

Stereo Review's

\$1.50

# STEREO DIRECTORY & BUYING GUIDE 1975

Over 1500 Models \* Latest Prices \* Full Specifications

*includes special four-channel section*

**Bonus!**  
What Every Hi-Fi  
Shopper Should Know  
Before Buying!



Hermetically sealed microcircuits,  
FET circuitry  
2.0 uv FM sensitivity  
Solid-state ceramic FM IF filters

Front panel switching of  
4-channel decoder [doubles as  
second tape monitor]  
Built-in Dynaquad 4-channel  
matrix circuit

Front Panel switching of  
4-channel decoder [doubles as  
second tape monitor]  
Built-in Dynaquad 4-channel  
matrix circuit

**S-7210**

FMS Power: 31 + 31 watts  
[8 chms] @ 1 KHz  
Solid-state ceramic FM IF filters  
Hermetically sealed microcircuits  
& field effect transistors  
1.9 uv FM sensitivity [IHF]

**S-7310**

FMS Power: 43 + 43 watts  
[8 chms] @ 1 KHz  
Solid-State ceramic FM IF filters  
Hermetically sealed microcircuits  
& field effect transistors  
1.8 uv FM sensitivity

Sherwood Electronics Laboratories  
4300 North California  
Chicago, Illinois 60618

**Sherwood**  
The word is getting around.



# you can still enjoy most of the benefits.

Considering the Best Buy ratings and favorable reviews, it's not surprising that a growing number of audiophiles are settling for nothing less than Sherwood's top-of-the-line stereo receiver.

Of course, not everyone needs the high power output and operational flexibility offered by the S790CA. Which is why we produce other, more economical models.

Like the S7900, each piece of equipment in the Sherwood line

provides a performance capability unsurpassed in its price category.

There are no useless gimmicks. No misleading claims. And no disappointments. The specifications we post for our products are generally quite conservative. And we utilize only the finest of proved componentry.

After all, you shouldn't have to sacrifice quality, just because you require a little less than the state-of-the-art.

## S-7010

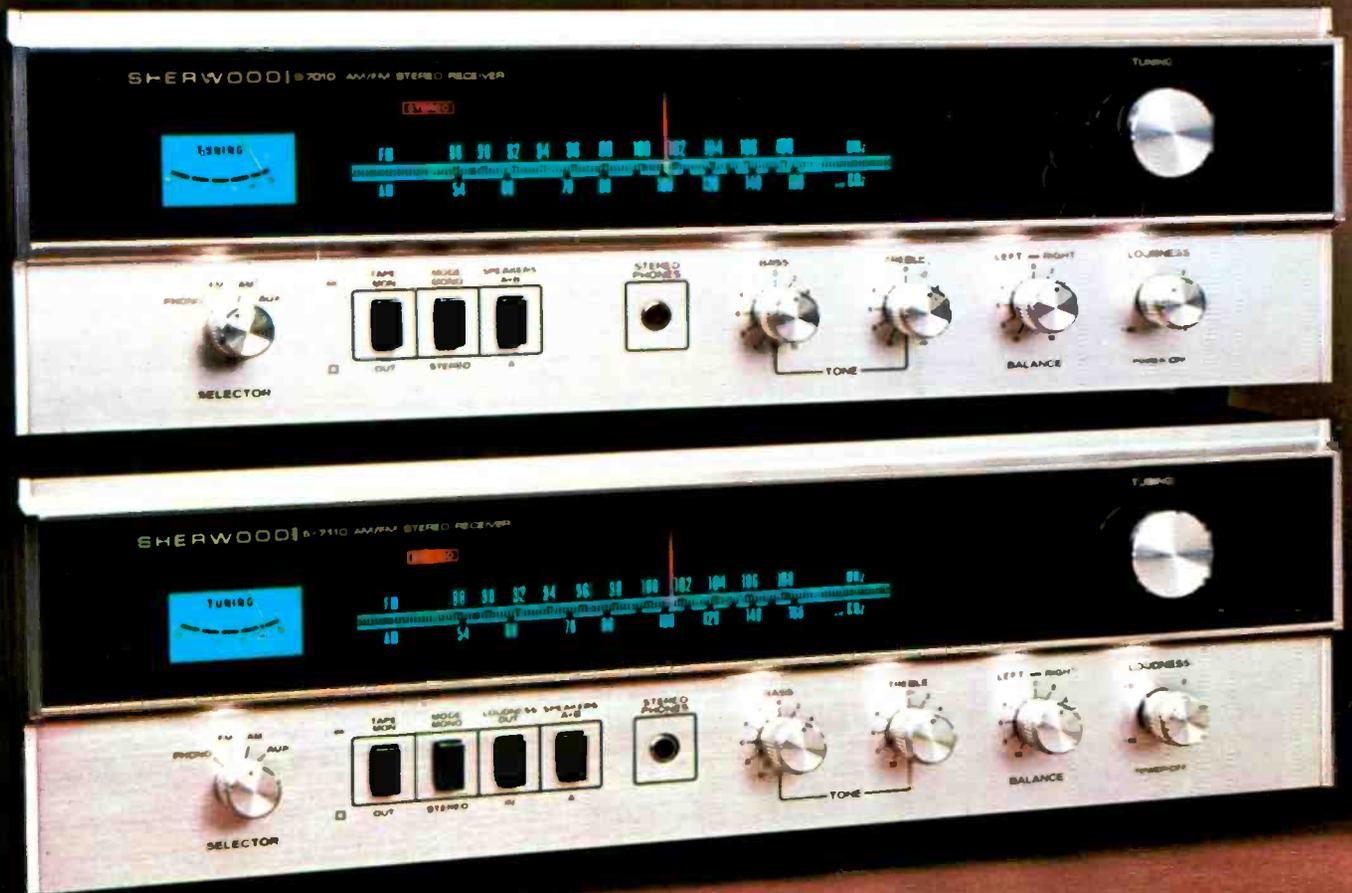
RMS Power: 10 + 10 watts  
[3 ohms] @ 1 KHz

Direct Coupled Amplifier  
2.8 uv FM Sensitivity; [HF]  
FET Front End

## S-7110

RMS Power: 20 + 20 watts  
[8 ohms] @ 1 KHz

Direct-coupled amplifier yields  
power bandwidth of 5-50 KHz



# If you can't afford the State-of-the-Art...

## S-7900A

RMS Power: 60 + 60 watts  
[8 ohms] @ 20-20,000 Hz

Direct-coupled output circuitry  
with electronic relay protection

Front panel four-channel  
provision [doubles as second  
tape monitor]

Ceramic FM IF Filtering; FET's,  
microcircuits

Four-gang tuning capacitor

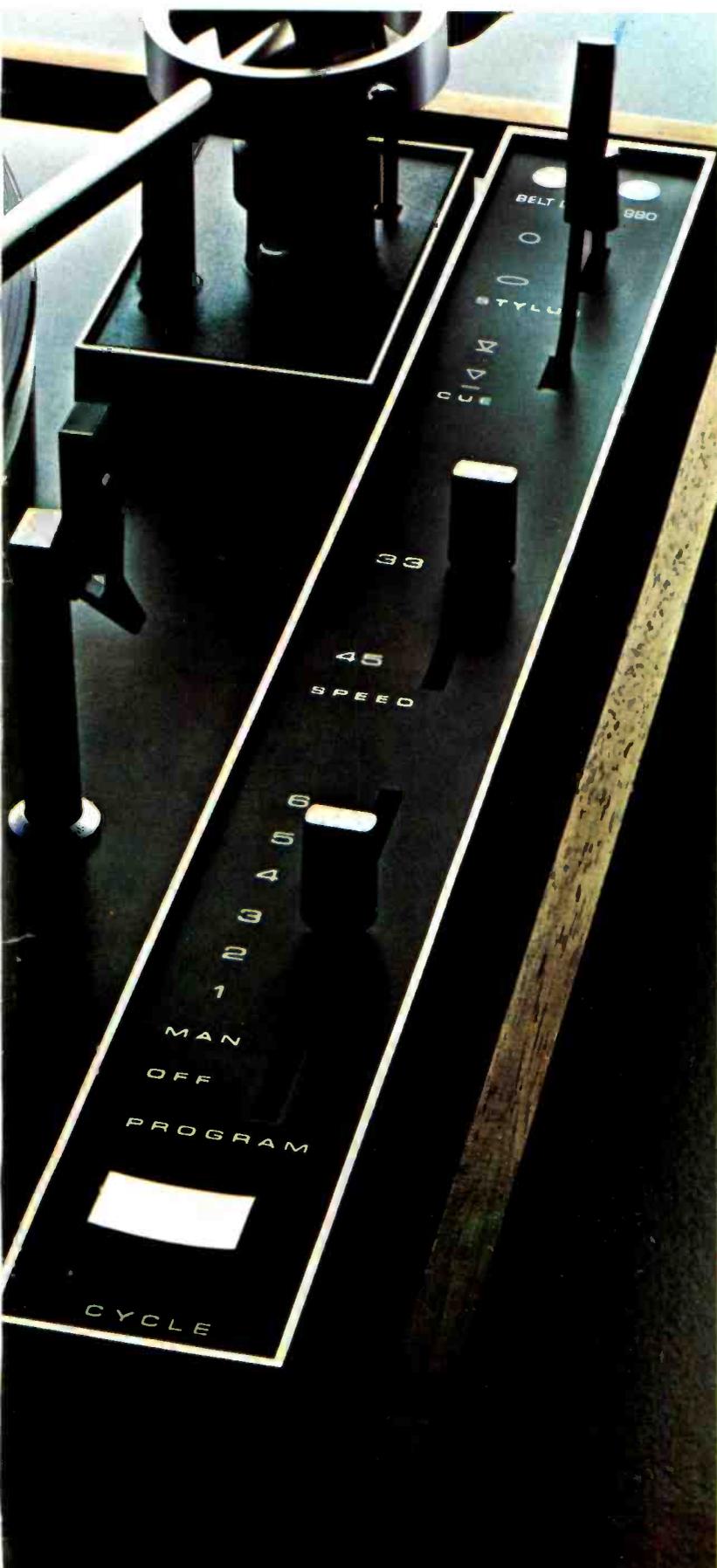
Built-in Dynaquad 4-channel  
matrix circuit



EIVER



# THIS IS A PROGRAM PANEL. WITH IT YOU CAN MAKE B·I·C™ PROGRAMMED TURNTABLES DO THINGS NO TURNTABLE HAS EVER DONE BEFORE.



The B·I·C 980 and 960, like many fine turntables, use a belt drive system.

What's unusual, however, is that B·I·C turntables can be programmed to play a single side as many as 6 times... or to play as many as 6 records in series. 'Til now, no belt-drive turntable has been able to do that.

## How it works

The program lever (second from the bottom in the picture at left) gives you 22 possible ways to play your records in manual and automatic modes.

By moving the lever to "MAN", the turntable is turned on and can be operated as a manual unit.

By moving the lever to "1", and tapping the cycle button lightly, one record can be played fully automatically.

By moving the lever to 2, 3, 4, 5 or 6, you can play a single record 2, 3, 4, 5 or 6 times.

And this same program lever controls multiple play. If, for example, you want to play 2 records, simply put them on the spindle and move the lever to "2". Or move the lever to "3" and the second record will repeat once. Or move it to "4" and the second record will repeat twice. And so on, and so forth.

## Must be seen to be appreciated

This program system is news all by itself. But it's far from the whole story.

The B·I·C tone arm has features found on no other tone arm.

The B·I·C motor is a major improvement over motors in other belt and idler drive turntables.

But features aside, what's truly worth close scrutiny is how all these new ideas are welded into a perfectly balanced system which performs impeccably.

We'll send you more information about the 980 and 960 if you write to:

Andrew Stephens, Dept. SD75

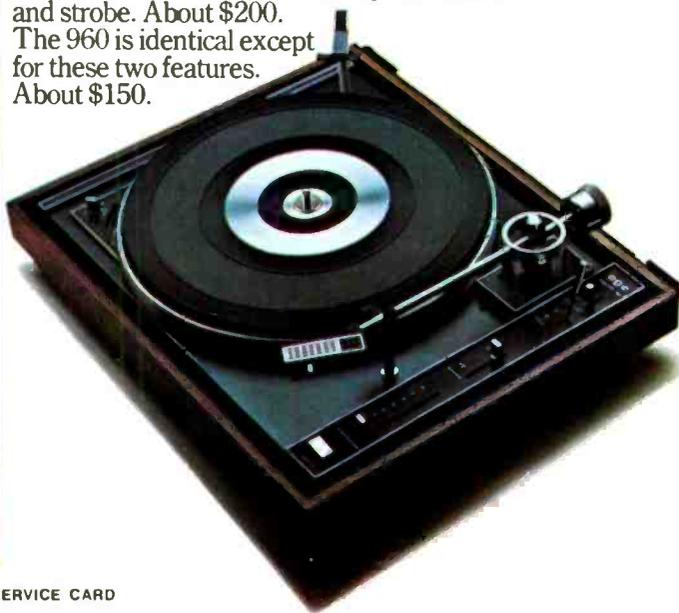
British Industries Co., Westbury, L.I. 11590.

But you really must examine them, touch them and compare them, to appreciate their fundamental excellence. After you've looked them over at your B·I·C dealer's (the leading audio specialist in your area) we think you'll be impressed.



This is the 980 with solid state speed control and strobe. About \$200.

The 960 is identical except for these two features. About \$150.



# STEREO DIRECTORY & BUYING GUIDE 1975

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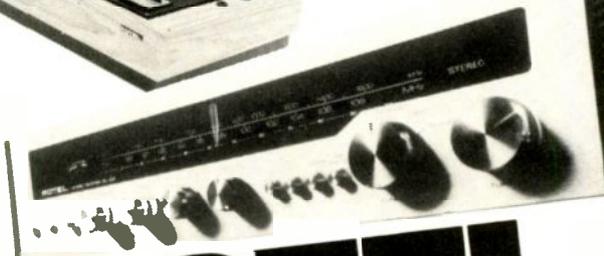
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**RP-1000Q**  
 Precision Performance  
 Sound-Oriented Record  
 Player  
 Motor: 4 pole hysteresis  
 synchronous motor  
 Turntable platter: 12 in.  
 diameter aluminum  
 diecast belt drive  
 2.9 lbs.  
 Wow/Flutter: less than  
 0.2% (WRMS)  
 Stylus pressure: 2.5g  
 Low capacitance wiring  
 in tone arm + CD-4  
 cabling quad ready  
 Has the best features of a  
 manual turntable plus  
 automatic return of tone  
 arm and automatic  
 shut off. Includes dust  
 cover plus base  
**\$129.95**

**RX-402**  
 Precision Performance  
 Sound-Oriented Receiver  
**AMPLIFIER SPECS**  
 Continuous Power Output  
 25/25 (8 ohms, from 20  
 to 20,000Hz at less  
 than 0.5% THD)  
 Power Bandwidth (IHF)  
 5 to 50,000Hz (8 ohms)  
 Frequency Response  
 10 to 75,000Hz ± 3 dB  
**FM SPECS**  
 Sensitivity (IHF)  
 2.0 microvolts  
 Signal-to-Noise Ratio  
 57dB  
 Phase lock circuitry, direct  
 coupled output circuitry,  
 pre-amp out, main amp in.  
 Dual ganged base plus  
 treble 20db per step, wood  
 cabinet included. Retail  
 at \$259.95



**ROTEL**  
 QUALITY UNCOMPROMISED  
 Price Unparalleled

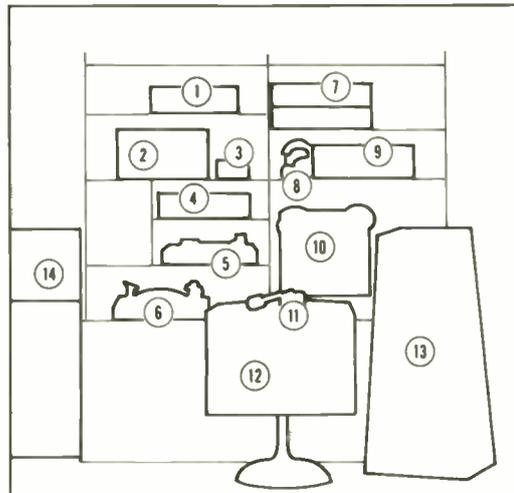
**ROTEL OF AMERICA** · 2642 Central Park Ave. · Yonkers New York 10710  
*Note retail price may vary depending on geographical location*  
**CIRCLE NO. 45 ON READER SERVICE CARD**

## COVER

Equipment pictured on the front cover typifies hi-fi component types you'll see at high-fidelity specialist-dealers. Components shown are:

1. Sherwood S-7900A stereo receiver
2. Wollensak 4765 stereo cassette deck
3. dbx 119 dynamic range enhancer
4. BSR Electronics FEW-4 four-channel frequency equalizer
5. Technics SL-1300 direct-drive turntable with arm
6. BIC 980V automatic turntable
7. Switchcraft Quadraswitcher II dealer components switch panel
8. Pickering OA3 stereo headphones
9. Marantz 4400 2-ch/4-ch receiver
10. Pioneer RT-1020L 2-ch/4-ch tape deck (shown with 7" reels; can handle 10 1/2" reels)
11. Shure 565D cardioid-pattern microphone
12. KLH 28 speaker system plus base pedestal
13. Ohm "F" speaker system
14. Jensen floor and bookshelf speaker systems

Blank tapes are by BASF, Capitol, Maxell, TDK, and 3M  
 Cabinet courtesy Hi-Fi Expo (New York's permanent hi-fi exhibit)



## STEREO DIRECTORY & BUYING GUIDE 1975

Over 1500 Models • Latest Prices • Full Specifications  
Includes special four chapter section



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 See below for product identification.

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# The lowest-priced Dual may well be all the turntable you're ever likely to need.



Dual 1225 \$129.95

The least you should require of a turntable is the assurance that its tonearm can track flawlessly with the most sensitive cartridges available, and that its drive system will introduce no audible rumble, wow, or flutter. To accept less means risking damage to your precious record collection and producing sounds from your system which were never recorded.

Happily, the lowest-priced Dual, the 1225, provides this assurance and much more at just \$129.95. For it is the perfect example of Dual's basic design concept: to build every Dual turntable with more precision than you are ever likely to need.

In the case of the 1225, this means a vernier-adjust, counter-balanced tonearm capable of flawless tracking at as low as one gram. Stylus pressure is applied exactly as in costlier Duals: around the vertical pivot,

maintaining perfect balance in all planes. Anti-skating force is also applied exactly as in the highest-priced Dual: with separate calibrations for conical, elliptical and CD-4 styli.

Other features the 1225 shares with the more costly Duals include pitch control, viscous-damped cueing and a precision drive system. The 1225's hi-torque motor maintains speed within 0.1%, even when line voltage varies as much as 20%, and its hefty 3-3/4 lb. platter provides effective flywheel action that minimizes the audible effect of any possible speed variations.

All of this explains why even Dual's lowest-priced models have been so well accepted by audio experts. (Many tell us their original Duals which were bought early in their careers are still in service.)

Considering all this, why do so many serious music lovers spend as much as \$259.95 for the 1229Q? (Readers of the leading music/audio magazines own more Duals—at

every price level—than any other quality turntable.)

Although the 1225 has all the precision your records need, the 1229Q has refinements that you may well want. For example, the 1229Q is a full-sized turntable with a 12" dynamically-balanced platter, driven by the powerful Continuous-Pole/synchronous motor. Its gimbal-mounted 8-3/4" long tonearm can track at as low as 0.25 gram, and has provision for adjusting its vertical tracking angle. It also has an illuminated strobe, and cueing is damped in both directions to prevent bounce.

Dual's other two multi-play turntables, the 1226 at \$159.95 and the 1228 at \$189.95, offer one or more of these refinements. Which may bring you to this question: having decided that you and your records deserve a Dual, which one should you buy?

For the answer, we suggest you visit your franchised United Audio dealer where the new generation of Dual turntables is now on display.



**United Audio Products**  
120 So. Columbus Ave.,  
Mt. Vernon, N.Y. 10553  
Exclusive U.S. Distribution Agency for Dual



Dual 1226,  
\$159.95

Dual 1228, \$189.95



Dual 1229Q, \$259.95

# DIRECTORY OF HI-FI MANUFACTURERS

If you have any additional questions about products described in this Guide, write direct to the company.

- ABRAXAS**, Designers Audio Products, Inc. 113  
129 Degraw St., Brooklyn, N.Y. 11231
- ACOUSTIC RESEARCH, INC.** 51, 113  
10 American Drive, Norwood, Mass. 02062
- ADC**, Audio Dynamics Corp. 61, 102, 113  
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- ADVENT CORPORATION** 79, 114, 149, 155, 158  
195 Albany St., Cambridge, Mass. 02139
- AFS**, Acoustic Fiber Sound Systems, Inc. 114  
P.O. Box 18228, Indianapolis, Ind. 46218
- AKAI AMERICA LTD.** 39, 65, 79, 87, 95, 103, 114, 143  
2139 E. Del Amo Blvd., Compton, Calif. 90220
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10 Pomeroy Rd., Parsippany, N.J. 07054
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- AUDIO RESEARCH CORPORATION** 23, 116  
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- AZTEC**, Precision Marketing and Development Corp. 116  
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# WHAT EVERY HI-FI SHOPPER SHOULD KNOW BEFORE BUYING

A practical guide to selecting stereo and quadraphonic hi-fi components

BY JULIAN D. HIRSCH  
Hirsch-Houck Laboratories



**E**VEN for the most knowledgeable audiophile, entering a well-equipped dealer's hi-fi showroom can be an overwhelming experience. Small wonder, then, that a newcomer to the world of high fidelity is often tempted to turn tail and flee when faced with row upon row of tuners, amplifiers, receivers, and tape decks, usually terminating in a complex switching panel that channels any selected output to a wall-to-wall, floor-to-ceiling array of loudspeakers!

Before panic sets in, stop to consider that a hi-fi system, from the simplest to the most elaborate, consists of only a few basic components. With the application of a little common sense and some study of the subject, it is easy to avoid incompatible combinations of equipment. Here are guidelines to making your shopping visits to audio dealer showrooms more rewarding.

In its most basic form, a stereo music system consists of a program source (tuner, records, or tape), an amplifier, and two speaker systems. Depending on your location and personal preferences, you may choose to dispense with FM radio programming in favor of commercially produced records or tapes, or conversely may opt for "free" music "off-the-air" rather than a substantial investment in recorded music. In some rural areas, inadequately served by FM, an AM tuner may be necessary. Most tuners and receivers provide both FM and AM reception, although AM quality is usually little better than that offered by a small transistor radio. In any case, it is adequate for news broadcasts, sports events, and "talk" shows.

Before getting down to the serious business of selecting the components for your music system, you should become familiar, in a general way, with the different categories of equipment and their place in the system. Later, we will go into more detail on each type of component, but first let us take a walk around that hypothetical audio showroom and examine its offerings.

Besides its basic function of amplifying (about which

more later), the *amplifier* serves as a control center for the system and selects any of several program sources for your listening pleasure. Even if you initially purchase only a record player, other source equipment—a tape deck, for example—can be added at any later time without obsoleting your system.

You will notice, especially in the higher price and power brackets, that the amplifier is sometimes built as two separate units, called the *preamplifier* and the *main amplifier* or *power amplifier*. This is done principally to keep size and weight within reasonable bounds. A powerful amplifier may weigh 30 to 40 pounds or more and is correspondingly large. By separating the control section (the preamplifier) from the heavy power amplifier, the latter can be placed out of sight, making for a more attractive installation. In the low-to-medium power range (say, up to 40 or 50 watts per channel) the power amplifier adds little to the bulk of the unit and the two sections are usually combined to form an *integrated amplifier*. Many manufacturers offer their amplifiers in both integrated and separated form, with the latter frequently having somewhat more control flexibility to justify their slightly higher cost.

One section of the dealer's display will be devoted to *tuners*. This is the part of the system that receives broadcast signals and converts them to an electrical form which can be processed by the amplifier and eventually heard from the speakers. Like amplifiers, tuners are available in a wide range of prices, with features and performance to match. You will recognize the tuner at a glance by its tuning dial (generally a large rectangular area on the panel, often "blacked out" when the unit is turned off, but colorfully lit when it is in use). Most tuners have only a couple of control knobs, in addition to the tuning knob.

You will probably find that the bulk of the electronic components on display are *receivers*, or combinations of tuner and amplifier in a single unit. The receiver is the most popular form of hi-fi electronic component, and for

good reason. It occupies little more space than either a tuner or an amplifier, alone, and usually costs somewhat less than separate components of similar ratings. The cost savings are achieved, for the most part, by using a common chassis, power supply, and cabinet (if you price the wooden cabinets offered as accessories by many manufacturers, you will appreciate the economic advantage of using one cabinet instead of two!). Best of all, there is usually little or no sacrifice of performance or versatility in a good receiver, as compared to equivalent separate components.

Not long ago, *record players* were classified either as *changers* (or *automatic turntables*), or *manual players*.

Today, most automatic features are found on single-play turntables as well, so that fully manual record players are the choice of audio purists who prefer to "do it themselves" while the great mass of audiophiles use some form of automatic turntable, whether it be a changer or a single-play unit.

*Tape recorders* (more properly called *tape decks* when they are used as a part of a high-fidelity system) can be classified as *open-reel* or *cassette* types. There are also units which will play 8-track cartridges (the kind used in automobile tape players) through a home music system, and a few which can make recordings on blank 8-track cartridges.

A few low-to-medium priced open-reel tape decks are still manufactured, but the bulk of that market is devoted to the more refined and expensive equipment, selling for \$500 or more. At lower prices, the cassette is king, although there are several cassette decks selling for close to \$500 and a couple of professional-quality units at even higher prices.

High-fidelity performance can be expected from a good cassette deck, especially when you record your own cassettes from radio or records. Lower priced models (under \$150-\$200) are often capable of surprisingly good quality, but lack the refinements of the more expensive decks. Open-reel recorders are a "must" if you expect to edit your tapes (virtually impossible with cassettes) or if you will settle for nothing less than the finest, state-of-the-art sound quality.

And now we come to the *loudspeaker*, the most important part of a hi-fi system and unquestionably one of the most difficult to categorize from the standpoint of suitability for a particular installation or individual taste. You will find a greater range of price (and size) among loudspeakers than anywhere else in the high-fidelity scene. Excluding the many speakers whose sound falls short of high-fidelity standards, it is possible to spend less than \$50 or more than \$1000 for *one* speaker—and you will need two for stereo, or four for quadraphonic!

Unlike the other audio-system components, loudspeaker performance—the actual sound quality you hear in your home—varies drastically from model to model. It is almost literally true that no two types of speaker systems sound alike. Unfortunately, no measurements thus far devised can do more than give a rough idea of a speaker's sound. Listening is the *only* way, which is why that solid wall of speakers faces you as you step into the dealer's demonstration room.

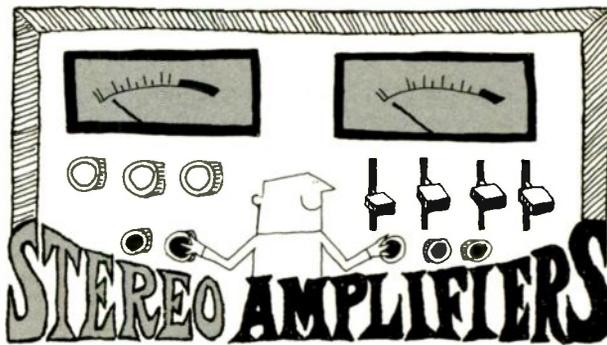
There are still a few pitfalls to watch out for. Since speakers tend to sound quite different when heard in different rooms, and some speakers sound their best only with certain kinds of music, it is all too possible to become completely "sold" on a particular model in the

showroom, only to find it a disappointment in your own home. We will have more to say about speaker selection later.

There are many accessories that can add to the enjoyment and utility of your music system. Prominent among these are stereo headphones, whose popularity has grown with public awareness of "noise pollution." Headphones, like speakers, vary widely in sound, style, and price, with the additional consideration that they must be comfortable to wear.

Four-channel (quadraphonic) sound is now an accepted part of the audio scene. We will deal with the special characteristics and problems of 4-channel in a later section, but for now it will suffice to know that a basic four-channel system must have four speakers, together with a four-channel amplifier (or two stereo amplifiers with an adapter unit). Stereo systems can usually be converted to 4-channel by adding another amplifier and adapter, plus the two rear speakers. Alternatively, you can start with a four-channel amplifier or receiver, using it as a stereo unit until you are ready to add the rear speakers.

Now that you have been introduced to the basic high-fidelity components, let us consider each of them in more detail.



**A** LOUDSPEAKER, in order to produce sound, requires an input of electrical power, measured in watts. Program sources, including phonograph pickups, tuners, and tape decks, supply miniscule power levels (microwatts to milliwatts). The amplifier's task is to increase these weak signals to a level suitable for driving a loudspeaker.

How much power do you need? This is difficult to answer except in very general terms. It depends on the type of loudspeaker (the efficiency with which a speaker converts electrical energy to acoustic energy varies from a small fraction of one percent up to 10% or more), the size and furnishings of your listening room (a large room with upholstered furniture and carpets requires much more power than a small, sparsely furnished room), the type of music you favor (chamber music can be reproduced with less power than rock music, for example), and the listening volume you prefer (obviously, more volume requires more power).

As a rule, loudspeaker manufacturers will recommend a minimum amplifier rating (e.g., 20 watts per channel) which should give satisfactory results with their speakers in a "typical" listening room. If these recommendations are followed, you are unlikely to find yourself underpowered. However, it is better to err on the side of too much power rather than too little power. A "20-watt" speaker will probably sound better, even at moderate listening

# Why nearly every record player is like a car that doesn't steer straight.



If you've even driven a car with badly aligned front wheels or a defective steering mechanism, you know what we're talking about.

It's a queasy feeling when you can't make the car point in the same direction as the road is pointing.

There happens to be a distinctly comparable problem with record players, except that it's a nearly universal deficiency, not just a malfunction.

Of course, in this case there's no human life at stake, only the fidelity of the reproduced sound. And sometimes the life of the record.

Like a car, the phono cartridge (or pickup head) should point where it's going. Right down the middle of the groove. Not at an angle to it.

A more scientific way of saying the same thing is that the head should remain perpendicular to the line drawn through the stylus tip and the turntable spindle.

Any deviation from this ideal is known as tracking error. It's measured in degrees and it causes distortion. Inevitably.

The trouble is that there's no way to avoid tracking error and the resulting distortion with any conventional pivoted tonearm. Why? Because the head swings in an arc and is therefore at a continuously changing angle to the groove as it travels across the record.

The problem has remained fundamentally the same since the Emile Berliner gramophone of 1887. It has been minimized, thanks to improvements in tonearm, geometry, but it hasn't been eliminated.

With one important exception.

In the current line of Garrard automatic turntables, the top models are equipped with Garrard's unique *Zero Tracking Error Tonearm*.

This remarkable invention ends tracking error once and for all. The head is always properly lined up with the groove because it's hinged instead of fixed and keeps adjusting its angle during play. A simple idea, yes, but the engineering details took the world's leading manufacturer of turntables seven years to perfect.

The Zero Tracking Error Tonearm is a major technological coup, not just a glamour feature. You can hear the difference.

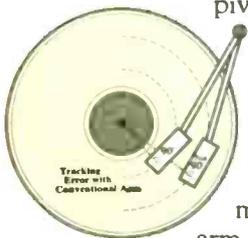
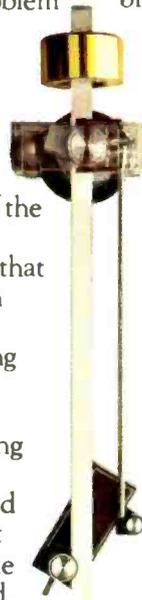
The "Acoustics" column of *Rolling Stone* magazine, for example, reported that the original Garrard turntable equipped with the new arm "sounded markedly 'crisper' than other turntables" under otherwise identical test conditions.

It's true. Just like a car that doesn't steer straight, tracking error can make a nasty sound.

It can even cause unnecessary record wear. The information engraved in the grooves of the new CD-4 discrete four-channel records is so finely detailed that it can be partially wiped out by a stylus that doesn't sit absolutely square and true.

Ask your nearest Garrard dealer about the Zero Tracking Error Tonearm.

It's absurd to tolerate a problem that somebody has already solved.



Top of the line: Garrard Zero 100c, \$209.95.  
Other Garrard automatic turntables from \$49.95 up.  
To get your free copy of the new 16-page full-color Garrard Guide, write Garrard, Dept. SD-10, 100 Commercial Street, Plainview, N.Y. 11803.

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levels, when driven by a 60-watt amplifier than by a 20-watt amplifier, and there is usually no danger to the speaker from such operation. An exception might be the pairing of a "super-power" amplifier (150 watts per channel or more) with small speakers intended for amplifiers of one tenth that rating.

Because of the interdependence of speakers and amplifiers, you should consider them together when planning a system. Don't worry about a discrepancy of 100%, or even more, between their power "ratings"—as we have said, they are *very* general in nature. Simply avoid a huge mismatch (10 to 1 or more, for example). Bear in mind that while a powerful amplifier can only enhance the sound of almost any speaker, an inefficient speaker can prove to be a severe disappointment if the amplifier is underpowered.

Current advertising standards imposed by the Federal Trade Commission, effective November 1974, require amplifiers to be rated with all channels driven simultaneously, under standardized test conditions. Older specification sheets may be in circulation for some time with other types of power rating systems, such as IHF Dynamic Power, Music Power, or Peak Power. Be careful when comparing amplifier ratings to use only the continuous power (sometimes erroneously called "RMS" power) figures. All STEREO REVIEW amplifier tests conform to the new FTC requirements.

What about the *power bandwidth* and *distortion* specifications, also required by the FTC ruling? The power available from an amplifier typically is less at the upper and lower extremes of the audio band (generally considered as 20 Hz and 20,000 Hz) than in the middle, around 1000 Hz. An amplifier must be able to deliver its rated power, at the advertised distortion level or less, over its specified bandwidth limits. It is probably not necessary to develop rated power at 20 Hz and 20,000 Hz, but we would consider a power bandwidth of 40 to 15,000 Hz to be a minimum for a true high-fidelity product. Incidentally, power bandwidth as defined by the FTC is *not* the same as the old IHF power bandwidth standard, and there is no simple relationship between them.

The audible effects of various distortions are debatable but, by current standards, a distortion of 1% at rated power would be reasonable for a lower priced amplifier, with the medium priced units typically rated at 0.5% or less. The finest amplifiers carry distortion ratings as low as 0.1%.

Every amplifier (and preamplifier) has a number of controls which allow you to modify the sound to suit your taste. Tone controls typically increase or reduce the level at low frequencies and high frequencies, with little or no effect on the mid-range. Most good tone controls use negative-feedback circuits (sometimes called Baxandall circuits, after the British engineer who introduced them some years ago). These have the capability of controlling response only at the frequency extremes, where correction is most often needed, with less mid-range interaction than non-feedback controls. There is a trend, in the middle and high price brackets, to provide additional tone-control flexibility. This may take the form of a third "mid-range" control, or of a choice of several switch-selected turnover frequencies beyond which the control action begins. One manufacturer provides two additional controls, whose effects are confined to the extremely low and high frequencies. The ultimate in versatility is offered by *graphic equalizers*, which have individual adjustments

(usually sliders, whose positions suggest the overall response shape, hence the term "graphic") for each of five to ten continuous frequency bands covering the entire audio range.

The utility of tone controls and equalizers increases in proportion to their complexity (and cost). Many people—perhaps most—will be perfectly satisfied with a basic two control system, but for those who know what they want to hear, the more complex controls are well worth their extra cost. Most tone controls, incidentally, affect the left and right channels of a stereo system simultaneously, which is quite satisfactory when both speakers are identical (as they should be). Some amplifiers have separate controls for left and right channels, which is a nicety, but not of much practical significance.

Other "frequency-contouring" amplifier controls include *loudness compensation* and *filters*. The former boosts the low frequencies (and sometimes the highs as well) relative to the mid-range when the volume control setting is lowered. Ostensibly this is to preserve a correct audible balance among all frequencies at low volume levels, where the ear loses sensitivity to the frequency extremes. The majority of such compensation systems fall far short of their objective, usually imparting a heavy and unnatural quality to the sound. They can be switched out, however, so that you can follow your own inclination with respect to this feature. Occasionally an amplifier or receiver appears with non-defeatable loudness compensation. Such a product is unsuitable for high-fidelity use.

Filters, which are found in most amplifiers, attenuate the low-frequency and high-frequency response to reduce turntable rumble, record scratch, and similar unwanted noises. Most of them are of little value, due to their gradual cut-off slopes (6-dB level change per octave of frequency) which cause them to remove as much of the program as they do the noise. Tone controls usually are at least as effective for this purpose. There are some exceptions, generally in the higher priced equipment. Look for a specification of 12-dB-per-octave filter slopes if you expect to make effective use of audio filters.

The input selector switch, mentioned previously, will have a minimum of three positions, for Phono, Tuner, and Aux sources. The latter (from Auxiliary) can be used for an extra tape deck, tuner, TV sound, or other high-level program source. The Phono input connects the pickup output to a special amplifier that raises its level to approximately the one volt of a typical high-level input, and also equalizes it to obtain flat frequency response when playing records. Amplifier specifications usually include a phono sensitivity rating (such as 2.5 mV) which is the signal level required from the pickup (at 1000 Hz) to drive the amplifier to its rated power. The range of pickup outputs and amplifier sensitivities is relatively small, so that almost any currently available pickup and amplifier should be compatible in this respect. One item not always found in amplifier specifications is the phono overload input. A high-output cartridge, playing a record with very loud passages, can overload some amplifiers, even with the volume turned low, and cause distortion. An overload rating of 50 mV or higher is desirable, especially if your cartridge has a rated output greater than 5 mV.

Other amplifier features may or may not be of importance to you. These include switching for two or three sets of speakers, tape dubbing connections for copying from one tape deck to another, and additional input capabilities. Some deluxe amplifiers can handle two phono

pickups and two or three tape decks, plus two to four other high-level sources. All high-fidelity component amplifiers should have a Tape Monitor switch, which allows you to connect any selected program to a tape deck, while simultaneously listening to the playback of the same program from the recorder. The Tape Monitor circuit is important even if you do not expect to use a tape deck, since it can be used to connect external accessories such as quadraphonic adapters, equalizers, noise reduction devices, etc.

Almost every amplifier has a headphone jack on its front panel, suitable for driving any stereo headphone except electrostatic types. The microphone inputs offered on some models are of little value unless you plan to use the amplifier for public address announcements as well as hi-fi listening.

Check the back of the amplifier to see if it has enough a.c. outlets for the other parts of your system. At least two outlets, one of them switched, are highly desirable if you expect to use a tuner and a record player in your system.



**T**HE tuner is the "radio" portion of your music system. Although most tuners cover the AM and FM broadcast bands (and proposed government legislation now makes this mandatory), the following comments apply specifically to FM tuners.

The tuner's function is to separate one desired signal from the many intercepted by the antenna, amplify it millions of times, convert its frequency modulation to an exact facsimile of the original program, and (if it is a stereo program) subject the detected signal to a complex process which separates it into left and right stereo channels.

Like amplifiers, most tuners tend to sound pretty much alike on ordinary program material. Many people place great store on such specifications as *sensitivity* and *selectivity*. Actually, neither of these is easy to reduce to a single convenient number that defines that aspect of the tuner's performance. They *are* used in that manner, of course, but as a result are frequently misunderstood or misinterpreted.

Sensitivity refers to the ability of a tuner to receive a weak signal with acceptably low noise and distortion. The IHF Usable Sensitivity rating is most often quoted, although it does not correspond to a really listenable signal. Most good tuners have an IHF sensitivity of less than 3  $\mu\text{V}$ , and some are as low as 1.5  $\mu\text{V}$ . Although in practice it would not be possible to detect any real difference between two tuners whose sensitivities differed by a factor of two (all else being equal), there is a tendency to make

much of differences of a few tenths of a microvolt, which are quite insignificant. More meaningful is the *50-dB Quieting Sensitivity* rating included in a new IHF tuner standard, but not yet in wide use. Our test reports in *STEREO REVIEW* do include it, however. This is usually in the range of 3 to 7  $\mu\text{V}$  and represents the weakest *mono* signal that can be received without excessive background hiss. For stereo reception, all these sensitivity figures should be multiplied by a factor of *ten*, which may explain why stereo sensitivity ratings are not widely publicized!

Of course, these sensitivity numbers have no absolute meaning to the consumer who cannot know the actual received signal strengths in his area. In rural locations, one can indeed find signals of a few microvolts, and sometimes the highest possible tuner sensitivity is needed in such locations. At most urban and suburban locations, the tuner receives hundreds or even thousands of microvolts from the antenna from dozens of stations.

Clearly, high sensitivity is not likely to be an important tuner rating for the city dweller. What about selectivity? FM channels in any given area are assigned at 400-kHz intervals (alternate-channel spacing). If you are located close to a powerful FM station and wish to receive a far-off station only 400 kHz removed, you will need high *alternate-channel selectivity*. Most FM tuners have selectivity ratings between 45 and 60 dB, which is generally adequate for interference-free reception. If you have a "problem," there are some tuners whose alternate-channel selectivity is 90 dB or more. They are expensive, but well worth it if you need their special qualities.

In strong-signal areas, some tuners are subject to spurious responses—signals appearing on the dial in unexpected places, and sometimes interfering with a desired signal. The relevant ratings—image rejection, spurious rejection, i.f. rejection—are also expressed in decibels, with the higher numbers being better.

A major cause of distorted FM sound is *multipath* reception, caused by a signal reflecting from various structures and reaching the antenna from different directions and at slightly different times. The tuner specifications related to low multipath distortion are *capture ratio* (the lower the better, with most good tuners under 3 dB and the best reaching 1 dB or less), and *AM rejection* (ratings in excess of 50 dB are good, and a few are as high as 70 dB). You should be aware that no tuner can be completely immune to multipath distortion and that the best cure for this and most other FM reception problems is a good directional antenna which can be rotated to obtain best results.

The tuner distortion rating should be well under 1%, and most good tuners are rated between 0.2% and 0.5% in mono, and about twice as much in stereo. Stereo channel separation varies with modulating frequency, but is often specified at 400 Hz or 1000 Hz, where it is greatest. Comprehensive ratings include a definition of separation over a range of frequencies, such as 100 to 10,000 Hz. If the separation exceeds 20 dB over most of the audio range, you can be assured of a satisfactory stereo effect. Many tuners in all price ranges have 30 to 40 dB of separation over most of the audio band.

Many important tuner differences relate to their ease of operation, rather than to their electrical performance. The tuning dial should be legible and well calibrated (some tuners, even high-priced units, are difficult to set accurately to a known frequency because of inadequate dial calibration). The tuning "feel" should be smooth and

positive. Tuning indicators, whether meters or lights, should give an accurate indication of correct tuning. Interstation noise muting circuits should be free from bursts of noise as one tunes through a station (although many are not). All of these characteristics are easy to judge for yourself and require no technical knowledge.

There are several tuners with digital frequency read-outs instead of the usual mechanical dial system. This eliminates any problems of dial calibration but adds appreciably to the cost of the tuner. Compensating for their higher prices is the fact that most digital tuners also have above average performance in most other respects.



**E**VERYTHING in the preceding sections applies with equal force to the *receiver*, which is a combination tuner and amplifier. Some receivers even have separate preamplifier outputs and power amplifier inputs, making them the equivalent of a three-piece combination of separate components. In general, receivers sacrifice little or none of the flexibility of separate components. Some deluxe models, for example, have provision for two or three tape decks and can dub from one to another through their internal circuits.

Are there any valid objections to the use of receivers? Perhaps their only operational limitation is imposed by size and weight considerations, which make it impractical to provide the huge power outputs found in some power amplifiers. The limited space available for power-supply components sometimes restricts the maximum power output at the lowest audio frequencies. Nevertheless, some of the newer receivers can hold their own against any separate amplifier in this respect.

While most receivers are moderate powered (say, up to 40 watts per channel), the upper limit has been steadily increasing and 60 watts per channel or more is available from a number of receivers. A couple of the top units can approach 100 watts per channel.

Since the total power available from a receiver is ultimately limited by the power supply, it is usual for four-channel receivers to have about half the power per channel that can be gotten from two-channel receivers of comparable size. By a novel circuit connection known as "bridging" or "strapping," some manufacturers of four-channel receivers combine the outputs of the front and rear amplifiers to more than double the power per channel in the two-channel stereo mode. Using this technique, a couple of the heaviest four-channel receivers actually deliver 130 to 150 watts per channel in their stereo connection.

What about the possibility of obsolescence of an expensive receiver, which cannot be up-dated piece-meal? This is actually a "paper tiger," since the performance

and flexibility of any receiver rival those of comparably rated separate components. It is difficult to imagine any technological change which would obsolete a modern receiver, unless it were so drastic that *all* high-fidelity components were made obsolete. Even four-channel FM broadcasting, should one of the several proposed systems be accepted by the FCC, would probably be compatible with the special detector outputs built into many tuners and receivers.

One of the few real drawbacks to the use of a receiver, especially a high-powered unit, is its bulk. Shelf mounting is out of the question for most receivers and some of the larger units require a large, sturdy supporting surface. On the other hand, most of the maze of system wiring is eliminated, together with the possibility of intermittent or noisy connections. Only the speaker leads, the record player or tape deck cables, and the antenna need be connected to the receiver to have a complete, fully functional high-fidelity system.



**A** RECORD player consists of a turntable, a tone arm, and a cartridge. The turntable rotates the record at a constant speed, usually 33 $\frac{1}{3}$  or 45 rpm, while the arm holds the cartridge as its jewel stylus follows the spiral groove on the disc. The cartridge, in turn, translates the microscopic "wiggles" of the groove walls into minute electrical signals which correspond to the recorded program and which are suitable for amplification.

Beyond these basic similarities, record players are highly diverse in their design and operating details. Most people use automatic record changers, which can hold a stack of six to ten discs (usually required to be of the same size and speed) and play them in sequence. Record changers whose quality meets high-fidelity standards (usually referred to as *automatic turntables*) generally have interchangeable center spindles for multiple and single-play operation. Many people prefer to change records manually, while retaining the convenience of automatic arm indexing and end-of-play shut-off.

At the opposite extreme is the classic manual record player. After switching on the turntable, the user positions the arm by hand and places the stylus in the desired groove. At the end of play, the pickup must be returned to its rest and the motor shut off manually.

Few single-play turntables today are completely without automation. Many are designed to turn on the motor when the arm is lifted from its rest. Others shut off after play, sometimes raising the pickup from the record. Finally, there is a strong trend to what might be called an automatic single-play turntable, which operates exactly

# As a British company we'd like to explain our 810 QX automatic turntable in plain English.

## How the 810 QX reproduces recorded music accurately.



The BSR 810 QX has a sophisticated synchronous motor, spinning a heavy 7-lb. platter for accurate speed (regardless of voltage supply or record load) and all-but-nonexistent wow and flutter. Anti-skating force



may be adjusted for optimum pressure with either conical or elliptical styli, so stylus sits perfectly centered in groove for precise stereo



separation without audible distortion or uneven groove wear. A strobe disc is integrated into the platter design and a variable speed control is



provided should you want to vary from, and later return to, the normal speeds. The tone arm will track as low as 0.25 grams to make use of finest light-weight, high-compliance cartridges for maximum fidelity and dynamic range.



when to replace a worn stylus protects your records.

## How the 810 QX protects records and cartridge stylus assembly.



Tone arm descent is viscous-damped in automatic operation and also when using the manual cue and

pause control, for gentle contact with record surface. Platter rubber mat protects records during play and cushions discs during automatic drop. Automatic spindle uses umbrella-type suspension, without outboard balance arm.

Stub spindle rotates with record to prevent distortion of center hole. Stylus setdown adjustment prevents stylus damage if dropped outside of entry groove range. Tracking pressure

adjustable down to 0.25 grams for newest lightweight cartridges for minimum record

wear. Stylus brush whisks dust off stylus between plays. Lock automatically secures tone arm to prevent damage to stylus from accidental movement. Stylus wear meter records accumulated stylus use in hours. Knowing



when to replace a worn stylus protects your records.

## How the 810 QX provides convenient operation in any desired mode.

After touching a single feather-weight button, the 810 QX can either: play a stack of records, shutting off after the last one; play a single record and shut off; or play a single record, and repeat it indefinitely until you stop it



Manual operation uses a single button to start the motor, and the cue control to lower the stylus.



## How the 810 QX operates quietly, emitting no sound that can intrude on the music.

The 810 QX uses a unique sequential cam drive mechanism. It is a rigid



precision assembly that replaces the plumber's nightmare of rotating eccentric plates and interlocking gears that other changers use. Unlike other changers, there are no light metal stampings that can go out of alignment and make a lot of noise, from being carried, bumped, or just from use.

For literature write to BSR (USA) Ltd., Blauvelt, N.Y. 10913.



like a record changer except that it does not change records.

A good turntable should have a constant (and accurate) speed, free from momentary wavers and fluctuations. It should be unaffected by reasonable line voltage changes or how many records are on it. Depending on their rate of occurrence, these short term speed changes are described as "wow" or "flutter," and produce the audible effects suggested by their names. Vibrations, from the motor or other sources, must be kept to a minimum and in any case must not be allowed to move the arm or cartridge, relative to the turntable platter. The result of such movement is called *rumble*, a low-pitched sound that sometimes can be heard during quiet passages in the music. If lifting the pickup from the record does not stop the sound, it is power-line hum rather than rumble.

Wow, flutter, and rumble are minimized by careful assembly and precise mechanical tolerances in the turntable and its drive system. Such methods are expensive, with the result that with turntables we find a definite correlation between price and quality.

Heavy "platters," which may weigh as much as nine pounds, also contribute to low flutter and rumble. However, one cannot assume that a turntable with a light platter is inferior to one with a heavier platter, since many other factors are involved. Low-speed motors are used in many of the better single-play turntables, since their vibration rates place the rumble components below the audible frequency range. Perhaps the ultimate turntable design is the *direct-drive* motor offered by a number of manufacturers in their top-of-the-line record players. The electronically controlled motor rotates at the record speed, eliminating the need for belts and idler wheels and reducing rumble and flutter to nearly unmeasurable levels. Direct-drive turntables are expensive—\$300 to \$400—but appear to offer the closest approach to ideal performance.

Rumble is expressed in decibels, relative to a standard recorded level, and is sometimes weighted to allow for the relative audibility of different vibration frequencies. Low-priced record changers may have unweighted rumble levels of -20 dB to -30 dB, while the better automatic turntables typically measure in the -32 dB to -38 dB range. The rumble of the finest single-play turntables may be as low as -45 to -50 dB. With audibility weighting, this becomes -50 to -55 dB, while the best direct-drive units may measure as low as -60 to -65 dB. Since there is more than one standard of measurement, be sure that you don't compare "apples with oranges." Popularly used standards include NAB and DIN.

Flutter and wow are measured by the percentage of frequency modulation they impart to a constant-frequency recorded tone. A low-priced turntable may have as much as 0.25% flutter, which can be objectionable with many types of sustained music, but most reasonably good units measure 0.15% or less. The finest turntables have as little as 0.05% flutter and wow.

The tonearm and cartridge characteristics are closely related, although most arms are designed to accept any cartridge having the standard 1/2" mounting centers. A good arm should be balanced by a counterweight and have low friction pivots. The precision of the arm design and assembly becomes increasingly important as we go to lower cartridge-tracking forces. Expensive, highly compliant cartridges, which can operate as low as 1 gram, can only be used in arms of the highest quality, such as those

in the most expensive automatic turntables or their equivalent in separate tonearms. Many record changers selling for less than \$100 are compatible with cartridges designed to track in the 2 to 3 gram range.

Almost all good arms now have anti-skating compensation, which corrects for the lateral forces developed by friction between the stylus and the record material. Cueing lifts are also in general use. The better ones are damped for a slow and smooth movement as the arm is raised or lowered. If you prefer to position the arm manually, check to see that the finger lift is easy to use (some are rather clumsy) and that the cueing lift does not allow the arm to drift outward as it descends under the influence of the anti-skating force.

With a conventional tonearm, pivoted at one end, the cartridge can be tangent to the record groove at only two points on the record surface. Tangency is a requirement for low distortion, but fortunately any well-designed arm will have an insignificant tracking error. Tracking error, in theory at least, can be completely eliminated by special arms which change the cartridge angle as it moves across the record, or by radial arms whose motion matches that of the recording cutter. These techniques work as claimed, although their benefits are not likely to be audible to most listeners. The radial arm, which is not available on automatic players, has the more important advantage of freedom from skating force and therefore requires no anti-skating compensation.

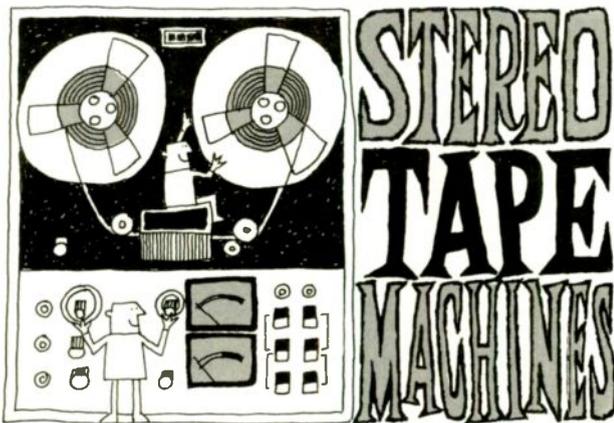
The phono cartridge converts the movements of a diamond stylus tracing the record groove modulation to electrical outputs. In the interests of retarding wear of the soft vinyl record and the diamond stylus, a low vertical force is desirable. This goes hand-in-hand with a light and relatively delicate stylus system so that the best cartridges tend to be somewhat fragile and should be handled with reasonable care (their use in children's phonographs is definitely *not* recommended).

Almost all hi-fi cartridges are magnetic types, although there are a number of design differences among them. The audible differences between most competitive cartridges in a given price range are usually subtle, but many people nevertheless have definite preferences. The improved clarity and freedom from distortion of the top-quality cartridges, which are priced between \$50 and \$100, are easily audible by comparison with the budget-priced units in the \$15 to \$20 range. But, as we have shown, their use is restricted to the better quality tonearms.

It is impractical to select a cartridge on the basis of its electrical specifications, such as frequency response or channel separation, since almost all cartridges sold for high-fidelity use have essentially identical specifications! The best clue to cartridge quality (other than listening to it, which is really the best way to make a judgment) is the recommended range of tracking forces. In most cases, a cartridge rated for operation between 3/4 gram and 1 1/2 grams will be of higher quality than one with a 2 to 3 gram rating. Do not place too much emphasis on the lower figure of a range of forces, since no cartridge will deliver its best performance at its minimum force. Very few cartridges are capable of proper operation at less than 1 gram, and then only in the finest arms. On the other hand, avoid using cartridges with rated forces exceeding 3 grams, since this is an indication of a relatively massive and stiff stylus assembly which usually has limited tracking ability.

The stylus tip may have either a spherical or elliptical shape. A spherical stylus with a radius of 0.7 mil (0.0007") is optimum for playing most stereo LP records. The elliptical stylus may have a smaller edge radius of 0.2 to 0.4 mil, which allows it to trace the higher recorded frequencies more accurately, together with a radius across the groove width of 0.7 and 0.9 mil so that it maintains proper contact with the groove walls.

Many people feel that the elliptical stylus provides slightly better sound on stereo records and it is generally agreed that it is superior to the 0.7-mil spherical stylus for playing older mono LP discs. On the other hand, it is more expensive and may not be worth the added cost when a choice is offered. The best cartridges usually come equipped with elliptical styli, however.



**T**HE tape recorder is an active, creative part of a music system, which probably explains its unique appeal to the general public as well as to audio hobbyists. The ability to make your own high-quality recordings, either "live" or by dubbing, has a powerful attraction for many people.

As compared to phonograph records, cartridge and cassette tapes have a clear advantage in size and convenience of use. Open reel tape has a slight size advantage over records, but is clumsier to handle. Pre-recorded tapes of any kind are considerably more expensive than records and their quality is usually below today's disc standards.

For the audiophile who makes his own tape recordings, the choice lies between cassette and open-reel formats. There are a few 8-track cartridge recorders which are suitable for making your own tapes to be used in automobile players, but most of them cannot match the quality of the other tape formats and are much less convenient to use.

For years, the open-reel format was the only one used in home tape recorders. Most home machines record and play back on four parallel tracks across the 1/4" tape width. Stereo machines use two tracks at a time and when the reels are interchanged after one pass and run in the other direction, the other tracks are used. Four-channel recorders use all four tracks on a single pass of the tape.

Standard tape speeds of 1 7/8, 3 3/4, and 7 1/2 inches per second (ips) are used in most home machines. Sometimes the slowest speed is omitted and on a few high-quality recorders is replaced by 15 ips. In general, quality improves with increasing tape speed, but in practice the full potential of most home machines can be realized at 7 1/2

ips, and sometimes even at 3 3/4 ips. The higher speeds are easier to edit and have a higher dynamic range, making them preferable for live recording. Some "semi-pro" recorders, which usually have the 15-ips speed, can also accommodate the 10 1/2" professional size reel, but the 7" reel is generally used in non-professional recording.

Most open-reel recorders have three heads (erase, record, and playback) with separate recording and playback electronics. This lets you monitor a recording through the playback head an instant after it was recorded, using the tape monitoring facilities found in almost all amplifiers and receivers.

Lower priced open-reel transports (under about \$400) usually use a single motor to drive the capstan and the reel hubs. At higher prices, it is usual to find three-motor transports, frequently controlled by electro-mechanical solenoids. Three-motor transports generally have lower flutter, gentler tape handling, and higher fast-forward and rewind speeds. Many solenoid-operated transports can be operated through remote-control accessories.

As with record players, a good tape transport should have less than 0.15% unweighted flutter. Typical single-motor transports have between 0.1% and 0.15%, while a good three-motor machine may have as little as 0.07% or even 0.05%. The noise level (referred to a signal level which produces a playback distortion of 3%) is likely to be from -45 dB to -55 dB, depending on the specific machine and the tape speed. The finest home recorders reduce noise to the -65 dB or -70 dB range. A few high-priced recorders have built-in Dolby noise reduction circuits, but their effect is less obvious (and less needed) than in cassette recorders with their inherently higher noise levels.

A cassette recorder is a miniature of an open-reel machine, with the tape and both "reels" encased in a small plastic cassette. The tape is about half the width of open-reel tape and runs at 1 7/8 ips—a combination of circumstances which would seem to forever consign cassette recording to the "lo-fi" category. Happily, this is not the case.

Special cassette tapes have been developed which can store more energy in their magnetic coatings (especially at high frequencies) than contemporary open-reel tapes. In addition, improved tape coatings and manufacturing techniques have greatly reduced the "dropouts" and amplitude irregularities that plagued early cassette tapes. Finally, the mechanical design of the cassette itself has been improved so that jamming and tape breakage are relatively rare (at least, among high-quality cassettes, which are the only kind an audiophile should be using).

Simultaneously with the tape developments, recorder manufacturers have created new heads, featuring extended frequency response and longer life. One of the supposedly inherent limitations of the cassette medium was the provision for only a single combined record/playback head, contacting the tape through a small opening in the cassette. Since the design parameters for recording and playback heads are different, a compromise is necessary when the functions are combined. Now, ingenious recorder designers have found ways to insert a separate playback head into the tiny access opening, and three-head cassette recorders with full off-the-tape monitoring capability and professional quality are available (at a rather high price, however).

Cassette recorders have been criticized for their relatively high flutter level. Actually, this reputation was

earned by some of the early cassette transports, but seems to have lingered on long after the problems have been corrected. In recent years, good-quality cassette transports have usually had flutter percentages between 0.15% and 0.2%, and much of the time these did not offend the ears of the listeners. However, there are a number of people who can detect, and are disturbed by, flutter levels of 0.1% or less. For these sensitive listeners it would seem that cassettes were out of the question. A number of cassette decks we have tested recently, however, have shown less than 0.1% flutter, with a couple reaching 0.07% and rivalling good open-reel machines. True, this caliber of performance is found only in relatively expensive machines, but there are many in the \$200 to \$250 range which should satisfy most users.

With a cassette recorder, the Dolby system is a necessity. Boosting the high frequencies at low signal levels during recording, and reducing them by the same amount during playback, the Dolby system improves the S/N ratio by 8 to 9 dB. This can make the difference between good hi-fi quality and a "hissy," sub-standard recording. If a cassette deck lacks the Dolby system (as most under \$150 do), it can be added externally. However, it is probably more economical, and certainly more convenient, to buy a recorder with the circuits built in. You can expect a cassette recorder without Dolby to have a noise level of -40 to -50 dB, while the better Dolby decks can achieve a -60 to -65 dB or even lower noise level, again rivalling a good open-reel recorder.

Almost all good cassette recorders have a reasonably flat response from 50 Hz to 12,000 Hz with good low-noise tape. They often reach 15,000 Hz or higher with chromium-dioxide tape or the new dual-layer tapes which do not require special biasing. In practice, these frequency limits match the program bandwidth of phonograph records and FM broadcasts, which helps to explain why a cassette recorder can usually make "perfect" copies from these sources.

Although 8-track cartridges have the potential for true hi-fi performance, their major use is in automobiles where wide frequency range and low noise are not necessary. As a result, little effort has been made to improve either cartridges or players, except in areas affecting reliability.

An 8-track cartridge contains a single pack of tape, which is pulled out from the center and rewound on the outside of the pack. This requires careful assembly of the cartridge, and specially lubricated tape, to insure reliable and jam-free operation. Some cartridge transports have a "fast-forward" mode, which advances the tape at 3 to 5 times its normal  $3\frac{3}{4}$  ips speed. However, rewinding is impossible, making location of a specific portion of the tape a cumbersome and lengthy process. Editing is impossible.

In spite of these inconveniences and limitations, many people prefer to record their own cartridges, giving them a wider choice of programs for their cars as well as at home. Although the limited frequency response and high noise level of most cartridges cannot be heard in a moving car, they are only too audible through a good home music system. Recently, one company announced a new deluxe 8-track cartridge deck, using a special "Scotch" cartridge tape and having built-in Dolby circuits, which appears to have specifications rivalling those of a good cassette recorder. As the new tape becomes generally available, we can expect improved recorders from other manufacturers as well.



**T**HE loudspeaker is the most important component of a hi-fi system and often the most expensive. But its performance is very difficult—perhaps impossible—to define in objective yet meaningful terms. The frequency response, distortion, and noise levels of most other system components can be measured accurately and, in any case, are so nearly ideal that the differences between competitive units are relatively subtle. On the other hand, anyone who has compared the sound of different loudspeakers knows that few of them sound alike and that the variations in listening quality are often very large even within the same price class.

Clearly, speakers have not yet attained the degree of refinement found in other components. In fact, there is no consensus as to exactly what characteristics an ideal speaker should have! This situation does not necessarily place the shopper at a disadvantage since it gives him a chance to express his individual taste in sound when selecting a speaker system.

Most speakers radiate their acoustic output in a forward direction, facing the listeners. There is a tendency for the higher audio frequencies to "beam" so that they are heard at full strength only in a limited region in front of the speaker system. Some of the methods employed to disperse all frequencies equally through the listening area include using multiple speakers oriented in different directions, hemispherical convex dome radiators, and acoustic lenses (and combinations of these techniques).

Omnidirectional (or quasi-omnidirectional) speakers have enjoyed considerable popularity in recent years. They often have a spacious, open quality which is considered by many people to give a more convincing illusion of a live musical performance. Others claim that the stereo image is blurred by omnidirectional speakers. Obviously, this is a controversial subject—listen for yourself, and be assured that, whatever your decision, you will have plenty of company!

It is agreed by all that a single conventional cone speaker cannot cover the full audio range adequately. If it is large enough to radiate the low bass frequencies, it will have a sharply beamed and attenuated treble response. In addition, the output in the important middle frequency range will be irregular, adding a coloration to the sound. For these reasons, it is customary to divide the audio band into two or more segments, each radiated by a separate driver unit (sometimes with more than one effective in a certain frequency band). A crossover network channels the various frequency ranges to the appropriate drivers.

Most speaker systems are either two-way or three-way systems, although a few split the audio band into four segments. There is some disagreement among speaker designers over the optimum number of frequency bands in a multi-way system, but excellent speakers are available in each of the above categories.

Even those manufacturers who use crossover networks

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Empire Speakers were named "1974 Best Buy of the Year" by Consumers Digest Stereo

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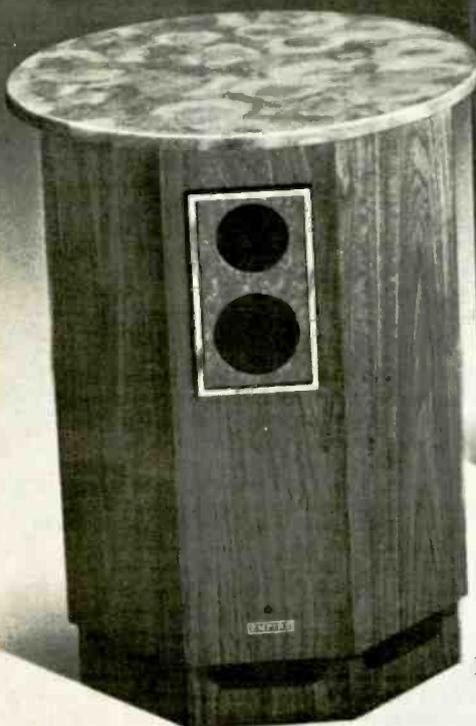
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are comments from just a few of them: "Superior sound over anything near it in price" J.A. Hyattsville, Md. "This speaker is truly a work of art!" J.F., Vancouver, B.C. "Full sound even at low levels;" W.G., Alexandria, Va. "Can handle large amounts of power;" D.M., Huntsville, Ala. "Fantastic bass;" A.H., Burke, Va. "No ugly grill cloth;" B.M., Newark, N.J. "Incredible fidelity;" K.K., Dallas, Texas.

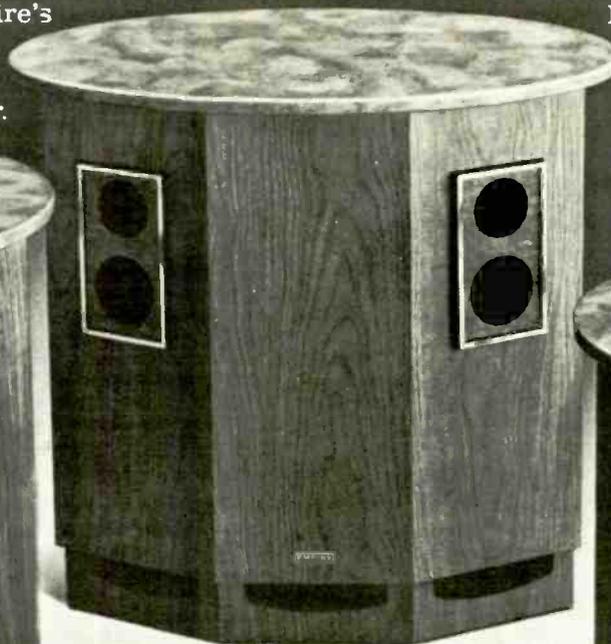
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Model 7500 M II



Model 9500 M II

Model 8000 M II



consider them a necessary evil. One very popular speaker system avoids crossover problems completely with a number of small cone drivers handling the full frequency range and reflecting most of their output from the wall behind the speaker. The dispersion of this array is not far from omnidirectional and its frequency response characteristics are corrected by an active equalizer that boosts both low and high frequencies in the amplifier section.

Reproducing each portion of the audio spectrum presents its own unique problems. For the low bass, there must be a compromise, or "trade off," among size, efficiency, and the lower frequency limit. Small bookshelf speakers are available with outstanding bass performance (down to 30 Hz in some cases), but a price is paid in efficiency, so that more amplifier power is needed for a given sound level. Other speakers of the same size have a higher efficiency, but sacrifice their response below about 50 Hz to achieve this. For many people, this is a worthwhile trade-off, since most music has little content below 50 Hz, but it is one of the factors which must be considered when planning a hi-fi system. Of course, it is possible to have high efficiency and deep bass response, but this calls for a large speaker enclosure.

At the high frequencies, the basic question is how to start and stop the motion of the cone or radiating surface in a very short time. Low moving mass is important, hence the widespread use of tiny "tweeters" less than one inch in diameter, even with the largest enclosures. For many years, electrostatic speakers have been used for tweeters, since they have many of the properties of an ideal reproducer. However, they are directional, and are fairly expensive. A recent speaker design uses a very light array of ribbon conductors in a powerful magnetic field to produce a very uniform and well dispersed output up to super-audible frequencies.

A few speaker manufacturers produce what might be termed "exotic" speaker systems, unconventional in appearance and performance, and sometimes quite expensive.

As we pointed out earlier, the speaker efficiency and amplifier power ratings must be coordinated. Once you have established an approximate efficiency category, listen to a number of speakers to get a "feel" for their distinctive sound qualities. Try to use your own records, rather than a dealer's demonstration material (which can mask certain speaker defects or enhance their positive qualities). When you find a sound that pleases you, even if the speaker is beyond your budget, listen to less expensive speakers from the same manufacturer. Usually, a manufacturer's concept of good sound will be carried through his entire product line. At times you can get most of the qualities that attracted you to a \$400 speaker in a \$100 unit from the same company.

When comparing speakers, be sure that their sound levels are matched. Even a slightly louder sound can give the impression that a speaker sounds "better." See that the amplifier tone controls are "flat" and that the loudness compensation is switched off. Listen at levels you find comfortable and to the kind of music you prefer. Try not to be unduly impressed by "flashy" sound, such as sparkling highs or thudding bass. A really good speaker, in any price range, is usually rather unassuming (sonically speaking), so that it becomes easy to forget that you are listening through a loudspeaker. If this happens to you, the chances are that you have found the "best" speaker for you!



**H**HEADPHONES share many of the properties of speakers, in that they all have different sound characteristics which are difficult to define by measurements because the actual acoustic output of a phone is a function of the dimensions of the wearer's ear cavity. Fortunately, the subjective intimacy afforded by headphone listening is powerful enough to override whatever weaknesses they may have.

The conventional stereo headphone has a small dynamic loudspeaker in each earcup, with the necessary acoustic treatment to provide a smooth frequency response when coupled to the listener's ear cavity. Padded or liquid-filled ear cushions provide a tight seal on the wearer's head, which is necessary for good bass response. They also exclude ambient room noises, giving the headphone listener near-total isolation from his acoustic environment.

Another type of headphone is the non-isolating, or open-air, phone. Its earpieces are separated from the wearer's head by porous foam pads, which do not isolate the wearer from room noises or the other occupants of the room from the headphone sounds. Open-air phones not only have a distinctive, natural quality, but are very light and relatively comfortable to wear for long periods.

A variation on the standard dynamic phone is a "two-way" phone, with separate drivers in each earpiece for low and high frequencies. Some phones have individual volume controls on the earpieces, which can serve as a volume or balance adjustment. Electrostatic headphones are acknowledged to be the most accurate reproducers, surpassing even the finest loudspeakers in their smoothness and frequency range. However, electrostatic phones tend to be heavy, expensive, and limited as to the maximum sound level they can deliver.

One should not expect the same listening experience with headphones as with loudspeakers. Headphones, even the non-isolating types, remove the listener from his surroundings and compel him to be attentive to the music. No headphone sounds like a speaker, but must be enjoyed for its own special qualities. Since some people find headphones tiring to wear for extended periods, it is important to try them on for fit as well as sound before making a purchase.

Most headphones have a nominal 8-ohm impedance and will operate satisfactorily when plugged into the headphone jacks on any hi-fi component. However, there are some headphones with a higher impedance, between 150 and 2000 ohms, which are usable with receivers and amplifiers, but may not have enough volume when used with a tape deck having a headphone output.



**F**OUR-CHANNEL, or quadraphonic, sound is an extension of stereophony, in much the same manner as stereo evolved from mono. By recording and reproducing through four program channels, an added sense of depth and spaciousness can be imparted to the music. Also, it becomes possible to write or arrange music to be heard from different directions with the listener in the center of the stage. Although not what most of us are used to hearing, this is a legitimate musical experience which is made possible only by four-channel recording and reproduction.

Four-channel tape recordings have been with us for many years, although an insignificant number of commercially recorded four-channel tapes is available (in open-reel form, at least). However, a growing number of four-channel tape decks is appearing on the market and we can probably expect new tape releases to follow this trend.

Most four-channel tapes are in the form of Q-8 cartridges, playable on home or car cartridge decks which are designed for their use (these can also play the more common stereo cartridges). The Q-8 cartridges have all the advantages and disadvantages of the cartridge format, but the sonic impact of four-channel reproduction often overshadows any deficiencies in the tape system.

Theoretically, four-channel cassettes should be possible, but a combination of technical and patent licensing problems has so far blocked the entry of cassettes into the four-channel tape market.

Phonograph records dominate the quadraphonic scene and will probably continue to do so. Matrix records, such as Columbia's SQ and the Sansui QS system employed by a number of smaller record companies, can provide a moderate-to-good "quad" effect, although the four recorded channels are intermingled to a considerable degree. Special decoder "logic" circuits can greatly enhance the separation of matrixed four-channel recordings, and anyone with a serious interest in quadraphony should invest in a good logic decoder. These are available as add-on accessories and are built into a few four-channel receivers and amplifiers. You should be aware that most four-channel receivers claiming SQ capability do *not* have logic enhancement and cannot be expected to give a definite sense of channel separation.

The other major quadraphonic disc system is the CD-4 "compatible discrete" system developed by Victor Company of Japan. The majority of CD-4 records in this country are issued by RCA Victor, but other labels are joining them as the system becomes more widespread. Unlike matrix records, which can be played by any stereo

phono cartridge and can be transmitted over FM radio, the CD-4 system requires a special cartridge, with a frequency response extending to 45 kHz, and a separate decoder. It cannot be broadcast in 4-channel form. On the other hand, the CD-4 system has superior four-channel separation, producing a distinctly different overall effect than matrixed records, even when they are played through a full logic decoder.

Fortunately, all quadraphonic records, whether SQ, QS, or CD-4, can be played as stereo discs, without loss of content and with full fidelity. In this sense, they are compatible—but with *stereo* reproduction rather than with each other.

If you are planning a complete four-channel system, or intend to make a major changeover from an older stereo system, a receiver is the most logical choice for the central component. The better four-channel receivers have adequate power (25 to 50 watts per channel) for most purposes, and many of them have decoding facilities for all types of four-channel records. However, *no* single receiver or decoding accessory gives optimum performance with all three record types. Each favors one of the systems, to the detriment of the others. In every case, however, an external SQ or CD-4 accessory can provide full flexibility and performance for the least favored system. Another point to watch for is the very low audio power ratings of some lower priced four-channel receivers. Often able to deliver between 7 and 10 watts per channel, these may not be suitable for driving many popular low-efficiency speakers except in a very small room.

It is easy to convert a stereo system to four channels, without any obsolescence. Connect a good full-logic SQ decoder, or a CD-4 demodulator, to the amplifier's tape recording outputs. The decoder front channels return to the tape monitoring inputs and the rear channels go to a second stereo amplifier which drives the rear speakers. The decoder acts as a system control unit and master volume control and its tape outputs, in turn, can be used for a different type of four-channel decoder, or for a tape deck.

If your system is to include the CD-4 system, check to see that your record player tonearm has low capacitance wiring, a necessity for most of the new CD-4 cartridges if their high-frequency response is to be maintained. Check with the manufacturers of the cartridge and the record player if you have doubts. If you simply install a CD-4 cartridge in your old record player, you may be disappointed in the results.

There are no hard and fast rules on speaker choice or placement for quadraphonic listening. As with stereo, the better the speaker, the better the sound. It is not necessary to have identical speakers for all channels, but they should have roughly similar sound qualities. Often it is possible to use smaller speakers in the rear channels (from the same manufacturer as your front speakers), with completely satisfactory results.

As for speaker placement, in most cases existing architecture or furnishings will prevent setting the rear speakers in the corners of the basic quadraphonic rectangle. This rarely impairs their effectiveness, but some experimentation is usually necessary for best results.

There are several four-channel headphones on the market. Although they do not sound like stereo phones (on four-channel material), they do not in the least simulate the effect of four-channel speaker listening. But, neither do stereo phones sound like stereo speakers! □

# This is what makes the Sansui 771 so great: Specs. Features. Looks. And Price.

Sansui, already famous for quality and value has again outdone itself with the 771 receiver. Look at the specs: powerful 80 watts RMS total, both channels driven into 8 $\Omega$  — more than enough to power two pair of speaker systems — at very low 0.5% total harmonic distortion, an FM sensitivity of 2.0  $\mu$ V (IHF).

Look at the features: two tape monitors, two auxiliary inputs, three pairs of speaker selectors, two filters (hi & lo) and more — even a microphone circuit. Visit your nearest Sansui franchised dealer and listen to the tremendous Sansui 771. Then listen to the price.



**Sansui**

## SANSUI ELECTRONICS CORP.

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# 1

# AMPLIFIERS & TUNERS

## AUDIONICS

### ASA-300 Stereo Amplifier

Medium-power amplifier providing 100 W/ch at 8 ohms; 150 W/ch at 4 ohms. THD 0.1%; IM 0.1%. Response 5-70,000 Hz -3 dB; S/N -95 dB below rated output. Direct-coupled output  
..... \$350.00

## AUDIO RESEARCH

### Dual 76 Stereo Power Amplifier

75 W/ch continuous power with both channels driven (mid-band power about 90 W/ch with



both channels operating). Power bandwidth 15-30,000 Hz. HD 0.1% at mid-band & at rated output (0.25% at 30 Hz). Sensitivity: 1.5 V. Vacuum-tube design with solid-state power supply. Pilot light. 19" rack panel x 7" x 12" D  
..... \$995.00

### SP-3 Stereo Preamp

Response 15-30,000 Hz  $\pm 1$  dB. THD 0.005% at 5 V rms output. Maximum output 25 V rms at



1000 Hz. (S + N)/N (aux.) 90 dB. 15 $\frac{1}{8}$ " x 5" x 12 $\frac{1}{2}$ " D  
..... \$695.00

## BGW

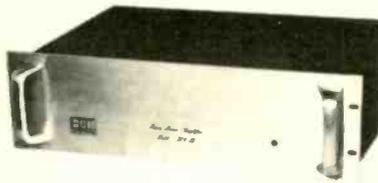
### 1000 Stereo Power Amplifier

250 W/ch continuous power into 8 ohms with both channels driven (500 W/ch into 4 ohms; 750 W/ch into 2 ohms). Response 2-80,000 Hz +0, -3 dB; 20-20,000 Hz +0, -0.2 dB; hum & noise 100 dB below rated output into 8 ohms; input sensitivity 2 V for 40 V output (200 W, 8 ohms); damping factor 1000 at low frequencies; HD 0.1% at 250 W/ch. Features crowbar circuitry for surge protection; forced-air cooling; IC op amp front end; plug-in module construction. 19" standard rack panel with cast aluminum handles x 7" H x 17" D. . . . \$1295.00

### 500R Stereo Power Amplifier

200 W/ch continuous power into 8 ohms with both channels driven (300 W/ch into 4 ohms). Response 2-65,000 Hz +0, -3 dB; 20-20,000 Hz +0, -0.25 dB; hum & noise 105 dB below rated output into 8 ohms; input sensitivity 2 V

for 40 V out (200 W, 8 ohms); damping factor 1000 at low frequencies into 8 ohms. Features



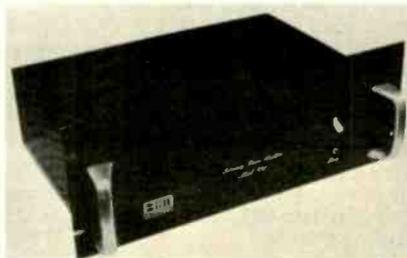
crowbar protection circuit; IC op amp front end; current limiting circuit; plug-in module construction. Welded steel chassis frame for rugged operational applications. 19" standard rack panel x 5 $\frac{1}{4}$ " H x 11" D . . . . . \$729.00  
500R-7 Same except 19" x 7" x 11" D. \$739.00

### 250 Stereo Power Amplifier

Smaller version of the Model 500R. 100 W/ch into 8 ohms (150 W/ch into 4 ohms); HD 0.2% at rated power; response 5-65,000 Hz +0, -3 dB; 20-20,000 Hz +0, -0.25 dB; hum & noise 100 dB below rated output; input sensitivity 1.5 V in for 30 V out at  $\pm 1$ %; damping factor 500 at 500 Hz or less. 19" rack panel x 5 $\frac{1}{4}$ " H. \$449.00

### 750 Stereo Power Amplifier

220 W/ch continuous power into 8 ohms with both channels driven (350 W/ch into 4 ohms,



450 W/ch into 2 ohms); response 20-20,000 Hz  $\pm 0.3$  dB (5-60,000 Hz  $\pm 0.3$  dB); HD or IM dist. 0.2% at 200 W/ch or less into 8 ohms; hum & noise 20-20,000 Hz, 105 dB below 200 watts into 8 ohms. Input sensitivity: 2 V  $\pm 2$ % for 40 V output (stereo), 2 V for 80 V out (mono). 7" x 19" rack mount x 14 $\frac{3}{4}$ " D.  $\frac{1}{8}$ " steel front panel, black finish with aluminum handles  
..... \$899.00

## BOSE

### 1801 Dual-Channel Power Amplifier

Will deliver 250 W/ch rms into an 8 ohm load; 400 W/ch rms into 4 ohm load; 800 W total into 4 ohms and 500 W total into 8 ohms. Response 30-10,000 Hz flat within  $\pm 0.25$  dB; 10,000 -15,000 Hz flat within  $\pm 0.7$  dB; 20-30 Hz and 15,000-20,000 Hz within  $\pm 1.0$  dB. Has indicators which incorporates the a.c. on/off switch and controls desired combination of VU meters and LED monitors in the display option; separate controls for each channel to provide a gain range of 0 to 30; input selector permits choice

of two inputs and can also be used to switch between equalized and unequalized sources; main/remote speaker switching. Input sensitivity 1.5 V for 250 W output into 8 ohms. 7 $\frac{1}{16}$ "



H x 18" W x 18 $\frac{1}{2}$ " D including knobs. Brushed aluminum control panel; black out display panel; black anodized heat sink and case. Basic amplifier. . . . . \$799.00  
With monitor display option. . . . . \$986.00

## BOZAK

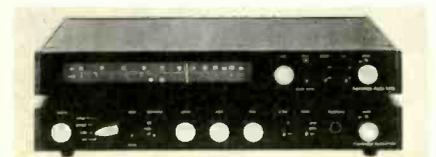
### 929 Power Amplifier

150 W continuous power/ch into 8 ohms; response 3-80,000 Hz; THD 0.2%; IM 0.2%; damping factor 100; power bandwidth 6-30,000 Hz; noise 100 dB below rated output. With meters . . . . . \$795.00

## CAMBRIDGE AUDIO

### P140X Stereo Amplifier

55 W/ch rms power output; THD & IM 0.1%;



crosstalk 50 dB at 1 kHz; tone-control range  $\pm 12$  dB at 10,000 Hz treble, 100 Hz bass. Has electronic switch and fuses for circuit protection. Black enclosure. 16 $\frac{1}{2}$ " W x 2 $\frac{1}{16}$ " H x 9 $\frac{3}{8}$ " D . . . . . \$450.00  
P70X. Same except 25 W/ch rms power output. Silver enclosure. 16 $\frac{1}{2}$ " W x 2" H x 9 $\frac{3}{8}$ " D . . . . . \$350.00

## CERWIN-VEGA

### A-3000 Stereo Power Amplifier

450 W rms/ch into 8 ohms with both channels driven (750 W/ch into 4 ohms); d.c.-60,000 Hz +0, -1 dB; power bandwidth d.c.-20,000 Hz +0, -1 dB; THD 0.25% max., typically 0.01%; damping factor 500 at 1000 Hz; hum & noise 100 dB below full power; features IC front

For 4-Channel  
Components . . .  
See SECTION 9

# 1

## Amplifiers

end, "Tri-Tangential" protection circuits; dual VU meters; switchable subsonic filter; plug-in drive circuitry; brushed aluminum finish with blackout display panel. 19" W (rack mount) x 8" H x 11 1/2" D. .... \$1095.00

### A-1800 Stereo Power Amplifier

250 W rms/ch into 8 ohms with both channels driven (350 W/ch into 4 ohms); all other specs identical to A-3000 except has no VU meters. .... \$499.00

### C/M LABS

#### CC-2 Stereo Preamp

Response 1-100,000 Hz +0, -3 dB; THD & IM dist. 0.1% at 2 V rms; hum & noise 80 dB below 10 mV input (phono), 80 dB below full output (high-level); features input & mode selectors; tone controls; balance control; volume & loudness controls; tape monitor switch; sub-sonic filter; has two a.c. convenience outlets (one switched). 12 1/2" W x 4" H x 9" D. .... \$260.00

#### 911 Stereo Power Amplifier

100 W rms/ch into 8 ohms; 60 W/ch into 16 ohms; 90 W/ch into 4 ohms; power bandwidth 10-30,000 Hz +0, -3 dB at 0.5% THD; response 20-20,000 Hz ±0.5 dB, 1-100,000 Hz ±3 dB-IM 0.5% between 1 W and 100 W; hum & noise 70 dB below full rated output; independent level controls for sensitivity adjustment of each channel. Brown enamel and brush gold anodized cage. 14 1/4" W x 8 1/8" H x 11 1/8" D. .... \$540.00

#### CC-50S Integrated Amplifier

50 W rms/ch into 8 ohms; response 20-20,000 Hz ±5 dB; power bandwidth 10-30,000 Hz +0, -3 dB; IM 0.5% at 40 W; hum & noise 70 dB below 10 mV low-level input, 70 dB below 0.25 V high-level input; has full complement of inputs, outputs, controls, and switches. 17" W x 6" H x 13" D. .... \$525.00

#### 912 Power Amplifier

150 W rms/ch into 8 ohms (20-20,000 Hz) 200 W rms/ch into 4 ohms with both channels driven; power bandwidth 5-75,000 Hz; response 1-100,000 Hz at 1 W; THD 0.1%; IM dist. 0.1%. 5 1/4" H x 19" (relay rack) W x 13" D. .. \$650.00  
Optional wood cabinet ..... \$39.00

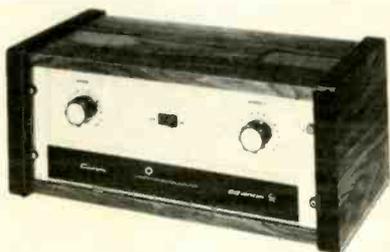
### CROWN INTERNATIONAL

#### D-150 Power Amplifier

120 W/ch dynamic output at 8 ohms. Response 4-100,000 Hz ±0.75 dB at 1 W. IM 0.05% at rated output. Sensitivity 1.2 V at 75 W, 8 ohms. 5 1/4" H x 17" W x 9" D ..... \$399.00  
Walnut cabinet ..... \$33.00  
Model FP. Front panel (required for cabinet or panel mount) ..... \$30.00

#### DC300A Laboratory Power Amp

210 W/ch dynamic output at 8 ohms. Response 0-20,000 Hz ±0.1 dB at 150 W. IM 0.05% at



rated output. Sensitivity 1.75 V at rated output.

Input adjustment on front panel. 7" H x 19" W x 9 1/2" D ..... \$695.00  
Walnut cabinet ..... \$37.00

#### D-60 Power Amplifier

52 W/ch dynamic output at 8 ohms. Response 3.2-100,000 Hz ±1.2 dB at 1 W. IM 0.05% at rated output. Sensitivity 0.75 V at rated output, with front-panel adjustments. Stereo headphone output. 1 3/4" H x 17" W x 8 1/4" D. \$249.00  
Walnut cabinet ..... \$29.00

#### IC-150 Preamp

IM 0.01% at 2.5 V output; hum & noise -80 dB at phono input. Has high-cut & low-cut filters;



loudness compensation switch; ganged tone controls; and two tape-monitoring facilities. 5 1/4" H x 17" W x 8 1/2" D ..... \$299.00  
Walnut cabinet ..... \$33.00

### DCE

#### Dreadnaught 1000 Power Amp

250 W continuous sine wave power/ch into 8 ohms with both channels driven from 20-20,000 Hz; power at clipping 300 W/ch into 8 ohms, 520 W/ch into 4 ohms; IHF power bandwidth 10-225,000 Hz; HD & IM 0.025%; input sensitivity 1.75 V rms for full output; input imp. 100,000 ohms; hum & noise 100 dB below full output; features true complementary direct-coupled output with ten 15 A power transistors per channel. Controls: power "on-off" switch, individual channel level controls. 19" W x 7" H x 15" D. Uncased rack mount ..... \$799.00  
Deluxe version with 2% panel meters with 3-position range switching, 3-speed cooling fans ..... \$899.00  
Solid walnut case ..... \$80.00

#### Dreadnaught 500 Power Amp

Same as Model 1000 except 150 W/ch continuous sine wave power into 8 ohms; power at clipping 165 W/ch into 8 ohms, 300 W/ch into 4 ohms; input sensitivity 1.2 V rms for full output. 19" W x 12" D x 7" H. Uncased rack mount ..... \$499.00  
Deluxe version with 2% panel meters. \$549.00  
Solid walnut case ..... \$45.00

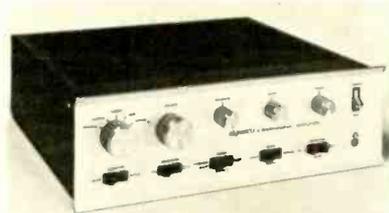
#### Model 100 Integrated Amplifier

Same power amplifier as Model 500 but with ultra-low-noise FET preamp; phono S/N 85 dB; phono overload 180 mV ..... \$849.00  
Solid walnut case ..... \$45.00

### DYNACO

#### SCA-80Q Stereo Amplifier

Combines a two-channel amplifier (Model 80) with Quadaptor decoding circuitry for recover-



ing 4-ch information from 2 channels. Preamp has most features of the company's PAT-4. 40 W/ch continuous sine wave into 8 ohms from 20-20,000 Hz at 0.5% HD with both channels driven. IHF bandwidth 8-50,000 Hz. Sensitivity;

phono 3 mV; aux. 0.13 V. 13 1/2" x 10" x 4 1/4" ..... Kit \$185.00  
Assembled ..... \$299.00

#### Stereo 400 Power Amplifier

200 W/ch continuous power at 8 ohms from 20-20,000 Hz at 0.25% THD & 0.1% IM with both



channels driven (300 W/ch at 4 ohms). Response 8-50,000 Hz +0, -1 dB at 1 W into 8 ohms. (S+N)/N -95 dB. Sensitivity 1.6 μV. Features the "Dynaguard" power limiting capability to protect speakers. Has over 1000 sq. in of heat-sink radiating area. Includes input level controls, high- and low-filters, fuses on front panel, relay-operated d.c. protection circuit. 17" x 14" D x 7" H ..... Kit \$449.00  
Assembled ..... \$599.95

#### PAS-3X Preamp

Vacuum-tube preamp with loudness compensation, independent tone controls, a stereo blend control, and tape monitoring facilities. 4 1/4" H x 13 1/2" W x 9" D ..... Kit \$119.00

#### PAT-4 Preamp

Response 5-100,000 Hz ±0.5 dB. THD & IM 0.05% at 2 V output. Hum & noise -70 dB at phono input. Has 3-step high-cut filter, and low-cut filter, loudness compensation, indepen-



dent tone controls, front panel input & output. 600 ohm output. 4 1/4" H x 13 1/2" W x 9" D. .... Kit \$119.00  
Assembled ..... \$199.00

#### PAT-5 Stereo Preamp

Response 10-50,000 Hz ±1 dB (high level inputs); 30-15,000 Hz ±1 dB (low-level inputs);



THD 0.05% (0.01% typical) 20-20,000 Hz; IM 0.05% (0.005% typical) with any combination of test frequencies; hum & noise: mag. phono 70 dB below 10 mV input at 1000 Hz, high level 85 dB below 0.5 V input; low filter -12 dB at 15 Hz 6 dB/octave, high filter -10 dB at 10,000 Hz 15 dB/octave; separation at 2 V output into 10,000 ohms; undriven input terminated at 5000 ohms: 20 & 2000 Hz 70 dB, 20,000 Hz 45 dB minimum. Features two RIAA equalized magnetic phono inputs, two tape inputs, tuner, spare, external processor loop, amplifier connections; outputs: two tape ahead of controls, EPL output after volume/balance controls, two audio outputs, front panel headphone, speaker connections. Has full complement of controls. 13 1/4" W x 4 1/4" H x 11 3/4" D. .... Kit \$179.00  
PAT-5/A. Assembled ..... \$289.00

#### Mark III Power Amplifier

Vacuum-tube mono power amplifier. 60 W out-

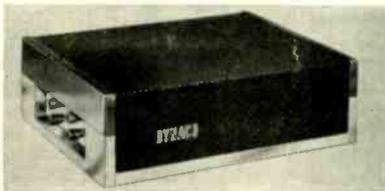
put at 4, 8, or 16 ohms. Response 6-60,000 Hz  $\pm 0.5$  dB. IM 1% at rated output. Sensitivity: 1.6 V for rated output. 6 $\frac{1}{4}$ " H x 9" W x 9" D.  
 Kit \$124.00  
 Assembled ..... \$169.00  
 With additional 70.7 V-output ..... \$179.00  
 With 125- or 500-ohm output only .. \$189.00

**Stereo 150 Power Amplifier**

75 W rms/ch power output at 8 ohms with both channels driven (20-20,000 Hz); 150 W rms at 8 ohms mono; power bandwidth 5-40,000 Hz at 0.25% THD, half-power output, 8 ohms load. Response +0, -1 dB 8-50,000 Hz at 1 W into 8 ohms;  $\pm 0.5$  dB 20-20,000 Hz at 75 W; hum & noise 90 dB below rated output, full spectrum; IM 0.15% at any power level up to 75 W rms/ch into 8 ohms with any combination of test frequencies. .... Kit \$225.00  
 Assembled ..... \$325.00  
 MC-3 Meter kit ..... \$125.00

**Stereo 120 Power Amplifier**

60 W/ch continuous power output at 8 ohms with both channels driven. Power bandwidth 5-



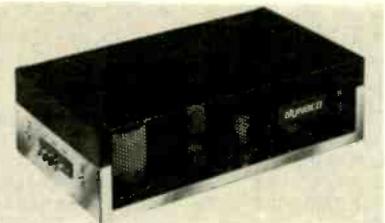
100,000 Hz at 0.5% THD. IM 0.5% at rated output. Hum & noise -95 dB at rated output. Sensitivity: 1.5 V for rated output. 4 $\frac{1}{4}$ " H x 13 $\frac{1}{2}$ " W x 10 $\frac{1}{2}$ " D ..... Kit \$179.00  
 Assembled ..... \$249.00

**Stereo 70 Power Amplifier**

Vacuum-tube stereo amplifier. 35 W/ch power output at 4, 8, or 16 ohms. Response 15-40,000 Hz  $\pm 0.5$  dB. IM & THD 1% at rated output. Sensitivity: 1.3 V for rated output. 6 $\frac{1}{2}$ " H x 13" W x 19 $\frac{1}{2}$ " D. .... Kit \$129.00

**Stereo 80 Power Amplifier**

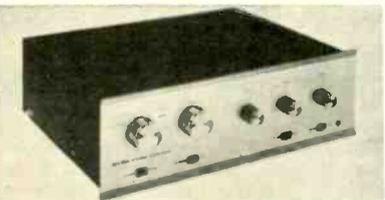
40 W/ch output at 8 ohms. Response 15-50,000 Hz  $\pm 0.5$  dB. THD 0.5% at rated output; IM



0.1% at rated output. Sensitivity: 1.3 V for rated output. 4 $\frac{1}{4}$ " H x 13 $\frac{1}{2}$ " W x 9" D. Kit \$139.00  
 Assembled ..... \$199.00

**SCA-35 Integrated Amplifier**

Vacuum-tube stereo unit. 17 W/ch power output at 8 or 16 ohms. Response 20-20,000 Hz



$\pm 0.25$  dB. IM 1% at rated output. Sensitivity: mag. phono 4.0 mV; tape head 2.5 mV; Has high-cut filter, loudness compensation, and ganged tone controls. 4" H x 13" W x 10" D ..... Kit \$129.00

1975 EDITION

All power and integrated amplifiers were measured with a continuous sine wave and on stereo designs both channels were driven.

