56 dbm (10 dynes/cm.²)



@ 1000 cps. 1 1/2" dia. x 4 1/2" long; 20' cable, 50-250 ohm input\$30.00
Model SK-31 30,000 ohm input\$31.00

SK-46 Velocity Microphone

An economy ribbon design for indoor use; has good frequency response (40-15,000 cps) and bi-directional pickup characteristics; output impedance 200 ohms but may be reconnected to 15,000 ohms; effective output level is -58 dbm at 250 ohms (EIA rating, -150 db) or -60 dbm at 15,000 ohms; supplied with 25' of two-conductor cable, less connector\$54.95

BK-1A Pressure Microphone

Ideal for outdoor use; offers smooth response for both voice and music; provides uniform response from 50-15,000 cps; swivel mounting can be used to control directional characteristics; vertical position is non-direction, the horizontal position is semi-direction; output impedance is 250 ohms, but 30 and 150 ohm connections are

included; effective output level is -56 dbm (EIA rating, -48 db); hum pickup is below -112 dbm; supplied with 30' of three-conductor cable, less connector.....\$73.50

SK-45B Talk-Back Microphone

Ideal for talk-back, cue, and p.a. use; dynamic microphone is essentially non-directional



tional with a -56 db output level (EIA rating, -147 db) when connected for 150 to 200 ohm balanced output, and -58 db when connected for 15,000 ohms output; response 70-12,000 cps; supplied with 25' of cable, less connector.....\$45.00

SK-39A Utility Microphone

Inexpensive dynamic microphone for cue and talk-back applications; plastic dia-



phragm is impervious to moisture and rain; response 60-10,000 cps; output level -55 dbm (EIA rating, -150 db); can be used with amplifiers having 150-250 ohm input; 15 oz.; supplied with 25' two-conductor cable.\$23.40

BK-11A Velocity Microphone

General-purpose ribbon design with bi-directional characteristics; response 20-20,000 cps; effective output level -56 dbm @ 1000 cps (EIA rating, -147 db); output can be connected for 30, 150, and 250 ohm operation; three-position switch permits selection of desired frequency ranges for voice and music.....\$131.25

BK-5B Uni-Axial Microphone



Ribbon instrument designed for high noise areas; maximum sensitivity is in the major mechanical axis producing an extremely directional cardioid pattern; response 30-20,000 cps; effective output level -56 dbm (EIA rating, -150 db); output is connected for 250 ohms but may be changed to 30 or 150 ohms; supplied with 30' of three-conductor cable, less connector; windscreens available for outdoor use.....\$146.50

SHURE

Model 545 "Unidyne III" Microphone

Dynamic type; cardioid; frequency response 15-15,000 cps; output -57 db low level, -55 db high level; dual impedance; 18' three-conductor shielded cable; 6" x 2"\$85.00



Model 545S "Unidyne III"; as shown above, but mounted on permanent swivel base with on/off switch.....\$89.95

Model 55SW "Unidyne" Microphone

Dynamic type; uni-directional; frequency response 50 to 15,000 cps; output: -54 db at 35-50 ohms, -55 at 150-250 ohms; -57 at 35,000 ohms; 3-position impedance switch; Alnico V magnet; die-cast zinc case, satin chrome finish; Amphenol MC3M connector equivalent; self-adjust swivel; 3/8" -27 thread; on/off switch; 20 foot 2-conductor shielded cable; size 7 3/8" x 2 1/4" x 3 1/16"; wt. 3 1/2 lbs., shpg. 4 1/2 lbs.\$85.00
Model 55S without switch.....\$83.00

580S "Unidyne A" Dynamic Microphone

Unidirectional design; ideal for controlling feedback in p.a. & home recording applications. Has cardioid pickup pattern; shock-mounted element; "on-off" switch; response 50-12,000 cps; output -58 db; choice of hi- or low-impedance models; 6 3/8" x 1 3/4" dia.; 15' cable with strain relief.

580SA High impedance.....\$59.00
580SB 150-250 ohms.....\$52.00
580SA (M) Matched pair for stereo recording; high-impedance; complete with plugs attached\$118.00

576 Omnidirectional Dynamic Mike

Dynamic probe microphone featuring wide-range response for voice & music; ultra-slim



3/4" dia. x 8 3/8" long; response 40-29,000 cps; dual impedance 50 & 150 ohms; output: -60 db; complete with slip-in swivel adapter that permits tilting microphone 90° from vertical to horizontal; also ideal as hand-held mic.; available in matched pairs for stereo, broadcasting and recording\$175.00

578 Omnidyne Ultra-Slim Probe

Designed as a dynamic omnidirectional type p.a. microphone; response 50-17,000 cps;



output: -59 db high impedance, -60 db low impedance; built-in wire mesh "pop" filter reduces breath noises; dual impedance (200 ohms & high); 3/4" dia., 7 3/8" over-all length; complete with "on-off" switch and special slip-in swivel stand adapter; available in matched pairs for stereo recording (matching to ± 1 db in level and ± 1 1/2 db in frequency response).....\$82.50
Model 578S. As above, but mounted on permanent swivel base, with Cannon XL3-11 type cable connector.....\$90.00

578S Dynamic Microphone

Omnidirectional; fixed stand design with "on-off" sw. Response 50-15,000 cps; 50-

250 ohms imp.; open-circuit voltage .10 mv.; EIA sensitivity -155 db; with 18' two-cond. cable; .78" dia.....\$90.00

Model 550S "Probe-Dyne" Microphone

Rugged, omnidirectional, dynamic design. Response 40-15,000 cps; output 57.5 db for low imp. & 58.5 db for high imp.; dual impedance, choice of 50-250 ohms & high; complete with on/off sw., swivel & 18' cable.