**EPICURE**

**Model One Power Amplifier**

125 W rms/ch into 8 ohms with both channels driven (20-20,000 Hz) at 0.2% THD; power bandwidth 10-52,000 Hz at 0.2% THD; frequency response 20-20,000 Hz +0, -1 dB; 10-100,000 Hz  $\pm 0.5$  dB; 10-180,000 Hz +0, -3 dB; S/N 100 dB; features voltage, current, and thermal overload indicators; built-in multiple speaker selector; speaker and a.c. fusing; automatic thermal shut-off switch; input level sets for max. S/N performance; scope output for visual monitoring. 18 $\frac{1}{2}$ " W x 12 $\frac{1}{2}$ " D x 7 $\frac{1}{2}$ " H (19" rack mount kit available).. \$649.00

**ESS**

**200 Stereo Power Amplifier**

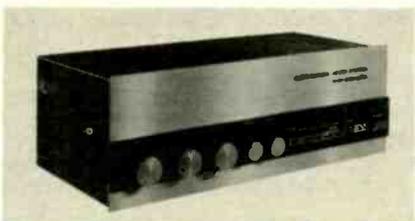
100 W rms/ch 20-20,000 Hz with both channels driven into 8 ohms; response 22-41,000 Hz



$\pm 0.25$  dB at 1 W; 12-133,000 Hz  $\pm 1$  dB at 1 W; HD & IM 0.2% 20-20,000 Hz up to rated output, typically 0.025% at normal operating levels; hum & noise 100 dB below rated output; damping factor 100:1 at 20 Hz. Black anodized case with brushed rose gold faceplate with ebony plexiglass accent bar ..... \$399.00  
 Oiled-walnut finished wood case ..... \$37.00

**Stereo Preamplifier**

Response 2 Hz to infinity  $\pm 1$  dB (high-level section). 2.5 V output & 0.0075% THD, (S + N)/N

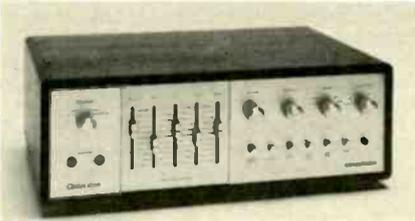


-80 dB phono. Input sensitivity: mag. phono 2.5 mV; aux. 250 mV. 16 $\frac{1}{8}$ " x 6" x 9" D. \$399.00  
 Oiled-walnut finished wood case ..... \$37.00

**HARMAN/KARDON**

**Citation 11 Stereo Preamp**

Response 1-250,000 Hz  $\pm 0.5$  dB. HD & IM less than 0.01%. Has high-cut & low-cut filters,



loudness compensation, equalizer tone controls, multiple speaker switching, and headphone output ..... \$395.00  
 Walnut cabinet ..... \$35.00

**Citation 12 Stereo Power Amp**

60 W/ch rms at 8 ohms. Power bandwidth 5-35,000 Hz; response 5-75,000 Hz  $\pm 0.5$  dB. HD & IM less than 0.8% at rated output; hum and

Are you ready for a REAL



CONTROL CENTER ?

If you're a music lover looking for more enjoyment from your music collection, we have a pleasant surprise for you.

Up to now you've enjoyed the few control functions on your tape deck, amp or receiver. But think what you could do with a discrete control center! Not a lo-fi economy model, but the famous CROWN IC150, with a variety of versatile controls unavailable in any other model under \$300, and some models over \$500.

This is the control center praised by that dean of audio, Ed Canby: "This IC150... is the finest and most versatile control unit I have ever used. For the first time I can hook all my equipment together at once. I find many semi-pro operations possible with it that I have never before been able to pull off, including a first-class equalization of old tapes via the smooth and distortionless tone controls. I have rescued some of my earliest broadcast tapes by this means, recopying them to sound better than they ever did before."

The IC150 will do the same for you. You could record from any of seven sources: tuners, turntables, guitars, tape players, microphones, etc. You could also tape with one recorder while listening to a second one. Even run two copies of the same source at once while monitoring each individually. How about using the IC150's exclusive panorama control to improve the stereo separation of poorly produced program material or to correct that ping-pong effect with headphone listening? It's all up to your creativity.

You'll feel perfectly free to copy and recopy through your IC150, since it creates practically no deterioration whatsoever. Cleaner phono and high-level circuits cannot be found anywhere. Harmonic distortion is practically unmeasurable and IM is less than 0.01% (typically 0.002%).

Of course, construction is traditional Crown quality, backed with a three-year warranty. The price is \$299. The enjoyment is unlimited. The opportunity is yours. Visit your local Crown dealer to discover if you are ready for a real control center, the IC150.



**CROWN**

CIRCLE NO. 14 ON READER SERVICE CARD

# 1

## Amplifiers

noise -100 dB at rated output ..... \$295.00  
**Citation 12 Deluxe.** Same as Citation 12 but



housed in deluxe enclosure ..... \$340.00

### HEATH

#### AA-29 Integrated Amplifier

Solid-state, 50 W/ch (dynamic) at 8 ohms integrated amplifier. Power bandwidth 5-30,000 Hz; response 7-60,000 Hz -1 dB at 1 W. HD 0.2% and IM 0.2% at 35 W; hum & noise -65 dB at phono input. Sensitivity: mag. phono 2.2 mV, aux. 180 mV, tape 180 mV. Has loudness compensation switch, ganged tone controls, multiple speaker switching, center-channel output, headphone output, and tape monitoring facilities. Damping factor 50.

Kit ..... \$169.95  
 Walnut veneer cabinet ..... \$19.95

#### AA-14 Integrated Amplifier

Solid-state, 15 W/ch (dynamic) integrated amp. Response 15-60,000 Hz  $\pm 1$  dB. Has ganged



tone controls and headphone output.  $3\frac{1}{4}''$  H x  $12''$  W x  $9\frac{3}{4}''$  D.

Kit ..... \$64.95  
 Walnut veneer cabinet ..... \$9.95

#### AA-15 Integrated Amplifier

Solid-state, 75 W/ch (dynamic) at 8 ohms integrated amplifier. Power bandwidth 6-30,000



Hz; response 8-40,000 Hz  $\pm 1$  dB at 1 W. HD and IM 0.5% at 50 W; hum & noise -60 dB at phono input. Sensitivity: mag. phono 2.2 mV, aux. 200 mV, tape 200 mV. Has loudness compensation switch, ganged tone controls, stereo null balancing, multiple speaker switch, headphone output and tape monitoring facilities. Damping factor 45.  $4\frac{3}{4}''$  H x  $16\frac{7}{8}''$  W x  $12\frac{1}{2}''$  D.

Kit ..... \$199.95  
 Walnut veneer cabinet ..... \$19.95

#### AA-1214 Stereo Amplifier

15 W rms/ch into 8 ohms; suitable as second amp in 4-channel system; inputs for phono,

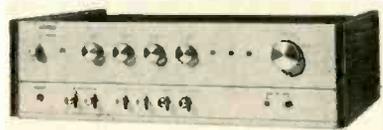


tape, tuner & aux.; tape monitor jack; headphone jack; level control for phono input. Push-button program source selection, mono or stereo mode, "on-off" control of speaker systems and power; master controls actuate bass, treble, balance, and volume.  $3\frac{7}{8}''$  H x  $12\frac{3}{4}''$  W x  $12''$  D.  
 Kit ..... \$99.95

### HITACHI

#### IA-600 Integrated Amplifier

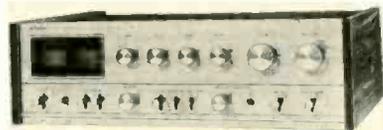
32 W/ch (IHF) into 8 ohms. Response 10-100,000 Hz  $\pm 1$  dB. HD 0.1% at rated output; hum &



noise -68 dB at phono input. Sensitivity: mag. phono 2.5 or 6.0 mV; aux. 200 mV, mike 2.5 or 6.0 mV. Features hi-cut filter, loudness compensation switch, ganged stepped tone controls, multiple speaker switching, and headphone output. Damping factor 50. Has tape monitoring facilities.  $4\frac{13}{16}''$  H x  $16\frac{1}{4}''$  W x  $12\frac{3}{16}''$  D ..... \$239.95

#### IA-1000 Integrated Amplifier

55 W/ch (IHF) into 8 ohms. Response 10-100,000 Hz  $\pm 1$  dB. HD 0.1% at rated output; hum &

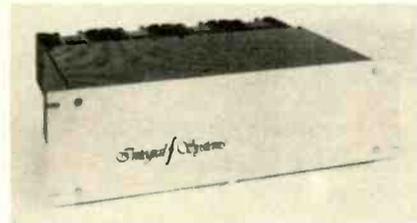


noise -65 dB at phono input. Sensitivity: mag. phono 2.0-5.0 mV, aux. 140 mV, mike 5 mV. Has hi-cut and low-cut filters, loudness compensation switch, ganged tone controls, multiple speaker switching, headphone output, tape monitoring facilities, and VU meters. Damping factor 50.  $5\frac{5}{8}''$  H x  $17\frac{5}{8}''$  W x  $13''$  D... \$359.95

### INTEGRAL SYSTEMS

#### 200 Stereo Power Amplifier

100 W/ch rms into 8 ohms from 20-20,000 Hz. Response 10-20,000 Hz  $\pm 1$  dB at 1 W output;



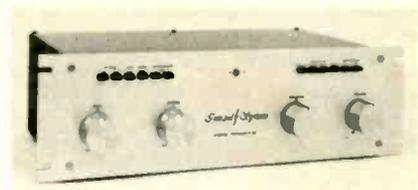
power bandwidth 20-25,000 Hz full power, 5-60,000 Hz half power. HD 0.2% 20-20,000 Hz; IM dist. 0.2% any combination of frequencies between 20-20,000 Hz. Anodized chassis and 19-in rack-mount gold anodized front panel.  $19''$  x  $12\frac{1}{8}''$  x  $5\frac{1}{4}''$  ..... \$350.00

**Model 400.** Same as Model 200 except 200 W/ch; has thermal shut-down; three protection circuits; photoguard; SCR crowbar... \$500.00

**Model 700.** Same as the Model 400 except 350 W/ch; has LED power readouts; outputs for two sets of speakers; four protection circuits. .... \$800.00

#### 10 Stereo Preamplifier

Designed to process a wide variety of audio signals. Control facilities include pushbutton input selection, adjustable phono sensitivity, dual tape monitors, speaker switching, steep-sloped high & low filters, and loudness contour



as well as tone, balance, and volume adjustments. On-off status is indicated by a low-voltage LED. Bandwidth 20-100,000 Hz  $\pm 0.25$  dB; input impedance 250,000 ohms nominal. IM dist. 0.05% at 1 V rms; max. output voltage before clipping 4.0 V rms. Inputs: high level 0.2 V/V output; phono (1 kHz) 4 mV/140 mV rms, 1 mV/35 mV rms; Comes with anodized chassis and 19-inch front panel. .... \$300.00

#### 410 Integrated Amplifier

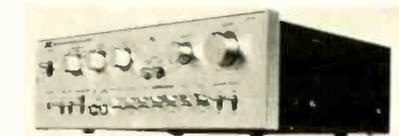
Combines the circuitry of the Model 400 power amplifier and Model 10 preamp. .... \$700.00

### JVC

#### VN-700 Integrated Amplifier

35 W rms/ch into 8 ohms with both channels driven & at 0.05% THD. Power bandwidth 25-20,000 Hz at 8 ohms. Input sensitivity: mag. phono 2.5 mV; aux. & tape 200 mV. (S + N)/N -82 dB (aux.). Features dual facilities for tape monitoring & tape dubbing. Has 5-section tone control centering on 40, 250, 1000, 5000, and 15,000 Hz.  $5\frac{7}{8}''$  x  $16\frac{3}{8}''$  x  $12\frac{1}{2}''$  D... \$299.95

#### VN-900 Integrated Amplifier



50 W rms/ch into 8 ohms with both channels driven & at 0.05% THD. Power bandwidth 20-20,000 Hz. Input sensitivity: mag. phono 2.5 mV; aux. & tape 200 mV. (S + N)/N -86 dB (aux.). Has 7-section tone control centering on 40, 150, 400, 1000, 2400, 6000, and 15,000 Hz.  $5\frac{7}{8}''$  x  $16\frac{3}{8}''$  x  $12\frac{1}{2}''$  D... \$399.95

### KENWOOD

#### 700-M Power Amplifier

170 W rms/ch continuous power output with both channels driven into 8 ohms (20-20,000 Hz, THD 0.1%); power bandwidth 5-30,000 Hz; S/N 120 dB (IHF); input sensitivity/impedance 1 V/50,000 ohms; damping factor 40 at 8 ohms; impedance 4-16 ohms; response 20-20,000 Hz +0, -0.4 dB; subsonic filter 12 dB/octave at 18 Hz. Features direct-coupled amplifier with output stage powered by dual positive/negative supply; three Darlington amplifier stages/ch; relay-activated protection circuit; two VU meters with meter range buttons for 0 dB, -10 dB, -20 dB, plus "off;" separate left and right input-level controls; dual A-B input selector switch; 5-way speaker selector.  $17\frac{1}{16}''$  x  $7\frac{7}{8}''$  x  $14\frac{1}{16}''$  ..... \$749.95

#### 700-C Preamp/Control

Designed to be used with the 700-M power amplifier; provides control flexibility with precise, resettable volume and tone controls calibrated in 2-dB increments; selectable crossover frequencies of 200 & 400 Hz for bass, 3000 & 6000 Hz for treble, "off" position removes tone controls from circuit for flat response 20-20,000 Hz; two-step audio muting; two-step loudness control circuit; selectable low- and high-frequency filtering; selectable phono cartridge input impedance settings; "Tape-Through" circuit for playing any pro-

gram source without interrupting dubbing through unit's dual tape system; has full complement of inputs, outputs, controls, and switches. 17 1/4" x 5 3/4" W x 11 7/8" D... \$649.95

**KA-8006 Stereo Amplifier**

68 W rms/ch continuous power output with both channels driven into 8 ohms (20-20,000 Hz); 71 W rms/ch into 8 ohms at 1000 Hz; THD & IM dist. at rated power 0.2%; power bandwidth (IHF) 6-45,000 Hz; damping factor 30 at 8 ohms; direct-coupled complementary symmetry output circuitry with dual positive/negative power supply; "Tape-Through" circuit; step-type controls calibrated in 2-dB increments; two low- and one high-frequency filters; muting switch; 4-channel in/out terminals for addition of 4-ch decoder/amplifier. 17 1/8" W x 6 3/16" H x 12" D... \$439.95

**KA-6006 Stereo Amplifier**

48 W rms/ch continuous power output with both channels driven into 8 ohms (20-20,000 Hz); 53 W rms/ch into 8 ohms at 1000 Hz; THD & IM dist. 0.3% at rated power; power bandwidth (IHF) 6-40,000 Hz; damping factor 30 at 8 ohms; direct-coupled complementary symmetry output circuit with dual positive/negative power supply; "Tape-Through" circuit; step-type tone controls; muting switch; 4-channel in/out terminals for addition of 4-ch decoder/amplifier. 17 1/8" x 6 3/16" H x 12" D... \$359.95

**KA-4006 Stereo Amplifier**

34 W rms/ch continuous power output with both channels driven into 8 ohms (20-20,000 Hz); direct-coupled complementary symmetry output circuitry with dual positive/negative power supply; "Tape-Through" circuit; bass/treble/defeat switches; 4-channel in/out terminals for addition of 4-channel adapter or demodulator; high- and low filters; muting switch. THD & IM dist. 0.5%; power bandwidth (IHF) 8-45,000 Hz. 17 1/8" W x 6 3/16" H x 12" D... \$259.95

**LAFAYETTE**

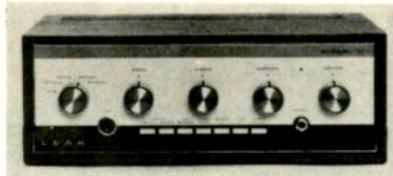
**LA-950A Integrated Stereo Amp**

16 1/2 W rms/ch into 8 ohms at 0.8% THD (20-20,000 Hz) with both channels driven; power bandwidth 15-30,000 Hz; channel separation 65 dB at 1000 Hz; input sensitivity: aux. 250 mV, mag. phono 3.5 mV, ceramic phono 120 mV, tuner & tape monitor 500 mV; hum & noise: aux. & tuner -75 dB, mag. phono -63 dB; features multiple-speaker switching and front-panel tape output jack. Walnut vinyl-clad metal cabinet. 3 3/4" H x 12" W x 9 1/8" D... \$119.50

**LEAK**

**Stereo 70 Integrated Amplifier**

Solid-state integrated stereo amplifier. 35 W/ch at 8 ohms. Response 20-30,000 Hz. HD 0.1% at



rated output; IM 0.3% at rated output. Hum & noise -66 dB (at aux. input). Sensitivity: mag. phono 2.0 or 10.0 mV; aux. 400 mV; tuner 25 or 60 mV. Has high-cut filter, ganged tone controls, multiple speaker switching, headphone output, and tape monitoring facilities. 4 1/4" H x 13" W x 8 3/4" D... \$299.00

**LECSON**

**AC-1 Preamp**

Response 30-20,000 Hz ±0.5 dB; tone controls

1975 EDITION

±14 dB at 100 & 10,000 Hz; crosstalk 60 dB; record/replay 60 dB; THD 0.05% at 1000 Hz; hum -70 dB (CCIR); high- and low-frequency filters; outputs for power amp & tape recorder; inputs phono #1, #2, Aux. #1, #2, tuner; 4-channel facility for matrix decoding or synthesizing; remote-control facility for remote input selection & volume control; tape monitor available on Aux. #2... \$375.00

**AP-1 Power Amplifier**

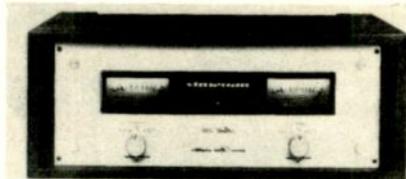
35 W rms/ch both channels driven into 8 ohms; THD 0.05% into 8 ohm load at all levels up to 35 W (200-20,000 Hz); 0.1% (20-20,000 Hz); noise -90 dB (CCIR), -80 dB (unweighted); hum -80 dB (CCIR); has two pairs of speaker outlets; response 10-20,000 Hz ±1 dB... \$295.00

AP-2. Same as AP-1 except 50 W rms/ch... \$395.00

**MARANTZ**

**250 Power Amplifier**

125 W/ch rms at 8 ohms. Power bandwidth 5-45,000 Hz; response 20-20,000 Hz ±1 dB. HD



0.1% at rated output; IM 0.03% at rated output. Hum & noise -106 dB. Sensitivity: 1.5 V for rated output. Has 8 ohm output & output metering. Damping factor 100. 6 1/8" H x 15 3/4" W x 9 1/2" D... \$499.95

**240 Power Amplifier**

125 W/ch continuous power into 8 ohms and at 0.1% THD with both channels driven (150 W/ch at 4 ohms, 64 W/ch at 16 ohms). Power bandwidth 5-45,000 Hz; response 2-100,000 Hz ±0.75 dB. (S+N)/N 106 dB. Input sensitivity 1.5 V. Has black anodized front panel. 15 3/8" x 6 1/8" x 9 1/2" D... \$429.95

**400 Power Amplifier**

200 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); IM & HD 0.1% at rated power 20-20,000 Hz both channels driven; response 20-20,000 Hz ±0.1 dB (high-level input); input sensitivity 2 V, impedance 25,000 ohms; features relay-operated time-delay circuit; peak overload indicators... \$599.95

400M. Same specifications as the Model 400 except includes two illuminated output-level meters which monitor actual output power to speakers and indicate left/right channel balance; gain controls for left/right channels... \$699.95

**500 Power Amplifier**

250 W/ch rms at 8 ohms. Power bandwidth 3-60,000 Hz; response 20-20,000 Hz ±0.1 dB. HD & IM 0.05% at rated output; hum & noise -110 dB. Input sensitivity 1.5 V for rated output. Damping factor 500. Has power monitoring meters, 8 ohm output. 7" H x 17 1/8" W x 16" D... \$1200.00

**3300 Preamp/Control Center**

Features monitor switch for two stereo tape recorders, main/remote speaker switch, mike



input. Response 6-80,000 Hz ±1 1/2 dB. THD 0.02%. Has high filter switchable at 5000 & 9000 Hz; low filter switchable at 50 & 100 Hz; front-panel tape dubbing jacks... \$449.95

**3600 Preamp/Control Center**

Features graphic tone controls for bass, treble & mid-range; low and high filters; precision-tracking volume control; tape monitor circuitry for two decks; two sets of preamp-out jacks; front-panel mike jacks; response 20-20,000 Hz ±0.25 dB; THD 0.02% at rated output; output level 3 V; impedance 150 ohms... \$499.95

3800. Same as Model 3600 except includes Dolby noise-reduction circuit; tape EQ switch;... \$649.95

**1030 Integrated Amplifier**

15 W/ch rms at 8 ohms. Power bandwidth 15-40,000 Hz; response 20-40,000 Hz ±2 dB. HD & IM 0.5% at rated output; hum & noise -64 dB at phono input. Sensitivity: mag. phono 1.8 mV; aux 180 mV. Has high-cut filter, loudness compensation switch, stepped tone controls, multiple speaker switching, headphone output, tape monitoring facilities, and mike input on front panel. Damping factor 50. 4 3/4" H x 14 1/2" W x 12" D... \$169.95

1040. Same as Model 1030 except 20 W/ch; IM & HD 0.3%... \$199.95

**1060 Integrated Amplifier**

30 W/ch rms at 8 ohms. Power bandwidth 15-40,000 Hz; response 15-40,000 Hz ±2 dB. HD & IM 0.5% at rated output; hum & noise -67 dB at phono input. Sensitivity: mag. phono 1.8 mV; aux. 180 mV; tuner 180 mV. Has high-cut & low-cut filters, loudness compensation switch, ganged tone controls, multiple speaker switching, headphone output, tape monitoring facilities, mike input on front panel, and a mid-range tone control. Damping factor 50. 4 3/4" H x 12" W x 14 1/2" D... \$229.95

1070. Same as Model 1060 except 35 W/ch; IM & HD 0.3%... \$269.95

**1120 Integrated Amplifier**

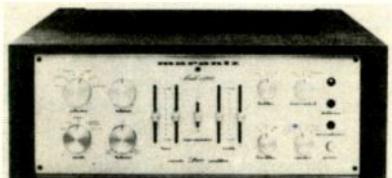
60 W/ch continuous power at 4 & 8 ohms and at 0.15% THD with both channels driven (30 W/ch



at 16 ohms). Power bandwidth 10-40,000 Hz. Input sensitivity: mag. phono & mike 1.38 mV; aux. 138 mV. Has main/remote speaker switch, slide-type tone controls, high & low filters, two tape monitor switches. 15 3/8" x 5 3/4" x 14" D. Gold anodized front panel... \$449.95

**1200B Integrated Amplifier**

100 W/ch rms at 8 ohms. Power bandwidth 10-40,000 Hz; response 20-20,000 Hz ±0.1 dB. HD



& IM 0.15% at rated output; hum & noise -100 dB. Sensitivity: mag. phono 1.3 mV; aux. 100 mV. Has high-cut & low-cut filters, loudness compensation switch, independent tone controls, multiple speaker switching, headphone output, tape monitoring facilities. Damping factor 100. 5" H x 15 3/8" W x 14" D... \$699.95

## NIKKO

## TRM-500 Integrated Stereo Amplifier

22 W/ch at 8 ohms with both channels driven (24 W/ch at 4 ohms). Response 20-30,000 Hz  $\pm 2$  dB (Aux. input); power bandwidth 20-20,000 Hz  $-1$  dB at 0.8% THD. IM & HD 0.8% at rated output. Features tape selector & monitor switch for operating two separate recorders for tape-to-tape duplication; two phono selector switches to control either of two magnetic phono players; 5-step bass & treble switches; input and output jacks on front panel; 4-channel input & output terminals with function switch for connecting 4-channel decoder, plus separate preamp output and main amp. input terminals to decouple them for multi-amp stereo system operation. (S+N)/N 60 dB (phono), 80 dB



(other). Universal power supply. 15" x 11 $\frac{1}{8}$ " D x 8 $\frac{3}{8}$ " H. Comes in walnut-finished wood cabinet ..... \$199.95

## TRM-210 Integrated Stereo Amplifier

12 W rms/ch with both channels driven into 8 ohms (1000 Hz); 10 W rms/ch (40-20,000 Hz);



response 20-30,000 Hz  $\pm 1$  dB; THD & IM dist. 1.0% at rated output; damping factor 25 into 8 ohms; input sensitivities: phono 1 mV/50,000 ohms; tuner, tape, Aux. 200 mV/100,000 ohms; has full complement of controls & switches. 12 $\frac{1}{2}$ " W x 9 $\frac{1}{2}$ " D x 4 $\frac{1}{2}$ " H ..... \$129.95

## ONKYO

## A-7055 Integrated Stereo Amp

26 W/ch continuous rms power into 8 ohms with both channels driven; 23 W/ch into 8 ohms with both channels driven 20-20,000 Hz. 0.5% distortion. THD 0.1% and IM 0.05%, both at rated output. Response 10-70,000 Hz +0,  $-1$  dB; power bandwidth 10-100,000 Hz (IHF  $-3$  dB, THD 0.2%). Preamp input sensitivity: Phono #1 & #2 1.2, 2.4, 4.8 mV at 50,000 ohms; tuner, aux., tape play 100 mV at 100,000 ohms. THD 0.03% and IM 0.05%, both at rated output. Controls: power; speakers (off, A, B, A+B); selector; tape monitor; volume/balance; treble; bass; frequency shift; low- & high-filter; loudness; mode; amp muting; 3-position phono gain; and preamp/amp separating switch. 16 $\frac{1}{8}$ " W x 5 $\frac{1}{8}$ " H x 14 $\frac{1}{8}$ " D. Walnut-finished wood case ..... \$239.95

## A-7022 Integrated Stereo Amp

Same features and specifications as the A-



7055 except 52 W/ch into 8 ohms with both channels driven at 1 kHz. 16 $\frac{1}{8}$ " W x 5 $\frac{3}{8}$ " H x 14 $\frac{3}{4}$ ". Walnut-finished wood cabinet ..... \$359.95

## PHASE LINEAR

## 400 Power Amplifier

200 W/ch (rms) continuous power into 8 ohms with both channels driven from 5 to 20,000 Hz. Power at clipping 250 W/ch into 8 ohms; 400 W/ch into 4 ohms; 125 W/ch into 16 ohms. Response 0-0.25 MHz at 1 W; HD 0.25%. Phase shift leading 0 degrees at 20 Hz, lagging 12



degrees at 20 kHz. Sensitivity 1.75 V. Light brushed gold, baked enamel, and black anodized panel. 19" x 7" x 10" D. .... \$499.00 Cabinet ..... \$37.00

## 700B Power Amplifier

350 W/ch rms continuous power into 8 ohms with both channels driven from 0 to 20,000 Hz.



Power at clipping 450 W/ch into 8 ohms; 730 W/ch into 4 ohms; 270 W/ch into 16 ohms. Response 0-0.25 MHz at 1 V with direct-coupled inputs. HD 0.25% (typically 0.01%). Phase shift leading 0 degrees at 20 Hz, lagging 10 degrees at 20 kHz. Sensitivity 1.14 V. Light brushed gold, baked enamel panel ..... \$799.00 Cabinet ..... \$37.00

## PHILIPS

## SC-102 Stereo Preamplifier

Response 5-20,000 Hz  $\pm 0.1$  dB; 2-120,000 Hz  $\pm 0.5$  dB; high-level input (47k load) 2 V rms



output; phono input  $\pm 1$  dB (RIAA); THD 0.05%, IM dist. 0.02% both from any input, 2 V rms output; hum & noise 100 dB below IHF "A" weighted; phono 80 dB below 10 mV input; input impedance: high-level 50,000 ohms; phono 47,000 ohms; features input selector (low-level phono, high-level tape, tuner, aux.); mode selector; tone controls; balance, volume, and loudness controls; tape monitor jack; subsonic filter; two a.c. outlets (one switched) . \$299.50

## PILOT

## 225 Integrated Stereo Amplifier

25 W rms/ch into 8 ohms with both channels driven; 0.5% THD (20-20,000 Hz); response 20-20,000 Hz  $\pm 1$  dB; IHF power bandwidth 10-

30,000 Hz; has a complementary symmetry, fused outputs, center-channel output; main amplifiers & preamps accessible by removing rear-panel jumpers; dual-concentric bass & treble controls; 5-position input selector (two phono, tuner, and two aux.); push-buttons for tape monitor, high filter, loudness, mono/stereo mode; separate main, remote, reverse speaker switches; tape in and out plus headphone jacks on front panel; master volume control; separate a.c. power button; rear panel switched and unswitched a.c. receptacles; back-lighted black-out panel. Walnut veneer wood enclosure ..... \$259.90

## PIONEER

## SA-5200 Integrated Stereo Amp

10 W/ch continuous power output at 8 ohms from 20-20,000 Hz with both channels driven; 15 W/ch at 4 ohms at 1000 Hz. IM & HD 0.8% continuous power output. Power bandwidth 10-40,000 Hz (IHF, with both channels driven) at 0.8% HD. Output: speaker A, B, A+B (4 to 16 ohms); headphone 4 to 16 ohms. Input sensitivity/imp.: phono 2.5 mV, 50,000 ohms; tuner, aux. #1 & #2, tape monitor, tape monitor (DIN) 150 mV, 100,000 ohms. Output level/imp.: tape rec. 150 mV, tape rec. (DIN) 30 mV, 80,000 ohms. Has individual bass & treble tone controls. Can handle two pairs of speaker systems, two auxiliary sound sources, a tuner, and a turntable. 16 $\frac{1}{8}$ " W x 5 $\frac{3}{8}$ " H x 12 $\frac{3}{8}$ " D. . . \$139.00

## SA-7100 Integrated Stereo Amp

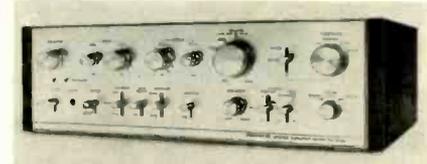
20 W/ch continuous power output at 8 ohms from 20-20,000 Hz with both channels driven (24 W/ch at 4 ohms). Power bandwidth 5-70,000 Hz (IHF, with both channels driven) at 0.5% HD. Response 7-80,000 Hz +0 dB,  $-1$  dB. IM & HD 0.5%. Output: speaker A, B, A+B (4 to 16 ohms); headphone 4 to 16 ohms. Input sensitivity/imp.: phono #1 & #2 2.5 mV, 50,000 ohms; mike 2.0 mV, 50,000 ohms; tuner, aux. #1 & #2 tape monitor #1 & #2, tape monitor (DIN) 150 mV, 100,000 ohms. Output imp.: tape rec. #1 & #2 150 mV; tape rec. #2 (DIN) 30 mV, 80,000 ohms; preamp out. 500 mV, 1500 ohms. Has bass & treble controls, loudness contour control. 16 $\frac{1}{8}$ " W x 5 $\frac{1}{8}$ " H x 13 $\frac{1}{8}$ " D. \$249.95

## SA-8100 Integrated Stereo Amp

40 W/ch continuous power output at 8 ohms with both channels driven (45 W/ch at 4 ohms). Power bandwidth 5-40,000 Hz (IHF, with both channels driven). HD & IM 0.3%. Response 7-80,000 Hz +0 dB,  $-1$  dB. Output: speaker A, B, A+B (4 to 16 ohms); headphone 4 to 16 ohms. Input sensitivity/imp.: phono #1 & #2 2.5 mV, 50,000 ohms; mike 2.0 mV, 50,000 ohms; tuner, aux. #1, tape monitor #1 & #2, tape monitor #2 (DIN) 150 mV, 100,000 ohms; aux. #2 150 mV to 15 V, 50,000 to 100,000 ohms. Has subsonic, low, and high filters; bass & treble tone controls; loudness contour control. 16 $\frac{1}{8}$ " W x 5 $\frac{1}{8}$ " H x 13 $\frac{1}{8}$ " D. .... \$349.95

## SA-9100 Integrated Stereo Amp

60 W/ch continuous power output at 8 ohms with both channels driven (75 W/ch at 4 ohms)



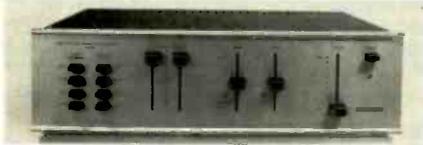
from 20-20,000 Hz. HD & IM 0.1% continuous power output. Power bandwidth 5-40,000 Hz at 0.1% HD. Response 7-80,000 Hz +0,  $-1$  dB. Output: speaker A, B, C, A+B, A+C (4 to 16 ohms); headphone 4 to 16 ohms. Input sensitivity/imp.: phono #1 2.5 mV, 50,000 ohms; phono #2 2.5-10 mV, 25,000-50,000-100,000 ohms; mike 2.0 mV, 50,000 ohms; tuner, aux. #1, tape monitor #1 & #2, DIN 150 mV, 100,000 ohms; aux. #2 150 mV-1.5 V, 50,000-100,000 ohms;

tape rec. #2 (DIN) 30 mV, 80,000 ohms; preamp out. 2 V, 8 ohms. Has subsonic, low, and high filters; bass & treble tone controls; loudness contour control. 16<sup>3</sup>/<sub>16</sub>" W x 5<sup>7</sup>/<sub>16</sub>" H x 13<sup>7</sup>/<sub>16</sub>" D ..... \$449.95

### RADFORD

#### HD250 Integrated Stereo Amp

60 W/ch stereo amplifier combined with the HD22 preamp; has two tape monitors, tape-to-



tape dubbing, tone-control defeat, graphic controls; preamp THD & IM dist. 0.001% up to 1 V output, less than 0.01% at 10 V output; 17 V max. output; amp THD 0.05%, IM dist. at rated output 0.01%; RIAA S/N 83 dB ref. 5 mV input, weighted -88 dB ref. 5 mV input; push-button input selection (phono, tuner, tape #1 & #2); function (tone cancel, mono, tape monitor #1 & #2); slide controls for channel gain, treble, bass & volume, 11" x 17" x 4<sup>3</sup>/<sub>4</sub>" ..... \$695.00

#### HD22 Preamplifier

Response 20-35,000 Hz ±1 dB; RIAA equalization within 0.2 dB 50-20,000 Hz; THD & IM dist. 0.001% below 1 V output (0.01% at 10 V output); 17 V max. output from 150-ohm source, magnetic input, tuner, and two tape inputs; tone-control defeat; S/N -83 dB on RIAA input (ref. 5 mV input), -85 dB on high-level input (ref. 100 mV signal input). 8" D x 17" W x 4<sup>3</sup>/<sub>4</sub>" H ..... \$395.00

### REVOX

#### A78 Integrated Amplifier

40 W/ch continuous sine wave into 8 ohms. Power bandwidth 10-40,000 Hz; response 20-



20,000 Hz ±1 dB. HD 0.1% at 1000 Hz; less than 0.3% from 40 to 15,000 Hz at rated output. Sensitivity: mike 3 mV; mag. phono 3 mV; ceramic phono 230 mV; tuner 100 mV; tape 250 mV. Has tape monitoring input with before/after switch and switched outputs for two pairs of speakers. 16<sup>3</sup>/<sub>8</sub>" W x 6<sup>1</sup>/<sub>4</sub>" H x 9<sup>5</sup>/<sub>8</sub>" D ..... \$499.00

#### A722 Stereo Power Amplifier

45 W/ch continuous sine wave into 8 ohms; power bandwidth 10-65,000 Hz at 8 ohms; re-



sponse 20-20,000 Hz +0 dB/0.5 dB; features remote "on/off" switching with opto coupler; limit switches for reducing output power to 20% or 50%; automatic output disconnect to avoid speaker burn-out; forced air cooling with built-in blower; output selector for two sets of stereo speakers; headphone output on front panel ..... \$525.00

1975 EDITION

### ROTEL

#### RA-1210 Integrated Stereo Amplifier

60 W/ch continuous rms power into 8 ohms with both channels driven and at 0.5% THD. HD 0.3% 20-20,000 Hz at 55 W/ch; IM 0.1% at 55 W/ch. Response 3-100,000 Hz +0, -3, dB; power bandwidth (IHF) 5-50,000 Hz at 8 ohms. Hum & noise: phono #1, phono #2 70 dB at 2 mV; tuner, aux. #1, aux. #2, tape in 80 dB. Has loudness switch; high filter; low filter; muting; bass & treble controls: front-panel headphone jack. Will handle two pairs of speaker systems; two tape recorders with monitoring & dubbing features; two record players. 16<sup>1</sup>/<sub>2</sub>" W x 12" D x 5<sup>1</sup>/<sub>2</sub>" H ..... \$399.95

#### RA-810 Integrated Stereo Amplifier

40 W/ch continuous rms power into 8 ohms with both channels driven and at 0.5% THD. HD

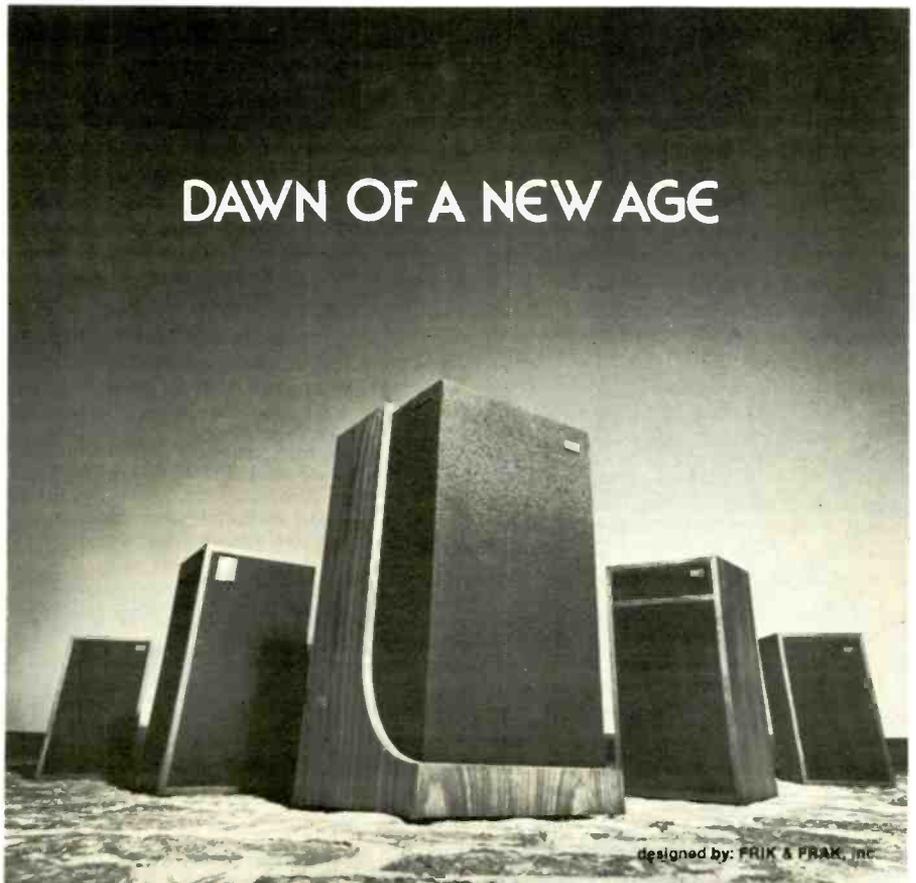
0.3% 20-20,000 Hz at 40 W/ch; IM 0.1% at 40 W/ch. Response 4-75,000 Hz +0, -3 dB; power bandwidth (IHF) 5-50,000 Hz at 8 ohms. Hum & noise: phono #1, phono #2 65 dB; tuner, aux. #1, aux. #2, tape input 75 dB. Has full complement of inputs/outputs and controls. 16<sup>1</sup>/<sub>2</sub>" x 12" x 5<sup>1</sup>/<sub>2</sub>" H ..... \$349.95

#### RA-611 Integrated Stereo Amplifier

30 W/ch continuous rms power into 8 ohms with both channels driven; HD 0.1% at 1 kHz and 15 W/ch; Response 15-90,000 Hz; power bandwidth 15-50,000 Hz. (S + N)/N 65 dB phono; 75 dB aux. Has full complement of controls and inputs. Wood cabinet ..... \$269.95

### SAE

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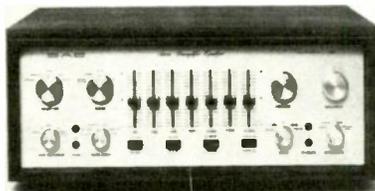
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**Amplifiers**

Features slide-type controls; 10 toroidal LC-type bandpass filters with 12 dB/octave slope. Equalizers have dual range  $\pm 16$  dB or  $\pm 8$  dB at 40, 120, 320, 960, 2500, 7500, and 15,000 Hz. Response high-level inputs 10-100,000 Hz  $\pm 0.25$  dB. HD 0.02% from 20-20,000 Hz & 2.5 V output. Max. output 18 V into high impedance. Overall size 17" x 7" x 5.75" H. . . . . \$450.00

**Mark IB Preamp-Equalizer**

Can serve as complete control center. Has a professional 7-band equalizer instead of conventional controls. Response (high-level inputs) 10-100,000 Hz  $\pm 0.25$  dB; (phono inputs) 20-20,000 Hz  $\pm 0.5$  dB. Equalizers have dual range of  $\pm 8$  dB or  $\pm 16$  dB with 12 dB/octave slope. Features include stepped volume control, EQ



Line/EQ Tape switch for equalized recordings; volume control range extender; tape copy control with provision for three tape recorders (six possible positions); two headphone output jacks; scope outputs for testing phase, stereo separation, or balance or level measurements; gain switch; four phono circuits for four separate phono preamps. 17" W x 10 1/2" D x 5 3/4" H . . . . . \$750.00

**Mark IM.** Same as Mark IB except has no tone controls but features two high-accuracy VU



meters instead which display the unit's output in volts. Has meter-range switch . . . . . \$600.00

**Mark IV D Stereo Power Amplifier**

100 W/ch into 8 ohms; 125 W/ch into 8 ohms max. rms power output before clipping. HD (rms) 0.1% (20-20,000 Hz) both channels driven to 100 W rms (per channel); IM 0.1% at 100 W/ch. Response 20-20,000 Hz  $\pm 0.1$  dB at 1 W; 20-20,000 Hz  $\pm 0.1$  dB at 100 W. Power bandwidth 8-50,000 Hz 3 dB down. (S + N)/N 100 dB below 100 W/ch. Input required: 1 V rms for 100 W, 100,000 ohms. 17" W x 5 3/4" H x 13 3/4" D. Walnut cabinet . . . . . \$500.00

**Mark IV DM.** Same except has two VU meters to monitor power output. 17" W x 5 3/4" H x 15" D. Does not include cabinet. . . . . \$600.00

**Mark XXX Stereo Preamp**

Response 10-100,000 Hz  $\pm 0.25$  dB (high-level inputs); 20-20,000 Hz  $\pm 1$  dB (phono inputs). HD (rms) 0.03% 20-20,000 Hz at 2.5 V; IM 0.03% at rated output. (S + N)/N 72 dB below 10 mV (phono); 90 dB below rated output (high-level). Gain: phono 57 dB at 1 kHz; high-level 15 dB. Maximum output 9 V into 100,000 ohms. 15" W x 4 3/4" H x 8" D. . . . . \$250.00

**Mark XXXIB Stereo Power Amplifier**

50 W/ch into 8 ohms; 70 W/ch max. rms power output before clipping. HD (rms) 50 W/ch into 8 ohms; 70 W/ch max. rms power output before



clipping. HD (rms) 0.1% 20-20,000 Hz both channels driven at 50 W. IM 0.1% at 50 W. Response 20-20,000 Hz  $\pm 0.1$  dB at 1 W; 20-20,000 Hz  $\pm 0.1$  dB at 50 W. (S + N)/N 100 dB below 50 W. 1 V rms input required for 50 W. 15" W x 4 3/4" H x 8" D. . . . . \$275.00

**Mark 111C Stereo Power Amplifier**

20 W rms/ch into 8 ohms with both channels driven (20-20,000 Hz); frequency response 20-20,000 Hz  $\pm 0.25$  dB into 8 ohms at full power, 1-100,000 Hz  $\pm 1$  dB at 1 W; THD 0.1% at full power (20-20,000 Hz), IM 0.05% at full power; features relay protection circuit for speakers; volt/amp limiter; complementary double differential inputs and full complementary series-connected output stages; feedback level controls. 17" x 5 3/4" x 13 1/2" . . . . . \$850.00

**Mark 111CM.** Same except with direct-reading power meters for watts, voltage, and dB. 17" x 5 3/4" x 14 1/2" . . . . . \$950.00

**SANSUI**

**AU101 Integrated Stereo Amplifier**

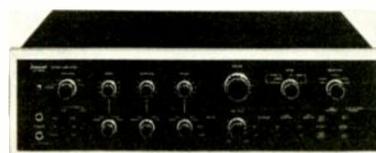
22 W/ch dynamic power at 8 ohms (25 W/ch at 4 ohms); 15 W/ch continuous power at 8 ohms (18 W/ch at 4 ohms) and at 0.8% THD. Power bandwidth 25-40,000 Hz; response 20-60,000 Hz  $\pm 2$  dB at 1 W. Input sensitivity: mag. phono 3 mV; mike 4 mV; aux., tape monitor & tape recorder 200 mV. Has universal power supply. 16" x 4 1/2" x 11" D. . . . . \$129.95

**AU505 Integrated Stereo Amplifier**

35 W/ch dynamic power at 8 ohms (45 W/ch at 4 ohms); 25 W/ch continuous power at 8 ohms (35 W/ch at 4 ohms). With both channels driven power is 23 W/ch rms at 8 ohms & 12 W/ch at 0.5% THD from 20-20,000 Hz. Power bandwidth 25-40,000 Hz at 8 ohms; response 20-60,000 Hz  $\pm 3$  dB at 1 W. Input sensitivity: mag. phono 3 mV; mike 4 mV; tuner, aux., tape monitor 200 mV. Has universal power supply. 16" x 4 1/2" x 11" D. . . . . \$189.95

**AU-9500 Integrated Stereo Amplifier**

110 W/ch (IHF) power at 8 ohms; 75 W/ch continuous power into 8 ohms. THD at rated power



0.1%; IM 0.1%. Power bandwidth (IHF) 5-40,000 Hz; response 15-40,000 Hz +0, -1 dB. Has two phono inputs, two tape monitors (direct dubbing), NR adapter, and 4-ch adapter inputs. Direct-coupled both channels driven. 19 1/2" x 5 7/8" H x 13 1/8" D. . . . . \$549.95

**AU-7500 Integrated Stereo Amplifier**

63 W/ch (IHF) power at 8 ohms; 43 W/ch continuous power into 8 ohms. THD at rated output 0.1%; IM 0.1%. Power bandwidth (IHF) 5-40,000 Hz; response 10-30,000 Hz at 1 W. Has two phono inputs, two tape monitors (direct dubbing), 4-ch adapter input; mike input. Direct-coupled both channels driven. 17 3/8" W x 5 7/8" H x 12 1/8" D. . . . . \$339.95

**AU-6500 Integrated Stereo Amplifier**

47 W/ch (IHF) power at 4 ohms; 32 W/ch continuous power into 8 ohms. THD at rated output 0.1%; IM 0.1%. Power bandwidth (IHF) 5-40,

000 Hz; response 10-30,000 Hz at 1 W. Has two phono inputs; tape monitor; 4-ch adapter input; tuner & aux. inputs. Direct-coupled both channels driven. 17 $\frac{1}{8}$ " W x 5 $\frac{1}{16}$ " H x 12 $\frac{1}{16}$ " D ..... \$259.95

**AU-7700 Integrated Amplifier**

54 W rms/ch into 8 ohms with both channels driven (20-20,000 Hz); THD & IM dist. 0.1% (at



any level below rated output); power bandwidth 5-40,000 Hz; response 10-50,000 Hz +0.5, -1.0 dB at 1 W; hum & noise (IHF) 85 dB; features dual high-voltage power sources; parallel push-pull power stage; triple tone control; active hi- and low filters; loudness control with two modes; tape mode switch; two-step audio muting switch; preamp and main amps may be separated for individual use. .... \$399.95

**AU-6600 Integrated Amplifier**

42 W rms/ch into 8 ohms with both channels driven (20-20,000 Hz); THD & IM dist. 0.15%; power bandwidth 5-35,000 Hz; frequency response 10-40,000 Hz; hum & noise: 70 dB (phono); 85 dB (Aux.); 100 dB (main) all below rated output; dual power supplies; three tone controls with selective turnover frequency; full complement of inputs, outputs, switches, and controls. .... \$349.95

**AU-5500 Integrated Amplifier**

32 W rms/ch into 8 ohms with both channels driven (20-20,000 Hz); THD & IM dist. 0.15%; power bandwidth 5-30,000 Hz; response 10-35,000 Hz +0.5, -1.0 dB at 1 W; hum & noise (IHF) 85 dB; triple tone controls; full complement of inputs, outputs, switches, and controls. .... \$299.95

**SCOTT, H.H.**

**235S Integrated Stereo Amplifier**

15 W/ch continuous sine-wave power into 8 ohms with both channels driven; response 20-20,000 Hz  $\pm$ 1 dB; HD 0.5% at rated output; has volume/loudness compensation switch; tape monitor switch; speaker #1 or #2; mono/stereo; front-panel headphone jack; phono inputs on rear panel for magnetic or ceramic cartridges. 13 $\frac{1}{2}$ " x 10" x 4 $\frac{1}{2}$ " ..... \$159.95

**255S Integrated Stereo Amplifier**

30 W/ch continuous power output into 8 ohms with both channels driven; frequency response



20-20,000 Hz  $\pm$ 1 dB; IM & HD 0.3% max. at nominal power; accepts 4, 8 & 16 ohms speakers; linear-motion tone controls with detent center position; high- and low filters; tone-control bypass; volume/loudness compensation switch; 20 dB muting; separable preamp/amp; has two magnetic phono inputs, tuner or two aux. inputs. 15 $\frac{3}{8}$ " x 9 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " ..... \$229.95

**SHERWOOD**

**S9400 Integrated Stereo Amplifier**

80 W/ch dynamic power at 8 ohms & 0.8% THD; 50 W/ch rms continuous power with both channels driven & at 8 ohms (40 W/ch from 20-20,

1975 EDITION



000 Hz; 60 W/ch into 4 ohms). Power bandwidth 5-45,000 Hz at 1% HD; response (aux.) 20-20,000 Hz  $\pm$ 1/2 dB. Input sensitivity: mag. phono #1 & #2 1.8 mV; aux. #1 & #2 200 mV; mic. 2.1 mV. Input impedance: mike 50,000 ohms. Has preamplified center-channel output; main/remote speaker capability; built-in Dynaquad circuit for synthesizing regular 2-channel stereo program material. Walnut cabinet. 5 $\frac{1}{2}$ " x 17 $\frac{1}{2}$ " x 14" D. .... \$259.95

**SONY**

**TA-1150 Integrated Amplifier**

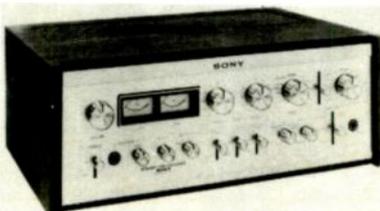
30 W/ch continuous rms power at 8 ohms from 20-20,000 Hz with both channels driven and 0.2% HD. HD 0.1% at 1 W. Has input/



output jacks for connecting a 4-channel matrix decoder. 15 $\frac{3}{4}$ " x 15 $\frac{1}{8}$ " x 12 $\frac{1}{2}$ " D. .... \$269.50

**TA-2000F Stereo Preamp**

Response 10-100,000 Hz -2 dB; HD 0.03%, IM 0.05%. Hum & noise -90 dB at phono input.



Sensitivity: mag. phono 1.2 mV; aux. 110 mV. Has high-cut & low-cut filters, ganged tone controls, headphone output, tape monitoring facilities, microphone input on front panel, and VU meters. 5 $\frac{1}{8}$ " H x 15 $\frac{3}{4}$ " W x 12 $\frac{3}{8}$ " D . . . \$579.50

**TA-1130 Integrated Amplifier**

50 W rms/ch into 8 ohms with both channels driven (20,20,000 Hz). Power bandwidth 7-30,000 Hz; response 10-200,000 Hz -2 dB. HD & IM 0.1% at rated output. Hum & noise -110 dB at phono input. Sensitivity: mag. phono 1.2 mV; aux., tuner & tape 130 mV. Has high-cut and low-cut filters, loudness compensation switch, ganged stepped tone controls, multiple speaker switching, headphone output, and tape monitoring facilities. Damping factor 100. 5 $\frac{7}{8}$ " H x 15 $\frac{3}{4}$ " W x 12 $\frac{3}{8}$ " D. .... \$429.50

**TA-3200F Stereo Power Amplifier**

100 W rms/ch into 8 ohms with both channels driven (20-20,000 Hz). Power bandwidth 5-



35,000 Hz; response 5-2000,000 Hz -2 dB. HD & IM 0.1% at rated output. Hum & noise

-110 dB at rated output. Has multiple speaker switching and level input adjustment. Damping factor 170. 5 $\frac{7}{8}$ " H x 15 $\frac{3}{4}$ " W x 12 $\frac{3}{8}$ " D ..... \$369.50

**TA-1055 Integrated Amplifier**

23 W/ch continuous rms power at 8 ohms; 20 W/ch 40-20,000 Hz at 8 ohms. Power bandwidth 8-40,000 Hz; response 10-60,000 Hz  $\pm$ 3 dB. HD & IM 0.5% at rated output. Damping factor 22 (1 kHz, 8 ohms). Features loudness, bass & treble tone controls; 6 dB/octave high filter above 5 kHz. 4 $\frac{3}{4}$ " H x 16 $\frac{1}{8}$ " W x 11 $\frac{1}{8}$ " D. .... \$199.50

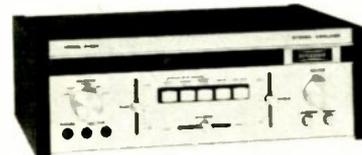
**SUPERSCOPE**

**A-235 Integrated Stereo Amplifier**

5 W/ch continuous power into 8 ohms and at 1% THD; IM 0.5% at 5 W. Response 30-40,000 Hz; power bandwidth 30-50,000 Hz at 8 ohms. Has push-button "on-off" switch with pilot light; stereo headphone jack; stereo balance control; bass & treble controls; input selector switch for tuner, phono, tape, or aux. positions. Output for one pair of stereo speakers. 14 $\frac{1}{8}$ " W x 4 $\frac{1}{2}$ " H x 7 $\frac{1}{2}$ " D ..... \$89.95

**A-260 Integrated Stereo Amplifier**

20 W/ch continuous power into 8 ohms at 0.5% THD. Features "Quadraphase" switch to simulate 4-ch sound from 2-ch stereo sources with



addition of pair of speakers. Response 20-25,000 Hz  $\pm$ 1 dB; power bandwidth 20-50,000 Hz. Has straight-line tone and balance controls; tape monitor switch; main/remote speaker switches; selector switch for tape, tuner, phono, mike, or aux. positions; mike inputs for home recording or p.a.; stereo headphone jack; and illuminated function indicators. 14 $\frac{1}{2}$ " x 5 $\frac{1}{8}$ " x 11 $\frac{1}{16}$ " D ..... \$189.95

**A-245 Integrated Stereo Amplifier**

10 W/ch continuous power into 8 ohms and at 1% THD; IM 0.8%. Response 10-36,000 Hz; power bandwidth 13-23,000 Hz at 8 ohms. Has tape monitor switch; input selector switch for tuner, phono, or aux. positions; main/remote speaker switch. Speaker outputs for main and remote speaker pairs. 14 $\frac{1}{8}$ " x 4 $\frac{1}{2}$ " x 7 $\frac{1}{2}$ " D ..... \$119.95

**TECHNICS BY PANASONIC**

**SU-9600 Stereo Control Center**

Features fixed and variable phono input sensitivity; switchable phono input imp.; separate L & R bass and treble controls in 2.5-dB steps; switch-selected bass & treble tone-control turnover frequencies (215/500 Hz and 2/8 kHz); tone-control defeat buttons; interdeck tape dubbing (2 decks); wide dynamic range in phono input with high overload tolerance (1350 mV max. input at 3 mV sensitivity); 18 dB/octave high & low filters with selectable cut-off frequencies (low: 15 or 30 Hz; high: 10 or 15 kHz); click-stop attenuator-type calibrated volume controls; 20 dB audio muting switch; ultra-stable power supply; frequency response (phono) RIAA curve  $\pm$ 0.3 dB, (Aux.) 2-100,000 Hz +0, -3 dB; THD & IM dist. 0.02%; S/N 69-76 dB (phono), 95 dB (Aux. & tuner); rack mountable. 6 $\frac{7}{16}$ " H x 17 $\frac{3}{4}$ " W x 13 $\frac{3}{4}$ " D. .... \$629.95

**SE-9600 Stereo Power Amplifier**

Ultra-stable, constant-current, constant-voltage power supply eliminates transient IM dist.;

## 1

## Amplifiers



variable output impedance; peak-level power output meters with range switching; outputs for two sets of speakers; independent R & L channel level adjust; thermosensitive color indicators on heatsink fins; negative feedback; full overload protection for amplifier & speakers; 110 W rms/ch at 8 ohms; THD 0.08% (5-60,000 Hz); IM 0.08%; power bandwidth 5-60,000 Hz; frequency response 5-150,000 Hz  $\pm 0$ ,  $-3$  dB; S/N 110 dB; damping factor 1 to 100 in four steps; input sensitivity/impedance 1V/40,000 ohms. Rack mountable.  $7\frac{7}{8}'' \times 17\frac{3}{4}'' \times 13\frac{3}{4}''$  D. .... \$799.95

## TOSHIBA

## SB-500 Integrated Stereo Amplifier

35 W/ch continuous power at 8 ohms with both channels driven and 0.2% THD; HD & IM 0.2% at rated output. Response 10-70,000 Hz  $\pm 1$  dB; power bandwidth 10-40,000 Hz (IHF, 0.2%). Imp. 4-16 ohms. Preamp input sensitivity; phono #1, mag. 2.5 mV, 47,000 ohms; condenser cartridge 30 mV, 70,000 ohms; phono #2 2.5 mV, 47,000 ohms; aux, tape, tuner 150 mV. response 20-30,000 Hz; THD 0.03% at rated rms output. Has bass, treble, and loudness controls; input for 4-channel adapter. Walnut cabinet.  $15\frac{3}{4}'' \times 5'' \times 2\frac{7}{8}''$  D. .... \$249.95

## YAMAHA

## CA1000 Integrated Stereo Amplifier

75 W/ch continuous rms power into 8 ohms at 0.1% THD. THD & IM at 1 W 0.08% and 0.05%,



respectively. Power bandwidth 5-50,000 Hz; (S+N)/N 70 dB (phono); phono sensitivity 0.1-3.0 mV. Has two tape, two phono, and two aux. tuner inputs; bass & treble controls; low and high filters. .... \$600.00  
CA800. Same as CA1000 except 50 W/ch and 3.0 mV phono sensitivity. .... \$470.00

## CA600 Integrated Stereo Amplifier

35 W/ch continuous rms power into 8 ohms at 0.1% THD. THD & IM at 1 W 0.08% and 0.05%, respectively. Power bandwidth 5-70,000 Hz; (S+N)/N 65 dB (phono); phono sensitivity 3.0 mV. .... \$330.00

## CA400 Integrated Stereo Amplifier

22 W rms/ch into 8 ohms with both channels driven at 1000 Hz; 20 W/ch at 20-20,000 Hz; HD & IM dist. 0.1% at rated power; power bandwidth 8-70,000 Hz; frequency response 20-50,000 Hz  $\pm 0.5$  dB,  $-1.0$  dB; has 4-stage direct-coupled phono amplifier; two phono inputs; bass & treble controls; loudness control; high & low filters; microphone input; tape monitor & dubbing facilities; two aux. inputs; four convenience a.c. outlets; separable preamp & power amp. .... \$270.00

## 1

## Tuners

## ALTEC

## 724A AM-FM Tuner/Preamp

Stereo design. FM sensitivity  $1.8 \mu\text{V}$  for 30 dB quieting. Response 20-15,000 Hz  $\pm 1$  dB. Stereo separation 40 dB at 1000 Hz. Capture ratio 1.3 dB, 0.3% HD. 5 V output. Has stereo indicator light, signal-strength meter, center-of-carrier meter, inter-station muting, crystal i.f. filters. Features a built-in stereo preamp with two phono inputs, tape and aux. inputs. Has tone controls.  $5'' \times 17\frac{3}{4}'' \times 16\frac{1}{2}''$  D ... \$499.00

## CAMBRIDGE AUDIO

## T75X FM Stereo Tuner

Uses MOS transistors with voltage controller varactor tuning; two ceramic filters in i.f. stages plus discrete and IC amplification. Stereo decoding by phase-locked loop IC; extra filters to remove residual pilot tone. Sensitivity  $1.8 \mu\text{V}$  for 30 dB quieting; alternate channel rejection 90 dB; capture ratio 0.5 dB; stereo separation 34 dB at 1 kHz. Available in black or silver cabinet.  $16\frac{1}{4}'' \times 2'' \times 9\frac{3}{8}''$  D ... \$380.00

## DYNACO

## FM-5 FM Stereo Tuner

Response 30-52,000 Hz  $\pm 1$  dB. 40 dB stereo separation at 1000 Hz. FM sensitivity  $1.75 \mu\text{V}$



at 30 dB quieting; 1.5 dB capture ratio. THD 0.5%. 65 dB S/N. Has 55 dB 38-kHz subcarrier and 19 kHz suppression and 80 dB SCA carrier suppression. 2 V output. Features stereo indicator light, signal-strength meter, interstation muting, ceramic i.f. filters, and automatic tuning for exact center-of-channel.  $4\frac{1}{2}'' \times 13\frac{1}{2}'' \times 9''$  D. .... Kit \$175.00  
Assembled ..... \$279.00

## AF-6 AM-FM Stereo Tuner



The FM section is similar to that used in the Model FM-5. .... Kit \$240.00  
Assembled ..... \$350.00

## HARMAN/KARDON

## Citation 14 FM Tuner

Stereo design with built-in Dolby noise-reduction circuit. Features inter-station muting, quieting-type tuning meter, and center-channel tuning meter. Has special 400-Hz tone generator to be used to set recording level when re-



cording off-the-air. Sensitivity  $2 \mu\text{V}$  for 30 dB quieting; (S+N)/N  $-70$  dB; image rejection  $-90$  dB. Dist. 0.2% in stereo. .... \$525.00  
Optional cabinet ..... \$35.00

cording off-the-air. Sensitivity  $2 \mu\text{V}$  for 30 dB quieting; (S+N)/N  $-70$  dB; image rejection  $-90$  dB. Dist. 0.2% in stereo. .... \$525.00  
Optional cabinet ..... \$35.00

## Citation 15 FM Tuner

Stereo design featuring inter-station muting, quieting-type tuning meter, center-channel tuning meter, and noise filter. Has a special 400-Hz tone generator to be used to set recording level when recording off-the-air. Sensitivity  $2 \mu\text{V}$  for 30 dB quieting; (S+N)/N  $-70$  dB, image rejection  $-90$  dB. Dist. 0.2% on stereo. .... \$395.00  
Optional cabinet ..... \$35.00

## HEATH

## AJ-1510 Digital FM Tuner

Stereo design featuring a varactor (voltage) tuned FM front-end without any moving parts



(not even a dial scale). Follows computer-type design with digital frequency readouts. Frequency of station can be punched into circuit or special punched cards can be used. Also features automatic frequency sweep. Our Hirsch-Houck Labs report FM sensitivity is  $1.6 \mu\text{V}$  for 30 dB quieting. Response 30-15,000 Hz  $\pm 1$  dB. Channel separation  $-40$  dB at mid-frequencies. Kit ..... \$539.95  
AJA-1510-1 Pecan wood cabinet ..... \$24.95

## AJ-15 FM Tuner

Stereo design featuring solid-state circuitry. Sensitivity  $1.8 \mu\text{V}$  (IHF). Response 20-15,000



Hz  $\pm 1$  dB. 40 dB stereo separation at 1000 Hz. Capture ratio 1.5 dB. 0.5% HD; 50 dB SCA suppression. 1.5 V output. Features stereo indicator light, signal-strength meter, center-of-carrier meter, inter-station muting, multi-path indicator. Has crystal i.f. filters.  $4\frac{3}{4}'' \times 16\frac{1}{8}'' \times 12\frac{1}{2}''$  D. .... Kit ..... \$229.95  
Walnut veneer cabinet ..... \$19.95

## AJ-14 FM Tuner

Stereo design featuring solid-state circuitry. Sensitivity  $5.0 \mu\text{V}$ . 30 dB stereo separation at 1000 Hz. Capture ratio 3 dB. HD less than 1.0%. Has stereo beacon, stereo phase control. Kit ..... \$54.95  
Walnut veneer cabinet ..... \$9.95

## AJ-29 AM-FM Tuner

Stereo design. Tuner matches the tuner section of the AR-29 receiver. Pre-assembled, factory aligned FM front-end provides  $1.8 \mu\text{V}$  sensitivity for 30 dB quieting. Computer-designed nine-pole LC filter in i.f. strip gives 70 dB selectivity. "Mute" function attenuates between-station noise on FM without affecting sensitivity. Kit ..... \$199.95  
AE-19 walnut veneer cabinet ..... \$19.95

## AJ-1214 AM-FM Stereo Tuner

Features single-knob flywheel tuning for AM and FM; push-button mode controls; stereo broadcast light; inputs for 75 or 300 ohm ex-

# CD-4

## The Originators of CD-4 present... JVC'S NEW 4-CHANNEL RECEIVERS

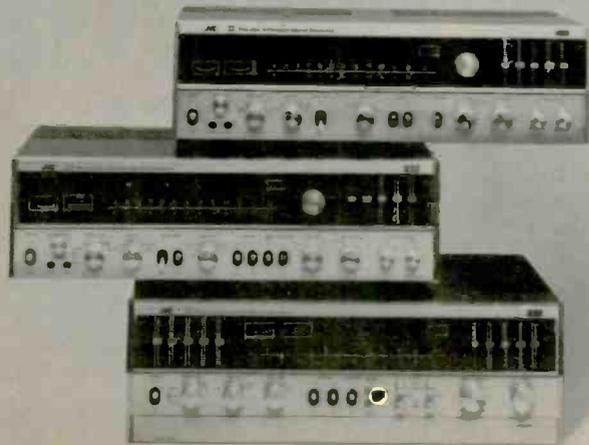


# be discrete

Going quad — you'll want to know everything there is to know about 4-channel and our discrete 4-channel system, CD-4. For the ultimate in quad, JVC introduces 3 receivers designed for all of today's 4-channel sources . . . plus advanced engineering features for future 4-channel innovations, like discrete 4-channel broadcasting.

The new JVC receivers — 4VR-5436, 46 and 56 feature a built-in discrete CD-4 demodulator plus matrix decoder circuits with an automatic switching computer (4VR-5446 & 56) so you can play a mixed stack of CD-4 and matrix discs without making any adjustments. Each CD-4 receiver is equipped with JVC's patented Sound Effect Amplifiers that break the sonic spectrum into 5 bands so you exercise tonal control and complete freedom over sound in all crucial frequency ranges to compensate for room acoustics and individual tastes. Then there's JVC's Balanced Transformer Less Circuitry that links up the amps so that all four are used when playing 2-channel stereo for double the rms output power.

These are only a few of the many JVC innovations that reflect the ultimate in 4-channel engineering and performance. Get all the facts today. Write for your copy of this brochure. Use the handy coupon or visit your local JVC Hi-Fi Dealer. For his name and address, call this toll free number: 800-243-6000. In Conn., call 1-(800)-882-6500.



# JVC CD-4

### Compatible Discrete 4-Channel Record System

JVC America, Inc., 50-35B 56th Road, Maspeth, New York 11378  
Please send me a FREE copy of the New JVC Brochure "The Originators of CD-4 present . . . JVC'S NEW 4-CHANNEL RECEIVERS".

Name \_\_\_\_\_ Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_ Dealer \_\_\_\_\_ Age \_\_\_\_\_

# JVC Hi-Fi

# 1

## Tuners



ternal FM antenna. Solid-state circuitry; pre-assembled and aligned FM tuning unit; FM sensitivity 2  $\mu$ V; selectivity 60 dB; 40 dB typical channel separation; distortion 0.5%. 3 $\frac{1}{8}$ " H  $\times$  12 $\frac{3}{4}$ " W  $\times$  13" D.  
Kit ..... \$99.95

### HITACHI

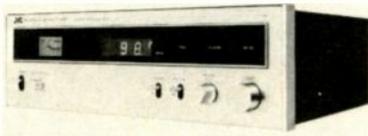
#### FT-600 AM-FM Tuner

Stereo design. Features FM sensitivity 1.8  $\mu$ V for 30 dB quieting. Stereo separation 40 dB at 1 kHz; (S + N)/N 70 dB at 1 mV input. Has muting switch, noise filter, and large signal meter.  
..... \$249.95

### JVC

#### VT-900 FM Stereo Tuner

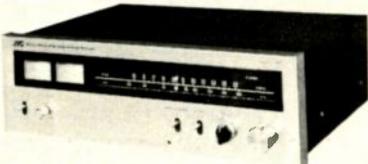
Features 1.7  $\mu$ V sensitivity for 30 dB quieting. THD 0.5% for stereo; (S + N)/N 65 dB. Capture



ratio 0.8 dB; image rejection -90 dB; AM suppression -55 dB. Output 0 to 1 V variable (0.4 V fixed). Features inter-station muting, 75 & 300 ohm antenna inputs, and digital frequency readout. 5 $\frac{1}{8}$ "  $\times$  16 $\frac{3}{8}$ "  $\times$  12 $\frac{1}{2}$ " D ..... \$399.95

#### VT-700 AM-FM Stereo Tuner

Basically the same design as the Model VT-900



except has conventional tuning dial instead of digital frequency readout. .... \$299.95

### KENWOOD

#### 700-T Frequency-Synthesizing Tuner

Companion tuner to the 700-M power amplifier and 700-C preamp/control unit. Combines standard crystal oscillator, plus variable-tuned oscillator, for digital tuning and crystal-controlled frequency synthesizing for tuning accuracy better than 0.0024%; positive illuminated red and green LED's signal precision tuning; multi-element ceramic filters; pulse-noise blanking system; double-switching demodulator plus phase-lock-loop circuit in MPX stage; signal-strength meter doubles as multipath detection meter. FM usable sensitivity (IHF) 2.0  $\mu$ V; quieting slope 4.0  $\mu$ V, S/N 50 dB; response 20-15,000 Hz  $\pm$ 10 dB, 50-10,000 Hz  $\pm$ 0.5 dB; HD 0.3% stereo at 400 Hz, 100% modulation; S/N 70 dB at 1 mV input; image rejection 100 dB; selectivity (IHF alternate channel)

100 dB; capture ratio 0.8 dB; stereo separation 45 dB at 1000 Hz, 40 dB at 100 Hz, 40 dB at 10,000 Hz. 17 $\frac{1}{4}$ " W  $\times$  5 $\frac{3}{4}$ " H  $\times$  11 $\frac{1}{8}$ " D \$749.95

#### KT-6007 AM-FM Stereo Tuner

FM sensitivity (IHF) 1.7  $\mu$ V; quieting slope 55 dB at 3  $\mu$ V; S/N 70 dB; capture ratio 1.3 dB; alternate channel selectivity (IHF) 70 dB; response 20-15,000 Hz  $\pm$ 0.5, -2 dB; stereo separation 45 dB at 1000 Hz, 38 dB at 10,000 Hz; HD 0.2% at 400 Hz, 100% modulation; image rejection 85 dB; spurious rejection 100 dB; 17 $\frac{1}{8}$ " W  $\times$  6 $\frac{3}{16}$ " H  $\times$  11 $\frac{3}{16}$ " D ..... \$319.95

#### KT-8007 AM-FM Stereo Tuner

FM sensitivity (IHF) 1.5  $\mu$ V; quieting slope 55 dB at 3  $\mu$ V; S/N 75 dB; capture ratio 1.0 dB; alternate channel selectivity (IHF) 100 dB; response 20-15,000 Hz; stereo separation 50 dB at 1000 Hz, 42 dB at 10,000 Hz; HD 0.2% at 400 Hz, 100% modulation; image rejection 100 dB; spurious rejection 110 dB. 17 $\frac{1}{8}$ " W  $\times$  6 $\frac{3}{16}$ " H  $\times$  11 $\frac{3}{16}$ " D ..... \$419.95

#### KT-4007 AM-FM Stereo Tuner

FM sensitivity (IHF) 2.0  $\mu$ V; quieting slope 48 dB at 3  $\mu$ V; S/N 65 dB; alternate channel selectivity (IHF) 60 dB; response 20-15,000 Hz  $\pm$ 0.5, -2 dB; stereo separation 40 dB at 1000 Hz, 30 dB at 10,000 Hz; HD 0.4% at 400 Hz, 100% modulation; image rejection 50 dB; spurious rejection 90 dB; has FM det. output for 4-channel MPX decoder. 17 $\frac{1}{8}$ " W  $\times$  6 $\frac{3}{16}$ " H  $\times$  11 $\frac{3}{16}$ " D ..... \$229.95

### LAFAYETTE

#### LT-725B AM-FM Stereo Tuner

AM-FM stereo design. FM usable sensitivity 1.7  $\mu$ V for 30 dB quieting. Response 50-15,000 Hz.



40 dB stereo separation at 400 Hz. Capture ratio 1.5 dB; (S + N)/N 75 dB. HD 0.25%. Has stereo indicator light, signal-strength meter, center-of-carrier meter, and inter-station muting. Gold panel. 3 $\frac{3}{4}$ " H  $\times$  12" W  $\times$  9 $\frac{1}{8}$ " D.. \$159.95

#### LT-D10 AM-FM Stereo Tuner

FM sensitivity (IHF) 1.65  $\mu$ V; 1.5 dB capture ratio; selectivity 60 dB; (S + N)/N 70 dB. Has Dolby-B noise-reduction circuitry; front and rear panel tape output jacks; function mode indicator lights for Dolby, FM, stereo, MPX fil-

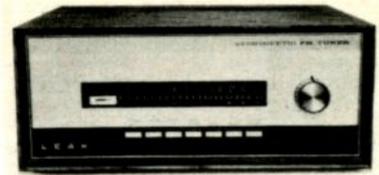


ter, and FM mute. Features FM detector output for the addition of discrete 4-ch adapter at later date. Walnut finished cabinet with blackout dial. 15 $\frac{3}{8}$ "  $\times$  11 $\frac{1}{8}$ "  $\times$  4 $\frac{1}{2}$ " (less knobs) ..... \$269.95

### LEAK

#### Stereofetic FM Stereo Tuner

Solid-state FM stereo unit. Sensitivity 2.0  $\mu$ V for 30 dB quieting. Response 40-15,000 Hz  $\pm$ 1 dB; 30 dB stereo separation at 1000 Hz. 3.5 dB capture ratio. Distortion less than 0.25%. 60 dB S/N ratio; output 0.9 V. Features stereo beacon,

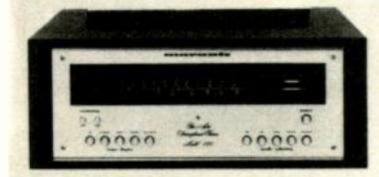


signal-strength meter, and inter-station muting. 4 $\frac{1}{4}$ " H  $\times$  11 $\frac{1}{2}$ " W  $\times$  7 $\frac{3}{4}$ " D ..... \$225.00

### MARANTZ

#### 120B AM-FM Stereo Tuner

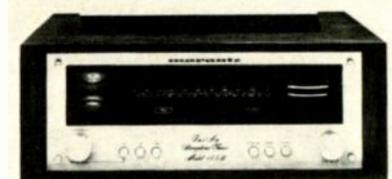
FM usable sensitivity 1.4  $\mu$ V (IHF). 42 dB stereo separation at 1000 Hz; 1.5 dB capture ratio. HD



0.25% stereo; S/N 60 dB. Features stereo beacon, signal-strength meter, center-of-carrier meter, inter-station muting, and 3" scope with 4-ch display. 5 $\frac{3}{4}$ " H  $\times$  15 $\frac{5}{8}$ " W  $\times$  12" D. .... \$549.95

#### 115B AM-FM Stereo Tuner

FM usable sensitivity 1.9  $\mu$ V; THD 0.4% stereo; capture ratio 1.5 dB; stereo separation 42 dB at



1 kHz; AM suppression 50 dB. Features a phase-lock loop multiplex decoder for maximum separation and minimum distortion on FM stereo broadcasts; "four-channel-ready" output jack for connecting outboard broadcast decoder. Has two illuminated tuning meters and "Gyro-Touch" tuning wheel. .... \$299.95

#### 105B AM-FM Stereo Tuner

Similar in appearance to Model 115B. FM sensitivity 3.5  $\mu$ V for 30 dB quieting. Capture ratio 3.0 dB. image rejection -50 dB. Has 300 & 75 ohm antenna inputs; signal-strength tuning meter. 14 $\frac{1}{4}$ "  $\times$  4 $\frac{3}{4}$ "  $\times$  12" D ..... \$169.95

### NIKKO

#### FAM-500 AM-FM Stereo Tuner

FM sensitivity (IHF) 2.0  $\mu$ V; image rejection 80 dB; (S + N)/N 60 dB; capture ratio 2 dB; distortion 0.5% at 1000 Hz; stereo separation 38 dB at 1000 Hz. Features FM muting, signal-strength and center-tuning meters, terminals for 4-channel adapter, tape output jack, and overload protection circuits. 15" W  $\times$  12 $\frac{1}{8}$ " D  $\times$  8 $\frac{1}{8}$ " H. Has blackout linear-scale dial and needle illumination. .... \$169.95

#### FAM-220 AM-FM Stereo Tuner

FM sensitivity (IHF) 2.3  $\mu$ V; muting sensitivity 20  $\mu$ V; selectivity 40 dB  $\pm$ 400 kHz; image rejection 50 dB; i.f. rejection 80 dB; S/N 60 dB; capture ratio 3 dB; dist. 0.5% at 1000 Hz;



stereo separation 38 dB at 1000 Hz; FET r.f. stage; biresonator ceramic filters in i.f. stage; IC multiplex demodulator; push-button controls; center-tune meter; 12<sup>3</sup>/<sub>8</sub>" W × 10<sup>1</sup>/<sub>8</sub>" D × 4<sup>1</sup>/<sub>2</sub>" H..... \$129.95

**ONKYO**

**T-4055 AM-FM Stereo Tuner**

FM sensitivity 1.7 μV; response 20-15,000 Hz; stereo separation 40 dB at 400 Hz. Has a 4-channel terminal on rear panel for reception of discrete 4-ch broadcasts, illuminated signal-strength and center-tuning meters, lighted dial and pointer on the linear FM scale. Image rejection 90 dB; i.f. rejection 95 dB; alternate channel attenuation 80 dB; capture ratio 1.2 dB; HD 0.5% stereo. Outputs include two oscilloscope jacks for FM antenna multipath orientation. Front-panel controls include mode selection, tuning, on-off, FM muting, noise filter, level balance, and audible switch for FM antenna orientation. Walnut finished wood cabinet. 16<sup>3</sup>/<sub>8</sub>" W × 14" D × 5<sup>1</sup>/<sub>8</sub>" H..... \$219.95



tion 90 dB; i.f. rejection 95 dB; alternate channel attenuation 80 dB; capture ratio 1.2 dB; HD 0.5% stereo. Outputs include two oscilloscope jacks for FM antenna multipath orientation. Front-panel controls include mode selection, tuning, on-off, FM muting, noise filter, level balance, and audible switch for FM antenna orientation. Walnut finished wood cabinet. 16<sup>3</sup>/<sub>8</sub>" W × 14" D × 5<sup>1</sup>/<sub>8</sub>" H..... \$219.95

**PILOT**

**211 AM-FM Stereo Tuner**

FM sensitivity 1.8 μV for 30 dB (S + N)/N; selectivity 65 dB. Response 20-15,000 Hz ±1 dB. Dist. 0.5%; (S + N)/N -50 dB; capture ratio 1.5 dB. Image rejection -80 dB. Features FM inter-station muting and a center-channel tuning meter. Walnut veneer wood cabinet. 15" × 5<sup>1</sup>/<sub>8</sub>" × 11<sup>1</sup>/<sub>2</sub>" D..... \$199.90

**PIONEER**

**TX-6200 AM-FM Stereo Tuner**

FM sensitivity (IHF) 1.9 μV; capture ratio (IHF) 1.5 dB; selectivity (IHF) 60 dB. (S + N)/N 70 dB. Image rejection at 98 MHz 60 dB; spurious rejection 75 dB. Response 20-15,000 Hz +0.2 dB, -2.0 dB. Stereo separation 40 dB at 1000 Hz. Antenna input 300 ohms balanced, 75 ohms unbalanced. Features junction-type FET front end, IC 5-stage limiter, two phase-linear ceramic filters, high-performance IC in multiplex circuit plus low-pass filter for suppressing carrier leakage. Has large center-tuning meter, linear dial scale, plus fixed and variable output level controls. 16<sup>3</sup>/<sub>8</sub>" W × 5<sup>1</sup>/<sub>16</sub>" H × 13<sup>3</sup>/<sub>8</sub>" D..... \$139.95

**TX-7100 AM-FM Stereo Tuner**

Features dual-gate MOSFET in front-end and 5-stage limiter. FM usable (IHF) sensitivity 1.9 μV; capture ratio 1 dB; selectivity 60 dB. (S + N)/N 70 dB. Image rejection 80 dB at 98 MHz; spurious & i.f. rejection 100 dB. Response 20-15,000 Hz +0.2 dB, -2.0 dB. Stereo separation 40 dB at 1000 Hz. Antenna input 300 ohms balanced, 75 ohms unbalanced. Has switchable muting and MPX noise filter. 16<sup>7</sup>/<sub>8</sub>" W × 5<sup>1</sup>/<sub>16</sub>" H × 13<sup>3</sup>/<sub>8</sub>" D..... \$199.95

**TX-8100 AM-FM Stereo Tuner**

Features a new i.f. IC and phase-linear ceramic filters. Usable FM sensitivity (IHF) 1.8 μV; capture ratio 1 dB; selectivity 80 dB. (S + N)/N 70 dB. Image rejection at 98 MHz 85 dB; spurious & i.f. rejection 100 dB. Response 20-15,000 Hz +0.2 dB, -2.0 dB. Stereo separation 40 dB at 1000 Hz. Antenna input 300 ohms balanced, 75

# Meet the family



Revox A77 from \$959  
 Revox A722 \$525  
 Revox A700 \$1800  
 Revox A720 \$1395  
 Beyer M500 \$140  
 Beyer M260 \$110  
 Beyer DT302 \$29.95  
 Lamb mixer \$675

Our companies have been in the microphone and tape recorder business now for over forty years.

In that time we have built up quite a family... professional mixers, tape recorders, microphones, headphones—the lot.

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 Beyer  Headphones  
 Lamb  Mixer

Name \_\_\_\_\_  
 Address \_\_\_\_\_

\*As and when available from our dealers.

# 1 Tuners



ohms unbalanced. Has switchable muting and MPX noise filter. 16<sup>7</sup>/<sub>8</sub>" W x 5<sup>3</sup>/<sub>8</sub>" H x 13<sup>3</sup>/<sub>8</sub>" D. . . . . \$249.95

## TX-9100 AM-FM Stereo Tuner

Features three MOSFET's, 5-gang variable capacitor, 6-stage limiter, and P.L.L. multiplex circuit. Usable (IHF) FM sensitivity 1.5  $\mu$ V, cap-



ture ratio 1 dB; selectivity 90 dB. (S + N)/N 75 dB. Image, i.f., and spurious rejection 110 dB. Response 20-15,000 Hz +0.2 dB, -2.0 dB. Stereo separation 40 dB at 1000 Hz. Antenna input 300 ohms balanced, 75 ohms unbalanced. Has 2-step level switch, "on-off" MPX noise filter. Overall size 16<sup>7</sup>/<sub>8</sub>" W x 5<sup>1</sup>/<sub>2</sub>" x 13<sup>3</sup>/<sub>8</sub>" D . . . . . \$349.95

## RADIO SHACK

### TM-1000 AM-FM Stereo Tuner

Features dual-gate FET front end; three ceramic filters; four low-noise IC's; "Auto-Magic" tuning system fine-tunes station electronically; FM sensitivity 2  $\mu$ V; selectivity 65 dB; capture ratio 2 dB; image rejection 50 dB; stereo separation 35 dB at 1000 Hz; S/N 65 dB; has black-out dial, lighted AM-FM meter. Wanut veneer wood case. 4<sup>3</sup>/<sub>8</sub>" x 15<sup>1</sup>/<sub>2</sub>" x 11<sup>1</sup>/<sub>2</sub>" . . . . . \$159.95

## REVOX

### A76 FM Stereo Tuner

Sensitivity 1  $\mu$ V for 30 dB quieting. Response 30-15,000 Hz -1 dB; capture ratio 1 dB. Distor-



tion 0.2%; (S + N)/N 70 dB; pilot suppression 40 dB. Output 1 V. Has signal-strength meter, center-tuning indicator, multi-path indicator, inter-station muting, and preset output level controls. 16<sup>3</sup>/<sub>8</sub>" W x 6<sup>1</sup>/<sub>4</sub>" H x 9<sup>3</sup>/<sub>8</sub>" D . . . . . \$649.00

### A720 Digital FM Tuner/Preamp

Features step-type channel tuning and pre-set push-button tuning; volume & balance controlled by sliding-type faders; stepped independent tone controls for bass, presence, treble; two headphone outputs on front panel; inter-connect facilities for two tape recorders; additional tape output on front panel; two stereo phono & one stereo aux. input; high & low pass



filters effective on all inputs; two switchable stereo outputs; FM capture ratio 1 dB at  $\pm$ 40 kHz deviation; response 30-15,000 Hz  $\pm$ 1 dB; distortion 0.2% at 1000 Hz &  $\pm$ 40 kHz deviation; quartz-stabilized frequency synthesizer; five-digit frequency display; signal-strength & center-channel tuning meters; remote-control facility. . . . . \$1395.00

## ROTEL

### RT-1220 AM-FM Stereo Tuner

FM sensitivity (IHF) 1.5  $\mu$ V; HD 0.5% (S + N)/N 70 dB; capture ratio 1.0 dB; selectivity 90 dB; stereo separation 40 dB at 1 kHz. Has MOSFET front-end; ceramic i.f. filters; illuminated linear dial scale; illuminated signal-strength and center-tuning meters; rotary FM muting control with three settings; 300-ohm balanced and 75-ohm unbalanced antenna connections 16<sup>1</sup>/<sub>2</sub>" W x 12" D x 5<sup>1</sup>/<sub>2</sub>" H . . . . . \$349.95

RT-622. Similar to RT-1220 except 1.7  $\mu$ V FM sensitivity; (S + N)/N 65 dB; selectivity 60 dB . . . . . \$269.95

## SAE

### Mark VIB FM Digital Tuner

Features digital readout (four Nixie tubes) frequency display; display of tuning & audio sig-



nals on a 3" rectangular scope. Has "Stereo Only" position which mutes all except stereo transmissions. Sensitivity 1.6  $\mu$ V for 30 dB quieting. Capture ratio 1.9 dB. Response 20-15,000 Hz  $\pm$ 0.5 dB. A 14-pole Butterworth-type toroid phase-linear i.f. filter provides 75 dB selectivity. 17" W x 10<sup>1</sup>/<sub>2</sub>" x 5<sup>3</sup>/<sub>4</sub>" . . . . . \$1050.00  
Optional walnut cabinet . . . . . \$39.00

## SANSUI

### TU-9500 AM-FM Stereo Tuner

FM sensitivity 1.7  $\mu$ V (IHF); THD 0.2% mono, 0.3% stereo. (S + N)/N 75 dB; capture ratio 1.5 dB (IHF); selectivity 80 dB. Stereo separation 40 dB at 400 Hz; 3 dB at 10,000 Hz. Has center-channel and signal-strength meters and stereo indicator. 19<sup>1</sup>/<sub>16</sub>" W x 5<sup>9</sup>/<sub>16</sub>" H x 13<sup>1</sup>/<sub>16</sub>" D . . . . . \$349.95

### TU-7500 AM-FM Stereo Tuner

FM sensitivity 1.9  $\mu$ V (IHF); THD 0.3% mono, 0.5% stereo. (S + N)/N 70 dB; capture ratio 2



dB (IHF); selectivity 70 dB. Stereo separation 40 dB at 400 Hz. Has signal-strength and center-channel meters and stereo indicator. 17<sup>3</sup>/<sub>8</sub>" W x 5<sup>1</sup>/<sub>16</sub>" H x 12<sup>1</sup>/<sub>16</sub>" D . . . . . \$259.95

### TU-505 AM-FM Stereo Tuner

FM sensitivity 2.5  $\mu$ V (IHF); THD 0.6% mono, 0.8% stereo. (S + N)/N 65 dB; capture ratio 35 dB at 400 Hz. 16<sup>1</sup>/<sub>16</sub>" W x 4<sup>1</sup>/<sub>4</sub>" H x 11" D. . . . . \$179.95

### TU-7700 AM-FM Stereo Tuner

FM sensitivity 1.8  $\mu$ V (IHF); HD 0.3% stereo; S/N 75 dB; selectivity 80 dB; capture ratio 1.5



dB; stereo separation 40 dB at 1000 Hz; frequency response 20-15,000 Hz; linear signal-strength meter; multi-path meter; features output level control; FM muting; multiplex noise canceller; FM antenna attenuation switch; discriminator output for 4-ch ready; three outputs. . . . . \$329.95

### TU-5500 AM-FM Stereo Tuner

Designed to be used with the company's AU-7700, AU-6600, or AU-5500 integrated amplifiers; FM sensitivity 1.9  $\mu$ V; HD 0.5% stereo; S/N 70 dB; selectivity 60 dB; capture ratio 2 dB; stereo separation 40 dB at 1000 Hz; frequency response 20-15,000 Hz; has full complement of controls and outputs. . . . . \$279.95

## SCOTT, H. H

### T33S Digital FM Stereo Tuner

Sensitivity 1.8  $\mu$ V for 30 dB quieting. Response 20-15,000 Hz. Stereo separation 40 dB; capture ratio 1.2 dB. HD 0.25%; (S + N)/N 70 dB; pilot suppression 70 dB. 2.5 V output. Has stereo beacon, signal-strength meter, inter-station muting, multipath indicator, punched-card station selection, card-programmed digital frequency synthesizer, automatic scanning, and digital frequency readout. 6" H x 17<sup>3</sup>/<sub>8</sub>" W x 13" D . . . . . \$999.50

## SEQUERRA

### Model 1 FM-Stereo Tuner

FM sensitivity (IHF) 2  $\mu$ V; stereo quieting 40 dB for 5  $\mu$ V; HD (stereo) 0.1% at 100% modulation; selectivity first alternate channel 130 dB;



adjacent channel 20 dB; image rejection 100 dB; spurious response 100 dB. Stereo separation 54 dB at 1 kHz, 34 dB at 15,000 Hz left or right channel. SCA rejection 70 dB. Response  $\pm$ 0.4 dB referenced to 75  $\mu$ s de-emphasis. Has twelve push-button controls and one tuning knob. Has Dolby-B noise-reduction circuit. 16<sup>3</sup>/<sub>4</sub>" x 5<sup>3</sup>/<sub>4</sub>" x 14<sup>1</sup>/<sub>2</sub>" front panel . . . \$2000.00  
Rosewood cabinet . . . . . \$100.00  
Clear or black anodized panel . . . . . \$25.00  
19-inch rack panel and frame . . . . . \$150.00  
Panoramic adapter . . . . . \$500.00  
Remote push-button tuning assembly. \$150.00

## SHERWOOD

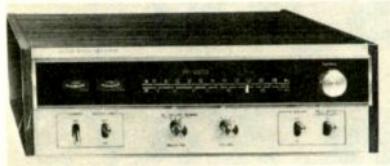
### SEL-300 AM-FM Stereo Tuner



FM sensitivity 1.5  $\mu$ V for 30 dB quieting. Has stereo indicator light, signal-strength meter, center-of-carrier meter, inter-station muting, multi-path indicator output, 12-pole toroidal i.f. filters, and 7-segment digital station frequency readout ..... \$499.00

**S-2400 AM-FM Stereo Tuner**

FM sensitivity 1.8  $\mu$ V for 30 dB quieting; 1.5 dB capture ratio. Has signal-strength meter, cen-



ter-tune meter, FM muting, scope outputs, variable output, and ceramic filter. Walnut case. 7 1/2" W x 5 1/2" H x 14" D ..... \$229.95

**SONY**

**STC-7000 AM-FM Tuner/Preamp**

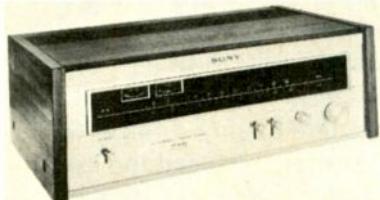
Stereo design. FM sensitivity 1.7  $\mu$ V for 30 dB quieting. Selectivity 100 dB; (S + N)/N -70 dB.



HD 0.5% in stereo & at 400 Hz, 100% modulation. Capture ratio 1 dB. Preamp response 10-100,000 Hz  $\pm$ 2 dB. HD 0.1% at rated output. Has solid-state i.f. filters, center-of-channel tuning meter, output jacks for oscilloscopes, 75-ohm antenna input, monitor circuits for two tape recorders. 18 1/4" x 5 5/8" x 13 3/8" D. \$589.50

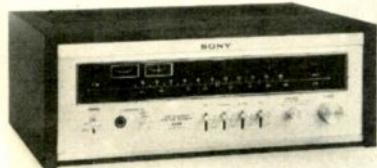
**ST-5150 AM-FM Tuner**

Features 2  $\mu$ V FM sensitivity for 30 dB quieting, solid-state i.f. filters. (S + N)/N -70 dB; selec-



tivity -70 dB. HD 0.5% on stereo. Has multi-path scope outputs, inter-station muting, and two meters. 15 3/4" x 5 7/8" x 13 3/8" D... \$269.50

**ST-5130 AM-FM Stereo Tuner**



FM sensitivity 1.5  $\mu$ V (IHF); image & spurious rejection 100 dB; capture ratio 1 dB; selectivity 100 dB. (S + N)/N 75 dB. HD 0.3% stereo. Features a special pulse-sensing discriminator (INS circuit) which applies short-term muting to man-made noise pulses. Has linear dial scale, two tuning meters, terminals for oscilloscope. 5 7/8" H x 15 3/4" W x 13 1/2" D..... \$349.50

**ST-5055 AM-FM Stereo Tuner**

FM sensitivity 2.2  $\mu$ V (IHF); image rejection 45 dB; spurious rejection 75 dB; capture ratio 1 dB; selectivity 70 dB. (S + N)/N 68 dB. HD 0.6%

stereo. Features black-out linear dial scale with illuminated pointer; muting circuit; tuning meter. 4 3/4" H x 16 1/4" W x 11 1/4" D.... \$199.50

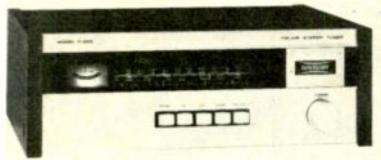
**SUPERSCOPE**

**T-210 AM-FM Stereo Tuner**

FM usable sensitivity 5  $\mu$ V (IHF); (S + N)/N 60 dB; HD 1% at 1 kHz; image rejection 40 dB; capture ratio 6 dB. Features signal-strength tuning meter; push-button on/off switch which does not affect other pre-set controls; mode switch; flywheel tuning. 14 3/8" W x 4 1/2" H x 7 7/8" D ..... \$119.95

**T-220 AM-FM Stereo Tuner**

FM usable sensitivity 2.8  $\mu$ V (IHF); stereo separation 35 dB at 1 kHz; capture ratio 3.0 dB;



THD 1% stereo; Response 20-15,000 Hz  $\pm$ 1.5 dB; Has full complement of controls. 13 3/4" W x 5 1/4" H x 12 1/2" D..... \$179.95

**TOSHIBA**

**ST-500 AM-FM Stereo Tuner**

FM sensitivity 1.8  $\mu$ V for 30 dB (S + N)/N; S/N -66 dB; capture ratio 1.5 dB. Selectivity -80 dB; image rejection -80 dB; i.f. rejection -80 dB; AM suppression -50 dB. Has 75 & 300 ohm antenna inputs; output 600 mV fixed & 0-2 V variable. Features signal-strength & center-of-channel tuning meters, ceramic filter. \$239.95

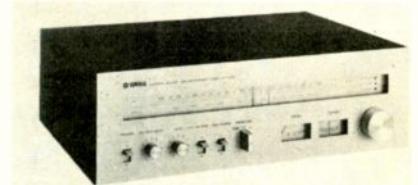
**YAMAHA**

**CT7000 FM Stereo Tuner**

Features negative-feedback multiplex decoder; front-panel selectable i.f. mode of operation for 85 dB selectivity (normal) or 18 dB (broad); i.f. stage has 7-stage differential amplification, ceramic filter block, and discriminator circuit for 1.0 dB capture ratio; ceramic and LC filters; 7-gang tuning capacitor for 120 dB (IHF) spurious signal rejection; phase lock loop decoder; two meters (three functions); automatic high-blend circuit; OTL headphone amp (20-20,000 Hz at 0.3% dist.); frequency linear dial scale..... \$1200.00

**CT800 AM-FM Stereo Tuner**

FM sensitivity 1.7  $\mu$ V; capture ratio 1.0 dB; selectivity 80 dB (IHF); S/N 72 dB stereo (IHF);



THD 0.3% stereo at 400 Hz, 1% 50-10,000 Hz; stereo separation 45 dB (400 Hz), 35 dB (50-10,000 Hz); frequency response 50-10,000 Hz +0.5 dB, -0.5 dB; 20-15,000 Hz +1.5 dB, -1.5 dB; has full complement of inputs, outputs, meters, and switches. Walnut cabinet. 17 1/4" x 5 7/8" H x 12 3/4" D..... \$370.00  
**CT600.** Similar to CT800 except 2.0  $\mu$ V FM sensitivity; capture ratio 1.5 dB; selectivity 75 dB (IHF); S/N 66 dB stereo (IHF); stereo separation 40 dB; frequency response 50-10,000 Hz +1.0 dB, -1.0 dB; 20-15,000 Hz +1.5 dB, -3.0 dB..... \$270.00

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**Model TX-330**  
**AM/FM Stereo Receiver**  
Superb stereo with built-in 4 ch. Matrix synthesizer! Has a direct cpd. diff'l amplifier; 2 tape monitors & dubbing; fine FM Muting & Sensitivity; accepts 2 sets of speaker systems. Delivers 21 Watts RMS power per channel @ 8Ω; 0.5% THD. \$299.95



**Model TX-560**  
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**Model 8**  
**2-Way Bass Reflex Speaker System**  
A first for Onkyo . . . with tuned port for rich, overall response. 30W (max) power capacity; 8" woofer (ported cap); 2" cone tweeter; 2-Way crossover network. Equally effective with low power. Smartly styled resonance-free cabinet has walnut-grained, vinyl finish. \$89.95



**Model 25A**  
**3-Way "Linear" Suspension Speaker System**  
The incomparable sound of our top rated Model 25 in a smartly re-styled, modern cabinet with luxurious walnut-grained finish. Has hearty bass and superb balance; 14" molded woofer; domed radiator mid-range and tweeter; 3-Way crossover network. Handles 60W (max.) power with ideal transient response. \$249.95

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# 2

# RECEIVERS

## AKAI

### AA-930 AM-FM Stereo Receiver

42 W/ch continuous power (122 W total IHF music power). Power bandwidth 20-60,000 Hz;



frequency response 7-80,000 Hz. HD 0.07% at rated output; IM 0.05% at rated output. FM sensitivity 2.0  $\mu$ V; capture ratio 2 dB; selectivity 70 dB; i.f. rejection 100 dB. Has separate signal and tuning indicators, sound monitoring, high & low filters, and FM muting. Rosewood cabinet. 19" W x 6.6" H x 15.7" D ... \$399.95

### AA-910 AM-FM Stereo Receiver

12 W/ch into 8 ohms with both channels driven (18 1/2 W/ch music power); HD 0.2% at 8 ohms



(1000 Hz, 5 W); power bandwidth (IHF) 20-45,000 Hz at 1% dist.; response 20-70,000 Hz, -3 dB. Input sensitivity: phono 3 mV, 50,000 ohms; mike 6.5 mV, 50,000 ohms; tape monitor (DIN/PIN) 150 mV, 100,000 ohms. FM tuner sensitivity (IHF) 2  $\mu$ V; HD 0.8% stereo. (S+N)/N 70 dB; selectivity 65 dB; capture ratio (IHF) 2.5 dB. 18" W x 6.6" H x 14.5" D ... \$249.95

**AA-910DB.** Same as AA-910 except includes built-in Dolby circuit ... \$349.95

## ALTEC

### 725A AM-FM Receiver

Stereo design. 60 W/ch continuous sine wave into 8 ohms with both channels driven. Power bandwidth 15-25,000 Hz; response 30-20,000 Hz  $\pm$  1/2 dB at rated output. Input sensitivity: mag. phono (2) 2 or 5 mV. HD 0.3% at rated output. FM sensitivity 1.8  $\mu$ V for 30 dB quieting; capture ratio 1.3 dB. Has Butterworth and crystal filters in i.f. stages. 17 3/4" x 5" x 16 1/2" D Oiled walnut cabinet ... \$599.00  
\$29.95



1975 EDITION

## BANG & OLUFSEN

### Beomaster 4000 FM Stereo Receiver

40 W/ch continuous power at 8 ohms (60 W/ch at 4 ohms). Power bandwidth 10-35,000 Hz. THD less than 0.1%. Darlington-coupled output



stage. Features ambiophonic stereo circuitry. Second stereo pair can be used for ambio or stereo. Has slide-rule dials; illuminated tuning indicator; signal-strength indicator. Compact design with black aluminum front, wooden top and sides. Cabinet available in rosewood, teak, or oak. 3 3/4" x 23" x 10 5/8". Will fit standard bookshelf. .... \$520.00

### 3002 FM Stereo Receiver

30 W/ch continuous power at 8 ohms (40 W/ch at 4 ohms) and at 0.6% THD. Power bandwidth 10-30,000 Hz; response 20-40,000 Hz  $\pm$  2 dB. FM sensitivity 2  $\mu$ V for 30 dB quieting. Has main/remote speaker switch; signal-strength and center-of-channel tuning meters. Anodized aluminum front, wood top and sides. Cabinet available in rosewood, teak, oak, or white lacquer. 3 3/4" x 23" x 10 1/4". Will fit standard bookshelf. .... \$430.00

## CHANNEL MASTER

### 6618 AM-FM Stereo Receiver

20 W rms/ch into 8 ohms at 100 Hz; sensitivity 3  $\mu$ V for 30 dB quieting; S/N 55 dB; HD 1% stereo; imp. 8 ohms; features hi- and low filters; FM muting sw.; rotary function selector; tape monitor switch; vernier flywheel tuning; full complement of inputs, outputs, switches, and controls. 5" H x 18" W x 11 1/2" D. .... \$239.95

## C/M LABS

### RR-805 AM-FM Stereo Receiver

40 W rms/ch into 8 ohms with both channels driven and at 0.3% THD; power bandwidth 5-50,000 Hz; frequency response 4-75,000 Hz -3 dB; FM sensitivity 1.7  $\mu$ V (IHF); inputs: phono 2.2 & 4 mV; tape & aux. 115 mV; main 1 V. Ready to drive feedback speakers. 5 1/4" H x 19" (relay rack) W x 13" D. .... \$550.00  
Optional wood cabinet ... \$39.00

For 4-Channel Components. . .  
See SECTION 9

## CONCORD

### CR-50 AM-FM Stereo Receiver

10 W/ch continuous power at 8 ohms with one channel driven; THD at rated output 2%; response 28-25,000 Hz at 1 W output; IHF power bandwidth 30-25,000 Hz. IHF usable sensitivity 4.5  $\mu$ V; 30 dB image rejection; i.f. rejection 72 dB; capture ratio 6 dB; S/N 55 dB; stereo separation 25 dB; selectivity 40 dB. Features edge-lighted dial, AM-FM tuning meter; full complement of controls and inputs. Walnut-finished vinyl cabinet. 16 1/8" W x 4 1/4" H x 11 1/2" D. .... \$119.95

### CR-100 AM-FM Stereo Receiver

16 W/ch continuous power at 8 ohms with one channel driven. THD at rated output 1%. Frequency response at 1 W output 28-25,000 Hz; power bandwidth (IHF) 27-30,000 Hz. Input sensitivity at rated output: mag. phono 2.8 mV; aux. 120 mV. (S+N)/N (phono) 60 dB. FM usable sensitivity (IHF) 3.5  $\mu$ V; image rejection 49 dB; capture ratio 80 dB; stereo separation 30 dB. Features edge-lighted dial, AM-FM tuning meter; bass, treble, balance, and volume controls; FM stereo light; speaker jack accommodating four speaker systems; magnetic phono input; tape in and tape out; auxiliary input; unswitched a.c. outlet; headphone jack. 16 1/8" W x 4 1/4" H x 11 1/2" D. .... \$129.95

### CR-110 AM-FM Stereo Receiver

14 W/ch continuous power at 8 ohms with one channel driven; THD at rated output 1%; response 28-25,000 Hz at 1 W output; IHF power bandwidth 27-30,000 Hz; IHF usable sensitivity 3.0  $\mu$ V; image rejection 49 dB; i.f. rejection 80 dB; capture ratio 3.0 dB; S/N 55 dB; HD 0.8%; stereo separation 35 dB; selectivity 50 dB. Features black-out dial; AM-FM tuning meter; duo-glo indicator to indicate stereo or mono broadcasts; full complement of controls and inputs. Walnut wood-grained vinyl cabinet with champagne-colored brushed aluminum panel. 15 1/2" W x 5" H x 11 1/2" D. \$149.95

### CR-200 AM-FM Stereo Receiver

15 W/ch dynamic power into 8 ohms at 1% THD (12 W/ch rms continuous power). Response 23-38,000 Hz at 1 W; power bandwidth 26-33,000 Hz. FM usable sensitivity 2.9  $\mu$ V; capture ratio 1.8 dB. Input sensitivity: mag. phono 2.8 mV; aux. 150 mV. Features FM fine-tuning control, center-channel tuning meter, ceramic filter in i.f. stages, tape monitor, main/remote speaker switching, and tape in & out. Walnut cabinet. .... \$179.95

### CR-210 AM-FM Stereo Receiver

24 W/ch continuous power into 8 ohms with one channel driven; THD at rated output 1%; response 20-30,000 Hz at 1 W output; IHF power bandwidth 20-30,000 Hz; IHF usable sensitivity 2.9  $\mu$ V; image rejection 51 dB; i.f. rejection 83 dB; capture ratio 2.0 dB; S/N 65 dB; HD 0.6%; stereo separation 35 dB; selectivity 43 dB. Features separate fine-tuning control for FM, duo-glo indicator; AM-FM tuning meter; fly-

wheel tuning; full complement of controls and inputs; black-out dial. Walnut wood-grain vinyl cabinet. 16 $\frac{1}{8}$ " W x 5 $\frac{3}{4}$ " H x 12 $\frac{1}{4}$ " D. \$199.95

### CR-250 AM-FM Stereo Receiver

31 W/ch dynamic power into 8 ohms at 1% THD (25 W/ch rms continuous power). Response 22-



40,000 Hz at 1 W; power bandwidth 22-35,000 Hz. FM usable sensitivity 2.3  $\mu$ V for 30 dB quieting; capture ratio 1.5 dB. Input sensitivity: mag. phono 2.5 mV; aux. #1 & #2 150 mV. Features fine-tuning control for FM; dual tuning meters (signal-strength and center-of-channel); ceramic filters in i.f. stages; main/remote speaker facilities. Has tape in & out jacks, tape monitor, and FM inter-station muting. With walnut cabinet ..... \$229.95

### CR-260 AM-FM Stereo Receiver

50 W/ch continuous rms power at 8 ohms with one channel driven; THD at rated output 1%; response 22-40,000 Hz at 1 W output; IHF



power bandwidth 20-35,000 Hz; IHF usable sensitivity 2.3  $\mu$ V; image rejection 53 dB; i.f. rejection 85 dB; capture ratio 1.5 dB; S/N 65 dB; HD 0.5%; stereo separation 37 dB; selectivity 46 dB. Features fine-tuning control for FM; duo-glo indicator; separate AM and FM tuning meters; electronic circuit breaker; full complement of controls and inputs. Walnut wood-grain vinyl cabinet. .... \$249.95

### CR-550 AM-FM Stereo Receiver

90 W/ch continuous power at 8 ohms with both channels driven at 1% THD. Frequency response 10-40,000 Hz  $\pm$ 1 dB; power bandwidth 10-30,000 Hz -1 dB, 1% THD. FM sensitivity (IHF) 1.7  $\mu$ V, image rejection (98 MHz) 74 dB; capture ratio 1.5 dB; stereo separation 35 dB (1000 Hz). Features "Glowpoint" tuning system; 15 push-button switches controlling all input functions; preamp outputs and main amp. inputs allow connection of electronic crossovers, 4-channel adapters, equalizers, or other aux. equipment. 17 $\frac{1}{8}$ " W x 15 $\frac{1}{2}$ " D x 6" H. .... \$379.95

## FISHER

### Studio Standard Line

Both units feature signal-strength meters; loudness contour button for bass & treble boost; "Stereo beacon" FM stereo indicator; response 20-20,000 Hz  $\pm$ 2 dB; stereo separation 35 dB; THD & IM dist. 1% at rated power.

222. 17 W rms/ch into 8 ohms with both channels driven; FM sensitivity 2  $\mu$ V; center-of-channel meter; magnetic phono inputs; two tape inputs; front-panel tape output; ganged bass & treble controls; illuminated function indicator; separate preamp cut-off switch; power bandwidth 45-20,000 Hz; capture ratio



2 dB; THD 1% FM stereo. .... \$249.95  
122. 13 $\frac{1}{2}$  W rms/ch into 8 ohms with both channels driven; FM sensitivity 3.4  $\mu$ V; capture ratio 6 dB; THD 1.5% FM stereo, 100% mod., 1000 Hz; power bandwidth 60-20,000 Hz; S/N 63 dB; separate phono inputs for mag. & ceramic cartridges; tape & aux. inputs. .... \$199.95

## GENERAL ELECTRIC

### RA200 AM-FM Stereo Receiver

14 W rms/ch into 8 ohms with both channels driven at 5% THD; features six-position function switch; input jacks for ceramic or mag. phono cartridge; tuning meter; bass, treble, balance, volume controls; tape monitor; 5-position speaker switch; jack pack for connecting stereo accessories including 4-ch decoder. .... \$219.95

## HARMAN/KARDON

### 330B AM-FM Stereo Receiver

20 W/ch continuous power with both channels driven into 8 ohms at 1 kHz at 0.5% THD mea-



sured at 120 V a.c.; power bandwidth 25-20,000 Hz into 8 ohms at 1.0% THD; THD 0.5%; IM dist. 0.5% from 1 W to full power; hum & noise 75 dB below rated output (unweighted); damping factor 30:1. Response 20-20,000 Hz  $\pm$ 1.0 dB at normal power levels. FM sensitivity 2.5  $\mu$ V (IHF); S/N 60 dB; capture ratio 3 dB; image rejection 40 dB; spurious response rejection 60 dB. Has full complement of controls and inputs. 15 $\frac{1}{8}$ " W x 13" D x 4 $\frac{1}{2}$ " H. .... \$199.95  
Walnut enclosure optional extra.

### 630 AM-FM Stereo Receiver

30 W/ch continuous sine wave into 8 ohms with both channels driven. HD 0.5% from 20-20,000 Hz (45 W/ch at 1000 Hz). FM sensitivity 1.9  $\mu$ V for 30 dB quieting. Has provision for Dolby B processor on FM playback. Dual power supplies. .... \$359.95  
Optional cabinet ..... \$34.95

### 930 AM-FM Stereo Receiver

45 W/ch continuous sine wave into 8 ohms with both channels driven. THD 0.2% 20-20,000 Hz



(65 W/ch at 1000 Hz). Response 5-70,000 Hz  $\pm$ 0.5 dB at 1 W. FM sensitivity 1.8  $\mu$ V for 30 dB quieting. Has dual power supplies. .... \$479.95  
Optional cabinet ..... \$34.95

## HEATH

### AR-1500A AM-FM Receiver

Stereo design. 90 W/ch dynamic power into 8 ohms (120 W/ch into 4 ohms, 50 W/ch into 16

ohms); 60 W/ch continuous power into 8 ohms (100 W/ch into 4 ohms, 40 W/ch into 16 ohms). Power bandwidth 8-30,000 Hz at 0.25% THD. Response 5-120,000 Hz +0, -3 dB at 1 W. Input sensitivity: mag. phono 1.8 mV, tape, aux, tape



monitor 140 mV. FM sensitivity 1.8  $\mu$ V for 30 dB quieting. Capture ratio 1.5 dB. 18 $\frac{1}{2}$ " x 5 $\frac{1}{8}$ " x 13 $\frac{1}{8}$ " D.

Kit ..... \$399.95  
ARA-1500-1 Walnut cabinet ..... \$24.95

### AR-1302 AM-FM Receiver

Stereo design. 20 W/ch continuous sine-wave into 8 ohms at 0.25% THD with both channels driven (20 W/ch into 4 ohms, 15 W/ch into 16 ohms). 30 W/ch dynamic power into 8 ohms (20 W/ch into 4 ohms, 17 W/ch into 16 ohms). Power bandwidth 5-30,000 Hz. Response 6-35,000 Hz  $\pm$ 1 dB. Input sensitivity: mag. phono 2.4 mV, aux. 180 mV. FM sensitivity 1.6  $\mu$ V for 30 dB quieting. Capture ratio 2.5 dB (IHF). Features signal-strength and center-of-channel meters; main/remote speaker selection or center-channel output. FM i. f. board pre-assembled and aligned. 117/230 V, 50-60 Hz operation. 16 $\frac{3}{4}$ " x 5 $\frac{1}{8}$ " x 14 $\frac{1}{2}$ " D.  
Kit ..... \$259.95  
Pecan veneer cabinet ..... \$19.95

### AR-29 AM-FM Receiver

Stereo design. 35 W/ch continuous power into 8 ohms with both channels driven (35 W/ch into 4 ohms, 25 W/ch into 16 ohms) at 0.25% THD. 50 W/ch dynamic power into 8 ohms (65 W/ch into 4 ohms, 30 W/ch into 16 ohms). Power bandwidth 5-30,000 Hz. Response 7-60,000 Hz  $\pm$ 1 dB at 1 W output. Input sensitivity: mag. phono 2.2 mV, aux. 180 mV. FM sensitivity 1.5  $\mu$ V for 30 dB quieting. Capture ratio 1.5 dB. Has field-strength and center-of-channel tuning meters, main/remote speaker capability or center-channel output. FET tuning unit assembled and pre-aligned. 117/230 V, 50-60 Hz operation. 16 $\frac{3}{4}$ " x 5 $\frac{1}{8}$ " x 14 $\frac{1}{2}$ " D.  
Kit ..... \$319.95  
Pecan veneer cabinet ..... \$19.95

### AR-14 FM Receiver

Stereo design. 15 W/ch dynamic power. Response 12-60,000 Hz  $\pm$ 1 dB. FM sensitivity 5  $\mu$ V for 30 dB quieting. Capture ratio 3 dB (IHF). Pre-assembled front end. 15 $\frac{1}{4}$ " x 3 $\frac{1}{8}$ " x 12" D.  
Kit ..... \$109.95  
Walnut veneer cabinet ..... \$12.95  
Beige steel cabinet ..... \$3.95

### AR-17 FM Stereo Receiver

Response 25-35,000 Hz  $\pm$ 1 dB at full power; 1% dist.; 14 W music power output; selector for magnetic phono, tuner, aux., stereo, or phono; comes with FM front end assembled. 3" H x 12" W x 10 $\frac{3}{8}$ " D  
Kit (less cabinet) ..... \$72.95  
AE-35. Beige metal cabinet ..... \$3.95  
AE-25. Walnut veneer cabinet ..... \$9.95

### AR-1214 AM-FM Stereo Receiver

Response 20-15,000 Hz  $\pm$ 1 dB; channel separation 40 dB typical, 35 dB minimum; HD 1% at 1000 Hz with 100% modulation; 19 and 38 kHz suppression 55 dB; SCA suppression 55 dB; 2  $\mu$ V sensitivity; 2 dB capture ratio. 15 W/ch continuous power output into 8 ohm



load, 20 W/ch into 4 ohm load, 10 W/ch into 16 ohm load; power bandwidth for constant 0.5% THD 5-30,000 Hz; response 7-100,000 Hz  $\pm 1$  dB at 1 W, 5-150,000 Hz  $\pm 3$  dB. Features pre-assembled FM tuning section; Black Magic panel lighting; flywheel tuning; stereo indicator light; headphone jack; speaker "on-off" button; complete tape monitor facilities. Has full complement of inputs and outputs. 3 $\frac{3}{8}$ " H x 17" W x 13" D.  
Kit ..... \$179.95

## HERVIC

### HR150 FM Digital Receiver

Solid-state stereo receiver with large, bright FM digital readout; select any of 100 channels



available across FM band; exact station frequency assignment displayed by four Nixie tubes; fast dialing across band possible because readout count is corrected 60 times/sec.; precision-ground, twin-ball-bearing tuning knob; 100 dB selectivity with 9-pole Butterworth-type toroid phase-linear i.f. filter; slide-switches for bass, mid-range, treble, volume, and balance control. Has front-panel tape in/out jacks; A & B mono/stereo control; lo/high filters; main/remote speaker switch; tape monitoring facilities; aux. 1 & 2, FM, phono switches; headphone jack ..... \$849.95  
Walnut enclosure ..... \$44.95

## HITACHI

### SR-700 AM-FM Stereo Receiver

40 W/ch dynamic power into 8 ohms at 0.5% THD; 35 W/ch continuous rms power. Features



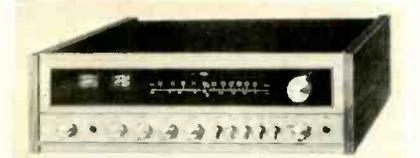
signal-strength meter, FM inter-station muting. .... \$359.95

### SR-800 AM-FM Stereo Receiver

45 W/ch dynamic power into 8 ohms at 0.5% THD; 40 W/ch rms power. Features signal-strength meter, center-of-channel tuning meter, FM inter-station muting. .... \$399.95

### SR-1100 AM-FM Stereo Receiver

70 W/ch dynamic power into 8 ohms at 0.5% THD; 55 W/ch rms power. Features crystal fil-



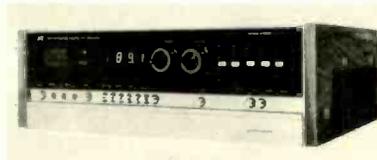
ters in i.f., dual tuning meters (signal-strength and center-of-channel), FM inter-station muting, and mike input. .... \$449.95

## JVC

All JVC receivers have what is called SEA (Sound Effect Amplifier) 5-section-type tone control system. Controls operate in 2-dB steps up and down within  $\pm 12$  dB. Center frequencies are 40(60)/250/1000/5000/15,000 Hz.

### VR-5660 FM Stereo Receiver

Features digital frequency readout; does not have dial scale. 120 W/ch dynamic power at 8

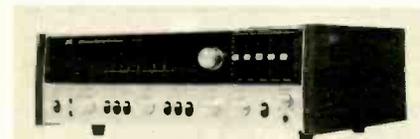


ohms (150 W/ch at 4 ohms); 80 W/ch continuous power at 8 ohms (100 W/ch at 4 ohms) with both channels driven & at 0.4% THD. Power bandwidth 10-40,000 Hz. FM sensitivity 1.7  $\mu$ V for 30 dB quieting; capture ratio 0.7 dB. 6 $\frac{3}{4}$ " x 20 $\frac{3}{4}$ " x 15 $\frac{1}{4}$ " D ..... \$749.95

### VR-5535 AM-FM Stereo Receiver

28 W/ch continuous rms power 20-20,000 Hz

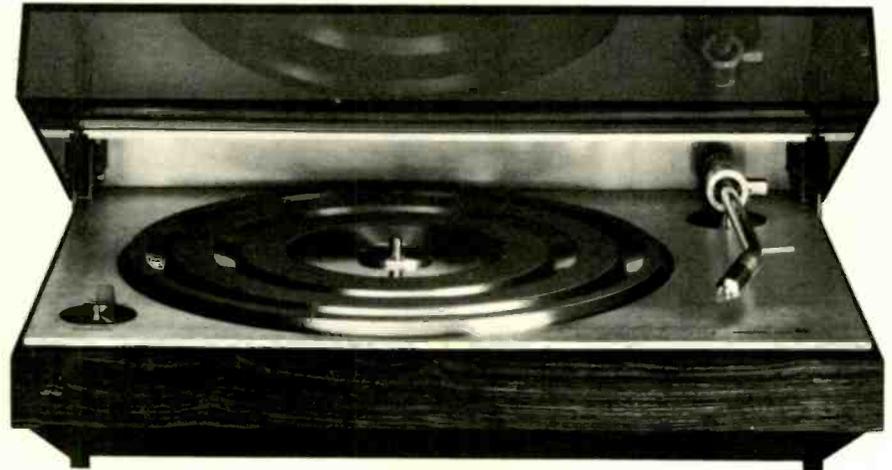
into 8 ohms and at 0.5% THD. IHF power bandwidth 10-25,000 Hz. Pure complementary OCL power amplifier. SEA control. FM usable sensitivity 2.0  $\mu$ V; capture ratio 2.0 dB; image rejection



55 dB; stereo separation 35 dB. Has high filter & low filter, FM muting, two tuning meters, source indicator lights, mike mixing facilities. Four-channel ready for future 4-ch FM broadcasts and will handle matrixed and CD-4 sources with appropriate adapters. . . \$429.95

### VR-5525 AM-FM Stereo Receiver

Same as the VR-5535 except 18 W/ch con-



## The Beogram 3000

One part of a system developed to reproduce sound as it is.

The Beogram 3000 is an integrated, automatic turntable offering utter simplicity of operation and elegant, understated design. All functions are handled by a single master control: the choice of record size automatically selects the correct speed (33 or 45 rpm), a slight touch of the center disk places the stylus tip in the first groove of the record. When the selection is completed, the tone arm automatically returns to its rest position and shuts off the unit.

The tone arm pivots on hardened steel bearings for low horizontal friction. An ingenious system of inclined planes automatically applies the correct amount of anti-skating force as the tone arm travels across the record. A pendulum suspension system isolates the stylus from external vibrations and acoustic feedback.

As a turntable must operate in concert with the cartridge, the Beogram 3000 has been engineered to utilize Bang & Olufsen cartridges. The integration of tone arm and cartridge provides a lower dynamic mass, thus reducing the force required to move the stylus tip, and eliminates unwanted resonances. Bang & Olufsen cartridges have been acknowledged as being among the world's finest.

## Bang & Olufsen

Excellence in engineering — Elegance in design  
Two traditions from Denmark

Bang & Olufsen, 2271 Devon Avenue, Elk Grove Village, Illinois 60007  
CIRCLE NO. 8 ON READER SERVICE CARD

tinuous rms power into 8 ohms and at 0.5% THD. Does not have low filter. FM usable sensitivity is 2.2  $\mu$ V; capture ratio 2.5 dB; stereo separation 33 dB. . . . . \$369.95  
**VR-5515.** Same as VR-5525 except 15 W/ch; IHF power bandwidth 15-25,000 Hz; no filters. Has FM line antenna. . . . . \$299.95

#### VR-5505 AM-FM Stereo Receiver

8 W rms/ch into 8 ohms with both channels driven (25-20,000 Hz); THD & IM dist. 1% at rated power; power bandwidth 30-20,000 Hz; frequency response 20-30,000 Hz  $\pm$  1 dB; FM sensitivity 2.2  $\mu$ V (IHF); selectivity 55 dB; linear dial scale; signal-strength/tuning meter; does not include SEA. 5 $\frac{1}{4}$ " H  $\times$  18 $\frac{1}{4}$ " W  $\times$  13" D. . . . . \$199.95

### KENWOOD

#### KR-1400 AM-FM Stereo Receiver

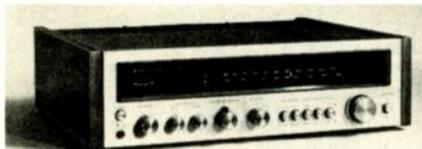
10 W rms/ch continuous power output into 8 ohms with both channels driven; THD & IM dist. 1.0% at rated output; response (Aux.) 25-35,000 Hz  $\pm$  1.5 dB; power bandwidth (IHF) 25-30,000 Hz; damping factor 20 at 8 ohms; FM sensitivity (IHF) 2.6  $\mu$ V; S/N 60 dB; capture ratio 3 dB; alternate channel selectivity 45 dB; response 20-15,000 Hz +0.5, -2 dB; stereo separation 33 dB at 1000 Hz; image rejection 50 dB; spurious rejection 75 dB; HD 0.5% (stereo) at 400 Hz, 100% modulation. Has separate RC-type bass and treble controls; full complement of inputs & outputs. 110-120 V, 50-60 Hz. 21 $\frac{1}{16}$ "  $\times$  6 $\frac{3}{16}$ " H  $\times$  15" D. . . . \$179.95

#### KR-2400 AM-FM Stereo Receiver

16 W rms/ch continuous power output into 8 ohms at 1000 Hz with both channels driven; THD & IM dist. 1.0% at rated output; response (Aux.) 10-40,000 Hz  $\pm$  1.5 dB; power bandwidth (IHF) 10-30,000 Hz; FM sensitivity 2.5  $\mu$ V; quieting slope 40 dB at 5  $\mu$ V; S/N 62 dB; capture ratio 62 dB; alternate channel selectivity 45 dB; response 20-15,000 Hz +0.5, -2.0 dB; stereo separation 0.6% (stereo) at 400 Hz, 100% mod.; image rejection 50 dB; spurious rejection 75 dB; IC bass & treble control circuit; tape monitor circuit; dual-speaker selector; linear FM dial scale; full complement of inputs, outputs, and controls. 110-120 V, 50-60 Hz. 18 $\frac{1}{16}$ " W  $\times$  5 $\frac{3}{16}$ " H  $\times$  13 $\frac{1}{16}$ " D. . . . \$219.95  
**KR-3400.** Similar to KR-2400 except 22 W rms/ch continuous power output into 8 ohms at 1000 Hz. . . . . \$259.95

#### KR-4400 AM-FM Stereo Receiver

25 W rms/ch continuous power output with both channels driven into 8 ohms (20-20,000



Hz); dynamic output power (IHF) 90 W at 8 ohms; THD & IM dist. 0.5% at rated power; response (Aux.) 10-40,000 Hz  $\pm$  1.5 dB; power bandwidth (IHF) 10-30,000 Hz. FM sensitivity 2.1  $\mu$ V; quieting slope 45 dB at 5  $\mu$ V; S/N 65 dB; capture ratio 2.0 dB; alternate channel selectivity 55 dB; response 20-15,000 Hz +0.5, -2 dB; stereo separation 35 dB at 1000 Hz; HD (stereo) 0.6% (400 Hz, 100% modulation); image rejection 60 dB; spurious rejection 80 dB. Has full complement of inputs & outputs, including special input and output terminals for any 4-channel decoder or adapter, also special FM "Det Out" for future discrete broadcasts. 110-120 V, 50-60 Hz. 18 $\frac{1}{16}$ " W  $\times$  5 $\frac{3}{16}$ " H  $\times$  13 $\frac{1}{16}$ " D. . . . . \$299.95

#### KR-5400 AM-FM Stereo Receiver

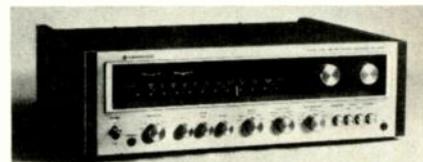
35 W rms/ch continuous power output with both channels driven into 8 ohms (20-20,000



Hz); dynamic power output (IHF) 115 W at 8 ohms; THD & IM dist. 0.5% at rated output; response (Aux.) 10-40,000 Hz  $\pm$  1 dB; power bandwidth (IHF) 10-30,000 Hz; FM sensitivity (IHF) 1.9  $\mu$ V; quieting slope 48 dB at 5  $\mu$ V; S/N 68 dB; capture ratio 1.5 dB; selectivity (alternate channel) 65 dB; response 20-15,000 Hz +0.5, -1.5 dB; stereo separation 35 dB at 1000 Hz; HD 0.5% stereo (400 Hz, 100% modulation); image rejection 70 dB; spurious rejection 90 dB; full complement of inputs & outputs; 4-channel ready. 110-120 V, 50-60 Hz. Walnut cabinet. 18 $\frac{1}{16}$ " W  $\times$  5 $\frac{1}{16}$ " H  $\times$  13 $\frac{1}{16}$ " D. . . . . \$379.95  
**KR-6400.** Same as KR5400 except 45 W rms/ch. . . . . \$449.95

#### KR-7400 AM-FM Stereo Receiver

63 W rms/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz);



dynamic power output (IHF) 200 watts into 8 ohm loads; THD & IM dist. 0.3% at rated output; response (Aux.) 10-40,000 Hz  $\pm$  1 dB; power bandwidth (IHF) 10-35,000 Hz; FM sensitivity 1.7  $\mu$ V; quieting slope 55 dB at 5  $\mu$ V; S/N 70 dB; capture ratio 1.3 dB; alternate channel selectivity 80 dB; response 20-15,000 Hz +0.5, -1.5 dB; stereo separation 40 dB at 1000 Hz, 30 dB at 10,000 Hz; HD 0.5% stereo (400 Hz, 100% mod.); image rejection 90 dB; spurious rejection 100 dB. Has mid-range control as well as bass & treble tone controls. 110-120 V, 50-60 Hz. Walnut cabinet. 18 $\frac{1}{16}$ " W  $\times$  5 $\frac{3}{16}$ " H  $\times$  13 $\frac{1}{16}$ " D. . . . . \$519.95

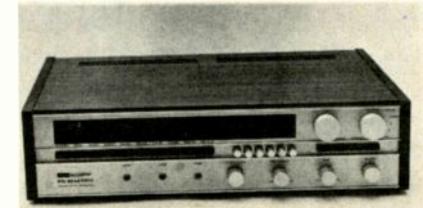
### KIRKSAETER

#### RTX 120.85 FM Stereo Receiver

85 W/ch continuous power at 8 ohms with both channels driven. THD at 1 kHz 0.09% at full power. Sensitivity: phono 2.4 mV; tape head 2.1 mV; Aux. input 260 mV, tape input & output 650 mV; mike input 1.5 mV. Scratch filter (20 kHz) -27 dB; rumble filter (20 Hz) -20 dB. (S + N)/N 90 dB at 20 Hz. FM (IHF) sensitivity 1.5  $\mu$ V; (S + N)/N 65 dB; capture ratio 2.5 dB; stereo THD 0.8%; stereo separation 36 dB at 1 kHz. Inputs: mike; phono #1 (DIN & RCA); Ext. Aux. (DIN); phono #2 (DIN); tape head right & left (RCA); tape playback (DIN & RCA). Outputs: headphones A & B; 4-channel sound (DIN); tape record; audio output left & right supplementary power modules; three unswitched a.c. outlets; power connection. 19 $\frac{1}{16}$ " W  $\times$  5 $\frac{1}{4}$ " H  $\times$  14 $\frac{1}{4}$ " . . . . . \$750.00

#### RTX 85.55 FM Stereo Receiver

Similar to RTX 120.85 except 55 W/ch continu-



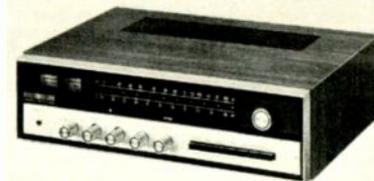
ous power at 8 ohms with both channels driven. Tape input & output 570 mV. . . . . \$650.00

Both units are equipped to provide synthesized 4-channel sound from all stereo sources. Both are housed in selected grain natural walnut cabinets. Decorator matte white or matte black finishes available for additional cost of. \$20.00

### KLH

#### 52 AM-FM Receiver

33 W/ch rms continuous power into 8 ohms with both channels driven (42 W/ch into 4 ohms) at



0.8% HD. Power bandwidth 20-20,000 Hz at 8 ohms; response 20-20,000 Hz at 1 W. FM usable sensitivity 1.8  $\mu$ V for 30 dB quieting. Sensitivity: mag. phono 3.5 mV; aux. & tape monitor 500 mV. FM capture ratio 2.0 dB. Has signal-strength & center-of-channel tuning meters and ceramic filters in i.f. stages. 17 $\frac{1}{4}$ "  $\times$  5 $\frac{1}{4}$ "  $\times$  13" D. Walnut grained cabinet . . . . . \$319.95

#### 55 AM-FM Receiver

13 W/ch rms continuous power into 4 or 8 ohms with both channels driven & at 0.5% HD. Power

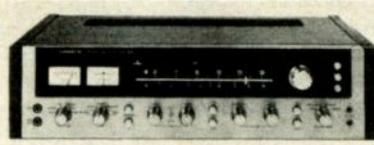


bandwidth 20-20,000 Hz into 8 ohms; response 20-20,000 Hz at 1 W. FM usable sensitivity 2.5  $\mu$ V for 30 dB quieting; capture ratio 4 dB. Input sensitivity: mag. phono 2.5 mV; aux. & tape monitor 250 mV. Has four-stage i.f. with two ceramic filters. 16 $\frac{3}{8}$ "  $\times$  5 $\frac{1}{4}$ "  $\times$  13" D. Walnut grained cabinet. . . . . \$219.95

### LAFAYETTE

#### LR-3500 AM-FM Stereo Receiver

Features two sets of tape-recorder outputs for recording simultaneously or tape duplicating;



47 W rms/ch into 8 ohms at 0.5% THD (20-20,000 Hz) with both channels driven; power bandwidth 12-50,000 Hz; input sensitivity: mag. phono #2 150 mV (low), 40 mV (high), aux. 250 mV, tape A & B 500 mV, mike 6 mV; hum & noise: mag. -68 dB, aux. -75 dB; FM sensitivity 1.65  $\mu$ V; capture ratio 1.5 dB; stereo separation 40 dB; has FM and audio muting, main/remote speaker outputs. 19 $\frac{1}{16}$ " W  $\times$  5 $\frac{1}{2}$ " H  $\times$  14 $\frac{1}{4}$ " D . . . . . \$399.95

#### LR-1100 AM-FM Stereo Receiver



22 W rms/ch into 8 ohms at 0.5% THD (20-20,000 Hz) with both channels driven; power bandwidth 15-30,000 Hz; input sensitivity: mag. phono #2 6 mV (low), 2.5 mV (high), aux. 250 mV, tape 500 mV; hum & noise: aux. -75 dB, mag. phono -65 dB; FM sensitivity 1.75  $\mu$ V; capture ratio 1.5 dB; main/remote speaker switching; tape monitor; FM muting; front-panel stereo tape & headphone output. 17 $\frac{1}{8}$ " W x 5" H x 14" D ..... \$299.95

#### LR-310 AM-FM Stereo Receiver

12 $\frac{1}{2}$  W rms/ch into 8 ohms at 0.8% THD (20-20,000 Hz) with both channels driven; power bandwidth 17-36,000 Hz all channels driven; input sensitivity: mag. phono 4 mV, ceramic phono 135 mV, tape play 500 mV, aux. 250 mV; hum & noise: mag. -60 dB, aux. -75 dB; FM sensitivity 2.5  $\mu$ V; capture ratio 3 dB; selectivity 60 dB; features blackout dial; AM-FM signal-strength meter; FM stereo indicator; front-panel tape and headphone jacks. Vinyl-clad walnut-finish case ..... \$199.95

### LEAK

#### Delta 75 AM-FM Receiver

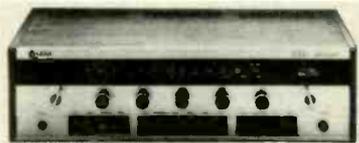
35 W/ch continuous power into 8 ohms (40



W/ch into 4 ohms; 25 W/ch into 15 ohms). 100 W (IHF) music power into 8 ohms. Distortion 0.07% into 8 ohms. Response 12.5-50,000 Hz -3 dB. Phono input imp. 47,000 ohms magnetic; 33,000 ohms ceramic. Sensitivity for 35 W rms output into 8 ohms 2.5 mV (magnetic) and 20 mV (ceramic) both at 1000 Hz. Tape input imp. 50,000 ohms (phono socket), 150,000 ohms (DIN). FM sensitivity (IHF) 2.2  $\mu$ V into 75-ohm input. HD 0.5%. Tuner response 40-15,000 Hz  $\pm$ 1 dB. Inputs: 75 ohms unbalanced, 300 ohms balanced ..... \$595.00

#### 2000 AM-FM Stereo Receiver

30 W/ch sine wave power at 1 kHz, 0.5% THD with both channels driven into 8 ohms; THD at



all powers up to 30 W, 1 kHz 0.1%; 1 W at 1 kHz 0.01%; 30 W at 10 kHz 0.1%; IM dist. 0.1% (70 Hz & 5000 Hz 4:1); power bandwidth 10-40,000 Hz 2 dB down re 35 W (0.5% THD both channels driven). FM tuner sensitivity 1.6  $\mu$ V for 30 dB quieting; stereo dist. at 1 kHz 0.5%; channel separation: 1 kHz 35 dB minimum; 10,000 Hz 30 dB; Image rejection 45 dB; i.f. rejection 60 dB; alternate channel rejection 50 dB; capture ratio 1.5 dB. Has full complement of controls & inputs; two AM tuner ranges (150-350 kHz & 510-1650 kHz) ..... \$595.00

### MARANTZ

#### 2220 AM-FM Stereo Receiver

20 W/ch continuous power at 8 ohms with both channels driven; THD & IM 0.5%. Response 20-20,000 Hz  $\pm$ 0.5 dB (high-level input). FM sensitivity 2.1  $\mu$ V for 30 dB quieting; THD 0.5% stereo; capture ratio 3 dB; stereo separation 40 dB



at 1 kHz; Has provisions for record changer, tape decks, phones. Simulated walnut metal cabinet ..... \$299.95

#### 2270 AM-FM Stereo Receiver

70 W/ch continuous sine-wave into 8 ohms with both channels driven at 0.3% THD. Power bandwidth 10-40,000 Hz; response 10-50,000 Hz  $\pm$ 1 dB at 1 W output. Input sensitivity 1.8 mV. FM sensitivity 2.3  $\mu$ V for 30 dB quieting; capture ratio 1.6 dB (IHF). Has 3-zone tone controls, tape monitoring facilities, isolated preamp/amp inputs & outputs. 16 $\frac{7}{8}$ " x 5" x 14" D ..... \$599.95  
Walnut cabinet optional extra.

#### 2230 AM-FM Stereo Receiver

30 W/ch continuous sine-wave into 8 ohms with both channels driven at 0.5% THD. Power bandwidth 15-40,000 Hz; response 15-40,000 Hz  $\pm$ 2 dB at 1 W output. HD 1.8% FM sensitivity 2.5  $\mu$ V for 30 dB quieting; capture ratio 1.8 dB (IHF). Has 3-zone stepped tone controls, isolated preamp/amp inputs & outputs. 16 $\frac{7}{8}$ " x 5" x 14" D ..... \$399.95  
Walnut cabinet optional extra.

#### 2245 AM-FM Stereo Receiver

45 W/ch continuous sine-wave into 8 ohms with both channels driven at 0.3% THD. Power bandwidth 10-40,000 Hz; response 15-40,000 Hz  $\pm$ 1 dB at 1 W output. FM sensitivity 2.5  $\mu$ V for 30 dB quieting; capture ratio 1.8 dB (IHF).

Has 3-zone stepped tone controls, isolated preamp/amp inputs & outputs. 16 $\frac{7}{8}$ " x 5" x 14" D ..... \$499.95  
Walnut cabinet optional extra.

#### 2015 AM-FM Stereo Receiver

15 W/ch rms continuous power into 8 ohms at 1% THD and from 40-20,000 Hz with both



channels driven. Response 20-20,000 Hz  $\pm$ 1.5 dB; power bandwidth 20-22,000 Hz. FM sensitivity 2.8  $\mu$ V for 30 dB quieting; capture ratio 2.5 dB. Input sensitivity: mag. phono 2.2 mV, aux. 150 mV. Has signal-strength meter & main/remote speaker switch. 14 $\frac{1}{4}$ " x 4 $\frac{3}{4}$ " x 12" D ..... \$249.95  
Walnut cabinet optional extra.

#### 2220B AM-FM Stereo Receiver

20 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); IM & THD 0.5%; response 20-20,000 Hz  $\pm$ 1.0 dB (high-level input); power bandwidth (IHF) 15-60,000 Hz; FM tuner sensitivity 2.0  $\mu$ V; THD 0.5% stereo; selectivity 50 dB; capture ratio 2.5 dB; stereo separation 40 dB at 1000 Hz; spurious rejection 65 dB; features full complement of input and output jacks; tone controls; filters; FM muting; signal-strength/FM center-channel tuning meter ..... \$349.95

2240. Same as Model 2220B except 40 W/ch; IM & THD 0.3%; response 20-20,000 Hz  $\pm$ 0.5 dB; power bandwidth 10-70,000 Hz; FM tuner sensitivity 1.9  $\mu$ V; THD 0.4% stereo; selectivity

## Stereo Shelving with a Twist!

As versatile as it is beautiful—Kirsch® Freestanding Shelving. With just a twist to its exclusive Ring-lock™ design, add or remove units as you need them. Features new flush top design. Solid support. Resistance to stains. Best yet, it's reasonably priced. At fine stores that carry Kirsch. Or write: Kirsch Co., Dept. AG-1074, Sturgis, Mich. 49091.

# Kirsch

where quality still means something.

60 dB; capture ratio 1.5 dB; spurious rejection 95 dB; front-panel tape dubbing jacks; Dolby FM de-emphasis switch ..... \$499.95

#### 2275 AM-FM Stereo Receiver

75 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); IM & THD 0.25%; frequency response 20-20,000 Hz  $\pm 0.25$  dB; power bandwidth 7-70,000 Hz (IHF) with both channels driven; FM sensitivity 1.9  $\mu$ V; THD 0.35% stereo; selectivity 80 dB; capture ratio 1.5 dB; stereo separation 42 dB at 1000 Hz; spurious rejection 100 dB; features variable-frequency tone control turnover points and mid-range tone control; Dolby FM de-emphasis switch; facilities for two tape recorders; mode switch (left, right, stereo, stereo reverse, mono); full complement of inputs and outputs ..... \$649.95

#### 2325 AM-FM Stereo Receiver

125 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); IM & THD 0.15%; frequency response 20-20,000 Hz  $\pm 0.25$  dB; power bandwidth 5-70,000 Hz (IHF) with both channels driven; FM sensitivity 1.8  $\mu$ V; THD 0.3% stereo; selectivity 80 dB; capture ratio 1.25 dB; stereo separation 42 dB at 1000 Hz; spurious, image, and i.f. rejection 100 dB; features built-in Dolby noise rejection system; variable-frequency tone control turnover points and mid-range tone control; complete facilities for two tape recorders; mode switch. .... \$799.95

### MX

#### 1570 AM-FM Stereo Receiver

40 W rms/ch into 8 ohms with both channels driven at 1000 Hz; 35 W/ch 20-20,000 Hz; power bandwidth 10-35,000 Hz; IM & HD 0.5%; frequency response 20-25,000 Hz; FM sensitivity (IHF) 1.8  $\mu$ V; selectivity 75 dB; capture ratio 1.5 dB; stereo separation 50 dB at 1000 Hz; 40 dB at 10,000 Hz; HD 0.2%; image rejection 97 dB; spurious rejection 94 dB; features 6-pole linear phase filters; switchable signal-strength/center-tuning meter; low-pass audio filters; OCL direct-coupled differential amplifier; full complement of inputs, outputs, switches, and controls. 6" H x 19" W x 15" D. Veneer cabinet ..... \$399.95

#### 1580 AM-FM Stereo Receiver

65 W rms/ch into 8 ohms with both channels driven at 1000 Hz; 60 W/ch 20-20,000 Hz;



power bandwidth 10-35,000 Hz; HD 0.5%; IM dist. 0.8%; frequency response 20-25,000 Hz; FM sensitivity 1.8  $\mu$ V; selectivity 75 dB; capture ratio 1.5 dB; stereo separation 50 dB at 1000 Hz; 40 dB at 10,000 Hz; HD 0.2%; image rejection 97 dB; spurious rejection 94 dB; features 6-pole linear phase filters; high-gain IC quadrature FM detector; switchable signal-strength/center-channel meter; full complement of controls, inputs, outputs, and switches; auto/off power switch for use with automatic turntable. 6" H x 19" W x 15" D. Veneer with grainend walnut finish ..... \$479.95

### NIKKO

#### STA-8080 AM-FM Stereo Receiver

45 W/ch at 8 ohms with both channels driven (60 W/ch at 4 ohms). Response 10-50,000 Hz



(main input) and 20-50,000 Hz (Aux. input); power bandwidth 10-40,000 Hz  $\pm 1$  dB at 0.5% THD. Dist. 0.5% at rated output. (S+N)/N 65 dB (phono input), 80 dB (other). FM sensitivity (IHF) 2  $\mu$ V; 80 dB image rejection. (S+N)/N 60 dB. 300 ohm balanced, 75 ohm unbalanced antenna imp. Has tape output terminals for two sets of tape decks; FM muting switch; linear dial scale and twin tuning meters; double-rotary tone-control switch. Universal power supply. 18" W x 14 1/8" D x 5 3/8" H. Has blackout dial and gold-trimmed panel and knobs ..... \$399.95

#### STA-7070 AM-FM Stereo Receiver

34 W/ch at 8 ohms with both channels driven (43 W/ch at 4 ohms). Response 10-50,000 Hz (main input) and 20-50,000 Hz (Aux. input); power bandwidth 10-40,000 Hz  $\pm 1$  dB at 0.5% THD. IM & HD 0.5% at rated output. FM sensitivity (IHF) 2  $\mu$ V; 80 dB image rejection; (S+N)/N 60 dB; capture ratio 2.5 dB. Has tape output terminals for two sets of tape decks; FM muting switch; linear dial scale and signal-strength meter. Universal power supply. 18" W x 14 1/8" D x 5 3/8" H. Blackout dial and gold-trimmed panel and knobs ..... \$349.95

#### STA-5010 AM-FM Stereo Receiver

22 W/ch at 8 ohms with both channels driven (24 W/ch at 4 ohms). Response 10-50,000 Hz  $\pm 1$  dB; power bandwidth 20-20,000 Hz  $-1$  dB at 1% THD. HD & IM 0.8% at rated output. (S+N)/N 60 dB (phono) and 70 dB (Aux.-Tape Mon). FM sensitivity (IHF) 2.5  $\mu$ V; 60 dB image rejection. (S+N)/N 60 dB. Capture ratio 3 dB. Stereo separation 38 dB at 1000 Hz. Features 4-channel tuner output on rear panel for discrete



system broadcast adapter; tape output jacks for two tape decks; FM muting switch; loudness control switch; headphone jack, DIN connector; tape selector & monitor switch. 17 3/4" W x 15" D x 5 3/8" H ..... \$249.95

#### STA-4020 AM-FM Stereo Receiver

12 W/ch at 8 ohms with both channels driven (13 W/ch at 4 ohms). Response 10-50,000 Hz  $\pm 1$  dB (main input), 20-30,000 Hz (Aux. input); power bandwidth 30-20,000 Hz  $-1$  dB at 1% THD. IM dist. 0.5% at 1 W output. FM sensitivity (IHF) 3.5  $\mu$ V; image rejection 50 dB; (S+N)/N 60 dB; capture ratio 4.5 dB. Stereo separation 30 dB at 1000 Hz. Has provisions for mike, mixing, and level control; features loudness control; front-panel headphone jack; tape monitor jack, dual tone controls. Oiled finish walnut case. 17 3/4" W x 15" D x 5 3/8" H ..... \$199.95

**STA-2020.** Similar to STA-4020 except 8 W/ch at 8 ohms (7 W/ch at 4 ohms) with both channels driven ..... \$189.95

#### STA-4030 AM-FM Stereo Receiver

18 W rms/ch at 8 ohms with both channels driven (19 W/ch into 4 ohms); frequency response 20-30,000 Hz  $\pm 1$  dB (4-Ch. input); power bandwidth 20-20,000 Hz; HD 1% at rated output; IM dist. 0.5% at 1 W output; FM sensitivity (IHF) 2.1  $\mu$ V; selectivity 40 dB  $\pm 400$  kHz; image rejection 60 dB; i.f. rejection 80 dB; S/N

60 dB; stereo separation 38 dB at 1000 Hz; has full complement of inputs, outputs, and controls; 4-channel adaptable. 17 3/4" W x 15" D x 5 3/8" H ..... \$219.95

#### STA-5050 AM-FM Stereo Receiver

24 W rms/ch at 8 ohms with both channels driven (26 W/ch into 4 ohms); frequency response 20-30,000 Hz  $\pm 1$  dB (4-Ch. input); power bandwidth 20-20,000 Hz; HD 0.8% at rated output; IM dist. 0.2% at 1 W output; FM sensitivity (IHF) 2.1  $\mu$ V; selectivity 40 dB  $\pm 400$  kHz; image rejection 60 dB; i.f. rejection 80 dB; S/N 60 dB; capture ratio 3 dB; stereo separation 38 dB at 1000 Hz; has full complement of inputs, outputs, and controls; 4-channel adaptable; front-panel two-deck tape recording, monitoring, and dubbing jacks. 17 3/4" W x 15" D x 5 3/8" H ..... \$249.95

**STA-6060.** Same as 5050 except 34 W rms/ch into 8 ohms with both channels driven; fre-



quency response 15-30,000 Hz; HD 0.5% at rated output; IM 0.2% at 1 W output. 18" W x 14 1/8" D x 5 3/8" H ..... \$319.95

#### STA-9090 AM-FM Stereo Receiver

65 W rms/ch at 8 ohms with both channels driven; power bandwidth 10-40,000 Hz; frequency



response 10-50,000 Hz  $\pm 1$  dB; THD & IM dist. 0.5% at rated output; FM sensitivity 1.8  $\mu$ V; selectivity 70 dB; image rejection 80 dB; i.f. rejection 90 dB; S/N 70 dB; capture ratio 1.8 dB; stereo separation 40 dB at 1000 Hz; features 5-position mode switch; bright function indicators; FM stereo indicator; three stereo-pair speaker selector; FM muting switch; high & low filters; loudness control; stereo headphone jack; three a.c. outlets (one switched); 4-channel composite signal output; pre/power amplifier separable for 4-channel and other uses; has full complement of controls, inputs, and outputs. 18 1/4" W x 15 1/4" D x 6 1/2" H ... \$499.95

### ONKYO

#### TX-666 AM-FM Stereo Receiver

70 W/ch dynamic power at 8 ohms (100 W/ch at 4 ohms); 50 W/ch continuous power at 8 ohms



(60 W/ch at 4 ohms) and at 0.2% THD. Power bandwidth 10-40,000 Hz. FM sensitivity 1.8  $\mu$ V for 30 dB (S+N)/N; capture ratio 1.5 dB. Input sensitivity: mag. phono 2.5 mV; aux. #1 & #2 100 mV. Features main/remote speaker switch, tape inputs, mike input with mixing, a six-element ceramic i.f. stage filter, dual tuning meters (center-of-channel & signal-strength), FM inter-station muting. Walnut cabinet with antique gold trim. 18 3/8" x 15 1/8" x 5 1/8" H. \$469.95

#### TX-440 AM-FM Stereo Receiver

28 W/ch continuous rms power into 8 ohms with both channels driven at 1 kHz. Power bandwidth 20-20,000 Hz; response 20-30,000 Hz. FM sensitivity 2.0  $\mu$ V; capture ratio 2 dB; selectivity 65 dB; (S+N)/N 70 dB. HD 0.8% stereo.

Response 20-15,000 Hz  $\pm 1.5$  dB. Features linear dial scale, two tuning meters (signal-strength and center tuning), FM muting, mike mixing circuitry, tape-to-tape record & monitoring, two a.c. outlets. 18 1/2" W x 14 3/4" D x 5 1/2" H. . . . . \$349.95

**TX-560 AM-FM Stereo Receiver**

43 W/ch into 8 ohms with both channels driven (20-20,000 Hz); 48 W/ch at 1000 Hz; THD 0.2%



at rated power; power bandwidth 20-40,000 Hz; frequency response 15-30,000 Hz  $\pm 1$  dB; FM sensitivity 1.8  $\mu$ V (IHF); capture ratio 1.5 dB; image rejection 70 dB; S/N 70 dB; HD 0.7% stereo; features signal-strength and center-tuning meters; separable left & right tone controls; outputs for three speaker systems; mike connector, tape-to-tape dubbing facilities; full complement of input and output terminals, jacks, switches, and terminals. Walnut-finished wooden cabinet. 18 1/2" W x 14 3/4" D x 5 1/2" H. . . . . \$449.95

**TX-330 AM-FM Stereo Receiver**

17 W/ch rms into 8 ohms with both channels driven (20-20,000 Hz); 21 W/ch at 1000 Hz; THD 0.5% at rated power; power bandwidth 20-20,000 Hz; frequency response 20-30,000 Hz  $\pm 1$  dB; FM sensitivity 2.5  $\mu$ V (IHF); capture ratio 2 dB; selectivity 60 dB; image rejection 50 dB; S/N 65 dB; stereo separation 35 dB at 400 Hz; frequency response 20-15,000 Hz  $\pm 2$  dB; features center-channel and signal-strength tuning meters; built-in 4-ch matrix circuit for synthesizing 4-channel sound; full complement of inputs and outputs, jacks, switches, and terminals. Walnut-finished wooden cabinet. 18 1/2" W x 14 3/4" D x 5 1/2" H. . . . . \$299.95

**TX-220 AM-FM Stereo Receiver**

6.5 W/ch rms into 8 ohms with both channels driven (20-20,000 Hz); 13 W/ch at 1000 Hz; THD 1.0% at rated power; S/N 60 dB (phono), 70 dB (aux.); power bandwidth 20-20,000 Hz; frequency response 25-30,000 Hz  $\pm 1$  dB; FM sensitivity 3  $\mu$ V (IHF); capture ratio 2 dB; image rejection 50 dB; stereo separation 35 dB at 400 Hz; frequency response 20-15,000 Hz  $\pm 2$  dB; features dual-purpose meter; built-in 4-channel synthesizer; full complement of inputs & outputs. Walnut-finished wooden cabinet. 16 3/8" W x 13 3/4" D x 5 5/8" H. . . \$219.95

**PILOT**

**252 AM-FM Stereo Receiver**

25 W/ch continuous power at 8 ohms with both channels driven & at 0.5% THD; power bandwidth 20-25,000 Hz; response 20-20,000 Hz  $\pm 1.5$  dB. FM sensitivity 2.2  $\mu$ V for 30 dB (S + N)/N. Selectivity -50 dB. (S + N)/N - 60 dB; capture ratio 2 dB. Supplied with walnut veneer wood cabinet. 18" x 5 1/8" x 13 1/2" D . . . . . \$309.90

**253 AM-FM Stereo Receiver**

35 W/ch continuous power at 8 ohms with both channels driven & at 0.5% HD. Power bandwidth 15-30,000 Hz; response 20-20,000 Hz  $\pm 1$  dB. Input sensitivity: mag. phono #1 & #2 2.5 to 4.5 mV; mike 1 mV; aux. 300 mV; tape output 250 mV. The AM-FM tuner circuitry is the same as in the Model 211 stereo tuner. With walnut wood cabinet. 18" x 5 1/8" x 13 1/2" D. . . . \$389.90

**254 AM-FM Stereo Receiver**

Same as the Model 253 AM-FM receiver except has greater power output: 65 W/ch continuous power at 8 ohms with both channels driven.

Power bandwidth 10-40,000 Hz. Features mike mixing and two tuning meters. With cabinet. 18 1/2" W x 6 1/2" H x 17 1/2" D . . . . . \$499.90

**525 AM-FM Stereo Receiver**

25 W rms/ch into 8 ohms with both channels driven & at 0.5% THD from 20-20,000 Hz; response 20-20,000 Hz  $\pm 1$  dB; power bandwidth 10-30,000 Hz (IHF); complementary symmetry, fused outputs, separate dual-concentric bass & treble controls; linear FM dial & AM-FM tuning meter; automatic stereo light; phase lock loop multiplex; FM sensitivity 2.2  $\mu$ V; selectivity 65 dB (IHF); 2 dB capture ratio; has FET front end, ceramic filters, FM muting; 75/300 ohm antenna inputs; push-buttons for tape monitor, high filter, loudness, main/remote speakers; features front-panel headphone jack, phono input, a.c. receptacle, separate power switch. Walnut-veneered wood cabinet . . . . . \$349.90

**540 AM-FM Stereo Receiver**

40 W rms/ch into 8 ohms with both channels driven & at 0.3% THD (20-20,000 Hz); response 20-20,000 Hz  $\pm 1$  dB; power bandwidth 10-40,000 Hz (IHF); electronic output circuit protection; main amps/preamps accessible by removing rear jumpers; has linear FM dial scale, "Pilotune" center-channel tuning indicator, automatic stereo indicator, AM-FM tuning meter, function lights; FM sensitivity 1.8  $\mu$ V (IHF); selectivity 65 dB; capture ratio 1.5 dB; 75/300 ohm antenna input; features FM muting, tape monitor, high filter, loudness, main/remote speaker switches; front-panel jacks for headphones, mike, tape; two phono inputs, two a.c. receptacles, separate power switch. Walnut-veneered wood enclosure . . . . . \$419.90

**PIONEER**

**SX-434 AM-FM Stereo Receiver**

15 W/ch continuous power into 8 ohms (40-20,000 Hz); 16 W/ch into 8 ohms at 1000 Hz; HD & IM dist. 0.8% continuous power outputs; power bandwidth 10-70,000 Hz; FM sensitivity (IHF) 1.9  $\mu$ V; capture ratio 1 dB; selectivity 60 dB; S/N 70 dB; image rejection 60 dB, i.f. rejection 90 dB; spurious rejection 75 dB; HD 0.4% stereo; response 20-15,000 Hz +0.2 dB, -2.0 dB; 50-10,000 Hz +0.2 dB, -0.5 dB; stereo separation 40 dB (1000 Hz), 30 dB (50-10,000 Hz); features full complement of inputs, outputs, switches, and controls. 16 7/8" W x 5 1/2" H x 13 3/8" D . . . . . \$239.95  
**SX-535.** Same as SX-434 but 20 W rms/ch into 8 ohms (40-20,000 Hz); 22 W/ch into 8 ohms at 1000 Hz; 18 7/8" W x 5 3/4" H x 15 7/8" D. . . \$299.95

**SX-636 AM-FM Stereo Receiver**

25 W/ch continuous power into 8 ohms (20-20,000 Hz); 27 W/ch into 8 ohms at 1000 Hz; HD & IM dist. 0.5%; power bandwidth 5-60,000 Hz; FM sensitivity (IHF) 1.9  $\mu$ V; capture ratio 1 dB; selectivity 60 dB; S/N 70 dB; image rejection 60 dB; i.f. rejection 90 dB; spurious rejection 75 dB; HD 0.4% stereo; response 20-15,000 Hz +0.2 dB, -2.0 dB; 50-10,000 Hz +0.2 dB, -0.5 dB; stereo separation 40 dB (1000 Hz), 30 dB (50-10,000 Hz); 18 7/8" W x 5 3/4" H x 15 7/8" D . . . . . \$349.95  
**SX-737.** Same as SX-636 except 35 W/ch (20-20,000 Hz), 40 W/ch (1000 Hz); FM image rejection 80 dB; i.f. & spurious rejection 100 dB; 19 3/8" W x 6 1/4" H x 17 1/4" D. . . . . \$399.95

**SX-838 AM-FM Stereo Receiver**

50 W/ch continuous power output into 8 ohms (20-20,000 Hz); 55 W/ch at 1000 Hz; HD & IM dist. 0.3%; power bandwidth 5-40,000 Hz; frequency response 10-70,000 Hz; FM sensitivity (IHF) 1.8  $\mu$ V; capture ratio 1 dB; selectivity 80 dB; S/N 70 dB; image rejection 85 dB; i.f. & spurious rejection 100 dB; HD 0.4% stereo; frequency response 20-15,000 Hz +0.2 dB, -2.0 dB; 50-10,000 Hz +0.2 dB, -0.5 dB; stereo separation 40 dB (1000 Hz), 30 dB (50-10,000 Hz). has full complement of inputs, outputs, switches; signal-strength & tuning me-

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ters; 20 $\frac{1}{2}$ " W x 6 $\frac{7}{8}$ " H x 16 $\frac{1}{2}$ " D. . . . \$499.95  
**SX-939.** Same as SX-838 except 70 W/ch; amplifier frequency response 7-100,000 Hz. . . . \$599.95

#### SX-1010 AM-FM Stereo Receiver

100 W/ch continuous power output into 8 ohms (20-20,000 Hz); 110 W/ch at 1000 Hz; HD & IM dist. 0.1%; power bandwidth 5-40,000 Hz; frequency response 7-100,000 Hz; FM tuner sensitivity 1.7  $\mu$ V; capture ratio 1 dB; selectivity 90 dB; S/N 72 dB; image, i.f., and spurious rejection 110 dB; HD 0.3% stereo; response 20-15,000 Hz +0.2 dB, -2.0 dB; 50-10,000 Hz +0.2 dB, -0.5 dB; stereo separation 40 dB (1000 Hz); 30 dB (50-10,000 Hz); features twin tone control system that provides approx. 3000 different combinations on tonal characteristics; signal-strength & tuning meters; full complement of inputs, outputs, switches & controls. 20 $\frac{1}{8}$ " W x 6 $\frac{7}{8}$ " H x 17 $\frac{1}{2}$ " D. . . . \$699.95

#### Sound Project 300 Stereo Receiver

7 W/ch continuous power into 8 ohms with both channels driven at 1000 Hz; HD & IM dist. 1%; power bandwidth 25-60,000 Hz; FM sensitivity (IHF) 2.3  $\mu$ V; capture ratio 3.5 dB; S/N 65 dB; HD 0.8% stereo; stereo separation 40 dB (1000 Hz). 17 $\frac{1}{8}$ " W x 5 $\frac{3}{16}$ " H x 12 $\frac{1}{4}$ " D. . . . \$189.95

### PROJECT/one

#### Mark I AM-FM Stereo Receiver

15 W rms/ch into 8 ohms; IM & HD 0.5%; response 25-25,000 Hz; power bandwidth 10-45,000 Hz; FM sensitivity 2  $\mu$ V; S/N 65 dB; capture ratio 3 dB; alternate channel selectivity 50 dB; separation 40 dB at 400 Hz; response 20-15,000 Hz; has full complement of controls; FM tuning meter; headphone jack. 16 $\frac{1}{4}$ " W x 5 $\frac{1}{4}$ " H x 11 $\frac{3}{8}$ " D. . . . \$199.95

#### Mark II AM-FM Stereo Receiver

20 W rms/ch into 8 ohms; IM & HD 0.5%; response 25-28,000 Hz; power bandwidth 10-



50,000 Hz; FM sensitivity 2  $\mu$ V; S/N 65 dB; capture ratio 3 dB; alternate channel selectivity 50 dB; separation 40 dB at 400 Hz; response 20-15,000 Hz; has full complement of controls; FM tuning meter; headphone jack, two tape & two speaker jacks; 4-channel ready. 16 $\frac{1}{8}$ " W x 5 $\frac{1}{4}$ " H x 11 $\frac{3}{8}$ " D. . . . \$269.95

#### Mark III AM-FM Stereo Receiver

32 W rms/ch into 8 ohms; IM & HD 0.2%; response 20-30,000 Hz; power bandwidth 10-60,000 Hz; FM sensitivity 1.9  $\mu$ V; S/N 65 dB; capture ratio 2 dB; alternate channel selectivity 60 dB; separation 40 dB at 400 Hz, 25 dB at 10,000 Hz; response 20-15,000 Hz; has two tape, two turntable, two speaker, one mike, and one headphone jacks; has signal-strength & tuning meters; full complement of controls. 4-channel ready. 18 $\frac{1}{8}$ " W x 5 $\frac{1}{4}$ " H x 12" D. . . . \$359.95

#### Mark IV AM-FM Stereo Receiver

55 W rms/ch into 8 ohms; IM & HD 0.2%; response 20-30,000 Hz; power bandwidth 10-65,000 Hz; FM sensitivity 1.8  $\mu$ V; S/N 65 dB; capture ratio 2 dB; alternate channel selectivity 60 dB; separation 40 dB at 400 Hz, 25 dB at 10,000 Hz; response 20-15,000 Hz; has two tape, two turntable, one mike, three speaker, and one headphones jacks; has signal-strength



& tuning meters; full complement of controls; 4-channel ready; 19 $\frac{1}{4}$ " W x 5 $\frac{1}{4}$ " H x 13" D. . . . \$449.95

### RADIO SHACK

#### STA-200 AM-FM Stereo Receiver

33 W/ch continuous rms power at 8 ohms; 50 W/ch (IHF) at 8 ohms. Response 20-30,000 Hz;



power bandwidth 20-20,000 Hz. S/N phono 50 dB; aux. 60 dB. THD 1% at rated output. Input sensitivity: phono 2.5/5 mV; aux. 200 mV. FM sensitivity 2  $\mu$ V (IHF); separation 30 dB; image rejection 100 dB; capture ratio 3 dB. Outputs: FM detector jack for 4-ch adaptability. Has 25 front- and rear-panel controls. OTL amplifier and regulated power supply. 6 $\frac{3}{4}$ " x 18 $\frac{1}{2}$ " x 13 $\frac{1}{2}$ ". . . . \$459.95

#### STA-76 AM-FM Stereo Receiver

12 W rms/ch into 8 ohms with both channels driven at 1% THD (20-20,000 Hz); 18 W rms/ch at 1000 Hz; response 15-35,000 Hz  $\pm$  2 dB; S/N 60 dB (phono & aux.); FM sensitivity 2.5  $\mu$ V; capture ratio 3 dB; image rejection 50 dB; alternate channel rejection 50 dB; THD 1% 1 mV mono; S/N 65 dB 1 mV; stereo separation 34 dB at 1000 Hz; features FM muting; regulated power supply; "Quatravox" for synthesizing 4-channel by adding second set of speakers; has tape monitor; headphone jack; main/remote speaker switch; 75 & 300 ohm FM antenna inputs; blackout dial. Wood cabinet. 5 $\frac{1}{4}$ " x 18 $\frac{1}{4}$ " x 13 $\frac{1}{2}$ ". . . . \$249.95

#### STA-82 AM-FM Stereo Receiver

22 W rms/ch into 8 ohms with both channels driven at 1% THD (20-20,000 Hz); response



30-20,000 Hz  $\pm$  1 dB; S/N 60 dB (phono), 80 dB (aux.); FM sensitivity 2.5  $\mu$ V (IHF); capture ratio 2 dB; stereo separation 35 dB at 1000 Hz; features "Auto-Magic" tuning system which fine-tunes station electronically; "Perfect Loudness" slide controls for volume and balance settings; "Quatravox" 4-ch synthesizer; FM muting; tape monitor; high filter; main/remote speaker switching; headphone jack. Walnut veneer cabinet. 5" x 17 $\frac{1}{8}$ " x 12 $\frac{1}{2}$ ". . . . \$299.95

#### STA-250 AM-FM Stereo Receiver

44 W rms/ch into 8 ohms with both channels driven at 0.5% THD (20-20,000 Hz); 50 W rms/ch at 1000 Hz; response 17-35,000 Hz  $\pm$  1.5 dB; THD 0.1% half-power at 1000 Hz; S/N 50 dB (phono), 75 dB (tape), 70 dB (aux.); FM sensitivity 1.9  $\mu$ V (IHF); capture ratio 1.5 dB; image rejection 60 dB; stereo separation 40 dB at 1000 Hz; features signal-strength meter; high & low filters; tape monitor; main/remote speaker switches; inputs for two

phonos; "Quatravox" 4-ch. synthesizer. Walnut veneer cabinet, 5 $\frac{1}{4}$ " x 16 $\frac{7}{8}$ " x 15 $\frac{1}{2}$ ". . . \$319.95

### ROTEL

Company has five AM-FM receivers in its line; all of them quite similar in design & appearance. All feature main/remote speaker switchers, signal-strength meters, illuminated dial pointers, and are supplied with walnut cabinets.

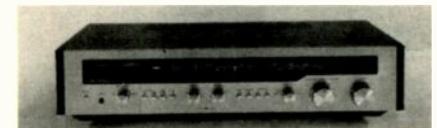
**RX-150A.** 15 W/ch dynamic power . . . \$149.95

**RX-152.** 10 W rms/ch into 8 ohms with both channels driven; 2-stage direct-coupled negative-feedback amp; loudness control; 4-channel simulation; speaker system switching 1 & 2, 1 + 2 . . . \$189.95

**RX-202.** 15 W rms/ch into 8 ohms with both channels driven; FM sensitivity 2.5  $\mu$ V; 2-stage direct-coupled negative-feedback circuit; tape monitor; tape dubbing; hi-filter; loudness controls; 4-channel simulation; speaker system switching 1 & 2, 1 + 2 . . . \$229.95

**RX-402.** 20 W rms/ch into 8 ohms with both channels driven; phase lock loop circuitry; split power supply; direct-coupled output circuit; preamp out, main amp in; tape monitor; tape dubbing; concentric stepped bass & treble control; FM sensitivity 2.0  $\mu$ V; FM muting, hi-filter, loudness controls . . . \$289.95

**RX-602.** 35 W rms/ch into 8 ohms with both channels driven; phase lock loop circuit; direct-



coupled output; split power supply; signal-strength & center-tuning meters; two phono & 2 aux. inputs; tape monitor; tape dubbing; FM & audio muting; tone-control defeat; hi-filter, loudness, and dual concentric bass & treble controls . . . \$399.95

### SANSUI

#### 210 AM-FM Stereo Receiver

10 W/ch continuous sine wave into 8 ohms with both channels driven & at 1% THD. (11 W/ch into 4 ohms); 11 W/ch dynamic power into 8 ohms (17 W/ch into 4 ohms). Power bandwidth 30-25,000 Hz; response 25-30,000 Hz  $\pm$  2 dB. Input sensitivity: mag. phono 3 mV; aux. 180 mV. FM sensitivity 5.5  $\mu$ V for 30 dB quieting. Has tape monitor and universal power supply. 17 $\frac{1}{8}$ " x 5" x 11 $\frac{1}{8}$ " D. Housed in a walnut cabinet. . . . \$179.95

#### 771 AM-FM Stereo Receiver

40 W/continuous power into 8 ohms at 0.5% THD and 0.5% IM. 120 W (IHF) power. Amplifier is direct-coupled. Response 20-40,000 Hz  $\pm$  2 dB. FM sensitivity 2.0  $\mu$ V. Has two tape monitors; provision for 4-ch adapter; three sets of speakers; outboard noise-reduction system; and mike input. 18 $\frac{1}{8}$ " W x 5 $\frac{3}{8}$ " H x 11 $\frac{3}{16}$ " D. . . . \$379.95

#### 661 AM-FM Stereo Receiver

30 W/ch continuous power into 8 ohms at 0.5% THD and 0.5% IM. 100 W (IHF) power. Amplifier is direct-coupled. Response 20-40,000 Hz  $\pm$  2 dB. FM sensitivity 2.2  $\mu$ V. Has two tape monitors; outputs for two sets of speakers; 4-ch ready. 17 $\frac{1}{2}$ " W x 5 $\frac{3}{8}$ " H x 11 $\frac{3}{16}$ " D. . . \$329.95

#### 881 AM-FM Stereo Receiver

60 W rms/ch into 8 ohms with both channels



driven (20-20,000 Hz); THD & IM dist. 0.03%; power bandwidth 10-40,000 Hz; hum & noise 80 dB; FM sensitivity 1.8  $\mu$ V (IHF); THD 0.5% stereo; S/N 70 dB; selectivity 70 dB; capture ratio 1.5 dB; stereo separation 40 dB at 1000 Hz; features circuit board module construction; full complement of inputs, outputs, switches, and controls; signal-strength and center-channel meters. .... \$449.95

**551 AM-FM Stereo Receiver**

16 W rms/ch into 8 ohms with both channels driven (20-20,000 Hz); THD & IM dist. 0.8%; power bandwidth 25-30,000 Hz; FM sensitivity 2.5  $\mu$ V (IHF); capture ratio 2.5 dB; S/N 65 dB; THD 0.7% stereo; has signal-strength meter; full complement of controls, inputs, and outputs. .... \$259.95

**441 AM-FM Stereo Receiver**

11 W rms/ch into 8 ohms with both channels driven (20-20,000 Hz); THD 1.0%, IM dist. 0.8%; power bandwidth 30-25,000 Hz; FM sensitivity 2.5  $\mu$ V (IHF); capture ratio 2.5 dB; THD 0.7% stereo; S/N 65 dB. .... \$219.95

**SCOTT, H. H.**

**R77S AM-FM Stereo Receiver**

70 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD



0.3% at rated output; frequency response 8-40,000 Hz  $\pm$ 1 dB; power bandwidth 15-30,000 Hz; 4-16 ohms imp.; FM sensitivity 1.8  $\mu$ V (IHF); selectivity 75 dB; capture ratio 1.2 dB; S/N 70 dB; THD 0.4% stereo; stereo separation 40 dB at 1000 Hz; has two meters; six-pole lumped filters; six-way speaker switching; optical function indicator. Black and natural anodized aluminum enclosure. 18" x 15" x 5 3/4" ..... \$599.95  
**R75S.** Same as R77S except 50 W/ch. \$499.95  
**R74S.** Same as R77S except 40 W/ch. \$399.95

**R36S AM-FM Stereo Receiver**

30 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD 0.5%; HD 0.5% at rated output; 4-8-16 ohms imp.; FM sensitivity 1.9  $\mu$ V; frequency response 25-15,000 Hz; capture ratio 2.5 dB; selectivity 46 dB; stereo separation 35 dB at 1000 Hz; has full complement of inputs, outputs, jacks, and switches; separate signal-strength and center-tuning meters. 18" x 13" x 5 3/4" ..... \$329.95

**R33S.** Same as R36S except 18 W/ch; capture



ratio 2 dB; single signal-strength meter. 18" x 13" x 5 1/2" ..... \$279.95

**SHERWOOD**

**S-7900A AM-FM Stereo Receiver**

60 W/ch (rms) at 8 ohms from 20-20,000 Hz with both channels driven at 0.3% THD (120 W rms total). Direct-coupled output circuitry with electronic relay protection. Has switch for external connection of 4-channel decoder

# Dokorder

## Engineering Excellence for Professional Results



**MODEL 1120**  
3-Head, 4-/2-Track,  
2-Chan Tape Deck

**MODEL 7140**  
2/4-Chan Stereo  
Tape Deck with  
Multi-Sync

**MODEL 9200**  
6-Head,  
Bi-Direct onal  
Stereo Tape  
Deck

**MODEL 7100**  
3-Motor, 3-Head,  
4-Track Stereo  
Tape Deck

**MODEL MK-50**  
Cassette Deck  
with Dolby-B

**MODEL 1140**  
2/4 Chan Tape Deck  
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(doubles as a second tape monitor). Built-in Dynaquad 4-channel matrixing circuit for synthesizing regular 2-channel stereo program material. Has center-tune meter; ceramic filter. FM sensitivity 1.7  $\mu$ V for 30 dB quieting; capture ratio 1.9 dB (IHF). Metal cabinet ..... \$479.95  
Optional walnut cabinet (16 $\frac{1}{4}$ " W x 5 $\frac{1}{4}$ " H x 14" D) ..... \$24.95  
**S-8900A.** Same as S-7900A except FM only ..... \$449.95

#### S-7110 AM-FM Stereo Receiver

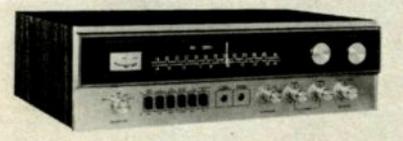
17 W rms/ch into 8 ohms with both channels driven (40-20,000 Hz); 20 W/ch at 1000 Hz; HM & IM dist. 0.9% at 8 ohm rated output, 0.2% at 10 W; frequency response 20-20,000 Hz  $\pm$ 1 dB (Aux.); power bandwidth 9-50,000 Hz 0.9% dist.; FM sensitivity 2.0  $\mu$ V (IHF); S/N 65 dB; capture ratio 1.5 dB; stereo distortion 0.6% at 100% modulation; spurious response rejection 87 dB; image rejection 60 dB; stereo separation 40 dB at 1000 Hz; frequency response 20-15,000 Hz  $\pm$ 1.5 dB stereo; features tuning meter; stereo indicator; tape monitor; mode switch; headphone jacks; bass, treble, balance, and loudness controls. Walnut-grain case. 17 $\frac{1}{2}$ " W x 5 $\frac{1}{4}$ " H x 13 $\frac{1}{4}$ " D ..... \$229.95

#### S-7210 AM-FM Stereo Receiver

22 W rms/ch into 8 ohms with both channels driven (20-20,000 Hz); HD & IM dist. 0.8% at 8 ohm rated output, 0.2% at 10 W; power bandwidth 8-50,000 Hz 0.8% dist.; frequency response 20-20,000 Hz  $\pm$ 0.5 dB (Aux.); FM sensitivity 1.9  $\mu$ V (IHF); S/N 69 dB; capture ratio 1.4 dB; stereo distortion 0.6% at 100% modulation; spurious response rejection 90 dB; image rejection 70 dB; stereo separation 40 dB at 1000 Hz; frequency response 20-15,000 Hz  $\pm$ 1 dB stereo; has full complement of inputs, outputs & controls; has 4-ch output for connecting decoder (doubles as second tape monitor); Walnut-grain case. 17 $\frac{1}{2}$ " W x 5 $\frac{1}{4}$ " H x 13 $\frac{1}{4}$ " D ..... \$299.95

#### S-7310 AM-FM Stereo Receiver

38 W rms/ch into 8 ohms with both channels driven (20-20,000 Hz); HD & IM dist. 0.5% at



8 ohms rated output, 0.15% at 10 W; power bandwidth 7-50,000 Hz, 0.5% dist.; frequency response 20-20,000 Hz  $\pm$ 0.5 dB (Aux.); FM sensitivity 1.8  $\mu$ V (IHF); S/N 70 dB; capture ratio 1.2 dB; stereo dist. 0.5% at 100% modulation; image rejection 70 dB; stereo separation 40 dB at 1000 Hz; frequency response 20-15,000 Hz  $\pm$ 1.5 dB stereo; has full complement of inputs, outputs, switches, controls, and filters; zero-center tuning meter; output for connecting 4-channel decoder. Walnut-grain case. 17 $\frac{1}{2}$ " x 5 $\frac{1}{4}$ " H x 13 $\frac{1}{4}$ " D ..... \$369.95

### SONY

#### HST-230A AM-FM Stereo Receiver

20 W/ch dynamic power at 8 ohms. Input sensi-

tivity; mag. phono 3.5 mV; ceramic phono 300 mV; tape 400 mV. Has tape monitor & main/remot speaker switch. 16 $\frac{1}{4}$ " x 4 $\frac{1}{2}$ " x 12 $\frac{1}{2}$ " D ..... \$149.95

#### STR-6036A AM-FM Stereo Receiver

15 W/ch continuous power into 8 ohms (20-20,000 Hz); 18 W/ch into 8 ohms (1 kHz); HD &



IM 0.8% at rated output. FM tuner sensitivity 2.2  $\mu$ V (IHF); selectivity 60 dB; image rejection 55 dB; capture ratio 1.5 dB. (S+N)/N 68 dB; response 30-15,000 Hz +0, -2 dB; stereo separation 35 dB at 400 Hz. Has full complement of controls. Dual input and output jacks for tape recorder monitoring as well as connection of SQ or other matrix decoders. Oiled walnut cabinet. 5 $\frac{1}{16}$ " H x 17 $\frac{1}{8}$ " W x 13 $\frac{3}{4}$ " D ..... \$199.50  
**STR-6046A.** Similar to STR-6036A except 20 W/ch continuous power output ..... \$249.50

#### STR-7055 AM-FM Stereo Receiver

35 W/ch continuous power output into 8 ohms (20-20,000 Hz); 45 W/ch into 8 ohms (1 kHz); HD & IM 0.2% at rated output. FM sensitivity 2.0  $\mu$ V (IHF); selectivity 70 dB; capture ratio 1.0 dB; image rejection 70 dB. (S+N)/N 70 dB. Has full complement of controls. Two pairs of inputs and outputs for monitoring two recorders; accepts any 4-ch decoder. Oiled walnut cabinet. 6 $\frac{1}{4}$ " x 18 $\frac{1}{4}$ " x 14 $\frac{3}{4}$ " D .. \$399.50  
**STR-7065.** Similar to STR-7055 except 60 W/ch and includes mike input and mixing facilities. Oiled walnut cabinet. 5 $\frac{7}{8}$ " x 17 $\frac{1}{4}$ " x 9" D ..... \$499.50

### SUPERSCOPE

#### R-310 AM-FM Stereo Receiver

6 W/ch continuous power into 8 ohms; response 30-30,000 Hz; features "Quadrphase;" illuminated signal-strength/tuning meter; stereo multiplex indicator; tape monitor jack; line balance control; remote/Quadrphase speaker switch; magnetic/ceramic phono input switch. Walnut-grained cabinet. 16 $\frac{1}{16}$ " W x 4 $\frac{1}{16}$ " H x 11 $\frac{1}{16}$ " D ..... \$169.95

#### R-330 AM-FM Stereo Receiver

9 W/ch continuous power into 8 ohms with both channels operating; THD 1.0% at 1 kHz. Response 15-45,000 Hz  $\pm$ 3 dB; power bandwidth 30-30,000 Hz. FM usable sensitivity 5  $\mu$ V; (S+N)/N 55 dB; stereo separation 32 dB at 1 kHz; capture ratio 4 dB. Has volume controls, mode selector switch, loudness and tape monitor switches, balance control, main/remot speaker switch, stereo headphone jack, signal-strength tuning meter, FM stereo indicator light, output for 4-ch FM decoder when 4-ch multiplex FM broadcasting is approved. 16 $\frac{7}{8}$ " W x 5 $\frac{1}{4}$ " H x 12 $\frac{3}{8}$ " D ..... 219.95

#### R-340 AM-FM Stereo Receiver

12 W/ch continuous power into 8 ohms with both channels driven; THD 1.0% at 1 kHz. Response 30-20,000 Hz  $\pm$ 1 dB; power bandwidth 30-30,000 Hz. FM usable sensitivity 2.8  $\mu$ V (IHF); stereo separation 32 dB at 1 kHz; capture ratio 2.5 dB; spurious rejection 45 dB. Includes Quadrphase circuit to simulate 4-ch from standard stereo sources with addition of two speakers. 16 $\frac{7}{8}$ " W x 5" H x 5 $\frac{3}{8}$ " D ..... \$259.95

#### R-350 AM-FM Stereo Receiver

Similar to R-340 except 25 W/ch; response 20-20,000 Hz  $\pm$ 1 dB; power bandwidth 15-40,000

Hz. FM usable sensitivity (IHF) 2.8  $\mu$ V; stereo separation 35 dB at 1 kHz; capture ratio 3.0 dB; spurious rejection 84 dB (FM). Includes Quadrphase ..... \$299.95

### SYLVANIA

#### CR2742A AM-FM Receiver

Has PQ4 circuitry to simulate 4-channel reproduction, outputs for four speakers, 22 W/ch rms continuous power into 8 ohms (30 S/ch into 4 ohms). THD 0.5% at rated output (0.1% at 1W). Response 17-35,000 Hz +0, -3 dB. Power bandwidth 17-30,000 Hz. FM sensitivity 1.9  $\mu$ V for 30 dB quieting. Capture ratio 1.5 dB. 16 $\frac{7}{8}$ " x 13" x 5 $\frac{3}{8}$ " ..... \$229.95

#### RS4744 AM-FM Stereo Receiver

60 W rms/ch into 8 ohms with both channels driven (20-20,000 Hz) at 0.25% THD; power bandwidth 5-30,000 Hz; frequency response 7-70,000 Hz (tape input  $\pm$ 1 dB); FM sensitivity 1.8  $\mu$ V; S/N 67 dB; capture ratio 1.5 dB; THD stereo 0.4%; stereo separation 40 dB (1000 Hz), 30 dB (10,000 Hz); has full complement of inputs, outputs, controls and switches. Walnut-grained vinyl cabinet. 6" H x 17 $\frac{1}{4}$ " W x 15" D. .... \$399.95

### TANDBERG

#### TR-1020A AM-FM Stereo Receiver

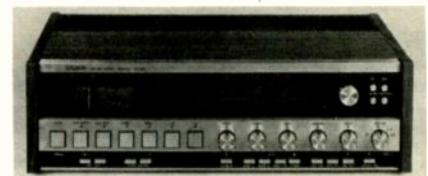
52 W/ch dynamic power into 8 ohms (75 W/ch into 4 ohms); 40 W/ch continuous power into 8 ohms (52 W/ch into 4 ohms) with both channels driven & at 0.2% THD (38 W/ch from 20-20,000 Hz). Response 12-70,000 Hz  $\pm$ 0.75 dB. FM sensitivity 2  $\mu$ V; capture ratio 1.8 dB. Input sensitivity; mag. phono 4 mV; tape #1 & #2 260 mV. Has tape monitor; main/remot speaker switch; and a signal-strength meter that can also be used to read power output. 17" x 5 $\frac{1}{4}$ " x 12" ..... \$529.90

#### TR-1055 AM-FM Stereo Receiver

55 W rms/ch into 8 ohms with both channels driven (20-20,000 Hz), 0.2% dist.; power bandwidth 4-40,000 Hz into 8 ohms, 0.2% dist.; frequency range (linear inputs) 7-70,000 Hz -1.5 dB; FM sensitivity-2  $\mu$ V (IHF); S/N 66 dB stereo; dist. 0.3% stereo; frequency range 20-15,000 Hz -3 dB; i.f. rejection 95 dB; image rejection 70 dB; capture ratio 0.9 dB (1 mV antenna signal); channel separation 40 dB 100-12,000 Hz; signal strength/power output indicator; center-channel tuning meter; features full complement of inputs, outputs, switches, and controls. 17 $\frac{3}{4}$ " W x 5 $\frac{3}{16}$ " H x 12 $\frac{1}{4}$ " D +  $\frac{3}{4}$ " knobs ..... \$629.90

#### TR-2075 AM-FM Stereo Receiver

75 W rms/ch into 8 ohms with both channels driven; response 20-20,000 Hz; dist. 0.2%;



finger-tip switching facilities; available for Fall delivery ..... \$899.00

### TECHNICS BY PANASONIC

#### SA-5200A AM-FM Stereo Receiver

13 W/ch continuous power at 8 ohms (15 W/ch at 4 ohms) and at 0.8% THD. Power bandwidth 5-30,000 Hz. FM sensitivity 1.9  $\mu$ V for 30 dB quieting; capture ratio 2 dB. Input sensitivity; mag. phono 3 mV; mike 2.5 mV; tape play #1 & #2 200 mV. Features mike inputs; dual tape monitor with tape-to-tape dubbing; main/remot speaker switch. Has built-in "speaker matrix" for 4-channel enhancement. 16 $\frac{1}{8}$ " x 5 $\frac{3}{8}$ " x 14 $\frac{1}{4}$ " D ..... \$219.95



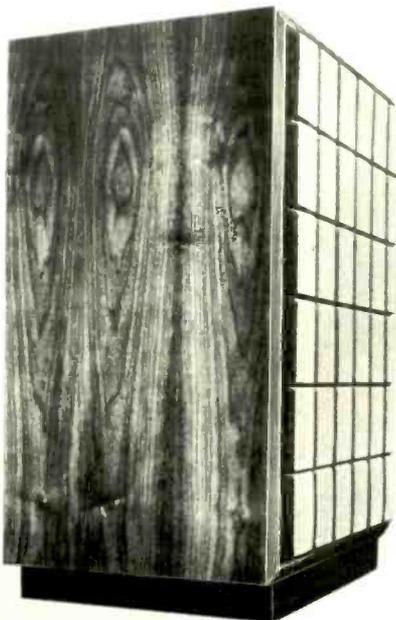
## NATURAL SOUND REPRODUCTION.