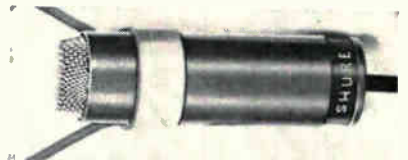
Chrome finish.....\$69.00
Gold finish.....\$79.00

540S "Sonodyne II" Microphone

Dynamic type; uni-directional; response 60-10,000 cps (provisions for altering response to increase voice intelligibility); output: -57 db at 50-250 ohms, -52.5 db at high impedance; adjusts for high or low impedance; modern die-cast zinc and Armo-Dur case; satin chrome and black finish; self-adjusting "lifetime" swivel; 15-foot, 2-conductor shielded cable; 6-3/32" x 1-21/32" x 2-9/16".....\$49.95

Model 570 Lavalier Microphone

Miniature size professional-quality dynamic microphone designed for lavalier use; fea-



tures special "shaped" response; output -59 db; reduces pickup of clothing and cable noise; lightweight, flexible, 30' microphone cable attached; response 50-12,000 cps with rising response to 6000 cps; impedance 150 ohms to match low-impedance inputs; omnidirectional, 3/4" dia. x 2 1/2" over-all length; net weight 2 oz.....\$95.00
Model 570S. Similar to above, but with on/off sw. 5 3/32" long by 3/4" dia.....\$105.00

570S Dynamic Microphone

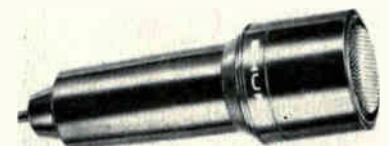
Omnidirectional, lavalier design; with "on-off" sw. Response 50-12,000 cps with rising characteristic to 6000 cps; 50-250 ohms imp.; open-circuit voltage .085 mv.; EIA sensitivity -152 db; with 30' two-cond. cable; 2 5/32" dia.....\$105.00

571 Dynamic Microphone

An adaptation of Model 570 for stand or hand-held use. Can be used as lavalier type with accessory A57L assembly. Omnidirectional; response 50-10,000 cps; 50 to 250 ohm impedance; open-circuit voltage .085 mv.; EIA sensitivity -153 db; with 30' two-conductor cable; 2 5/32" dia.....\$95.00

560 Dynamic Microphone

Lavalier, dual-impedance design; response 40-10,000 cps with rising characteristic to



4500 cps; high & low (150 to 250 ohms) impedance; open-circuit voltage level 1.48 mv. (high imp.) & .149 mv. (low imp.); with 18' two-conductor cable; 1.356" dia.\$42.50

333 Uni-directional Microphone

Ribbon design; response 30-15,000 cps ± 2 1/2 db; output 50 ohm -60 db, 150 ohm

9

Microphones

—59 db, 250 ohm —59 db; response at rear down 12-20 db; multi-impedance switch and adjustment for frequency characteristics; shock mounted; supplied with 20-foot cable; 7 $\frac{1}{2}$ " h. x 1 $\frac{1}{8}$ " w. x 1 $\frac{1}{4}$ " d.\$250.00

Model 330 "Uni-Ron" Microphone

Ribbon type; uni-directional; frequency output: —60 db at 50 ohms, —59 db at 150 and 250 ohms; 3-position impedance switch; Alnico V magnet; die-cast zinc case; satin chrome finish; self-adjust swivel; $\frac{3}{8}$ "—27 thread; live rubber shock mount; Cannon XL-3-11 connector; 20 foot 2-conductor shielded cable; size 3 $\frac{3}{4}$ " x 1 $\frac{1}{4}$ " x 1 $\frac{1}{8}$ "; wt. 1 $\frac{1}{2}$ lbs., shpg., 4 lbs.\$120.00

Model 300 Bi-directional Microphone

Multi-impedance ribbon design with special anti-breath filter; response 40-15,000 cps \pm 2 $\frac{1}{2}$ db; output 30-50 ohms —59 db, 150-250 ohms —60 db; high impedance —57 db; equipped with multi-impedance switch for 30-50 ohms, 150-250 ohms, and 35,000 ohms; equally sensitive front and rear with sides down 15 to 20 db; has shock mounting; supplied with 20-foot cable and switch to adjust frequency characteristics; 6" h. x 1 $\frac{1}{16}$ " x 2 $\frac{1}{16}$ " d.\$150.00

Model 315 Gradient Microphone

Ribbon type; bi-directional; frequency response 50 to 12,000 cps; output —59.5 db at 30—50 ohms; —60 db at 150—250 ohms, —57 db at high impedance; 3-position impedance switch; Alnico V magnet; die-cast zinc case; satin chrome finish; self-adjust swivel; $\frac{3}{8}$ "—27 thread; Amphenol MC3M connector equivalent; 20 foot 2-conductor shielded cable; size 6" x 1 $\frac{1}{2}$ " x 1 $\frac{1}{8}$ "; wt. 1 lb., shpg., 3 $\frac{1}{4}$ lbs.\$89.50
Model 315S with switch.....\$91.50

575S "Versadyne" Microphone

Dynamic type; omni-directional; response 40-15,000 cps; output: high impedance



—59 db, low impedance —62 db; choice of high or low impedance versions; black Armo-Dur body with satin anodized cap and stainless steel grille; furnished with special stand adapter; on-off switch; attached 7-foot single-conductor shielded cable; 4 $\frac{3}{4}$ " x 1 $\frac{1}{4}$ ".
Model 575S (high impedance).....\$24.00
Model 575SB (low impedance).....\$21.00
Model 275S "Versaplex" (ceramic version)\$15.00

430 "Commando" Microphone

Controlled magnetic type; omni-directional; frequency response 60 to 10,000 cps; output: Lo-Z, —54 db; Hi-Z, —55 db; changeable pin jacks give choice of 2 impedances: 150—250 ohms or high impedance; polystyrene and die-cast zinc case; satin-chrome and gray finish; A25 type swivel adapter; $\frac{3}{8}$ "—27 thread; Am-

phenol MC2M connector; 15 foot 2-conductor shielded cable; press-to-talk switch, locking plate furnished; size 6 $\frac{1}{2}$ " long; top diameter 1 $\frac{1}{4}$ "; handle $\frac{3}{4}$ "\$38.50

Model 245 "Uniplex" Microphone

Ceramic type; uni-directional; response 50-7000 cps; output —59 db; high imped-



ance; die-cast zinc case; includes swivel adapter; 15-foot single-conductor shielded cable; 4 $\frac{3}{4}$ " x 1 $\frac{1}{8}$ "; wt. $\frac{3}{8}$ lb.\$35.00
Model 245S (with "on-off" switch).....\$37.00

SONOTONE

Model CM-10A "Ceramike"

Ceramic microphone; frequency response 50 to over 11,000 cps \pm 2 db; sensitivity 56 db below 1.0 volt per microbar; omni-directional; high impedance; includes 7 feet of shielded cable with phone plug; does not include stand; 5 $\frac{1}{8}$ " x 1 $\frac{9}{16}$ " diameter at grille.....\$17.50
Model CMS-10 mike stand: table design\$5.25

Model CM-30 Microphone

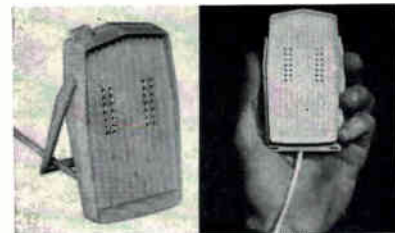
Ceramic design for voice frequencies. Response 60-7000 cps; sensitivity —49 db \pm 2 db; 2 meg. load impedance. Has push-to-talk button, dashboard mounting bracket & spring spiraled 4-conductor cable.\$14.70
CM-30M with dashboard magnet mount.\$17.35

DM10-200 Dynamic Microphone

Response 80-16,000 cps; sensitivity —63 db \pm 3 db; impedance 10,000 ohms; omni-directional design\$24.50

Model CM-40 Microphone

Ceramic microphone in plastic case; equipped with swing-type stand; —50 db



output; response 40-8000 cps; 7-foot, 2-conductor cable.\$10.40

Model CMT-10A or CMT-11A Matched Twin Microphones

For stereo tape use; ceramic type; acoustically matched to 2 db; Model CMT-10A has frequency response 50 to over 11,000 cps; Model CMT-11A has frequency response 80-9000 cps; Model CMT-10A output level —56 db.....\$37.30 pair

CM-1018 Microphone

Low-impedance ceramic microphone for taping and communications applications; response 50-10,000 cps; sensitivity —56 db; impedance 500k (usable to 250k)\$19.45

CM-1050WR Microphone

Wide-range, low-impedance microphone,

for voice and music applications; response 50-10,000 cps; sensitivity —58 db; impedance 250k although usable down to 33k\$19.45

CM-1050SR Microphone

Speech range, low-impedance microphone, designed for speech applications; response 170-9500 cps; sensitivity —62 db; impedance 33k although usable down to 10k\$19.45

CMT-1050WR Matched Twin Microphones

Matched twins—low-impedance ceramic microphones designed for music and speech taping in stereo; acoustically matched to \pm 2 db; response 50-10,000 cps; sensitivity —56 db; impedance 250k (usable to 33k)\$39.30

CMC-1050WR Microphone

Wide-range, low-impedance ceramic microphone with matching stand; response 50-10,000 cps; sensitivity —58 db; impedance 250k (usable to 33k).....\$24.70

SONY

F-81 Dynamic Microphone

Same as Model F-87 except has smoother response\$ 29.50

F-32 Dynamic Microphone

Has omni-directional pattern & bass cut switch; with switch in "music" position, response is essentially flat; with switch in "voice" position, response is attenuated 8 db at 50 cps & 60 db at 100 cps....\$ 27.50

F-75 Dynamic Telemicrophone

Highly directional design with transistor monitoring amp built into pistol grip. A 3-pos. sw. permits low-freq. attenuation.



Response 30-14,000 cps; impedance 150, 250, and 10 kohms, balanced or unbalanced. Complete with one 18" sound probe for up to 75' pickup, one 34" sound probe for 150' pickup, headset & carrying case\$395.00

F-87 Dynamic Microphone

High impedance with cardioid directional characteristics; has built-in table stand &



floor-stand adapter insert.....\$ 22.50

F-96 Dynamic Microphone



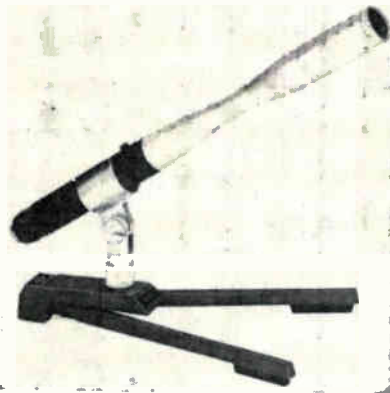
Wide-range, high-impedance; features thin tapered design\$ 17.50

F-113 Cardioid Mic

Dynamic design featuring switch-selected 150, 250, or 10 kohms impedance, balanced or unbalanced. Response 30-16,000 cps, output -57 db. Complete with desk stand, floor stand holder, windscreen & case.....\$249.50

F-91 Omnidirectional Mic

Dynamic design featuring switch-selected 150, 250, or 10 kohms impedance, balanced

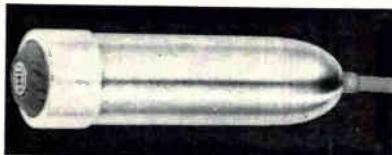


or unbalanced. Response 40-20,000 cps. Output -58 db. Complete with desk stand, floor stand holder & case.....\$149.50

TURNER

Model 141-11 Microphone

Lightweight crystal model; ideal for tape recorder use; chrome finish; for use in



hand, on stand, or as lavalier mic.; response 60-10,000 cps; output level -52 db; 6' single-conductor cable; molded phone plug and phone plug adapter; accessories extra.....\$ 9.00
L14CH Lavalier assembly.....\$ 3.60
144-CH Desk stand.....\$ 3.30

Model 304C Ceramic Microphone

Supplied complete with desk stand, stand adapter, lavalier clip, 12' single-shielded



conductor; response 60-10,000 cps; output level -60 db.....\$9.90

Model 401 Dynamic Microphone

Omnidirectional design; high-frequency response adjustable from 20,000 cps down to 10,000 cps and low end from 40 to 160 cps; has neutral blue-gray finish with 20' three-conductor shielded cable; choice of



high or 150-ohm impedance; 10½" x 1"; output level -60 db at high impedance.....\$75.00
Model 402 Same as 401 but with shorting-type on-off switch.....\$78.00
Model 4022 Matching desk stand.....\$ 4.80

Model 607 Microphone

Response 60-8500 cps; output level -55 db; high impedance.....\$4.80

Model 707 Microphone

Small tape recorder microphone in satin-chrome finish, die-cast case with 6' cable; for use as hand or desk unit; response 60-10,000 cps; output -54 db.....\$ 7.50

Model 403 Dynamic Microphone

Omnidirectional design; response 50-13,000 cps; output level -60 db; choice of 150 ohms or high impedance; has 20' three-conductor shielded cable with Cannon connector; available in silver or gold.....\$48.00
Model 404 Same as Model 403 but with on-off switch.....\$51.00

Model 500 Dynamic Microphone

Cardioid design; response 40-15,000 cps; output -55 db; high or 150 ohm impedance selected at cable end; 20' cable.....\$50.40
Model S-500 with switch.....\$53.50
Model C-7 stand.....\$ 5.70

Model 58 & 58A Lavalier Microphone

Dynamic type with essentially non-directional pickup pattern; designed for use where freedom of movement is required; weighs 3½ oz., 4" long.