What's natural sound reproduction? It's sound so real you can see swaying palm trees and grass skirted dancers . . . feel the sun-warm sand beneath your feet . . . and smell the salt sea air . . . right in your own living room.

Making a speaker deliver sound this accurate takes years of experimenting and testing as well as solid engineering know-how. Here at UTAH, speakers are our only business. Our sound specialists never stop trying to find ways to improve the quality of our speakers. In fact, we design, engineer, and produce more speakers and speaker systems than any other manufacturer in the country.

When you play your favorite music through a UTAH speaker, you're hearing those clear, thrilling highs, deep, resonant bass notes, and smooth, mellow mid-range tones as closely as you can to the way they were originally recorded.

Natural sound reproduction. What else did you expect from the country's largest speaker manufacturer? The best . . . naturally. Write for the name of the UTAH dealer nearest you.



### MP 3000.

This superb speaker system boasts 2 tweeters, 1 mid-range, and 1 woofer. Featuring separate controls for tweeters and mid-range, the MP-3000 handles 50 watts program material (100 watts peak). Frequency response: 20-20,000 Hz. Cabinet: 27" x 20½" x 14". Shipping weight: 70 lbs. \$199.95



## UTAH ELECTRONICS

1124 E. FRANKLIN ST. • HUNTINGTON, INDIANA 46750



# 3

# RECORD PLAYERS

## ACOUSTIC RESEARCH

### AR-XA Manual Turntable

Two-speed (33 & 45 rpm) manual turntable. Features synchronous motor, belt drive, 4-lb platter, removable cartridge shell. Comes complete with tonearm, base, and dust cover. 12 $\frac{3}{4}$ " x 16 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " ..... \$109.95  
**XAU/Universal.** Same except for 110-220, 50-60 Hz operation ..... \$116.95  
**AR-XA-91.** Same as AR-XA but with Shure M91ED cartridge premounted ..... \$164.90

### AR-XB Manual Turntable

Two-speed (33 & 45 rpm) manual turntable. Features synchronous motor, belt drive, 4-lb



platter, viscous-damped cueing, and removable cartridge shell. Comes complete with base, dust cover, and tonearm. 12 $\frac{3}{4}$ " x 16 $\frac{1}{2}$ " x 5 $\frac{1}{2}$ " ..... \$119.95  
**AR-XB-91** Same as AR-XB but with Shure M91ED premounted ..... \$174.90

## BANG & OLUFSEN

### Beogram 3000 Automatic Turntable

Two-speed (33 & 45 rpm) fully automatic single-record unit. Has single operating switch; facility



for manual operation. Constant-voltage asynchronous motor; built-in self adjusting anti-skating. Rumble 60 dB (DIN B); wow & flutter  $\pm 0.15\%$  peak value (DIN); fine-speed adj. 6%. Adjustable counterweight on tonearm; adjustable stylus pressure 0 to 3.5 g. Comes with SP 12A elliptical, naked-diamond stylus. Low-profile, functional design. Hinged dust cover which can be removed if desired. Will play all size records with dust cover closed ..... \$265.00

1975 EDITION

## BIC

### 980 Belt-Drive Programmed Turntable

Record-changing turntable with belt drive; features 24-pole, low-speed (300 rpm) syn-



chronous motor; fundamental vibration frequency 5 Hz. Has solid-state electronic frequency generator module to adjust speed; adjustable for  $\pm 3\%$  pitch variation. Features the "Programmer" by which a single record can be repeated up to six times before the machine turns off; also used for automatic play of up to six different records; cycling information is set by user on the control panel. All automatic functions activated by single cycle button requiring only 90 gr of perpendicular force and 0.0625" of travel to operate. Anti-skating and stylus pressure functions handled by tandem controls operating along a single scale. Knob control for cueing rate adjustment (continuously varied between 1 and 3 sec.); plug-in male/female pin connectors for attaching cartridge head to tonearm; gimballed tonearm with needle bearings; 15" tracking adjustment for stack of records, 12" cast single-piece platter, die-case isolated tonearm counterweight ..... \$199.95

**960.** Same except without electronic speed control and variable pitch feature ... \$149.50  
 Solid oiled-walnut base, matte black molded base, and hinged dust cover available extra.

## BSR McDONALD

### 2620W Automatic Turntable

Two-speed (33 & 45 rpm) unit for 7", 10" & 12" records; features variable pitch control & strobe disc; synchronous motor; die-cast platter; viscous damped cue & pause control; dual-range anti-skate control and slide-in cartridge head; comes with ADC K5E elliptical magnetic cartridge, walnut base, and dust cover ..... \$148.80

**2660F.** Similar to 2620W except has front operation controls, pilot light, stylus wear indicator, accessory tray, wood grained base & hinged dust cover ..... \$147.80

### 2520W Automatic Turntable

Three-speed version of Model 2620W; has lighter platter; does not include variable pitch control & strobe disc; comes with ADC K7E elliptical magnetic cartridge, walnut base, and dust cover ..... \$118.80

**2510X.** Same as 2520W except with accessory tray, walnut-grained plastic base and hinged dust cover ..... \$110.80

### 2310X Automatic Turntable

Has 4-pole induction motor; anti-skate, cue & pause controls; accessory panel; comes with ADC K8E elliptical magnetic cartridge ..... \$98.80

**2360F.** Similar to 2310X except front operation controls & pilot light included ..... \$125.80

**2260X.** Similar to 2310X except economy design with full-size platter, anti-skate, cue & pause controls; comes with Shure M-81SC magnetic cartridge, base & dust cover ... \$81.80

### 810QX Turntable

Two-speed (33 & 45 rpm) manual/changer combination; Quad-Ready; features anti-skating



control; synchronous motor; direct-drive; record repeat, cueing & pitch controls; stylus wear indicator; accessory tray; stylus pressure adjustable from 0 to 4 g; 7 $\frac{1}{4}$ -lb platter; removable cartridge shell; comes with walnut base, dust cover, and Shure M-91ED magnetic cartridge ..... \$294.80  
**710QX.** Similar to 810QX except has lighter platter and different tonearm gimbal; comes with Shure M-91E magnetic cartridge ..... \$249.80

## CONNOISSEUR

### BD2/C Turntable

Integrated turntable with SAU2 arm and pick-



For turntables equipped with CD-4 cartridges and designed for 4-channel, see Section 9

# 3 Record Players

up assembly. Has push-button speed control; hydraulic lift and lowering of tonearm; anti-vibration springs; lightweight cartridge shell with self-cleaning contacts. Two-speed (33 & 45 rpm); 60-Hz synchronous constant speed 450 rpm; belt drive. Rumble -50 dB (RIAA); hum -80 dB; wow & flutter 0.1%. Has 10 1/4" aluminum platter. 13 3/4" x 15 1/2" x 4 1/2" H (including dust cover). Comes with arm, base, dust cover but without cartridge ..... \$139.95  
**SAU2.** Tonearm with head shell ..... \$50.45  
**HS.** Head shell for SAU2 tonearm ..... \$6.50

## DUAL

All Dual multiple-play models offer these features: dynamically balanced tonearm which does not require critical leveling of chassis; direct-dial setting for stylus force; anti-skating calibrated for conical, elliptical, and CD-4 styli; 6% pitch control for both speeds (33 & 45); automatic and manual operation in both single- and multiple-play modes; interchangeable single- and multiple-play spindles; self-stabilizing multiple-play spindles hold up to six records; records removable from platter without removing spindle; silicone-damped cueing system which operates with both manual and automatic starts; jam-proof slip-clutch engagement between tonearm and cycling mechanism; quick-release cartridge holder with stylus overhang adjustment; low-capacitance tonearm leads compatible with all CD-4 cartridges. All prices are less base and cartridge.

### 1229Q Professional Automatic Turntable

Additional features include: mode selector which lowers tonearm base to parallel tonearm



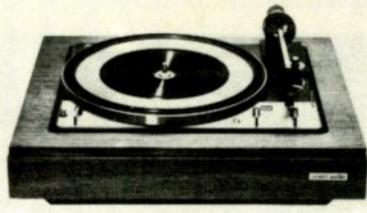
to record for correct vertical stylus tracking in single-play mode, raises tonearm base to parallel tonearm to center of stack in multiple-play mode. Tonearm suspension centers tonearm within four-point gyroscopic gimbal. Tonearm tracks down to 1/4 gram. Damped counterbalance. Tracking pressure dial calibrated in tenths of a gram. Synchronous/continuous-pole motor. Built-in illuminated strobe with adjustable viewing angle. 12", 7-pound platter. Cue control system with silicone damping in both directions. Four-point-damped spring suspension. 14 3/4" x 12" plus 1" at rear and right for tonearm overhang. 5" above, 3" clearance below mounting board ..... \$259.95  
**DCB-6.** Danish-style combination base and dust cover ..... \$44.95  
**DC-9X.** Deluxe dust cover with lift-open front ..... \$39.95  
**WB-19.** Oiled walnut base ..... \$14.95  
**DC-9.** Smoke-tinted dust cover ..... \$14.95

### 1226 Auto/Standard Turntable

Additional features include: tracking as low as 3/4 g. 4-lb one-piece die-cast platter. Rotating single-play spindle. 12 1/2" x 10 1/4", 5" above 2 3/4" below mounting board ..... \$159.95

### 1228 Auto/Professional Turntable

Additional features include: four-point gyroscopic gimbal tonearm suspension. Tracking



angle selector for single- and multiple-play. Tracking down to 1/2 gram. Damped counterbalance with coarse and fine adjustments. Synchronous/hi-torque motor, 4-lb one-piece die-cast platter; illuminated strobe. 13" x 10 1/4" plus 1" at rear and right for tonearm overhang. 5" above and 2 3/4" below mounting board ..... \$189.95

### 1225 Automatic Turntable

Additional features include: tracking as low as



1 gram. 3 3/4-lb platter. 12 1/2" x 10 1/4". 5" above and 2 3/4" below mounting board ..... \$129.95

### Accessories for 1228, 1226, 1225

**DCB-5.** Danish-style combination base and dust cover ..... \$44.95  
**MB-10.** Molded base ..... \$9.95  
**WB-12.** Oiled walnut base ..... \$14.95  
**DC-4.** Smoke tinted dust cover ..... \$12.95

### 701 Automatic Single-Play Turntable

All-electronic direct-drive brushless d.c. motor with regulated power supply. An exclusive overlapping coil design provides gapless rotating magnetic field. Two Hall-effect generators for electronic self-regulating speed monitoring. Motor rotates at actual record speed: 33 1/2 or 45 rpm; top of shaft functions as record spindle. Separate 8% pitch-control for each speed. Illuminated strobe with adjustable viewing angle. 12" one-piece dynamically balanced die-cast platter; combined rotating weight (platter



plus rotor) 9.7 lbs. Gimbal-mounted 8 3/4" tonearm. Two anti-resonance filters integral with counterbalance, tuned to tonearm/cartridge system and chassis. Stylus pressure 0-3.0 g, calibrated in 10ths of a gram. Anti-skating. Cueing system damped in both directions. Rumble: -70 dB. Wow & flutter: 0.03%. 16.5" x 14.4" x 5.8". With base and dust cover ..... \$400.00

### 601 Automatic Single-Play Turntable

8-pole synchronous motor; belt drive; fully automatic and manual start/stop; single-play/continuous-repeat switch. 6% pitch control each speed (33 & 45). 12" dynamically balanced platter; cueing system damped in both

directions; anti-skating system calibrated for conical, elliptical, and CD-4 styli. 16.5" x 14.4" x 5.8". With base and tilt-hold dust cover ..... \$270.00

## ELAC/MIRACORD

### 50H Mark II Automatic Turntable

Three speeds (33, 45, & 78 rpm); rumble -40 dB (NAB); wow 0.06%; flutter 0.02%. Stylus



force adjustable 0 to 6 1/2 g ±0.1 g. Mounting clearance 5 1/2" above board, 2 7/8" below. Has hysteresis motor and anti-skating device, cueing lever, and built-in lighted stroboscope. 14 1/8" W x 12 1/8" D. Without base or cartridge ..... \$225.00

### 625 Automatic Turntable

Features 4-pole synchronous motor, cueing lever, and anti-skating device. Four speeds (16,



33, 45 & 78 rpm). Will handle 7", 10" & 12" records. Rumble -38 dB (NAB); wow 0.07%; flutter 0.03%. Stylus force calibration 0 to 6 1/2 g ±0.1 g. Space required above mounting board 5 5/8", below 2 5/8". Less base & cartridge ..... \$119.95

### 760 Automatic Turntable

Features 4-pole induction motor. Operates at 78, 45, and 33 rpm. Will handle 7", 10", or 12" records. Rumble 44 dB (NAB); wow 0.06%; flutter 0.02%. Tracking error less than 0.4 degree per inch. Stylus force adjustment calibrated 0-6 1/2 g (accurate to within 0.1 g). Speed adjustable over a 6% range for semitone of pitch adjustment. 12" die-cast platter; dynamically balanced tonearm. 14 1/8" W x 12 1/8" D x 5 1/2" above motorboard, 2 7/8" below ..... \$189.50

### 770H Automatic Turntable

Three-speed (33, 45 & 78 rpm) manual/changer combination. Features variable speed control, hysteresis motor, anti-skating device, cueing control, tracking angle adjustment, and adjustable stylus pressure from 0 to 6 1/2 g. Wow 0.05%; -42 dB rumble. Has removable cartridge shell, overhang adjustment, and an



**'Many professional audio people, including our reviewer, use the AR-3a as a standard by which to judge other speaker systems'**

From the beginning, AR speaker systems have been characterized by independent reviewers, like *Electronics Illustrated* quoted above, as embodying the state of the art in home music reproduction.

**Standard of performance**

Soon after the AR-1 was introduced, as AR's first 'top-of-the-line' speaker system, the *Audio League Report* stated, 'We do not specifically know of any other speaker system which is comparable to [the AR-1] from the standpoint of extended low frequency response, flatness of response, and most of all, low distortion.'



Miles Davis, at home with his AR-3a speakers.

**Durability of accomplishment**

AR's research program is aimed at producing the most accurate loudspeaker that the state of the art permits, without regard to size or price. *Consumer Guide* recently confirmed the effectiveness of this approach, stating that 'AR is the manufacturer with the best track record in producing consistently high-quality speakers,' and noted that 'the AR-3a was judged by our listening panelists to be the ultimate in performance.'

*Audio* magazine called the AR-3a 'a new high standard of performance at what must be considered a bargain price.' Hear it today at your audio dealer. You'll see what we mean when we say that the AR-3a is the best home speaker system AR knows how to make.

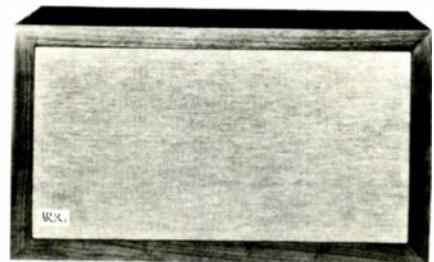
**Twenty years later**

In a recent review of the AR-3a, published in *Stereo Review*, Hirsch-Houck Laboratories made the following observation:

'For the benefit of newcomers to the audio world, the AR-3a is the direct descendant of the AR-1, the first acoustic suspension speaker system, which AR introduced in 1954. The AR-1 upset many previously held notions about the size required for a speaker to be capable of reproducing the lowest audible frequencies. The 'bookshelf'-size AR speakers set new standards for low distortion, low-frequency reproduction, and in our view have never been surpassed in this respect.'



Symphony Hall, Boston. Six AR-3a's are used for modern compositions involving electronic music.



The AR-3a. *Consumer Guide's* 'ultimate in performance'.

**Acoustic Research**

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Bedfordshire, England

*In Canada:*  
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CIRCLE NO. 1 ON READER SERVICE CARD

elapsed time indicator. 9½" H x 14½" W x 12⅞" D. .... \$265.00  
Wood vinyl-covered base. .... \$11.00

### 820 Automatic Turntable

Features 4-pole asynchronous motor; three-speed (33, 45 & 78 rpm) operation; automatic programming of tonearm for 12" records at 33, 7" records at 45; push-button start and stop; variable pitch control (up to 5% range); built-in strobe speed indicator; calibrated anti-skate for elliptical and conical styli; viscous-damped up and down cueing in all modes; low-mass arm and head assembly; tracking as low as 1 gr; heavy pressure-formed platter. Less base and cartridge. .... \$129.95

## EMPIRE

### Troubador III 598 Turntable

Two-speed (33, 45 rpm) manual turntable. Has anti-skating device, hysteresis synchronous



motor, belt drive, cueing control, and removable cartridge shell. Wow & flutter 0.01%; stylus pressure adjustable from 0 to 4 g; rumble -90 dB. Has built-in 45-rpm spindle, 12" platter. 16" W x 13½" D x 3¼" above mtg. board, 3½" below. Comes with 4000D/III low-tracking cartridge, base, and Plexiglas cover. .... \$399.95

## GARRARD

### Zero 100C Automatic Changer/Turntable

Features an articulated tonearm with zero tracking error; magnetic anti-skating control;



15 degree vertical tracking adjustment; built-in record counter (stylus timer); viscous damped tonearm cueing in both directions. Has Synchro-Lab (combination induction and synchronous) motor with variable speed control and illuminated stroboscope. Two speeds (33 & 45 rpm). 15½" W x 14½" D x 7⅞" H. \$209.95

### Zero 92 Changer/Turntable

Essentially same as Zero 100C, lacking a few re-

finements. Has same zero-tracking error tonearm with 15 degree vertical tracking adjustment and viscous damped cueing control. Also two-point support for stack of records. Sliding weight stylus-force and anti-skating adjustments. Synchro-Lab motor. Three separate control tabs. .... \$169.95

### 82 Automatic Changer/Turntable

Identical to Zero 92 except for tonearm. Has low-mass aluminum tonearm; interchangeable spindles; cartridge overhang adjustment; two-point record support; damped cueing. .... \$119.95

### 70 Automatic Changer/Turntable

Features same record-support platform system as the more expensive models. Has low-mass extruded aluminum tonearm with adjustable counterweight for zero balance (before setting stylus force with calibrated gauge). Synchro-Lab motor; damped cue control; three speeds (33, 45 & 78 rpm). .... \$89.95  
**70M Pre-Pack Turntable.** Consists of Model 70 with factory installed Shure M93E elliptical cartridge and BW10 wooden base. .... \$109.95

### 62 Automatic Changer/Turntable

Similar to Model 70 except for heavy-duty, 4-pole induction surge motor and fixed counterweight in tonearm. .... \$69.95

### 40B Automatic Changer

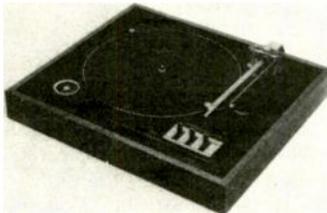
Four-pole induction motor; overhead stabilizer arm for record stack; tubular aluminum tonearm; damped cue control; plays 33, 45 & 78 rpm. .... \$49.95

**42M. Pre-Pack Changer.** Same as 40B but comes with factory installed magnetic cartridge and BW10 wood base. .... \$69.95

**42C. Pre-Pack Changer.** Same as 42M except 2-pole induction motor and Tetrax ceramic cartridge. .... \$59.95

### Zero 100SB Single-Play Turntable

Features an articulated tonearm with zero tracking error; magnetic anti-skating control;



built-in record counter; viscous damped cueing; Synchro-Lab motor; belt driven 4-lb dynamically balanced zinc alloy platter. Includes teak wood base and hinged dust cover. .... \$209.95

**86SB.** Same as Zero 100SB except has non-articulated low-mass aluminum tonearm with sliding weight anti-skate control. .... \$169.95

## GENERAL ELECTRIC

### CA960 Automatic Changer

Three-speed (33, 45 & 78 rpm) changer with turntable mechanism suspended under single-piece deck; 11" platter; will handle 7", 10", and 12" records; cueing control; integrated lever function control for on/off/reject and speed; ceramic cartridge with diamond stylus; tubular tonearm with adjustable counterweight. Wood



cabinet with tinted dust cover. 16" W x 8" H x 14" D. .... \$74.95  
**CA910.** Similar to CA960 but with shock-mounted turntable; 9" platter; new-design tonearm. 16" W x 7" H x 14" D. .... \$44.95

## GLENBURN

All automatic turntables in the line feature low-mass precision tonearms; oversize turntable bearing; Delrin tripping pawls for minimum tracking and tripping force; uni-planar construction with all operating parts in one horizontal plane; re-designed base with hinged dust cover.

### 2155A Record Changer

Heavy-duty 4-pole motor; 11" turntable platter with protective mat; bi-directional viscous-damped cue and pause control; adjustable anti-skate control calibrated for conical and elliptical styli; calibrated stylus-pressure control; interchangeable automatic and manual spindles; ball-race pivoted tonearm; automatic tonearm locking rest; record stabilizer arm with finger-lift; comes with audio cables and Shure M75E magnetic cartridge. .... \$112.80  
**2155S.** Same except without dust cover, base, or cartridge. .... \$59.95

### 2110A Record Changer

High-torque induction motor; 11" turntable with cushioned mat; bi-directional viscous-



damped cue and pause control; built-in anti-skate; ball-race pivoted tonearm; swing-away control arm; cue and pause control; interchangeable manual and automatic play spindles; automatic locking tonearm rest; comes with audio cables and Shure M75E magnetic cartridge. .... \$84.50

### 1120A Record Changer

Features 11" turntable platter with cushioned protective mat; bi-directional viscous-damped cue and pause control; ceramic cartridge/diamond stylus; adjustable anti-skate control; stylus pressure control with indicator; automatic locking tonearm rest; interchangeable manual and automatic play spindles; 45 rpm adapter spindle. .... \$64.95

### 1100A Automatic Turntable

Automatic locking tonearm rest; cue and pause control; interchangeable manual and automatic play spindles; 45 rpm adapter; ceramic cartridge/diamond stylus. .... \$54.95  
**1100S.** Same except without dust cover, base, or cartridge. .... \$34.95

### 351 Automatic Turntable



Features underslung gimbal tonearm with adjustable counterbalance; heavy-duty 4-pole a.c. synchronous motor; 11" turntable platter with protective mat; low-mass plug-in head shell; bi-directional viscous-damped cue and pause control; anti-skate control calibrated for conical and elliptical styli; interchangeable automatic umbrella and manual spindles; pure gravity stylus-pressure adjustment; automatic tonearm locking rest; three modes of operation depending on spindle application.... \$159.95

## JVC

### JL-B44 Stereo Turntable

Direct-drive d.c. motor; adjustable speed control with neon strobe; 12" die-cast aluminum turntable; two speed (33 & 45 rpm); wow & flutter 0.05% W rms; S/N 60 dB; effective arm length 9 $\frac{3}{4}$ "; features balanced S-shaped tonearm; calibrated stylus pressure adjust; adjustable anti-skating; resonance-free beechwood base & dust cover; 4-channel adaptable. 7 $\frac{1}{2}$ " H x 19 $\frac{1}{4}$ " W x 16 $\frac{1}{4}$ " D..... \$349.95

### VL-5 Manual Turntable

Four-pole synchronous motor; belt-drive system; features viscous damped cueing; anti-skating adjust; push-button speed selection (33 & 45 rpm); auto lift at end of record; S-shaped tubular tonearm; plug-in head. 7 $\frac{3}{8}$ " H x 18 $\frac{1}{8}$ " W x 14 $\frac{7}{8}$ " D..... \$129.95

## KENWOOD

### KP-5022 Automatic Turntable

Direct-drive automatic turntable powered by an 8-pole brushless 24-slot d.c. motor coupled to



the center of the turntable; wow & flutter 0.05%; S/N 58 dB; two speeds (33 & 45); elliptical cross-section, statically balanced tubular tonearm with cartridge shell adjustable for precise stylus-to-record contact angle; direct-reading stylus balance gauge adjusts stylus pressure from 0 to 4 gr in 0.25 gr increments; automatic indexing of 7", 10" and 12" records, repeat play, automatic arm return, and power shut-off; muting delay circuit; pause lever for accurate cueing; manual operation provided. Has anti-skating adjustment; stylus lamp gauge; stroboscope speed adjustment; 12" solid die-cast aluminum alloy turntable. Cabinet of non-resonant low-expansion ABS resin; acrylic dust cover with free-stop hinges. 19" W x 6 $\frac{1}{16}$ " H x 13 $\frac{3}{8}$ " D..... \$229.95

### KP-3022 Automatic Turntable

Dual synchronous motors for separate belt drive of turntable and tonearm for low wow & flutter and improved S/N; 12" solid die-cast aluminum alloy turntable; two speeds (33 & 45); wow & flutter 0.08% W rms; S/N 48 dB; elliptical cross-section, statically balanced tubular tonearm; fully adjustable cartridge shell; direct-reading stylus balance gauge; automatic indexing of 7", 10" and 12" records; calibrated anti-skating adjustment; stylus lamp gauge. Same cabinetry as KP-5022. 17 $\frac{3}{4}$ " W x 6 $\frac{1}{16}$ " H x 13 $\frac{3}{8}$ " D..... \$199.95

## KLH

### M-60 Manual Turntable

1975 EDITION

Two-speed (33 & 45 rpm) manual turntable; will handle 7", 10" & 12" discs; rumble -58 dB (CBS-RRLL); wow & flutter 0.1% (DIN); 24-pole synchronous motor; motor drift  $\pm 0.5\%$  (DIN); adjustable tracking force 0.5-4.0 g; aluminum alloy, 12" dynamically weighted and balanced platter; viscous-damped cueing; low-deflection equilibrium field suspension; plug-in shell capability for all standard cartridges; adapter for 45, rpm records; 9" tonearm; tracking error  $\pm 0.7$  degree;  $\frac{3}{16}$ " aluminum alloy tube; automatic operational capability lifts tonearm off record and unit shuts off. Walnut veneer base and hinged dust cover. 17" W x 13 $\frac{3}{8}$ " D x 6 $\frac{1}{4}$ " H (with dust cover)..... \$149.95

## LENCO

### L-78 Single-Play Turntable

Four-speed (16, 33, 45 & 78 rpm) design with

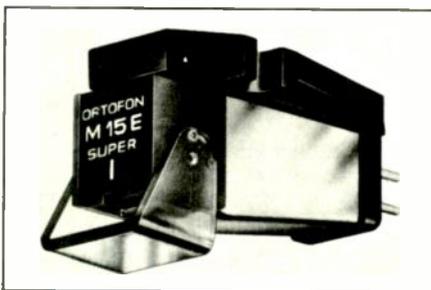
continuously variable speed from 30 to 86 rpm. Will handle 7", 10", or 12" records. Rumble (NAB) -40 dB; wow & flutter 0.06%. Features electronic shut-off and arm lift; balanced tonearm; automatic viscous-damped cueing; anti-skating; low-mass cartridge head; high-mass base suspension system. Tonearm 8"; turntable diameter 11 $\frac{3}{4}$ ". Motor is 4-pole constant-velocity type with conical shaft. .... \$179.50

### L-85 Single-Play Turntable

Two speed (33 & 45 rpm) design with  $\pm 3\%$  speed adjustment. Wow & flutter  $\pm 0.08\%$  weighted; rumble -63 dB weighted. Has 16-pole synchronous motor with belt drive. Stylus force adjustment 0-5 g. 12 $\frac{1}{2}$ " platter. Has built-in illuminated stroboscope, anti-skating device, four viscous-damped suspension spring, automatic shut-off, and automatic arm lift. Mounting clearance above board 2 $\frac{3}{8}$ ", below 2 $\frac{3}{8}$ ".

(The Ortofon M 15 E Super)

# THE ONLY CARTRIDGE WE KNOW OF THAT WILL DO FULL JUSTICE TO A NEW GENERATION OF STEREO RECORDS.



For the first time in many years, all that can be put onto stereo records by professional disc-cutting equipment can be gotten off them by a cartridge—the new Ortofon M 15 E Super.

It is the only pickup we know of that not only can handle the peak levels and full dynamic range now possible on records, but while doing so can operate below the wear threshold of modern discs, preserving their full quality for playing after playing.

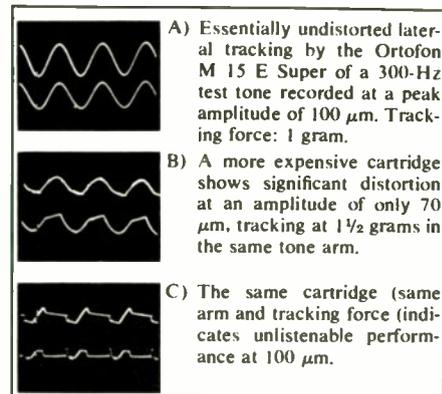
As makers of studio record-cutting equipment (Ortofon supplies equipment to recording companies and studios around the world), we know the capabilities of the newest generation of cutters, which for the first time can clearly put onto records a dynamic range approaching that of master tape. The maximum high-frequency levels these cutters will record also permit the first real approximation of the full "live" intensity of cymbals, brass, snares, and other demanding instruments.

On the test record that best reflects these new capabilities (#2 in a series recorded by the German High-Fidelity Institute), most other pickups begin to reveal audible (and, on an oscilloscope, visible) shatter at a recording level of 70 to 80  $\mu$ m. Only the Ortofon M 15 E Super goes to the record's 100  $\mu$ m limit (and beyond) with no audible or visible indication of difficulty. The photos of oscilloscope traces at right are an accurate indication of the new Ortofon's superior performance.

That test is a decidedly accurate reflection of audible differences in the real world of the listener's living room. What it means is that on the most demanding stereo records that can now be made,

exactly the records that someone with really excellent equipment and a habit of listening closely is likely to buy, only the new Ortofon is likely to handle everything with no sign of strain or "fuzzing."

The M 15 E Super was designed specifically to achieve this performance while tracking (at a force



of 1 gram) below the modulus of elasticity—the threshold beyond which the vinyl of a record groove doesn't immediately spring back into shape after the stylus passes. (It is an absolute must to track below this point if permanent damage is to be avoided.) To make this possible, the Ortofon's unique VMS (Variable Magnetic Shunt) design combines very low moving mass (0.5 milligram), very high structural strength in the moving system, and very high stylus compliance—50 x 10<sup>-6</sup> cm/dyne in the horizontal plane, 30 x 10<sup>-6</sup> cm/dyne vertically.

The new Ortofon is the latest product of a company involved with records and professional studio recording equipment for more than fifty years. Manufactured and tested at Ortofon's factories in Denmark, the M 15 E Super is also rechecked in the United States after shipment.

We will be happy to send you full specifications, descriptive material (including reviews), and a list of Ortofon dealers if you will write us at the address below.

# ortofon

9 EAST 38TH STREET, NEW YORK 10016

CIRCLE NO. 42 ON READER SERVICE CARD

16 $\frac{3}{4}$ " x 12 $\frac{1}{2}$ " ..... \$249.50

#### B-52 Single-Play Turntable

Four-speed (16, 33, 45, 78 rpm) design with capability for continuous selection of any speed from 30 to 86 rpm. Has automatic viscous damped cueing lever. Wow & flutter 0.12%; rumble -37 dB. 11.8" platter. Anti-skating device. 14 $\frac{1}{4}$ " W x 11 $\frac{7}{8}$ " x 5 $\frac{1}{4}$ " ..... \$89.50

#### L-75 Single-Play Turntable

Four-speed (16, 33, 45, 78 rpm) design with capability for continuous selection of any speed from 30 to 86 rpm. Features low-mass cartridge head, anti-skating device, automatic viscous-damped cueing lever. 12", 8.8 lb. platter. Wow & flutter 0.06%; rumble -38 dB. 17 $\frac{1}{2}$ " W x 13 $\frac{7}{8}$ " x 6 $\frac{1}{8}$ ". With walnut base and hinged dust cover. .... \$149.50

### MX

#### 1230 Automatic Turntable

Three-speed (33, 45 & 78 rpm); 4-pole synchronous motor; viscous-damped cue control; counterbalanced tonearm; anti-skate adjustment; rotating spindle for single-play operation; plays six records automatically; muting switch; automatic shut-off; tonearm safety lock; lock-down slide latches; tracking force  $\frac{3}{4}$ -5 g; wow (DIN peak, weighted) 0.15%; rumble (weighted) -55 dB; 11" die-cast non-ferrous platter; Shure M-75 cartridge. 8 $\frac{3}{4}$ " H x 16 $\frac{7}{8}$ " W x 14 $\frac{1}{4}$ " D. Comes with base and dust cover. .... \$149.95

### PERPETUUM-EBNER

All PE automatic turntables provide the following features: Dynamically balanced tonearms; fully automatic and manual single play; self-stabilizing changer spindle holds up to six records; stylus pressure dialed directly around pivot; anti-skating; cue-control damped in both directions; 6% pitch control for all speeds; adjustable stylus overhang. Prices are less base and cartridge.

#### PE-3044 Turntable

One piece tonearm tracks as low as 1 $\frac{1}{2}$  g; 3-position anti-skating; laminated 10 $\frac{3}{8}$ " 3-lb platter ..... \$109.95

#### PE-3046 Turntable

One piece counterbalanced tonearm tracks as low as 1 g; anti-skating separately calibrated for conical, elliptical, and CD-4 styli; die-cast 10 $\frac{3}{8}$ " dynamically balanced 4.4-lb platter ..... \$149.95

#### PE-3048 Turntable

Tonearm tracks as low as 0.5 g; tracking force calibrated from 0-3 g; anti-skating separately calibrated for conical, elliptical, and CD-4 styli; vertical tracking-angle adjustment; heavy-duty induction/synchronous motor ..... \$169.95

#### PE-3060 Turntable

Double-ring gimbal-mounted tubular tonearm



tracks as low as 0.5 g; anti-skating; vertical tracking angle adjustment for single and multiple play; fail-safe feature prevents tonearm from descending to platter when no record is on it; automatic record-size scanner; heavy-duty induction/synchronous motor; die-cast 10 $\frac{3}{8}$ " dynamically balanced 4.4-lb platter... \$199.95

### PHILIPS

#### GA212 Automatic Turntable

Servo-controlled, 2-speed (33 & 45 rpm) belt-driven design for single play, complete with



tonearm, hinged but removable dust cover, slide-out cartridge plate, and stroboscopic ring. Features anti-skating device, hydraulically damped cueing control. Has two independent potentiometers for speed calibration ( $\pm 3\%$ ). Drift 0.2%; wow & flutter 0.1%; rumble -40 dB NAB weighted. Stylus force range 0.5-4 g. Arm resonance 7 Hz. 11 $\frac{1}{2}$ " platter. 110 to 240 V, 50/60 Hz operation. 6 $\frac{1}{2}$ " x 13 $\frac{1}{4}$ " D x 15 $\frac{1}{2}$ " W. With dust cover ..... \$164.50

#### GA209 "Electronic" Turntable

Two-speed (33 & 45 rpm) fully automated, electronically controlled turntable; three motors



(turntable drive, pickup arm movement, cueing); separate fine-speed adjustment  $\pm 3\%$ ; wow & flutter 0.08%; rumble -43 dB (DIN A); stylus force 0.75-3 g adjustable; anti-skating force adjustable for spherical & elliptical styli; turntable drive 9 V d.c. motor with 72-pole tachogenerator; pickup arm lift touch-controlled, viscosity damped pickup arm lift; optional manual operation; photoelectric end-of-record switch-off system. 6 $\frac{1}{2}$ " H x 17 $\frac{1}{8}$ " W x 12 $\frac{3}{4}$ " D ..... \$349.50

### PIONEER

#### PL-10 Manual Turntable

Two-speed (33 & 45 rpm) belt-driven, 4-pole synchronous motor; wow & flutter 0.1% W rms; S/N 47 dB; 12" aluminum alloy die-cast platter; static-balance S-shaped pipe arm; stylus pressure 4 g to 8.5 g; anti-skating; oil-damped cueing device; stylus pressure direct-readout counterweight; plug-in headshell. 16 $\frac{7}{8}$ " W x 6 $\frac{1}{2}$ " H x 13 $\frac{3}{8}$ " D ..... \$99.95

#### PL-12D Manual Turntable

Belt-driven with 4-pole synchronous motor. Features 33- & 45-rpm operation. Wow & flutter 0.1% (W rms). S/N 47 dB. 12" die-cast platter. Comes with static-balanced S-shaped tonearm, base, and free-stop dust cover. Stylus pressure from 0.75 g. Has anti-skating control, cueing device, direct-reading counterweight, lateral balancer, and stylus position gauge (overhang indicator). 16 $\frac{3}{16}$ " W x 6 $\frac{1}{2}$ " H x 14 $\frac{1}{4}$ " D. .... \$119.95

#### PL-51 Manual Turntable

Has brushless d.c. servo-controlled motor; direct-drive system. Operates at 33 & 45 rpm



(electronic speed change). Speed change control range within  $\pm 2\%$ . Wow & flutter 0.06% (W rms). S/N 55 dB. 12 $\frac{1}{4}$ " aluminum alloy die-cast platter. 8 $\frac{11}{16}$ " static-balanced S-shaped pipe arm with plug-in head shell;  $\frac{5}{8}$ " overhang. Has anti-skating control, lateral balancer, stylus pressure direct-readout counterweight. Comes with wooden cabinet and metal base with free-stop dust cover. 18 $\frac{7}{8}$ " W x 7 $\frac{1}{4}$ " H x 16 $\frac{1}{8}$ " D ..... \$249.95

#### PL-A35 Automatic Turntable

Features 33 & 45 rpm operation. Belt-driven with dual motor design (a 4-pole synchronous for rotating platter & a gear motor for all automatic operations). Provides automatic repeat & tonearm return. Complete with oil-damped cueing and anti-skating devices. Comes with base & dust cover. Wow & flutter 0.10% (W rms); tracking force 1.5 to 2.1 g. 12" platter. 18 $\frac{7}{8}$ " W x 7 $\frac{1}{4}$ " H x 16 $\frac{3}{8}$ " D. .... \$149.95

#### PL-A45D Automatic Turntable

Two-speed (33 & 45 rpm), two-motor belt-drive system; 4-pole synchronous motor (for platter), gear motor (for automatic functions); wow & flutter 0.1% W rms; S/N 47 dB; 12" aluminum alloy die-cast platter; static-balance S-shaped pipe tonearm; usable cartridge weight 4 to 10 g; anti-skating; oil-damped cueing device; stylus pressure direct-readout counterweight; lateral balancer; plug-in headshell. 18 $\frac{7}{8}$ " W x 6 $\frac{3}{4}$ " H x 16 $\frac{3}{8}$ " D ..... \$169.95

#### PL-71 Automatic Turntable

Two-speed (33 & 45 rpm), all-electronic, direct-drive turntable with brushless d.c. servo motor; electronic speed change; speed control range  $\pm 2\%$ ; wow & flutter 0.05% W rms; S/N 60 dB; 12 $\frac{1}{4}$ " aluminum alloy die-cast platter; static-



balance S-shaped pipe tonearm; usable cartridge weight 4 to 32 g; anti-skating; oil-damped cueing device; stylus pressure direct-readout counterweight; lateral balancer; arm height adjustment; plug-in headshell. 18 $\frac{7}{8}$ " W x 7 $\frac{1}{8}$ " H x 16 $\frac{3}{8}$ " D ..... \$299.95

## RADIO SHACK

### LAB-38 Record Changer

Two-speed (33, 45 rpm) manual/changer combination with front mounted controls. Has 4-pole motor, anti-skating device, 0 to 6 g stylus-pressure adjustment, and removable cartridge clip (with Shure cartridge). Comes with tonearm and base. 6 $\frac{5}{8}$ " H x 15 $\frac{1}{4}$ " x 13 $\frac{3}{8}$ " D.... \$99.95

### Realistic/Miracord 40C Changer

Four-speed (16, 33, 45 & 78 rpm) manual/changer combination. Has cueing control and removable cartridge shell with Shure cartridge. Comes with tonearm and base. 4 $\frac{1}{4}$ " H x 16 $\frac{3}{4}$ " W x 14 $\frac{1}{4}$ " D..... \$139.95

### Realistic/Miracord 46 Changer

Three-speed (33, 45 & 78) manual/changer combination. Has anti-skating device, cueing



control, and removable cartridge shell with Shure cartridge. Supplied with tonearm and base. .... \$198.50

## SANSUI

### SR-717 Electronic Turntable

Two-speed (33 & 45 rpm), direct-drive servo-controlled turntable with electronically con-



trolled 20-pole d.c. brushless motor; wow & flutter 0.035%; S/N 60 dB; features electronically controlled speed change/vernier adjustment; built-in Strobe-Lamp for visual speed check; engraved stroboscope platter edge; knife-edge/one-point support S-shaped tonearm; lateral balance adjustment; direct read-out arm counterbalance; viscous damping; natural rubber hemispherical insulators; laminated genuine wood cabinet; free-stop removable plastic dust cover. .... \$319.95

### SR-313 Belt-Drive Turntable

Two-speed (33 & 45 rpm), belt-drive turntable; 4-pole synchronous outer-rotor motor; wow & flutter 0.06% W rms; S/N 50 dB; S-shaped 8 $\frac{1}{16}$ " tonearm; counterweight with direct stylus pressure scale; 4-contact plug-in head shell; hinged self-retaining dust cover. \$199.95

## SANYO

### TP-80SB Stereo Turntable

1975 EDITION

Two speed (33 & 45 rpm) design with 4-pole hysteresis synchronous motor; belt drive; cast aluminum platter; tonearm has adjustments for static balance and tracking force (0.5 to 4 g). "S" bend tonearm. Wow & flutter 0.1%. Can be operated manually or programmed for automatic tonearm return and automatic stop at end of disc. Comes with dust cover. Walnut cabinet. 18 $\frac{1}{2}$ " x 15" x 7 $\frac{1}{4}$ " ..... \$199.95

## SONY

### PS-2251 Turntable/Arm

Two-speed (33 & 45 rpm) unit with direct-drive a.c. servo-motor. Speed control range  $\pm 4\%$ ; wow & flutter 0.07% weighted (DIN); (S + N)/N 67 dB weighted. Tonearm is 13 $\frac{1}{4}$ " static-balanced type; stylus force adjustment 0-3 g; anti-skate adjustment range 0-330 mg; viscous-damped cue control; stylus overhang gauge. 19 $\frac{1}{4}$ " x 7 $\frac{1}{4}$ " x 15 $\frac{1}{16}$ ". Comes with tonearm, wood base, and removable dust cover. \$429.50

## TECHNICS BY PANASONIC

### SP-10 Single-Play Turntable

Two speeds (33 & 45 rpm). Has d.c. servo motor, direct drive, and pitch control. Features built-in illuminated strobe speed indicator; 12" 6-lb platter. Build-up time within  $\frac{1}{2}$  rotation. Wow & flutter 0.03%; rumble -65 dB. Supplied without tonearm. 4" H x 14" W x 14" D. \$419.95

### SP-1100A Turntable With Arm

Features direct-drive, slow-speed brushless d.c. motor with electronic speed control regulation



without belts, idlers, or pulleys. Two speeds (33 & 45 rpm). Variable pitch,  $\pm 5\%$ , independently adjustable for each speed. Dynamically balanced turntable has 13 $\frac{1}{2}$ " platter, weighs 4.4 lbs. Wow & flutter 0.03% W rms; rumble -70 dB (DIN B). Build-up time within  $\frac{1}{2}$  rotation. Tonearm is static-balanced low-mass tubular with 9 $\frac{1}{4}$ " pivot-to-stylus distance. Direct-reading tracking force adjustment from 0 to 5 g. Anti-skating control; viscous-damped cueing; universal-type cartridge head shell. Has built-in illuminated speed strobe. Dust cover included ..... \$359.95

### SP-1200 Turntable With Arm

Similar to SP-1100A except has 13" diecast aluminum platter weighing 3.86 lbs and a 8 $\frac{1}{16}$ " tonearm. Has hinged, removable plexiglass dust cover. .... \$279.95

### SL-1300 Single-Play Turntable/Arm

Automatic set-down, lift-off, arm return, and shut off, using direct-drive servo motor; two speeds (33 & 45 rpm) with 10% range of pitch variation (separately for each); 13" dynamically balanced platter; built-in illuminated strobe speed indicator; "Memo-Repeat" permits repeat play of record up to five times before shut-off or indefinite repeat; gimbal-suspended tonearm (9 $\frac{1}{16}$ " pivot-to-stylus) with low mass, low resonance, four pairs of pivot bearings for rotational sensitivity; anti-skating; hinged detachable dust cover; feedback-cancelling legs; low-capacitance phono cables for CD-4; wow & flutter 0.03% W rms; rumble -70 dB (DIN B). 5 $\frac{1}{2}$ " H x 17 $\frac{1}{4}$ " W x 14 $\frac{3}{8}$ " D.... \$299.95

**SL-110A.** Similar to SL-1100A but manual and without tonearm. .... \$299.95

## THORENS

### TD-165 Integrated Turntable

Two-speed (33 & 45 rpm) unit with double synchronous 16-pole motor; will handle 7", 10", 12" records; wow & flutter 0.06%; rumble -43 dB (unweighted), -65 dB (weighted); non-ferrous, anti-magnetic 12" platter; unified suspension system for tonearm mount & platter; anti-skate control; tonearm balance & stylus tracking force adjustable 0.5-3.5 g in  $\frac{1}{2}$ -g increments; viscous-damped cueing control; 9" tonearm; arm resonance below 10 Hz. Comes with base, dust cover, plug-in shell for all standard cartridges. 17" W x 12 $\frac{1}{2}$ " D x 7 $\frac{1}{4}$ " with dust cover. .... \$179.95

### TC-160C Integrated Turntable

Two-speed (33 & 45 rpm) unit with belt-driven 16-pole synchronous motor; 12" non-magnetic platter; rumble -43 dB (unweighted), -65 dB (weighted); wow & flutter 0.06% weighted; unified suspension system for tonearm & drive system; magnetic anti-skating control; cueing control; tonearm 9.06"; stylus overhang 0.55" adjustable. Comes with tonearm, walnut base and dust cover. 17" x 13 $\frac{1}{2}$ " W x 7 $\frac{1}{4}$ " H. .... \$215.00

### TD-125AB Mark II Turntable

Three-speed (16, 33 & 45 rpm) unit with belt-driven 16-pole synchronous motor; fine-speed



adjustment  $\pm 2\%$ ; illuminated strobe speed control; 12" non-magnetic zinc alloy platter; wow & flutter 0.06% weighted; rumble -45 dB (unweighted), -68 dB (weighted); features magnetic anti-skating control; isolated tonearm & drive system; cueing control. Comes with walnut base and TP-16 9.06" tonearm. 18" x 5" H x 14" W (with 9" tonearm) x 16" (with 12" tonearm)..... \$400.00

## TOSHIBA

### SR-40E Automatic Turntable

Two-speed (33 & 45 rpm) automatic turntable. Has anti-skating device, hysteresis motor, belt drive, and cueing control. Wow & flutter 0.1%; stylus pressure 1 $\frac{1}{2}$  -2 $\frac{1}{2}$  g; -45 dB rumble; 2 lb platter. Comes with tonearm, fixed shell with high-compliance ceramic cartridge, and built-in IC amplifier. 7 $\frac{1}{4}$ " H x 18 $\frac{1}{8}$ " W x 15 $\frac{1}{16}$ ". Supplied with base ..... \$199.95

### SR-50 Turntable

Two-speed (33 & 45 rpm) design with d.c. servo motor, belt drive, automatic stop/rise, and cueing control. Wow & flutter 0.08%; stylus pressure 0-3 g; rumble -55 dB; 2 lb platter. Comes with tonearm, fixed shell with photoelectronic cartridge, and FET rumble filter. 7 $\frac{1}{2}$ " x 22 $\frac{1}{16}$ " x 15 $\frac{3}{8}$ " D. With base. .... \$449.95

### SF-80 Automatic Turntable

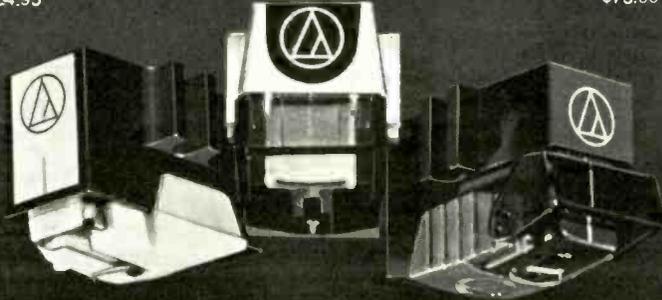
Two-speed (33 & 45 rpm) belt-driven design with electret condenser cartridge (Type C-402S). Has S-shaped pipe tonearm with tracking error of  $\pm 1.5$  degrees. Wow & flutter 0.1% (W rms). Stylus 0.5-mil round diamond. Output 200 mV at 5 cm/sec at 1000 Hz. Compliance 25 x 10 $^{-6}$  cm/dyne (d.c.); 8 x 10 $^{-6}$  cm/dyne (100 Hz). Stylus pressure 2.5  $\pm$  0.5 g. Response 20-20,000 Hz; (S + N)/N -50 dB. Features automatic return & cut, cueing control, walnut base, and dust cover 9 $\frac{1}{4}$ " x 7 $\frac{1}{8}$ " x 15 $\frac{1}{8}$ ". .... \$299.95

# Inside each of our 4-channel cartridges

AT12S  
\$64.95

AT15S \$100.00 ■ AT20SL \$175.00

AT14S  
\$75.00



## lurks a Dual Magnet stereo cartridge waiting to please you.

Our sophisticated four-channel cartridges\* are also stereo cartridges at heart. Very good ones. With ruler flat response, outstanding stereo separation (especially above 1 kHz where it counts), and truly impressive high frequency tracking.

All these advantages are as important to good stereo as they are essential to CD-4. And they can be achieved

only by paying very close attention to detail. And using only the best. Like a genuine Shibata† stylus. Nothing less. The results are good for any record... whether stereo, matrix, or discrete 4-channel. But you should really hear for yourself. Write today for our dealer list. No matter how many channels you want to hear best.

\*U.S. Pat. Nos. 3,720,796; 3,761,647  
†Shibata stylus Pat. No. 3,774,918



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3

Record Players

## TRANSCRIPTORS

### Saturn Turntable

Two-speed (33 & 45 rpm) turntable with non-ferrous aluminum disc fitted with five gold-plated non-ferrous platter weights (balanced to within 3 gr.); main bearing ball-ended ground and polished steel spindle running on hardened steel plate; low-speed synchronous recoil start motor; floating motorboard and damped springs for freedom from acoustic feedback; natural-rubber belt drive; universal voltage and frequency operation (by changing voltage selector panel and pulley); speed stability 0.05% at 33 rpm; clear acrylic lid. Comes with Vestigial arm ..... \$290.00  
Vestigial Arm. 37.5 gr horizontal, 25 gr vertical moving mass; inertia with cartridge 6 gr horizontal, 1 gr vertical; tracking pressure 1/10 gr; system resonance 180 Hz ..... \$100.00

## V-M

### 1687 Automatic Turntable

Four-speed unit features 10" platter, ceramic cartridge, diamond stylus, removable center spindle, finger lift; will handle 7" & 12" discs automatically; adjustable stylus force; wow 0.6%, flutter 0.3%. Walnut-grained base & tinted dust cover included. 15 1/8" W x 7 1/4" H x 14 1/8" D. .... \$44.95

### 1689 Automatic Turntable

Deluxe version of 1687 but with 11" platter; cue control; manual size selection. .... \$54.95

## WIN

### Lab 10 Turntable

Dual-synchronous drive motors; 33 rpm; speed accuracy 0.1%; direct rim-drive; rumble -70



dB; wow & flutter 0.06%; vertical & lateral damping of tonearm; photocell-activated automatic stop; warning light system to protect record & stylus; S-shaped, static-balance natural wood tonearm, 8 1/4" pivot-to-stylus; tracking force range 0.5-6 g; universal cartridge mount. Comes with natural wood base and tonearm. 17 1/2" x 15 1/2" x 6 7/8" ..... \$150.00

## YAMAHA

### YP800 Stereo Turntable

Two-speed (33 & 45 rpm, electronic switching), direct-drive turntable; brushless 12-pole d.c. servo motor; 12.2" cast turntable with cushioned mat; ±3% speed control (each speed); wow & flutter 0.03% W rms; S/N 60 dB; static balanced S tonearm; 9.5" long; tracking error 1.5 degrees; tracking force 0-3 g; universal plug-in cartridge shell. Walnut cabinet with clear acrylic dust cover. 18.9" W x 6.9" H x 14.6" D. .... \$500.00

### YP701 Stereo Turntable

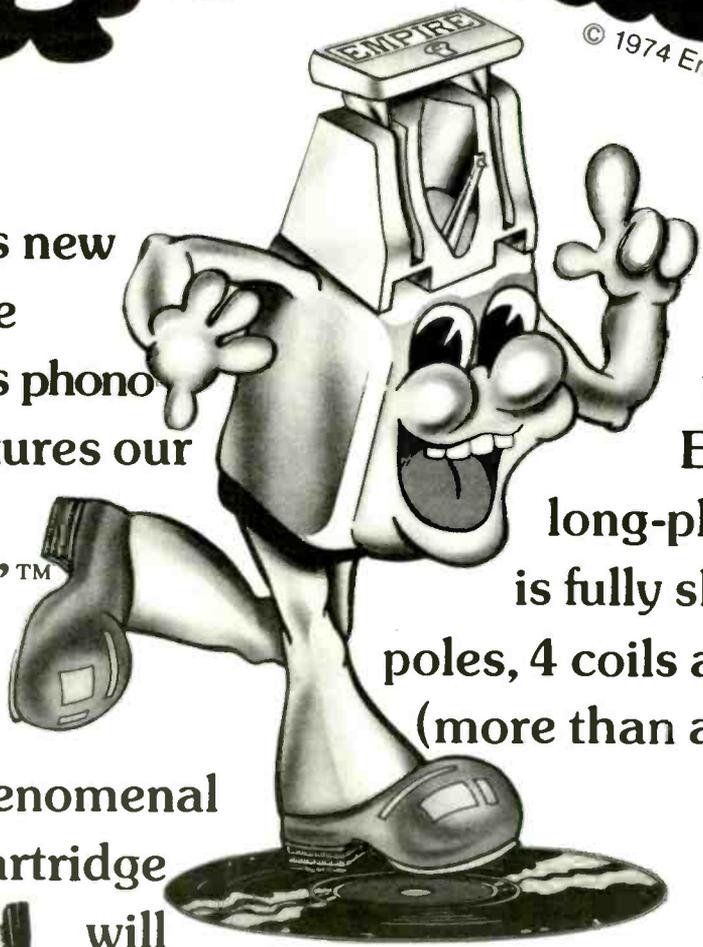
Two-speed (33 & 45 rpm), belt-drive; synchronous outer-rotor motor; automatic pickup and return; wow & flutter 0.08%; S/N 48 dB; 12" aluminum platter; static balanced S tonearm; stylus pressure 0-4 g; universal plug-in cartridge shell. Wood/synthetics cabinet. 19" W x 16 1/4" D x 6 1/2" H. .... \$220.00

STEREO DIRECTORY & BUYING GUIDE

# Keep on trackin'

© 1974 Empire Scientific Corp.

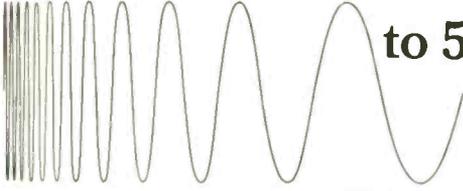
Empire's new wide response 4000D\* series phono cartridge features our exclusive "4 Dimensional"<sup>TM</sup> diamond stylus tip.



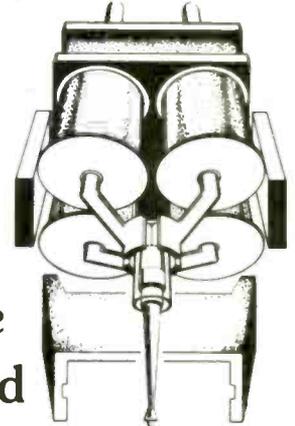
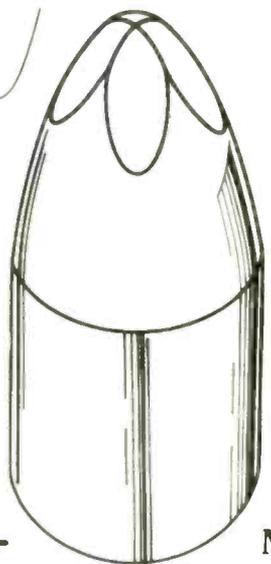
ing prevents any discernible record wear. Every Empire long-playing cartridge is fully shielded with 4 poles, 4 coils and 3 magnets (more than any other brand).

This phenomenal cartridge will

track any record below 1 gram and trace all the way to 50,000 Hz.



Empire's "4 Dimensional"<sup>TM</sup> diamond has a 0.1 mil radius of engagement yet the very low force required for track-



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# EMPIRE

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## DISCRETE 4-CHANNEL

UV-15 2400 Q  
DCF 2400



UV-15 2000 Q  
DCF 2000

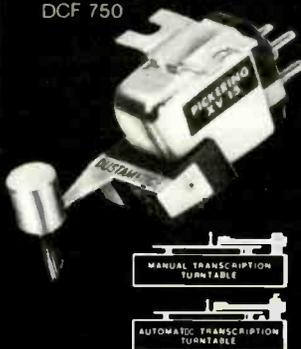


## STEREO AND MATRIX

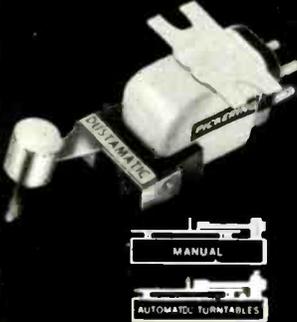
XV-151200E  
DCF 1200



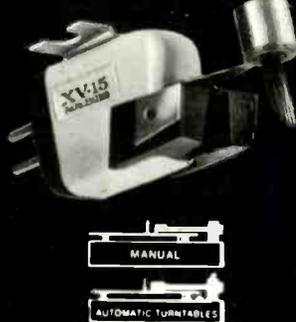
XV-15750E  
DCF 750



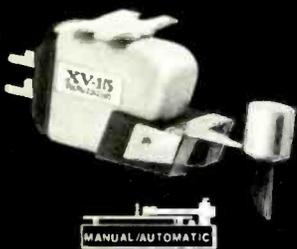
XV-15400E  
DCF 400



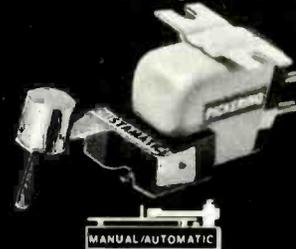
XV-15350  
DCF 350



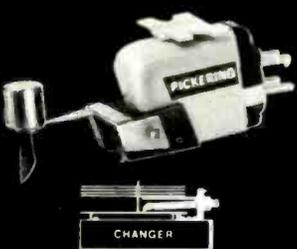
XV-15200E  
DCF 200



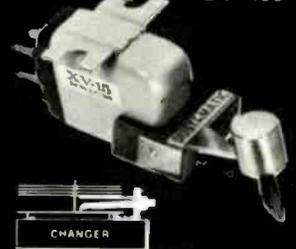
XV-15150  
DCF 150



XV-15140E  
DCF 140



XV-15100  
DCF 100



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# 4

# PHONO CARTRIDGES

## ADC

### Q Series Stereo Cartridges

Low-cost version of the XLM, featuring induced magnet system and controlled electrodynamic damping. Output at 5.5 cm/sec 4.5 mV; channel separation 25 dB (nominal); recommended load imp. 47,000 ohms.

**Q-30.** Response 10-20,000 Hz  $\pm 3$  dB; tracking force range 1-2 g; compliance cm/dyne  $\times 10^{-6}$  30; 0.0005" spherical stylus tip. Replacement stylus R-Q36. .... \$27.00

**Q-32.** Response 10-20,000 Hz  $\pm 3$  dB; tracking force range 1-2 g; compliance cm/dyne  $\times 10^{-6}$  30; 0.0007"  $\times$  0.0003" elliptical stylus tip. Replacement stylus R-Q32. .... \$36.00

**Q-36.** Response 10-22,000 Hz  $\pm 3$  dB; tracking force range  $\frac{3}{4}$ -1 $\frac{1}{2}$  g; compliance cm/dyne  $\times 10^{-6}$  35; 0.0007"  $\times$  0.0003" elliptical stylus tip. Replacement stylus R-Q36. .... \$45.00

### K Series Stereo Cartridges

Designed to be used with automatic turntables and changers. Induced-magnet system. 47,000 ohm load imp.

**K8.** Output at 5.5 cm/sec. 5 mV; tracking force range 2-4 g; response 15-18,000 Hz  $\pm 4$  dB; channel separation 20 dB; compliance 18 (cm/dyne  $\times 10^{-6}$ ); 0.0007" spherical stylus. .... \$24.95

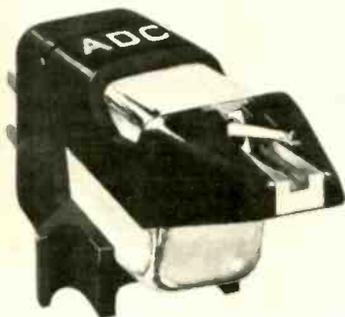
**K7E.** Output 5 mV; tracking force 1 $\frac{1}{2}$ -3 g; response 15-18,000 Hz  $\pm 4$  dB; channel separation 20 dB; compliance 20; 0.0008"  $\times$  0.0004" elliptical stylus. .... \$29.95

**K5E.** Output 4.5 mV; tracking force range 1-2 $\frac{1}{2}$  g; response 10-20,000 Hz  $\pm 3$  dB; channel separation 25 dB; compliance 25. 0.0007"  $\times$  0.0003" elliptical stylus. .... \$39.95

**K3E.** Output 4.5 mV; tracking force range 1-2 g; response 10-20,000 Hz  $\pm 2.5$  dB; channel separation 25 dB; compliance 30; 0.0007"  $\times$  0.0003" stylus. .... \$49.95

### XLM Phono Cartridge

Induced magnet type; output 3.5 mV at 5.5 cm/sec; response 10-20,000 Hz  $\pm 2$  dB. Tracking force 0.6-1.2 g. Channel separation 25 dB



from 50-15,000 Hz; compliance 50  $\times 10^{-6}$  cm/dyne. Replacement stylus RXL. .... \$50.00

### VLM Phono Cartridge

Same styling as XLM except for 1-1.5 g tracking force. Response 10-20,000 Hz  $\pm 2$  dB. Chan-

nel separation 25 dB from 50-15,000 Hz. Compliance 35  $\times 10^{-6}$  cm/dyne. Replacement stylus #RVL. .... \$46.00

### 550XE Phono Cartridge

Induced magnet type; output 4.0 mV at 5.5 cm/sec; response 10-20,000 Hz  $\pm 2$  dB. Has



0.3  $\times$  0.7 mil elliptical stylus. Tracking force  $\frac{3}{4}$  to 2 g; tracking angle 15°. Channel separation nominally 25 dB from 50-12,000 Hz. Compliance 35  $\times 10^{-6}$  cm/dyne. Replacement stylus #R-50XE. .... \$35.00

### 220XE Phono Cartridge

Induced magnet type; output 5.0 mV at 5.5 cm/sec; response 10-18,000 Hz  $\pm 3$  dB. 0.3  $\times$  0.7 mil elliptical stylus with 1.2 g tracking force. 15° tracking angle. Channel separation nominally 20 dB from 50-10,000 Hz. Compliance 20  $\times 10^{-6}$  cm/dyne. Replacement stylus #R-20XE. .... \$22.00

### 220X Phono Cartridge

Similar to 220XE but with 0.7 mil spherical stylus. Replacement stylus #R-20X. .... \$16.00

## AUDIO-TECHNICA

### AT10 Stereo Cartridge

Response 20-20,000 Hz; has 0.7-mil spherical stylus; output 4.8 mV at 5 cm/sec; channel separation 20 dB at 1 kHz; channel balance 2.0 dB; tracking force 2 $\frac{1}{2}$ -4 g. Has slip-on stylus guard. .... \$24.95

**AT11.** Same as AT10 except response 15-25,000 Hz and tracking force 2-3 g. .... \$34.95

### AT11E Stereo Cartridge

Response 15-28,000 Hz. Has 0.4  $\times$  0.7 mil elliptical stylus; tracking force 2-3 g. Output 4.8 mV at 5 cm/sec; channel separation 20 dB at 1 kHz; channel balance 2.0 dB. Has slip-on stylus guard. .... \$44.95

### AT12E Stereo Cartridge

Response 15-30,000 Hz. Has 0.4  $\times$  0.7 mil elliptical stylus; tracking force 1 $\frac{1}{4}$ -2 g. Output 3.5 mV at 5 cm/sec; channel separation 22 dB at 1 kHz; channel balance 2.0 dB. Has slip-on stylus guard. .... \$54.95

### AT-13E Stereo Cartridge

Response 10-45,000 Hz. Has 0.2  $\times$  0.7 nude elliptical stylus; tracking force 1-2 g. Output 3.5 mV at 5 cm/sec; channel separation 25 dB at 1 kHz; channel balance 2.0 dB. Has flip-guard stylus guard. .... \$64.95

The company's exclusive "Dual Magnet" generating system is used in all models.

### AT-1005 II Tonearm

Features calibrated adjustments to permit exact selection of desired tracking force, anti-skating, and stylus overhang; perforated plug-in shell with sliding cartridge mounting, attaches by means of knurled locking ring and spring-loaded contacts; sliding main counterweight; tracking force selected by sliding ring weight along length of arm (calibrations permit adjustment to 0.5 g); one-hole installation of arm. Stylus force 0-3 g, calibrated to 0.5 g; cartridge weight 5-24 g; effective mass 20 g (set for AT14S cartridge) .... \$79.95

**AT-S.** Plug-in shell ..... \$7.95

**AT-L2.** Optional hydraulic arm lift ..... \$16.95

### AT-1009 Tonearm

Includes all basic elements of the AT-1005 II plus exclusive pneumatic arm lift with convenient lever control; special low-mass plug-in shell; sliding counterweight with set screw for setting static balance; separate micro-adjust lever for precise balance; precision lever and dial scale for anti-skating adjust; arm height  $\pm 2\frac{1}{2}$  mm adjustment with separate micro-adjust lever; stylus force gauge with sliding ringweight calibrated to 0.1 g ..... \$129.95

**AT-D.** Plug-in shell ..... \$10.95

## BANG & OLUFSEN

### SP-10 Phono Cartridge

Moving-iron type. Output 1 mV/cm/sec. Response 15-25,000 Hz  $\pm 3$  dB. Has 0.6-mil spherical stylus; tracking force 1 to 1 $\frac{1}{2}$  g. 15-degree tracking angle. Channel separation 25 dB at 1000 Hz. Compliance 25  $\times 10^{-6}$  cm/dyne. Replacement stylus #5429. .... \$75.00

### SP-12 Phono Cartridge

Moving-iron type. Output 1 mV/cm/sec. Response 15-25,000 Hz  $\pm 3$  dB. Has 0.2  $\times$  0.7-mil elliptical stylus; tracking force 1 to 1 $\frac{1}{2}$  g. 15-degree tracking angle. Channel separation 25 dB at 1000 Hz. Compliance 25  $\times 10^{-6}$  cm/dyne. Replacement stylus #5430. .... \$85.00

### SP-14 Phono Cartridge

Moving-iron type. Output 1 mV/cm/sec. Response 15-25,000 Hz  $\pm 4$  dB. Has 0.6-mil spherical stylus; tracking force 1 $\frac{1}{2}$  g. 15-degree tracking angle. Channel separation 20 dB at 1000 Hz. Compliance 15  $\times 10^{-6}$  cm/dyne. Replacement stylus #5434. .... \$45.00

## ELAC

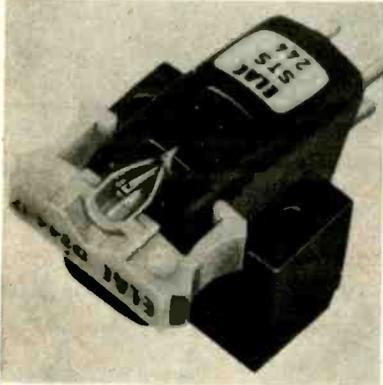
### STS-344-17 Phono Cartridge

Moving-magnet type. Output 1.1 mV/cm/sec. Response 10-22,000 Hz. Has 0.7-mil spherical stylus. Tracking force 1 to 2 g. Channel separation 24 dB at 1000 Hz; compliance 25  $\times 10^{-6}$  cm/dyne. .... \$45.00

**Model ST-344-E.** Same except has 0.2  $\times$  0.8 mil elliptical stylus. .... \$60.00

**STS-244-17 Phono Cartridge**

Moving-magnet type. Output 1.8 mV/cm/sec.



Response 20-20,000 Hz. Has 0.7-mil spherical stylus. Tracking force 1 to 3 g. Channel separation 22 dB at 1000 Hz; compliance  $18 \times 10^{-6}$  cm/dyne. . . . . \$24.95  
**Model STS-244-E.** Same except has 0.2 x 0.8 mil elliptical stylus. . . . . \$35.00

**STS-444-12 Phono Cartridge**

Moving-magnet type. Output 1.1 mV/cm/sec. Response 20-22,000 Hz. Has 0.5-mil spherical stylus. Tracking force  $\frac{1}{4}$ -1.5 g. Channel separation 26 dB at 1000 Hz; compliance  $33 \times 10^{-6}$  cm/dyne. . . . . \$65.00  
**Model STS-444-E.** Same except has 0.2 x 0.8 mil elliptical stylus. . . . . \$80.00

**EMPIRE****1000ZE/X Phono Cartridge**

Moving-magnet type. Output 5 mV. Response 4-40,000 Hz. Has 0.2 x 0.7 mil miniature nude elliptical stylus. Tracking force  $\frac{1}{4}$ - $1\frac{1}{4}$  g. 15-degree tracking angle. Stereo separation 35 dB. Compliance  $35 \times 10^{-6}$  cm/dyne. Replacement stylus #S1000ZE/X-ERD . . . . . \$99.95

**999VE/X Phono Cartridge**

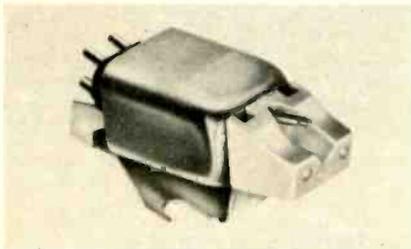
Similar to 1000ZE/X except response 6-35,000 Hz. Tracking force  $\frac{1}{4}$ - $1\frac{1}{2}$  g. Replacement stylus #S999VE/X-ERD . . . . . \$79.95

**999TE/X Phono Cartridge**

Moving-magnet type. Output 6 mV. Response 6-32,000 Hz. Has 0.2 x 0.7 mil nude elliptical stylus. Tracking force  $\frac{1}{2}$  to  $1\frac{1}{2}$  g. Stereo separation 35 dB. Replacement stylus #S999TE/X-ERD. . . . . \$64.95

**Rex 66/X Stereo Cartridge**

Response 10-30,000 Hz; tracking force  $\frac{3}{4}$ -3 g.



Has 0.7-mil spherical diamond stylus. Stereo separation 30 dB. Replacement stylus #S66/X-ERD Red . . . . . \$19.95  
**66E/X.** Response 8-30,000 Hz; tracking force  $\frac{3}{4}$ -3 g. Has 0.3 x 0.7 mil elliptical diamond stylus. Stereo separation 30 dB. Replacement stylus #S66E/X-ERD Black . . . . . \$29.95

**66PE/X.** Response 8-34,000 Hz; tracking force  $\frac{3}{4}$ - $1\frac{1}{2}$  g. Has 0.2 x 0.7 mil elliptical hand-polished diamond stylus. Stereo separation 30 dB. Replacement stylus #S66PE/X-ERD White. . . . . \$44.95

**909/X Phono Cartridge**

Moving-magnet type. Output 8 mV. Response 15-25,000 Hz. Has 0.7 mil spherical stylus; tracking force  $\frac{3}{4}$ -2 g. 15-degree tracking angle. Stereo separation 30 dB. Compliance  $15 \times 10^{-6}$  cm/dyne. Replacement stylus #S909/X-ERD . . . . . \$24.95

**90EE/X Phono Cartridge**

Moving-magnet type. Output 8 mV. Response 15-25,000 Hz. Has 0.3 x 0.7 mil elliptical stylus; tracking force  $1\frac{1}{2}$ -3 g. 15-degree tracking angle. Stereo separation 30 dB. Compliance  $10 \times 10^{-6}$  cm/dyne. Replacement stylus #S90EE/X-ERD. . . . . \$29.95

**2000E/III Stereo Cartridge**

Response 5-35,000 Hz; stereo separation 35 dB; 0.2 x 0.7-mil bi-radial nude elliptical diamond stylus; tracking  $\frac{1}{2}$  to  $1\frac{1}{2}$  g. . . . . \$69.95

**2000E/II.** For use with highest quality turntables; tracking  $\frac{1}{2}$  to  $1\frac{1}{2}$  g; response 6-33,000 Hz; stereo separation 35 dB; 0.2 x 0.7-mil bi-radial nude elliptical diamond stylus. . . . . \$54.95

**2000E/I.** For good-quality turntables & changers; response 8-32,000 Hz; tracking  $\frac{3}{4}$  to  $1\frac{1}{2}$  g; stereo separation 35 dB; 0.2 x 0.7-mil bi-radial nude elliptical diamond stylus. . . . . \$39.95

**2000E.** For automatic changers; response 10-30,000 Hz; tracking 1 to 2 g; separation 35 dB; 0.3 x 0.7-mil bi-radial elliptical diamond stylus. . . . . \$34.95

**2000.** For record changers; tracking 1 to 2 g; response 10-28,000 Hz; separation 35 dB; 0.7-mil spherical diamond stylus. . . . . \$29.95

**MICRO/ACOUSTICS****QDC-1e Stereo Cartridge**

Response 5-20,000 Hz  $\pm 2$  dB; tracking force 0.75-1.5 g; channel separation 30 dB at 1000 Hz, 20 dB at 10,000 Hz; output voltage 3.5 mV/ch at 5 cm/sec peak recorded velocity; load 47,000 ohms; stylus 0.0002 x 0.0007 elliptical solid nude diamond . . . . . \$110.00

**QDC-1s Stereo Cartridge**

Response 5-20,000 Hz  $\pm 2$  dB; tracking force 0.9-1.5 g; channel separation 30 dB at 1000 Hz, 20 dB at 10,000 Hz; output voltage 3.5 mV/ch at 5 cm/sec peak recorded velocity; load 47,000 ohms; stylus 0.0005 spherical solid nude diamond . . . . . \$100.00

**ORTOFON****SL-15EMKII Moving Coil Cartridge**

Total cartridge weight 7 grams. Features elliptical, diamond stylus; tracking force range  $1\frac{1}{2}$ -2 g. Response 10-50,000 Hz. Output impedance  $2\frac{1}{2}$  ohms and in most applications will require use of STM-72 transformer. . . . . \$100.00

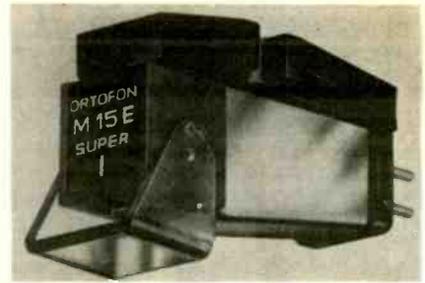
**STM-72 Transformer.** Designed for use with SL-15E cartridge. Input impedance 2 ohms; load impedance 47,000 ohms . . . . . \$35.00

**M-15E Super-Magnetic Cartridge**

Features the VMS (patented) principle for highest trackability and lowest distortion. Designed for low-mass tonearms. Includes a user replaceable stylus with hand-polished, whole-diamond tip and a hinged stylus guard. Tracking force range 0.75-1.5 g. Output voltage 0.8 mV/ch at 1 kHz per cm/sec. . . . . \$90.00

**M-15 Super.** Same as M-15E except with spherical stylus. . . . . \$80.00

**VMS-20E.** Similar performance characteristics to M-15E but slightly less critical as to tonearm



requirements; tracking force 0.75-1.5 g; output 1.0 V. . . . . \$65.00

**F-15E Magnetic Cartridge**

Features VMS principle, but with lower compliance and higher tip mass for automatic turntables and older transcription tonearms. Tracking force range 1-2 g. . . . . \$45.00  
**F-15.** Same as F-15E but with spherical stylus . . . . . \$35.00

**PICKERING****V-15 Micro IV AC Phono Cartridge**

Output 8.0 mV at 5.5 cm/sec. Response 20-17,000 Hz. Has 0.7 mil spherical stylus; tracking force  $5 \pm 2$  g. Channel separation 26 dB. Features Dustamatic brush. Replacement stylus #DIV-AC . . . . . \$24.95

**V-15 Micro IV ACE Phono Cartridge**

Output 8.0 mV at 5.5 cm/sec. Response 20-17,000 Hz. Has 0.5 x 0.7 mil elliptical stylus; tracking force  $4 \pm 1$  g. Channel separation 26 dB. Has Dustamatic brush. Replacement stylus #DIV-ACE . . . . . \$29.95

**V-15 Micro IV AM Phono Cartridge**

Output 6.0 mV at 5.5 cm/sec. Response 20-20,000 Hz. Has 0.7 mil spherical stylus; tracking force  $2 \pm 1$  g. Channel separation 30 dB. Features Dustamatic brush. Replacement stylus #DIV-AM . . . . . \$34.95

**V-15 Micro IV AME Phono Cartridge**

Output 5.5 mV at 5.5 cm/sec. Response 20-20,000 Hz. Has 0.4 x 0.7 mil elliptical stylus; tracking force  $1\frac{1}{2}$  to  $\frac{1}{2}$  g. Channel separation 30 dB. Features Dustamatic brush. Replacement stylus #DIV-AME . . . . . \$49.95

**V-15 Micro IV AT Phono Cartridge**

Output 8.0 mV at 5.5 cm/sec. Response 20-18,000 Hz. Has 0.7 mil spherical stylus; tracking force  $3 \pm 1$  g. Channel separation 28 dB. Features Dustamatic brush. Replacement stylus #DIV-AT . . . . . \$29.95

**V-15 Micro IV ATE Phono Cartridge**

Output 6.5 mV at 5.5 cm/sec. Response 20-18,000 Hz. Has 0.4 x 0.7 mil elliptical stylus; tracking force  $3 \pm 1$  g. Channel separation 28 dB. Features Dustamatic brush. Replacement stylus #DIV-ATE . . . . . \$39.95

**XV-15/100 Phono Cartridge**

Output 8.0 mV at 5.5 cm/sec. Response 10-20,000 Hz. Has 0.7 mil spherical stylus; tracking force  $5 \pm 2$  g. Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D100 . . . . . \$29.95

**XV-15/140E Phono Cartridge**

Output 8.0 mV at 5.5 cm/sec. Response 10-20,000 Hz. Has 0.5 x 0.7 mil elliptical stylus; tracking force  $4 \pm 1$  g; Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D140 . . . . . \$34.95

**XV-15/150 Phono Cartridge**

Output 8.0 mV at 5.5 cm/sec. Response 10-25,000 Hz. Has 0.7 mil spherical stylus; tracking force  $3 \pm 1$  g. Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D150 . . . . . \$34.95

### XV-15/200E Phono Cartridge

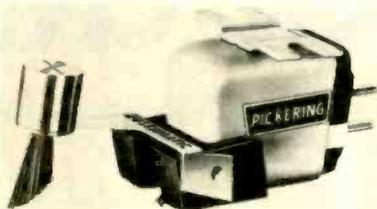
Output 8.0 mV at 5.5 cm/sec. Response 10-25,000 Hz. Has 0.4 x 0.7 mil elliptical stylus; tracking force 3 ± 1 g. Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D200 ..... \$49.95

### XV-15/350 Phono Cartridge

Output 6.0 mV at 5.5 cm/sec. Response 10-25,000 Hz. Has 0.7 mil spherical stylus; tracking force 2 ± 1 g. Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D350 ..... \$39.95

### XV-15/400E Phono Cartridge

Output 5.5 mV at 5.5 cm/sec. Response 10-



25,000 Hz. Has 0.4 x 0.7 mil elliptical stylus; tracking force 1 1/2 ± 1/2 g. Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D400 ..... \$54.95

### XV-15/750E Phono Cartridge

Output 4.4 mV at 5.5 cm/sec. Response 10-25,000 Hz. Has 0.3 x 0.7 mil elliptical stylus; tracking force 1/2 to 1 1/2 g. Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D750 ..... \$65.00

### XV-15/1200E Phono Cartridge

Output 4.4 mV at 5.5 cm/sec. Response 10-30,000 Hz. Has 0.2 x 0.7 mil elliptical stylus; tracking force 3/4 ± 1/2, -1/4 g. Channel separation 35 dB. Features Dustamatic brush. Replacement stylus #D1200 ..... \$79.95

## SHURE

### M3D Phono Cartridge

Moving-magnet type. Output 5.0 mV at 5 cm/sec. Response 20-15,000 Hz. Has 0.7-mil spherical stylus. Tracking force adjustable 3 to 6 g. Replacement stylus #N3D. .... \$15.75

### M7/N21D Phono Cartridge

Moving-magnet type. Output 4.0 mV at 5 cm/sec. Response 20-20,000 Hz. Has 0.7-mil spherical stylus. Tracking force less than 2 1/2 g; compliance 9 x 10<sup>-6</sup> cm/dyne. Replacement stylus #N21D. .... \$17.95

### M44E Phono Cartridge

Moving-magnet type. Output 1.8 mV/cm/sec. Response 20-20,000 Hz. Has 0.4 x 0.7 mil elliptical stylus. Tracking force 1 3/4 to 4 g. 15-degree tracking angle. Channel separation better than 25 dB at 1000 Hz. Compliance 15 x 10<sup>-6</sup> cm/dyne. Replacement stylus #N44E. .... \$24.95

### M55E Phono Cartridge

Moving-magnet type. Output 6.6 mV at 5 cm/sec. Response 20-20,000 Hz. Has 0.2 x 0.7 mil elliptical stylus. Tracking force 3/4 to 2 g; 15-degree tracking angle. Channel separation 25 dB at 1000 Hz. Compliance 25 x 10<sup>-6</sup> cm/dyne. Replacement stylus #N55E. .... \$29.95

### M75B Type 2 Phono Cartridge

Has good trackability at moderate tracking forces between 1 1/2 and 3 g. Designed for moderately priced equipment. Response 20-20,000 Hz. Output 5 mV/ch at 1000 Hz and 5 cm/sec. Has 0.6-mil spherical stylus. .... \$33.45  
Model 75EJ Type 2. Same except with biradial 0.7 x 0.4 mil elliptical stylus. .... \$44.95

### M91E Phono Cartridge

Moving-magnet type. Output 5.0 mV at 5

cm/sec. Response 20-20,000 Hz. Has 0.2 x 0.7 mil elliptical stylus. Tracking force 3/4 to 1 1/2 g. Channel separation better than 25 dB at 1000 Hz. Will track 18 cm/sec at 10,000 Hz. Replacement stylus # N91E. .... \$49.95  
Model M75E Type 2. Same except with 0.6-mil spherical stylus. .... \$38.45

### M93E Phono Cartridge

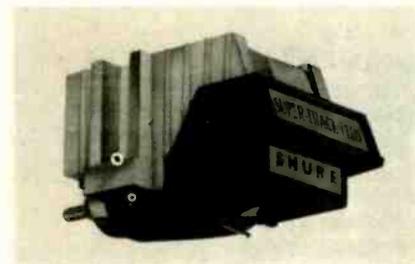
Moving-magnet type. Output 6.2 mV at 5 cm/sec. Response 20-20,000 Hz. Has 0.4 x 0.7 mil elliptical stylus. Tracking force 1 1/2 to 3 g. Channel separation better than 25 dB at 1000 Hz. Will track 13 cm/sec at 10,000 Hz. Replacement stylus # N93E. .... \$39.95

### M75ED Type 2 Phono Cartridge

Tracking force 0.75 to 1.5 g. Response 20-20,000 Hz. Output 5.0 mV/ch at 1000 Hz and 5 cm/sec peak velocity. With biradial 0.2 x 0.7 mil elliptical stylus. .... \$54.95  
Model M91GD. Same except with 0.6-mil spherical stylus. .... \$44.95

### V-15 Type III Phono Cartridge

Moving-magnet type. Output 3.5 mV at 5 cm/sec. Response 10-25,000 Hz. Has 0.2 x 0.7

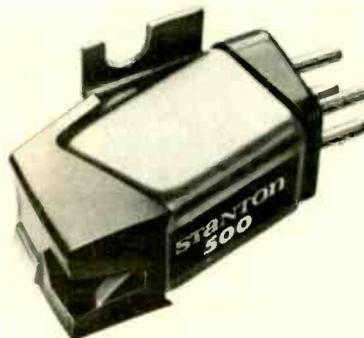


mil elliptical stylus. Tracking force 3/4 to 1 1/4 g. Channel separation better than 28 dB at 1000 Hz. Will track 38 cm/sec at 1000 Hz. Replacement stylus #VN35E. .... \$77.50

## STANTON

### 500A Phono Cartridge

Output 1.0 mV/cm/sec at ±2 dB. Response 20-20,000 Hz ±2 dB. Has 0.7-mil spherical stylus;



tracking force 2 to 5 g. Channel separation 35 dB. Replacement stylus D5107A ..... \$30.00

### 500AA Phono Cartridge

Output 1.0 mV/cm/sec at ±2 dB. Response 20-20,000 Hz ±2 dB. Has 0.5-mil spherical stylus; tracking force 1 to 2 1/2 g. 35 dB channel separation. Replacement stylus D5105AA ..... \$35.00

### 500E Phono Cartridge

Output 1.0 mV/cm/sec at ±2 dB. Response 20-17,000 Hz ±2.5 dB. Has 0.7-mil spherical stylus; tracking force 3 to 7 g. Channel separation 28 dB. Replacement stylus D5107AL ..... \$30.00

### 500E Phono Cartridge

Output 1.0 mV/cm/sec at ±2 dB. Response 20-20,000 Hz ±2 dB. Has 0.4 x 0.8-mil elliptical stylus; tracking force 2 to 5 g. Channel separation 35 dB. Replacement stylus D5100E ..... \$35.00

### 500EE Phono Cartridge

Output 1.0 mV/cm/sec at ±2 dB. Response 20-20,000 Hz ±3 dB. Has 0.3 x 0.7-mil elliptical stylus; tracking force 1 to 2 g. Channel separation 35 dB. Replacement stylus D5100EE ..... \$40.00

### 600A Phono Cartridge

Features reduced tip mass for improved frequency response; will withstand rugged han-



dling. 0.7-mil stylus; tracking force 2-4 g. D6071A replacement stylus ..... \$45.00  
600E. Same except 0.4 x 0.7 mil elliptical stylus; tracking force 1 1/2-3 g. D6004E replacement stylus ..... \$50.00  
600EE. Same except 0.3 x 0.7 mil elliptical stylus; 1-2 g tracking force. D6003EE replacement stylus ..... \$55.00

### 681A Phono Cartridge

Output 1.1 mV/cm/sec at ±2 dB. Response 10-20,000 Hz. Has 0.7-mil spherical stylus; tracking force 1 1/2 to 3 g. Channel separation 35 dB. Unit individually calibrated at factory. Replacement stylus D6807A ..... \$66.00

### 681EE Phono Cartridge

Output 0.82 mV/cm/sec at ±2 dB. Response 10-20,000 Hz. Has 0.2 x 0.7-mil elliptical stylus; tracking force 3/4 to 1 1/2 g. Channel separation 35 dB. Unit individually calibrated at factory. Replacement stylus D6800EE ..... \$72.00

### 681SE Phono Cartridge

Output 1.1 mV/cm/sec at ±2 dB. Response 20-20,000 Hz. Has 0.4 x 0.8-mil elliptical stylus; tracking force 2 to 4 g. Channel separation 35 dB. Unit individually calibrated at factory. Replacement stylus D6800SE ..... \$66.00

### 681EEE Phono Cartridge

Output 0.7 mV/cm/sec ±2 dB; Response 10-12,000 Hz ±1/2 dB. Has 0.2 x 0.7 mil elliptical stylus; tracking force 1 g ±1/2, -1/4. Features brush. Channel separation 35 dB. Unit individually calibrated at factory. Replacement stylus 6800EEE. .... \$82.00

## TOSHIBA

### C-401S Condenser Cartridge

Electret design with its own equalization amplifier. Response 20-35,000 Hz; output 40 mV at 5 cm/sec at 1000 Hz. HD 0.8% (1 kHz, 5 cm/sec). Output impedance 10,000 ohms. Compliance 30 x 10<sup>-6</sup> cm dyne (d.c.); 12 x 10<sup>-6</sup> cm/dyne (100 Hz). Stylus 0.3 x 0.8 mil elliptical diamond; stylus pressure 1.5-2 g. Includes SZ-200 power pack/equalizer amplifier. 30 mV input; 200 mV output at 50,000 ohms. S/N -70 dB. Has one IC and is battery operated (two 9 V batteries, 14 mV drain). 2" x 3 1/8" x 4 1/8" ..... \$129.95

For 4-Channel Components. . .