Model 58 High or 150 ohms, selected at end of cable; output level -60 db with high impedance; response 60-13,000 cps for high impedance & 60-18,000 cps for low impedance; 3-conductor, 25' shielded cable.....\$34.20

Model 58A 50 or 200 ohm impedance selected at end of cable; response 60-18,000 cps; 3-conductor, 25' shielded cable.....\$34.20

Model 95D Microphone

Dynamic p.a. microphone; available with "on-off" switch; complete with 20-foot cable; response 100-10,000 cps; output -58 db; choice of 50, 200 or high ohms.....\$22.50

Model 500-04 Microphone

Matched cardioid dynamic microphone set for stereo or mono recording. Available in satin chrome finish or Roman gold, with phone plugs; response 40-15,000 cps. Choice of Hi or 150 ohms impedance. Output level -55 db; Has special wind screens for out-of-doors recording. Per set.....\$99.50

Model 907 & 908 Microphone

Economy unit for tape recorders; durable polystyrene; hand or desk use; weighted to avoid tipping; ceramic model (907) for use where heat and humidity are problems; Model 908 response 60-8500 cps; output level -45 db; high impedance; Model 907 response 60-8500 cps; output level -55 db; high impedance design.....\$ 4.80

Model 80 on C-4 Stand

For home recording, paging, amateur use; crystal microphone; 7-foot cable supplied; response 80-7000 cps; output -54 db; high impedance.....\$ 9.57
Matching C-4 stand.....\$ 3.90

Model 44D Dynamic Microphone

Hi-output design with omnidirectional pickup pattern. Response 85-15,000 cps ad-

justable to 60-15,000 cps; output -56.5 db. Complete with 12' cable & "on-off" sw. Hi or 150-ohm impedance available..\$27.00
Model 44X Same as 44D except crystal element. Response 60-10,000 cps; output -53 db.....\$21.00
Model 44C Same as 44D except ceramic element. Response 60-10,000 cps; output -58 db.....\$21.00

UNIVERSITY

Model 1000 Cardioid Microphone

Variable impedance, dynamic design. Response 30-16,000 cps; 50,200, or 20,000 ohms impedance; sensitivity -147 db; output level 50 & 200 ohms: -54 db/1 mw./10 dynes/cm.²; 20,000 ohms 17 mv.



/10 dynes/cm.²; hum reference -120 db /0.01 gauss; 1½" dia.; shock mounting with stand adapter.....list \$124.50
Model 1040 shock mtg. with switch & stand adapter.....list \$139.50
Model 1050 shock mtg. with switch, swivel & stand adapter.....list \$144.50
Model 1100 with stand adapter..list \$119.75
Model 1140 with switch & stand adapter.....list \$124.75
Model 1150 with switch, swivel & stand adapter.....list \$134.50

Model 2000 Omnidirectional Microphone

Variable impedance, dynamic design. Response 50-14,000 cps; 50 or 20,000 ohms; sensitivity -143 db; output level 50 ohms: 50 db/1mw./10 dynes/cm.²; 20,000 ohms 28 mv./10 dynes/cm.²; hum reference -120 db/0.01 gauss; 1½" dia. For home recording. With stand adapter.....list \$44.75

Model 8000 Cardioid Microphone

Variable impedance, dynamic design. Shock mounted for home recording. Response



70-15,000 cps; 30/50-20,000 ohms; sensitivity -154 db; output level 50 ohms: 60/1 mw./10 microbar, 20,000 ohms 8.5 mw./10 microbar; 1½" dia.; with stand adapter.....list \$58.25
Model 8100 With switch & adapter..\$63.25

4000 Series Microphones

Omnidirectional; variable impedance (50, 200, or 20,000 ohms), dynamic design.
Model 4040 50-20,000 cps with sw. & stand adapter.....list \$105.75
Model 4050 50-20,000 cps with sw., swivel & stand adapter.....list \$109.75
Model 4000 lavalier or hand-held design with neck cord; response 50-2000 cps.....list \$93.25
Model 4080 lavalier design with neck cord; 60-20,000 cps; 50 or 200 ohms impedance.....list \$91.50

Attaché Cardioid Lavalier Mic

Dynamic design; response 50-15,000 cps; 15 ohms impedance; sensitivity: -151 db;



output level: -57 db/1 mv./10 microbar. Supplied with neck cord.....\$66.25

9

Miscellaneous

ALTEC LANSING

100A Bass Energizer

Designed for small bookshelf-type speakers to boost bass frequency. It is a passive device



(no tubes or transistors) connected between spkr. & amplifier. Will increase freq. below 200 cps. For 8 & 16 ohm speakers\$30.00

ASTATIC

2501 Ceramic Headphones

Freq. range 30-10,000 cps; sensitivity 100 db (sound pressure level) for 6.5 v. input; impedance 20,000 ohms @ 1000 cps; capacity 3800 $\mu\text{f.} \pm 600$ (each phone); HD less than .5% @ 1 kc. & 20.4 v. input; 8.5 oz.\$27.75
Model 2503 with ceramic boom microphone\$37.75

2601 Crystal Headphone

Freq. range 30-8500 cps; sensitivity 100 db

YOU'LL FEEL ENRAPTURED



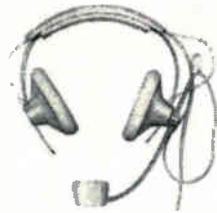
Never before was sound so PURE, never was listening so PRIVATE and UNINTERRUPTED, never was stereo so DYNAMIC. Superex Earphones are luxurious, comfortable, easy-to-use, reasonably priced . . . and ONLY SUPEREX has a separate woofer and tweeter in BOTH ear pieces, giving you the FULL RANGE OF SOUND. Ask for FREE DEMONSTRATION at your local High Fidelity Dealer and get FREE informative booklet on headphones. Professional model ST-PRO \$50.00. Model STM \$29.95. Write for full headphone catalog #5725

SUPEREX Electronics Corp.

7 Radford Place • Yonkers, N.Y.

CIRCLE NO. 71 ON READER SERVICE CARD

(sound pressure level) for 4.5 v. input; im-



pedance 100,000 ohms @ 1000 cps; capacity 750 $\mu\text{f.} \pm 150$ (each phone); HD less than .35% @ 1 kc. & 14.2 v. input; 8.5 oz.\$22.75
Model 2603 with ceramic boom microphone\$35.25

Ceramic boom microphone for models 2501 & 2601; frequency range 30-8500 cps; output 58 db below 1 v./dyne/cm.²; 200,000 ohm impedance @ 1000 cps; capacity 750 $\mu\text{f.} \pm 150$; recommended load 1 megohm min.; wt. 2 oz. less cable.....\$14.00
Headphones & microphone supplied with 6' cables and are available in stereo or mono and in green, grey, or beige.

CLARK

Model 100 Stereo Headset

Moving-coil (dynamic) design with plastic diaphragms; response 20-10,000 cps ± 3



db; distortion less than .2% @ 100 phn level; sensitivity 1 mw. @ 1000 cps produces 100 db (reference .0002 microbar); max. input 1 w./phone; 8 ohms; has 20 db av. cushion attenuation to white noise; stereo or mono; supplied with 8' cable and 2-circuit plug\$39.50
Model 103 same except 300 ohms....\$39.50
Model 112 same except 1200 ohms....\$44.50

Model 200 Stereo Headset

Permanent magnet design; response 20-17,000 cps. Sensitivity 1 mw. input @

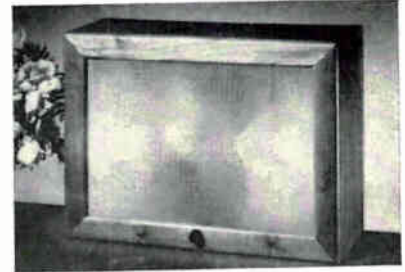


1000 cps produces 105 db per earpiece (reference .0002 μbar). Max. input 1 w./phone; 8 ohms. Has 2-circuit stereo plug\$26.95

CONAR

Color Organ

Transistorized design that can be connected directly across speaker terminals. Sensitivity 100 mw.; input connections 3,4,8, or 16 ohms. Crossover approx. 600 cps; response 20-20,000 cps. Has 1 rpm, 60 cycle, 110 v. synchronous motor. 11 1/4" x 15 1/4" x 6" Kit\$44.95



Assembled\$54.95

FISHER

Model K-10 "Spacexpander"

Single-control reverberation design using interconnected coil springs; nominal delay 33 sec.; self-powered; three dual-purpose tubes, 7247 and 2-12AX7, decay time variable maximum 2 sec. @ 300 cps; minimum input .2 v.; max. input 5 v.; input imp. 250,000; out. imp. 2000 ohms; output voltage is .2-5 volts.....\$79.50

Model PR-6 Preamp

Self-powered; sensitivity for 1 v. out.; 10 mv. input phono; 1 mv. input mic; 5 mv. for tape; hum -60 db below 1 v. phono & tape; -70 db on mic; 30-20,000 cps ± 2 db; 6SC7 dual-triode amplifier tube, 3 1/2" w. x 3 1/8" d. x 3 1/8" h. weight 1 1/2 pounds.\$14.95



JENSEN

Model HS-1 Headset

Stereo or mono design; response 20-15,000 cps; 8 ohms; sensitivity 95 db sound pres-



sure level for 1 mv.; 1/10 watt input required for adequate listening; 3-way plug and 8-foot cord provided.....\$31.50

HS-2 Stereo Headphones

For stereo or mono listening; response 20-17,000 cps, 4 ohms, 1 mw. input required



for adequate listening, 8-foot input cable and 3-conductor phone plug. Accessory jack panel is M-1648.

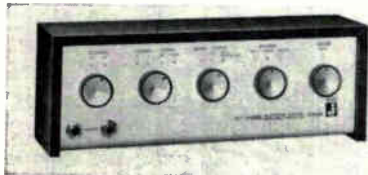
HS-2 Stereo headphone.....\$24.95
M-1648 Jack panel.....\$ 4.95

CC-1 Headphone Control Center

4-8 ohm electrodynamic phones; operates with any 10-watt/channel amplifier; stereo

STEREO/HI-FI DIRECTORY

design; new "Space-Perspective" design provides complete controls for personal listening; controls—speaker "on-off," left- or right-channel only or stereo with channel reversal; mono or stereo with choice of "Space-Perspective" or regular; balance;



volume; 4 1/4" h. x 11 3/4" w. x 3" d.\$52.00

Model CFN-1 Cross-Feed Network

Provides full cross-feed characteristics to simulate speaker listening; can be con-



nected to any 10-watt/channel or larger amplifier; to be used with 4-8 ohm stereo headsets\$24.75

KINEMATIX

"Verba-Matix" Reverb System

An electronic delay system used with car radio. Delays program material & directs it to rear of car. Provides pseudo-stereo effect. Includes 6" x 9" speaker. 4-transistor amplifier & control unit. Has volume & % reverb controls & fader "on-off" sw.

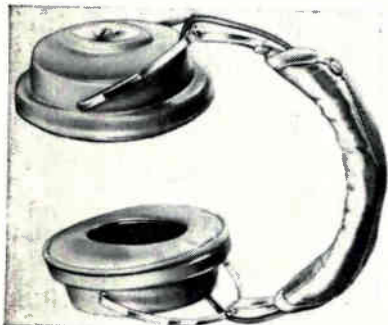


Works from 12-v. car battery. Amp. 3 3/4" x 9 3/4" x 2 1/2". Control case 5" x 3" x 1 3/8"\$49.95

KNIGHT

KN-875 Stereo Headphones

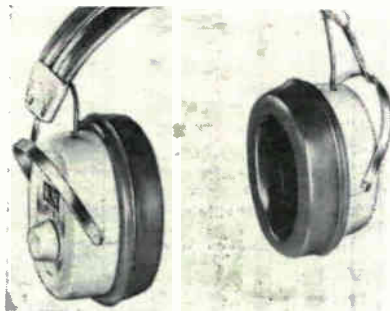
Response 20-16,000 cps; 3 1/2" dynamic



transducer; 4-16 ohms; 8' cord.....\$14.95

KN-876 Stereo Headphones

Response 16-16,000 cps; dynamic transducer; 3-16 ohms; 8' cord plus individual vol-



ume control for each phone.....\$19.95

KOSS

SP-5NS Dual Mode "Stereophones"

Switched lavalier with two plugs provides

a stereo plug for monitoring or two monaural plugs for playback use with record-



ers having two external speaker jacks\$24.95

No Loudspeaker

or battery of loudspeakers can reproduce under normal listening conditions the peak pressure wave of a bass drum



The Clark / 100... can

It's hard to believe that a battery of half a dozen 12" woofers can't move enough air in an average living room to reproduce the wave front of a bass drum. But a Clark/100 (or 200) can.