See SECTION 9

# HOW TO UPGRADE YOUR SPEAKERS FOR AN EXTRA BUCK.



The sound that comes out of those beauties is the sound that's on the cassette. No better, no worse. And if you're using discount cassettes, chances are you're hearing discount sound, delivered with breathtaking clarity.

A classic case of penny-wise and sound foolish.

Drop a TDK ED cassette in there next time and hear the difference. An absolutely stunning difference. Vibrant sound, rich in color and detail, with the depth and harmonics that were there when the music happened.

One TDK ED cassette. One time. One listen. That may be the *first* time you'll *really* hear your speakers. And all for as little as an extra buck. An extra buck more than the cassette you're probably using now.



Wait till you hear  
what you've been missing.

# 5

# OPEN-REEL TAPE MACHINES

## AKAI

### GX-210D Stereo Tape Deck

Two-speed (7½ & 3¾ ips); 4-track, 2-channel stereo system. Response 30-25,000 Hz ±3 dB



(low-noise tape); 30-23,000 Hz ±3 dB (regular tape). Will handle up to 7" reels. Wow & flutter 0.08% rms at 7½ ips; distortion 1.5% (1000 Hz, 0 VU); (S+N)/N 50 dB. Three motors; two heads (one record/erase GX and one playback GX). Features two line and one phone output jack, two mike and two line input jacks plus DIN jack. 14.5" x 14.6" x 8.9" ..... \$449.95

### GX-600D Stereo Tape Deck

Two-speed (7½ & 3¾ ips); 4-track, 2-channel stereo/mono system. Will handle up to 10½"



reels. Response 30-23,000 Hz ±3 dB at 7½ ips; wow & flutter 0.07% rms; distortion less than 0.7%. (S+N)/N 56 dB. Has three heads and three motors; two line and one phone output jacks; two mike and one line input jacks; one DIN jack. 17.4" x 18.7" x 9" ..... \$625.00  
**GX-600DB.** Same except with Dolby noise-reduction circuit. (S+N)/N 64 dB with Dolby ..... \$725.00

### 4400 Open-Reel "Convert-a-Deck"

Stereo design featuring front-panel converter switch which changes unit from recorder to deck. Has SOS, SWS, sound mixing, dual monitoring, output level control, pause control with



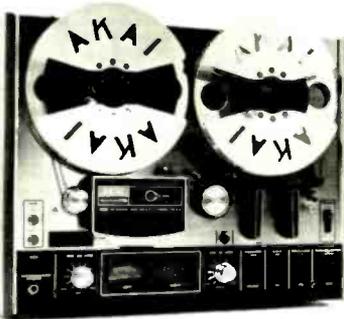
start button release, automatic shutoff. Two speeds (7½ & 3¾ ips). three heads, one motor. (S+N)/N 50 dB; wow & flutter 0.15%; distortion 1.5%, all at 7½ ips ..... \$369.95

### 1721W Tape Recorder

Two-speed (3¾ & 7½ ips), 4-track, 2-channel stereo or mono design. Wow & flutter 0.14% rms at 7½ ips. Response 30-21,000 Hz ±3 dB at 7½ ips. THD 2%. 5 W/ch dynamic power at 8 ohms (3 W/ch continuous). (S+N)/N -50 dB. Bias frequency 63 kHz. Has one record/playback & one erase head. Inputs: mike (0.5 mV) & line (150 mV). Two built-in 5" x 7" speakers. Features p.a. capability, automatic shut-off, equalizer preamp for direct phono input, selector switch for regular or low-noise tape, and tape monitoring facilities. Comes with pair of dynamic mikes with stands. 14½" x 14½" x 9⅞" ..... \$314.95

### 4000DS Tape Recorder Deck

Two-speed (3¾ & 7½ ips), 4-track, 2-channel stereo or mono design. Wow & flutter 0.07% rms at 7½ ips. Response 30-26,000 Hz ±3 dB at 7½ ips. THD 1.5%. (S+N)/N -50 dB. Bias frequency 100 kHz. Has separate record, bias, and erase heads. Line output 1.23 V. Inputs: mike (0.8 mV) & line (60 mV). Features dual selector switch for regular or low-noise tape;



sound-on-sound; sound-with-sound; mixing;

For 4-Channel  
Components . . .  
See SECTION 9

automatic shut-off; pause control. Universal power supply. 16" x 12½" x 7⅞" ..... \$299.95  
**4000DB.** Same as 4000DS but with Dolby built in ..... \$369.95

## CROWN INTERNATIONAL

### CX722 Tape Recorder

Three-speed (15, 7½, 3¾ ips), 2-track, 3-motor design. Will handle up to 10½" reels. Has three heads. Response 20-20,000 Hz ±2 dB. Wow & flutter 0.09% at 7½ ips. Features braking, automatic shut-off, two VU meters, pause control, and optional counter ..... \$1495.00

**CX724.** Same except 4-track version; response 20-25,000 Hz ±2 dB ..... \$1495.00

### CX822 Tape Recorder

Three-speed (15, 7½, 3¾ ips), 2-track, 3-motor design. Will handle up to 10½" reels. Response 30-30,000 Hz ±2.0 dB. Wow & flutter 0.06% at 15 ips. (S+N)/N 60 dB. Has braking, two VU meters, automatic shut-off, pause control, monitoring facilities, optional counter, and remote record. .... \$1995.00

Four track version ..... \$1995.00

Four-channel in-line version ..... \$2995.00

### SX724 Tape Recorder

Two-speed (7½, 3¾ ips), 2-ch, ¼-track, 3-motor design. Will handle up to 10½" reels. Response 20-25,000 Hz ±2 dB. Wow & flutter 0.09% at 7½ ips. (S+N)/N 60 dB. Has braking, two VU meters, automatic shut-off, monitoring facilities, pause control, and optional counter. 15 and 1⅞ ips available ..... \$1095.00

**SX724-P4C.** 2- and 4-track version; plays 4-channel in-line ..... \$1495.00

## DOKORDER

### 7100 Reel-to-Reel Tape Deck

Two-speed (7½ & 3¾ ips), 3-head, 4-track stereo tape deck. Features a four-pole induction



and 2 six-pole eddy-current type induction motors; automatic tape lifters; automatic shut-off; tape selector switch; echo & sound-on-sound; tape/source monitor. Wow & flutter 0.08% W rms at 7½ ips. (S+N)/N 55 dB. Response 40-21,000 Hz at 7½ ips ..... \$399.95

### 7200 Tape Recorder Deck

Two-speed (7½ & 3¾ ips), 4-track stereo rec-



# SONY TAPE

Instrumentalize. Vocalize. Harmonize. The workhorse stereo tape deck from Sony does it all. Start with a duet. Make it a combo. Take a single voice. Double it. Triple it. Overdub an instrumental. Add special effects. Accessorize: Sweeten sounds with acoustical echo. Mix down. Master. The Sony TC-755 with sound-on-sound capability lets you be the man in the booth.

The Sony TC-755 stereo tape deck has a built-in instinct to perform. Professional 10½ inch reel capacity lets you record or playback up to 6 hours total music per reel.

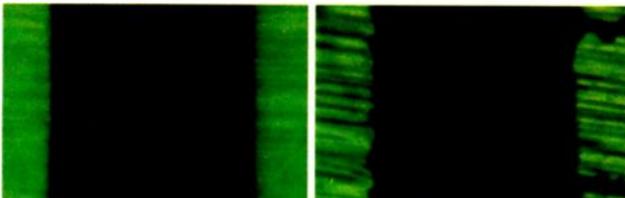
**SONY DOES IT ALL. SONY DOES IT BETTER.**

**Ferrite and ferrite heads** last up to 200 times longer than standard permalloy. Inside: core and pole pieces are solid ferrite. Outside: another precisely-machined layer of ferrite. You get better tape-to-head contact than with laminated heads. And the super-smooth TC-755 head system dramatically reduces susceptibility to residual oxide and dust accumulation.



SONY F&F GAP

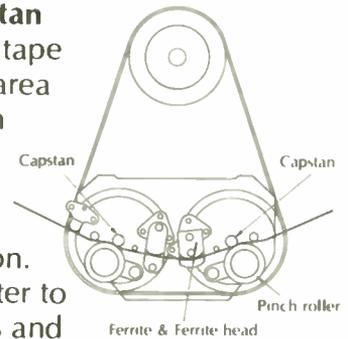
PERMALLOY GAP



**Symphase** assures perfectly parallel head gap width. This exclusive Sony method of recording eliminates phase shifts between channels. Enables the recording of any SQ\* or similar 4-channel matrix source material. When

played back through a 4-channel decoder amplifier, you achieve exact duplication of the original 4-channel source material.

**Closed loop dual capstan tape drive** isolates the tape path in the tape head area from external vibration and abnormal reel movement, therefore eliminating the cause of modulation distortion. Reduces wow and flutter to a mere 0.3% at 7½ ips and provides optimum tape-to-head contact.



**AC servo-control motor** accurately regulates capstan drive tape speed. Compensates for voltage or load variations automatically. Two additional large AC motors for reel drive.

**Foolproof function buttons with logic control** make it virtually impossible to break or spill tape. Allows fast, safe mode changes; smooth start-ups.



**Three-head system** allows tape/source monitoring.

**Recording timer lock** for external timer operation for unattended recordings.

**Separate playback level controls** with reference level notch.

**Locking pause control** with indicator light.

**Automatic total mechanism shut-off (TMS).**

The Sony TC-755. Only \$699.95 at your Superscope dealer.

## SONY® Ask anyone.

Brought to you by **SUPERSCOPE**

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5

## Open-Reel Tape Machines

ord/play design. Wow & flutter 0.8% at 7½ ips. Response 40-20,000 Hz ±3 dB at 7½ ips. (S + N)/N -53 dB. Bias 130 kHz. Has mike (0.8 mV) & line (80 mV) inputs. Line output 0.775 V. Features automatic continuous playback, both directions; four heads (erase, record, forward play, reverse play); three motors; tape bias select switch for standard or low-noise tape; sound-on-sound; echo; sound-with-sound. Has tape monitoring facilities and pause switch. 16⅞" × 17¼" × 6¾" D ..... \$499.95

### 7500 Tape Recorder Deck

Two-speed (7½ & 3¾ ips), 4-track record/play design. Wow & flutter 0.08% at 7½ ips. Response 40-20,000 Hz ±3 dB at 7½ ips. (S + N)/N -55 dB at 7½ ips. Bias 130 kHz. Has mike



(0.8 mV) & line (80 mV) inputs. Output 0.775 V. Features bidirectional recording and automatic repeat playback. Six heads (2 each erase, record, playback). Has 3 motors. Tape bias switch for standard or low-noise tapes. Features sound-on-sound, sound-with-sound, echo, and tape monitoring. 16⅞" × 17¼" × 6¾" D. \$599.95

### 9200 Stereo Tape Deck

Two-speed (7½ & 3¾ ips) bi-directional record & playback for continuous recording of up to



1½ hours at 7½ ips on 1800-foot tape; automatic memory for programming order of selections for playback; adjustable recording bias; pause control; tape tension switch; computer-controlled transport; professional mixing; echo, sound-on-sound, sound-with-sound. Has six heads for recording and monitoring in either direction; center capstan drive; built-in reel holders; quick-change head housing; turntable height adjustment; automatic tape lifters; remote-control operation (optional extra); built-in head demagnetizer. Features three motors; will handle 5" & 7" reels; response 25-26,000 Hz, S/N 58 dB, stereo channel separation 50 dB, crosstalk 55 dB, all at 7½ ips. 17" W × 16½" D × 20" H. .... \$899.95

### 1120 Stereo Tape Deck

Two-speed (15 & 7½ ips), three-motor deck; will handle 10½" reels. Can be used as 4-track.



2-channel deck or can be converted to a 2-track, 2-channel record/play deck; provides built-in circuitry for synthetic echo, sound-on-sound, sound-with-sound, and locking pause control for editing tape while recording or during playback. Wow & flutter 0.06%, S/N 60 dB, crosstalk 58 dB at 1 kHz, response 25-24,000 Hz, all at 7½ ips. 16⅞" W × 17¼" H × 6¾" D. .... \$649.95

## FERROGRAPH

### Super Seven Series Tape Recorders

Three speeds (7½, 3¾, 1⅞ ips). Has three heads and three motors; braking; VU meters;



electronics editing; sound-on-sound, sound-with-sound, echo, and re-record facilities; variable speed wind/rewind; 10½" reel capacity; solid-state FET front end at mike input; 4-digit counter. Has full range of inputs and outputs. Response (record/play) 30-17,000 Hz ±2 dB at 7½ ips, 40-14,000 Hz ±3 dB at 3¾ ips, 50-7000 Hz ±3 dB at 1⅞ ips. Available in 2- and 4-track stereo models; with or without amplifiers and speakers; 15, 7½, 3¾ ips operation; optional Dolby-B noise reduction with every speed configuration. 117-V, 60-Hz operation ..... \$1025 to \$1200

## JVC

### RD-1555 Stereo Recorder Deck

Four-track, 2-speed (7½ & 3¾ ips), 2-channel stereo design with automatic reverse. Response 30-20,000 Hz ±3 dB at 7½ ips; (S + N)/N -50 dB; wow & flutter 0.16% rms. Has three motors and four heads. Features direct-coupled pre-amps, solenoid motion controls, jack for optional remote control, sound-on-sound, and tape-selector switch. 17" × 16" × 8¼" D. .... \$499.95

### RD-1552 Tape Recorder Deck

4-track, 2-speed (7½ & 3¾ ips), 2-channel stereo design. Response 20-24,000 Hz ±3 dB at



at 7½ ips; (S + N)/N -52 dB; wow & flutter 0.1% rms at 7½ ips. HD 1.5%. Has 95 kHz record & erase bias. Inputs: mike (0.3 mV) & aux. (80 mV). Line output 0-1 V. Features three heads (record, erase & playback) and 3 motors (capstan drive, supply & take-up reels). Has solenoid motion controls, pause button, sound-on-sound, bias switch for low-noise or standard tapes, and input mixing facilities. 15¾" × 17¼" W × 8½" D ..... \$399.95

### RD-1696 Tape Recorder Deck

4-track, 3-speed (7½, 3¾ & 1⅞ ips), 2-channel stereo design. Response 30-18,000 Hz ±3 dB at



7½ ips; (S + N)/N -52 dB; wow & flutter 0.13% rms at 7½ ips. Has mike (0.5 mV) & aux. (80 mV) inputs. Line output 0-1 V. Has switch for either low-noise or standard tape; two heads (record/play and erase). 7½" × 15¾" W × 12¾" D. .... \$249.95

### RD-1553 Tape Recorder Deck

4-track, 2-speed (7½ & 3¾ ips), 2-channel stereo design. Similar in style to Model RD-1552. Response 20-24,000 Hz ±3 dB at 7½ ips; (S + N)/N -53 dB; wow & flutter 0.10% at 7½ ips. HD 1.5% at 1 kHz. Has 95 kHz record bias & erase; three motors (capstan drive, supply, and takeup reels); mike (0.3 mV) & aux. (80 mV) inputs; and 0-1 V line output. Features built-in 1000-Hz signal oscillator for bias adjust; solenoid motion controls; jack for optional remote control; sound-on-sound and input mixing facilities. 17½" × 16½" × 8" D ..... \$499.95

## PIONEER

### RT-1011L Stereo Tape Deck

Four-track, two-speed (7½ & 3¾ ips), three-motor, three-head stereo deck; 4/8 pole hysteresis synchronous motor; solenoid-operated direct-changeable function buttons; mechanically lockable function buttons for automatic recording facility; wow & flutter 0.07% W rms; S/N 55 dB; dist. 1%; response 40-20,000 Hz ±3 dB; crosstalk 50 dB; has full complement of inputs & outputs; will handle up to 10½" reels. 16⅞" W × 16⅞" H × 8⅞" D. .... \$599.95

### RT-1050 Stereo Tape Deck

Two-track, two-speed (15 & 7½ ips), three-

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motor, three-head stereo deck. Has 4/8 pole, two-speed hysteresis synchronous motor (cap-



stan drive) and 6-pole inner-rotor induction motor (reel drive). Response 30-22,000 Hz  $\pm 3$  dB at 15 ips; 40-20,000 Hz  $\pm 3$  dB at 7 1/2 ips; wow & flutter 0.04% W rms at 15 ips; (S + N)/N 57 dB; stereo channel separation 53 dB at 1000 Hz; 125 kHz bias frequency. Features 3-step bias selector; 4-step EQ selector; dual-scale level meters; recording peak indicator; lockable electronic controls (including pause); two pairs of line inputs; full complement of inputs and outputs. 120-V, 60-Hz operation. 18 1/8" W  $\times$  17 7/8" H  $\times$  9 3/8" D... \$699.95

## RADIO SHACK

### 999B Stereo Tape Deck

Three speeds (7 1/2, 3 3/4, 1 1/8 ips); 4 tracks; 3 heads. Has two VU meters and level controls. Provisions for professional sound-on-sound recordings. Tape/source monitor. Response 40-20,000 Hz at 7 1/2 ips; wow & flutter 0.2%



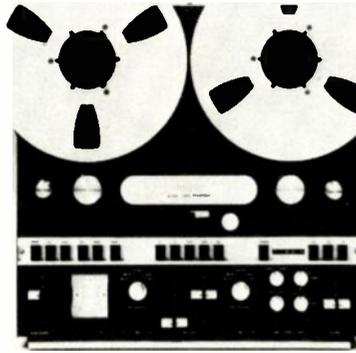
rms at 7 1/2 ips. Overall size 16"  $\times$  13 1/4"  $\times$  7 3/8" D... \$239.95

## REVOX

### A700 Stereo Tape Recorder

Three-motor, three-speed (15, 7 1/2, 3 3/4 ips) recorder. Features computer-type digital control logic with memory circuits; quartz-crystal speed-control reference; frequency and phase servo system for capstan speed control; two tape-tension sensors governing servo-controlled reel motors. Has logic-controlled tape tension which is automatically maintained even with mixed reel sizes; electronic tape-motion sensor; minutes and seconds readout on tape counter. Plug-in head assembly (1/4 or 1/2 track available); three heads with fourth control head (optional). Fail-safe auto stop logic to eliminate

possibility of tape breakage; electronic pause control operating on all functions; instant repeat play control; continuous unattended re-



cord or play function; solid-state switching of audio circuits. Features built-in four-input mixer; switched selection of 12 input sources including four balanced hi/lo mike inputs; built-in magnetic phono preamp; master record-level slide fader; stereo echo; five independent stereo outputs; standard zero-level line outputs and level & tone-controlled outputs; VU meters with instantaneous over-modulation indicators; variable speed (+ or - 7 halftones with remote-control accessory); variable speed (2.5 to 21.5 ips with external oscillator); input or off-tape metering ..... \$1800.00

### A77 MkIII 1102 Tape Deck

Two-speed (3 3/4 & 7 1/2 ips or 7 1/2 & 15 ips), 2-track, 3-motor, 3-head deck. Will handle up to



10 1/2" reels. Response 30-20,000 Hz  $\pm 2.5$  dB at 7 1/2 ips. Wow & flutter 0.08% peak at 7 1/2 ips. (S + N)/N 61 dB at 7 1/2 ips. Has a servo braking system, VU meters, automatic shut-off, relay and solenoid operation, full remote control, and off-the-tape monitoring. Options include plug-in 10 W/ch continuous power amplifiers, a suitcase version with built-in speakers, metal cage for rack or custom mounting. 16 3/8" H  $\times$  14 3/16" W  $\times$  7 1/8" D. .... \$959.00  
**Model A77 MkIII 1104.** A 4-track version of Model 1102. Same options available... \$959.00  
**A77 MkIII Dolby B Deck.** Same as 1102 or 1104 but with Dolby B noise-reduction system. Has separate compressors and expanders for each channel. (S + N)/N 70 dB (ASA A curve weighted) at 7 1/2 ips, 2-track. .... \$1099.00

## SONY from SUPERSCOPE

### TC-270 Stereo Tape Recorder

Economy design featuring quarter-track stereo/mono play & record, three speeds (7 1/2, 3 3/4



& 1 1/8 ips), straight-line record & playback level controls, two VU meters, automatic end-of-tape shutoff, and sound-on-sound. 5 W/ch continuous power. Response 30-18,000 Hz  $\pm 3$  dB at 7 1/2 ips. (S + N)/N 50 dB; wow & flutter 0.12% at 7 1/2 ips. Sensitivity: aux. 0.06 V; low-imp. mike -72 dB (can be used as phono input with optional RK-66 adapter). Has line output 0.43 V at 0 VU; two lid speakers. 8 ohms. 20 1/4" W  $\times$  10 1/4" H  $\times$  15 1/4" D. Comes with carrying case. \$379.95

### TC-280 Stereo Tape Recorder Deck

Economy quarter-track stereo/mono design featuring three speeds (7 1/2, 3 3/4 & 1 1/8 ips), tape select switch, sound-with-sound, dual VU



record meters, pause control. May be operated vertically or horizontally. Response 40-18,000 Hz  $\pm 3$  dB at 7 1/2 ips with regular tape (40-21,000 Hz  $\pm 3$  dB with SLH-180 tape). (S + N)/N 52 dB with standard tape (55 dB with SLH-180 tape). Sensitivity: aux. 0.06V; mike (low-imp) -72 dB (mike input can be used as mag. phono input with RK-66 optional adapter). Line output 0.775 V at 0 VU. Wow & flutter 0.10% at 7 1/2 ips. 15 3/4" W  $\times$  7 3/8" H  $\times$  14 1/8" D. Comes with walnut base. .... \$249.95

### TC-580 Tape Deck

Three-speed (7 1/2, 3 3/4, 1 1/8 ips), 4-track, 3-head, 3-motor stereo unit. Will handle up to 7" reels. Response 30-25,000 Hz  $\pm 3$  dB; wow & flutter 0.06% at 7 1/2 ips; (S + N)/N 56 dB. Has VU meters, automatic reverse and shutoff, counter, monitoring facilities, solenoid operation. 18 1/8" H  $\times$  17 1/2" W  $\times$  8 3/8" D. .... \$599.95

### TC-630 Tape Recorder System

Three-speed (7 1/2, 3 3/4, 1 1/8 ips), 4-track, 3-head, one-motor stereo unit. Will handle up to 7" reels. Response 30-22,000 Hz; wow & flutter 0.09% at 7 1/2 ips; Built-in electronics with 20 W/ch output. Supplied with speakers and microphones. Has VU meters, automatic shutoff, pause control, echo effects, sound-on-sound, counter, phono input, tone controls, monitoring facilities. Carrying handle included. 20" H  $\times$  17 1/8" W  $\times$  11 3/8" D. .... \$449.95

### TC-353-D Stereo Tape Deck

Features three speeds (7 1/2, 3 3/4, 1 1/8 ips) and three heads. Has line & mike mixing, pause control, automatic shutoff, VU meters. Sound-on-sound with optional Sony MX-6S mixer. 15 3/8" W  $\times$  7 1/8" H  $\times$  13 3/8" D. .... \$319.95

### TC-640B Tape Deck

Two-speed (7 1/2, 3 3/4 ips), 4-track, 3-head stereo unit. Will handle up to 7" reels. Response 30-20,000 Hz  $\pm 3$  dB; wow & flutter 0.07% at 7 1/2 ips; (S + N)/N 55 dB. Features VU meters, braking, automatic shutoff, pause control, echo effects, sound-on-sound, counter, monitoring facilities; and solenoid operation. 15 1/2" H  $\times$  14 1/2" W  $\times$  9 1/2" D. .... \$449.95

### TC-353 Stereo Tape Recorder/Speakers

Three-speed (7 1/2, 3 3/4, 1 1/8 ips), 3-head stereo tape recorder with integrated speakers. 7 W/ch dynamic power. Features separate record/playback preamps, sound-on-sound and echo, tape/source monitoring facilities, and a tape-select switch for use of high-output/low noise tape or standard tape. Has VU meters, retractable pinch roller for easy tape threading, auto-



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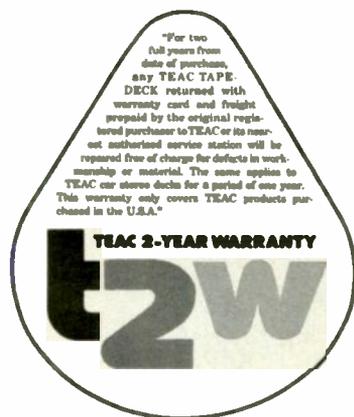
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5

**Open-Reel Tape Machines**



matic tape lifters to protect heads during fast-forward and rewind, non-magnetizing record head. Full complement of controls. Has p.a. capabilities, pause control with lock, built-in reel-locks, four-digit tape counter, stereo headphone monitor jack. Can be operated vertically or horizontally. 20<sup>3</sup>/<sub>8</sub>" W x 13<sup>3</sup>/<sub>8</sub>" H x 10<sup>3</sup>/<sub>8</sub>" D . . . . \$399.95

**TC-377 Stereo Recorder Deck**

Features 3-speed (1<sup>7</sup>/<sub>8</sub>, 3<sup>3</sup>/<sub>4</sub> & 7<sup>1</sup>/<sub>2</sub> ips), 3-head, 4-track design. Response 30-20,000 Hz ±3 dB at 7<sup>1</sup>/<sub>2</sub> ips. (S+N)/N 52 dB (standard tape) 55 dB (SLH-180 tape). Has aux. (0.06 V sensitivity) & mike (-72 dB sensitivity) inputs & line output (0.775 V). Bias frequency 160 kHz. Wow & flutter 0.09% at 7<sup>1</sup>/<sub>2</sub> ips. Has two VU meters, one induction motor. Features mike-line record level mixing controls, tape select switch for Sony standard or low-noise, high-output tape. Has pause control and an automatic total mechanism shut-off. Reversible walnut base for vertical or horizontal operation. Sound-on-sound capability with the MX-6S mixer. 16<sup>1</sup>/<sub>2</sub>" W x 8<sup>3</sup>/<sub>8</sub>" H x 15<sup>1</sup>/<sub>2</sub>" D . . . . \$399.95

**TC-458 Stereo Tape Deck**

Two-speed (7<sup>1</sup>/<sub>2</sub> & 3<sup>3</sup>/<sub>4</sub> ips); automatic-reverse stereo deck with ferrite & ferrite roto bi-lateral



heads; response 30-20,000 Hz ±3 dB at 7<sup>1</sup>/<sub>2</sub> ips (standard tape), 30-25,000 Hz ±3 dB (SLH-180 tape). (S+N)/N 53 dB (standard), 56 dB (SLH-180 tape). Wow & flutter 0.06% rms (NAB) weighted; four heads (2 erase, 1 record, 1 playback); induction a.c. servo motor; two illuminated VU meters. Includes tape-tension regulators, tape path adjuster, built-in reel locks, 4-digit tape counter; closed-loop dual-capstan tape drive. Can be adapted for sound-on-sound, echo. 120-V, 60-Hz operation. 15<sup>3</sup>/<sub>16</sub>" W x 16<sup>3</sup>/<sub>16</sub>" H x 7<sup>1</sup>/<sub>16</sub>" D . . . . \$499.95

**TC-558 Stereo Tape Deck**

Three-motor automatic reverse stereo deck with six heads (ferrite erase, ferrite and ferrite record & playback); features "Symphase" recording for taping 4-ch sound from any SQ or FM matrix source; two speed (7<sup>1</sup>/<sub>2</sub> & 3<sup>3</sup>/<sub>4</sub> ips); will handle 7" reels; response 30-20,000 Hz ±3 dB (standard tape), 30-25,000 Hz ±3 dB (SLH-180 tape); S/N 53 dB (standard), 56 dB (SLH-180) all at 7<sup>1</sup>/<sub>2</sub> ips; has two line, two mike, headphone, and phono inputs; two VU meters; two line & one phono outputs. 17<sup>1</sup>/<sub>16</sub>" W x 6<sup>7</sup>/<sub>16</sub>" H x 13<sup>1</sup>/<sub>16</sub>" D . . . . \$769.95

**TC-756 Stereo Tape Deck**

Two-speed (15 & 7<sup>1</sup>/<sub>2</sub> ips) stereo deck; will handle up to 10<sup>1</sup>/<sub>2</sub>" reels; frequency response 30-15,000 Hz at 7<sup>1</sup>/<sub>2</sub> ips. 30-22,000 Hz at 15 ips, both ±3 dB with standard tape; 30-25,000 Hz at 7<sup>1</sup>/<sub>2</sub> ips, 30-30,000 Hz at 15 ips, both ±3 dB with SLH-180 tape; S/N 56 dB (standard tape), 59 dB (SLH-180); features 4-digit tape counter; illuminated pause control with lock; reel-size selector switch; record timer lock; illuminated left & right record buttons; record & bias equalization selector switches; illuminated VU meters; stereo headphone monitor jack; ferrite and ferrite heads; three motors; logic-controlled transport functions. Comes with 10<sup>1</sup>/<sub>2</sub>" reel adapters, two stereo patch-cords, 10<sup>1</sup>/<sub>2</sub>" plastic reel, and head cleaning ribbon. 17<sup>1</sup>/<sub>8</sub>" W x 17<sup>1</sup>/<sub>4</sub>" H x 8<sup>3</sup>/<sub>4</sub>" D . . . \$899.95

**TC-755 Stereo Tape Deck**

Two-speed (7<sup>1</sup>/<sub>2</sub> & 3<sup>3</sup>/<sub>4</sub> ips), 3-head, 3-motor deck with 10<sup>1</sup>/<sub>2</sub>" reel capacity. Response 30-20,000 Hz ±3 dB (standard) and 30-25,000 Hz ±3 dB (SLH-180 tape); wow & flutter 0.05%. Provides mechanical memory capability with timer, bias select switch, ferrite heads, tape



path adjustment, twin illuminated VU meters, 4-digit tape counter, and built-in reel locks. (S+N)/N 53 dB (standard), 56 dB (SLH-180 tape). 120-V, 60-Hz operation. 17<sup>1</sup>/<sub>8</sub>" W x 17<sup>1</sup>/<sub>4</sub>" H x 8<sup>1</sup>/<sub>2</sub>" D . . . . \$699.95

**TANDBERG**

**Series 11 Tape Recorder**

Portable (15 V, ten 1<sup>1</sup>/<sub>2</sub>-V cells), mono design. Three speeds (7<sup>1</sup>/<sub>2</sub>, 3<sup>3</sup>/<sub>4</sub>, 1<sup>7</sup>/<sub>8</sub> ips), and has three



heads. Will handle up to 7" reels. Has automatic level-input controls, mike & line mixing, and built-in speaker. Response 40-16,000 Hz ±2 dB at 7<sup>1</sup>/<sub>2</sub> ips, wow 0.1% at 7<sup>1</sup>/<sub>2</sub> ips, (S+N)/N 58 dB unweighted. 13" W x 10" D x 4".

**Model 11-1.** Full-track . . . . . \$795.00  
**Model 11-2.** Two-track . . . . . \$795.00  
 A.c. power supply . . . . . \$79.50

**Series 15 Tape Recorder**

Mono design with built-in 4" x 7" speaker. Three speeds (7<sup>1</sup>/<sub>2</sub>, 3<sup>3</sup>/<sub>4</sub>, 1<sup>7</sup>/<sub>8</sub> ips). Response 40-16,000 Hz ±2 dB at 7<sup>1</sup>/<sub>2</sub> ips, wow 0.1% at 7<sup>1</sup>/<sub>2</sub> ips. (S+N)/N at max. record level 55 dB. 5W/ch continuous

STEREO DIRECTORY & BUYING GUIDE

output with both channels driven. Has 0.75 V preamp outputs, low-Z mike & high-and low-level inputs. 13<sup>3</sup>/<sub>8</sub>" W x 11<sup>7</sup>/<sub>8</sub>" D x 6<sup>3</sup>/<sub>4</sub>".

- Model 1541. Four-track . . . . . \$313.50
- Model 1541F With foot remote control . . . . . \$418.00



- Model 1521. Two-track . . . . . \$295.00
- Model 1521F. With foot remote control . . . . . \$399.00

**3300X Tape Recorder Deck**

Three-speed (1<sup>7</sup>/<sub>8</sub>, 3<sup>3</sup>/<sub>4</sub> & 7<sup>1</sup>/<sub>2</sub> ips) design featuring crossfield recording techniques; peak-reading record meters; four heads for sound-on-sound, sound-with-sound, and echo; input mixing; and photoelectric end stop. Has inputs for dynamic mike, receiver/tuner, and record



player. Supplied in half- or quarter-track versions. On request, can be equipped for 4-channel playback. Walnut cabinet (rosewood on special request). 15<sup>3</sup>/<sub>4</sub>" x 7" x 16<sup>1</sup>/<sub>8</sub>" D. \$469.90

**3600XD.** Same as 3300X except includes Dolby circuit. . . . . \$599.50

**Series 14 Tape Recorder**

Same as Series 15 except 2-speed (3<sup>3</sup>/<sub>4</sub> & 1<sup>7</sup>/<sub>8</sub> ips) design.

- Model 1441. Four-track without case . . . . . \$290.00
- Model 1421. Two-track without case . . . . . \$270.00

**9200XD Dolbyized Stereo Deck**

Three-speed (7<sup>1</sup>/<sub>2</sub>, 3<sup>3</sup>/<sub>4</sub> & 1<sup>7</sup>/<sub>8</sub> ips), Dolbyized deck; Max. wow 0.06% W rms at 7<sup>1</sup>/<sub>2</sub> ips; response 25-24,000 Hz ±3 dB, 30-22,000 Hz



±2 dB at 7<sup>1</sup>/<sub>2</sub> ips; crosstalk 50 dB stereo at 1000 Hz; max. tape dist. at 0 dB record level 2%. Features one-hand tape threading; peak-reading dB meters; linear-motion input and output level controls; crossfield heads; (S + N)/N 73 dB at 7<sup>1</sup>/<sub>2</sub> ips. . . . . \$949.00

**9100X.** Same as 9200XD but without the Dolby circuit. . . . . \$799.00

**Series 10XD Stereo Tape Deck**

Three-speed (15, 7<sup>1</sup>/<sub>2</sub>, 3<sup>3</sup>/<sub>4</sub> ips), three-motor deck with Dolby noise-reduction system; will



handle up to 10<sup>1</sup>/<sub>2</sub>" reels; 4/2 track; response 30-25,000 Hz ±2 dB, 25-27,000 Hz ±3 dB (both at 15 ips); speed tolerance ±0.3%; wow 0.04% max at 15 ips (weighted); crosstalk attenuation 50 dB in stereo at 1000 Hz; has full complement of inputs, outputs, controls; peak reading meters; crossfield heads; mike & line mixing facilities; logic circuit with memory; 45 cm x 43.5 cm x 18.5 cm. Comes with 10<sup>1</sup>/<sub>2</sub>" empty reel, NAB adapters, input-output connection cord. Remote control, pitch control kit, and rack mounting kit available at optional extras. . . . . \$1150.00

**TEAC**

**2300S Stereo Tape Deck**

Two-speed (7<sup>1</sup>/<sub>2</sub> & 3<sup>3</sup>/<sub>4</sub> ips) four-track, two-channel deck. Features push-button transport control with logic circuitry; dual VU meters; separate bias/equalization switches; record/pause lights; total remote-control capability. Has dual-speed hysteresis synchronous capstan motor and two eddy-current induction reel motors. Response 30-24,000 Hz at 7<sup>1</sup>/<sub>2</sub> ips; 30-16,000 Hz at 3<sup>3</sup>/<sub>4</sub> ips; wow & flutter 0.08% at 7<sup>1</sup>/<sub>2</sub> ips. (S + N)/N 58 dB. 17<sup>1</sup>/<sub>8</sub>" x 15<sup>1</sup>/<sub>8</sub>" x 8<sup>1</sup>/<sub>2</sub>" D. . . . . \$499.50

**3300S Stereo Tape Deck**

Two-speed (7<sup>1</sup>/<sub>2</sub> & 3<sup>3</sup>/<sub>4</sub> ips), four-track, two-channel deck. Will handle up to 10<sup>1</sup>/<sub>2</sub>" reels; offers remote-control capability; push-button transport control with logic circuitry; dual level bias oscillator for low-noise recording; d.c.-coupled equalization network. Features dual VU meters; pause control with indicator light; separate mike/line level controls; tape/source monitor switch; stereo headphone jacks; 4-digit resettable tape counter. 17<sup>1</sup>/<sub>8</sub>" x 15<sup>1</sup>/<sub>8</sub>" x 8<sup>1</sup>/<sub>2</sub>" D. . . . . \$699.50

**3300S-2T.** Same except two-track, two-channel with 15 or 7<sup>1</sup>/<sub>2</sub> ips speeds . . . . . \$739.50

**4300 Auto-Reverse Stereo Deck**

Two speed (7<sup>1</sup>/<sub>2</sub> & 3<sup>3</sup>/<sub>4</sub> ips), three-motor, four-head stereo deck with automatic reverse. Features push-button transport control, pause control with indicator light, dual VU meters; separate equalization switches; separate mike/line inputs; separate mike/line level controls. Will handle up to 7" reels; records in four-track, 2-channel stereo. Includes memory counter for automatic repeat and memory marker level guides. Response 30-28,000 Hz; wow &

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5

## Open-Reel Tape Machines



flutter 0.06% both at 7 1/2 ips. (S+N)/N 55 dB. 17 3/16" x 19 1/4" x 8 1/2" ..... \$679.50

### 5300 Stereo Tape Deck

Two-speed (7 1/2 & 3 3/4 ips), four-track, two-channel deck. Will handle 7" reels. Features direct-capstan drive servo-controlled motor; d.c. reel motors; automatic reverse; push-button transport control. Has separate bias & equalization switches; dual-scale VU meters; remote control for all functions including record & pause; memory marker level guides; solenoid-controlled pause/cue button. Response 30-28,000 Hz; wow & flutter 0.04%, both at 7 1/2 ips. (S+N)/N 60 dB. .... \$769.50

### 5500 Auto-Reverse Stereo Deck

Two-speed (7 1/2 & 3 3/4 ips), four-track, two-channel deck with automatic-reverse play. Features three motors, four high-density Permaflux heads, and dual-process Dolby noise-reduction system, permitting simultaneous Dolbyized recording with decoded tape monitoring; Dolby FM/Copy function; MPX filter switch; Dolby calibration oscillator; source/tape monitor switch. The 4-head machine with separate playback, reverse playback, record, and erase also has a "punch-in" feature which permits change from play to record mode without going through a stop; a four-digit resettable tape counter; memory marker level guides. Response 30-28,000 Hz; wow & flutter 0.04%, both at 7 1/2 ips. (S+N)/N 65 dB (with Dolby). ... \$899.50

### 4070G Stereo Tape Deck

Two-speed (7 1/2 & 3 3/4 ips), 4-track, 3-motor stereo design. Has four high-density ferrite heads (6 head functions). Will handle up to 7" reel. Response 30-20,000 Hz ±3 dB, wow & flutter 0.05% at 7 1/2 ips. (S+N)/N 58 dB. Has braking, VU meters, automatic reverse and shutoff, pause control, bias adjustment, counter, separate bias & equalizer switches and monitoring facilities. .... \$729.50

### 7010GSL Auto-Reverse Tape Deck

4-track, 2-channel stereo or mono with four heads (erase, record, playback, and reverse playback). Two speeds (3 3/4 & 7 1/2 ips), 3 motors. Will handle 7" & 10 1/2" reels. Response 30-20,000 Hz ±3 dB at 7 1/2 ips. (S+N)/N -58 dB; HD 1% at 1000 Hz at normal listening levels. Has mike (0.25 mV) and line (0.1 V) inputs. Line output 0.3V. 21 1/8" x 17 3/8" W x 9 1/2" D. .... \$1149.50

### 7300 Stereo Tape Deck

Two-speed (7 1/2 & 3 3/4 ips), four-track, two-channel deck. Features direct-drive d.c. capstan/servo control motor; two d.c. reel motors; built-in mixer to blend up to 4 mikes or lines; separate master input level control for all mike/line inputs; separate output level control. Has two sets of output jacks; dual VU meters;



3-position bias/equalization switches; separate cue & edit facilities; push-button transport control; logic circuitry and motion sensing. Response 30-28,000 Hz; wow & flutter 0.04%, both at 7 1/2 ips. (S+N)/N 58 dB. .... \$1350.00  
**7300-2T.** Same except two-track, two-channel with 15 & 7 1/2 ips operation. Response 25-30,000 Hz; wow & flutter 0.03%, both at 15 ips. (S+N)/N 60 dB. .... \$1400.00

### 7030GSL Tape Deck

2-track, 2-channel stereo or mono with four heads (erase, record, playback, and 4-track playback). Two speeds (7 1/2 & 15 ips), 3 motors. Will handle 7" & 10 1/2" reels. Wow & flutter 0.06% at 7 1/2 ips. Response 30-20,000 Hz ±3 dB at 7 1/2 ips. (S+N)/N -60 dB. HD 1% at 1000 Hz at normal listening levels. Has mike (0.25 mV) and line (0.1 V) inputs. Line output 0.3 V. Similar in design and styling to Model 7010GSL. 21 1/8" x 17 3/8" x 9 1/2" D ... \$1099.50

## TECHNICS BY PANASONIC

### RS-1030US 2/4 Track Tape Deck

Two-speeds (15 & 7 1/2 ips). Response 20-26,000 Hz at 15 ips (30-22,000 Hz ±3 dB); 20-23,000 Hz at 7 1/2 ips (30-20,000 Hz ±3 dB). Two-track record/play, four-track (stereo) playback. Wow & flutter 0.12% W rms at 7 1/2 ips. (S+N)/N 55 dB (2-track). Accepts 10" or smaller reels. Four heads including three HPF ultra-longlife types. Low-noise/normal tape selector. Three motors, one dual-speed hysteresis synchronous for capstan drive. Tape tension selector, optional remote. Features automatic stop, tape pause, and 4-digit counter. .... \$999.95

## TELEX

### 423 Tape Deck

Basically same design as Model 433. Response 50-15,000 Hz ±3 dB, (S+N)/N 50 dB, wow & flutter 0.2%, all at 7 1/2 ips. THD 1.5%. 12 3/8" H ..... \$288.70

### 433 Tape Recorder Deck

Quarter-track stereo design featuring sound-on-sound, reverb (echo), 2-channel input mixing, tape monitoring, and pause control. Three-speed (7 1/2, 3 3/4, 1 7/8 ips), 3-head, 3-motor design. Has automatic shutoff. Response 40-18,000 Hz ±3 dB at 7 1/2 ips, (S+N)/N 54 dB, flutter & wow 0.2% at 7 1/2 ips. 15 3/4" W x 14 3/8" H x 8 3/4" D ..... \$398.95

### Lab Series 2001 Tape Deck

Two-speed (7 1/2, 3 3/4 ips), 4-track, 3-head, 2-motor stereo design. Will handle up to 8 1/4" reels. Response 45-18,000 Hz ±2 dB, wow & flutter 0.18% at 7 1/2 ips, (S+N)/N 52 dB. Has VU meters, automatic shutoff, pause control, counter, solenoid operation, and monitoring facilities. 14 1/2" x 19 1/8" x 8" D. .... \$839.95

## TOSHIBA

### PT-862D Stereo Tape Deck

Three-head system for either tape or source monitoring, echo recording; mechanical automatic shut-off; tape selector switch, recording bias control; sound-on-sound; 4-digit tape counter; three speeds (7 1/2, 3 3/4, 1 7/8 ips); will handle up to 7" reels; 4-track, 2-channel stereo record & playback; universal power supply, 50-60 Hz; inputs: mike, line input, DIN; outputs: line-output, headphone, DIN; 4-pole condenser motor; controls: tape selector, speed change, power switch, volume control, mode selector; response 20-25,000 Hz; wow & flutter 0.09% W r.m.s.; crosstalk 60 dB; channel separation 55 dB; (S+N)/N 56 dB. 15 1/8" W x 12 1/4" H x 7 3/8" D ..... \$269.95

## UHER

### 4000 Report IC Recorder

Four-speed (7 1/2, 3 3/4, 1 7/8, 1 1/2 ips), two-track portable recorder; can be powered by "C" cells, rechargeable battery, power pack, 12-V car battery (also power line with accessory unit); 5" max. reel dia.; frequency range 35-20,000 Hz; wow & flutter +0.20% (DIN), ±0.15% (rms); S/N (rms A curve) 64 dB, all at 7 1/2 ips. Has 3-digit counter with reset button; direct tape monitoring with earphones or speaker; electronic start and stop with remote switch, manual, or foot operation. Inputs: (mike) 0.12 mV, 40 mV max, for mikes with 200-ohm source impedance; (radio) 2.4 mV, 700 mV max.; (phono) 45 mV, 20 V max., input impedance 2 meg. .... \$449.00  
**4200.** Same as Model 4000 except stereo version; S/N 56 dB (weighted DIN), 64 dB (weighted rms A curve); 0.80 W/ch; two recording level meters ..... \$560.00  
**4400.** Same as Model 4200 except four-track;



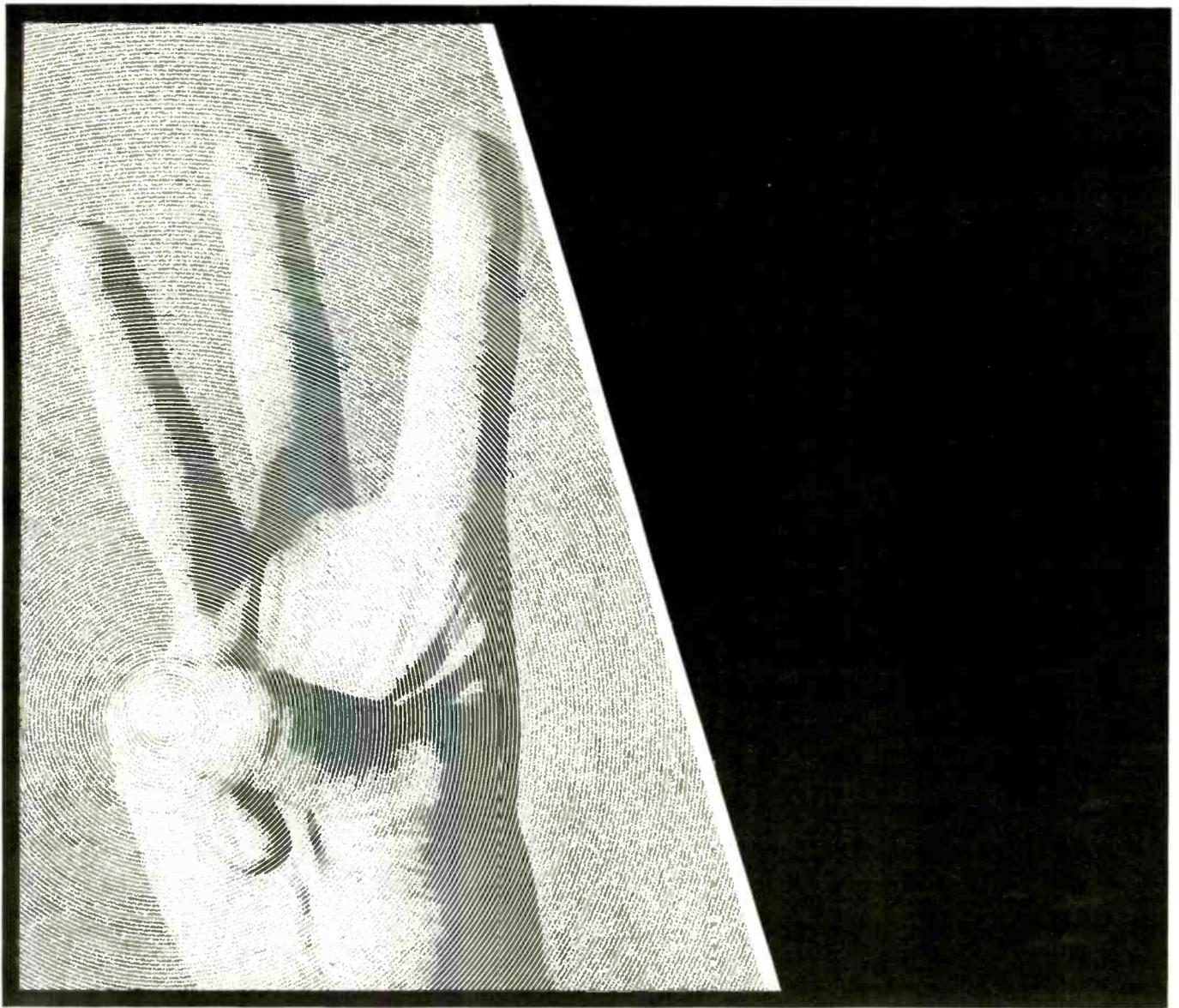
S/N 54 dB (weighted DIN), 62 dB (weighted rms A curve) ..... \$560.00  
 An extensive line of accessories is available for use with all three models.

### Royal de Luxe Tape Recorder

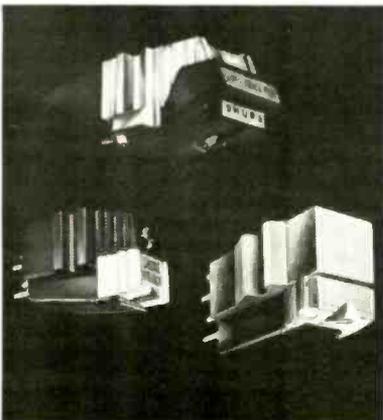
Four-track stereo (or optional 2-track stereo with plug-in head assembly modules), four-speed (7 1/2, 3 3/4, 1 7/8, 1 1/2 ips); response 20-22,000 Hz; wow & flutter ±0.02%; S/N (rms A curve) 68 dB, all at 7 1/2 ips. Features reverb-eration and Concert-Hall effects; sound-on-sound; sound-with-sound; two integrated stereo input mixing facilities; integrated "Dia-Pilot" for slide and film projector synchronization. With tape drive system off, electronic section serves as stereo amplifier with 10 W/ch continuous power output. 7" max. reel; operates from 110-130, 220-240 V, 50-60 Hz. Will operate in horizontal or vertical position. 4-digit tape counter. .... \$855.00

### Universal 500 Tape Recorder

Three speed (3 3/4, 1 7/8, 1 1/2 ips), two-track mono; 5" reel dia.; frequency range 40-16,000 Hz; wow & flutter (rms) ±0.15%; S/N (rms A curve) 60 dB, all at 3 3/4 ips. Has four-digit counter; loudspeaker or earphone monitoring; VU meter; remote control for recording, playback, start, stop, rewind. Operates from 110-125-150-220-240 V, 50 Hz (can be modified for 60 Hz) ..... \$491.65  
 An extensive line of accessories is available for use with this model.



## Best. Best. Best.



Permit us this momentary bit of self-indulgence, because our intentions are pure: to assist you in choosing the best phono cartridge for your hi-fi system, within the practical limitations of your audio budget. To begin, if you feel uncomfortable with anything less than state-of-the-art playback perfection, we heartily recommend the Shure V-15 Type III, a cartridge of such flawless performance it is the perfect companion to the finest turntables and tone arms available today — and those coming tomorrow. At a more moderate level of performance and price, we suggest the Shure M91ED, a superb performer second in trackability only to the Type III. Finally, for optimum performance under a budget austerity program, the yeoman Shure M44E is for you. All in all, these are three great ways to enjoy music with the kind of system you have decided is best for you.

**Shure Brothers Inc.**  
222 Hartrey Ave., Evanston, Ill. 60204

In Canada: A. C. Simmonds & Sons Ltd.  
CIRCLE NO. 49 ON READER SERVICE CARD





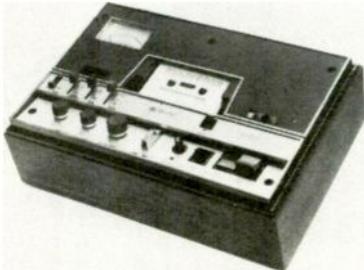
# 6

# CASSETTE TAPE MACHINES

## ADVENT

### 201 Dolbyized Cassette Deck

Play/record stereo design. Response 35-14,500 Hz at  $\pm 2$  dB. THD less than 1 1/2% with chromi-



um-dioxide tape; wow & flutter less than 0.15%; (S + N)/N 54 dB (Dolby off). Has VU meter, counter, automatic shutoff, pause control, and line inputs. 4 7/8" H x 13 3/4" W x 9 1/4" D. Oiled-walnut cabinet ..... \$300.00

### 202 Dolbyized Cassette Playback Deck

Stereo cassette player. Features Dolby circuitry and standard playback equalization for chromi-



um-dioxide tape (regular equalization also provided). Response 30-15,000 Hz  $\pm 2$  dB; wow & flutter less than 0.2% DIN. Has hysteresis synchronous motor, automatic shut-off, digital counter. Overall size 3 7/8" H x 9 7/8" W x 10 3/8" D ..... \$130.00

**Model 202hp.** Same except includes built-in headphone amplifier ..... \$150.00

## AKAI

### CS-30D Stereo Tape Deck

Features digital tape counter, tape selector switch, tape run lamp, and dual VU meters. Response 40-15,000 Hz (chromium-dioxide tape), wow & flutter 0.15% rms; distortion 2% at 1000 Hz (0 VU), (S + N)/N 46 dB. Induction-tape motor. 16.1" W x 5" H x 8.7" D . . \$169.95

### GXC-75D Stereo Cassette Deck

Four-track, two-channel system; response 33-16,000 Hz (with chromium-dioxide tape), 30-14,000 Hz  $\pm 3$  dB (low-noise tape); wow & flutter 0.1% Wrms; distortion 1.0% (1000 Hz, 0 VU), (S + N)/N 50 dB; 58 dB (with Dolby). Three



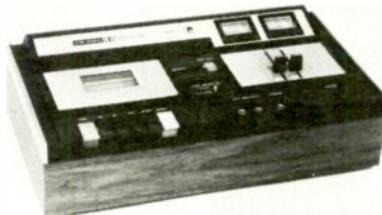
heads (one GX record/playback, two erase); hysteresis synchronous outer-rotor motor; two VU meters. Has full complement of controls. Universal power supply 100-240 V, 50-60 Hz. 18.1" W x 5.8" H x 11.9" D ..... \$429.95

### GXC-46D Dolbyized Cassette Recorder

Similar to Model GXC-65D in that it has Dolby, glass-encased crystal ferrite heads, and automatic noise-reduction system. Does not have "Invert-O-Matic." With signals over 8000 Hz circuit adjusts recording level to prevent distortion. Response 30-16,000 Hz. Wow & flutter 0.12% weighted rms. (S + N)/N 50 dB (58 dB with Dolby). Has universal power supply. 16 1/2" x 5 3/8" x 12" ..... \$319.95

### CS-33D Dolbyized Cassette Deck

Stereo design with built-in Dolby circuit. Features digital tape counter, tape selector switch, tape run lamp, and two VU meters. Response 40-15,000 Hz (chromium-dioxide tape), wow &



flutter 0.15% rms; distortion 2% at 1000 Hz (0 VU), (S + N)/N 56 dB with Dolby. 16.1" W x 5" H x 8.7" D ..... \$209.95

### GXC-36D Cassette Deck

Features glass and crystal ferrite head; induction motor, pause control, tape selector switch



for low noise & chromium-dioxide tapes, auto-

matic stop, OLS switch. (S + N)/N 44 dB; distortion 2.0%; wow & flutter 0.3% ..... \$229.95

### GXC-65D Dolbyized Cassette Recorder



Features glass and crystal ferrite head, automatic distortion-reduction system, Dolby automatic change, "Invert-O-Matic" reverse cassette, tape selector (chromium-dioxide or low-noise), pause control, and two VU meters. Frequency response 30-16,000 Hz; wow & flutter 0.2% rms. (S + N)/N 50 dB. Overall distortion 1% ..... \$349.95

### GXC-38D Cassette Deck

Features glass and crystal ferrite head, induction motor, Dolby, automatic stop, OLS switch,

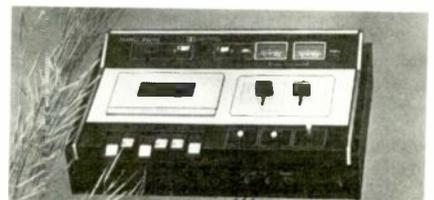


pause control, tape selector switch for low noise & chromium-dioxide tapes. (S + N)/N 50 dB; wow & flutter 0.30%; distortion 2.0% ..... \$269.95

## CHANNEL MASTER

### 6622 Cassette Play/Record Deck

Features Dolby noise-reduction circuit; memory rewind; tape selector switch; automatic shut-off; piano key controls for stop/eject, fast-forward, rewind, play, record, pause; two illuminated level meters; digital counter with reset button; response 40-10,000 Hz- 40-12,000 Hz (CrO<sub>2</sub>); S/N 45 dB (Dolby in); 58 dB



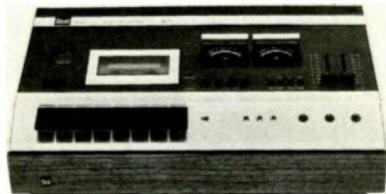
**6** **Cassette Tape Machines**

(CrO<sub>2</sub>); inputs: L/R mike, pair aux. jacks; wow & flutter 1.8%; outputs: headphones, one pair line outputs. 4" H x 13<sup>3</sup>/<sub>8</sub>" W x 9<sup>1</sup>/<sub>8</sub>" D. . \$219.95

**DUAL**

**901 Autoreverse Cassette Deck**

Features automatic reverse, continuous playback, and bi-directional recording. Dolbyized,



with test oscillator. Continuous-pole/synchronous motor with double-capstan drive system. Slide-type controls; ballistically damped VU meters; automatic selector for ferrous and chromium-dioxide tapes; lighted indicators for all functions; ALC. Features complete automatic shut-off; two mike inputs. Response 20-14,000 Hz ±1.5 dB (to 15,500 with CrO<sub>2</sub> tape); wow & flutter 0.09% W rms. . . . . \$450.00

**FISHER**

**SR-110 Cassette Recorder Deck**

Dolbyized record/play stereo design. Has separate control for chromium-dioxide tapes; expanded-scale VU meters; independent record-level controls; auto-stop; counter on mike inputs. Response 30-12,000 Hz (CrO<sub>2</sub> 14,000 Hz); (S + N)/N 50 dB. Wow & flutter (weighted) 0.2% rms. Sensitivity: mike 0.2 mV (±3 dB) 0 VU at 1500 ohms; aux. 100 mV (±2 dB) for 0 VU at 5000 ohms. Output 1 volt (±2 dB) for 0 VU at 5000 ohms. 5<sup>1</sup>/<sub>2</sub>" x 15<sup>1</sup>/<sub>2</sub>" x 10<sup>1</sup>/<sub>2</sub>" D. . . . .



. . . . . \$249.95

**RC-80B Cassette Deck**

Dolby-ized record/play stereo design. Has separate control for chromium-dioxide tapes, VU meters. Response (standard tapes) 30-12,000 Hz. 7<sup>1</sup>/<sub>8</sub>" W x 3<sup>1</sup>/<sub>2</sub>" H x 11<sup>1</sup>/<sub>8</sub>" D. With pair M-5 dynamic mikes . . . . . \$249.95  
18-W Walnut base . . . . . \$9.95

**HARMAN/KARDON**

**HK1000 Dolbyized Cassette Deck**

Stereo cassette recorder deck with built-in Dolby noise-reduction circuit. Has front-panel bias switch for standard, low-noise, and chromium-dioxide tapes. Features memory relay, peak-reading VU meters, sliding controls for playback & record level, and microphone input. Response 30-15,000 Hz ±1.5 dB; wow & flutter 0.15 (weighted); speed variation 1%. Constant-

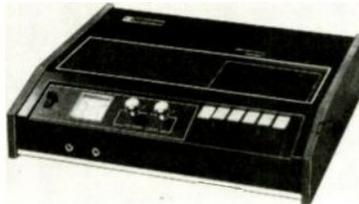


current-drive record head . . . . . \$349.95

**HEATH**

**AD-110 Cassette Deck**

Play/record stereo design. Response 30-12,000 Hz ±3 dB, 0.25% distortion, wow & flutter

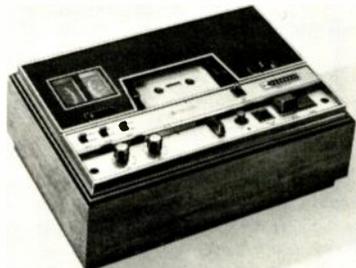


less than 0.25%, (S + N)/N 45 dB. Has VU meters, eject button, pause control, mike & line inputs, and adjustable bias. 11" H x 13<sup>3</sup>/<sub>8</sub>" W x 3<sup>3</sup>/<sub>8</sub>" D. Walnut cabinet.

Kit. . . . . \$139.95

**AD-1530 Deck with Dolby**

Combines a pre-assembled tape transport, a



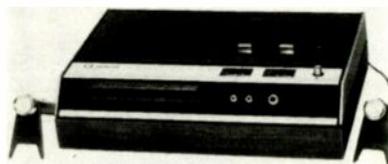
Dolby noise-reduction (B type) system, and necessary preamps to record or play stereo cassette tapes. Has built-in test circuit to adjust Dolby system; a bias & equalizing switch for chromium-dioxide or standard tapes; VU meters; and mike inputs. Walnut cab. . . . .

Kit . . . . . \$249.95  
Dust cover . . . . . \$4.95

**HITACHI**

**TRQ-262 Stereo Cassette Deck**

Plays and records. 20-18,000 Hz response,



wow & flutter 0.15%, (S + N)/N 50 dB. Has VU meters, counter, eject button, automatic shut-off, pause control, monitoring facilities. Has provision for mike & line inputs. 3<sup>3</sup>/<sub>8</sub>" H x 13<sup>3</sup>/<sub>8</sub>" W x 9<sup>3</sup>/<sub>8</sub>" D. . . . . \$139.95

**TRQ-252 Stereo Cassette Deck**

Plays and records. Response 40-12,000 Hz, (S + N)/N 45 dB. Has VU meters, counter, eject button, mike inputs. 3<sup>3</sup>/<sub>8</sub>" H x 7<sup>3</sup>/<sub>8</sub>" W x 10<sup>3</sup>/<sub>8</sub>" D. . . . . \$119.95

**TRQ-2020 Stereo Cassette Deck**

Frequency response 40-16,000 Hz; wow & flutter 0.15%; S/N 45 dB; features push-button control; two VU meters; tape counter; automatic stop; fast-forward; pause switch; mike & aux. inputs. 15" W x 3<sup>3</sup>/<sub>8</sub>" H x 9<sup>1</sup>/<sub>8</sub>" D. . \$149.95

**TRQ-2040 Dolbyized Cassette Deck**

Response 20-16,000 Hz; wow & flutter 0.12%; S/N 50 dB; push-button control; VU meters; tape counter; tape selector switch; automatic stop; fast-forward; pause switch; Dolby noise-reduction circuitry; slide volume controls; two mike and two aux. inputs. 16" W x 3<sup>3</sup>/<sub>8</sub>" H x 10<sup>1</sup>/<sub>4</sub>" D. . . . . \$229.95

**JVC**

**CD-1655 Cassette Deck**

Stereo record/play design. Response 30-15,000 Hz ±3 dB. Ferrite record/play heads. Tape



selector switch for chromium-dioxide and standard tapes. Built-in noise-suppressor circuit, automatic stop, two VU meters, calibrated step recording-level controls. 4<sup>1</sup>/<sub>2</sub>" x 14<sup>1</sup>/<sub>16</sub>" x 9<sup>3</sup>/<sub>16</sub>" D. . . . . \$149.95

**CD-1656 Cassette Deck**

Stereo record/play. Response 50-14,000 Hz ±3 dB (CrO<sub>2</sub>), 50-12,000 Hz (standard tape); wow & flutter 0.22% rms; S/N 50 dB from peak level; built-in noise-reduction system (ANRS); features auto-stop mechanism; tape selector switch; two input mike & two line jacks; two line & headphone outputs; DIN jack. 4<sup>3</sup>/<sub>8</sub>" H x 15<sup>1</sup>/<sub>8</sub>" W x 9<sup>1</sup>/<sub>16</sub>" D. . . . . \$229.95

**CD-1667 Cassette Deck**

Stereo record/play design. Response 30-16,000 Hz ±3 dB with chromium-dioxide tape (30-13,000 Hz with standard tape). (S + N)/N -50 dB; wow & flutter 0.15% rms; bias record &



erase 95 kHz. Has record/play and erase heads. Inputs: mike (0.7 mV) & line (80 mV). Line output 0 to 1 V. Features two VU meters and bias switch for chromium-dioxide and standard tape. Features ANRS (automatic noise-reduction system). 15" x 4<sup>3</sup>/<sub>8</sub>" x 10<sup>1</sup>/<sub>2</sub>" D. . . . \$249.95

**CD-1669 Solenoid Cassette Deck**

Response 30-16,000 Hz ±3 dB. (S + N)/N -60 dB; wow & flutter 0.13% rms. Ferrite record/play heads. Features both equalizer and tape bias switches; built-in automatic noise-reduction system; memory counter; dual-drive mechanism; memory counter; calibrated step recording-level and playback controls. 5<sup>1</sup>/<sub>8</sub>" x 16<sup>1</sup>/<sub>2</sub>" W x 12<sup>1</sup>/<sub>16</sub>" D. . . . . \$499.95

### CD-1668 Cassette Deck

Deluxe version of the Model CD-1667. Has dual drive mechanism to reduce wow & flutter



(0.13% rms). Memory counter, ferrite record/play heads, calibrated recording-level controls, automatic stop, and automatic eject. Overall size 17" x 5 1/2" x 15" D. . . . . \$329.95

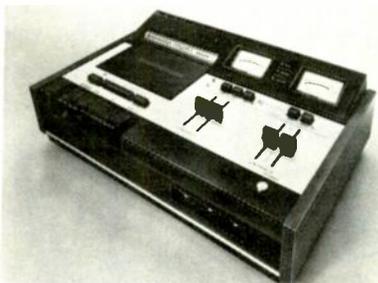
### CD-1665 Cassette Deck

Economy stereo record/play design. Response 40-13,000 Hz  $\pm 3$  dB. (S + N)/N -50 dB; wow & flutter 0.15% rms. Has record/play and erase heads. Inputs: mike (0.7 mV) & line (80 mV). Line output 0 to 0.6 V. 4 1/2" x 11 1/8" W x 9 3/8" D . . . . . \$99.95

## KENWOOD

### KX-710 Cassette Deck with Dolby

Stereo cassette deck with Dolby noise-reduction circuit; d.c. servo motor plus high-mass



flywheel for speed accuracy and low wow & flutter; two heat-compressed ferrite heads (record/play & erase); response 30-16,000 Hz (with CrO<sub>2</sub>) tape; S/N with Dolby 58 dB, without 50 dB, both with chromium-dioxide tape; has resettable automatic memory rewind system used with 3-digit tape location counter; automatic shut-off; automatic tape selector for optimizing equalization; cueing system; linear slide controls; piano-key controls; tape-running indicator; peak level indicators; two mike & line inputs; two line & stereo headphone outputs. 5 1/16" W x 16 3/16" H x 10 1/16" D. . . . . \$249.95

### KX-910 Cassette Deck with Dolby

Stereo cassette deck with Dolby noise-reduction circuit; hysteresis-synchronous motor for speed accuracy and low wow & flutter; two heat-compressed ferrite heads (record/play & erase); response 30-16,000 Hz, S/N with Dolby 58 dB, without 50 dB, all with CrO<sub>2</sub> tape; same features and controls as KX-710. 5 1/16" W x 16 3/16" H x 10 1/16" D. . . . . \$299.95

## LAFAYETTE

### RK-725 Record/Playback Deck

Deck featuring a low-impedance stereo amplifier for stereo headphone listening. Response 50-13,000 Hz; (S + N)/N 45 dB; channel separation 30 dB. Input sensitivity: mike 1 mV; aux. 100 mV. Wow & flutter 0.25% rms. Has standard/chromium-dioxide level control; illuminated VU record-level meters; 3-digit tape counter with reset button; front panel left- and right-channel mike and input jacks; six push-button

1975 EDITION

tape functions including pause. Walnut wood case, brushed aluminum front panel. 12 7/8" x 9 1/16" x 3 9/16" . . . . . \$109.95

### RK-D50 Dolbyized Cassette Deck

Record/playback deck with Dolby. Has push-button tape selectors for standard, chromium-



dioxide, or UD tapes; memory rewind; sound-with-sound facilities; lockable pause control; two illuminated VU record-level meters; two peak record-level indicator lights; 3-digit tape counter with reset button; automatic shut-off. Has 4-pole hysteresis synchronous motor. Response 30-20,000 Hz  $\pm 3$  dB; (S + N)/N 59 dB (Dolby in), 49 dB (Dolby out); channel separation 30 dB at 1 kHz. 14 3/4" W x 3 3/4" H x 10" D . . . . . \$259.95

## NAKAMICHI

### 1000 3-Head Cassette Deck

Stereo record/play deck has response of 35-20,000 Hz  $\pm 3$  dB (CrO<sub>2</sub>) tape. Wow & flutter less than 0.10% (weighted peak); (S + N)/N 60 dB (Dolby in); THD 2% at 1 kHz, 0 dB. Features three heads (erase, record, playback); record-head azimuth alignment beacon; Dolby noise-reduction circuit + DNL; closed-loop driven double capstans with staggered flywheels; two d.c. driving motors; two peak level meters; instantaneous spill-proof device; automatic shut-off, memory rewind, and automatic rewind;



variable pitch control, 3-point sound pickup for live recording; peak limiter; optional remote control. Inputs: mike 0.5 mV, 600 ohms; blend mike 0.5 mV, 600 ohms; line 100 mV, 100,000 ohms. Outputs: line 1.2 V (max.) variable; headphones 3 mW, 0 dB. 11 1/16" H x 20 1/16" W x 8 9/16" D. . . . . \$1100.00

### 700 3-Head Cassette Deck

Same as the Model 1000 except does not have



automatic rewind or DNL. 10 1/16" H x 20 1/2" W x 5 7/8" D . . . . . \$690.00

## Remote Control Box



Electronic touch control (duplicating control system on the 1000 & 700). Controls all tape motion, including record, within 15 feet . . . . . \$49.00

## 500 2-Head Cassette Deck

Four-track, 2-channel stereo model; response 40-17,000 Hz  $\pm 3$  dB; wow & flutter 0.08%



Wrms; S/N 58 dB (CrO<sub>2</sub> tape with Dolby); THD 2% at 1000 Hz, 0 dB; inputs: mike & blend mike 600 ohm, 0.2 mV; line 150,000 ohm 70 mV; outputs: line 1.0 V (max.) variable; headphones 8 ohm 1 mW, 0 dB; features focused-gap head with crystal Permalloy core; full-range 45-dB peak-reading meters; Dolby noise reduction system; d.c. servomotor drive; automatic shut-off & memory rewind; 3-point sound pickup for live recording; peak limiter; 3-position tape selector; variable output level control. 15" W x 4 1/2" H x 10" D. . . . . \$399.00

## PIONEER

### CT-4141A Dolbyized Cassette Deck

Stereo design featuring d.c. brushless motor. 85 Hz bias & a.c. erase. Bias change for standard & chromium-dioxide tape. Response 30-12,500 Hz with standard tape (30-15,000 Hz with chromium-dioxide tape). (S + N)/N 58 dB with Dolby. Wow & flutter 0.13%. Inputs: line



50 mV; mike 0.5 mV. Line output 0.775 V. 120 V, 60 Hz operation, 15 3/8" W x 3 3/4" H x 9 1/2" D. . . . . \$239.95

### CT-3131A Cassette Deck

Stereo record/playback design featuring switch for standard or chromium-dioxide tape; automatic stop; a level memory marker; dual record-level meters; tape running pilot; and skip button. Wow & flutter 0.13%; (S + N)/N -48 dB for standard tape (50 dB for chromium-dioxide tape). Response 30-12,500 Hz for standard tape (30-15,000 Hz for chromium-dioxide tape). Sensitivity: line input 50 mV; mike 0.5 mV; line output 0.775 V. 120V, 60 Hz operation. 15 3/8" x 3 3/4" x 9 1/2" D. . . . . \$179.95

### CT-F7171 Dolbyized Cassette Deck

Stereo record/playback deck featuring front-access; a.c. bias recording system; a.c. push-

# 6 Cassette Tape Machines

pull erase; ferrite record/playback head; electronically controlled d.c. motor; wow & flutter 0.10% W rms; response (standard tape) 30-13,000 Hz (40-12,000 Hz  $\pm 3$  dB); chromium-dioxide tape 30-16,000 Hz (40-13,000 Hz  $\pm 3$  dB); S/N 48 dB (Dolby out), 58 dB (Dolby in); features tape selector with switchable bias & equalizer; full-auto stop mechanism; "skip" button for monitoring; recording LED peak indicators; recording limiter; memory rewind switch; cassette bed illumination light & switch; two pairs of input & output terminals; independent recording & playback level controls. Wood cabinet. 16 $\frac{1}{2}$ " W  $\times$  5 $\frac{1}{4}$ " H  $\times$  12 $\frac{1}{4}$ " D. .... \$369.95

**CT-5151 Dolbyized Cassette Deck**  
Dolbyized cassette deck with independent bias and equalization circuit selection for regular, low-noise, or chromium-dioxide tapes. Features solid ferrite heads; twin VU meters; LED peak indicator (calibrated to light when level exceeds reference level by +4 dB); switchable level limiter; electronically controlled d.c. motor; electromagnet automatic stop circuit; tape-motion pilot light; skip button for locating desired program material; three-digit tape counter and tape memory rewind button for preci-



sion cueing. Response 30-16,000 Hz (CrO<sub>2</sub>); 30-13,000 Hz (standard) tape; (S+N)/N 58 (with Dolby), 48 dB (without); wow & flutter 0.12% W rms; bias frequency 85 kHz. 120-V, 60-Hz operation. 15 $\frac{3}{8}$ " W  $\times$  3 $\frac{3}{4}$ " H  $\times$  9 $\frac{1}{2}$ " D ..... \$269.95

## RADIO SHACK

**SCT-7 Cassette Deck**  
Stereo record/play design; response (with chromium-dioxide tape) 40-15,000 Hz  $\pm 3$  dB; wow & flutter 0.09% rms; S/N (with Dolby) 52 dB; output level 1 V max; recording bias 100 kHz; features tape-travel lights; Dolby and record lights; automatic reverse; record "edit" button; dual VU meters; separate left & right channel record-level controls. Oiled walnut cabinet. 5 $\frac{1}{8}$ "  $\times$  16 $\frac{3}{4}$ "  $\times$  11 $\frac{1}{8}$ " ..... \$319.95

**SCT-6C Cassette Deck**  
Stereo record/play design. Has individual channel record-level controls, VU meters, mike and auxiliary inputs, preamp outputs. Has Dolby noise-reduction circuit, tape bias switch for



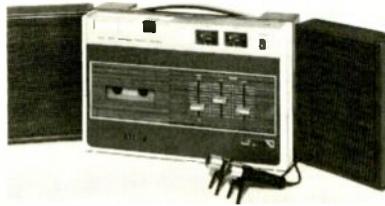
recording chromium-dioxide cassettes. Capable of sound-on-sound recording. Has dual illuminated record-level meters, pause control, and automatic end-of-tape shut-off. Response 30-14,000 Hz (with chromium-dioxide tape)  $\pm 2$  dB; wow & flutter 0.14% rms. Oiled walnut cabinet with brushed aluminum trim. 16 $\frac{1}{2}$ "  $\times$  10 $\frac{1}{4}$ "  $\times$  4 $\frac{1}{2}$ " ..... \$249.95

**SCT-5C Cassette Recorder**  
Stereo record/play design. Has dual VU meters. Response 50-12,000 Hz  $\pm 2$  dB (playback-



only response 40-14,000 Hz  $\pm 2$  dB). Wow & flutter 0.2%. Overall size 13 $\frac{3}{8}$ "  $\times$  9 $\frac{3}{4}$ "  $\times$  3 $\frac{7}{8}$ " ..... \$159.95

**SCT-2C Cassette Recorder**  
Portable stereo design. Has dual VU meters, monitor switch, slide controls. Operates from



117-volt power source or six "D" cells. Supplied with two mikes (one with remote-control switch). Has two removable wing speaker systems. 11"  $\times$  8 $\frac{1}{2}$ "  $\times$  6 $\frac{1}{2}$ " ..... \$159.95

## SANSUI

**SC-737 Cassette Recorder Deck**  
Stereo design with built-in Dolby circuits; provi-



sions for chromium-dioxide tape; MCF ferrite heads; constant and peak-reading VU meters; three mike inputs. Response 30-13,000 Hz (regular tape); 30-16,000 Hz (CrO<sub>2</sub>) (S+N)/N 50 dB. Dolby out, but with chromium-dioxide tape. Radar-type tape-direction indicator. 18 $\frac{1}{4}$ " W  $\times$  4 $\frac{3}{4}$ " H  $\times$  11 $\frac{7}{16}$ " D ..... \$299.95

**SC-700 Cassette Recorder Deck**  
Stereo design with Dolby noise-reduction system. Input sensitivity: mike 0.5 mV; line 70 mV. Wow & flutter 0.12% weighted rms. Response 40-13,000 Hz with standard tape; 40-16,000 Hz with chromium-dioxide tape. (S+N)/N with low-noise tape 50 dB (with Dolby 56-58 dB). Bias frequency 100 kHz. Features 3 mike mixing, dual VU meters, and universal power supply. 15 $\frac{1}{4}$ "  $\times$  10 $\frac{1}{8}$ "  $\times$  4 $\frac{1}{8}$ " D ..... \$199.95

## SANYO

**RD-4300 Dolbyized Cassette Deck**  
Stereo design with pause control, equalization adjustments for choice of tape, and two record-



level meters. Has tape monitoring facilities, cue control, and automatic shut-off. Response 40-15,000 Hz  $\pm 3$  dB. (S+N)/N 50 dB. Wow & flutter 0.15%. Has mike & line inputs and built-in memory counter (will automatically rewind & stop at point of start). 17"  $\times$  9"  $\times$  5" .. \$299.95

**RD-4350 Dolbyized Cassette Deck**  
Stereo design with built-in memory counter; separate record/playback level controls; adjustable recording equalization controls; mike/aux. input control; lighted VU meters with push-button tilt-up mechanisms for easy viewing; and mechanical automatic stop. Response 40-15,000 Hz  $\pm 3$  dB; (S+N)/N 50 dB; wow & flutter 0.15%. Has two mike inputs and two stereo line outputs. Dolby noise suppression circuit. 17"  $\times$  9"  $\times$  5" ..... \$329.95

**RD-4250 Dolbyized Cassette Deck**  
Features servo-controlled tape drive mechanism and ferrite heads; large VU meters; tape



counter; 7-button function control including both cue and pause functions; adjustable recording equalization; automatic stop. Has Dolby noise reduction circuit. Response 40-15,000 Hz  $\pm 3$  dB; (S+N)/N 50 dB; wow & flutter 0.2%. Has two mike inputs and two stereo line outputs. 17"  $\times$  9"  $\times$  5" ..... \$289.95

## SONY from SUPERSCOPE

**TC-10 Car Cassette Player**  
Stereo design. 12-V negative ground operation. 6 W/ch continuous. Response 50-10,000 Hz. Wow & flutter 0.25%; (S+N)/N 45 dB. 3.2 ohms impedance. 7 $\frac{1}{4}$ " W  $\times$  2 $\frac{7}{8}$ " H  $\times$  7 $\frac{1}{8}$ " D. With mounting hardware but less speakers. .... \$119.95

**TC-30.** Same as TC-10 except has automatic reverse. (S+N)/N 50 dB. 7 $\frac{1}{4}$ " W  $\times$  2 $\frac{7}{8}$ " H  $\times$  9 $\frac{3}{8}$ " D ..... \$169.95

**TC-131SD Dolbyized Cassette Deck**  
Includes Dolby circuitry; has special tape select switch for chromium-dioxide or standard tapes; ferrite and ferrite head; built-in peak limiter. Has straightline record level controls, illuminated VU meters, automatic total mechanism shut-off (TMS); locking fast-forward and rewind; pause control with lock; 3-digit tape counter; record indicator pilot lamps; stereo headphone jack; non-magnetizing record head. Response 40-15,000 Hz, wow & flutter 0.22% (S+N)/N 48 dB. Overall size 15 $\frac{1}{8}$ " W  $\times$  3 $\frac{3}{4}$ " H  $\times$  9 $\frac{1}{8}$ " D.