The bass performance of a headset depends primarily not on the driver, but on the design of the ear enclosure — both the tightness of the seal, and the enclosed volume. The driver of the Clark/100, when resting on your ear, is looking into a volume of about 3/4 cubic inch of air. It can generate large sound pressures at very low frequencies, with insignificant harmonic distortion. If the ear seal is not air tight, this low frequency reproduction is impossible with small diameter drivers. Any air leak through the seal acts like an acoustic filter, and the driver may be looking into the whole room volume at the lower frequencies where the leak is apparent.

No other company can offer you Direct Acoustical Coupling. No other company has as much experience in sealing your ears for sound as David Clark Co. When the term 'high fidelity' was invented, we were already making the famous STRAIGHTAWAY® Ear Protectors for workers in high noise environments. For you, these years of experience mean more bass, cleaner bass with a Clark headset.

The Clark/100 Professional headset costs only \$39.50

The Clark/ 200 Audiophile headset costs only \$26.95

Each model will outperform every other headset in its price class.



David Clark COMPANY
INCORPORATED

WORCESTER, MASSACHUSETTS

9

Miscellaneous

Model SP-3X "Stereophones"

Extremely sensitive 3 1/2" sound reproducers mounted in each earpiece; response



10-15,000 cps; impedance 4-16 ohms; comes complete with adapter plate that connects to any system that will drive speakers\$24.95
 Model SP-100 Same as Model SP-3 except for impedance of 100 ohms; for special and multiple installations.....\$24.95

Model SP-5SM "Stereophones"



Stereo and monaural phones in one; switch in lavalier changes operation from stereo to monaural or vice versa.....\$24.95

Model SP-5VW Dual-Input "Stereophones"

Designed with two monaural plugs for use with integrated tape recorder or phono



systems having two external speaker jacks\$24.50

Model T-1 Junction Box

Contains matching transformers for monitoring; 600-10,000 ohm outputs; two output jacks for Stereophones\$7.95

Model T-5 Remote-Control Listening Station

Junction box for connecting Stereophones to existing stereo or mono system; impedance



4-16 ohms; has jacks for two sets of Stereophones; one volume control for each ear; on-off speaker switch for personalized listening\$8.95

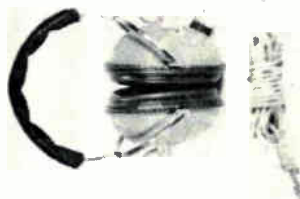
Model K-29 "Port-a-Pac"



Stereophones and A-1220 stereo amplifier in compact carrying case.....\$66.50

Model Pro-4 Headset

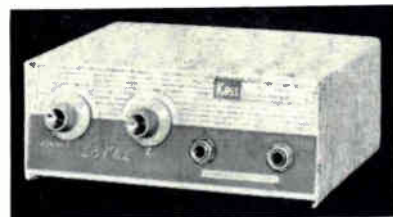
Response 30-20,000 cps; max. input 10 watts/channel (60 w./channel music pow-



er); distortion less than 1% at maximum output; 4 ohms (600 ohms available); 8-foot cord; rugged, shock-proof and fluid-filled ear cushions.....\$45.00

Model A-1220 Amplifier

For use with SP-3X Stereophones; can be directly connected to stereo ceramic car-



tridge or outputs of stereo preamp or tuner; gain control for each channel; transformer powered.\$34.95

LAFAYETTE

Model F-767 Headphones

Stereo/mono design; response 30-15,000 cps; 8 ohms impedance each phone; com-



plete with cables, wires, overload junction box\$11.88

99-0036 Junction Box

Permits stereo headphone operation without disconnecting speakers; separate jacks for stereo or mono; 4-16 ohms; has individual volume controls.....\$4.59

99-0034 Stereo Headphones

Dynamic design; response 25-15,000 cps; 8 ohms impedance per phone; max. power 500 mw.; has 6' cord; complete with junc-



tion box & switch box.....\$17.95
 99-0037 Speaker/headphone switch box\$ 4.95

Headphones



Stethoscope-type earphones; frequency response 40 to 16,000 cps; hinge permits any desired spacing.
 99-2546 (monaural magnetic, impedance 6 ohms)\$1.75
 99-2547 (monaural magnetic, impedance 5000 ohms)\$1.95
 99-2550 (monaural crystal, impedance 100,000 ohms)\$1.34

MOOG

"Melodia" Theremin

An electronic musical instrument played without being touched; distance between



player's right hand and instrument's antenna rod determines pitch of the note; distance between player's left hand and instrument's volume antenna plate determines loudness of note; total pitch range is five octaves; tonal quality resembles that of musical saw or cello; completely transistorized and powered by single 6-volt battery; designed to operate into any hi-fi system; housed in solid hardwood cabinet 22" l. x 6" d. x 3 1/2" h.; available completely assembled or in kit form.
 "Melodia" kit (FOB factory).....\$49.95
 "Melodia" assembled (FOB factory)\$75.00

OLSON ELECTRONICS

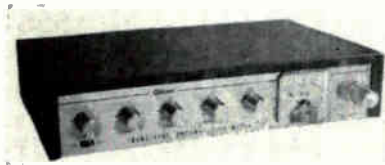
Model PH-82 Stereo Headphones



Features individual volume controls; response 30-15,000 cps; 8 ohms.....\$14.98

RA-637 Preamp/Mixer

4-channel transistorized battery-operated (6 penlight cells) design. Can be used as a straight preamp for mic or mag phono cartridge or to mix up to 4 high- or low-level input signals. Each input has selector



switch for high- or low-level signals & volume controls. Has vu meter, master gain, bass & treble tone controls. 10" x 2 1/4" x 6 3/8" d.\$39.98

RCA

Model XFK11 Stereo Headphones

Dynamic design; sensitivity .1 mw. for normal listening; frequency response 16-15,000 cps; supplied with 8-foot cable \$24.95

ROTRON

"Whisper Fan"

A specially designed cooling fan for preventing overheating of component hi-fi equipment. It can be placed or mounted



within cabinet. Will move 60 cubic feet of air a minute. Draws 7 watts. 4 1/16" x 4 1/16" x 1 1/2" diameter.\$14.85

SHERWOOD

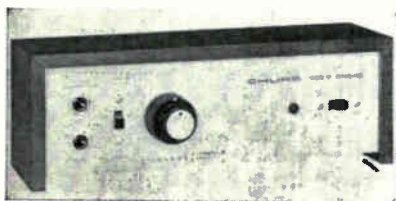
Model SL-1 "Stereo-Lite"

Will provide instant identification of FM station broadcasting stereo multiplex programs; can mount inside cabinet; 3/8" dia. hole is required; sensitivity adjustable; will operate with any FM tuner\$29.50

SHURE

"Solo-Phone" SA-1

Stereo amplifier for headphones permits 2 sets of headphones to be used simultane-



ously; has its own balance control; dual input for tape/tuner or phono; phono input 47,000 ohms equalized for mag. cartridge. Tuner input 250,000 ohms; output 8 ohms, 100 mv.; with walnut case. 10 1/4" x 3 1/2" x 3 3/8" d\$45.00

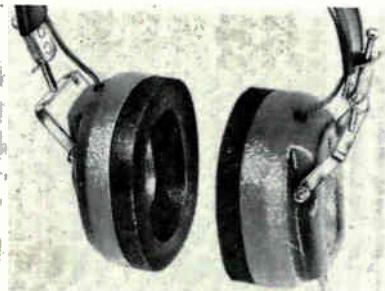
SUPEREX

ST-S Stereo "Standard" Headset

Dynamic reproducer for 30-15,000 cps response; adjustable headband and plastic ear cups; has built-in surge protection....\$24.95 Model ST-SH Same as ST-S except high impedance\$29.95 600, 2000 & 50,000 ohms also available.

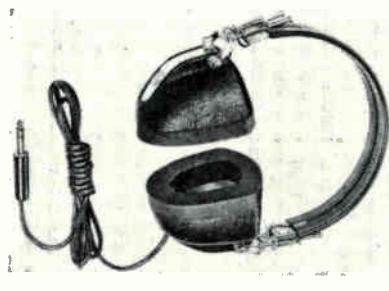
SX-700 Phones

Available in stereo or mono design. Re-



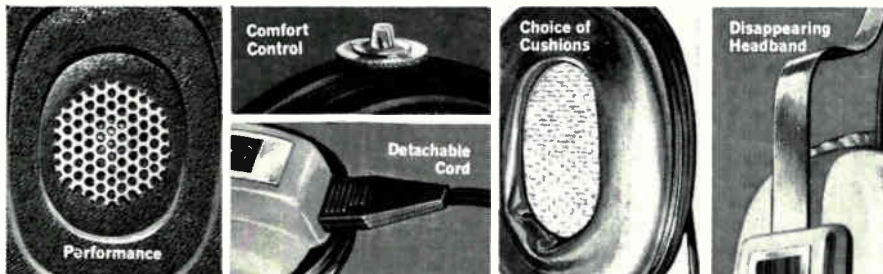
sponse 30-15,000 cps; 4-16 ohms; 10 mw. required for normal listening level....\$22.95 Also available with 600, 2000, 15,000 or 50,000 ohm impedances, with volume control, boom microphone attachment, retractable cord, and sanitary ear-cushion cover.

ST-M Stereo "Masters" Headset



Low-impedance; 8-16 ohms; has two-way sound reproducers each phone—dynamic low freq. & ceramic high freq.; response 20-20,000 cps; frequency response adjustable by control on ea. phone; complete with crossover network\$29.95 Model ST-M-24 15,000 ohm impedance\$40.00 600, 2000, or 50,000 ohms also available.

Features never before offered on a stereo headset



are standard on the new Telex professional quality...

Serenata



A TELEX FIRST—Comfort Control ... knob adjusts ear-cup pressure for best sound and comfort.

A TELEX FIRST—Electronic Tone Control ... controls tone according to preference and program.

A TELEX FIRST—Disappearing Headband ... no bulky exposed adjustment parts. Smooth, clean design, completely adjustable.

A TELEX FIRST—Detachable Cord ... New convenience. Stores neatly. Add adapter cords for a variety of connections.

A TELEX FIRST—Choice of Cushions ... Liquid-filled are standard, foam cushions optional.

A TELEX FIRST—Choice of Impedance ... Either 8 or 600 ohms. Use for tape editing or monitoring.

A TELEX FIRST—Performance ... New all dynamic sound reproducers set a new standard in stereo response. One minute's listening will convince you.

Listen-test Telex Stereo phones and You'll Accept Nothing Less. Ask your dealer to demonstrate the *Serenata* (\$59.95) or write for full information. See also the three other great Telex stereo headsets. One will match your exact preference—*Adjustatone* (\$15.95), *ST-10* (\$24.95), *ST-20* \$29.95.

Products of Sound Research

TELEX

DEPARTMENT 221, 3054 EXCELSIOR BLVD., MINNEAPOLIS, MINNESOTA
CIRCLE NO. 62 ON READER SERVICE CARD

9 Miscellaneous

SX-800 Stereo Phones

Dynamic reproducer, lightweight (5 oz.) 30-15,000 cps; slim design. Has polyfoam



car cushions; 4-16 ohms.....\$21.95

ST-PRO Stereo Professional Headset

Coaxially mounted dynamic reproducer for low frequency and ceramic for high



frequency in each earpiece; 4 to 6 ohms: 18-22,000 cps; 30 mw., maximum power 2 watts\$50.00
ST-PRO-H High-impedance 600, 2000, 15,000, 50,000 ohms.....\$55.00

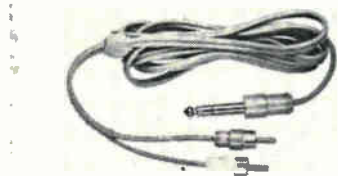
SWITCHCRAFT

Model 670 Stereo Speaker Selector Switch

For connecting two remote pairs of speakers to stereo amplifier; 3-pos. switch selects either or both pairs of stereo speakers..\$6.25