Walnut base. .... \$239.95

**TC-152SD Cassette-Corder Deck**

Operates from four "D" cells or 117 V a.c. line. Records/plays stereo. Has built-in mono amplifier and single speaker for monitoring (both channels simultaneously). Features a Dolby circuit for either record or playback. Response 30-15,000 Hz; wow & flutter 0.15% (S + N)/N 48 dB. Has tape select switch; automatic shut-off; battery check switch; line in/line out for deck operation; separate monitor/playback volume and tone controls; 3-digit tape counter; built-in peak limiter. Comes with two patch cords, four "D" cells, shoulder strap. .... \$349.95

**TC-224 Portable Cassette-Corder**

Records/plays discrete stereo without external speakers or microphones. Features two built-in condenser mikes and two separate built-in speakers. Has two VU meters; 3-digit tape counter; locking fast-forward and rewind; back-space review button; fast cueing; stereo headphone jack. Response 50-10,000 Hz. Operates from four "C" cells, 120 V, 50-60 Hz; or 6 V d.c. Has earphone, carrying case, hideaway handle. .... \$199.95

**TC-126 Portable Cassette-Corder**

Records/plays mono or stereo; response 50-10,000 Hz (standard tape), 50-13,000 Hz (chromium-dioxide tape); wow & flutter 0.26%. Features record level/battery indicator; two line outputs; one stereo headphone jack; two aux. and two mike inputs; record interlock; non-magnetizing record head; Sonymatic recording control; locking fast-forward & rewind buttons; dual differential balance flywheels; stereo/mono selector switch; built-in speaker; 3-digit tape counter; automatic total mechanism shut-off. Operates from "C" cells, optional Ni-Cad battery pack, or 120-V, 60-Hz a.c. Comes with four "C" cells, mike, earphone, a.c. power cord, and carrying case. 10 7/8" W x 3 1/8" H x 7 3/8" D. .... \$209.95



TC-126CS. Same as TC-126 but with external stereo speakers and attache-type carrying case. .... \$239.95

**CF-550A Cassette Recorder/Radio**  
Combines AM/FM stereo receiver with cassette recorder. Has two built-in condenser mikes and four built-in speakers, built-in battery charger for optional NiCad battery (6 V) and automatic shut-off. Will operate from a.c. power line. Response 50-10,000 Hz. Has two line (0.06 V) and two mike inputs. 1 1/2 W/ch continuous power output at 5% THD. Portable design. 13 1/4" W x 9 5/8" H x 4 7/8" D. .... \$249.95

**TC-137SD Stereo Cassette Deck**  
Features Dolby noise-reduction system; ferrite and ferrite heads; automatic total mechanism shut-off; response 20-15,000 Hz (standard tape), 20-17,000 Hz (FeCr and CrO<sub>2</sub>) tape; has 3-digit tape counter; four function-indicator lamps; 3-pos. tape select switch; eject, rewind, fast-forward, forward, record, and stop push-buttons; sliding mike & line controls; illuminated VU meters; peak-level indicator; comes with two stereo patchcords, head-cleaning tips, dust cover. Walnut base. 16 7/16" W x 5 7/16" H x 11 7/16" D. .... \$399.95

**TC-203SD Stereo Cassette Deck**

Front-loading deck with Dolby noise-reduction system; ferrite and ferrite heads; automatic total mechanism shut-off; response 20-15,000 Hz (standard tape); 20-17,000 Hz (FeCr and CrO<sub>2</sub>); push-button control; two VU meters; record indicator lamp; peak level indicator; comes with two patchcords and head-cleaning tips. Walnut base. 17 1/16" W x 6 1/8" H x 12 5/8" D. .... \$399.95

**TC-177SD Stereo Cassette Deck**

Features three ferrite heads; Dolby noise-reduction system; automatic total mechanism shut-off; response 20-17,000 Hz (standard tape); 20-20,000 Hz (CrO<sub>2</sub> and FeCr tape); has illuminated VU meters; peak-level indicator; 400-Hz calibration tone switch; push-button operation. Walnut base. 17 1/8" W x 6 1/8" H x 12 7/16" D. .... \$699.95

**TC-161SD Dolbyized Cassette Deck**

Features dual bias for standard or chromium-dioxide tape. Response 20-18,000 Hz with



chromium-dioxide tape. (S + N)/N 54 dB at 1 kHz & 59 dB at 5 kHz. Wow & flutter 0.1%. Bias frequency 85 kHz. Has dual VU meters, illuminated cassette compartment, memory-type counter, headphone level switch. Has mike & line inputs (0.06 V sensitivity) and line output (0.775 V). Walnut base 15 1/4" W x 5" H x 10 7/8" D. .... \$299.95

**TC-121A Stereo Cassette Deck**

Records/plays. Response 40-13,000 Hz; wow & flutter 0.22% (S + N)/N 45. Has low-imp. mike



input; 560,000 ohm imp. aux. input. Output: phono 100,000 ohms. Level 0.775 V. Includes stereo headphone monitor jack, record level indicator, pause control, and automatic shut-off. 13" W x 3 1/8" H x 8 1/16" D. .... \$129.95

**TC-129 Stereo Cassette Deck**

Records/plays. Response 40-14,000 Hz; wow & flutter 0.22%. (S + N)/N 45. Has low-imp. mike input; 560,000 ohm imp. aux. input. Output: phono 100,000 ohms imp. Level 0.775 V. Features straight-line record level controls; tape select switch; dual illuminated VU meter; three-digit tape counter; push-button operation; pause control with lock. Has stereo headphone jack; built-in dust cover; automatic shut-off; non-magnetizing record head. Walnut base. 13 3/8" W x 4" H x 9 1/4" D. .... \$149.95

**SUPERSCOPE**

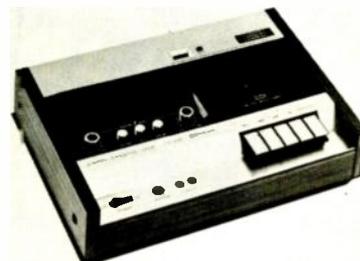
**CD-301 Stereo Cassette Deck**

Record/play deck. Response 40-10,000 Hz

(standard tape); 40-14,000 Hz (chromium-dioxide tape); (S + N)/N -48 dB standard/-51 dB CrO<sub>2</sub> tapes. Features two slanted VU meters; limiter switch to limit maximum recording level; illuminated function indicators; headphone monitor jack; left and right mike inputs and record-level controls; record mode light; 3-digit tape counter; interlocked piano-key type controls. Comes with walnut base and two audio patchcords. Overall size 12 1/2" W x 3 1/4" H x 8 7/8" D. .... \$139.95

**CD-302 Stereo Cassette Deck**

Similar to CD-301 except includes the Dolby noise reduction system. (S + N)/N -48 dB; Dol-



by in -60 dB; CrO<sub>2</sub> -51 dB. Has the same controls and features as the Model CD-301. .... \$189.95

**TANDBERG**

**TCD-310 Cassette Recorder Deck**

Features Dolby noise-reduction system; three motors; two peak-reading record meters; chrom-



mium-dioxide/low-noise, high-output tape switch; automatic endstop. Wow & flutter 0.15% (Wrms). Response 50-12,000 Hz ±2 dB. Has mike (0.1 mV), radio (5 mV), and line (40 mV) inputs. Output 0.775 V. Wall mountable. Walnut cabinet. 19" x 4 1/4" x 9 1/8" D. .... \$499.00

**TEAC**

**AC-5 Car Cassette Player**

Features continuous stereo playback; automatic reverse; universal mounting; and servo-controlled motor. Wow & flutter 0.25%. Frequency range 40-10,000 Hz. Output 6 W/ch dynamic (EIA) power at 5% THD. 12 V d.c. negative-ground operation. 2 5/8" x 7" x 8 3/8" D. Speaker optional. .... \$159.50

**AC-9 Car Cassette Player**

Similar to AC-5 except higher fidelity. Has tone controls; fast-wind in both directions; automatic reverse; tape-travel indicating lamps. Speaker optional. .... \$199.50

**360S Dolbyized Stereo Cassette Deck**

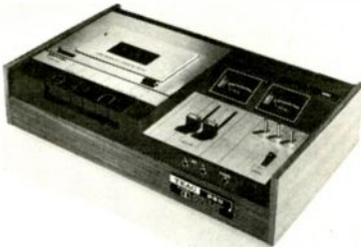
Features Dolby noise reduction system; wow & flutter 0.07%. Has 400-Hz Dolby calibration tone generator; MPX filter switch; 8 external Dolby calibration controls; automatic output stabilizing network; separate 3-position bias and equalization switch; memory rewind counter; total automatic shut-off in record and play mode; dual VU meters. Response 30-16,000 Hz (40-15,000 Hz ±3 dB with CrO<sub>2</sub> tape). (S + N)/N



60 dB (Dolby in); 55 dB (without Dolby). 17 $\frac{3}{4}$ " W x 4 $\frac{3}{4}$ " H x 10 $\frac{1}{4}$ " D. . . . . \$379.50

### 250 Dolbyized Stereo Cassette Deck

Features Dolby noise-reduction system; standard/chromium-dioxide tape selector switch;



straight-line record-type level control; dual VU meters; high-density "Permaflux" heads; and tape-run indicator light. Response 30-13,000 Hz; 30-15,000 Hz (with chromium-dioxide tape); (S + N)/N 58 dB (Dolby in). Wow & flutter 0.15%. 16 $\frac{1}{2}$ " W x 4 $\frac{7}{16}$ " H x 9 $\frac{7}{8}$ " D . . . . . \$279.50

### 160 Dolbyized Cassette Deck

Features Dolby noise-reduction system; high-density "Permaflux" heads; separate bias and equalization switches; straight-line level controls (two record, two output); two VU meters; tape-run indicator light; and 3-digit resettable tape counter. Has left and right low-imp. mike jacks; stereo headphone jack; pause control; two heads. Response 30-13,000 Hz with standard tape (30-14,000 Hz with chromium-dioxide tape); wow & flutter 0.15%. (S + N)/N 58 dB (with Dolby). 16 $\frac{1}{2}$ " W x 4 $\frac{3}{4}$ " H x 10 $\frac{1}{8}$ " D . . . . . \$259.50

### 450 "Challenger" Cassette Deck

Features Dolby-B type noise-reduction system. Has switchable controls for bias and equaliza-



tion for various tape types; mike/line inputs (mixable); two separate erase and record/playback heads. (S + N)/N 51 dB (60 dB with Dolby); wow & flutter 0.07%. Response 30-10,000 Hz with standard tape (30-14,000 Hz

with low-noise tape; 30-16,000 Hz with chromium-dioxide tape). Inputs: mike 0.25 mV; line 0.1 V. Output: 0.3 V. Has universal power-line inputs. 7" H x 17 $\frac{1}{2}$ " W x 10 $\frac{3}{8}$ " . . . . . \$449.50

### 140 Stereo Cassette Deck

Features dual VU meters; straight-line record-level controls; high-density "Permaflux" heads; separate equalization and bias switches; tape-run indicator; 3-digit resettable tape counter; left and right low-imp. mike jacks; 8-ohm stereo headphone jack; locking pause control; and automatic shut-off. Response 30-13,000 Hz (standard tape); 30-14,000 Hz (chromium-dioxide tape). (S + N)/N 50 dB; wow & flutter 0.15%. 16 $\frac{1}{2}$ " W x 4 $\frac{3}{4}$ " H x 10 $\frac{1}{8}$ " D . . . \$199.50  
60 dB (Dolby in); 55 dB (without Dolby). 17 $\frac{3}{4}$ " W x 4 $\frac{3}{4}$ " H x 10 $\frac{1}{4}$ " D . . . . . \$379.50

## TECHNICS BY PANASONIC

### RS-279US Cassette Recorder Deck

Dolbyized stereo design with standard and chromium-dioxide tape selection and HPF ul-



tra-longlife heads. Three-head system permits off-tape monitoring. Wow & flutter 0.1%. (S + N)/N 60 dB (with Dolby), 50 dB (without). Response 20-17,000 Hz (chromium-dioxide tape), 20-15,000 Hz (standard tape). Has two motors including electronically controlled direct drive for capstan, optional remote control, memory rewind, pause control, electronic autostop. Mike/line input selection. 5 $\frac{7}{8}$ " H x 16 $\frac{3}{8}$ " W x 13 $\frac{1}{2}$ " D. . . . . \$499.95

### RS-263US Cassette Recorder Deck

Dolbyized stereo design with standard tape & chromium-dioxide selection. Wow & flutter 0.2%. Response 30-13,000 Hz (standard tape); 30-14,000 Hz (chromium-dioxide). (S + N)/N 45 dB (55 dB Dolby). Has mike & line inputs, automatic stop, memory rewind and pause control. 14" x 5" x 9 $\frac{9}{16}$ " D . . . . . \$199.95

### RS-676US Cassette Recorder Deck

Vertical design with front-loading features Dolby circuit (including switch selector and calibrator for pre-encoded Dolby FM broadcasts); two motors including electronic control for capstan drive; solenoid operation; hot-pressed ferrite head; meter peak-check switch; selectable MPX filter; chromium-dioxide/normal tape selector (either manual or automatic). Has full auto stop in any mode; mechanical pause; single level control for record mode with aux. left/right balancer; digital counter; memory rewind with automatic replay; mike/line/tuner inputs with mike level control for mixing. Guaranteed minimum specifications: record/play frequency response 40-13,000 Hz  $\pm$ 3 dB (chromium-dioxide tape); 40-12,000 Hz  $\pm$ 3 dB (gamma ferric-oxide tape); wow & flutter 0.08% W rms; S/N 50 dB (Dolby out), 58 dB (Dolby in); dist. 2.0% with regular tape. 5 $\frac{1}{2}$ " H x 16 $\frac{3}{8}$ " W x 14 $\frac{1}{8}$ " D . . . . . \$459.95

### RS-610US Cassette Recorder Deck

Vertical design with front-panel controls; top loading; Dolby noise-reduction circuit; chromium-dioxide/normal tape equalization and bias; auto-stop in record/play modes; hot-pressed ferrite (HPF) head; pause control; single level control for record mode with left/right balancer; digital counter; Guaranteed



minimum specifications: record/play frequency response 50-12,000 Hz  $\pm$ 3 dB (CrO<sub>2</sub> tape), 50-10,000 Hz (gamma ferric-oxide tape); wow & flutter 0.15% W rms; S/N 50 dB (Dolby out), 57 dB (Dolby in); dist. 2.3% with normal tape. 4 $\frac{3}{8}$ " H x 13 $\frac{1}{4}$ " W x 11 $\frac{1}{2}$ " D . . . . . \$249.95

## TOSHIBA

### PT-415 Cassette Deck

Stereo design featuring a Dynamic Noise Limiter (DNL); tape selector (standard or chromium-dioxide). Output 0-1 V. Response 30-15,000 Hz, with chromium-dioxide tape. Wow & flutter 0.1% rms weighted; (S + N)/N 50 dB (unweighted). Sensitivity: line 80 mV; mike 0.56 mV. Fast-forward and rewind 100 sec. Has universal line inputs. 14 $\frac{1}{2}$ " x 4" x 10 $\frac{1}{4}$ " . . . . . \$199.95

### PT-490 Dolbyized Cassette Deck

Features stereo play/record; mechanical automatic shut-off; 3-step tape selector (adjusts



bias and frequency response), two record-level meters, and automatic reverse. Output 0 to 1 V. Frequency response 30-15,000 Hz. Wow & flutter 0.1% weighted rms. (S + N)/N 50 dB (60 dB with Dolby). Input sensitivity: line 80 mV; mike 0.56 mV (10,000 ohms). 16 $\frac{7}{8}$ " x 5 $\frac{1}{2}$ " x 11 $\frac{1}{2}$ ". . . . . \$349.95

PT-470. Same as PT-490 except does not have



automatic reverse . . . . . \$249.95

## UHER

### CR134 Stereo Cassette Recorder

Will operate from six "C" cells, storage batteries, 12-volt car battery, or 100-130 V, 200-



240 V, 50-60 Hz supplies; records and plays back in mono or stereo; features volume and recording level control; built-in condenser microphone; level indicator with dB scale for

record, voltage scale for playback; pause control; microphone jack with interlocking facility for mike with remote-control "on/off" switch; built-in speaker switch; built-in mike switch; alc "on/off" switch; 3-digit index counter; tape-direction and operating-mode indicator; response 20-13,000 Hz; S/N (rms A curve) 56 dB; wow & flutter (rms)  $\pm 0.12\%$ ; automatic photo-sensitive electronic control of tape travel and playback tape direction switch. . . . . \$359.95

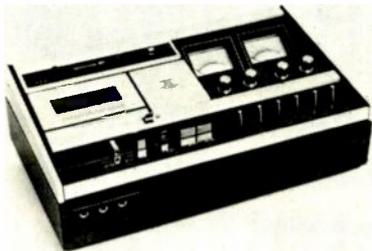
**CG360 Dolbyized Cassette Recorder**

Features three-motor drive system (one hysteresis synchronous and two brushless dc for constant tape tension and high forward and rewind speeds); Dolby circuit (switchable in and out); slider controls (two level for two separate intermixable inputs, recording balance correction control, one volume, one treble, one bass, and one balance); headphone socket (with automatic muting of speaker final stage); re-recording socket; microphone socket; program switch; automatic cassette selection. Has special sintered 4-track record/playback head plus ferrite erase head; 3-digit counter. Frequency range (chromium-dioxide) 20-15,000 Hz; S/N 56 dB Dolby in; wow & flutter  $\pm 0.20\%$ . Inputs for mike, radio, phono, recorder; outputs for line, re-recording, headphones. 40.0 x 10.4 x 29.5 cm. . . . . \$1172.50

**WOLLENSAK**

**4765 Cassette Recorder Deck**

Dolbyized design featuring beltless, direct dual-drive system; mike & line mixer switch for



sound-on-sound mixing; Dolby calibration oscillator; tape bias switch for standard and chromium-dioxide tapes; end-of-tape sensing; dual VU meters. Wow & flutter 0.15% (DIN) weighted. Sensitivity: mike 0.65 mV for 0 VU; line 150 mV; Output 1 V; headphone output 0.2 mV at 8 ohms. Response 35-14,000 Hz  $\pm 2$  dB with standard tape. (S + N)/N 50 dB with Dolby off (60 dB at 4000 Hz with Dolby). . . . . \$389.95

**YAMAHA**

**TB700 Dolbyized Cassette Deck**

Stereo play/record deck with Dolby noise-reduction circuit and exclusive pitch control for adjustment of speed  $\pm 3\%$  in the playback mode; wow & flutter 0.15% weighted rms; S/N 48 dB (Dolby out), 58 dB (Dolby in); THD 2.5%; frequency response 30-13,000 Hz (standard), 30-16,000 Hz (CrO<sub>2</sub> tape); hot-pressed ferrite record/play head, double-gap ferrite erase head; features two expanded VU meters; pause switch; auto-stop mechanism; OTL headphone amplifier; 3-digit tape counter. 4 1/2" H x 15 3/4" W x 9 3/4" D. . . . . \$340.00

**ZENITH**

**E637 Cassette Play/Record Deck**

Slot-loading unit with automatic shut-off and eject; features left & right record-level meter; input volume controls; tape counter; mike input. Comes with two microphones, input/output cables, tape storage. 4 1/2" H x 14" W x 9 1/2" D. . . . . \$129.95

# Sound is a little like Love...



Undeniable, undefinable, but you know it's real. That's how it is with real high fidelity sound. When those vibes run up and down your spine, when the excitement takes you away from everyday, when you close your eyes and you're really there, you know you're into one of life's great pleasures.

And just like love, high fidelity is confusing. There are so many choices, it's almost impossible to find one that's just your type. That's why Telephonics offers a complete line of stereo and 4-channel headphones. Which one is right for you? Maybe this will help.

**SLIM & TRIM. TEL-29.** Comfortable, lightweight (7 oz.), volume control on each earcup...a great introduction to stereo headphone enjoyment. **\$19.95.**

**RESPONSIVE. TEL-14.** 2-way speaker system, (tweeter & woofer), complete with crossover network in each channel, provides frequency response of 20-20,000 Hz. **\$29.95.**

**POPULAR. TEL-26.** Separate tone and volume controls on each earcup, better sensitivity along with excellent frequency response. Our most popular model. **\$36.95.**

**SOPHISTICATED. TEL-111.** Our Electrostatic model brings you incredibly crisp, clear sound. "Sound was quite different from dynamic headphones (the common type)...smooth-

er...easier to listen to..." says Robert Angus in *Modern Hi Fi & Stereo Guide*. Adapter included. **\$87.50.**

**MODERN. TEL-101F.** Perfect for today's and tomorrow's Sound. These "Fixler-Effect" 4-Channel Headphones "really worked best," according to *Popular Science's John R. Free*. And, when used in conjunction with the Quadramate™ adapter (TEL-101A, \$29.95), the TEL-101F can subtract, add, or mix Stereo channels until a true 4-Channel effect is created. That's why the *Len Feldman Report in Tape Deck Quarterly* says, "The quadraphonic effect is not only unmissable; it is thrilling...it's the first set of 4-Channel phones we have ever heard that actually give satisfactory 4-Channel effect." **\$89.95.**

**Words really can't describe the experience of a Telephonics headphone. You'll just have to try them all at your local dealer. When you find the one that's right for you, bring it home. You'll love it.**



## Telephonics

40 years of Audio Engineering Excellence A Division of Instrument Systems Corporation

Write Sandy Curtis for free literature, Dept. S, 770 Park Avenue, Huntington, N.Y. 11743

CIRCLE NO. 57 ON READER SERVICE CARD

**NOTICE TO OUR READERS**

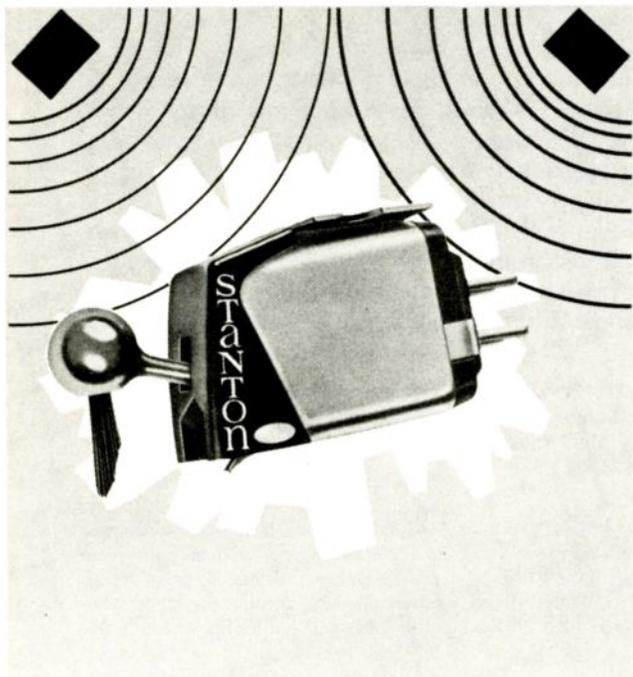
We consider it a valuable service to our readers to continue, as we have in previous editions of the STEREO DIRECTORY & BUYING GUIDE, to print the prices submitted by the manufacturers for items described as available at press time. With few exceptions, prices submitted by manufacturers should be considered "audiophile net."

We are aware that prices vary across

the country in different trading areas. It is obvious that we are not in a position to quote local prices for the various trading areas in the United States on each of the items listed.

We would like to point out that almost all manufacturers' and distributors' prices are subject to change without notice.

# To fulfill the requirements of the most critical listening and auditioning... Stanton is the professional standard.



## in STEREO— The Stanton 681 TRIPLE-E

A definite need arose.

The recording industry has been cutting discs with higher accuracy to achieve greater definition and sound quality.

Naturally, the engineers turned to Stanton for a cartridge of excellence to serve as a primary calibration standard in recording system check-outs. The result is a *new* calibration standard, the Stanton 681 TRIPLE-E. Perhaps, with this cartridge, the outer limits of excellence in stereo sound reproduction have been reached.

The Stanton 681 TRIPLE-E offers improved tracking at all frequencies. It achieves perfectly flat frequency response to beyond 20 Kc. It features a dramatically reduced tip mass. And the stylus assembly possesses even greater durability than had been previously thought possible to achieve.

The Stanton 681 TRIPLE-E features a new design of both cartridge body and stylus; it has been created for those for whom the best is none too good.

Each 681 TRIPLE-E is guaranteed to meet its specification within exacting limits, and each one boasts the most meaningful warranty possible: an individual calibration test result is packed with each unit.



## in DISCRETE 4-CHANNEL— The Stanton 780/4DQ



QUADRAHEDRAL

A totally revolutionary stylus design concept proves to be the best solution for discrete playback. It's the Quadrahedral—all tests and in-use demonstrations authenticate the value of the discovery. Stanton has this new stylus in its four channel cartridge.

This is the first American designed and manufactured stylus developed for discrete four-channel records. It was especially engineered for the Stanton 780/4DQ cartridge which is already the first choice of professional record reviewers, anxious to evaluate the new discrete 4-channel discs coming on the market.

The performance of the stylus (and cartridge) fulfills all the extensive demands and sophisticated requirements necessary for playback and review of all the material recorded on discrete discs. And while performing brilliantly, it is actually very kind to records in terms of wear. Stanton's own engineers, whose professional products are the standards of the industry, tested and proved its characteristics, and report that it functions with total reliability in every measurable aspect.

This new cartridge, the 780/4DQ is available at your franchised Stanton dealer.



For further information, write: Stanton Magnetics, Inc. Terminal Drive, Plainview, N.Y. 11803.

CIRCLE NO. 51 ON READER SERVICE CARD

# 7

# 8-TRACK TAPE MACHINES

## AKAI

### CR-81D 8-Track Recorder Deck

Stereo design. Response 50-16,000 Hz  $\pm 3$  dB; wow & flutter 0.25% rms; (S + N)/N 47 dB. Has



line output 1.23 V. Inputs: mike 0.5 mV & line 50 mV. Has automatic stop and continuous playback, two VU meters, and input for optional remote control. Universal power supply. 13 $\frac{3}{8}$ "  $\times$  5 $\frac{1}{2}$ "  $\times$  10 $\frac{3}{8}$ " D. .... \$209.95

### GXR-82D 8-Track Record/Play Deck

Stereo design. Response 40-17,000 Hz  $\pm 3$  dB; (S + N)/N 47 dB; record/play & erase heads;



wow & flutter 0.25% rms. Features pause switch; automatic stop and continuous playback; fast-forward; automatic and manual program selection; VU meters; headphone monitoring jack; DIN jack; line input and output jacks. 100-240 V, 50-60 Hz operation. 13.6"  $\times$  5.3"  $\times$  10.5" ..... \$249.95

## BSR McDONALD

### TD-8S 8-Track Playback Deck

Deck includes a 2-stage stereo preamp, 0.75 V



output. Comes with cabinet and connecting cables. 7 $\frac{3}{8}$ " W  $\times$  10 $\frac{1}{2}$ "  $\times$  3 $\frac{3}{4}$ " ..... \$49.95

## CHANNEL MASTER

### 6609 8-Track Player Deck

Features automatic track change; manual track selection; blackout track indicator lights; out-

1975 EDITION

put jacks with connecting cables. Walnut-finish wood cabinet with smoked acrylic faceplate. 4 $\frac{3}{4}$ " H  $\times$  8" W  $\times$  10 $\frac{1}{2}$ " D. .... \$49.95

### 6646 8-Track Record/Play Deck

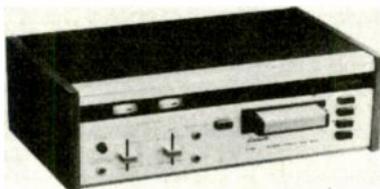
Features push-button selectors for auto stop, pause, fast-forward, record, channel select; built-in automatic level control; aux. right & left input jacks; right & left mike input jacks; aux. output with connecting cable. Comes with two patchcords. Walnut-finish wood cabinet. 5" H  $\times$  8 $\frac{3}{8}$ " W  $\times$  10 $\frac{1}{2}$ " D. .... \$89.95

6647. Similar to 6646 except includes right & left illuminated record meters; stereo headphone output; four patchcords. 4 $\frac{3}{4}$ " H  $\times$  12 $\frac{3}{16}$ " W  $\times$  12 $\frac{3}{8}$ " D. .... \$139.95

## CONCORD

### F-128 8-Track Stereo Deck

Records and plays. Has two VU meters, a three-digit tape counter, slide record-level con-



trols, fast-forward control, and headphone jack. Response 50-10,000 Hz, wow & flutter 0.3% rms, (S + N)/N 45 dB ..... \$179.95

## GLENBURN

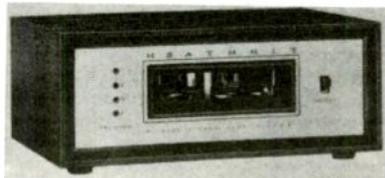
### SP-12 8-Track Stereo Playback Deck

Solid-state, 3-stage preamplifier; straight-line head positioning system for precise track selection; heavy-duty four-pole synchronous motor; channel indicator light; positive automatic or manual channel selection; comes complete with connecting cables. Walnut-grain case. .... \$49.95

## HEATH

### GD-28 8-Track Stereo Deck

Home playback deck for use in component system. Response 50-10,000 Hz. Simulated



walnut-finished cabinet measures 10 $\frac{3}{8}$ "  $\times$  4 $\frac{1}{2}$ "  $\times$  8 $\frac{1}{4}$ " ..... \$59.95

## HITACHI

### TPQ-124 8-Track Player Deck

Home player deck for use in audio systems. Has select/eject controls, program indicator lights, and dust cover on loading slot. 11 $\frac{1}{4}$ "  $\times$



10"  $\times$  4" ..... \$79.95

### TRQ-134 8-Track Recorder Deck

Stereo design featuring dual VU meters, slide-



type controls, fast-forward, and automatic stop. Comes with walnut cabinet. .... \$149.95

## JVC

### ED-1103 8-Track Tape Deck

Playback stereo design. Response 30-15,000 Hz; (S + N)/N -45 dB; wow & flutter 0.2% rms. Output 0.8 V. 3 $\frac{3}{8}$ "  $\times$  6 $\frac{3}{4}$ " W  $\times$  9 $\frac{3}{8}$ " D .. \$49.95

### ED-1240 8-Track Tape Deck

Record/play stereo design. Response 30-15,000 Hz (40-12,000 Hz  $\pm 3$  dB); (S + N)/N 50 dB from



peak level; wow & flutter 0.2% rms; crosstalk 50 dB & 40 dB channel separation, both at 1 kHz. Features automatic eject control, two VU meters, four front-mounted tape controls. 120-V, 60-Hz operation. 4 $\frac{1}{4}$ " H  $\times$  13 $\frac{1}{2}$ " W  $\times$  9 $\frac{1}{8}$ " D ..... \$169.95

### ED-1245 8-Track Play/Record Deck

Features three-in-one head; automatic or manual cartridge eject; fast-forward; two VU meters; two record-level controls; electronic governor d.c. motor; automatic noise-reduction system (ANRS) on both record & playback;

**7**  
**8-Track  
Tape Machines**

response 40-12,000 Hz  $\pm 3$  dB; wow & flutter 0.2% rms; S/N 50 dB; has 2 mike & 2 line input jacks; two line & headphone output jacks; DIN jack. 4 $\frac{1}{16}$ " H  $\times$  15 $\frac{3}{16}$ " W  $\times$  9 $\frac{3}{8}$ " D . . . . \$249.95

**LAFAYETTE**

**RK-92 8-Track Playback Deck**

For home playback of car 8-track tape collection; lighted program indicators; push-button program selection; hinged cartridge door for protection against dust & dirt; walnut-finish case. 8 $\frac{1}{8}$ "  $\times$  4 $\frac{1}{4}$ "  $\times$  8 $\frac{3}{4}$ " . . . . . \$34.95

**RK-82 8-Track Playback Deck**

Stereo playback deck designed to be used with audio systems. Response 50-8000 Hz. Has push-button track selector; illuminated track indicator lights; dust-proof cartridge slot door. 8 $\frac{7}{8}$ " W  $\times$  4 $\frac{3}{4}$ " H  $\times$  8 $\frac{1}{2}$ " D . . . . . \$49.95

**RK-885 8-Track Record/Playback Deck**

Record/play deck designed to be used with any stereo receiver or amplifier with tape in/out jacks. Has mike input jacks for "live" stereo recording with optional microphones; dual VU meters; recording volume controls; mode switch; record indicator light; illuminated channel indicator lights. Comes with connecting cables. 13" W  $\times$  5 $\frac{5}{8}$ " H  $\times$  8 $\frac{3}{8}$ " D . . . . . \$119.95

**RKD-985 8-Track Deck with Dolby**

Features Dolby-B noise-reduction system in stereo record/playback; Autostop switch to



stop unit during playback or record mode at end of each program; mode switch for continuous operation or automatically stopping unit; S/N 55 dB (Dolby in), 45 dB (Dolby out); response 30-11,000 Hz; wow & flutter 0.25% rms; bias frequency 60 kHz; input sensitivity: mike 1 mV, aux. 100 mV; channel separation 30 dB. . . . . \$199.95

**RK-990 8-Track Record/Play Deck**

Features stop/eject after any program (1-4) or at end of cartridge; sound-with-sound; concen-



tric mike & aux. volume controls; record level meters for each channel; d.c.-type governor-controlled motor; response 30-12,000 Hz; bias & erase frequency 60 kHz; output level 1 V max.; input sensitivity: mike 1  $\mu$ V, aux. 100  $\mu$ V; channel separation 45 dB at 400 Hz; S/N 45 dB; Walnut side panels. 12" W  $\times$  3 $\frac{3}{4}$ " H  $\times$  9 $\frac{1}{8}$ " D . . . . . \$159.95

**For 4-Channel Components. . .  
See SECTION 9**

**RADIO SHACK**

**TR-888 Automatic Tape Changer**

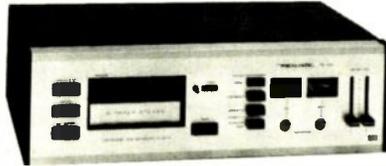
8-track playback deck/automatic cartridge changer; can play three cartridges in sequence; play any program on any cartridge; replay an individual cartridge; lighted program indicators; plugs into stereo Aux. input. Comes with cables. . . . . \$99.95

**TR-882 Record/Play Deck**

Features dual VU meters; level controls; push-button fast-forward, pause, and record interlock; program select button; response 50-10,000 Hz; wow & flutter 0.2%; front-panel mike input for live recording. Walnut-finish wood-grain case. 3 $\frac{7}{8}$ "  $\times$  13 $\frac{1}{4}$ "  $\times$  8 $\frac{3}{8}$ " . . . \$99.95

**TR-801 Record/Play Deck**

Features digital timer; push-button control of continuous play, program repeat, auto-stop,



push-button eject, program change, fast-forward, and pause; response 50-12,000 Hz; wow & flutter 0.2%; front-panel mike input for live recording. Walnut wood cabinet. 4 $\frac{3}{4}$ "  $\times$  16 $\frac{1}{2}$ "  $\times$  10" . . . . . \$149.95

**SONY from SUPERSCOPE**

**TC-228 8-Track Recorder Deck**

Stereo design. Response 30-13,000 Hz; (S + N)/N 45 dB. Bias frequency 95 kHz. Wow & flutter 0.17%. Has two VU meters, one d.c.-type motor. Aux. (70 mV sensitivity) & mike (-70 dB sensitivity) inputs & line output (0.5 V sensitivity). Features automatic total mechanism shut-off. Walnut case. 14 $\frac{3}{8}$ "  $\times$  4 $\frac{7}{8}$ "  $\times$  8 $\frac{3}{4}$ " D . . . \$189.95

**TC-208 8-Track Playback Deck**

Response 50-10,000 Hz; wow & flutter 0.25% rms weighted. Features program select and re-



peat buttons, fast-forward button, program indicating light, automatic track switching. 120-V, 60-Hz operation. 8 $\frac{3}{4}$ "  $\times$  4 $\frac{1}{16}$ " H  $\times$  9 $\frac{1}{2}$ " D . . . . . \$89.95

**SUPERSCOPE**

**TD-28 8-Track Player Deck**

Has built-in automatic tape program selector which plays all four programs; illuminated pro-



gram indicators. Features a program selector push switch for selecting specific programs and a fast-forward for bypassing unwanted material; repeat switch for continuous replay. Response 50-10,000 Hz; (S + N)/N -48 dB; 117-V, 60 Hz operation. Walnut wood-grained cabinet with white gold-anodized faceplate. 7 $\frac{1}{4}$ " W  $\times$  4 $\frac{7}{8}$ " H  $\times$  9 $\frac{3}{4}$ " D . . . . . \$74.95

**SYLVANIA**

**ET3752W 8-Track Play/Record Deck**

Features two VU meters; automatic and manual eject/shut off; two mike and one headphone jack; pause control; individual record/playback level controls; record safety interlock; frequency response 30-21,000 Hz (playback), 50-10,000 Hz (record/playback); wow & flutter 0.3% rms; S/N 40 dB; channel separation 40 dB. Walnut-grained vinyl cabinet. 4 $\frac{3}{8}$ " H  $\times$  15 $\frac{3}{4}$ " W  $\times$  8 $\frac{1}{2}$ " D . . . . . \$169.95

**TELEX**

**48H 8-Track Changer**

Selects at random 16 hours of continuous, non-repetitive sound. Switches and selects 12 stereo 8-track cartridges. 5 W/ch continuous into 8 ohms. Third harmonic distortion less than 2% at 4 W. Supplied with dust cover. 18 $\frac{1}{4}$ "  $\times$  9" H  $\times$  16 $\frac{1}{4}$ " D . . . . . \$314.95  
**Model 48D.** Deck only with 1 V preamp output. Response 40-12,000 Hz, (S + N)/N 42 dB, flutter 0.2% max. . . . . \$262.45

**WOLLENSAK**

**8055 8-Track Recorder Deck**

Features record/play of 8-track stereo cartridges; automatic "on-off"; automatic eject after playing one or all tracks; automatic record level; time counter; pause control; fast-forward; dual VU meters. Frequency response 30-15,000 Hz. Wow & flutter 0.25%. (S + N)/N 50 dB. Line output 1 V at 0 VU. Sensitivity: mike 25 mV; aux. 80 mV. 17 $\frac{3}{8}$ "  $\times$  4 $\frac{7}{8}$ "  $\times$  10 $\frac{1}{2}$ ". Walnut cabinet. . . . . \$209.95

**8075 8-Track Recorder Deck**

Features record/play of 8-track Dolbyized cartridges as well as cartridges using the new



3M ferric-oxide tape. Has minutes/seconds timer for precise timing of recordings; fast-forward mode 3 $\frac{1}{2}$  times actual speed; special cueing system. Response 30-15,000 Hz  $\pm 3$  dB with Scotch special high-performance tape (30-12,000 Hz with standard tape). (S + N)/N 60 dB at 4000 Hz and above (Dolby system on). Sensitivity: mike 0.25 mV; aux. 80 mV. 19 $\frac{3}{4}$ "  $\times$  5"  $\times$  10 $\frac{1}{4}$ " . . . . . \$299.95

**ZENITH**

**F638 8-Track Play/Record Deck**

8-track play/record deck; features automatic stop or continuous play control; record; fast-forward; pause; manual program change; left & right record-level controls and meters. Comes with two microphones & stands. Grained walnut color cabinet. 4 $\frac{3}{8}$ " H  $\times$  9 $\frac{3}{4}$ " W  $\times$  8 $\frac{1}{8}$ " D. \$119.95

# 8

# STEREO COMPACTS

## FISHER

### 30 Phono/Receiver System

Combines a precision automatic turntable with magnetic cartridge and diamond stylus; a 50 W/ch dynamic power amp with 5% THD at 8 ohms with both channels driven; and AM-FM tuner. Dust cover optional. Oiled walnut cabinet. 17 $\frac{1}{2}$ " x 8 $\frac{1}{4}$ " x 16" D. .... \$299.95

### 2081 "MusiCenter" System

Combines an AM-FM stereo receiver; built-in 8-track player; separate turntable; and two speaker systems (each with 6" woofer & 2" tweeter; 3000 Hz crossover); FM sensitivity 4  $\mu$ V; selectivity 36 dB; Separation 30 dB at 1000 Hz; push-button controls; slide controls for volume, balance, bass & treble. 19 $\frac{1}{2}$ " W x 13 $\frac{3}{4}$ " D x 5 $\frac{1}{8}$ " H. .... \$299.95  
Also available with 3-way speaker systems (each with 8" woofer, 4 $\frac{1}{2}$ " mid-range, 2" tweeter, crossovers 800 & 3000 Hz) at additional cost. **2381.** Same as 2081 except turntable is built-in. 19 $\frac{1}{2}$ " W x 17 $\frac{3}{8}$ " D x 5 $\frac{1}{8}$ " H. .... \$299.95  
Same speaker option as 2081.

## HEATH

### AD-27A Phono/Radio System

Combines a 4-speed BSR McDonald automatic turntable with Shure M75 mag. cartridge with



diamond stylus, a 15 W/ch (dynamic) power amp. (response 12-60,000 Hz  $\pm$ 1 dB at 1% HD), an AM-FM tuner (5  $\mu$ V sensitivity for 30 dB quieting), in an oiled walnut cabinet with tambour doors. 12 $\frac{7}{8}$ " x 14 $\frac{3}{4}$ " x 7 $\frac{7}{8}$ " D. Speakers not included.

Kit ..... \$179.95

## HITACHI

### SDP-2820 8-Track/Phono System

Combines a cartridge tape player, a BSR automatic record changer, and a pair of separately housed speaker systems. Features 5 W/ch dynamic power at 5% THD. Supplied with dust cover ..... \$279.95

### SD-2470 Phono System

Combines a 3-speed BSR automatic turntable with mag. cartridge and diamond stylus; a 15 W/ch dynamic power amp with 5% THD at 8 ohms; an AM-FM tuner, and a pair of two-way speaker systems. Has slide-type controls for

balance, bass, and treble. Comes with hinged dust cover. .... \$249.95

### SD-3210 Phono System

Combines an AM-FM stereo receiver with 12 $\frac{1}{2}$  W/ch dynamic power at 5% THD; a deluxe BSR automatic turntable with cue & pause lever and automatic shut-off, anti-skating device, and magnetic cartridge; with a pair of two-way air-suspension speaker systems. With hinged detachable dust cover. .... \$329.95

### SDT-3420 AM-FM/Phono/Cassette Recorder

Combines an AM-FM stereo receiver with 5 W/ch dynamic power at 5% THD, a BSR auto-



matic record changer, a cassette recorder, and a pair of air-suspension speaker systems. Has separate tape record-level controls and comes with a dust cover ..... \$299.95

## KLH

### Thirty-Five Phono/Receiver System

Combines a 3-speed Dual automatic turntable with Pickering XV-15/350 magnetic cartridge with diamond stylus; 20 W/ch continuous sine-wave (into 8 ohms) power amp (both channels driven); an AM-FM tuner section; and a pair of KLH speaker systems. Features tape monitoring & recording facilities. Has outputs for remote and main speakers. Speaker cabinets 23 $\frac{1}{2}$ " x 12 $\frac{3}{8}$ " x 11 $\frac{1}{8}$ " D, each with 12" acoustic-suspension woofer, 1 $\frac{3}{4}$ " direct-radiator tweeter, and 1500 Hz LCR crossover. Control center 9" x 20 $\frac{1}{2}$ " x 14 $\frac{3}{8}$ " D. Oiled walnut enclosures ..... \$549.95

### Thirty-AM Phono/Receiver System

Combines a Garrard automatic 4-speed turntable with a viscous damped cueing lever, a Pickering V-15/AT-2 magnetic cartridge; an AM-FM stereo receiver and a pair of separately housed speaker systems 22 $\frac{3}{8}$ " x 12 $\frac{3}{4}$ " x 7 $\frac{7}{8}$ " D, each with 10" woofer & 1 $\frac{3}{4}$ " tweeter. Features 20 W/ch rms into 8 ohms with both channels driven (28 W/ch dynamic power) and at 1.0% HD. Power bandwidth 20-15,000 Hz into 8 ohms; response 20-20,000 Hz  $\pm$ 1 dB & at 1 W. FM usable sensitivity 2.5  $\mu$ V. Input sensitivity: aux. 350 mV; tape monitor 280 mV. 8 $\frac{3}{4}$ " x 20 $\frac{1}{2}$ " x 14 $\frac{3}{8}$ " D with spindle installed. Supplied with base, less dust cover .. \$429.95  
**Model 30-FM.** Same as Model 30-AM except does not have AM tuner ..... \$399.95

## LAFAYETTE

### SR-80 8-Track/AM-FM Receiver

Combines an AM-FM stereo receiver, an 8-track cartridge recorder/player, with two acoustically matched wide-range speaker systems, each with 6 $\frac{1}{2}$ " speaker with multicellular diffuser. Has inputs for attaching a record changer or another tape recorder; microphones. Has full complement of controls and separate record-level meters for left and right channels. Speakers 14 $\frac{3}{16}$ " x 9 $\frac{7}{16}$ " x 5 $\frac{1}{2}$ " D. Control center 18" W x 10" D x 4 $\frac{1}{2}$ " H ..... \$179.95  
Recording microphone for SR-80 .... \$19.50  
**SR-50.** Same as SR-80 except comes with stereo cassette recorder/player instead of 8-track recorder/player ..... \$179.95  
Recording microphone for SR-50 .... \$19.50

### SR-30-A Cartridge Player/Receiver

8-track cartridge player combined with an AM/FM stereo receiver and matching speaker systems (each containing multicellular diffuser). Has separate slide controls for bass, treble, and balance, a front-panel headphone jack, FM stereo light, black out and illuminated slide-rule tuning dials, plus a full complement of inputs and outputs. .... \$129.95

## PANASONIC

### RS-828S 8-Track/Stereo Receiver

AM FM stereo receiver with built-in twin-slot 8-track player/recorder; will record from original sources and pre-recorded tapes in lower slot. playback in upper slot; features auto-start and auto-stop; Quadruplex II circuitry for enhanced sound of stereo discs and tapes; mike mixing in playback mode with optional microphones; two 6 $\frac{1}{2}$ " air-suspension speaker systems; continuous tone, balance, and volume controls; tuning/VU meter; 3-pos. monitor sw.; Wood cabinets. .... \$299.95

**RE-8174.** Similar to RS-828S but 8-track player-only built-in and separate automatic record changer. Walnut finish. .... \$199.95

**SE-2280.** Similar to RE-8174 except automatic record changer is built-in. .... \$249.95

**SE-3280.** Similar to RS-828S except with built-in automatic record changer; speaker systems each with 6 $\frac{1}{2}$ " woofer and 2 $\frac{1}{2}$ " tweeter. .... \$299.95

**RE-8134.** Similar to RE-8174 but without record changer. .... \$159.95

**RE-7014.** Similar to SE-2280 but without 8-track tape player. .... \$169.95

**RE-7554.** Similar to RE-7014 but with separate record changer. .... \$219.95

## SONY from SUPERSCOPE

### CF-620A Cassette Recorder/Radio

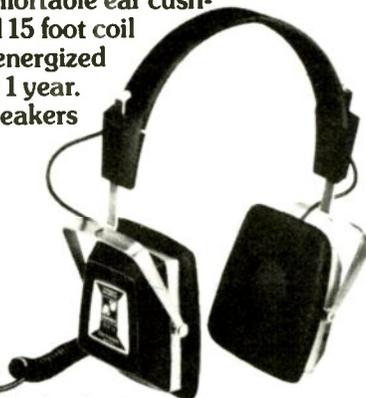
Cassette recorder combined with AM/FM stereo tuner. Plays and records. Response 30-12,000 Hz, wow & flutter 0.22%, (S + N)/N 46 dB. Supplied with mikes and speakers. 6 W/ch continuous power at 5% HD. Features VU meters,

# Sound so clear you can hear a pin drop, or a piccolo player catch his breath.

Listening to the Pep 79E is like being suspended from the concert hall ceiling with the microphones. Nothing comes between you and the music. Because we built a perfect membrane driver. An electrostatic element that produces the most transparent, distortion-free sound you've ever heard. And now electrostatic stereophones aren't bulky or isolating. The Pep 79E weighs a mere 8½ ounces, and our trans-air concept blends outside sounds with inside sounds without sacrificing performance. Frequency response: 10 Hz to 22,000 Hz. It's black, with Chroma trim, has comfortable ear cushions, a fully adjustable headband, and 15 foot coil cord. Comes with a trouble-free, self-energized console. The system is guaranteed for 1 year. The only alternative is huge, costly speakers that will wake up your neighbors.



Pep 79E Electrostatic System  
Sugg. Retail Price \$90.00



## Superex Stereophones. Feel what you hear.

For free literature write: Superex Electronics Corp., Dept. 14, 151 Ludlow Street, Yonkers, N.Y. 10705.  
In Canada, Paco Electronics Ltd., Quebec

CIRCLE NO. 53 ON READER SERVICE CARD



## Stereo Compacts

counter, eject button, pause control, monitoring facilities, mike & line inputs, bias adjust and automatic shut-off. 5⅞" H x 16½" W x 12⅞" D  
..... \$329.95

### CF-550 Cassette Recorder/Radio

Combines AM/FM stereo receiver with cassette recorder. Has two built-in condenser mikes and four built-in speakers, built-in battery charger for optional NiCad battery (6 V) and automatic shut-off. Will operate from a.c. power line. Response 50-10,000 Hz. Has two line (0.06 V) and two mike inputs. 1½ W/ch continuous power output at 5% THD. Portable design. 13⅞" x 9⅞" H x 4⅞" D ..... \$249.95

## SYLVANIA

### MST3736W Phono/8-Track/Receiver

Combines a Garrard automatic turntable with Pickering magnetic cartridge, viscous-damped cue/pause control, and anti-skating device; an AM-FM stereo receiver; an 8-track stereo tape player; and a pair of sealed air-suspension speaker systems (18¾" x 12" x 9" D) each with 8" woofer and a 3" tweeter. Has built-in Phase Q4 matrix to synthesize regular two-channel stereo program material. 20 W/ch dynamic power at 1% HD (12½ W/ch continuous). Power bandwidth 25-20,000 Hz; response 25-20,000 Hz ± 1½ dB; FM sensitivity 2.5 µV for 30 dB quieting; capture ratio 5.5 dB. Walnut cabinets with dust cover. Control center 9⅞" x 23½" x 15¼" D ..... \$349.95  
**MS3722W.** Similar to 3736 W except does not include the tape player; has 6" woofer & 3" tweeter in each speaker cabinet; tape-record (Aux.) jack. .... \$279.95

### MST3735 Phono/8-Track/Receiver

Features full-size BSR automatic turntable, AM-FM stereo receiver, 8-track play/record deck, pair of air-suspension speaker systems; has built-in Phase Q4 matrix; front-panel headphone jack; cut/boost bass & treble controls; response 55-22,000 Hz ± 1.5 dB; FM sensitivity 4 µV; S/N 60 dB. Walnut-grained vinyl. Control center 9⅞" H x 25⅞" W x 15⅞" D; speakers 16⅞" H x 10⅞" W x 6⅞" D ..... \$329.95  
**CST4734W.** Same as 3735W but without tape deck; control center 9⅞" x 22⅞" x 16⅞" D. .... \$269.95  
**CS4720W.** Same as 3735W but 8-track tape player; control center 9⅞" H x 18" W x 16⅞" D; speakers 15⅞" H x 9⅞" W x 7⅞" D... \$199.95

### MS3728W Phono/Receiver

18 W rms/ch into 8 ohms with both channels driven; includes AM-FM stereo receiver, Dual 1214 automatic turntable with Shure M93E magnetic cartridge, pair of sealed air-suspension speaker systems; FM sensitivity 1.9 µV; S/N 60 dB; capture ratio 1.5 dB; frequency response 17-35,000 Hz; power bandwidth 17-30,000 Hz; features front-panel headphone jack; AM-FM signal-strength meter. Walnut veneer cabinets. Speakers 18¾" H x 12" W x 9" D. Control center 9⅞" H x 12" W x 18½" D. .... \$399.95

### ACS39W Phono/Receiver

30 W/ch into 8 ohms (20-20,000 Hz); frequency response 7-70,000 Hz; FM sensitivity 1.8 µV; S/N 67 dB; features BSR 510 automatic changer with Shure M75-6S magnetic cartridge/diamond stylus, base & dust cover; pair of air-suspension speakers with 10" woofer, 3" mid-range, and 2½" tweeter in each unit. Walnut-grained vinyl enclosures. Receiver 6" H x 17¾" W x 15" D; turntable 7⅞" H x 17¾" x 14¼"; speakers 22⅞" x 14⅞" x 11⅞". \$469.95

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## AN IMPORTANT WORD FOR OUR READERS

The prices listed in this Directory are those supplied by manufacturers and/or distributors. But, as is the case with most prices these days, they are subject to change depending on foreign exchange rates, the current value of the dollar, and the availability of raw materials and components. Prices may also vary depending on the part of the U.S. in which you live. Listed prices often reflect costs in the manufacturer's geographical area.



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**“...the most powerful four-channel receiver we have tested to date...”**

**“The overall feel and handling of the RQ 3748 were superb.”**

**“In virtually every respect the RQ 3748 met or surpassed its specifications...”**

**“The audio amplifier section was particularly impressive.”**

**“...the RQ 3748 is one of the most refreshingly ‘different’ four-channel receivers we have seen.”**

That’s what the July, 1974, *Stereo Review*\* said.

Then they summed it up very neatly by concluding: “The Sylvania RQ3748 is obviously well designed and thought-out and therefore deserves serious consideration by anyone shopping for a top-grade four-channel (or two-channel) receiver.”

And who manufactures this “powerful,” “superb,” “impressive,” “refreshingly different,” four-channel receiver? One of those



well-known specialty companies?

Nope. Believe it or not, the RQ3748 is sold by a big American company.

A company with the know-how and facilities to produce and service a real quality product at a reasonable price.

And which company did it?

We did.

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**GTE SYLVANIA**

# 9

# 4-CHANNEL EQUIPMENT

## BGW

### 4X250 Four-Channel Amp

250 W/ch continuous rms power into 8 ohms with two channels driven; 250 W/ch into 4



ohms. Response 2-80,000 Hz +0, -3 dB; 20-20,000 Hz +0, -0.2 dB; noise & hum 110 dB below rated output into 8 ohms; input sensitivity 2 V for 40 V out (200 W, 8 ohms); damping factor 1000 at low frequencies into 8 ohms. Features crowbar circuit; IC op amp front end; current-limiting circuit. 19" rack panel x 7" H x 17" D ..... \$1450.00

### Quadraphonic Control Center

Four-channel preamp designed for true discrete systems of from 1 to 4 channels. Features built-in CD-4 demodulator; has provisions for SQ demodulator, 2- & 4-channel tape recorders; equalizer filter system; 4 x 4 matrix mode control allowing any input channel to be assigned to any output channel. Gain: low-level phono to preamp output 60 dB, phono to recording output 40 dB, high level to main output 20 dB. Input impedance: phono 47,000 ohms, high-level input 25,000 ohms. Sensitivity: low-level phono 1 mV input, 1 V at main output; high-level aux. 100 mV input, 1 V at main output. Frequency response (high level) 20-20,000 Hz ±0.1 dB at rated output, down -3 dB 1 Hz and 100 kHz at rated output; (phono) ±0.25 dB from RIAA curve at rated output. Has 12 linear slide switches for amplitude, 3 frequency-select rotary switch, and 1 equalization switch; input selector; mode switch; tape monitor switch; tape copy switch; power switching; balance control; two headphone jacks; headphone volume control ..... \$849.00

## BOSE

### 4401 Four-Channel Preamp

Provides complete 4-channel and matrix capability. Features four independent channels of



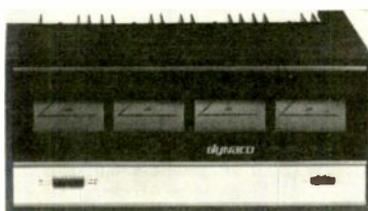
1975 EDITION

preamplification; special phono preamp circuitry; modular PC board construction; tape recording flexibility; provision for external equalizers; compatibility with all types of program sources, modes, and equipment. 6" H x 18" W x 13 1/8" D ..... \$499.00  
SQ matrix decoder with full logic ..... \$74.95  
Remote balance/volume control ..... \$39.95  
Walnut cabinet ..... \$34.95

## DYNACO

### QSA-300 4-Channel Power Amp

75 W rms/ch into 8 ohms with all channels driven (20-20,000 Hz); 100 W rms into 4 ohms;



45 W rms/ch into 16 ohms; parallel strapping provides 150 W rms/ch in stereo at 8 ohms; external strapping provides 300 W rms mono operation at 4 ohms or 400 W at 2 ohms. 4-channel input 50,000 ohm load, 1 V for 75 W at 8 ohms; stereo input 25,000 ohm load, 1.5 V for 150 W at 8 ohms. Damping factor 100 to 1000 Hz into 8 ohms, 50 to 10,000 Hz into 8 ohms. Other specifications same as Dynaco's Stereo 150 power amplifier. .... Kit \$399.00  
MC-3. Optional meter kit ..... \$125.00  
QSA-300M/A. Assembled version with four internally mounted illuminated meters and dual push-button meter-range switch. .... \$599.00

## HEATH

### AA-2010 Four-Channel Amplifier

Will operate in mono, stereo, discrete 4-channel, or matrixed 4-channel with its built-in "uni-



versal" decoder. 50 W/ch (4 channels) dynamic power into 8 ohms (65 W/ch into 4 ohms, 30 W/ch into 16 ohms). Can be used to power two separate speaker systems or two 4-channel systems. Back-lighted front panel contains four calibrated VU meters with a meter-range switch covering three ranges: 0 VU at 35 W, 3.5 W, or 350 mW. Meters are used to balance output. Kit ..... \$359.95  
Pecan cabinet ..... \$24.95

### AA-2005 Four-Channel Amplifier

15 W/ch continuous power into 8 ohms, 20 W/



ch into 4 ohms, 10 W/ch into 16 ohms; power bandwidth for constant 0.5% THD 5-30,000 Hz; frequency response 7-50,000 Hz ±1 dB at 1 W, 5-70,000 Hz ±3 dB; HD 0.5% 20-20,000 Hz at 15 W output, 0.25% at 1000 Hz with 1 W output; IM 0.5% with 15 W output (60 & 6000 Hz mixed 4:1), 0.25% at 1 W output. Has built-in matrix decoder optimized for SQ system but capable of handling all matrixed 4-channel material. Front-panel controls include push-buttons for speaker, program source (tuner, aux., phono, tape), and mode selection; four audio-level controls plus master gain, and two headphone jacks. 4 7/8" H x 19 3/4" W x 10" D. Kit ..... \$179.95

## JVC

### 4VN-770 4-Channel Integrated Amp

16 W/ch dynamic power at 8 ohms (25 W/ch at 4 ohms); 12 1/2 W/ch continuous power at 8 ohms with all four channels driven and at 0.5% THD. 100 W/ch dynamic power at 4 ohms with 2-channel power bridging (BTL). Power bandwidth 10-30,000 Hz. Input sensitivity: mag. phono 2.5 mV; aux. & tape monitor 75 mV. Fea-



tures jacks for 4-channel headphones, built-in 4-channel decoder and synthesizer & optional remote control ..... \$279.95

### 4VN-990 4-Channel Integrated Amp

66 W/ch dynamic power at 8 ohms (70 W/ch at 4 ohms); 35 W/ch continuous power at 8 ohms



(33 W/ch at 4 ohms) with all four channels driven & at 0.5% THD. 155 W/ch dynamic power at 8 ohms with 2-channel power bridging (BTL). Power bandwidth 10-30,000 Hz. Input sensitivity: mag. phono #1 & #2 2.5 mV; aux. & tape monitor 150 mV. Features 5-position tone control network for front and rear channel centering on 40/250/1000/5000/15,000 Hz. Can reproduce all four-channel discrete program

material. Has built-in 4-channel decoder and synthesizer for reproducing 4 channels from regular 2-channel program material. Jack for optional remote control. 16 $\frac{1}{8}$ " x 5 $\frac{3}{8}$ " x 15 $\frac{1}{8}$ " ..... \$599.95

#### VN-5101 4-Channel Add-On Amp

Basically a 2-channel amplifier with 4-channel inputs to be used with your present stereo system. 34 W/ch dynamic power into 8 ohms (50 W/ch at 4 ohms); 22 W/ch continuous power into 8 ohms (24 W/ch into 4 ohms) with both channels driven and at 0.5% THD. Power bandwidth 30-30,000 Hz. Features 5-position tone-control network centering on 40/250/1000/5000/15,000 Hz. Has built-in synthesizer to produce 4-channels from regular 2-channel program material. Has jack for optional remote control. 10 $\frac{3}{8}$ " x 5 $\frac{7}{8}$ " x 14" D ..... \$239.95

### LAFAYETTE

#### LA-84 4-Channel Amplifier

Features full-logic wave-matching plus variable SQ decoder and complete circuitry to play all other 4-channel matrix and stereo sources; provision for optional built-in CD-4 discrete demodulator (can be installed later, if desired); direct-coupled output circuitry; separate 2- and 4-channel tape monitoring; power output 20 W rms/ch into 8 ohms at 0.5% THD (20-20,000 Hz) with all channels driven; power bandwidth 10-35,000 Hz; input sensitivity: mag. phono 0.6 mV (hi), 1.8 mV (med), 4 mV (lo), aux. #1 & #2 250 mV, 2- & 4-ch tape play 500 mV; hum & noise: aux. -75 dB, phono -60 dB, tape play -80 dB, tuner -75 dB; channel separation 65 dB. 15 $\frac{1}{2}$ " W x 4 $\frac{1}{2}$ " H x 12 $\frac{3}{4}$ " D ..... \$349.95  
CD-4 Demodulator package ..... \$69.95

### MARANTZ

#### 4000 Preamp/Adapter

Designed to permit two-channel stereo systems to be converted to 4-ch operation with addition of pair of speakers. Serves as control center for volume, balance, mode, and features rear-



channel tone controls. All existing preamp controls remain completely operable. Features Vari-Matrix, balance controls, low and high filters, four illuminated meters, and remote-control output ..... \$249.95

#### 4060 4-Channel Integrated Amplifier

Complete four-channel control amp. Has circuits to synthesize 4-channel sound from 2-channel stereo records, all necessary balancing controls, input jack for optional SQ decoder, and remote-control. 15 W/ch continuous power at 4 & 8 ohms and at 0.9% THD with all channels operating (7 $\frac{1}{2}$  W/ch into 16 ohms). Response 20-20,000 Hz  $\pm$ 1 dB. Input sensitivity: 1.8 mV; aux. 180 mV. Features main/remote speaker switch; 4-channel headphone jacks. 14 $\frac{1}{4}$ " x 4 $\frac{3}{4}$ " x 12" D. Gold anodized front panel. .... \$249.95

4070. Similar to Model 4060 with addition of low-filter, preamp out, and main amp in jacks

and ability to switch unit into BTL mode to obtain 35 W/ch continuous power in stereo mode ..... \$299.95

#### 4100 4-Channel Integrated Amplifier

Has complete 2- or 4-channel capability. 25 W/ch continuous power into 8 ohms and at 0.3% THD with all four channels driven (60 W/ch for 2-channel operation). Power bandwidth 15-50,000 Hz; response 15-80,000 Hz  $\pm$ 2 dB. Input sensitivity: mag. phono 1.8 mV; aux. 180 mV. Has inputs for 4-channel discrete programs, and circuits for synthesizing 4-channel sound from 2-channel stereo records or tapes. Has input jacks for optional SQ decoder & remote-control; four lighted level meters; tape monitor for two tape decks. 15 $\frac{3}{8}$ " x 5 $\frac{3}{4}$ " x 14 $\frac{1}{2}$ " D. Blackout meter panel & gold anodized front panel. .... \$499.95

4140. Similar to Model 4100 with addition of mid-range tone control, output jacks for 4-ch

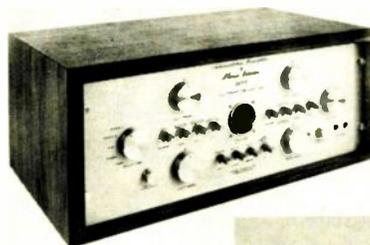


scope display, and slightly higher output power (70 W/ch continuous power) in BTL mode ..... \$549.95

### PHASE LINEAR

#### 4000 Preamplifier

Features built-in SQ system with differential logic for enhanced 4-channel separation. Joystick-controlled 4-channel balance. Response 20-20,000 Hz  $\pm$ 1 dB (phono & high-level). Gain: phono 65 dB; high level 15 dB. Total noise: high level 95 dB below full output; phono 82 dB below full output. 6 dB octave boost below



50 Hz and above 7000 Hz, shelving +3 dB at 20,000 and +6 dB at 20 Hz. Downward expansion begins at -35 dB with ultimate limit -41 dB. Unlimiter window 35 dB wide, upper and lower thresholds simultaneously variable by means of front-panel unlimiter threshold control. Has two monitor switches permitting any input source to be recorded on either of two tape machines, play back selection of either machine, or copy of tape machine 1 to 2 while listening to third source. Switched outlets will handle up to 25 amps. 19" W x 7" H x 10" D ..... \$599.00  
Cabinet ..... \$37.00

### PIONEER

#### QM-800A 4-Channel Power Amp

Features 42 $\frac{1}{2}$  W/ch (170 W total) dynamic power at 8 ohms (60 W/ch into 4 ohms); 30 W/ch continuous power into 8 ohms with all four channels driven & at 0.5% HD (36 W/ch into 4 ohms). Power bandwidth 5-50,000 Hz at 8 ohms & 0.5% HD. (S + N)/N 90 dB. Response 8-60,000 Hz  $\pm$ 0.5 dB. Input sensitivity: 500 mV at 50 kohms, 1 V at 80 kohms, and 2 V at 105 kohms. Has four level meters, universal power supply, speaker switch. Amp could be used as four separate channels, or as a 2-channel, 2-

way multiamp system with an electronic cross-over network ..... \$349.95

#### QC-800A 4-Channel Preamp

Has built-in SQ decoder and regular matrix



decoder for synthesizing 4-channel reproduction from 2-channel discs or tapes. Design gives choice of three different 4-channel effects in addition to 4-channel discrete. Input sensitivity: phono #1 & #2 2.5 mV; tuner, aux. #1 & #2, tape monitor #1 & #2 150 mV. Recording output #1 & #2 150 mV. Has low and high filters, (S + N)/N (phono) 80 dB. Output voltage 2.5 V (4 V max.). Features tape-to-tape duplication and universal power supply. 17" x 5 $\frac{1}{2}$ " x 13 $\frac{1}{4}$ " D ..... \$279.95

#### QA-800A 4-Channel Integrated Amp

Features 36 W/ch (144 W total) dynamic power into 8 ohms (51 W/ch into 4 ohms); 20 W/ch continuous sine wave into 8 ohms with all four channels operating & at 0.5% HD (24 W/ch into 4 ohms). Power bandwidth 15-50,000 Hz at 8 ohms & 0.5% HD. Response 8-70,000 Hz  $\pm$ 1 dB. Input sensitivity: mag. phono #1 & #2 2.5 mV; tuner, aux. #1 & #2, tape monitor #1 & #2 200 mV. Tape output #1 & #2 200 mV. Has SQ and regular matrix decoder built-in and will provide for four-channel discrete tapes or discs. Universal power supply. 17" x 5 $\frac{1}{2}$ " x 13 $\frac{1}{4}$ " D ..... \$399.95

### SANSUI

#### QA-7000 4-Channel Amplifier

20 W/ch continuous power into 8 ohms (27 W/ch (IHF) into 4 ohms); strappable for twice power per channel when operating in stereo mode. THD 0.1%; IM 0.15%. Power bandwidth (IHF) 10-30,000 Hz. Has built-in QS vario matrix decoder/synthesizer and Phase Matrix. Will provide decoded 4-channel signal to tape for dubbing "discrete." 17 $\frac{3}{8}$ " W x 5 $\frac{1}{8}$ " H x 12 $\frac{1}{4}$ " D ..... \$499.95

### SUPERSCOPE

#### QA-450 4-Ch Integrated Amplifier

Will reproduce SQ records, FM broadcasts, or tapes; simulate 4-ch reproduction from standard stereo sources. 10 W/ch continuous power with all channels driven; THD 1% at rated output. Response 20-20,000 Hz  $\pm$ 1 dB. Features master 4-ch volume control; loudness control selector; tape monitoring; h. f. filter; simplified bass & treble controls. 14 $\frac{1}{2}$ " W x 5 $\frac{1}{4}$ " H x 12 $\frac{3}{4}$ " D ..... \$299.95

### TOSHIBA

#### SB-404S 4-Ch. Integrated Amp

15 W/ch continuous power (60 W total) into 8 ohms and at 0.5% HD with each channel driven



separately (26 W/ch for 2-channel stereo). 17 W/ch dynamic power (68 W total). HD 0.4% at rated output (0.1% at 2 W/ch). Response 10-55,000 Hz  $\pm$ 1.5 dB; power bandwidth 10-30-

000 Hz at 0.8% HD. Sensitivity: mag. phono 1 & 2 3 mV; condenser phono 30 mV; tuner 150 mV; aux. 1 & 2 150 mV; tape 500 mV. Has RM (Regular Matrix) and SQ decoders. Has universal line inputs. Overall size 15 $\frac{3}{4}$ " x 4 $\frac{1}{2}$ " x 11" ..... \$299.95

## 9 Receivers

### AKAI

#### AS-980 Four-Channel Receiver

42 $\frac{1}{2}$  W/ch dynamic power (170 W total); 30 W/ch continuous power. Features built-in CD-4 demodulator with front-panel separation controls, SQ logic and regular matrix so that any type of 4-channel sound can be reproduced. Unit is equipped with bass & treble controls,



loudness control, low and high filter, AM-FM tuner, damper switches (to 10 dB or 20 dB), facilities for connecting three sets of speakers. Has two phono inputs: one set for CD-4 and one for normal 2-channel use; two tape inputs for dubbing from one tape recorder to another. Remote balance control and volume control optional ..... \$850.00

#### AS-970 Four-Channel Receiver

25 W/ch continuous power. Features three separate 4-ch modes (discrete, SQ, RM) and individual CD-4 separation controls. Frequency response 20-50,000 Hz. Has slide-rule main balance control, three tape monitors, FM muting high & low filters, and tape dubbing facilities. Includes separate signal and tuning meters, an automatic preset volume control, separate left & right level meters, and front-panel remote control. FM sensitivity (IHF) 2.0  $\mu$ V; selectivity 70 dB; (S + N)/N 70 dB ..... \$599.95

#### AS-960 Four-Channel Receiver

18 W/ch continuous power. Features three separate 4-ch modes (discrete, SQ, RM), individual channel balance controls, two tape monitors, FM muting, tape dubbing facilities, front-panel remote control, and illuminated mode indicator. Response 20-50,000 Hz. FM sensitivity (IHF) 2.3  $\mu$ V; (S + N)/N 70 dB; selectivity 70 dB. 19.2" W x 6.7" H x 16" D ..... \$499.95

### CONCORD

#### CR-400 4-Channel Receiver

9 $\frac{1}{4}$  W/ch continuous power at 8 ohms with all four channels driven (22 W/ch with two channels driven). Has SQ decoder, circuitry for simulated 4-channel reproduction of stereo records, and includes special inputs for use with an external CD-4 decoder. Response 25-40,000 Hz at 1 W output; power bandwidth 20-50,000 Hz. THD at rated output 1%. Input sensitivity: mag. phono 3 mV; aux. 130 mV. (S + N)/N (phono) 65 dB. Has separate bass and treble controls for front and rear speakers plus dual power switch which straps the channels together for stereo operation. FM sensitivity (IHF) 2.9  $\mu$ V; image rejection 51 dB; capture ratio 1.8 dB. (S + N)/N 65 dB. Stereo separation 35 dB. Features an illuminated balance display; headphone jacks; flywheel tuning; AM-FM tuning meter; mono/stereo indicator. 20 $\frac{3}{8}$ " W x 5 $\frac{1}{2}$ " H x 15 $\frac{3}{4}$ " D. .... \$299.95

### FISHER

#### 4020 4-Channel AM-FM Receiver

10 W/ch continuous power into 8 ohms with all four channels driven; 60 W total IHF music power at 8 ohms. Has built-in SQ decoder. HD (at 1 kHz) 1%. IM 0.8%. Sensitivity: phono 2.5 mV; aux. & tape monitor 200 mV; recorder output (30% modulation) 350 mV. Response: phono (RIAA equalized  $\pm$ 2 dB) 30-15,000 Hz; aux. & tape monitor ( $\pm$ 2 dB) 30-20,000 Hz. FM usable sensitivity (IHF) 2.5  $\mu$ V; HD 0.8%; (S +



N)/N 64 dB; stereo separation (1 kHz) 35 dB; capture ratio (IHF at 1 mV) 2.5 dB. 17 $\frac{1}{8}$ " W x 5 $\frac{9}{16}$ " H x 16 $\frac{3}{4}$ " D. Walnut-grained wood cabinet ..... \$299.95

#### 4060 4-Channel AM-FM Receiver

15 W/ch continuous power into 8 ohms with all four channels driven; 85 W total IHF music power at 8 ohms. Has built-in SQ decoder. HD (at 1 kHz) & rated rms power 0.3%; IM 0.8%. All other specifications same as Model 4020. 19 $\frac{1}{4}$ " W x 5 $\frac{3}{8}$ " H x 16 $\frac{3}{4}$ " D ..... \$369.95

#### Studio Standard 634 Receiver

35 W rms/ch into 8 ohms with all channels driven; THD at rated power 0.5%; power band-



width 20-22,000 Hz; frequency response 20-50,000 Hz  $\pm$ 2 dB at 1W; S/N 65 dB (phono); FM sensitivity 1.8  $\mu$ V (IHF); capture ratio 1.2 dB; THD stereo 0.4% at 100% mod., 1000 Hz; stereo separation 38 dB (1000 Hz); alternate channel selectivity 60 dB; features tuning meter; built-in CD-4 demodulator; built-in full-logic SQ; SQ phase logic for localization of performers; four VU meters; strapped power; mid-range tone control; joystick balance control. 23 $\frac{1}{8}$ " W x 15 $\frac{1}{8}$ " D x 7 $\frac{1}{4}$ " H ..... \$799.95  
534. Same as 634 except 23 W rms/ch; does not have mid-range tone control or the four VU meters. .... \$699.95

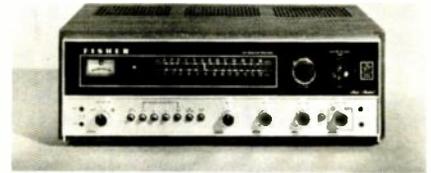
#### 514 4-Ch Receiver

32 W rms/ch into 8 ohms with all channels driven; (20-20,000 Hz); 110 W/ch stereo; response 30-15,000 Hz  $\pm$ 2 dB phono (RIAA equalized); CD-4 disc demodulator 20-15,000 Hz; nominal output level 300 mV; S/N 60 dB (4-ch); FM sensitivity 1.8  $\mu$ V (IHF); HD 0.3% stereo; S/N 70 dB; FM stereo separation 38 dB at 1000 Hz; capture ratio 1.2 dB; has full complement of inputs, outputs, controls; built-in CD-4 demodulator; SQ matrix decoder; strapped amplifiers. 23 $\frac{1}{4}$ " W x 6 $\frac{7}{8}$ " H x 17" D. .... \$749.95  
414. Same as 514 except 22 W rms/ch. \$649.95  
324. Same as 514 except 15 W rms/ch. \$549.95

#### Studio Standard 434 Receiver

16 W rms/ch into 8 ohms with all channels driven; THD at rated power 0.8%; power bandwidth 28-22,000 Hz; response 20-50,000 Hz  $\pm$ 2 dB at 1 W; S/N 65 dB (phono); FM sensitivity 1.8  $\mu$ V (IHF); capture ratio 1.2 dB; frequency

response 20-20,000 Hz; THD 0.4% stereo, 100% mod., 1000 Hz; stereo separation 38 dB (1000 Hz); features tuning indicator; two meters; built-in CD-4 demodulator; full-logic SQ circuit. 20 $\frac{3}{4}$ " W x 12 $\frac{1}{8}$ " D x 7" H. .... \$599.95  
334. Same as 434 except 10 W rms/ch; power bandwidth 30-22,000 Hz; FM sensitivity 2.0  $\mu$ V (IHF); THD stereo 0.6%; stereo separation 35 dB; alternate channel selectivity 55 dB; has tuning indicator; two meters; built-in CD-4 demodulator; SQ blend circuit. .... \$499.95  
234. Same as 334 except has one meter and



does not have CD-4 demodulator circuit; SQ matrix circuit. 19 $\frac{1}{8}$ " W x 12 $\frac{1}{4}$ " D x 7" H. .... \$349.95

### HARMAN/KARDON

#### 800+ 4-Channel AM-FM Receiver

Has same built-in 4-ch facilities as 700+. 22 W/ch continuous power into 8 ohms with all



four channels driven (50 W/ch in stereo mode both channels driven into 8 ohms); power bandwidth 10-40,000 Hz into 8 ohms with all channels driven at less than 0.5% THD. Hum & noise 85 dB below rated output (unweighted) in stereo or 4-ch mode. FM sensitivity (IHF) 2.0  $\mu$ V (S + N)/N 70 dB; capture ratio 2.5 dB; image rejection -50 dB; spurious response rejection -75 dB. Has same tone control features. 20 $\frac{1}{8}$ " W x 17" D (including knobs) x 6 $\frac{1}{4}$ " H (including feet) ..... \$499.95

#### 900+ 4-Channel AM-FM Receiver

Has same built-in 4-ch facilities as 700+. 32 W/ch continuous power into 8 ohms with all



four channels driven (90 W/ch both channels driven into 8 ohms). Hum & noise 90 dB below rated output (unweighted) in stereo or 4-ch mode. Response 4-70,000 Hz  $\pm$ 0.5 dB at normal power levels. FM sensitivity (IHF) 1.8  $\mu$ V; (S + N)/N 70 dB; capture ratio 1.6 dB; image & spurious response rejection 90 dB; Has  $\pm$ 12 dB boost & cut (bass at 50 Hz; mid-range at 1 kHz; treble at 10 kHz). 20 $\frac{1}{8}$ " W x 17" D (including knobs) x 6 $\frac{1}{4}$ " H (including feet) ..... \$749.95

Above receivers can accommodate additional speakers, turntables, two tape decks (either 2- or 4-ch), two- or four-channel headphones, plus miscellaneous accessories.

## HEATH

**AR-2020 Four-Channel Receiver**

15 W/ch continuous power at 8 ohms with all channels driven. Will handle all matrix encoded sources. Power bandwidth 5-30,000 Hz. Frequency response 7-50,000 Hz  $\pm 1$  dB. IM & HD 0.5% at rated power, 8-ohm load. (S+N)/N -60 dB at rated output. Has master volume, individual output level, front & back bass and treble controls; power, speaker, source (4 positions), and mode (4 positions) switches. Outputs: 4 speaker; headphones (1 pr. each front & back); one tape feed; 4-channel tape. Tuner section: 2  $\mu$ V (IHF) FM sensitivity, capture ratio 2 dB, HD 0.5%, channel separation at midband 35 dB min., antenna inputs 300 and 75 ohms. Features modular circuit-board construction, phase-locked loop multiplex demodulator. Has 2-ch. mag. phono & aux. inputs; 4-ch. tape & aux. inputs. 4 $\frac{3}{4}$ " H  $\times$  19 $\frac{3}{4}$ " W  $\times$  14" D. Walnut end panels included.  
Kit ..... \$249.95

## JVC

**4VR-5404 4-Channel AM-FM Receiver**

5 W/ch into 8 ohms at 1000 Hz; power bandwidth 20-30,000 Hz. Capture ratio 2 dB; FM sensitivity 2.2  $\mu$ V. Can be used for discrete 4-channel reproduction and built-in matrix decoder for E-V, QS, RM, and SQ. 4 ch/2-ch tape monitoring, built-in joystick master balance control (PPC). 5 $\frac{5}{8}$ "  $\times$  19"  $\times$  13 $\frac{3}{8}$ " D. \$229.95  
**4VR-5406.** Basically same as 4VR-5404 in design and styling except has built-in CD-4 discrete 4-channel record demodulator. Features automatic 4-ch/2-ch switching 5 $\frac{5}{8}$ "  $\times$  19"  $\times$  13 $\frac{3}{8}$ " D ..... \$299.95

**4VR-5414 4-Channel AM-FM Receiver**

28 W/ch dynamic power at 8 ohms (30 W/ch at 4 ohms); 15 W/ch continuous power at 8 ohms



(20 W/ch at 4 ohms) with all four channels driven and at 0.5% THD. 65 W/ch dynamic power at 8 ohms with 2-channel power bridging (BTL). Power bandwidth 20-30,000 Hz. FM sensitivity 2  $\mu$ V for 30 dB quieting; capture ratio 2 dB. Input sensitivity: mag. phono 3 mV; aux. 150 mV; tape monitor 150 mV. Can be used for discrete 4-channel reproduction and has built-in synthesizer for converting regular 2-channel program material into 4 channel. Also has 5-position tone control network for centering the two front speakers on 40/250/1000/5000/15,000 Hz. Has input for 4-channel optional remote control unit. 19 $\frac{3}{8}$ "  $\times$  5 $\frac{5}{8}$ "  $\times$  14 $\frac{3}{8}$ " D ..... \$399.95

**4VR-5445 4-Channel AM-FM Receiver**

Basically same as Model 4VR-5414 in design & styling except has higher power and 5-position tone control network for both front & rear speakers. 34 W/ch dynamic power at 8 ohms (50 W/ch at 4 ohms); 21 W/ch continuous power into 8 ohms (23 W/ch into 4 ohms) with all four channels driven and at 0.5% THD. 68 W/ch dynamic power at 8 ohms with 2-channel power bridging (BTL). Power bandwidth 20-30,000 Hz. 22 $\frac{7}{8}$ "  $\times$  5 $\frac{5}{8}$ "  $\times$  14" ..... \$529.95

**4VR-5436 4-Channel AM-FM Receiver**

Equipped with built-in CD-4 demodulator and features an FM Det. Out jack on the rear panel for connection of a demodulator for 4-ch FM broadcasting (when authorized). Also has one matrix decoder for SQ records and another to handle other encoded material. 14 W/ch continuous rms power at 8 ohms with all four channels driven (20-20,000 Hz); 17 W/ch rms power at 1 kHz into 8 ohms. Frequency response 20-30,000 Hz  $\pm 1$  dB; IHF power bandwidth 20-20,000 Hz. FM sensitivity 2.0  $\mu$ V; selectivity 65 dB; FM capture ratio 2 dB; FM image rejection 55 dB; FM stereo separation 35 dB. Has two VU meters; bass/treble control; speaker selector switch; 2 auxiliary inputs; high/low cut filters. Walnut case; blackout dial. .... \$569.95

**4VR-5446 4-Channel AM-FM Receiver**

Has same circuit options as 4VR-5436 except 21 W/ch continuous rms into 8 ohms with all four channels driven (26 W/ch rms power at 1 kHz). IHF power bandwidth 20-30,000 Hz. Has source indicator lights and a 7-position speaker selector switch. .... \$679.95

**4VR-5456 4-Channel AM-FM Receiver**

Has same circuit options as 4VR-5436 except 43 W/ch continuous rms into 8 ohms with all



four channels driven (48 W/ch rms power at 1 kHz). IHF power bandwidth 5-45,000 Hz. FM sensitivity 1.8  $\mu$ V; FM capture ratio 1.5 dB; image rejection 90 dB; FM stereo separation 38 dB. Has 7-position speaker selector switch ..... \$799.95

## KENWOOD

**KR-9940 4-Channel Receiver**

50 W rms/ch continuous power output into 8 ohms with all channels driven (20-20,000 Hz);



has built-in circuitry for all 4-channel formats including SQ decoder with wave matching and variable blend logic, CD-4 demodulator, and RM decoder; "Tape-Through" circuit for dubbing through unit's dual 4-channel tape system while receiver is used to play any other program source; THD & IM dist. 0.5%; power bandwidth 10-50,000 Hz; impedance 4 to 16 ohms; FM sensitivity (IHF) 1.8  $\mu$ V; S/N 65 dB (1 mV input); capture ratio 3 dB; selectivity (IHF) 50 dB; stereo separation 40 dB at 1000 Hz, 20 dB at 10,000 Hz; HD stereo 0.8% (400 Hz, 100% modulation); image rejection 60 dB; has full complement of inputs & outputs, filters, and tone controls. 21 $\frac{1}{8}$ " W  $\times$  6 $\frac{1}{8}$ " H  $\times$  14 $\frac{1}{4}$ " D. .... \$950.00

**KR-8840 4-Channel Receiver**

40 W rms/ch continuous power output into 8 ohms with all channels driven (20-20,000 Hz); built-in circuitry for all 4-channel formats; "Tape-Through" circuit; THD & IM dist. 0.8%; power bandwidth (IHF) 10-45,000 Hz; impedance 4 to 16 ohms; FM tuner sensitivity (IHF) 1.9  $\mu$ V; S/N 63 dB (1 mV input); capture ratio 3 dB; selectivity (IHF) 50 dB; stereo separation

40 dB at 1000 Hz, 20 dB at 10,000 Hz); HD 0.8% stereo (400 Hz, 100% modulation); image rejection 60 dB; has full complement of inputs & outputs, filters and tone controls. 21 $\frac{1}{8}$ " W  $\times$  6 $\frac{1}{8}$ " H  $\times$  14 $\frac{1}{4}$ " D. .... \$800.00

## LAFAYETTE

**LR-5000 AM-FM 4-Channel Receiver**

37 W rms/ch into 8 ohms at 0.5% THD (20-20,000 Hz) with all channels driven; features



full-logic wave-matching plus vari-blend SQ decoder and other decoder circuitry to play back SQ, RM, and other 4-ch & stereo sources; CD-4 optional discrete 4-ch demodulator built in (or can be installed later); power bandwidth 10-40,000 Hz; input sensitivity: 0.6 mV (hi), 1.8 mV (med), 4 mV (lo), aux. #1 & #2 250 mV, tape play 500 mV; S/N high-level -75 dB, low-level -60 dB; FM (IHF) sensitivity 1.65  $\mu$ V; capture ratio 1.5 dB; stereo separation 40 dB; has self-resetting power overload circuit. 21" W  $\times$  5 $\frac{1}{2}$ " H  $\times$  15" D. .... \$599.95  
CD-4 Demodulator package. .... \$69.95

**LR-3000 AM-FM 4-Channel Receiver**

Features full-logic wave-matching plus vari-blend SQ decoder and other 4-ch decoder circuitry to play SQ, RM, and all 4-ch sources; optional CD-4 demodulator built-in (or can be installed later); 15 W rms/ch into 8 ohms at 0.8% THD (20-20,000 Hz) with all channels driven; power bandwidth 10-35,000 Hz; input sensitivity: mag. phono 0.6 mV (hi), 1.8 mV (med.), 1.4 mV (lo), aux. #1 & #2 250 mV, tape play 500 mV; FM (IHF) sensitivity 2.2  $\mu$ V; capture ratio 2.5 dB; stereo separation 35 dB. 17 $\frac{1}{2}$ " W  $\times$  4 $\frac{7}{8}$ " H  $\times$  14" D. .... \$449.95  
CD-4 Demodulator package. .... \$69.95

**SQR-20 4-Channel Receiver System**

Receiver features sensitive AM-FM stereo tuner, 4-channel "SQ" matrix decoder, "Com-



poser" derived 4-channel from 2-channel sources, discrete 4- & 2-channel when connected to a 4-channel tape source, and four separate amplifiers. Comes with four wide-range walnut speaker systems (8 $\frac{1}{2}$ " W  $\times$  14 $\frac{1}{2}$ " H  $\times$  5 $\frac{1}{2}$ " D). 16 $\frac{1}{2}$ " W  $\times$  10 $\frac{1}{8}$ " D  $\times$  4 $\frac{1}{2}$ " H. .... \$149.95

## MARANTZ

**4400 4-Ch AM-FM Receiver**

50 W/ch continuous power into 8 ohms with all four channels driven (20-20,000 Hz); THD & IM 0.15%; frequency response 20-20,000 Hz  $\pm 0.25$  dB; power bandwidth 7-70,000 Hz (IHF); FM sensitivity 1.8  $\mu$ V; THD 0.3% stereo; selectivity 75 dB; capture ratio 1.5 dB; stereo separation 42 dB at 1000 Hz; spurious rejection 95 dB; image rejection 90 dB; features Dolby noise-reduction circuit; built-in oscilloscope; facilities for separating tuner/preamp section from main amplifiers for connection of amps, electronic crossovers, and/or equalizers; decoder pocket for connecting optional SQ de-

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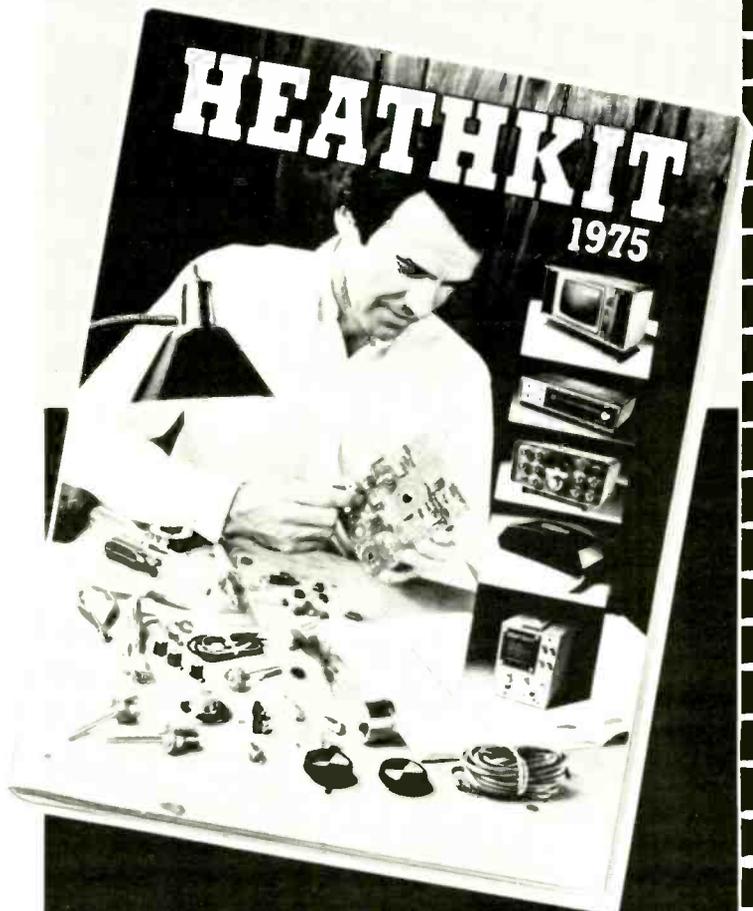
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CL-529R

coder or 4-channel matrix decoder; Vari-Matrix for synthesizing 4-ch sound; has full complement of inputs, outputs, controls, and filters. . . . . \$1250.00  
Optional walnut cabinet available.

#### 4300 4-Ch AM-FM Receiver

40 W/ch continuous power at 8 ohms with all channels driven; 0.15% THD & IM 20-20,000 Hz. Features Dolby B circuit for simultaneous recording and playback with any tape machine and decoding of Dolby-encoded FM broadcasts. Has phase lock loop multiplex decoder and an FM Quadrantal output jack. Separate tuner-preamp section permits use with additional external power amps. Has Vari-Matrix for stereo program enhancement. 4-ch ready for addition of SQ decoder and CD-4 demodulator. FM sensitivity 1.9  $\mu$ V (IHF); THD 0.3% stereo; capture



ratio 1.5 dB; spurious rejection 90 dB. Amp response 20-20,000  $\pm$ 0.25 dB (high-level input); power bandwidth 7-70,000 Hz. . . . \$899.95  
4270. Similar to Model 4300 but 25 W/ch; 0.3% THD & IM. Response 20-20,000 Hz  $\pm$ 0.5 dB; power bandwidth 8-60,000 Hz . . . . \$699.95  
4240. Similar to Model 4300 but 17 W/ch; 0.5% THD & IM. Response 20-20,000 Hz  $\pm$ 1.0 dB; power bandwidth 10-60,000 Hz. . . . \$599.95

#### 4230 4-Ch AM-FM Receiver

12 W/ch continuous power into 8 ohms with all channels driven; THD & IM 0.5% FM sensitivity (IHF) 2.8  $\mu$ V. Response 20-20,000 Hz  $\pm$ 1 dB; power bandwidth 15-50,000 Hz. Features Dolby noise reduction circuit, 4-ch balance controls, remote-control outlet, provisions for two tape recorders, provision for connecting decoders and demodulators. . . . . \$499.95

#### MX

#### 1620 4/2 Ch. AM-FM Receiver

18 W rms/ch into 8 ohms with all four channels driven at 1000 Hz; 14 W/ch 20-20,000 Hz; stereo bridged power (1000 Hz) 35 W rms/ch; power bandwidth 10-40,000 Hz; frequency response 20-25,000 Hz  $\pm$ 2 dB (Aux.); HD 0.5%; IM 0.8%; FM sensitivity (IHF) 1.8  $\mu$ V; selectivity 75 dB; capture ratio 1.5 dB; stereo separation 50 dB (1000 Hz), 40 dB (10,000 Hz); HD 0.2%; image rejection 97 dB; spurious rejection 94 dB; features SQ matrix decoder; regular matrix decoder; four VU meters with independent level controls for each channel; special speaker matrix for "surround-sound" effect; full complement of controls- auto/off switch for use with automatic turntable turns off system. 6" H  $\times$  22 $\frac{1}{2}$ " W  $\times$  15" D. . . . \$499.95

#### 1630 4/2 Ch. AM-FM Receiver

35 W rms/ch into 8 ohms with all four channels driven at 1000 Hz; 28 W/ch 20-20,000 Hz;



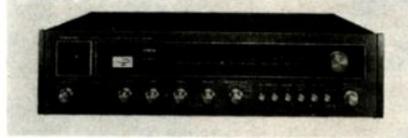
stereo bridged power (1000 Hz) 70 W rms/ch; power bandwidth 10-40,000 Hz; HD 0.5%; IM 0.8%; frequency response 20-25,000 Hz  $\pm$ 2 dB (Aux.); FM sensitivity (IHF) 1.8  $\mu$ V; selectivity

75 dB; capture ratio 1.5 dB; stereo separation 50 dB (1000 Hz), 40 dB (10,000 Hz); HD 0.2%; image rejection 97 dB; spurious rejection 94 dB; features SQ & regular matrix decoders; four VU meters with independent level controls for each channel; clutched bass & treble controls for front & back; full complement of controls, inputs, outputs, and switches. 6" H  $\times$  22 $\frac{1}{2}$ " W  $\times$  15" D. Veneer cabinet with grained walnut finish. . . . . \$599.95

#### ONKYO

#### TS-500 Automatic 4-Ch Receiver

Built in logic and analog computer circuitry for automatic sensing of 4-channel signal being



transmitted; automatic routing to CD-4 demodulator or matrix decoders; automatic mode selector permits any mix of 4-channel or stereo discs or tapes; 20 W/ch rms into 8 ohms with all four channels driven (20-20,000 Hz); 25 W/ch rms at 1000 Hz; dist. 0.5% at rated power; IM 0.4%; power bandwidth 20-20,000 Hz  $\pm$ 3 dB, THD 0.5%; frequency response 20-30,000 Hz  $\pm$ 1 dB; FM sensitivity 1.8  $\mu$ V (IHF); selectivity 65 dB; capture ratio 2 dB; image rejection 70 dB; S/N 70 dB; stereo separation 40 dB at 400 Hz; frequency response 20-15,000 Hz  $\pm$ 1.5 dB; features dual-purpose tuning meter; tape monitoring & dubbing facilities; full complement of inputs & outputs; switches; filters; and controls. Walnut-finished wood cabinet. 21" W  $\times$  16 $\frac{1}{2}$ " D  $\times$  5 $\frac{1}{2}$ " H. . . . \$749.95

#### PILOT

#### 365 4-Channel AM-FM Receiver

15 W/ch (60 W total) continuous power at 8 ohms with all four channels driven & at 0.5% THD. Power bandwidth 20-25,000 Hz; response 20-20,000 Hz  $\pm$ 1 dB. Input sensitivity: mag. phono 2.5 to 4.5 mV; aux. 300 mV; tape output 250 mV. FM sensitivity 2.5  $\mu$ V for 30 dB (S + N) /N; capture ratio 2.5 dB. Has same 5-position



switch as the Model 366 4-channel receiver and center-channel tuning meter. Walnut veneer wood cabinet. 18 $\frac{1}{2}$ "  $\times$  6 $\frac{1}{2}$ "  $\times$  17 $\frac{1}{2}$ " D. . . \$439.90

#### 366 4-Channel AM-FM Receiver

30 W/ch (120 W total) continuous power at 8 ohms with all four channels driven & at 0.5%

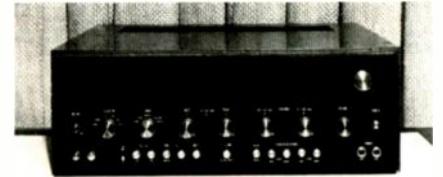


THD. Power bandwidth 10-40,000 Hz; response 20-25,000 Hz  $\pm$ 1 dB. Input sensitivity: mag. phono 2.5 to 4.5 mV; aux. 300 mV; mike 1 mV; tape output 250 mV. FM sensitivity 1.8  $\mu$ V for 30 dB (S + N)/N; capture ratio 1.8 dB. Features main/remote 4-channel speaker switch, mike mixing, tape monitor, "Pilotone" for balancing speakers. Has 5-position mode switch for dis-

crete, CBS "SQ", Matrix-4 decoder, stereo (double power), and mono operation. With walnut veneer cabinet. 18 $\frac{1}{2}$ "  $\times$  6 $\frac{1}{2}$ "  $\times$  17 $\frac{1}{2}$ " D. . . . . \$579.90

#### 430 4-Channel AM-FM Receiver

30 W rms/ch into 8 ohms with four channels driven & at 0.5% THD (20-20,000 Hz); response 20-20,000 Hz  $\pm$ 1 dB; power bandwidth 10-40,000 Hz (IHF); electronic speaker circuit protection; switching for main/remote speaker systems (4-ch or stereo); built-in full-logic SQ decoder, CD-4 demodulator with ANRS, automatic SQ/CD-4 switching, RM matrix, front-panel CD-4 separation controls; has front-panel headphone jacks for stereo & 4-channel listening; separate mike/mix volume control for mixing stereo mikes or amplified instruments with all other inputs; two phono inputs, two auxiliary inputs, high and low 12 dB/octave filters, dual-concentric bass & treble controls; 5-pos. mode switch (discrete. SQ/CD-4, matrix-4 decode, stereo (double-power), and mono); four level controls with built-in "Pilotone" balancing signal generator; master volume control, loudness, tape monitor, and a.c. push-buttons; main amps/preamps accessible by removing rear-panel jumpers; linear FM dial



scale. Pilotune center-channel tuning indicator, two tuning meters, automatic stereo light indicator, full function & mode lights; FM sensitivity 1.8  $\mu$ V; selectivity 75 dB; capture ratio 1.5 dB; 75/300 ohm antenna inputs; 4-gang front-end; FM muting; detector output & de-emphasis switch for future 4-channel FM adapter accessibility; switched & unswitched a.c. receptacles on rear panel. Walnut veneer wood enclosure. . . . . \$799.90

#### PIONEER

#### QX-646 4-Ch. Stereo Receiver

Reproduces all regular matrix, SQ, and CD-4 program sources without additional components. FM usable (IHF) sensitivity 2.2  $\mu$ V; capture ratio 3 dB; selectivity 40 dB. (S + N)/N 65 dB. Image rejection 50 dB; i.f. rejection 85 dB; spurious rejection 80 dB. Stereo separation 40 dB at 1000 Hz. Antenna input: 300 ohms balanced, 75 ohms unbalanced. Has "on-off" muting switch. Continuous power output 10 W + 10 W/10 W + 10 W into 8 ohms with two channels driven. IHF music power output 80 W at 8 ohms (108 W at 4 ohms). HD & IM less than 1% continuous power output. Power bandwidth 15-20,000 Hz at 1% HD (IHF, 4-channels driven, 8 ohms). Output: speaker one pair (front) 4 to 16 ohms; two pairs (rear) 4 to 16 ohms; headphone (front) ch. 1, ch. 3. Input sensitivity/imp.: phono (2 ch.) 2.5 mV, 100,000 ohms; aux., tape monitor, DIN 180 mV, 90,000 ohms. Has bass & treble tone controls and loudness contour control. 20 $\frac{1}{2}$ " W  $\times$  5 $\frac{1}{8}$ " H  $\times$  14 $\frac{1}{4}$ " D. . . . . \$499.95

#### QX-747 4-Ch. Stereo Receiver

Continuous power output 20 W  $\times$  4 into 8 ohms with all four channels driven and from 20-20,000 Hz. Includes CD-4, regular matrix, and SQ decoders. Power bandwidth (IHF, 4-ch. driven) 7-40,000 Hz at 0.5% HD. Response (aux.) 10-25,000 Hz  $\pm$ 1 dB. FM usable (IHF) sensitivity 1.9  $\mu$ V; capture ratio 1 dB; selectivity 60 dB. HD 0.2% mono, 0.4% stereo. . . \$649.95

#### QX-949 4-Ch. Stereo Receiver

Includes built-in CD-4 demodulator and decoders for regular matrix and SQ sources. Continuous power output 40 W  $\times$  4 into 8 ohms with 4-ch. driven from 20-20,000 Hz. Power bandwidth

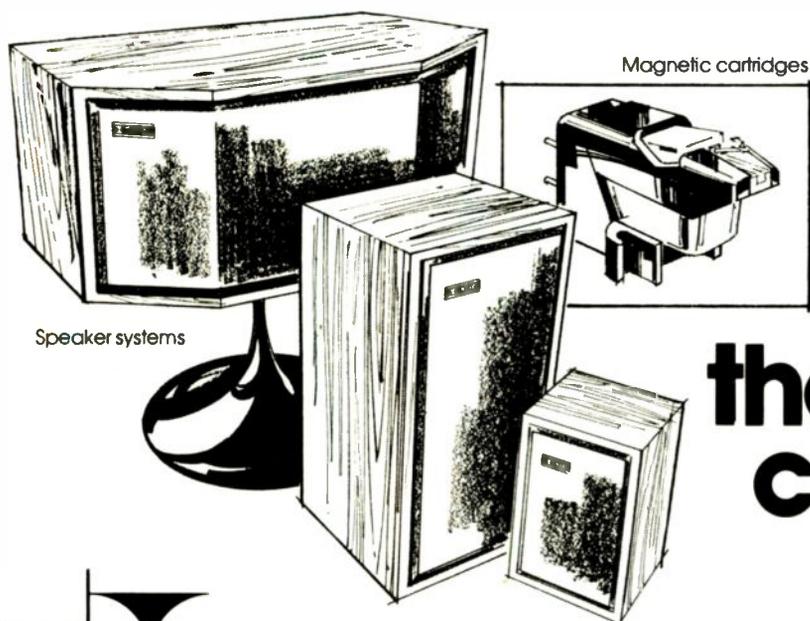
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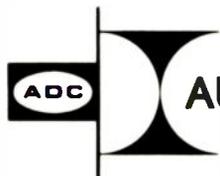
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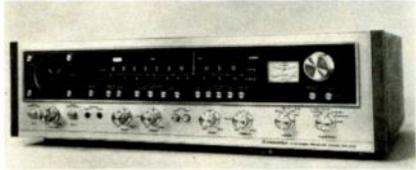


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# 9 Receivers



(IHF, 4-ch. driven) 7-40,000 Hz at 0.3% HD. Response (aux.) 10-25,000 Hz  $\pm 1$  dB. FM usable (IHF) sensitivity 1.8  $\mu$ V; capture ratio 1 dB; selectivity 80 dB. HD mono 0.2%; stereo 0.4%. Features include 4-channel level indicator; outputs for four pairs of speaker systems; output for three tape decks for tape-to-tape duplication. Will also handle two turntables and an additional aux. source. . . . . \$749.95

## ROTEL

### RX-154A 4-Channel AM-FM Receiver

Can be used as a 2- or 4-channel receiver. 10 W/ch continuous power at 4 ohms for 4 ch. opera-



tion (20 W/ch for two channels) and 0.5% THD. Power bandwidth 30-30,000 Hz. FM sensitivity 4  $\mu$ V for 30 dB quieting; capture ratio 8 dB. Will play 4-channel discrete sources, 4-channel SQ matrixed discs or tapes, and will synthesize regular 2-channel stereo sources. Has 4-channel headphone jack. 17 $\frac{1}{4}$ "  $\times$  5"  $\times$  12 $\frac{1}{2}$ " D. Walnut cabinet . . . . . \$289.95

### RX-454 4-Channel Receiver

20 W/ch continuous rms power with all channels driven into 8 ohms (45 W/ch in stereo mode). HD 0.1% at rated output at 1 kHz; IM at rated output 0.2%. Response 15-90,000 Hz; power bandwidth (IHF) 20-50,000 Hz. Hum & noise: phono 65 dB; aux. & tape input 75 dB. FM usable sensitivity (IHF) 2.5  $\mu$ V; (S + N)/N 65 dB; selectivity 45 dB; spurious rejection 80 dB; i.f. rejection 70 dB; image rejection 60 dB. Separation 40 dB (1 kHz, 100% modulation); capture ratio 3 dB. Has dual front & back bass and treble controls; 4 individual volume controls; push-button tuning for main & remote speaker systems . . . . . \$479.95

## SANSUI

The company has a series of six different AM-FM 2- and 4-channel receivers, including decoder, synthesizer, amplifier, control centers. Each can decode all compatibly matrixed 4-channel recordings and broadcasts, synthesize 2 rear channels of ambient signals from conventional 2-channel recording to 4 channels. Will also play discrete 4-channel tapes.

### QRX-6001 4-Ch Receiver

25 W rms/ch into 8 ohms with all channels driven (20-20,000 Hz); THD & IM dist. 0.5%; power bandwidth (IHF) 10-35,000 Hz; FM sensitivity 2  $\mu$ V (IHF); capture ratio 1.5 dB; S/N 70 dB; stereo separation 40 dB at 1000 Hz; features IC "Vario-Matrix" for 20 dB separation in SQ and QS, modes and built-in CD-4 demodulator; has independent front/back tone control; L-R independent balance control; F-B balance control; loudness control for all channels;

four-channel headphone jack; center-tuning and signal-strength meters; full complement of inputs & outputs. . . . . \$759.95  
**QRX-7001.** Similar to QRX-6001 except 35 W



rms/ch; THD & IM dist. 0.4%; FM sensitivity 1.9  $\mu$ V. . . . . \$879.95

### QRX-6500 4-Channel Receiver

37 W/ch continuous power output at 8 ohms with 0.5% THD. Response 20-30,000 Hz  $\pm 1$  dB



(50 W/ch at 4 ohms); 70 W/ch dynamic (IHF) power at 4 ohms. FM sensitivity 1.8  $\mu$ V for 30 dB quieting. Has multi-system 4-channel speaker selectors and vario matrix. . . . \$639.95

### QR-1500 4-Channel Receiver

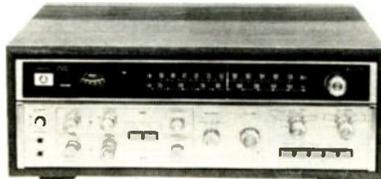
15 W/ch continuous power output at 8 ohms (20 W/ch at 4 ohms) with 0.8% THD. 25 W/ch



dynamic (IHF) power at 4 ohms. Power bandwidth 20-30,000 Hz. FM sensitivity 3  $\mu$ V for 30 dB quieting . . . . . \$249.95

### QRX-3500 4-Channel Receiver

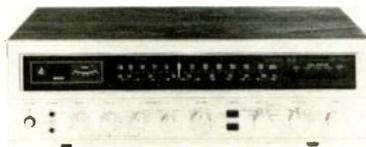
22 W/ch continuous rms output with all channels driven into 8 ohms at 0.5% THD; Response



30-30,000 Hz  $\pm 1.5$  dB. 180 W power (IHF). FM sensitivity 2.2  $\mu$ V (IHF). Has vario matrix synthesizer/decoder; two 4-channel and one 2-channel tape monitors. 20 $\frac{3}{4}$ " W  $\times$  7 $\frac{1}{8}$ " H  $\times$  13 $\frac{1}{16}$ " D . . . . . \$549.95

### QRX-3000 4-Channel Receiver

15 W/ch continuous rms output with all channels driven into 8 ohms at 0.5% THD and 0.5%



IM. 100 W power (IHF). Response 30-30,000 Hz  $\pm 1.5$  dB. FM tuner sensitivity 2.5  $\mu$ V (IHF). Has

vario matrix synthesizer/decoder; two 4-channel and one 2-channel tape monitors. 19 $\frac{1}{16}$ " W  $\times$  5 $\frac{1}{16}$ " H  $\times$  13" D . . . . . \$429.95

## SANYO

### DCX-3000K-A 4-Channel Receiver

Designed for both discrete and matrix 4-channel operation. Has SQ logic & Sanyo matrix decoders. Can be used as a 2- or 4-channel amplifier. AM-FM stereo receiver sensitivity 2.2  $\mu$ V for 30 dB quieting. HD 0.8%. (S + N)/N 60 dB. 10 W/ch (40 W total) continuous power into 8 ohms and at 1% HD. Response 25-40,000 Hz; power bandwidth 25-40,000 Hz. Input sensitivity: mag. phono 5.0 mV; aux. 200 mV; tape 300 mV. Has remote speaker facility. 18 $\frac{3}{16}$ "  $\times$  13 $\frac{1}{2}$ "  $\times$  4 $\frac{3}{4}$ ". Walnut cabinet . . . . . \$299.95

### DCX-3300KA 4-Channel Receiver

Has all the features for 4-channel discrete and three matrix decoder circuits (SQ logic and variations). AM-FM stereo receiver with FM sensitivity 2.0  $\mu$ V. Selectivity 40 dB. 16 W/ch (64 W total) continuous power into 8 ohms & at 0.8% HD. Response 20-45,000 Hz; power bandwidth 20-40,000 Hz. Input sensitivity: mag. phono 3 mV; aux. 100 mV; tape 300 mV. Features four output-level meters; 2- or 4-channel operation; mike input. 19 $\frac{3}{16}$ "  $\times$  12 $\frac{3}{4}$ "  $\times$  6". Walnut cabinet . . . . . \$449.95

### DCX-2700K 4-Channel Receiver

Designed for both discrete and matrixed 4-channel operation (SQ and matrix). FM sensitiv-



ity 2.7  $\mu$ V; HD 1%; (S + N)/N 45 dB stereo; selectivity 38 dB; stereo separation 30 dB. 7 $\frac{1}{2}$  W/ch continuous rms power at 1% THD; HD & IM 1% at rated output. Response 25-30,000 Hz; power bandwidth 30-30,000 Hz. Has individual channel level controls; master volume; bass & treble function selector; power switch; loudness switch; tape monitor; 2/4 channel selector. Outputs: 4 speaker; 2/4 ch recording, DIN connector. Inputs: mag. phono; 2/4 ch aux.; 2/4 ch tape; DIN connector. 18"  $\times$  14 $\frac{1}{4}$ "  $\times$  5". Walnut cabinet . . . . . \$269.95

### DCX-3100K 4-Channel Receiver

Designed for both discrete and matrixed 4-channel operation (matrix, SQ logic, discrete).



FM sensitivity 2.2  $\mu$ V; HD 0.89%; (S + N)/N 50 dB stereo; selectivity 40 dB; stereo separation 30 dB. 12 $\frac{1}{2}$  W/ch continuous rms power at 0.8% THD. HD 0.5% and IM 1.0% both at rated output. Response 20-45,000 Hz; power bandwidth 25-40,000 Hz. Has same controls as DCX2700K with addition of mike level control. Outputs: 4 speaker; 2/4 ch recording; DIN connector. Inputs: mag. phono (2); 2/4 ch aux. (4); 2/4 ch tape (4); DIN connector (2); mike. Walnut cabinet. 19 $\frac{1}{2}$ "  $\times$  13 $\frac{3}{4}$ "  $\times$  5" . . . . . \$349.95

### DCX-3500K 4-Channel Receiver

Designed for SQ, discrete, and matrixed 4-

channel operation, 17½ W/ch continuous rms power at 0.8% THD. HD 0.5%, IM 1.0% both at rated output. FM sensitivity 2 µV; HD 0.8%;



(S + N)/N 55 dB stereo; stereo separation 33 dB. Controls: tuning; individual channel level; master volume; bass & treble; function selector; power switch; loudness switch; tape monitor; mike level; 2/4 ch selector; speaker switch; CD-4 adjust (rear panel). Outputs: 4 speaker; 2/4 ch recording; DIN connector. Inputs: magnetic phono; 2/4 ch aux. (4); 2/4 ch tape (4); DIN connector; mike. 19¾" x 12¾" x 6" ..... \$549.95

### SHERWOOD

#### S-7244 4-Ch AM-FM Receiver

20 W rms/ch into 8 ohms with four channels driven (20-20,000 Hz); 23 W/ch at 1000 Hz; HD



& IM dist. 0.5% at 8 ohm rated output, 0.20% at 10 W; power bandwidth 14-50,000 Hz 1% dist.; frequency response 20-20,000 Hz ±0.5 dB (Aux.); FM tuner sensitivity 1.9 µV (IHF); S/N 66 dB; capture ratio 1.5 dB; stereo separation 40 dB at 1000 Hz; frequency response 20-15,000 Hz ±1 dB stereo; features full-logic SQ circuitry; SQ and Logic IC's; FM four-channel broadcast-ready (Aux. 2 input); optional remote "quadrance" control; has full complement of inputs, outputs, filters, controls, and switches; phone jacks for 2- or 4-ch phones. Walnut-grain case. 18¾" W x 5¼" H x 15¼" D. \$499.95

### SYLVANIA

#### RQ3747 4-Channel Receiver

25 W/ch at continuous power (four channels) into 8 ohms from 20-20,000 Hz at less than 0.5% THD. 60 W/ch continuous power in spe-



cial stereo bridge mode. Includes an SQ matrix IC, two SQ positions for image placement control (standard SQ and SQ blend), plus provision for CD-4 discrete disc system with addition of special external discrete phono demodulator. Has master volume plus three separate balance controls for front left-right, rear left-right, and front-to-rear. Features dual FM tuning meters for center tune and S/N ratio. Frequency response at tape input 20-30,000 Hz ±1.5 dB. Input sensitivity: phono 2.6 mV; tape & aux. 150 mV. Input imp.: phono 47,000 ohms; tape & aux. 50,000 ohms. Tape output level for rated aux. & phono input: 150 mV. (S + N)/N below rated output (20-20,000 Hz) at max. volume: phono 60 dB; tape & aux. 70 dB. FM sensitivity (IHF) 1.9 µV; capture ratio 1.5 dB; image rejection

60 dB. Walnut veneer cabinet with extruded aluminum control panel. 6¾" H x 21¼" W x 15" D. .... \$499.95

#### RQ3748 4-Channel Receiver

50 W/ch at continuous power (four channels) into 8 ohms from 20-20,000 Hz. 125 W/ch contin-



tinuous power in special stereo bridge mode. Master volume control plus individual level controls for all four channels. Special image orientation control permits 90, 180, and 270 degree rotation of four channel sound image (changes the channel each speaker produces without rewiring). Other specifications same as RQ3747. Walnut veneer cabinet with extruded aluminum control panel. 6¾" H x 21¼" W x 15" D. .... \$599.95

#### RQ3745 4-Channel Receiver

Similar to RQ3747 except 7½ W rms/ch into 8 ohms with four channels driven (30-20,000 Hz) at 1% THD; FM sensitivity 2.3 µV; S/N 67 dB; single combined AM-FM tuning meter. 6" H x 17¾" W x 15" D. .... \$329.95

RQ3746. Similar to RQ3745 but 15 W/ch into 8 ohms with four channels driven (20-20,000 Hz) at 1% THD; separate AM and FM meters. .... \$379.95

### TECHNICS BY PANASONIC

#### SA 8000X 4/2-Ch. AM-FM Receiver

Features built-in CD-4 demodulator for playback of discrete phono discs plus a variable AFD matrix decoder/synthesizer that can be matched to any matrix system. BTL (balanced transformerless) amplifier design enables 2- or 4-channel stereo operation. Has four VU meters, 6-element ceramic i.f. filters in FM. FM sensitivity 1.9 µV for 30 dB quieting. IHF dynamic power 40 W/ch (160 W total) into 4 ohms (160 W at 8 ohms in 2-channel (BTL) mode). With all channels driven continuous power is 18 W/ch (72 W total) at 4 ohms; 16 W/ch (64 W total) at 8 ohms. In 2-channel (BTL) operation, continuous power with both channels driven is 38 W/ch at 8 ohms. THD 0.5% at rated power. Power bandwidth 5-40,000 Hz. (S + N)/N 72 dB (phono), 94 dB (aux.). .... \$549.95

#### SA-6000X 4/2-Ch. AM-FM Receiver

Features variable AFD matrix decoder/synthesizer that can decode any matrix sys-

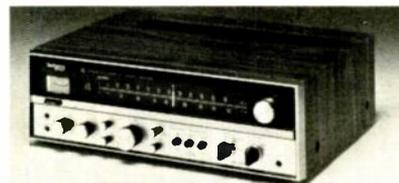


tem, plus inputs to accommodate any 4-channel discrete or 2-channel source. BTL (balanced transformerless) design enables 2- or 4-channel stereo operation. 6-element ceramic filters and monolithic IC's in FM i.f. strip. IHF dynamic power is 30 W/ch (120 W total) into 4 ohms. Continuous power with all channels driven is 16 W/ch (64 W total) at 4 ohms; 14 W/ch (56 W total) at 8 ohms. Continuous 2-channel (BTL) power is 48 W/ch at 8 ohms; 32 W/ch at 8 ohms with all channels driven (64 W total). THD 0.5. at rated power. Power bandwidth 7-35,000

Hz. (S + N)/N 72 dB (phono); 94 dB (aux.). FM sensitivity (IHF) 1.9 µV for 30 dB quieting. .... \$399.95

#### SA-5400X 4/2-Ch. AM-FM Receiver

Designed for any 4- or 2-channel application with complete discrete and matrix capability.



Two-position switch for decoding any matrix source or optimum synthesizing/enhancing. Two tape monitors. The i.f. stages have ceramic filtering and monolithic IC's. FM sensitivity 1.9 µV for 30 dB quieting. IHF dynamic power 17 W/ch (68 W total) at 4 ohms in 4-channel mode. Continuous 4-channel power with all channels driven 9 W/ch at 4 ohms (36 W total); 8 W/ch at 8 ohms (32 W total). Continuous 2-channel (TL) power 25 W/ch with both channels driven; 18 W/ch (36 W total) at 8 ohms. THD 0.8% at rated power. Power bandwidth 7-28,000 Hz. (S + N)/N 75 dB (aux.); 60 dB (phono). .... \$319.95

#### SA-6700X 4/2-Ch. AM-FM Receiver

Features built-in AFD 4-ch scope for audio display to check signal distribution, separation, crosstalk, balance. Scope also serves as precise center-channel tuning indicator and multipath signal indicator. Also features variable AFD matrix decoder/synthesizer that can be set for any matrix system plus inputs to accommodate any 4-ch discrete or 2-ch sources. 240 W total (IHF) music power at 4 ohms; 45 W continuous rms power per channel at 4 ohms; 32 W at 8 ohms. With all four channels driven: 30 W/ch at 4 ohms; 23 W/ch at 8 ohms. THD 0.5% at rated



power. Power bandwidth 7-40,000 Hz. (S + N)/N 70 dB (phono), 90 dB (aux.). FM sensitivity (IHF) 1.8 µV for 30 dB quieting. Ceramic filtering and monolithic IC's in FM. .... \$669.95

#### SA-8500 X 4/2-Ch. AM-FM Receiver

Features built-in CD-4 demodulator for playback of discrete discs, plus 2-pos. matrix de-



coder; automatic separation and carrier-level adjust adapts cartridge characteristics automatically; BTL amplifier design for full output power in both 2-ch & 4-ch modes. Has four VU meters plus signal-strength meter; CD-4 hi-blend switch for noisy records; three 4-ch tape monitors. Accommodates two sets of 4-ch speakers or four sets in 2-ch mode; FM MPX output; all-stage direct-coupled OCL power amps; speaker protection circuit; low-noise phono preamp; click-stop tone controls; hi & lo filters. 34 W rms/ch into 8 ohms in 4-ch mode; 85 W rms/ch into 8 ohms in 2-ch BTL mode; THD 0.5%; IM 0.7%; power bandwidth 5-40,000 Hz; S/N 90 dB (Aux.), 70 dB (phono). FM sensitivity 1.9 µV for 30 dB quieting; FM THD 0.4% stereo; separation 40 dB at 1000

## 9 Receivers

Hz. Walnut cabinet included. 6 $\frac{1}{8}$ " H x 21 $\frac{1}{8}$ " W x 15 $\frac{1}{16}$ " D ..... \$739.95  
**SA-7300X.** Similar to SA-8500X except 10 W rms/ch at 8 ohms in 4-ch. mode, 24 W rms/ch into 8 ohms in 2-ch BTL mode; power bandwidth 5-25,000 Hz. 6 $\frac{1}{8}$ " H x 19 $\frac{1}{4}$ " W x 15 $\frac{1}{16}$ " D. .... \$529.95

### TOSHIBA

#### SA-304 4-Channel AM-FM Receiver

15 W/ch continuous power (60 W total) into 8 ohms at 0.8% HD and each channel driven separately (20 W/ch for 2-channel operation). Response 20-40,000 Hz  $\pm$ 2 dB. Power bandwidth 20-30,000 Hz at 0.8% HD. Sensitivity: mag. phono 3 mV; aux. 150 mV. FM sensitivity 2.5  $\mu$ V for 30 dB quieting. Capture ratio 2.5 dB. Has built-in RM (Regular Matrix) and SQ 4-channel matrix decoder. Has input provisions for CD-4 discrete decoder. Has universal line inputs. 15 $\frac{3}{4}$ " x 4 $\frac{1}{2}$ " x 11 $\frac{3}{8}$ " ..... \$349.95

#### SA-504 4-Channel AM-FM Receiver

35 W/ch (140 W total) continuous power into 8 ohms & at 0.4% THD and with each channel driven separately (70 W/ch for 2-channel stereo). Response 20-40,000 Hz  $\pm$ 1 dB; power bandwidth 10-80,000 Hz. FM sensitivity 1.8  $\mu$ V for 30 dB (S + N)/N; capture ratio 1.5 dB. Input sensitivity: mag. phono 2.5 mV; condenser phono 30 mV; aux. & tape 160 mV. Has built-in



RM & SQ 4-channel matrix decoder, FM muting, signal-strength & center-of-channel tuning meters, and tape monitor. Can be used for 4-channel discrete playback. 20" x 4 $\frac{7}{8}$ " x 14". .... \$569.95

#### SA-514 CD-4 AM-FM Receiver

20 W rms/ch into 8 ohms with all channels driven at 0.8% HD (20-20,000 Hz); 45 W/ch in stereo mode; FM sensitivity 2  $\mu$ V (IHF); S/N 65 dB; capture ratio 2 dB; selectivity +400 kHz 60 dB; -400 kHz 60 dB; HD 0.3%; input sensitivity: mag. phono 2.5 mV; condenser phono 30 mV; aux. & tape 160 mV; features built-in CD-4 demodulator; RM and SQ decoder; FM muting; signal-strength & center-of-channel tuning meters; tape monitoring. 20" x 4 $\frac{7}{8}$ " x 14" ..... \$749.95

### YAMAHA

#### CS-70R 2/4 Ch AM-FM Stereo Receiver

12 W/ch continuous rms power with all four channels driven; 22 W/ch into 8 ohms with two



channels driven; power bandwidth 30-20,000 Hz. Has SQ decoder; balance, volume, and tone controls. FM sensitivity 2.0  $\mu$ V; capture ratio 3 dB; FM image rejection 20 dB at 90 MHz; stereo separation 40 dB; (S + N)/N 65 dB. Features digital clock radio with sleep switch, 4-channel phones. 17 $\frac{1}{4}$ " W x 14.5" D x 5.25" H. . . \$370.00

## 9 Cartridges & Record Players

### ADC

#### Super-XLM Cartridge

For both 4-channel & stereo use; specially shaped stylus for discrete 4-channel discs; output 2.5 mV at 5.5 cm/sec; tracking force range 0.5-1.25 g; frequency response 10-20,000 Hz  $\pm$ 2 dB, 20,000-50,000 Hz  $\pm$ 10 dB; channel separation 25 dB; compliance 50 cm/dyne x 10 $^6$ . .... \$75.00

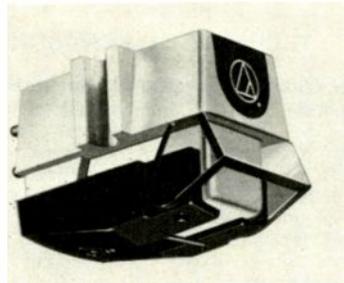
### AUDIO-TECHNICA

#### AT12S Dual-Magnet Cartridge

Designed specifically for use with discrete four-channel discs (CD-4), matrixed four-channel as well as mono and stereo records. Frequency response 15-45,000 Hz; channel separation (at 1 kHz) 25 dB; channel balance 2 dB. Tracking force 1-2 g (recommended tonearm adjustment for Shibata stylus); dual-magnetic low-mass magnetic system. Vertical tracking angle 20°. Has tapered cantilever for lower mass. Comes with Shibata stylus, stylus guard. .... \$64.95

**AT 14S.** Similar to AT12S except channel balance 1.5 dB. .... \$75.00

**AT15S.** Similar to AT12S except 1 kHz channel separation is 25 dB minimum; channel balance 1.5 dB. Supplied with individual frequency-response curve. .... \$100.00

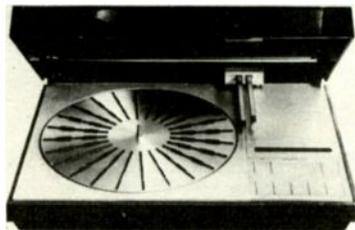


**AT20SL.** Limited Edition/Reference Standard, selected for its performance parameters; response 5-50,000 Hz; channel balance 1.0 dB; 1 kHz channel separation 25 dB minimum; supplied with individual frequency-response curve. .... \$175.00  
 Models AT14, AT15 & AT20SL have grain-oriented nude Shibata diamond stylus for longer stylus life and reduced record wear.

### BANG & OLUFSEN

#### Beogram 4002 4-Ch. Turntable

Two-speed (33 & 45 rpm, electronic selection), belt-driven turntable; slow-speed, 16-pole syn-



**Turntables listed here include CD-4 cartridges. Also, see Section 3 for turntables with low-capacitance tonearm leads for four-channel use.**

chronous motor controlled by electronic circuit; wow & flutter  $\pm$ 0.025%; rumble 65 dB; anti-skating control is parallel tracking, error-angle compensated; patented electro-pneumatic damping system lowers tonearm at precise, controlled speed. Turntable comes with the MMC6000 cartridge which will reproduce stereo, 4-channel matrix, and CD-4 records. Fine-speed adjustment greater than 6%. Pendulum and leaf-spring suspension has resonance of 4.5 Hz. 4" x 19 $\frac{1}{4}$ " x 15" ..... \$650.00  
**MMC6000.** Stylus with Pramanik stylus (multi-radial diamond) ..... \$86.00

### BSR McDONALD

#### 4620W 4-Ch. Automatic Turntable

Two-speed (33 & 45 rpm) for 7", 10" & 12" records; features variable pitch control & strobe disc; synchronous motor; heavy die-cast platter; viscous damped cue & pause control; dual-range anti-skate control; slide-in cartridge head; comes with Audio-Technica AT12S 4-channel cartridge, low-capacitance cables, walnut base, and dust cover. .... \$173.80

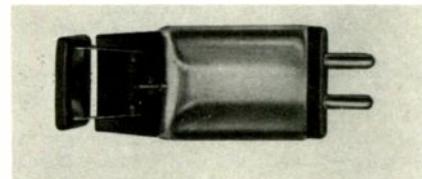
#### 4310X 4-Ch. Automatic Turntable

Has 4-pole induction motor; anti-skate; cue & pause controls; accessory panel; comes with Audio-Technica AT12S 4-channel cartridge, low-capacitance cables, wood-grained base, and hinged dust cover. .... \$135.80

### EMPIRE

#### 4000D/III Wide-Response Cartridge

Will play any 4-channel or stereo system; frequency response 5-50,000 Hz; output 3.0 mV/



ch; channel separation 35 dB (left to right), 25 dB (front to back); tracking force  $\frac{1}{4}$  to  $\frac{1}{2}$  g; miniature nude diamond with 0.1-mil tracing radius. .... \$149.95  
**4000D/II.** Same except frequency response 5-45,000 Hz; tracking force  $\frac{1}{4}$  to  $\frac{1}{2}$  g. . . \$124.95  
**4000D/I.** Same except frequency response 10-40,000 Hz; tracking force  $\frac{1}{4}$  to 2 g. . . \$84.95

### GLENBURN

#### 2155A/Quad Automatic Turntable

Heavy-duty 4-pole motor; 11" turntable platter with protective mat; bi-directional viscous-



damped cue and pause control; adjustable anti-skate control calibrated for conical and elliptical styli; calibrated stylus pressure control; interchangeable automatic and manual spindles; ball-race pivoted tonearm; record stabilizer arm with fingerlift. Comes with Audio-Technica's AT12S wide-response CD-4 cartridge; designed to perform in the CD-4 mode when used with high-performance CD-4 equip-

ment. Has hinged dust cover and base and low-capacitance audio cords. . . . . \$149.95

## GRADO

### F+ Series CD-4 Pickups

Available in three groups for varied applications. All series feature low electrical inductance and thus tonearm cable length is not critical for any length up to 15 feet; low mechanical tip mass permitting use of standard stylus shapes.

**Professional.** Designed for high output and stability under severe use; suitable for broadcast purposes. Frequency response 40 kHz and tracking capability 2-3 grams; for use with record changers and tonearms which will not track 1 gram.

FTR+ Spherical diamond stylus . . . . . \$9.95

FTE+ Elliptical diamond stylus . . . . . \$19.95

FCR+ Specially selected unit with spherical diamond stylus. . . . . \$25.00

FCE+ Specially selected unit with elliptical diamond stylus. . . . . \$35.00

**Flux-Bridger.** Uses entirely different generator system from Professional Series. Tip-mass reduction results in frequency response beyond 50 kHz and tracking force from 1-2 grams. For use in tonearms and changers with 2-gr tracking capability.

FTR+ Spherical diamond stylus . . . . . \$11.95

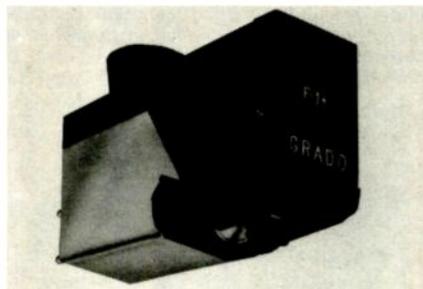
FCR+1 Specially selected unit with spherical diamond stylus . . . . . \$39.95

**Super Flux-Bridger.** Designed for use with highest quality equipment. Tracking force 3/4-2 gr.

F3E+ Elliptical diamond stylus . . . . . \$49.50

F2+ Elliptical diamond stylus . . . . . \$60.00

F1+ Twin-tip elliptical diamond stylus. . . . .



..... \$75.00

## JVC

### 4VC-5244 4-Channel Record Changer

CD-4 design with built-in 4-channel demodulator. Has 4-pole outer rotor motor. Response 20-



16,000 Hz. Output 300 mV at 5000 ohms. Semi-adjustable separation control. 7 7/8" x 15 3/4" x 17 1/4" D. . . . . \$279.95

### 4MD-20X 4-Channel Cartridge

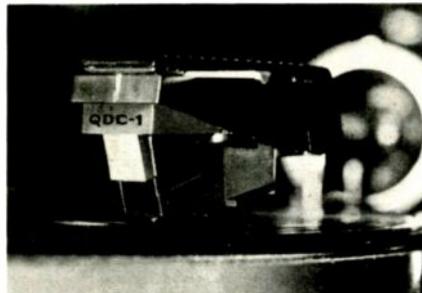
CD-4 design to be used with the RCA/JVC 4-channel disc and Shibata stylus. Response 20-60,000 Hz. Output 2 mV. Crosstalk 30 dB. Tracking force 1.5-2g. . . . . \$79.95

1975 EDITION

## MICRO/ACOUSTICS

### QDC-1q CD4 Phono Cartridge

Features a self-energized IC transducer which puts out a linear signal from 5-50,000 Hz; stylus bar directly attached to transduction IC to eliminate losses inherent in flux-field coupling. Response 5-20,000 Hz  $\pm 2$  dB; 20,000-50,000 Hz  $\pm 2$  dB. Tracking force range 0.9-1 1/2 g; channel separation 30 dB at 1 kHz, 20 dB at 10 kHz.



Output voltage: 3 mV each channel at 5 cm/sec peak recorded velocity. 47,000 ohms recommended load. Comes with "Quadra-Point" stylus . . . . . \$120.00

## PANASONIC

### EPC-450C-II CD-4 Cartridge

Wide-range, linear strain-gauge semiconductor cartridge; response 0-50,000 Hz; requires complementary demodulator with built-in bias supply; non-capacitive, non-inductive character matches preamp input circuit; rated output voltage 5 mV (50 mm/sec, 1 kHz, lateral, 4 mA); separation 20 dB at 1000 Hz; 15 dB at 30,000 Hz; imp. 1000 ohms pure resistance; compliance  $10 \times 10^{-9}$ ; tracking force 1.5-2.5 g. Weight 3.2 g. . . . . \$64.95

### SL-750 2/4-Ch Changer

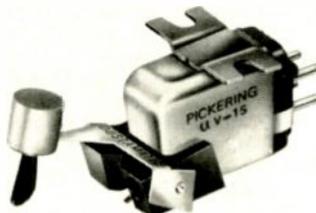
Full-size 2-/4-channel record changer with built-in CD-4 demodulator, semiconductor cartridge with diamond stylus; features CD-4 IC chip, cueing and pause control; anti-skate adjustment; umbrella spindle; can be used with the company's "Series 44" products. Walnut finish. . . . . \$159.95

**SL-850.** Similar to SL-750 but with pivoted tonearm with adjustable counterweight and detachable cartridge shell; viscous cueing and pause control. . . . . \$199.95

## PICKERING

### UV-15/2400-Q Cartridge

For discrete 4-channel playback; tracking force with Dustomatic brush 3 g  $\pm 1/2$  g (resulting tracking force 2 g  $\pm 1/2$  g); frequency response 10-50,000 Hz (when terminated by 100k ohm



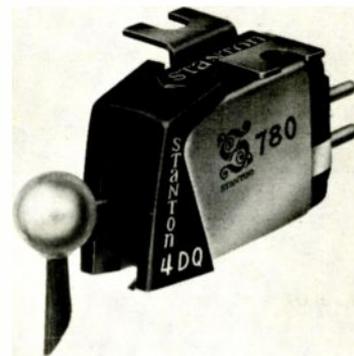
load and 100 pF); output 3.3 mV  $\pm 2$  dB; channel separation 35 dB; inductance each channel 350 mH; resistance each channel 750 ohms; comes with "Quadrahedral" diamond stylus assembly. . . . . \$125.00

**UV-15/2000Q.** Similar to 2400-Q except response 20-45,000 Hz; channel separation 30 dB. . . . . \$69.90

## STANTON

### 780/4DQ Four-Channel Cartridge

Designed to play the new discrete 4-channel records as well as a standard stereo disc or 4-ch



matrix-derived compatible records. Response 10-50,000 Hz (when terminated in recommended load of 100 kohms and 100 pF). Tracking force 1-3 g; channel separation 35 dB. Output: 0.7 mV/cm/sec  $\pm 2$  dB. Inductance & resistance (each channel): 350 mH; 750 ohms. Features new "Quadrahedral" stylus. . . . . \$125.00

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## Tape Machines

## AKAI

### GX-400DSS 4-Channel Tape Deck

Designed for 4-channel record/playback. Will handle up to 10 1/2" reels. Has four GX glass and crystal heads; closed-loop dual-capstan drive system; ADRS; quadra-sync for synchronizing one track onto another; automatic and manual reverse in playback and record; three motors; separate input controls for front and rear channels for mike/line mixing; separate output controls for front and rear channels; standard or low-noise tape selector switch; four-digit tape counter; tape/source monitor switch; separate illuminated pause control with lock. Has three speeds (15, 7 1/2 & 3 3/4 ips); four illuminated VU meters; front/rear mike inputs on front panel; front/rear headphone inputs on front panel; remote-control input socket on back panel. Oiled walnut cabinet . . . . . \$1495.00

### 1730D-SS 4-Channel Tape Deck

Features surround stereo. Four-track, 4 & 2 channel play and record with two erase heads



(2-channel & full track) for compatibility with 2-channel stereo. Features automatic shutoff, pause control, universal voltage selector, and two speeds (7 1/2, 3 3/4 ips). Response 30-22,000 Hz  $\pm 3$  dB, wow & flutter 0.12% rms, dist. 1.5%, all at 7 1/2 ips. Has mike (0.4 mV) and line (40 mV) inputs plus line (1.23 V) output. 16 1/2" x 18" x 9 1/2" . . . . . \$419.95

# 9 Tape Machines

## CR-80D-SS 4-Ch. 8-Track Deck

Features 2- or 4-channel play/record. Response 30-16,000 Hz  $\pm 3$  dB. Wow & flutter 0.25% rms;



(S + N)/N 47 dB. Has four mike (0.5 mV) & line (50 mV) inputs; four record-level meters; universal power supply . . . . . \$329.95

## BSR McDONALD

### TD-8QW 8-Track Stereo/4-Ch Deck

Deck automatically selects stereo or discrete 4-channel tapes. Includes 0.40 V stereo/4-ch



preamp. Comes with wood grain cabinet and connecting cables. . . . . \$99.95

## CHANNEL MASTER

### 6690 4-Ch 8-Track/Receiver

5 W rms/ch; 4-ch discrete 8-track and SQ 4-channel FM reception; features push-button



control of channel selection, loudness, FM muting, a.f.c., "on/off;" remote-control panel with 14-ft cord; automatic and manual track changing. Control center 5 $\frac{1}{2}$ " H  $\times$  23 $\frac{3}{4}$ " W  $\times$  12 $\frac{5}{8}$ " D. Air-suspension speakers (2 pairs) 18" H  $\times$  11" W  $\times$  7" D . . . . . \$349.95

## CONCORD

### CD-8-4 4-Channel, 8-Track Tape Deck

Designed as either 2- or 4-channel cartridge tape player. Wow & flutter 0.15%. Response



100-9000 Hz; (S + N)/N 44 dB; 1.5% THD at 1000 Hz. Output adjust 500 mV. 4" H  $\times$  8 $\frac{3}{4}$ " W  $\times$  10 $\frac{1}{2}$ " D. Walnut cabinet . . . . . \$114.95

## CROWN INTERNATIONAL

### CX844 Tape Recorder

Three-speed (15, 7 $\frac{1}{2}$ , 3 $\frac{3}{4}$  ips), 4-channel, 4-track, 3-motor design. Will handle up to 10 $\frac{1}{2}$ " reels. Has 3 heads. Response 20-25,000 Hz  $\pm 2$  dB. Wow & flutter 0.09% at 7 $\frac{1}{2}$  ips. Features braking, pause control, four VU meters, remote record, and automatic photocell shutoff . . . . . \$2995.00

### SX744 Tape Recorder

Two-speed (7 $\frac{1}{2}$  & 3 $\frac{3}{4}$  ips), 4-track, 4-channel, 3-motor design. Will handle up to 10 $\frac{1}{2}$ " reels. Has 3 heads. Response 20-25,000 Hz  $\pm 2$  dB. Wow & flutter 0.09% at 7 $\frac{1}{2}$  ips. Features braking, pause control, four VU meters, and automatic shut-off . . . . . \$1995.00

## DOKORDER

### 7140 2/4 Ch Stereo Tape Deck

Provides complete 4-channel record & playback facilities. Has three motors (synchronous capstan and eddy-current induction reel), mechanical speed change; solenoid operation. Tape speeds 7 $\frac{1}{2}$  & 3 $\frac{3}{4}$  ips; wow & flutter  $\pm 0.08\%$



max. at 7 $\frac{1}{2}$  ips. Will handle 5" & 7" reels; operates horizontally or vertically. Has three separate heads; full tape/source monitoring; NAB equalization. Response 30-22,000 ( $\pm 3$  dB) 40-20,000 Hz) at 7 $\frac{1}{2}$  ips; (S + N)/N 55 dB at 7 $\frac{1}{2}$  ips; crosstalk 55 dB at 1000 Hz; stereo channel separation 45 dB at 1000 Hz. Includes Multi-Sync function which permits recording separate tracks individually and re-recording of any individual track in perfect sync with other three tracks. Built-in sound-on-sound, sound-with-sound, and echo circuitry. Includes four VU meters, quick-change heads, turntable height adjustments, automatic end-of-reel shut-off, and easy-threading operation. 16 $\frac{1}{8}$ " W  $\times$  17 $\frac{3}{4}$ " H  $\times$  6 $\frac{3}{4}$ " D. . . . . \$629.95

### 1140-H Four-Channel Tape Deck

A miniature recording studio with complete 2- and 4-channel recording and playback facilities, Multi-Sync function and full logic control, tape transport, and 15 & 7 $\frac{1}{2}$  ips speeds. Fea-



tures separate playback controls to balance 4-channel output for listening or mix-down dubbing; four illuminated VU meters; separate tape/source monitoring switches for each channel; 4-channel mike and line mixing. Multi-Sync feature permits recording of separate tracks and instruments individually and re-recording any individual track at any time in perfect sync with the other three tracks. Electronic echo, sound-on-sound, and sound-with-sound are switch selected. Response 25-26,000 Hz (30-23,000 Hz  $\pm 3$  dB) at 15 ips; 25-24,000 Hz (30-20,000 Hz  $\pm 3$  dB) at 7 $\frac{1}{2}$  ips; S/N 60 dB; crosstalk 58 dB; wow & flutter 0.04% at 15 ips, 0.06% at 7 $\frac{1}{2}$  ips. 17 $\frac{3}{4}$ " W  $\times$  15 $\frac{1}{4}$ " D  $\times$  2" H. . . . . \$1199.95

## FISHER

### 40 4-Channel System

Combines an AM/FM stereo receiver, a 4-speed automatic turntable with magnetic cartridge, and a 4- and 2-channel 8-track tape cartridge player. Includes matrixing circuit to provide 4-channel reproduction from conventional 2-channel programs. 25 W/ch (100 W total) dy-



amic (EIA) power at 5% HD. FM sensitivity 2.5  $\mu$ V. 25"  $\times$  8 $\frac{3}{4}$ "  $\times$  17 $\frac{1}{2}$ " D . . . . . \$499.95

### 4001 "MusiCenter" System

System includes 5 W rms/ch strapped power amplifier; separate turntable; SQ circuit; four two-way speaker systems (each with 6" woofer & 2" tweeter, 3000 Hz crossover). FM sensitivity 4.0  $\mu$ V; selectivity 36 dB; S/N 60 dB; capture ratio 4 dB; has full complement of controls. 18 $\frac{1}{2}$ " W  $\times$  14" D  $\times$  5" H. . . . . \$399.95 Also available with 3-way speaker systems (each with 8" woofer, 4 $\frac{1}{2}$ " mid-range, 2" tweeter, crossovers 800 & 3000 Hz) at additional cost. 4081. Same as 4001 except includes a built-in



8-track cartridge player. 23 $\frac{3}{4}$ "  $\times$  14"  $\times$  5". . . . . \$449.95 Same speaker options as 4001.

## GENERAL ELECTRIC

### TA400 2- /4-Ch Player Deck

Automatic start when cartridge is inserted; auto or manual program selection; indicator lights; mixing switch for playing 4-ch tapes through stereo system; output jacks for connection to stereo or 4-ch system; patchcords. .... \$99.95

### TA-640 2- /4-Ch Deck

Provides 2-ch record and 2- /4-channel playback; automatic mode selection; pause control for editing or cueing; manual or auto eject; dual lighted VU meters; record-level controls; tape timer; fast-forward; front-panel mike jacks; comes with mikes and patchcords. .... \$219.95

### SC4210 4-Ch. /8-Track System

Combines a 4-ch AM-FM stereo receiver with 4-ch/2-ch 8-track cartridge player and four speaker systems; will play SQ and CD-4 records with accessory record changer; has 4-ch headphone jacks; matrix 4-ch decoder; four-position mode switch for SQ, synthesis, or stereo operation; lighted slide-rule dial; vernier tuning; 6 1/2" dual-cone speaker in each 17" x 1" enclosure; formed grille cloths; full complement of inputs and outputs. .... \$319.95

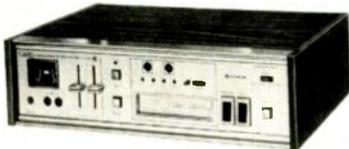
**SC4205.** Similar to SC4210 except 40 W peak music power; speaker systems in air-suspension enclosures with 8" woofer & 3" tweeter in each. .... \$349.95

**SC4300.** Similar to SC4205 except has built-in SQ and RM decoders as well as matrix decoder; 3-speed automatic record changer. .... \$469.95

## HITACHI

### TRQ-154 4-Ch Play/2-Ch Record

8-track four-channel playback with two-channel



recording facilities; features automatic stop; fast-forward; 3-digit tape timer; pause switch; two VU meters; response 40-12,000 Hz; wow & flutter 0.2%; S/N 55 dB; two mike & two aux. inputs; line & headphone outputs. 16 1/16" W x 4 3/16" H x 10 1/16" D. .... \$199.95

### SP-2980 4-Ch Receiver/8-Track

AM-FM stereo receiver combined with 8-track cartridge player and four speakers (rear speakers wireless); has four amps for discrete 4-ch tape reproduction; built-in SQ/regular matrix decoder; normal/reverse switch (front-rear programs); rear function switch for stereo (using 4 speakers), SQ and regular matrix, Aux., and tape. Tuner 20 7/8" x 5 7/16" x 12 1/16" D; speakers 12 1/16" W x 20 7/16" H x 6 5/8" D. .... \$469.95

## JULIETTE

### C802-82 Four-Channel System

Combines a 4-channel AM-FM stereo receiver, 8-track cartridge player, built-in SQ circuit for FM broadcasts and 4-channel records, and four speaker systems; features illuminated vernier tuning dial; omnidirectional single-lever joystick for speaker balance; rotary 4-ch mode switch; master volume; separate front & rear tone controls; 8-track pilot light; stereo indicator lamp; automatic and manual push-button program changers; headphone output jacks; four aux. inputs; four speaker jacks. Speakers 16 1/2" H x 10 1/2" W x 6 1/4" D. Control center 5 1/4" H x 20" W x 12 1/2" D. .... \$329.95

**C930-82.** Same as C802-82 except includes a

1975 EDITION



built-in automatic BSR changer with dust cover. Control center 9 3/4" H x 20" W x 6 1/4" D. .... \$399.95

## JVC

### 4RD-1406 4-Channel Tape Deck

Will play/record 2- and 4-channel reel-to-reel tape. Two speeds (3 3/4 & 7 1/2 ips). Response 30-



18,000 Hz  $\pm$  3 dB at 7 1/2 ips with low-noise tape. (S + N)/N -52 dB; wow & flutter 0.1% at 7 1/2 ips. 57 kHz bias & erase. Has two heads (record/play & erase), mike (0.5 mV) & line (80 mV) inputs, and line output (0-1.2 V). Features low-noise or standard tape switch. 7 3/8" x 16" x 13 1/2" D. .... \$429.95

### 4ED-1205 4-Channel 8-Track Deck

Will play back 2- and 4-channel and record 2-channel cartridge tapes. Response 40-12,000



Hz  $\pm$  3 dB. (S + N)/N -50 dB from peak level; wow & flutter 0.2% rms. Has line output (0-1 V) and mike (0.8 mV) & aux. (80 mV) inputs. Features fast-forward, four input-level controls, tape counter, automatic repeat and stop. 16 5/8" x 4 3/8" x 11" D. .... \$229.95

## LAFAYETTE

### RK-94 2/4 Channel Tape Deck

Plays all pre-recorded 8-track cartridges: stereo, SQ and discrete Q8 4-channel; has program indicator lights; manual program selector; quadrasonic 4-channel indicator; hinged cartridge door. Walnut finish case with black & silver front panel. 8" x 4 1/4" x 8 1/2". .... \$59.95

### SQR-40 4-Ch. 8-Track/Receiver System

Receiver features sensitive AM-FM stereo tuner, 4-channel "SQ-M" decoder, "Composer" derived 4-channel from 2-channel sources, discrete 4- & 2-channel 8-track tape player, and four separate amplifiers. Comes with four wide-range walnut speaker systems (8 1/2" W x 14 1/2" H x 5 1/2" D). 21 1/2" W x 11 1/8" D x 4 3/8" H. .... \$189.95

## PANASONIC

### RS-862S 8-Track Recorder/Radio

Four-channel, 8-track player which will record in 2-channel. Has AM-FM stereo radio, four built-in amplifiers, two VU meters. With op-



tional mike can be used for sound with sound. Features automatic stop, fast-forward, a stereo broadcast indicator light, continuous tone control, two headphone jacks, and a 4-channel MPX jack. Comes with four matching 2-way walnut speakers with latticework grilles. .... \$399.95

### RE-8244 8-Track Deck/Receiver

Discrete 4-channel, 8-track system with AM-FM stereo receiver with "Quadruplex IV" 4-ch simulation from stereo sources; has four slide volume controls; continuous tone control; blackout & illuminated slide-rule tuning; FM stereo eye; program selector; speaker jacks twin headphone jacks; remote 4-ch balancer. Comes with four separate air-suspension speakers. Can be used with optional CD-4 record changer for discrete 4-ch sound. .... \$269.95

**SE-4400.** Similar to RE-8244 but includes 3-speed automatic CD-4 record changer as well; adaptable for discrete and matrix sound; 4-ch Aux. input for addition of any 2/4-ch accessory. .... \$349.00

**RE-8860.** Similar to RE-8244 but has built-in 4-channel balance scope. .... \$359.95

**RE-8585.** Similar to SE-4400 but with a 4-channel "radar" eye to indicate a CD-4 disc is being played. .... \$429.95

**SE-5757.** Similar to SE-4400 but with auto-sensor for 2/4-ch records and tapes; proper matrix or CD-4 circuitry selected automatically. .... \$499.95

## PIONEER

### RT-1020L Stereo Tape Deck

Three-motor, 3-head stereo tape deck with 4-channel reproduction capability. Has 4/8 pole two-speed hysteresis synchronous motor (capstan drive) and 6-pole inner-rotor induction motor (reel drive). Operates at 7 1/2 & 3 3/4 ips. Wow & flutter less than 0.08% (W rms) at 7 1/2 ips. (S + N)/N 55 dB; dist. less than 1%. Re-



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## Tape Machines

sponse 40-20,000 Hz  $\pm 3$  dB at 7 1/2 ips. Crosstalk 60 dB, stereo channel separation 50 dB both at 1000 Hz. Inputs: mike 0.25 to 80 mV; line 50 mV to 25 V; DIN 15 mV. Outputs: line 316 mV; DIN 316 mV; headphone 40 mV (4 to 16 ohms). Features 3-position bias selector, 2-position equalizer selector, lockable pause lever, 4-digit tape counter, independent left/right tape monitor switches, 4-ch./2-ch. playback mode selector, independent right/left recording mode selectors, 4-ch front, rear monitor mode selector, independent mike & line recording level controls, output level controls. Will accept up to 10 1/2" reels. 17 1/8" W x 17" H x 8 7/8" D. .... \$649.95  
**RT-1020H.** Same as RT-1020L except 15 & 7 1/2" ips; response 30-22,000 Hz  $\pm 3$  dB at 15 ips; wow & flutter 0.04% W rms at 15 ips. 120-V, 60-Hz operation. .... \$649.95

## RADIO SHACK

**Q-800 4-Channel Tape 8-Track Deck**

Will play 2- or 4-channel programs. Has "Auto-Stop." Tape head automatically senses and



adjusts to either 2- or 4-channel tapes. Walnut-grain wood cabinet with aluminum front panel. .... \$99.95

**494 4-Channel Deck**

Three-speed (7 1/2, 3 3/4 & 1 7/8 ips), four-track, three-head design. Has four discrete channels, four VU meters, and level controls. Response 50-18,000 Hz; wow & flutter 0.13% rms at 7 1/2 ips. Records discrete 4-channel and standard 2-channel stereo. Walnut wood cabinet with brushed aluminum front panel. 16" x 14 1/8" x 6 5/8" ..... \$329.95

## SANSUI

**QD-5500 2/4 Ch Record/Play Deck**

Two-speed (7 1/2 & 3 3/4 ips) deck. Will record and play back 4-track stereo or 4-channel. Wow & flutter 0.07%. Response 15-25,000 Hz at 7 1/2 ips. (S+N)/N 60 dB. Has three heads, three motors, three-way mixing. Features four mike &



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four line inputs. Standby position for easy editing. Overall size 16 7/8" W x 21 7/8" H x 10 7/8" D ..... \$799.95

## SANYO

**RD-8200 8-Track 2/4 Ch Player Deck**

Will play 2- or 4-channel 8-track cartridges. Features fast-forward, automatic sensing sys-



tem for 2- & 4-channel cartridges. Response 50-12,000 Hz. (S+N)/N 45 dB. Wow & flutter 0.2%. 13" x 12 3/8" x 4 3/4" ..... \$149.95

**DXL-5486 2/4 Ch Music System**

Combines an AM-FM stereo receiver, a 2/4-channel 8-track tape deck, SQ circuitry; four amplifiers; and four separately housed speaker systems (11 7/8" W x 7 7/8" D x 17 3/8" H) each with an 8" full-range air-suspension speaker, a mid-range whizzer, and a directional tweeter. 10 W/ch power output. Four-channel discrete tapes or CD-4 records (with adapter) are played through the system's four power amplifiers. Features bass & treble slide controls, 4-ch headphone output jacks; phono inputs; output jacks for 2- or 4-ch tape recording ... \$299.95

**GXT-4831 2/4 Ch Music System**

Combines an AM-FM stereo receiver; 4-ch matrix decoder circuit; four power amplifiers; 2/4 ch 8-track tape deck; automatic record changer; and four separately housed bookshelf speaker systems (9 7/8" W x 7" D x 15 3/8" H) each with a full-range speaker. Will handle SQ records or 4-ch discrete 8-track tapes. 10 W/ch power output. Has inputs for 4-ch stereo playback from reel-to-reel tape recorders and outputs for tape recording from radio, built-in 8-track deck, or from the phonograph. 19 1/2" x 14 1/2" x 9 1/2" ..... \$299.95

**GXT-4621 2/4 Ch Music System**

Combines an AM-FM stereo receiver; four amplifiers; matrix decoder circuit; cassette tape



deck; automatic 3-speed record changer; and four separately housed speaker systems (9 7/8" W x 7" D x 15 3/8" H) each with full-range speaker. The cassette deck will record in 2-ch stereo at the same time 2-ch stereo or 4-ch SQ stereo discs are played; recorded cassettes may be played back in 4-ch stereo. 10 W/ch power output. 19 1/2" x 14 1/2" x 9 1/2" ..... \$349.95

**DXT-5489 2/4 Ch Music System**

Combines AM-FM stereo receiver; four amplifiers; SQ circuitry; 2/4 ch 8-track tape deck; Garrard automatic record changer; four separately housed speaker systems (11 7/8" W x 7 7/8" D x 17 3/8" H) each with an 8" full-range air-suspension speaker, a mid-range whizzer, and a directional tweeter ..... \$349.95

**GXT-4652 2/4 Ch Music System**

Combines AM-FM stereo receiver, four amplifiers; decoder matrix circuitry; cassette tape deck; Garrard automatic record changer; four

separately housed speaker systems. 12 1/2 W/ch power output. Features two recording level meters; automatic stop; automatic eject on cassette deck. 21 1/2" x 14 1/2" x 9 1/2" ... \$399.95

**DXL-5491 2/4 Ch Music System**

Combines AM-FM stereo receiver; four amplifiers; matrix circuitry; 8-track record deck; four



separately housed speaker systems (same as in DXT-5489). 20" x 12 1/2" x 6" ..... \$479.95

**GXT-4881 2/4 Ch Music System**

Combines AM-FM stereo receiver; Garrard automatic record changer; 8-track tape deck; four amplifiers; decoder matrix circuitry; and four separately housed speaker systems (same as in DXT-5489). 12 1/2 W/ch power output. 21 1/2" x 14 1/2" x 9 1/2" ..... \$479.95

**DXT-5341 2/4 Ch Music System**

Combines AM-FM stereo receiver; cassette tape deck; 8-track tape player; automatic record



changer; decoder matrix circuitry; four amplifiers; and four separately housed speaker systems. 12 1/2 W/ch power output. 20" x 14" x 10". ..... \$579.95

**RD-8010 8-Track 2/4 Ch Player Deck**

Will play both 2- and 4-ch 8-track cartridges. Features include automatic selection of correct playback circuits; channel indicator lights; program selector switch. Response 50-12,000 Hz; (S+N)/N 42 dB; wow & flutter 0.2%. 9" x 8 1/2" x 3 1/4" ..... \$69.95

## SONY from SUPERSCOPE

**TC-277-4 Quadradial Tape Deck**

Reel-to-reel, 3-speed (7 1/2, 3 3/4, 1 7/8 ips), 4-channel, in-line design. Response 50-16,000 Hz  $\pm 3$  dB at 7 1/2 ips; S/N 52 dB; wow & flutter 0.12% at 7 1/2 ips. Has two heads (4-channel erase & record/play), four inputs, and four line



outputs (1/ch). Input sensitivity 0.06 V. 15 3/4" W x 7 3/4" D x 15 1/2" H ..... \$469.95

**TC-854-4S 4-Channel Tape Deck**

Three-motor, 3-speed (3 3/4, 7 1/2 & 15 ips) design with 10 1/2" reel capacity. Will record/play 2 or 4 channel. Features vari-speed pitch control and Sony's "Synchro-Trak" for precise synchronization of each track. Response 30-18,000 Hz ±2 dB at 7 1/2 ips (S + N)/N 56 dB with standard tape (59 dB with SLH-180 tape). Wow & flutter 0.04% at 7 1/2 ips. Has four VU meters, sound-on-sound capabilities, record equalization switch for standard or low-noise, high-output tape. 17 3/8" W x 22" H x 10" D. \$1795.00

**TC-258 Quadradial 8-Track Deck**

Playback of 4/2 channel 8-track cartridges. Features program select button; repeat button for same program; fast-forward; program indicating lamps; 4 ch/2 ch indicating lamp; automatic 2 ch/4 ch switching. Response 40-12,000 Hz; wow & flutter 0.25%. 8 3/4" W x 4 1/8" H x 9 1/8" D.



120-V, 60-Hz operation . . . . . \$119.95

**TC-388-4 Quadradial Tape Deck**

Open reel, 2-speed (7 1/2 & 3 3/4 ips) 2- and 4-channel recorder. Response 20-25,000 Hz

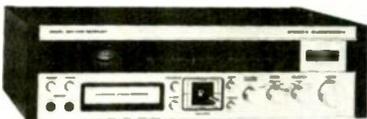


(standard tape) and 20-25,000 Hz ±3 dB (SLH-180 tape) at 7 1/2 ips. (S + N)/N 52 dB standard tape; 55 dB SLH-180 tape. Has four auxiliary inputs; impedance 100,000 ohms; four mike inputs; sensitivity -72 dB. Three heads (erase, record, playback); four VU meters. Wow & flutter 0.09% at 7 1/2 ips (rms (NAB weighted)). Features pan pot on-off switch; mike attenuator (-20 dB); built-in reel locks; line output level control. 16 7/8" W x 19 3/4" H x 8 7/8" D. . \$679.95

**SUPERSCOPE**

**QRT-440 4-Ch Receiver/8-Track**

Will reproduce SQ records, FM broadcasts or tapes; simulate 4-ch reproduction from stan-



ard stereo sources. Will play Q-8 cartridges through built-in 8-track 2/4-ch tape player. FM usable sensitivity 5 μV (IHF); stereo separation 32 dB at 1 kHz; response 20-12,000 Hz ±1.5 dB; THD 1.5% stereo; capture ratio 5 dB. Has

1975 EDITION

complete set of controls; signal-strength tuning meter; four-channel FM output. 18 1/4" W x 5 1/4" H x 14 1/2" D . . . . . \$329.95

**TD-48 4/2 Ch Cartridge Player**

Has automatic 2- and 4-channel switching that sets tape player for correct operation; illuminated 4-channel indicator; built-in automatic program selector; illuminated program indi-



cators; fast-forward, repeat, and program selector push switches; walnut wood-grained cabinet. Response 50-10,000 Hz; (S + N)/N -48 dB; 117-V, 60 Hz operation, 7 1/8" x 4 7/8" H x 9 3/4" D . . . . . \$99.95

**SYLVANIA**

**EQ3755 4-Ch 8-Track Deck**

Plays discrete 4-channel or stereo tapes; automatic start/stop; 2- and 4-channel indicator lights; continuous play feature; frequency response 30-10,000 Hz; wow & flutter 0.3% rms; S/N 40 dB; channel separation 45 dB; push-button program selector. Walnut-grained vinyl cabinet. 4 3/8" H x 9 1/8" W x 9 3/8" D. . \$99.95

**TEAC**

**3340S 4-Channel Tape Deck**

Four-channel, three-motor, three-head stereo tape deck with 15 & 7 1/2 ips speeds. Features "Simul-Sync" which allows recording four discrete but fully synchronized channels on each track of a 4-track tape; permits synchronized overdubbing, professional mix-down and special effect tapes. Up to eight inputs (four mike, four line) can be recorded simultaneously. Push-button transport control with logic circuitry. Has 4/8 pole dual-speed hysteresis synchronous motor and two eddy-current induction reel motors. Hyperbolic-shape Permaflux heads, shielded for max. channel separation and protection from leakage flux fields. Unit includes separate bias level and EQ switches; total remote capability; four expanded-scale VU



meters; 2-ch/4-ch play switch; front & rear stereo headphone jacks; pause control with indicator light; Quik-Lok reel holders. Response 25-24,000 Hz at 15 ips; 25-22,000 Hz at 7 1/2 ips; wow & flutter 0.04% at 15 ips, 0.06% at 7 1/2 ips.

(S + N)/N 55 dB. 17 3/8" W x 20 1/2" H x 8 3/4" D . . . . . \$1149.50

**2340R 4-Channel Tape Deck**

Four-channel, three-motor, three-head deck which includes 2-ch play with automatic reverse. Has front-panel bias switch; 8 source mixing ability (4 line, 4 mike); four separate VU meters; tape/source monitor switches; mike inputs; mike/line level controls; output level controls. Records 7 1/2 or 3 3/4 ips; will accept up to 7" reels; wow & flutter 0.08% at 7 1/2 ips; response 30-22,000 Hz at 7 1/2 ips. (S + N)/N 55 dB. 17 3/8" W x 18 3/4" H x 8 3/4" D. . . . . \$899.50

**TECHNICS BY PANASONIC**

**RS-858US 4-Channel 8-Track Deck**

Will record/play all 2- or 4-channel cartridge programs. Has four separate input level con-



trols, four VU meters, mike & line inputs plus pause control and noise-suppressor switch. Response 30-12,000 Hz; wow & flutter 0.2%. 8 1/4" x 21 1/8" x 11 1/4" . . . . . \$299.95

**TELEX**

**2 + 2 Tape Deck**

Four- or two-channel reel-to-reel design. Can provide discrete 4-channel playback only. Has



3 motors, 3 speeds (7 1/2, 3 3/4, 1 7/8 ips), automatic shutoff/tape-break switch. Response 40-18,000 Hz ±3 dB, (S + N)/N 48 dB, wow & flutter 0.2% at 7 1/2 ips. 16 1/2" W x 11" x 6 1/4". \$262.45

**TOSHIBA**

**PT-884 2- and 4-Channel Tape Deck**

Reel-to-reel type; 4 ch. record/playback. Three





## Tape Machines

speeds (1 $\frac{7}{8}$ , 3 $\frac{3}{4}$  & 7 $\frac{1}{2}$  ips), 3 heads. Response 30-20,000 Hz  $\pm$ 3 dB with low-noise tape. (S+N)/N 50 dB. Wow & flutter 0.09% at 7 $\frac{1}{2}$  ips. Has regular & low-noise tape switch. 15 $\frac{3}{4}$ " x 17 $\frac{1}{2}$ " H x 8 $\frac{3}{4}$ " D. . . . . \$499.95

### WOLLENSAK

#### 8054 4-Channel Player

Plays 8-track, 2- and 4-channel quadrasonic



cartridges. Has a channel-selector key, automatic programming facilities for 2- or 4-channel, fast-forward. Response 30-15,000 Hz, wow & flutter 0.25%, (S+N)/N 52 dB . . . . \$119.95

#### 8060 8-Track, 4-Channel Tape Deck

Record-play deck. Can record and play stereo and matrixed four-channel but play-only dis-



crete four-channel material. Has digital counter for accurately timing recordings, cueing, automatic eject, pause lock, fast-forward, and stereo headphone jack. . . . . \$249.95

#### 8080 4-Ch Player/2-Ch Recorder

Will record & play stereo and play 4-channel tapes; features Dolby noise-reduction circuit



which operates on both play & record and FM broadcasts; tape selector switch for standard or company's Classic cartridge tapes; digital minute & second counter for timing recordings; fast-forward; end-of-tape shut-off; response 30-15,000 Hz (Classic tape), 30-12,000 Hz (standard); S/N 60 dB (Dolby in), 50 dB (Dolby out); wow & flutter 0.1% rms (weighted). 19 $\frac{3}{4}$ " L x 10 $\frac{1}{4}$ " W x 5" D. . . . . \$344.99

### ZENITH

#### F712 8-Track/Receiver

Combines an AM-FM stereo receiver with built-in 2-1/4-channel 8-track tape player and four Allegro 1000 speaker systems; features separate bass & treble controls; loudness and balance controls; speaker system has 6 $\frac{1}{2}$ "

woofer & treble horn; LC crossover network; response 60-15,000 Hz; 8 ohm imp.; grained-walnut enclosure (16 $\frac{1}{2}$ " H x 10 $\frac{1}{2}$ " W x 7 $\frac{1}{2}$ " D). Control center 5 $\frac{1}{4}$ " H x 25 $\frac{1}{4}$ " W x 15 $\frac{1}{2}$ " D. . . . . \$349.95

#### F736 Phono/8-Track/Receiver

Combines an AM-FM stereo receiver with built-in 2-1/4-channel 8-track tape player, record player, and four Allegro 1000 speaker systems; same features as F712 plus record player with low-mass tonearm; cueing control; 0.7 mil x 3.0 mil stylus. Control center 9 $\frac{1}{2}$ " H x 25 $\frac{1}{4}$ " W x 15 $\frac{1}{2}$ " D. . . . . \$399.95

#### D762 2/4 Ch. 8-Track Player

Activated when cartridge is inserted, turns off when cartridge is removed; automatic switching for 2-ch to 4-ch mode; push-button program selector. Grained walnut veneer cabinet. 4 $\frac{3}{8}$ " H x 9 $\frac{1}{8}$ " W x 9 $\frac{3}{8}$ " D. . . . . \$89.95



## Headphones

### BEYER/DYNAMIC

#### DT-204 4-Channel Headphones

Frequency range 20-20,000 Hz; impedance 4 x 200 ohms (4-channel), 2 x 100 ohms



(stereo); independent volume controls for each front channel built into right earcup; 4-ch./stereo slide switch on right earcup; two jack plugs color-coded for front & rear channels; 10-ft detachable cable. Weight 14 ounces. . . . . \$120.00

### FISHER

#### QP-44 2/4 Channel Stereo Headphones

Response 20-18,000 Hz. Switchable 2-channel/4-channel operation. Sensitivity: 10 mV for average listening. Max. power 0.2 W. 8 ohms. 10-ft coiled cord. 20 ounces . . . . . \$69.95

### GENERAL ELECTRIC

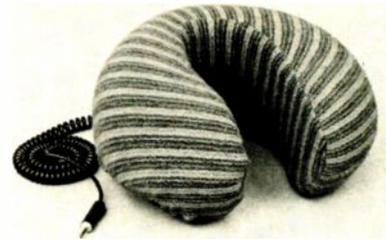
#### H28 Quadraphones

For 4-ch or stereo use; max. input 800 mW; imp. 8 ohms; comes with coiled cord with two hpone plugs; cushioned earcups & padded head-band. . . . . \$24.95

### HEAR-MUFFS

#### QM-440 "Quadramuffs"

Features a velour-covered curved polyurethane cushion worn around the back of the head while



reclining. Contains four 3 $\frac{1}{2}$ " dynamic drivers and is supplied with double stereo phone plugs. Response 20-18,000 Hz. Compatible with 4-16 ohm output impedance. THD unmeasurable at 95 dB SPL. 1.5 W/ch max. power handling capacity. 26 ounces . . . . . \$49.95

### JVC

#### 5944 4-Channel Headphones



2- or 4-channel design. Response 20-20,000 Hz. HD 0.5% at 1 mV. Has a built-in phase changeover switch . . . . . \$49.95

### KOSS

#### 4-Channel Quadrafones

Both versions are designed to be used for either 2- or 4-channel operation. Each earpiece has dual 1 $\frac{1}{2}$ " dynamic drivers. These are connected in parallel for regular 2-channel stereo use. 3.2 to 600 ohm operation. Dist. 0.5% at 109 dB SPL. Capacity 5 V continuous with provision for 14 dB transient peaks. Has balance control on each earpiece. 22 ounces. K/6LCQ. Response 20-17,000 Hz. Has foam-



filled vinyl ear cushions for ambient noise isolation averaging 18 dB. . . . . \$49.95  
PRO/5Q. Response 20-20,000 Hz. Has fluid-filled ear cushions for 40 dB ambient noise isolation . . . . . \$75.00

#### K2+ 2 4-Channel Headphones

Dynamic type. Features four separate drive elements (2 in each phone) for 4-channel reproduction, arranged in conventional 4-channel format. Has switch for conventional stereo operation. Frequency response 10-20,000 Hz. Sensitivity -87 dB  $\pm$ 3 dB SPL from each cup with 1 V continuous signal at 1000 Hz. Imped-



ance 300 ohms each driver. For use with 3.2 to 600 ohm source impedances. Power input 5 V continuous maximum per phone. 10-ft. coiled cord. 26 ounces. Fluid-filled ear cushions. Comes with carrying case. . . . . \$90.00

**LAFAYETTE**

**F-4400 4-Channel Headphones**

Four separate 2 1/4" speakers, each in its own acoustically isolated chamber, deliver 4-channel sound from 4-channel amplifiers and receivers. Exclusive, patented baffle plate increases front-to-rear separation. Has 4-channel/2-channel switch. Built-in circuitry derives 4 channels from 2-channel sources. Frequency response 20-20,000 Hz. Impedance 4-16 ohms. Foam-filled vinyl leatherette earpieces and adjustable headband. With 9 1/2-ft cable, connectors. . . . . \$44.95

**MURA**

**QP-280N "Quadset" Headset**

Has 4-channel/stereo switch; 10-ft coiled cord with dual plugs marked for easy identification. Response 20-20,000 Hz. Power rating 0.2 W; impedance 8-16 ohms. Custom leather-type padding on earcups and headband . . . \$24.95

**QP-300N Deluxe "Quadset"**

Features two woofers and two tweeters in each earcup for a total of eight dynamic speakers. Electronic crossover network. Impedance 8-16 ohms. Frequency response 20-20,000 Hz  $\pm 5$  dB. Maximum allowable input 500 mW. Comes with 6-ft cable, plugs marked for easy identification, and zipper carrying case. . . . . \$49.95

**PIONEER**

**SE-Q404 2/4 Ch Headphones**

Features four matched driver elements; sensitivity 105 dB/0.3 V (4-ch, each channel), 111 dB/0.3 V (2-ch, each channel); frequency range 20-20,000 Hz; max. input power 500 mW/ch; has volume controls; 2/4 ch selector switch; adjustable headband; 8 ohms; matching imp. 4 to 16 ohms. . . . . \$69.95

**RADIO SHACK**

**Nova-44 4-Channel Headphones**

Quadraphonic/stereophonic dynamic design. Each earcup has separate speakers for two channels. Dual plugs provided for stereo or 4-channel use. Ported earcups. Frequency range 20-20,000 Hz; 8 ohms. 15-ft coiled cord . . . . . \$44.95

**SCINTREX**

**HQ4 4-Channel Headphones**

Has four separate drivers which will deliver



sound from any discrete or matrixed four-channel source. Has quad/stereo switch for maximum utilization of the four drivers in the 2-ch stereo mode. Response 20-20,000 Hz. Impedance 4-300 ohms. Sensitivity 100 dB SPL 1.1 mW. Max. input 14 mW; max. output 110 dB. HD at 1 kHz 0.7%. Ambient noise isolation 40 dB. Has liquid-filled ear cushions 14-ft coiled cord with dual jacks. Black with chrome-plated headband. 24 ounces . . . . . \$59.95

**XQ-4 4-Channel Headphones**

Features dual-driver cavity assembly with four separate acoustic-suspension drivers; response 15-20,000 Hz (20-15,000 Hz  $\pm 4$  dB); HD 0.6% at 110 dB SPL 1000 Hz; impedance 4-1000 ohms; sensitivity 4.0 mW (95 dB SPL), 13.0 mW (100 dB SPL); max. input power (loaded) 45 mW; max. acoustical output (loaded) 110 dB; liquid earseals; padded head cushion; comes with 14-ft coiled cord with dual jacks; 19 ounces. . . . . \$79.95

**STANTON**

**Dynaphase Sixty-Five Four C**

Has two speakers in each earpiece for 20-20,000 Hz response. Equipped with two plugs



(blue for front, black for rear); earpieces marked "L" and "R" for accurate listening orientation. Sensitivity: 100 dB SPL (at 0.1 V input at 1 kHz each channel). Maximum power input 1.25 V rms continuous with provision for 10 dB SPL transient peaks. Dist. 1/2% at 110 dB SPL. Input imp. (at 1 kHz) 15 ohms  $\pm 20\%$ . Vinyl-covered foam ear cushions; adjustable headband. 11-ft coiled cord with four-channel/stereo switch, front & rear plugs. 19 ounces. . . . . \$64.95

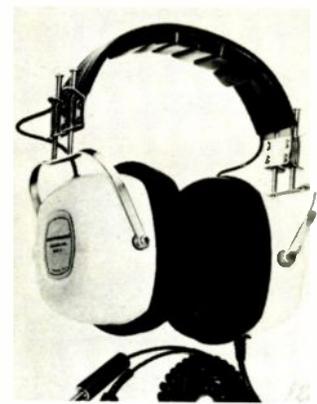
**SUPEREX**

**QT-4 "Quad-Tette" Headphones**

Has four identical reproducers (two to an earcup) with frequency response of 25-17,000 Hz. 15-ft. cord. Ivory/Cordovan . . . . . \$50.00

**QT-4B "Quad-Tette" Headphones**

Has four identical reproducers (two to an earpiece) with frequency response of 20-18,000



Hz. 15-ft. cord and 2-4 ch. sw . . . . . \$65.00

**TECHNICS BY PANASONIC**

**EAH-420 4-Channel Headphones**

Dynamic type using six drivers; each earpiece has center-mounted 3" woofer with two iso-



lated front-back 1 1/4" tweeters; high efficiency; independent tone & volume controls on each earpiece; 4-ch/2-ch selector switch; input imp. 4-16 ohms; response 20-20,000 Hz; max. input 1000 mW; sensitivity (1 mW, 200 Hz) = 104 dB; 9.1-ft cord. 23.8 ounces. . . . . \$79.95

**TELEPHONICS**

**TEL-101F "Fixler Effect" Phones**

Patented design involving specially designed drivers positioned in front of and behind ear for



realistic spatial distribution of sound; two dynamic drivers per phone; response 20-20,000 Hz; sensitivity 100 dB SPL at 1000 Hz for 1 mW; dist. 0.2% max; features "Quadrablend" control to adjust ambience; open-cell foam ear cushions. 23 ounces. . . . . \$89.95

**TEL-101A "Quadramate"**

Designed to be used with the TEL-101F to create 4-ch effect from 2-ch program sources; max. power 1 W; input impedance compatible with all hi-fi system phone jacks; no power required; has focus and perspective controls; 6-ft cord. . . . . \$29.95

**TOSHIBA**

**HR-40 2-Ch/4-Ch Headphones**

Features 4-channel/2-channel changeover sys-

tem with two plugs (front & rear). Dynamic driv-



er 3" x 4". Frequency range 20-20,000 Hz; rated input power 1 mW/ch; imp. 4-16 ohms. Comes with 6.6-ft. cord. Total weight 27½ ounces. . . . \$54.95

### ZENITH

#### 839-35 2/4 Ch Headphones

Has 2-ch or 4-ch compatible slide switch; separate volume controls on each earpiece; frequency response 20-20,000 Hz; 8 ohms imp.; 10-ft coiled cord. Weight 11 ounces. . . . \$75.00  
**839-34.** Same as 839-35 except frequency response 20-19,000 Hz. Weight 17 ounces. . . . \$59.95

#### 839-44 2/4 Ch Headphones

Has 2-ch or 4-ch compatible switch, 2-4 channel mode selector switch; volume/balance control; response 20-19,000 Hz; 8 ohms; 10-ft coiled cord. Weight 16 ounces. . . . \$49.95

## Decoders & Miscellaneous

### AUDIONICS

#### 106C High-Definition SQ Decoder

Features discrete 4-channel and stereo inputs, tape monitor, duplicated DIN and RCA inputs and outputs. Close-tolerance phase-shift network, 20-18,000 Hz  $\pm 10$  degrees (typically 6 degrees). Response 5-100,000 Hz  $\pm 1$  dB. THD 0.025% S/N -80 dB with only 250 mV signal in. Low-impedance output for placement up to 100 feet from control amplifiers. Switchable blend for up-date for full logic. Wired and tested. . . . \$99.95  
**106B.** Same as 106C except less case and trim panel. For special installation. Wired & tested. . . . \$74.95  
 Trim Panel & knobs . . . . \$8.95

### CONCORD

#### CSQ-2-4 SQ Decoder

Designed specifically to reproduce SQ matrixed program material. Will also synthesize regular 2-channel stereo records. Gain 1.3 dB. Response 20-20,000 Hz. Input imp. 1 megohm. Dist. 1% THD max. Must be connected at output of a preamp. 3¼" H x 9¾" W x 7" D. Walnut cabinet . . . . \$87.95

### DYNACO

#### Quadaptor

The simplest type decoder for recovering 4-channel information from 2 channels. Does not require two additional power amplifier channels. Provides level adjust for rear speakers. Unit connects between speakers and power-amp outputs. Is a passive device. 4½" x 4½" x 6¾" D. Kit . . . . \$22.50  
 Assembled . . . . \$29.95

### ELECTRO-VOICE

#### EVX-44 Universal 4-Channel Decoder

Automatically provides correct decoding of all types of matrixed 4-channel program material. Provides optional front-to-rear separation enhancement. Connects into hi-fi system between preamp & power amp or through tape jacks. Has inputs for 2- and 4-channel tape sources. (S + N)/N 70 dB below ¼ V. Gain is unity. Maximum input 4 V rms. Response 20-20,000 Hz  $\pm 1$  dB. 2¾" x 8" x 7" D . . . . \$99.95

### FISHER

#### TX-420 4-Channel Converter

Designed to be used with present stereo systems to provide 4-channel reproduction. Has 4-



channel preamps and 2-channel stereo power amp. Includes a 4- or 2-channel 8-track cartridge player and decoding (matrixing) system for producing 4-channel material from 2-channel conventional or encoded sources. 18 W/ch (2 channels) dynamic power into 8 ohms (15 W/ch continuous) at 0.5% HD. Power bandwidth 30-20,000 Hz. Sensitivity: tuner & aux. inputs 200 mV. 16¾" x 4¾" x 11¾" D . . . . \$299.95

### GENERAL ELECTRIC

#### QA40 4-Ch Decoder/Amp

For use with 2-ch systems with decoder jacks; had 3-pos. selector switch for discrete 4-ch, matrixed 4-ch, and synthesized 4-ch; built-in SQ decoder & 4-ch synthesizer circuit; input jacks for radio, tape, phono, and CD-4 signal sources. . . . \$99.95

### HARMAN/KARDON

#### 44+ CD-4 Demodulator

Outboard demodulator for use with multi-channel receivers without built-in CD-4 capability; uses same circuitry as the company's 700+, 800+, and 900+ four-channel receivers; response 20-10,000 Hz  $\pm 1.5$  dB (-5 dB at 15,000



Hz), S/N 60 dB (CD-4 "on"), 65 dB (CD-4 "off"); channel separation 20 dB; phono input sensitivity 2 mV; input impedance 100,000 ohms  $\pm 10\%$  with 30 pF; output impedance 2000 ohms. Enclosure designed to match company's multi-channel receivers. 4½" W x 12" D (14" D with knobs and connections) x 5¼" H. . . . \$119.95

### HITACHI

#### IMA-40 Integrated Rear Amplifier

Converts 2-channel stereo system into 4-channel (discrete, SQ, RM). 13 W/ch rms; 5.5 W/ch

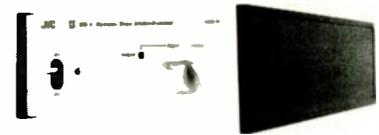


rms at 25-35,000 Hz and 1% THD, 8 ohms). Features joystick 4-channel balance control, speaker switch, and tape monitors for 2- and 4 channels. . . . \$239.95

### JVC

#### 4DD-5 4-Channel Demodulator

Designed to be used with the CD-4 four-channel system. Can be added to any existing 2-channel



turntable & 4-channel reproducing system. Input 1.5 mV at 100,000 ohms impedance. Output 300 mV at 5000 ohms impedance. Response 20-16,000 Hz. Separation semi-adjustable. 3½" x 6¾" x 11½" . . . . \$129.95

### LAFAYETTE

#### LA-524 4-Channel Decoder/Amplifier

Designed to convert regular 2-channel stereo systems into discrete and SQ matrix 4-channel



stereo systems. Features built-in SQ decoding circuit for playback of Columbia and other SQ-decoded discs; firm's 4-channel matrixing circuit for regular 2-channel stereo program sources. Requires separate 2-channel amp & speakers. Features master front-and rear-volume control. Has fused speaker outputs, 6½ W rms/ch into 8 ohms at 1% THD (50-20,000 Hz) both channels driven. . . . \$59.95

#### SQ-M 4-Channel Decoder

For reproducing 4-channel sound. Includes the company's "Composer Circuit" (similar to Dynaco system) to convert conventional 2-channel stereo sound sources into 4-channel reproduction. Also includes CBS matrixing circuits for playback of CBS 4-channel SQ Quadraphonic records. Has simulated walnut-finished case. 6" x 2½" x 7¼" D. . . . \$24.95

#### QD-4 4-Channel Adapter

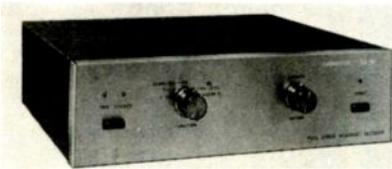
Synthesizes 4-channel sound from regular 2-channel stereo records, tapes. Does not require an additional stereo amplifier. Has 4-position function switch, rear level control, phono jacks. 5 1/4" W x 4 1/8" C x 2 7/8" H . . . . . \$14.95

#### 4-Channel Adapter for Cars

Derives 4-channel sound from present 2-channel car stereo tape system or FM radio. Front panel contains rear-level speaker control, 2- or 4-channel mode switch, and front (L & R) speaker-level controls. If present system has four speakers, only adapter is required; if two speakers, two more speakers must be added. For 12-V negative ground systems. Includes two 3-ft., two 6-ft., and two 15-ft. connecting cables. 5 1/2" W x 1 3/4" H x 2 1/2" D. #99-85128 . . . . . \$5.95  
99-62994. Pair of 3" x 5" matching rear deck speaker systems . . . . . \$7.95

#### SQW Decoder

Features full SQ logic (front/back logic and wavematching logic). Will also handle RM and



other matrices; derives 4-ch sound from 2-ch program sources. Has 2- and 4-ch inputs. Outputs: two sets of 4 outputs for decoded or discrete; 2-ch tape outputs. Controls: power "on-off", master volume, function switch tape/source, power indicator, tape/source indicator, and tape and source sensitivity slide switches . . . . . \$109.95

### MARANTZ

#### SQA-2 Full-Logic Decoder

Full-logic SQ decoder featuring wave-matching and variable blend; separation of up to 20 dB; designed to fit into special under-chassis slot of company's Quadradial receivers. . . . \$79.95

#### CD-400 Demodulator

Designed to be used with any 4-channel receiver; phase-lock loop for the 30 kHz carrier signal; built-in noise reduction circuits for each channel; has rear-channel calibration controls & CD-4 calibration disc; features auxiliary set of 4-channel inputs; front-panel Aux. push switch. . . . . \$139.95

### SONY

#### SQD-2020 4-Channel Decoder

Designed as a control center for 4-channel discrete tapes and has built-in SQ full-logic (gain-riding) matrix decoder. Features four VU monitor level/balance meters. (S + N)/N 80 dB. HD 0.1%. Sensitivity: input & 4-ch. 1, 2 250 mV; Rec/PB 2 & 4-ch. tapes 750 mV. Output: front 500 mV, back 550 mV & 2 V. SQ separation LF/RF, LF/LB, RF/RB 20 dB; CF/CB 15 dB. 5 7/8" x 15 3/4" x 12 7/8" . . . . . \$229.50

### TEAC

#### AN-300 4-Ch. Dolby Noise Attenuator

Has four separate Dolby-B type noise-reducing systems within a single housing. Features four VU meters. With channels operated in pairs the unit affords simultaneous decoded stereo monitoring or full 4-channel Dolby encoding. Has a standard 400-Hz recording calibration tone on all four channels and a 420-Hz pulse circuit for easy identification of the calibration tone. In-

creased (S + N)/N of 10 dB at 10,000 Hz (5 dB at 1000 Hz). Sensitivity: tape and line 0.1 V. Outputs: record and monitor 0.3 V. Has multiplex filter. Response 20-20,000 Hz  $\pm$ 1.5 dB. 6 3/4" H x 16 1/8" W x 10 1/8" . . . . . \$399.50

#### AX-300 4-Channel Mike/Line Mixer

Has a preamplifier and features inputs for six



low-impedance microphones (four circuits mike/line switchable and two circuits mike only). Has a six in and four out format. (S + N)/N is -62 dB (-72 dB line); mike (600 ohms balanced) input 0.1 V max.; line input 0.3 V (7 V max.). 6 1/8" x 16 1/8" W x 10 1/8" D . . . . . \$429.50

### TECHNICS BY PANASONIC

#### SE-405H CD-4 4-Ch. Demodulator

Low-distortion, high separation demodulator for playback of CD-4 discrete 4-channel recordings. Includes 4-channel semiconductor cartridge for mounting in any standard tonearm and will also play 2-channel and all other discs. Phono cartridge response d.c. to 50,000 Hz. Demodulator audio response 20-16,000 Hz. Built-in equalizer/preamps. Inputs: phono #1 (semiconductor cartridge) 3 mV; phono #2 (magnetic cartridges) 1.5 mV. Input impedances: phono #1 4700 ohms, phono #2 100,000 ohms. Output 300 mV. Has 3-position

mode selector including 4-Chan. Auto for demodulating CD-4 records or automatically switching to 2-channel stereo, depending on record being played; 4-Chan. Aux.; Conventional Stereo. Indicator automatically lights to indicate playing and demodulation of CD-4 record. Separation adjustment. 3 3/4" H x 8 1/8" W x 13" D . . . . . \$159.95

#### SH-3433 4-Channel Audio Scope

3-inch screen to view all 4-channel signal levels & phase relationships. Connects either at speaker terminals or outputs of any preamp. . . . . \$259.95

### TOSHIBA

#### SC-410 4-Channel Adapter

Designed as a 2-channel stereo system with 15 W/ch rms continuous power for use with any conventional 2-channel stereo system to provide 4-channel sound reproduction. Can be used with both discrete or matrix inputs. Has matrix decoding circuits similar to Dynaco system. Will extract out-of-phase material from a 2-channel program source or any 4-channel encoded material. Features four choices of multi-channel listening: "Concert Hall," "Studio," "Surround," and "Stage;" apparently derived from variations in mixing and high-frequency roll-off . . . . . \$169.95

### ZENITH

#### E9029 4-Channel Adapter

When used with stereo receiver permits 4-ch matrixed records, 4-ch tapes & 4-ch FM stereo broadcasts to be played; requires two additional speakers. Grained-walnut enclosure. 4 1/2" H x 14" W x 9 1/8" D . . . . . \$89.95

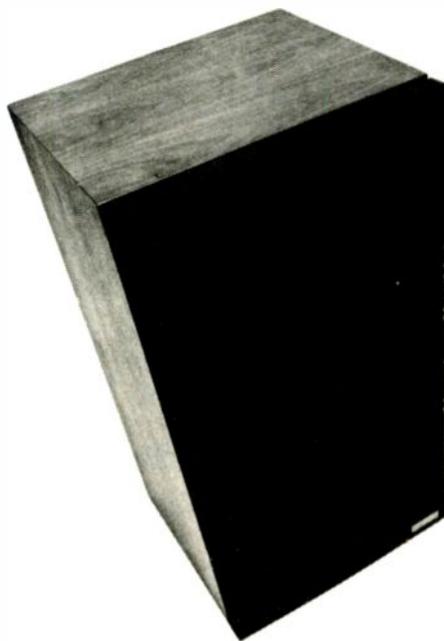
# it's over!

To the serious listener in search of an accurate reproducer of sound, we offer the electrostatic principle. Listen, and your search will be over.

Janszen.  
From \$120 to \$700

## JANSZEN ELECTROSTATIC

7516 42nd Avenue North  
Minneapolis, Minnesota 55427  
a division of  
Electronic Industries, Inc.



CIRCLE NO. 30 ON READER SERVICE CARD

# In the beginning there was foldedhornbassreflexacousticsuspension.

## And now BIC VENTURI

For about 40 years, speaker designers have been juggling the characteristics they wanted from speakers: Compact size, high efficiency, high power-handling, and deep ranging, pure, clean, gut-reaction bass.