Model 10FK25 Stereo Cable

For use with 3-conductor dual-input tape recorders and for adapting single micro-



phone-input stereo recorders to stereo microphone mixers.....\$2.40

Model 330H Flexible "Y" Adapter

Adapts microphone input or speaker output of foreign-built tape recorders, such as Norelco, Grundig, Uher, and Korting, for use with standard Switchcraft phono plugs\$1.80

Color-Coded Phono Plugs

Low-cost, two-conductor phono plugs with cable clamp and color-coded plastic "snap-on" handles for identification of stereo, hi-fi leads. Model 3508-1 red handle; 3508-2 black handle; 3508-5 white handle....\$0.15

Model 306TR Stereo/Mono Mixer

All-transistorized (9 v. battery) 4-channel high-impedance mixer for microphones, tuners, phonos, etc.; individual gain controls; single mono output for feeding recorder or amplifier; for stereo operation 2 inputs are used per channel; response 20-20,000 cps; gain 6 db.....\$37.50

Model 301TR Mono Mixer

Similar to Model 306TR except for mono operation only.....\$30.00

Model 301 Mono Mixer

Similar to Model 301TR except does not have transistorized amplifier.....\$19.50

Model 306 Stereo/Mono Mixer

Similar to Model 306TR except does not have transistorized amplifier.....\$22.50

Transistorized Amplifier

Miniature size; 9 v. battery operated; "hi-lo" impedance switch: "hi" position 200,000 ohm input impedance & 6 db gain; "lo" position 5000 ohm impedance & 25 db gain; output is high impedance; approx. size of package of cigarettes. Model 501 with 2-conductor phono input jack and 2-conductor output plug.....\$20.00

TELEX

Model ST-20 Headset

Incorporates individual volume control for each stereo channel; remote control of stereo



balance and volume by means of self-contained miniaturized controls; response 16-15,000 cps; 4-16 ohms; 8-foot strain-resisting cord & plug.....\$29.15

"Teleset" Headset

Full-range response 50-10,000 cps; seven-way yoke for maximum comfort and best possible cup-to-ear position; 2000 ohms; 8 oz.; 6-foot cord.....\$13.30

"Stereo-Twin" Headset

Frequency response 16-15,000 cps; 3 to 16 ohms; power input required 5 mw.; max power input 2 w. continuous sine wave; dynamic driver element; weight 12 oz.; 8-foot cord. ST-10.....\$24.95

"Dyna-Twin" Headset

Response 30-20,000 cps; dynamic driver; washable foam rubber ear cups; adjustable yoke for individual fit; available with 3-circuit plug for stereo.....\$24.95

Stereo Control Kit

Remote control of stereo program; allows speakers to be switched on or off and sound level to be adjusted at each earpiece; comes complete with instructions for installation & 15-ft. cord.....\$10.50

STEREO/HI-FI DIRECTORY 1966

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*Quality
is a matter
of choice*



KENWOOD

*offers a quality choice
...quantity features*

providing a superior selection of hi-fi stereo components carefully engineered by experts to satisfy every audiophile preference from vacuum tube to solid state — from economy to luxury. Whether you choose the ultimate performance of a silicon power transistor receiver (with wide frequency range, exclusive transistor protection circuit, inter-station muting, power and output for two stereo speaker sets and many other important features) — or one of our budget-priced vacuum tube receivers (with automatic mono/stereo indicator, front-panel stereo headset jack, FM automatic frequency control) you obtain finest quality. Separate tuners and amplifiers too, in vacuum tube or solid state. Visit the KENWOOD franchised dealer nearest you and discover why more and more people are making KENWOOD their choice, or write to us for his name and address.

the sound approach to quality



KENWOOD

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CIRCLE NO. 29 ON READER SERVICE CARD

WPI/Stereo Review

June, 1964

"...the designers of the E-V TWO were aiming for a smooth, uncolored sound, and they have succeeded very well. Overall the E-V TWO is a very smooth and musical reproducer."

Radio-Electronics

February, 1964

"In brief, the E-V TWO's produce a quite spectacular sound with a big, low-down bass...that is the best, to my ears, that Electro-Voice has yet produced."

POPULAR SCIENCE

June, 1964

"They effortlessly fill my large listening room with clean, well-balanced sound."

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AUDIO

April, 1964

"...the Electro-Voice Model SIX is as close in sound to a Patrician as one can come without being a Patrician. You listen."

high fidelity

April, 1964

But whatever one's personal listening tastes are, it would seem there is an E-V model to suit them."

"Reproducing test tones, the Model SIX was found to have a remarkably smooth, clean and uniform response across the audio range!..."

The Americas Record Guide

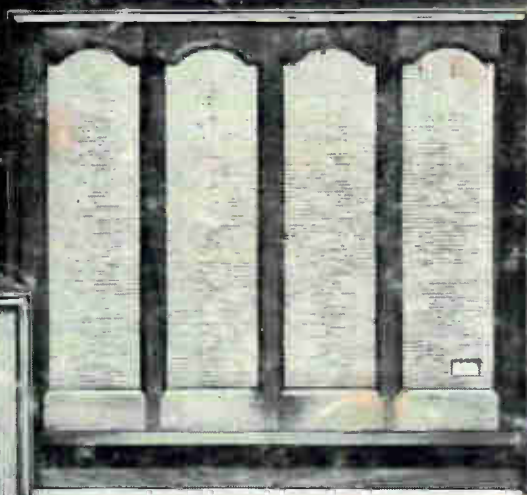
December, 1963

"(I) have found them to be smooth and easy-to-listen-to... I found the top end very smooth and silky, not overbright, and also it extended well beyond the 15-kc. claim of the manufacturer."

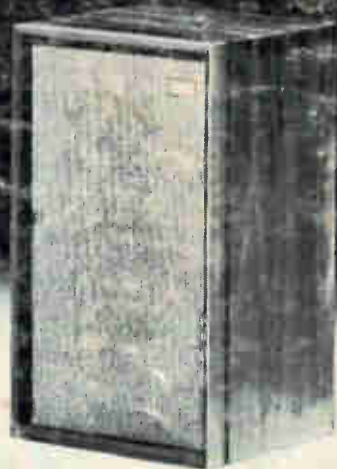
If Speakers Could Blush, Ours Would!



E-V TWO



E-V SIX



E-V FOUR

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