They tried folded horns: efficient, clean, good power-handling, but too large for most homes, quite expensive. They tried the bass reflex: Efficient, compact, but limited by uneven, one-note bass. Ditto the labyrinth, but far less efficient.

Today's favorite, the acoustic suspension: Compact, smooth, deep-ranging bass. But inefficient (requiring costly, high-powered amplifiers) and limited dynamic range.

A virtue here, a virtue there -- but all with corresponding compromises.

Ironically, the principle that combines these objectives into one compact cabinet has been around for some 180 years: The VENTURI principle of fluid motion transformation, reapplied in a form better suited to acoustics (patents pend). Our simplified diagram shows how the scientifically formulated VENTURI coupled path functions as a step-up transformer. Up to 140 times more bass energy comes from the duct than comes directly from the woofer. And bass is reinforced broadly over the low frequency spectrum, not at a single "tuned" frequency.

The BIC VENTURI coupled path also operates as a low pass acoustic filter, cleansing harmonics and distortion components from the bass waves. So, the bass not only goes down further and is louder, it's cleaner and more natural. And requires a fraction of amplifier power of other speakers of comparable size and performance. Yet, even though BIC VENTURIS need less amplifier power, they can handle more. This new principle eliminates compromises in cone, suspension and magnetic design to "match" cabinet characteristics.

Above the woofer, you can see our mid-range. To match the exceptional high efficiency of the bass section, we had to invent a new horn, combining two different types of flare, conical and exponential, BICONEX™ (pats pend). It provides wide, smooth dispersion in both horizontal and

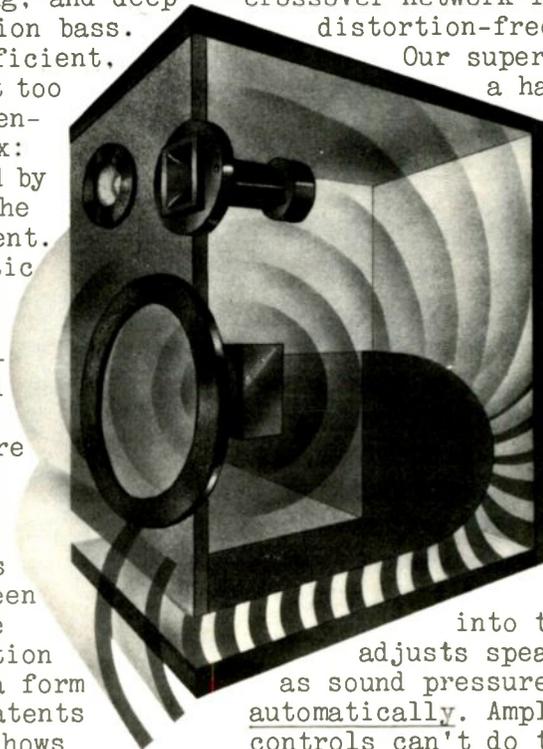
vertical planes, so placement in the home won't be critical. BICONEX covers the full midrange to well beyond 15,000 Hz without crossover network interruptions, for distortion-free, smooth response.

Our super tweeter handles just a half octave from 15,000 to over 23,000 Hz. While you can't hear single frequency tones in that range, the accuracy of musical "timbre" depends upon those frequencies being added in proper proportion to the complex tones you do hear. An important subtlety.

Because you hear less bass and treble at low and moderate levels, we built a DYNAMIC TONAL COMPENSATION circuit (patents pending)

into the speaker. It adjusts speaker frequency response as sound pressure output changes, automatically. Amplifier "loudness contour" controls can't do that. Result: aurally "flat" musical reproduction always, regardless of volume control settings.

Our Formula 2 is the most efficient speaker system of its size, yet can be used with amplifiers rated up to 75 watts per channel! Formula 4 has deeper bass and can be used with amplifiers up to 100 watts. Formula 6, the most efficient, will handle 125 watts. The Formula 1, newest and smallest model, handles up to 50 watts and needs only a few watts input for 'clean, high level sound. Hear them at franchised BIC VENTURI dealers. Or write for brochure: BRITISH INDUSTRIES CO., Westbury, N.Y. 11590, Div. of Avnet, Inc. Canada: C. W. Pointon, Ont.



**B·I·C VENTURI**



# 10

# SPEAKER SYSTEMS

## ABRAXAS

### Three-Way Speaker System

Three-way, four-speaker system with one 12" rubber-surround woofer, one 5" rubber-impregnated mid-range, two 3" hemispherical dome tweeters; response 35-20,000 Hz  $\pm 4$  dB; HD 1% at 10,000 Hz & 1000 Hz; minimum recommended amp power 15 W rms/ch; impedance 8 ohms; dispersion 10 dB down at 45° off-axis at 10,000 Hz; crossovers 800 & 4000 Hz with 12 dB/octave slope. 24" H  $\times$  14" W  $\times$  12" D. . . . . \$225.00

## ACOUSTIC RESEARCH

### AR-2ax 3-Way System

Sealed acoustic-suspension 3-way bookshelf system with 10" woofer; 3 1/2" mid-range, and 3/4" dome-type tweeter. Response 43-20,000 Hz  $\pm 5$  dB (in test chamber); crossovers at 1400 and 5000 Hz. Has mid-range and tweeter level controls, 8 ohms impedance, 20 watts rms driving power recommended. 13 1/2" H  $\times$  24" W  $\times$  11 1/2" D. Walnut finish . . . . . \$165.00  
Walnut-grained finish . . . . . \$155.00

### AR-8 2-Way System

Has 10" acoustic-suspension woofer & 1 1/4" wide-dispersion cone tweeter. Free air resonance of woofer 26 Hz; 52 Hz in enclosure. Minimum recommended amplifier power 15 W/ch continuous rms. Crossover 1800 Hz. 8 ohms impedance. Has 3-pos. high-frequency level adjustment switch. 13 1/2"  $\times$  24"  $\times$  11 1/2" D. Walnut-grained finish. . . . . \$129.00

### AR-3a 3-Way System

Sealed acoustic-suspension 3-way bookshelf system with 12" woofer, 1 1/2" mid-range, and 3/4" dome-type tweeter. Response 30-20,000 Hz  $\pm 5$  dB (in test chamber); crossovers 525 and 5000 Hz. Has mid-range and tweeter level controls, 4 ohms impedance. 25 watts rms driving power recommended. 14" H  $\times$  25" W  $\times$  11 1/2" D. Walnut finish . . . . . \$295.00

### AR-4xa 2-Way System

Improved version of the AR-4x. Has 8" acoustic suspension woofer and improved 1 1/2" wide-dispersion tweeter. Free-air resonance of woofer 30 Hz; 65 Hz in enclosure. Minimum recommended amplifier power 15 W/ch continuous rms. Crossover 1600 Hz. Impedance 8 ohms. Has high-frequency level adjust. 10"  $\times$  19"  $\times$  9" D. Walnut-grained finish . . . . . \$85.00

### AR-5 3-Way System

Sealed acoustic-suspension 3-way bookshelf system with 10" woofer, 1 1/2" mid-range, and 3/4" dome-type tweeter. Response 43-20,000 Hz  $\pm 5$  dB (specialized test conditions); 550 and 5000 Hz crossovers. Has mid-range and tweeter level controls, 8 ohms impedance, less than 4% HD at 60 Hz at 15 W. 20 watts rms driving power recommended. 13 1/2" H  $\times$  24" W  $\times$  11 1/2" D. Walnut finish. . . . . \$215.00

### AR-6 2-Way System

Sealed acoustic-suspension 2-way bookshelf system with 8" woofer and 1 1/4" cone-type tweeter; 1800 Hz crossover. Has tweeter level control, 8 ohms impedance. 20 watts rms driving power recommended. 12" H  $\times$  19 1/2" W  $\times$  7" D. Walnut-grained finish . . . . . \$99.00

### AR-7 2-Way System

Has 8" acoustic-suspension woofer & 1 1/4" wide-dispersion tweeter. Average free-air resonance of woofer 25 Hz; 68 Hz in enclosure. 15 W/ch continuous rms minimum recommended amplifier power. 2000 Hz crossover. 8 ohms impedance. Has 2-position high-frequency level adjust switch. 9 3/4"  $\times$  15 3/4"  $\times$  6 1/4" D. Walnut-grained finish . . . . . \$75.00

### AR-LST Transducer

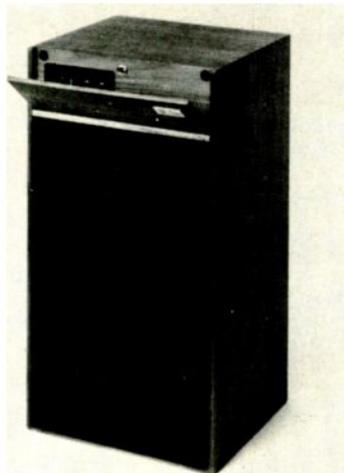
Has flat profile from 30-20,000 Hz  $\pm 2$  dB. Features 12" acoustic-suspension woofer, four 1 1/2" mid-range hemispherical radiators, and four 3/4" hemispherical tweeters. Speakers are the same as in AR-3a. Crossovers at 525 and 5000 Hz. Has 6-position switch for six accurately repeatable output profiles. 8-ohm impedance. Power handling ability (with FNM 2 fuse) 180 watts for 10 sec., 23 watts long-term average. 27 1/8"  $\times$  20"  $\times$  9 3/4" . . . . . \$600.00

### AR-LST/2

Three-way system incorporating 10" acoustic-suspension woofer, three 1 1/2" hemispherical dome mid-ranges, and three 3/4" hemispherical dome tweeters. Crossovers at 525 and 5000 Hz. Has 3-position switch for three accurately repeatable output levels. 8-ohm impedance. Power handling capability (with FNM 2.5 fuse) 135 watts for 10 sec., 23 watts long-term average. 25 1/2"  $\times$  18 1/2"  $\times$  9 3/4" . . . . . \$400.00

### AR- $\pi$ /one

Three-way system incorporating a 12" acoustic-suspension woofer, 1 1/2" dome hemispherical mid-range, and 3/4" dome hemispherical tweeter. Crossovers 525 and 5000 Hz. Front-



panel controls feature "woofer environmental control" for proper spectral balance of speakers irrespective of location, room acoustics. Also features two 3-level set equalizers for mid-range and tweeter adjustment. 8-ohm impedance. 25 watts rms/ch minimum recommended amplifier power. 14"  $\times$  25"  $\times$  12" . . . . . \$329.00

## ADC

### WDJS-12 Pritchard Speaker System

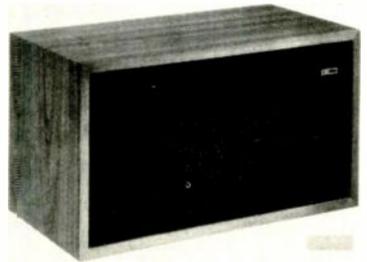
Multi-driver, direct-radiating two-way system with 12" low-frequency driver, two 1 1/2" wide-dispersion Mylar dome radiators, and two 3/4" wide-dispersion Mylar super-tweeters. Cross-



over between 600 & 5000 Hz. Response 30-25,000 Hz  $\pm 2$  dB. Imp. 6 ohms. Contour control provides four repeatable settings above 650 Hz. Features equal energy radiation in a forward horizontal direction over an included angle of 120 degrees at all frequencies. Sealed oil walnut cabinet. 26" L  $\times$  14 1/2" H  $\times$  12" D. Removable grille. . . . . \$300.00  
WDJS-11. For smaller rooms; response 38-25,000 Hz  $\pm 2.5$  dB; dispersion 100 degrees. . . . . \$200.00  
WDJS-10. For rooms of moderate size; response 38-25,000 Hz  $\pm 3$  dB. . . . . \$125.00

### XT-10 Loudspeaker System

Two-way system with 10" high-compliance low-frequency driver and two 2 1/2" cone tweeters.



Response 37-20,000 Hz  $\pm 3$  dB. Impedance 8 ohms. Contour control permits anechoically flat response or down 3 dB at 10,000 Hz. Sealed oiled-walnut cabinet. 23 3/4"  $\times$  13" W  $\times$  11 3/4" D. . . . . \$115.00

**XT-9 Loudspeaker System**

Sealed enclosure; 10" high-compliance woofer & 2 1/2" viscous-impregnated cone tweeter; response 45-20,000 Hz  $\pm 3$  dB; 8 ohms imp. Walnut-grained cabinet. 23" H x 12 1/2" W x 10 1/2" D. . . . . \$89.00

**XT-6 Speaker System**

Designed for small rooms or 4-channel installations; has 6" woofer & 2 1/2" viscous-impregnated cone tweeter; response 42-20,000 Hz  $\pm 3$  dB; 6 ohms imp. Walnut-grained, air-tight cabinet. 12 7/8" H x 8 1/2" W x 8 1/8" D. . . . . \$58.00

**303AX 2-Way System**

Sealed enclosure, 2-way bookshelf system with 10" woofer and wide-dispersion tweeter. Response 37-20,000 Hz  $\pm 3$  dB (average living room); 1500 Hz crossover frequency; 3 dB change mid-range and tweeter level controls. 8 ohms impedance. Requires 10 watts driving power. Oiled walnut finish and removable grille cloth frame. 23 3/4" H x 13" W x 11 3/8" D. \$100.00

**ADVENT****Advent Loudspeaker**

Sealed enclosure, 2-way bookshelf system with 10" woofer & 2" impregnated-paper-cone tweeter. Response 20-15,000 Hz  $\pm 5$  dB; 1000 Hz crossover. Has tweeter control. 8 ohms impedance. Requires 20 W (rms) driving power. 14 1/4" H x 25 5/8" W x 11 1/2" D. Walnut. . . . . \$121.00  
Same but vinyl enclosure . . . . . \$107.00

**Smaller Advent Speaker System**

Sealed enclosure, 2-way bookshelf system. Response 20-15,000 Hz  $\pm 5$  dB. 4 ohms impedance. Requires 15 W (rms) driving power. 11 1/2" H x 20" W x 9 1/4" D. Vinyl-clad walnut . . \$74.00

**Advent/2 Speaker System**

Sealed enclosure, 2-way bookshelf system. 8



ohms impedance. Requires 10 W (rms) driving power. 11 1/2" x 19" x 7 1/4" D. White . . . . \$58.00

**AFS****Kriket 750 Speaker System**

Acoustic-suspension type with 5" full-range speaker, 10 oz. ceramic magnet, 3/4" voice coil. Design features company's patented "working wall" of acoustic fiberboard. Will handle 10 watts rms, 15 watts program, and 18 watts peak. Response 60-20,000 Hz. Impedance 8 ohms. female phono jack connector. 7 1/2" cube. Comes in Rogue Buckskin, Rayne White, Rayne Lemon, Rayne Carmine, and Rogue Walnut . . . . . \$39.95 pr.

**Kriket 850.** Same as 750 except with 8" full-range speaker and 1" voice coil; will handle 15 watts rms, 22 watts program, 30 watts peak. Response 50-20,000 Hz. 10" cube. All of above colors plus Fire Swirl . . . . . \$60.95 pr.  
**Kriket 950-A.** Bass-reflex design with 8" full-range speaker. Will handle 15 watts rms, 22 watts program, and 30 watts peak. Response 40-20,000 Hz. 18" x 11" x 9". Available in same finishes as Kriket 750 . . . . . \$81.95 pr.  
**Kriket 1000.** Two-way system with 8" woofer & 2" tweeter. 18" x 11" x 9". Available in Rayne Lemon, Rayne Carmine, Rayne White, Spanish Cafe, Rogue Buckskin, Rogue Walnut, and Gladstone Black . . . . . \$114.95 pr.  
**Kriket 1050.** Acoustic-suspension type with 8" woofer & 2" tweeter; 1800 Hz crossover; will handle 18 watts rms, 28 watts program, and 40 watts peak. 18" x 11" x 9". Available in Rogue Buckskin, Rayne White, Rayne Lemon, Rayne Carmine, and Rogue Walnut . . . . . \$123.95 pr.

**AKAI****SW-126 Speaker System**

Bass-reflex, two-way system with 8" woofer and 4 1/16" x 2 3/8" sectoral horn tweeter; impedance 8 ohms; max. peak power input 30 watts; nominal power input 15 watts; response 40-20,000 Hz; 5000 Hz crossover; 6 dB/octave network. Walnut-finished cabinet. 11.8" x 19.7" x 7.7" . . . . . \$135.00

**SW-136 Speaker System**

Bass-reflex, three-way system with 10" rolled-edge woofer, 5" mid-range, and 2" horn tweeter; 8 ohm impedance; max. peak power input 40 watts; nominal power input 20 watts; response 40-20,000 Hz; crossovers at 1200 & 5000 Hz; 6 dB/octave & 12 dB/octave network. Has tweeter level control. Walnut-finished cabinet. 13.6" x 22" x 10.4" . . . . . \$159.95

**SW-156 Speaker System**

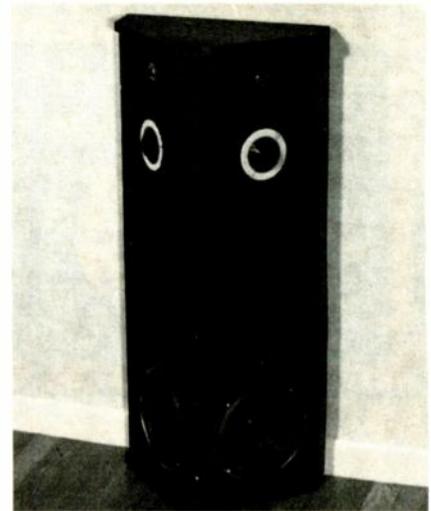
Bass-reflex, four-way system with 12" rolled-edge woofer, 5" mid-range, 2" horn tweeter, 1 3/4" cone tweeter; 8 ohm impedance; peak power input 60 watts; nominal power input 30 watts; response 30-20,000 Hz; crossovers at 1200, 5000 & 15,000 Hz; 6 dB/octave & 12 dB/octave network. Has tweeter and mid-range level controls. Walnut finished cabinet. 15.7" x 26" x 10.4" . . . . . \$189.95

**SW-176 Speaker System**

Closed-cabinet, four-way system with 15" woofer, 5 1/4" mid-range, two 4 1/16" x 2 3/8" sectoral horn tweeters, and two 1 3/4" x 2" super tweeters; 8 ohm impedance; peak power input 100 watts; nominal power input 40 watts; response 25-20,000 Hz; crossovers at 700, 5000 & 15,000 Hz; 6 dB/octave & 12 dB/octave network. Has tweeter and mid-range level controls; walnut wood cabinet. 16.7" x 26" x 11.6" . . . . . \$295.00

**ALLISON****Model One Speaker System**

Stabilized radiation loading design with two 10" woofers, two 3 1/2" convex mid-range units, and two 1" tweeters; crossovers at 375 & 3750 Hz; LC half-section crossover network, air-core chokes and nonpolarized computer-grade capacitors. Features three-position control switch for selection of system acoustic power response (flat to concert-hall balance slope); 8 ohms impedance; efficiency 3/4% when placed at floor-wall intersection; minimum amplifier power 30 watts/ch for 100 dB SPL; acoustic power output 1/2 acoustic watt minimum over full frequency range, with 65 watts input; system resonance 49 Hz nominal. Sealed enclosure 40" H x 19" W x 10 3/4" front-to-back; internal volume 2550 cubic inches. . . \$350.00



**Model Two.** Same as Model One except has two 8" woofers, two 3 1/2" convex mid-range, and two 1" convex tweeters; system resonance 55 Hz nominal. Sealed enclosure 36" H x 16" W x 9 9/8" front-to-back; internal volume 1775 cubic inches . . . . . \$250.00

**ALTEC****Barcelona (2873A) Speaker System**

Infinite-baffle system using components of "Voice of the Theatre" home series with special electronic crossover at 500 Hz (60 W power amp to bass & 30 W power amp to horn). 29 3/4" H x 38 1/2" W x 25" D. Walnut finish . . . \$850.00  
**873A.** Same as 2873A except without amplifier but with standard crossover. . . . . \$699.00

**Santana (879A) Speaker System**

Sealed 2-way floor-standing system with 15" woofer & 3" tweeter. 8 ohms impedance. 45 W dynamic maximum input power. Oiled walnut finish with composition slate top. . . . \$249.00

**819A Stonehenge I System**

Columnar bass-reflex enclosure with 12" high-compliance bass driver (82 sq. in effective piston area) and 3.3 sq. in direct radiator. Imp. 8 ohms. Power rating 45 W; crossover 1800 Hz.



Front-mounted network with continuously variable high-frequency attenuation control. Enclosure Afronesia teak veneers with fully finished speaker baffle and rear panel; integral snap-on grille covered in raw cocoa fabric. 37 1/2" H x 16" W x 14 1/4" D (including grille). . . . . \$329.00  
**3577A Stonehenge III.** Similar to 819A except 16" bass driver, coaxially mounted sectoral horn with compression driver; power rating 65 watts; crossover 1500 Hz. Oiled oak frame with cocoa brown acoustic foam grille. 46 3/8" H x 18 1/16" W x 17 1/4" D. . . . . \$595.00

# The Three Advent Speakers

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When products become best-sellers largely on the strength of word-of-mouth advertising, and when people consistently go out of their way to write the company and say thanks for making them, you have reason to believe that something special is going on.

The something special is this:

The three speakers described below do exactly what they are represented to do.

## The Advent Loudspeaker

The original Advent was designed to compete in every audible respect with the most expensive speakers available, at a fraction—often a very small fraction—of their cost. Its useful frequency range is as wide as any speaker's, and its sound is clean, clear, and beautifully defined, with a musical balance that is satisfying not just with the best recordings or one kind of musical material, but with the whole range of music and the various ways of recording it. Its bass response is approached by only a handful of speakers at any price, and surpassed by none.

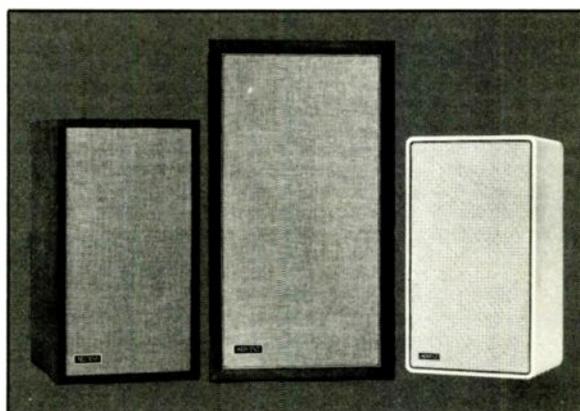
It costs \$107 to \$130, depending on cabinet finish and what part of the country it's shipped to.

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## The Smaller Advent Loudspeaker

The Smaller Advent was designed to do exactly what the original Advent does, at half the size and two-thirds the cost, except that it will not play quite as loud. Its range and overall sound are the same as the original (not close, but the same), and for anything short of roof-raising volume levels in really big rooms, you would be very hard-pressed to hear any difference between original and Smaller.

The Smaller Advent costs \$74 to \$79.



## The Advent/2

This is the newest Advent and it sounds just like the other two except that it doesn't have the final half-octave of bass response that they do. It's designed to get the absolute maximum of useful performance at lowest cost, and its own low price is made lower still by the fact that it works superbly with low-cost, low-power amplifiers and receivers. It comes in a beautiful, warm-white molded cabinet instead of the usual low-cost imitation wood finish, and since the enclosure does what a wood one does at far lower weight, it's much easier to mount on a wall or shelf.

The Advent/2 hasn't had as much time as the other Advents to get word-of-mouth going. But it will. What it does is enable people to put together a stereo system for \$350 or less that isn't a "starter" or a compromise for a tight budget, but a joy to live with ever after.

The Advent/2 costs \$58 to \$59.50.

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To check the accuracy of the above statements, just take along your eyes and ears and (whatever shape it's in these days) your common sense to the nearest Advent dealer. We will be happy to send you his name, and literature on our speakers, if you will write us.

Thank you.

**Advent Corporation, 195 Albany Street, Cambridge, Massachusetts 02139.**

# 10 Speaker Systems

## 891A "Mini-Monitor I"

Two-way bookshelf system with 12" woofer and direct radiator tweeter; crossover 1600 Hz; Walnut finish with sculptured foam grille. 25 1/2" H x 14 1/2" W x 12 1/8" D. . . . . \$149.00  
Wood-grained vinyl. . . . . \$119.00

## 887A Capri "Mini-Monitor II"

Smaller version of 891A with 8" woofer and direct-radiator tweeter; crossover 2500 Hz. Hand-finished walnut with fabric grille. 19" H x 10" W x 9" D. . . . . \$89.00

## AUDIOANALYST

### A-76X Two-Way Speaker System

Acoustic-suspension design with 10" woofer, 1 1/4" cone tweeter. Response 44-18,000 Hz ±3 dB; crossover 1800 Hz. Recommended amp. power 10 W min.; 100 W max. without fusing on normal music and speech. Impedance 8 ohms. Sealed walnut vinyl enclosure. Removable black grille cloth. 21" H x 12 1/4" W x 11 1/8" D. . . . . \$94.00

### A-100X Three-Way Bookshelf System

Has 10" high-compliance woofer, 3" cone mid-range, 2" wide-dispersion tweeter. Response 40-20,000 Hz ±3 dB. Dispersion 160 degrees. Max. power input 100 W. Impedance 8 ohms. Crossovers (LC) 1500 & 7500 Hz. Has mid-range and tweeter level switches. Walnut vinyl cabinet with removable black grille cloth. 24 3/8" H x 13 3/4" W x 12" D. . . . . \$138.00

### A-200X Four-Way Speaker System

Floor-standing system with 12" high-compliance woofer, 5" mid-range in separate sub-chamber, 3" tweeter, two 2" wide-dispersion angle-mounted super-tweeters. Response 38-20,000 Hz ±3 dB; system resonance 46 Hz ±1 Hz. Crossovers (LC) 800, 2000 & 7500 Hz. Maximum power input 100 W; impedance 8 ohms; dispersion 180 degrees. Has mid-range and tweeter level switches. Oiled walnut. 27" H x 15" W x 12 3/4" D. Has black grille cloth. . . . . \$249.00

### Pyramedia Speaker System

Uses nine drivers in omnidirectional configuration: 10" woofer, two 5" mid-range and six 1 3/4" tweeters. Response 36-20,000 Hz ±3 dB; crossovers (LCR) 450 & 2000 Hz. Recommended amp. power 10 W min., 100 W max. Impedance 6 ohms. Pyramid in lacquer finish colors on functional chrome pedestal. 46" H (includes 18" pedestal) x 30" x 30". Special order. . . . . \$575.00

## AUDIONICS

### TL30-B Speaker System

Two-way design with 8" woofer which operates up through 2500 Hz, crossing over at 12 dB/



octave to two 1 1/2" radiators. Level control provides for h.f. balance. Woofer is mounted in 6-ft true transmission line which is damped with fluffed Dacron. Response 45-16,000 Hz ±3 dB; power handling 100 watts music power; 20 watts per channel minimum power input. 8 ohms; 39" x 11 1/2" x 11 1/2". Rosewood with dark grille. . . . . \$149.95  
**TL50.** Same basic design except 3-way system; response 45-16,000 Hz ±5 1/2 dB; lowest usable frequency 30 Hz; will handle 100 watts music power; 25 watts minimum input. 48" x 12" x 12" . . . . . \$239.95  
**TL90.** Same basic design as TL50; response 40-20,000 Hz ±3 1/2 dB; usable range 24-25,000 Hz; power handling 100 watts music power; 20 watts continuous power input minimum; 7.5 ohms impedance. 44" x 13 1/2" x 14 1/2". Rosewood with special acoustical grille material for acoustical transparency to 30 kHz. . . . . \$429.95

## AUDIO Q

### 46 Two-Way Speaker System

Response 40-18,000 Hz; two-way system with 8" & 2 1/2" speakers; 25 watts continuous music power; crossover 4000 Hz; 8 ohms impedance. Packed two to carton. . . . . \$59.95 ea.

### 47 Three-Way Speaker System

Response 34-19,000 Hz; three-way system with 10", 4" & 2 1/2" speakers; 30 watts continuous music power; crossovers 4000 & 8000 Hz; 8 ohms impedance. Walnut grained finish. 21 1/8" x 12 3/4" x 9 3/8" . . . . . \$79.95

### 48 Three-Way Speaker System

Response 30-20,000 Hz; three-way system with 12", 6" & 2 1/2" speakers; 40 watts continuous music power; crossovers 1000 & 4000 Hz;



8 ohms impedance. Walnut-grained finish. 23 3/8" x 15 3/8" x 12 1/8" . . . . . \$119.95

## AUDIO RESEARCH

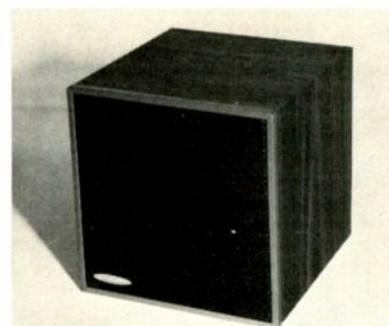
### Magneplanar Tympani Speakers

A new principle, similar to an electrostatic, except that driving force is magnetic instead of electrostatic. Has Mylar diaphragm; large area, bi-polar radiation, 1" thick, folding floor-screen design. Impedance is resistive (8 ohms), essentially no inductive nor capacitive reactance. No high-voltage power supply required. 120-degree dispersion. Sensitivity: 10 W rms, 500 Hz 90 dB at 6 ft. Response 50-15,000 Hz ±3 dB, 40-18,000 Hz ±6 dB; power handling 500 watts. 72" H x 16" W x 1" D.

**Tympani IA.** . . . . . \$1095.00 pr.  
**Tympani IIIA.** Same except response 45-16,000 Hz ±2 dB, 40-18,000 Hz ±4 dB; power handling watts above and 350 watts below 100 Hz; sensitivity 95 dB . . . . . \$1595.00 pr.

## AURATONE

### 5C "Super-Sound-Cube"



Ultra-compact, full-range speaker system with high-compliance 4 1/2" heavy-duty driver; response 50-15,000 Hz; 8 ohms impedance; power handling 3 to 30 watts (10 watts rms). Has two-screw binding strip. 6 1/2" x 6 1/2" x 6" D. Walnut wood-grained vinyl; finished four sides & back; cloth grille with bronze-tone molding. . . . . \$17.95

## AVID

### 103 Three-Way Speaker System

Uses matched high-compliance 10" woofer, 4 1/2" air-suspension cone mid-range, and a 1" dome tweeter; crossovers at 500 & 3500 Hz. Will handle 150 W; 20 W min. amplifier power. 8 ohms imp. Frequency range 35-18,000 Hz ±5 dB. Has 5-pos. mid-range and high-frequency level switch and fuse overload protection. Features changeable grille cloths in eight decorator colors. 25" H x 15" W x 9 3/8" D. A 1 3/4" high floor stand is included. 5-yr. warranty. . . . . \$145.00

### 102 Two Way Speaker System

Two-way air-suspension speaker system with 10" high-compliance woofer and 1" dome tweeter; crossover 2200 Hz. Response 35-18,000 Hz ±5 dB. Will handle 100 W; 15 W min. amplifier power. 8 ohms imp. Has 3-pos. high-frequency level switch and fuse overload protection. 5-yr warranty. Features changeable grille cloths in eight decorator colors. 25" H x 15" W x 9 3/8" D. . . . . \$115.00

### 100 Two-Way Speaker System

Air-suspension system with 8" high-compliance woofer and 1 1/4" wide-distribution cone tweeter; crossover 2500 Hz. Will handle 75 W; 15 W min. amplifier power. 8 ohms imp. Response 40-18,000 Hz ±5 dB. Has 3-pos. high-frequency control. Features changeable grille cloths in eight decorator colors. 21" x 12 3/4" W x 8 1/2" D. . . . . \$79.50

### 60 Two-Way Speaker System

Two-way bass-reflex speaker system with 2 1/2" wide-dispersion tweeter and high-compliance 9" x 6" elliptical woofer. Will handle 35 watts; 5 W minimum amplifier power. 8 ohms impedance. Response 60-17,000 Hz ±5 dB. 5-year warranty. Floating grille available in either brown or off-white. Brackets for wall mounting included. 8 3/8" W x 27 3/8" H x 8 7/16" D. . . . . \$59.95

## AZTEC

### Minuet Speaker System

Sealed, two-way bookshelf system with 8" woofer & 3" tweeter; response 35-18,000 Hz; crossover 4000 Hz; 8 ohms; 25 W max. power input. Oiled walnut finish. 11" x 18" x 9 3/8" D. . . . . \$72.00

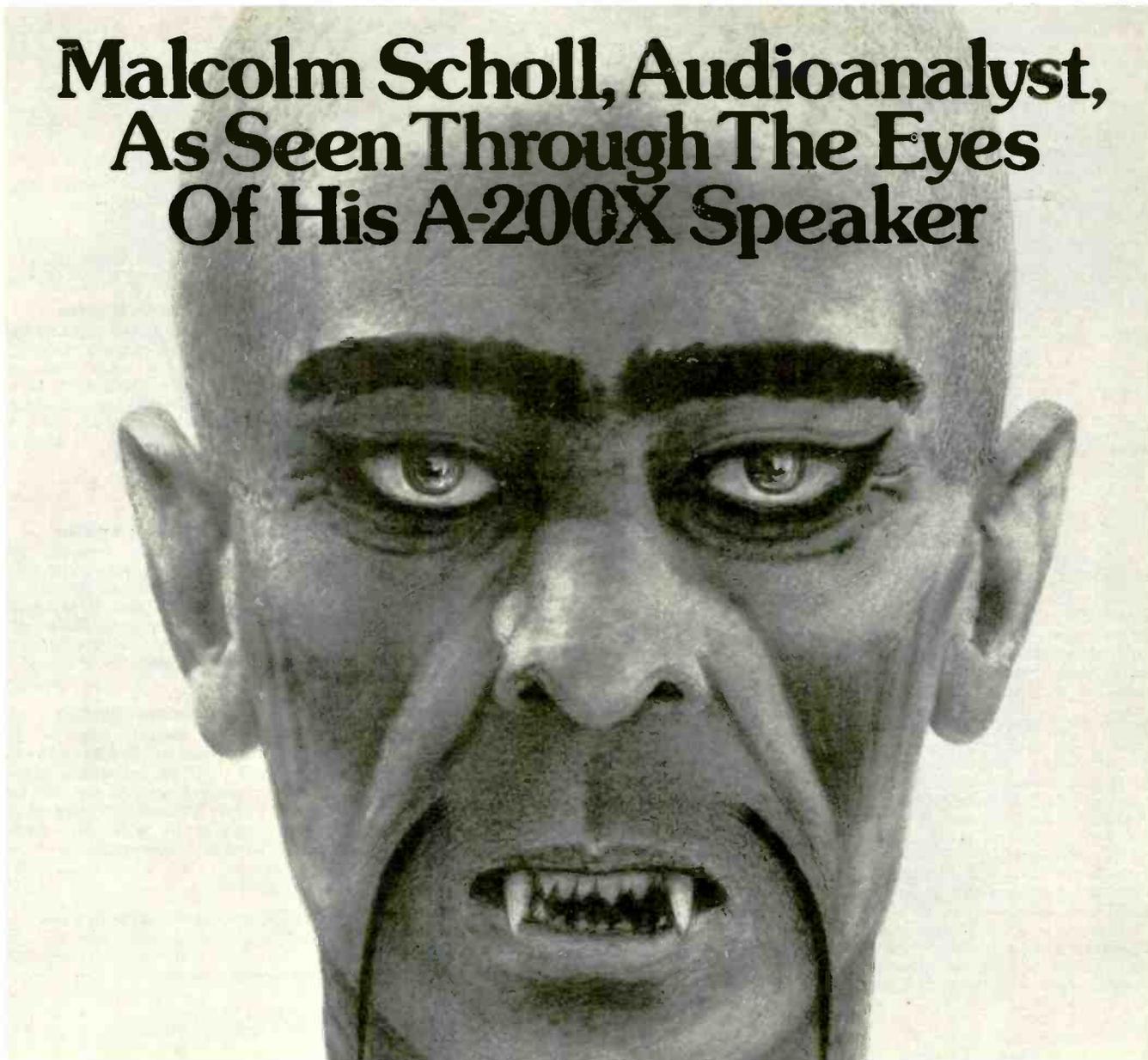
### duLane II Speaker System

Dual-distributed-port system with 10" woofer & 2" tweeter with wide-angle dispersion lens; response 30-20,000 Hz; crossover 2000 Hz; 8 ohms; 30 W max. power input. Oiled walnut hand-rubbed finish. 13 1/2" x 23" x 9 3/8" D. . . . . \$98.00

### Picasso II Speaker System

Rear ported, 3-way bookshelf system with 10" woofer, 6" mid-range, and 2" x 6" horn tweeter;

# Malcolm Scholl, Audioanalyst, As Seen Through The Eyes Of His A-200X Speaker



**He can torture a tweeter out of its bird.**

Malcolm Scholl, Human Being

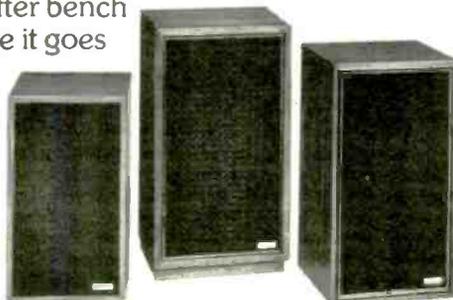


Called an "audio wizard" by Sight & Sound Marketing, this engineering genius will put a crossover panel through fifty changes, if necessary, before he'll give it his Six Year Warranty.

Audio Magazine says his product "has an extremely good crescendo handling capability." It should, after bench testing every single driver before it goes into assembly and every single assembly before it goes into the box. \$94 to \$249.

After the evidence has been heard, does fanatical quality control really profit the manufacturer? We have proof that it profits everybody. Write to us. We'll arrange for you to put our speakers to the test. After what they've gone through they're more than ready.

Meet the Audioanalyst Masters of Torture. Live! At the Boston High Fidelity Music Show-Room 412.



**audioanalyst**

P.O. Box 262, Brookfield, Conn. 06804  
Monstrous About Perfection

# 10 Speaker Systems

response 30-20,000 Hz; crossovers 1000 & 3000 Hz; 8 ohms; 40 W rms max. power; tweeter-level control. Oiled walnut hand-rubbed finish 13 1/2" x 23 3/4" x 11 3/4" D..... \$139.00

## Matisse II Speaker System

Dual-distributed-port system with 12" woofer, 6" mid-range with whizzer, and 2" horn tweeter; response 20-20,000 Hz; 8 ohms; 3-way crossover 1000-3000 Hz and tweeter-level control; 50 W rms max. power. Oiled walnut hand-rubbed finish. 25 1/2" x 15 5/8" x 11 3/4" D. \$179.00

## BANG & OLUFSEN

### Beovox 2702 Speaker System

Sealed, 2-way bookshelf system with 7" woofer and dome-type 1 1/2" tweeter. Response 45-20,000 Hz, 4 ohms impedance. 45 W dynamic maximum input power. 8 1/8" H x 16 1/8" W x 8 1/8" D ..... \$100.00

### Beovox 5700 Speaker System

Sealed, 3-way floor-standing system with 10" woofer (with passive 10" bass radiator system), 2 1/4" dome mid-range, and 3/4" dome-type tweeter. Response 20-20,000 Hz, 8 ohms impedance. 100 W dynamic maximum input power. 26" H x 14 1/4" W x 11 7/8" D ..... \$300.00

### Beovox 4703 Speaker System

Sealed, 3-way bookshelf system with two 7" woofers, 5" dome mid-range, and 1" dome-type tweeter. Response 30-20,000 Hz, 4 ohms impedance. 100 W dynamic maximum input power. 11 1/2" x 22 7/8" W x 11 1/2" D .... \$220.00

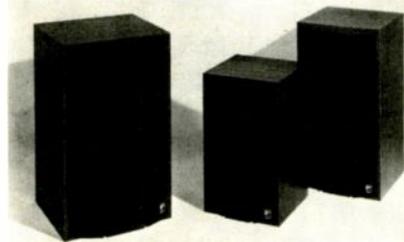
### Beovox 3702 Speaker System

Sealed, 3-way system with 8" woofer, 3 3/4" mid-range, and 1 1/2" dome tweeter. Response 40-20,000 Hz, 4 ohms, 1% HD. 19 3/4" x 9 7/8" x 9 7/8" D ..... \$125.00  
All speaker cabinets are available in Burmese teak, Brazilian rosewood or light oak finish. All units except the 5700 are also available in white lacquer.

## BIC VENTURI

### Formula 2 Speaker System

Utilizes Venturi principle (operation as an acoustic transformer in bass range) with 8"



heavy-duty woofer, Biconex horn/compression driver mid-range, and dome super tweeter. Max. rms amplifier power 75 W/ch. Response 30-23,000 Hz. Has a continuously variable brightness control and an automatic dynamic tonal balance control with defeat switch. Dispersion 120° x 120°. Has removable reticulated foam grille available in black, brown, beige, burnt orange, blue, or red. 19 3/4" x 12" x 11 1/2" D ..... \$112.50  
VB-2. Optional base ..... \$8.00

### Formula 4 Speaker System

Same design as Formula 2 but with 10" woofer; response 25-23,000 Hz; and 100 W/ch max.

rms amplifier power. 25" x 13 1/4" x 13" D. Same grille options ..... \$149.95  
VB-4. Optional base ..... \$10.00

### Formula 6 Speaker System

Same design as Formula 2 but with 12" woofer; two mid-range; and two super tweeters. Response 20-23,000 Hz. 125 W/ch max. rms amplifier power Dispersion 160° x 160°. Same grille options. 26 1/4" x 15 3/4" x 14 3/4" D \$273.25  
VB-6. Optional base ..... \$12.00

### Formula 1 Speaker System

Two-way system; response 35-17,500 Hz; 8 ohms. High efficiency for use with low-power amps or receivers; will handle up to 50 W rms/ch. Features Biconex horn/compression driver for mid and treble frequencies. Zero-loss reticulated foam grilles available in brown, black, beige, burnt orange, blue, or red. 15" x 10 7/8" x 10" D ..... \$74.95

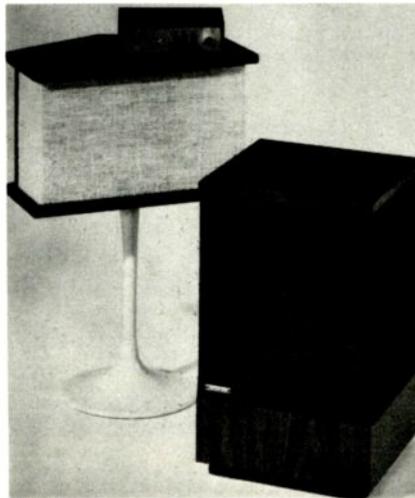
## BOSE

### 501 Series II Speaker System

Special Direct/Reflecting speakers with one woofer providing direct sound and two tweeters reflecting sound from rear wall. 20 W rms minimum recommended power; 100 W rms maximum power. 4 ohms impedance; walnut enclosure. 24" H x 14 1/2" W x 14 1/2" D .. \$149.00

### 901 Series II Speaker System

Special Direct/Reflecting speakers with nine full-range speakers per enclosure to provide



11% direct and 89% reflected sound from wall behind speakers; solid-state active equalizer provides greater degree of adaptability to a wider range of home environments. 8 ohms impedance; walnut cabinet. 12 3/4" H x 20 1/2" W x 27 7/8" D. Pair including equalizer ... \$550.00

## BOZAK

### Sonora B-201 Speaker System

Two-way bookshelf system with 8" aluminum-cone bass/mid-range driver and 2" high-frequency unit. Response 45-20,000 Hz; crossover 1800 Hz at 6 dB/octave. 8 ohms impedance. Will handle 60 watts program. 11 3/4" W x 20 1/4" x 10" D. Sculptured foam grille. \$99.50

### Tempo B-301F Speaker System

Floor-standing unit on pedestal base; three-way bookshelf speaker with 12" high-compliance bass driver, 4 1/2" mid-range, 2" tweeter. Response 40-20,000 Hz; crossovers 1200 & 3600 Hz at 6 dB/octave. 8 ohms impedance. Will handle 50 watts program. 14 1/2" W x 24 3/4" H x 11 1/2" D. Sculptured foam grille ... \$179.50

### Rhapsody B-401 Speaker System

Three-way compact speaker system with 12" high-compliance bass driver, 6 1/2" mid-range

unit, two 2" high-frequency drivers. Response 40-20,000 Hz; crossovers 800 & 2600 Hz at 6 dB/octave; 8 ohms impedance. Will handle 60 watts program. 18" W x 25 5/8" H x 13 1/4" D ..... \$269.50  
B-402. Same except finished all four sides for shelf mounting ..... \$269.50

### Monitor C B-407 Speaker System

Has four 8" aluminum-cone bass/mid-range drivers and eight 2" treble units mounted in a sector-of-sphere configuration. Response 30-20,000 Hz; crossover 2000 Hz at 6 dB/octave. 8 ohms impedance. Will handle 150 watts program. 18 1/2" x 40 1/4" H x 15" D.... \$489.50

### Symphony No. 1 B-4000A Modern

Infinite-baffle, 3-way floor-standing system with two 12" woofers, 6 1/2" mid-range, and eight 2" tweeters in vertical line array. Response 35-20,000 Hz; crossovers 400 & 2500 Hz at 6 dB/octave. 8 ohms impedance; will handle 100 watts program. Walnut enclosure. 26 1/4" W x 44 1/2" H x 15 5/8" D ..... \$632.50

## BRAUN

### L-500A Two-Way Speaker System

Acoustic-suspension design; response 25-25,000 Hz (DIN); power handling 30 watts rms; crossover 1500 Hz/12 dB per octave; impedance 4 ohms; has one 1" soft-dome tweeter, one 8" high-compliance woofer; efficiency 87 dB for 2-watt input at 10 feet; walnut finish; removable grille cloth. 20" H x 11.5" W x 9.75" D ..... \$129.50

### L-700A Two-Way Speaker System

Acoustic-suspension design; response 25-25,000 Hz (DIN); power handling 35 watts rms; crossover 1500 Hz/12 dB per octave; impedance 4 ohms; has one 1" soft-dome tweeter, two 7" high-compliance woofers; efficiency 88 dB for 2-watt input at 10 feet; white acrylic lacquer on wood or walnut veneer finish; removable black or beige cloth grille. 21 5/8" H x 12 1/4" W x 10 1/2" D ..... \$159.50

### L-810A Three-Way Speaker System

Acoustic-suspension design; response 20-20,000 Hz (DIN); minimum recommended amplifier power 20 watts rms; crossovers at 550 & 4000 Hz; has one 1" soft-dome tweeter, one 2" soft-dome mid-range, and two 8" high-compliance woofers; impedance 4 ohms; efficiency 88 dB SPL for 2-watt input at 10 feet; white acrylic lacquer or walnut finish; removable beige tweed or black double-knit grille cloth. 25 1/4" x 12 1/4" W x 11 3/4" D ..... \$299.50



LF-700. Optional speaker stand to permit vertical or horizontal mounting ... \$37.50 ea.

### LV1020 Tri-Amplified Speaker System

Features active electronic crossover and three integral power amplifiers; has three sealed acoustic chambers housing 1" dome tweeter, 2" dome midrange, and 12" long-excursion woofer; RC crossovers 400 & 3000 Hz/12 dB per octave; power amplifiers: woofer 55 W rms,

0.1% dist. at 40 Hz at 40 W; midrange 30 W rms, 0.1% dist. at 1 kHz at 20 W; tweeter 15 W rms. 0.1% dist. at 15 kHz at 15 W; S/N 90 dB for mid-range channel. Response 20-25,000 Hz (DIN 45,500); sound pressure 110 dB at 3 feet. Walnut veneer cabinet; perforated anodized aluminum grille (cloth grille optional). 15" W x 29.15" H x 11.8" D ..... \$749.00  
**LF-700.** Optional speaker stand to permit vertical or horizontal mounting ... \$37.50 ea.

## CAMBRIDGE AUDIO

### TL 200 Speaker System

Features low-frequency driver covering 30-400 Hz loaded with 7-ft tapered labyrinth damped with lambdwool; mid-range driver covering 400-3000 Hz in separate damped tapered pipe to avoid IM distortion; high-frequency unit with pressure-driven dome covering band above 3 kHz; plus super tweeter for smoothness above 10,000 Hz; crossovers 400, 3000 & 10,000 Hz. Will handle 50 watts program material. 8 ohms impedance. Response 25-25,000 Hz. Walnut or teak enclosure. 41 1/2" H x 17 1/8" D x 13" W ..... \$500.00

**TL100.** Similar except doesn't have super tweeter; crossovers at 400 & 3000 Hz. Will handle 40 watts program material. Response 35-20,000 Hz. May be used vertically or horizontally. 31 1/2" H x 13" D x 12 3/4" W ... \$400.00

## CELESTION

### Ditton 66 Studio Monitor

Three-way system with 12" ultra-linear bass driver, 12" auxiliary bass radiator (ABR), pressure-type dome mid-range, and pressure-type tweeter. Response level 25-30,000 Hz (over-all 16-40,000 Hz); crossovers 500 & 5000 Hz. 80 W maximum power. Impedance 4-8 ohms. Walnut cabinet. 40" x 15" x 11 1/2". ..... \$519.50 pr.

### Ditton 25 Speaker System

Has 12" bass driver plus 12" ABR, two treble speakers, and one super tweeter. Response 25-30,000 Hz. 60 W maximum power handling capacity. Impedance 4-8 ohms. Walnut cabinet. 32" x 14" x 11". ..... \$343.50 pr.

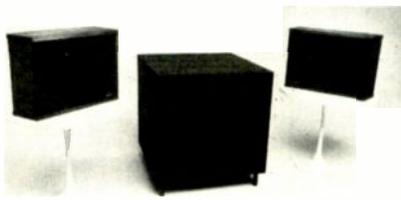
### Ditton 44 Monitor Speaker

Three-way system with 12" bass driver, mid-range, and super tweeter. Response 30-30,000 Hz. crossovers 500 & 5000 Hz. 44 W maximum power handling capacity. Impedance 4-8 ohms. Walnut cabinet. 30" x 14 1/2" x 10". \$280.00 pr.

## CERWIN-VEGA

### 320 Modular Speaker System

Separated bass system for placement flexibility combined with separately housed mid-



treble speakers; designed to be used with standard 2 or 4-channel amplifiers.

**320MT.** Has special 12" mid-bass speaker, HF-91 mid-range/high-frequency horn driver assembly, two dhorm tweeters; frequency range 125-25,000 Hz; crossovers 125, 1500 & 4000 Hz; direct-radiating with side reflecting upper mid-range; 100 W rms max. power input; 8 ohms. Oiled walnut. 14 1/2" H x 6" D x 18" W (back), 16 3/4" W (front). ..... \$350.00  
**320D.** Same as 320MT but uses a 300 W ultra-compliant 18" woofer. .... \$450.00

**320B.** Omnidirectional cubical commode with 15" woofer; frequency range 25-250 Hz; crossover 125 Hz (250 Hz optional); 150 W rms max. power input; bottom-radiating. Oiled walnut. 25" H x 20" W x 25" D ..... \$300.00

**320C.** Same as 320B except has two 12" bass speakers; 300 W rms max. input power. .... \$350.00

### 24 Two-Way Speaker System

Direct-radiating, two-way system with 12" woofer & 2 1/2" dhorm tweeter; crossover 2500 Hz; frequency range 30-25,000 Hz; dynamic range 65 dB in 40 dB noise field; dispersion 100 degrees; impedance 4-8 ohms; 40 W rms max. power input, 80 W peak. Oiled walnut. 25" H x 14 1/2" W x 12" D ..... \$119.50  
**26.** Same as Model 24 except max. power input 60 W rms, 120 W peak. .... \$139.50

### 211 Two-Way Speaker System

Two-way, front-radiating system with 12" woofer & 2 1/2" dhorm tweeter; frequency range 25-25,000 Hz; crossover 2500 Hz; dispersion 100 degrees; dynamic range 72 dB in 40 dB ambient noise field; max. power input 100 W rms, 200 W peak. Oiled walnut. 26" H x 15" W x 15 1/2" D ..... \$179.50  
**211R.** Same as Model 211 except direct radiating with controllable upper mid reflection; HF-91 horn driver assembly; crossovers 1500 & 3000 Hz ..... \$269.50

### 217(R) Three-Way Speaker System

Floor-standing, direct radiating unit with controllable upper and mid reflection; frequency range 25-25,000 Hz; 15" woofer, HF-91 horn driver assembly, 2 1/2" dhorm tweeter; crossovers at 1500 & 3000 Hz; dispersion 100 degrees; imp. 4-8 ohms; dynamic range 78 dB in 40 dB noise field. Oiled walnut. 27 1/2" H x 20" W x 17" D ..... \$375.00

### Magnastat II Speaker System

Two-way design with thin-film mid-hi transducer; 12", 100 W woofer crosses over at 600 Hz to Magnastat element which handles 600-20,000 Hz; diaphragm is virtually massless and presents resistive load to amplifier. Oiled walnut finish. 33" H x 14 1/2" W x 12" D ... \$449.50

## CONCEPT E.Q.

### EQ-5 Speaker System

Consists of two 3-way bookshelf speakers and an active equalizer in walnut cabinets. Designed for amplifiers with 40 W/ch rms power or more. Features a 12" acoustic-suspension woofer, a 5" mid-range & a dome-radiator tweeter. Active equalizer applies inverse curve for flat response (30-20,000 Hz ±2 dB). Capacity 100 W; 8 ohms; crossovers at 800 & 4000 Hz. Input sensitivity 0.5 V (5 V max.); input impedance 500,000 ohms. HD 0.1% at 1.5 V output. Has mid-range and high-frequency level controls. Equalizer size 9" W x 3" x 8" D. Speakers are of oiled walnut with black reticulated foam grilles (can be spray painted any color). 25 1/8" x 15 1/8" x 10 3/8" D.  
 Speakers only ..... \$195.00 ea.  
 Equalizer only ..... \$150.00  
 System (2 speakers & equalizer) ..... \$499.00

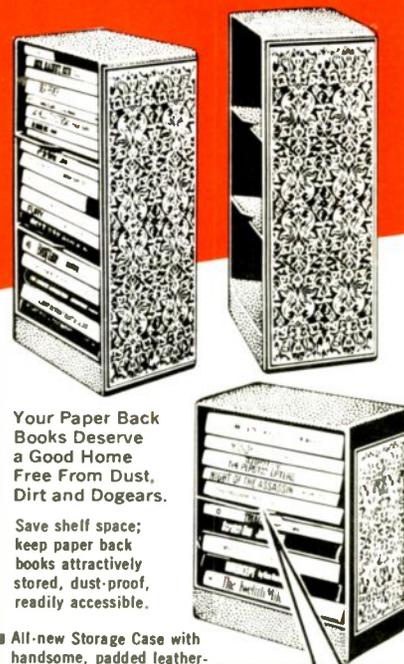
## CONCORD

### CS-10 Bookshelf Speaker System

Two-way bookshelf system with 8" woofer & 3 1/2" wide-dispersion mid-range/tweeter; crossover 3500 Hz; frequency range 50-18,000 Hz; 8 ohms impedance; power capacity (rms) 40 watts, minimum power 10 watts. Features air-suspension woofer for low distortion combined with specially vented enclosure for high efficiency; acoustic "transformer" cabinet design for high-velocity acoustic energy at the vent slot to permit accurate control of system characteristics. Has sculptured foam grille. 23 1/4" H x 12 3/8" W x 11 1/8" D ..... \$89.95

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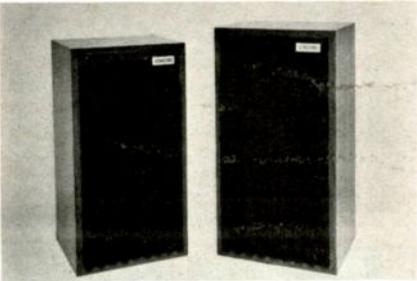
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# 10 Speaker Systems



**CS-20.** Similar to Model CS-10 except has two 8" woofers; frequency range 40-18,000 Hz; power capacity (rms) 80 watts. Has mid-range and treble switches, each with two positions. 24<sup>7</sup>/<sub>8</sub>" H x 13<sup>1</sup>/<sub>2</sub>" W x 11<sup>5</sup>/<sub>8</sub>" D ..... \$119.95

## CREATIVE

### 11 Bookshelf Speaker System

Acoustic suspension, wide-range bookshelf speaker system. Response 50-17,000 Hz. Will handle 20 W continuous power. 8 ohms. 10" x 7" x 7". Sold in pairs ..... \$34.95 ea.

### 22 Two-Way Speaker System

Two-way system with 6" woofer & 3" tweeter. Response 45-18,000 Hz; Crossover 4000 Hz. Will handle 20 W continuous power. 8 ohms. 15" x 8" x 7". Sold in pairs ..... \$49.95 ea.

### 66 Two-Way Speaker System

Two-way system with 8" woofer & 2<sup>1</sup>/<sub>2</sub>" tweeter. Response 40-18,000 Hz; crossover 4000 Hz. Will handle 25 W continuous power. 8 ohms. 18" x 11" x 9". Sold in pairs ..... \$69.95 ea.

### 77 Three-Way Speaker System

Three-way system with 10" woofer, 4" mid-range, and 2<sup>1</sup>/<sub>2</sub>" tweeter. Response 35-19,000 Hz; crossover 4000 & 8000 Hz. Will handle 30 W continuous power. 8 ohms 22" x 12<sup>3</sup>/<sub>4</sub>" x 9<sup>1</sup>/<sub>2</sub>". ..... \$99.95

### 88 Three-Way Speaker System

Three-way system with 12" woofer, 6" mid-range, and 2<sup>1</sup>/<sub>2</sub>" tweeter. Response 30-20,000 Hz; crossovers 1000 & 4000 Hz. Will handle 40 W continuous power. 8 ohms. 23<sup>3</sup>/<sub>4</sub>" x 14<sup>3</sup>/<sub>4</sub>" x 12<sup>1</sup>/<sub>4</sub>". ..... \$149.95

### 92 Four-Way Speaker System

Four-way system with 12" woofer, 7" compression horn mid-range, 3" and 2<sup>1</sup>/<sub>2</sub>" tweeters.



Response 30-20,000 Hz; crossovers 2000, 4000 & 10,000 Hz. Will handle 40 W continuous power. Has lower mid-range and brilliance trim controls. 23<sup>3</sup>/<sub>4</sub>" x 14<sup>3</sup>/<sub>4</sub>" x 12<sup>1</sup>/<sub>4</sub>" .. \$169.95

### Autograph 99 4-Way System

Four-way floor-standing system with 15" woofer, 5" mid-range, 3" upper mid-range, and 1" dome tweeter. Response 30-20,000 Hz; special computer-grade modular network with crossovers at 700, 3000 & 8000 Hz. Will handle 55 W continuous power. 8 ohms. Has mid-range & brilliance trim controls. 25<sup>1</sup>/<sub>2</sub>" x 20<sup>1</sup>/<sub>4</sub>" x 17" ..... \$249.95  
Genuine Italian marble or smoked glass top ..... \$29.95

### Autograph 100 Lab-Type Monitor

Three-way system with 12" woofer, 5" mid-range, and 1" dome tweeter. Response 30-20,000 Hz. Will handle 50 W continuous power. Crossover 700 & 3000 Hz. 8 ohms impedance. 23<sup>3</sup>/<sub>4</sub>" x 14<sup>3</sup>/<sub>4</sub>" x 14<sup>3</sup>/<sub>4</sub>" ..... \$209.95

## CREATIVE SOUND

### CS-12-4 Speaker System

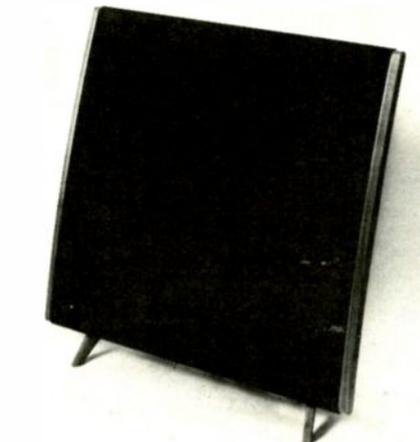
Four-way system with 12" woofer, 5" mid-range, 4" super-horn tweeter, and 4" dome tweeter;



response 19-40,000 Hz; imp. 8 ohms; will handle 75 W rms. Herculex laminated surface with hand-rubbed satin luster finish. 23<sup>7</sup>/<sub>8</sub>" H x 21" W x 12<sup>3</sup>/<sub>4</sub>" D ..... \$224.95  
**CS-12-3.** Three-way system with 12" woofer, 5" mid-range, and 4" tweeter; response 12-22,000 Hz; imp. 8 ohms; will handle 75 W rms. Same type enclosure except measures 23<sup>7</sup>/<sub>8</sub>" H x 16" W x 12<sup>3</sup>/<sub>4</sub>" D ..... \$159.95  
**CS-8.** Two-way system with 8" woofer & 2" tweeter; response 25-18,000 Hz; imp. 8 ohms; will handle 50 W rms. Same type enclosure except measures 20<sup>1</sup>/<sub>4</sub>" H x 11<sup>3</sup>/<sub>4</sub>" W x 11<sup>1</sup>/<sub>4</sub>" D. \$89.95

## DAHLQUIST

### DQ-10 Five-Way Speaker System

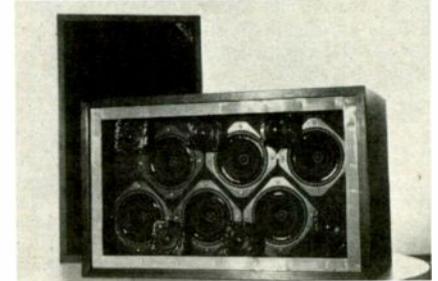


"Phased Array" moving-coil speaker system with 10" woofer in a sealed air-suspension enclosure, a 5" mid-bass driver; 2" soft-dome mid-range, 3/4" dome tweeter; and piezoelectric ceramic super tweeter; crossovers 400, 1000, 7000 & 12,000 Hz. Nominal impedance 8 ohms. Response 30-27,000 Hz. Recommended power input 50-100 W. Features continuously variable high-frequency contour control on rear for boost or cut. Grille cloth is black with solid walnut trim. 30<sup>1</sup>/<sub>2</sub>" W x 31<sup>1</sup>/<sub>2</sub>" H x 9" D ... \$395.00

## DATHAR

### DA-I Speaker System

System consists of two channel units, each with six 5" coaxial speakers plus six 2<sup>1</sup>/<sub>4</sub>" x 2<sup>1</sup>/<sub>4</sub>"



tweeters; unique array permits maximum dispersion giving broad source effect without loss of stereo imaging (one channel is the mirror image of that for the other channel). Rated 120 rms watts/ch; will take 250 watts of program material for 5 min.; response 22-22,000 Hz ±3 dB; fuse protection provided. Recommended amplifier power 30 rms watts/ch for average size living room. System resonance 26 Hz ±3 Hz; THD 0.8% over usable audio range; 8 ohm impedance. Filter capacitor instead of crossover network. Has three-position frequency balance switch. Hand-rubbed walnut cabinet. 15" x 25" x 13<sup>1</sup>/<sub>4</sub>". Sold in pairs only ..... \$660.00 pr.

## DESIGN ACOUSTICS

### Design-6 Speaker System

Three-way system with five 2<sup>1</sup>/<sub>2</sub>" cone tweeters, a 5" mid-range driver, and 10" high-compliance woofer. Response 30-15,000 Hz ±3 dB. Vertical and horizontal dispersion 180 degrees. Crossovers 800 and 2000 Hz. Switch control of high, low, and mid-frequency levels. 20 W/ch minimum driving power. 8 ohms imp. 24<sup>1</sup>/<sub>4</sub>" x 16<sup>1</sup>/<sub>2</sub>" x 13<sup>3</sup>/<sub>4</sub>". Walnut veneer cabinet with black grille. Grille cloth also available in azure, cocoa and crimson. .... \$279.00

### Design-12 Speaker System

A dodecahedron (12 sided) omnidirectional enclosure with 10" woofer, an enclosed heavily damped 5" mid-range driver, and nine high-frequency radiators. Enclosure volume is 2<sup>3</sup>/<sub>4</sub> cubic feet and is tuned with a tube to produce a Helmholtz resonance of 27 Hz. Crossover at 1500 Hz is between mid-range speaker & tweeter. Can be used with amplifiers up to 100 W/ch rms (20 W/ch rms should be minimum). Response 30-15,000 Hz ±2 dB. 8 ohms impedance. 30" H with pedestal. Lacquered walnut finish, walnut stem, black steel legs, and black grille cloth ..... \$399.00  
With chrome base instead of walnut & steel ..... \$425.00

### Design-4 Speaker System

Wide-dispersion, three-way column system with three cone tweeters, 5" mid-range, 10" high-compliance woofer; crossovers at 800 & 2000 Hz. Response 40-15,000 Hz ±3 dB; fundamental resonance 43 Hz. Recommended amp power 20-60 W/ch. 37<sup>1</sup>/<sub>2</sub>" H x 9<sup>1</sup>/<sub>2</sub>" D x 17<sup>1</sup>/<sub>2</sub>" W (rear) x 9" W (front)..... \$199.00

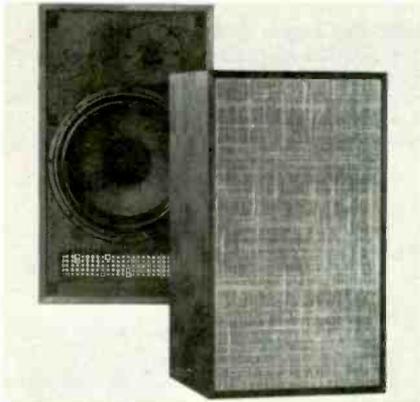
## DYNACO

### A-25 Speaker System

2-way bookshelf system with critically damped port 10" woofer and 1 1/2" soft-dome tweeter. 1500 Hz crossover. Has 5-position tweeter level control, 8 ohms impedance. 60 W maximum music input. Features aperiodic enclosure design. Comes with wall-mounting brackets. 11 1/2" H x 20" W x 10" D. Oiled-walnut finish . . . \$89.00  
**A-25VW.** Same as A-25 except vinyl-covered, walnut-grained wooden enclosure . . . \$79.95

### A-25XL Speaker System

2-way bookshelf system with a new type woofer with ferrite magnet structure and aluminum



voice coil, 1" non-rigid hemispheric tweeter; 1200 Hz crossover; aperiodic design of cabinet uses highly damped vent with controlled acoustical resistance. 50 W (DIN) power handling capacity; recommended amplifier power 15 W or more. Oiled walnut cabinet, beige linen grille cloth. 11 1/2" x 20" x 10" D. . . . \$99.00

### A-50 Speaker System

Sealed, dual chamber aperiodic 2-way floor-standing system with two 10" woofers and 1 1/2" dome tweeter. 1000 Hz crossover. Has 5-position tweeter level control, 8 ohms impedance. 25 W recommended driving power; 75 W maximum music input. Features dual spectrum damping. 28" H x 21 1/2" W x 10" D. Oiled walnut finish . . . . . \$189.00

### A-10 Speaker System

2-way miniature bookshelf enclosure with critically damped port and 6 1/2" woofer and 1 1/2" dome tweeter. 2500 Hz crossover. 8 ohms impedance. 15 W recommended driving power. Up to 50 W music input. Features aperiodic design. Comes with wall-mounting brackets. 8 1/2" x 15" x 8" D. Sold in pairs only . . . . \$119.00 pr.  
**A-10VW.** Same as A-10 except vinyl-covered, walnut-grained wooden enclosure. . \$110.00 pr.

### A-35 Speaker System

Sealed, dual-chamber 2-way bookshelf system with 10" woofer and 1 1/2" soft-dome tweeter. 1200 Hz crossover. 8 ohms impedance. 20 W recommended driving power. Up to 60 W maximum music input. Features aperiodic design. 22 1/2" x 12 1/2" x 10" D. Comes with wall-mounting brackets . . . . . \$120.00

## ELECTROSTATIC

### ER-139 Speaker System

A 360-degree radiating system using eight electrostatic mid/high tweeters in horizontally circular array mounted on downward-directed 10" dynamic woofer; response 30-30,000 Hz; flat 38-20,000 Hz; crossover 2000 Hz; 20 W min. rms power per channel, 100 W max.; 8 ohms impedance; self-energizing. Walnut vinyl finish with optional polyacoustic grille fitting over speaker array upon cabinet. 28" H x 16" W x 16" D . . . . . \$139.90  
 With grille . . . . . \$159.90

## ELECTRO-VOICE

### Sentry IA Speaker System

Bass-reflex 2-way wall-mounting system with 12" woofer and diffraction horn mid-range/tweeter. Response 30-20,000 Hz. 16 ohms impedance. 37" H x 21 1/4" W x 17" D. Walnut finish . . . . . \$220.50

**Sentry 11A.** Same except floor model 32" H x 20" W x 13" D . . . . . \$220.50

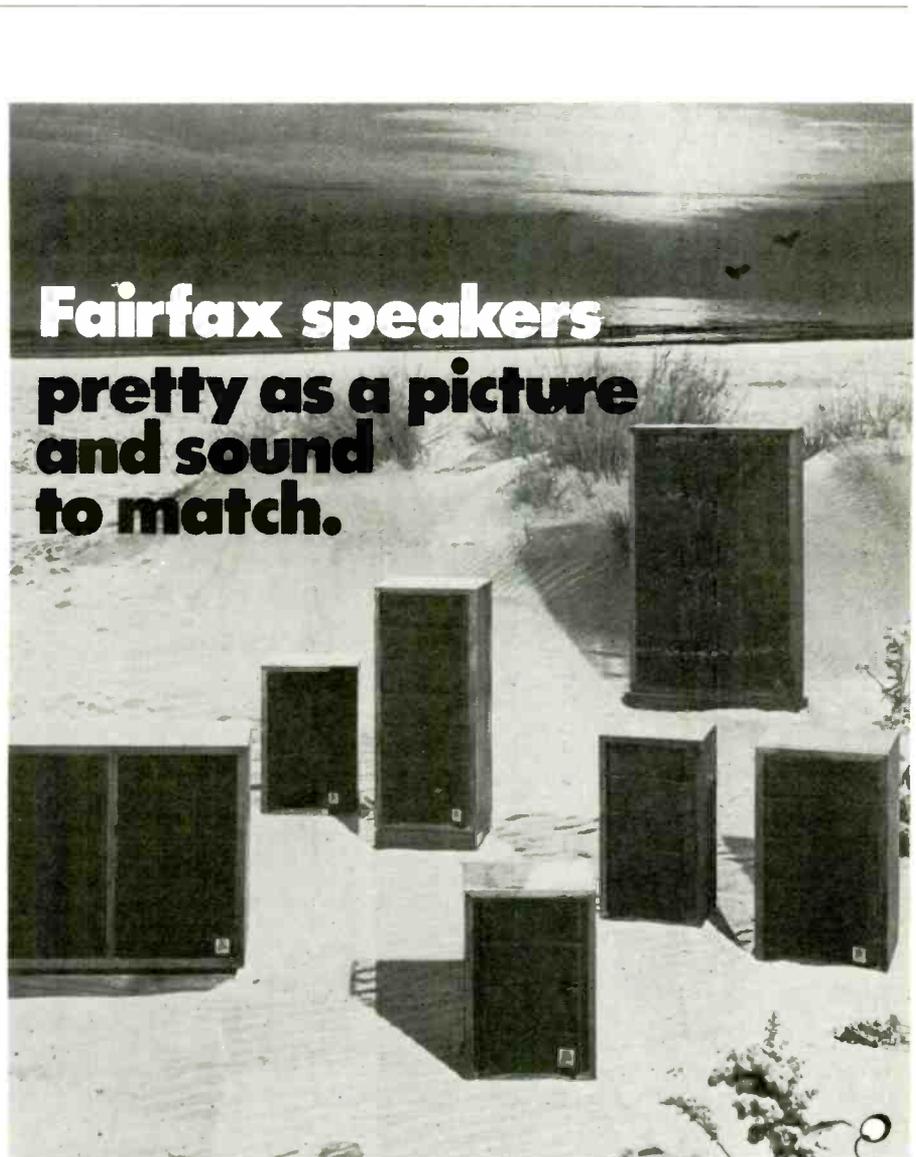
### Sentry III Professional Speaker System

3-way direct-radiator vented design with fourth-order Butterworth tuning. Has 15" woofer & mid-range/high-frequency horn array; 600 & 3500 Hz crossovers. Response 40-18,000 Hz; capacity 50 W. Has device that interrupts power to tweeter when power surges occur. Walnut cabinet with dark grille. 28 1/2" x 20 1/2" x 34 1/2" H . . . . . \$650.00

**SEQ.** Optional equalizer which extends response to 28 Hz . . . . . \$60.00

### Interface: A Speaker System

Vented system with 10" dia. piston for low frequencies, 2" dia. piston as primary tweeter operating down to 1500 Hz, and second tweeter operating above 7000 Hz; response down 0.5



To listen to a Fairfax Supersound system is to listen with no distortion and no coloration. You hear only the natural sound and presence of the source, with true pitch, zero overlap and total musical balance.

Sound is not the only area where a Fairfax Supersound speaker system outshines the competition. Our cabinetry, cut and crafted in our own factory, is made of the finest American oiled walnut veneer, and the craftsmanship rivals that of the finest furniture makers.

Fairfax speaker systems are recognized (and sold) throughout the free world as superior sounding speakers.

You owe it to yourself to make a side-by-side comparison test of a Fairfax speaker with any other speaker you're considering.\*

\*If your dealer is not a Fairfax dealer and you want to make the comparison, have him contact us and we will send him a pair of speakers for your evaluation. No other speaker manufacturer has the confidence to make such a claim.



CIRCLE NO. 22 ON READER SERVICE CARD

# 10 Speaker Systems

dB at 40 Hz dropping to -3 dB at 35 Hz; equalizer adds 3 dB at 50 Hz rising to 6 dB max. at 35 Hz; below usable range of system equalizer rolls off electrical input to amplifier; equalizer designed to be connected to tape monitor jacks on most components or used between preamp & power amps; has two channels of equalization for use in stereo systems. Sold in pair of speakers with equalizer ..... \$450.00

## 16A Speaker System

Three-way acoustic-suspension system with response 30-20,000 Hz; crossovers at 700 & 3000 Hz; 8 ohms imp.; can handle 70 W peak; has 12" woofer, 5" mid-range, shallow-profile tweeter; continuously variable level control for tweeter. Walnut-grain vinyl cabinet. 14 1/2" x 25" x 13 3/4" D. .... \$149.95

15A. Same as 16A except has 10" woofer & 2 1/4" tweeter; response 40-20,000 Hz; 13 1/2" x 24" x 11 3/4" D. .... \$129.95

14A. Same as 15A except two-way system; response 40-18,000 Hz; crossover 1500 Hz. .... \$109.95

13A. Same as 14A except 10" woofer; response 50-18,000 Hz; 1500 Hz crossover. 10" x 19" x 8 1/2" ..... \$69.95

## EMPIRE

### Grenadier 9500M/II Speaker System

Six-driver, 3-way design. Has two 12" woofers facing down in a horn-loaded configuration; two



wide-angle lenses, each with ultrasonic domed tweeter & direct radiator mid-range. Built into an octagon-shaped enclosure. Power ratings 200 W rms from 20-450 Hz; 100 W rms from 450-5000 Hz; 40 W rms from 5000-20,000 Hz. Has built-in automatically resetting circuit breakers to prevent burn-out. Response 30-18,000 Hz ±5.5 dB. HD 0.1% at 1 W & 1000 Hz. 30" W x 20 3/4" D x 28" H. With marble or walnut top. .... \$399.95

### Grenadier 7500M/II Speaker System

Infinite-baffle, 3-way floor-standing system with 15" woofer, direct-radiator mid-range, and direct-radiator domed tweeter. Response 25-20,000 Hz. Has tweeter level control, 8 ohms impedance. 100 W dynamic maximum input power. 26 3/4" H x 20" diameter.

Walnut finish with imported marble top or walnut-finish top. .... \$249.95

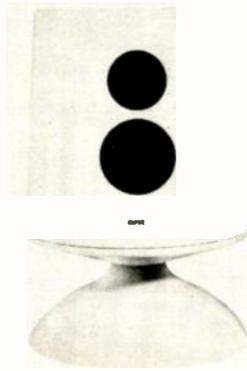
### Grenadier 6000M/II Speaker System

Reflex-type, 3-way floor-standing system with 12" woofer (facing down), a direct-radiator mid-range, and direct-radiator ultrasonic tweeter. Response 30-20,000 Hz. Has tweeter level control, 8 ohms impedance, 75 W dynamic maximum input power. 24 3/8" H x 18" diameter. Walnut finish with imported marble top or walnut-finish top. .... \$159.95

### Jupiter 6500II Indoor/Outdoor Speaker

Three-way reflex system with 12" woofer, mid-

range radiator, and ultrasonic tweeter. Response 30-20,000 Hz. Has tweeter-level con-



trol. Gloss white finish. .... \$159.95

## EPI

### 60 Speaker System

Two-way system with 6" woofer & 1" air-spring tweeter; crossover at 1800 Hz; response 50-18,000 Hz ±3 dB; 8 ohms; recommended rms power input 10-35 W. 17" x 9" x 7" .. \$69.95

### 90 Speaker System

Two-way system with 8" woofer & 1" air-spring tweeter; crossover 1800 Hz; response 45-18,000 Hz ±3 dB; 8 ohms; recommended rms power input 12-50 W. 21" x 11" x 9". \$89.95

### 110 Speaker System

Two-way system with 8" woofer & 1" air-spring tweeter; crossover 1800 Hz; response 35-18,000 Hz ±3 dB; 8 ohms; recommended rms power input 15-60 W. 24" x 14" x 10". \$119.95

### 180 Speaker System

Double-module system with two 8" woofers & 1" tweeters; response 30-19,000 Hz ±3 dB; recommended rms power input 32-125 W. 25" x 16" x 12". .... \$189.95

## EPICURE

### 100 2-Way Speaker System

Sealed, 2-way bookshelf system with 8" woofer & 1" tweeter. Response 45-18,000 Hz ±3 dB; 1800 Hz crossover. 8 ohms impedance. Can handle 10-75 W rms/ch. 21" H x 11" W x 9" D. .... \$99.00

### 50 Speaker System

Combines a 6" acoustic-suspension woofer and a 1" air-spring tweeter in a walnut cabinet measuring 12" x 10" x 18" D. Response 55-18,000 Hz ±3 dB. Recommended amp. 10-50 W rms/ch. 8 ohms impedance. Sold in pairs. . \$130.00

### 150 Speaker System

Combines an 8" woofer and a 1" inverted dome tweeter in walnut cabinet 11" x 15" x 24" H. Response 40-18,000 Hz ±3 dB; crossover 1800 Hz. 8 ohms impedance. Recommended amp. 10-85 W rms/ch. .... \$149.00

### 201 2-Way Speaker System

Similar to Model 100, but contains two 8" woofers and two air-spring tweeters. The extra woofer and tweeter are angled toward ceiling. Response 30-19,500 Hz ±3 dB. Can handle 10-125 W rms/ch; 4 or 16 ohms imp. 29" H x 18" W x 11" D. .... \$219.00

### 202 Speaker System

Has same speakers as Model 201, but cabinet 15" x 15" x 24". Since woofer is mounted lower to the floor, system produces a heavier bass. Impedance 16 or 4 ohms. Recommended amp. 20-125 W rms/ch. .... \$239.00

## 602 Speaker System

Forward- and rear-facing enclosure system with six drivers in three woofer-tweeter modules. Rear-facing modules are 90 degrees apart; each module contains 8" woofer and a wide-dispersion air-spring tweeter. Response 30-19,500 Hz ±3 dB. Has tweeter control, 4 ohms impedance. Handles 30-250 W rms/ch power. 16" H x 24" W x 15" D. .... \$299.00

## 400 Plus System

Omnidirectional design. Is a slim column (14" on a side x 36" high) with speaker modules radiating from all four sides equally. Contains four 6" woofers, four air-spring tweeters. Response 28-19,500 Hz ±3 dB. Can handle 25 250 W rms/ch. 8 ohms impedance. .... \$399.00

## 1000 The Tower System

Omnidirectional design with four full-sized woofer-tweeter modules. Response 20-22,000 Hz ±3 dB. Can handle 20-300 W rms/ch. Tower is 6 1/2 feet tall. 8 ohms impedance. On special order only. .... \$1000.00

## EQUASOUND

### II Speaker System

Has 10" woofer, 4" mid-range, 1" dome tweeter,



and two 2" piezoelectric tweeters; Mylar capacitor and air-core inductor crossover network; response 32-20,000 Hz; 4 ohms impedance; 15 W rms/ch min. amplifier power, 75 W rms/ch maximum. Fiber-filled reflex enclosure. 42" H x 13" W x 13" D. Walnut/black. .... \$329.00 ea.

## ESS

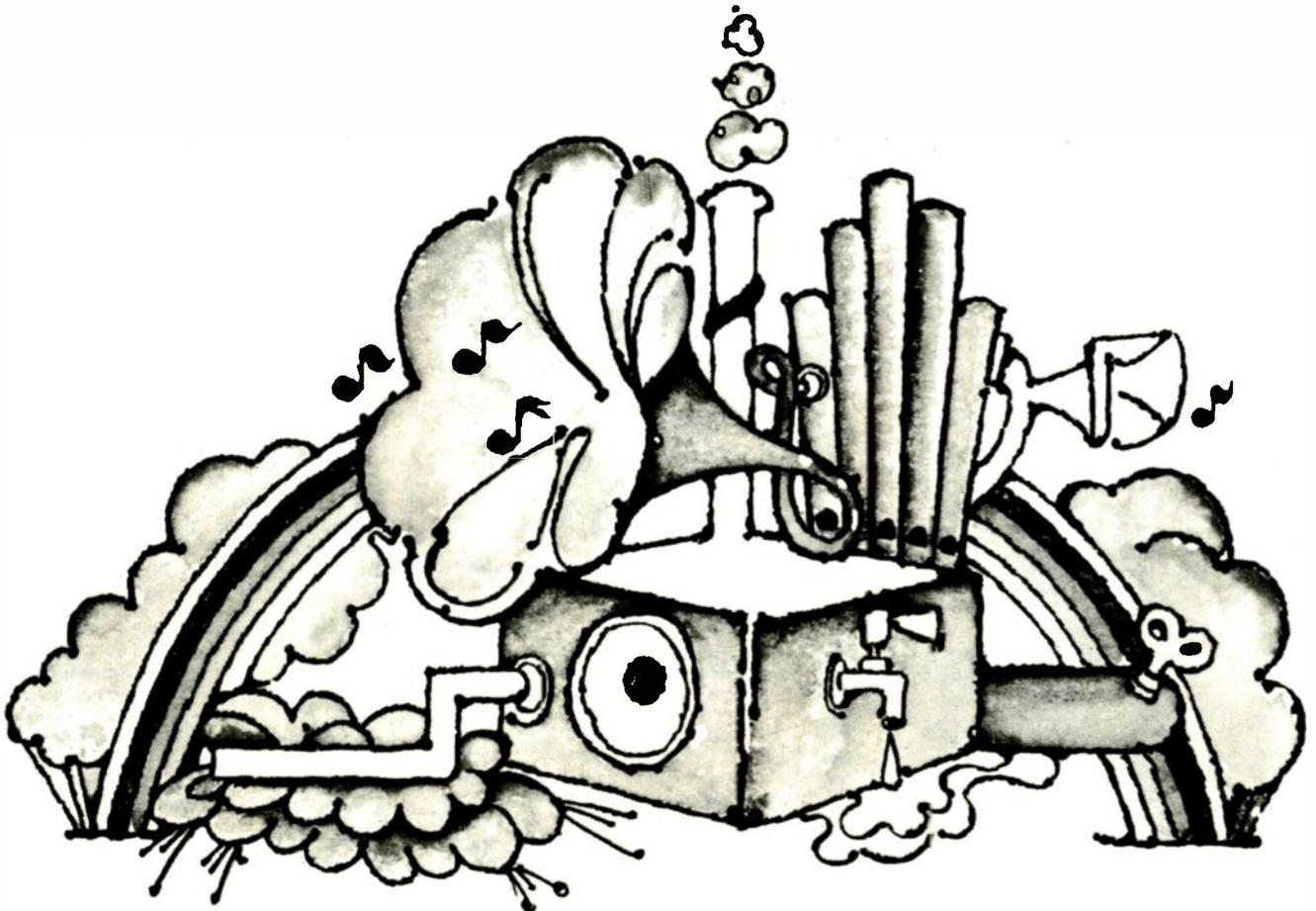
### amt 1 Speaker System

Incorporates the ESS Heil air-motion transformer which "squeezes" air instead of pushing



it, creating a five times velocity increase over a

This advertisement originally appeared in 1969. It is true today and will still be true in another five years.



# HO HUM

## Another major breakthrough

Oh No! Not Again! Yes it seems that every year someone "re-invents" one of the discarded speaker designs of the past. Or they purport to modify the laws of physics by miniaturizing a 32-foot wavelength. They may even write a "technical" article on their revolutionary discovery and succeed in getting it published.

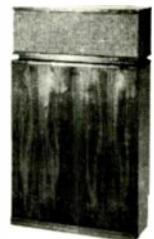
We customarily make an optimistic estimate that these speakers will survive five years. Some make it. Some even get re-invented all over again after a subsequent five years. In the meantime they sell. Because they sound different. Different from all other speakers. Different from the live performance.

We'd sort of miss them if they failed to show up. After all, what would spring be without a new major break-

through? And would it really be fall without the letter edged in black? Pity!

So - aren't you glad you own KLIPSCHORNS<sup>®</sup>?

*Paul*  
Paul W. Klipsch  
Klipsch and Associates, Inc.



*P. S. We have a list of over 20 major breakthroughs that have appeared, died and were interred. Your Klipsch dealer will be glad to show it to you. We know some more good prospects for this list. You can't see those names - until next year.*



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Occupation \_\_\_\_\_ Age \_\_\_\_\_

# 10 Speaker Systems

"pushing" planar surface, resulting in greater, more accurate, and near-massless transfer of energy to the air. A two-way floor standing system with frequencies above 700 Hz reproduced by the Heil unit and a 10" woofer handling the lower frequencies. Response 45-24,000 Hz  $\pm 2$  dB. Power requirement 20 W rms minimum per channel; power handling 350 W musical peaks without distortion. 4 ohms imp. Hand-rubbed oiled walnut finish. 31" H  $\times$  14 1/2" W  $\times$  14 1/4" D. . . . . \$315.00

## amt 1 Tower Speaker System

Uses same woofer and air-motion transformer as the amt 1 but provides additional octave of resonance-free bass response through 6-ft quarter-wave transmission line; response 45-20,000 Hz, usable 28-24,000 Hz; dist. 1% at 90 dB out to any frequency between 50-20,000 Hz; square-wave rise time 15  $\mu$ sec; power required 20 W rms minimum; can handle up to 400 W musical peaks; 4 ohms min. input impedance. Hand-rubbed oiled walnut cabinet. 43 3/8" H  $\times$  14 1/16" W  $\times$  17 1/2" D. . . . . \$375.00

## amt 3 Rock Monitor Speaker

Three-way, four-driver system; deep bass frequencies produced by two 10" long-throw woofers mounted in resistive reflex enclosure; a 6" long-throw driver, mounted in internal terminated line handles upper bass/lower mid-range frequencies; upper mid-range/treble reproduced by Heil air-motion transformer; response essentially flat 45-20,000 Hz, usable 30-24,000 Hz; other specifications same as amt 1. Hand-rubbed oiled walnut cabinet. 39 1/4" H  $\times$  15 5/8" W  $\times$  15 3/16" D. . . . . \$435.00

## amt 4 Compact Speaker System

Two-way floor-standing system with 10" air-suspension woofer and Heil air-motion transformer for upper range; response essentially flat from 50-20,000 Hz, usable 40-22,000 Hz; dist. 1% at 90 dB at any frequency between 70-18,000 Hz; 20 watts rms minimum power required; will handle up to 350 watts musical peaks; 4 ohms minimum input impedance. Hand-rubbed oiled-walnut cabinet. 27" H  $\times$  15 5/8" W  $\times$  12 1/2" D. . . . . \$239.00

## amt 5 Reference Bookshelf Speaker

Features ESS Heil "power ring" air-motion transformer tweeter and 12" acoustic-suspension woofer; multi-stage crossover; response 40-24,000 Hz; will handle 150 watt musical peaks; can be operated vertically or horizontally. Sculptured black fabric grille fits flush to outside cabinet surfaces. Oiled-walnut enclosure. 24" H  $\times$  14 1/2" W  $\times$  12 3/4" D. . . \$189.00

## FAIRFAX

### "Wall of Sound I" System

Features an "integrated cyclone" labyrinth system with six separate sound chambers. Has total of 12 speakers in 4-way system: six heavy-duty 8" bass drivers, two 5" mid-range, two 3 1/2" mid-high, and two ultra-high dome tweeters. Response 20-20,000 Hz. 6.5 ohms imp. Will handle up to 100 W input; min. power 20 W. Oiled-walnut veneer cabinet. 52" H  $\times$  30" W  $\times$  6 1/2" D. . . . . \$399.95

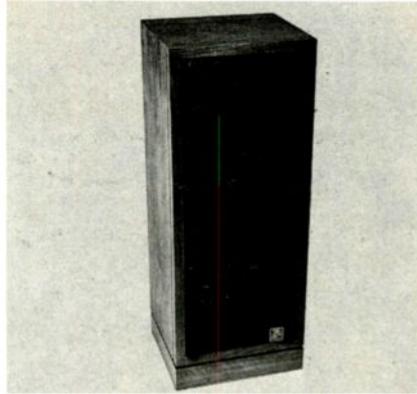
### FX-400 Speaker System

Four-speaker, 3-way ducted port design. Has two 10" high-compliance woofers, 4" mid-range tweeter, 4" ultra-high-frequency tweeter; LC crossover network 12 dB/octave, 2000 & 9000 Hz. Response 20-20,000 Hz. 8 ohms. Has continuously variable tweeter and mid-range control. Minimum power required 15 W rms, max-

imum 80 W rms. Reinforced 1" high-density board cabinet with oiled-walnut veneer finish, acoustically transparent foam grille. 28" H  $\times$  14" D  $\times$  28" W. . . . . \$269.95

### FX-350 Speaker System

Three-speaker, 2-way ducted port design. Has 10" high-compliance woofer, 4" mid-range, 4"



high-frequency tweeter; LC crossover network at 2000 Hz. Response 20-20,000 Hz. 8 ohms. Minimum power required 14 W rms, maximum 60 W rms. Column tower of 1" high-density board with oiled-walnut veneer finish; acoustically transparent foam grille. 36" H  $\times$  14" W  $\times$  12" D. . . . . \$189.95

### FTA-2 3-Way Speaker System

Sealed-cabinet design with two 8" bass drivers, one 3 1/2" mid-high, and one ultra-high tweeter. Continuously variable control for mid-range and highs. Response 24-20,000 Hz. 50 W input; 10 W min. power. 8 ohms imp. Oiled-walnut veneer cabinet. 24" H  $\times$  14" W  $\times$  12" D. . . . . \$159.95

### FX-300 2-Way Speaker System

Ducted-port design with heavy-duty 10" bass driver and special 3" wide-dispersion tweeter. Continuously variable control for mid-range and highs. Response 24-20,000 Hz. 40 W input; 10 W min. power. 8 ohms imp. 22" H  $\times$  14" W  $\times$  10 3/4" D. Oiled-walnut veneer cabinet. . \$119.95

### FX-100B 2-Way Speaker System

Ducted-port design with heavy-duty 8" bass driver and special 3" tweeter. Continuously variable control for mid-range and highs. Response 32-20,000 Hz. 30 W input; 8 W min. power. 8 ohms imp. Oiled-walnut veneer cabinet. 22" H  $\times$  12" W  $\times$  10" D. . . . . \$99.95

### F-2A 2-Way Speaker System

Ducted-port design with 8" bass driver and 3" tweeter. Continuously variable control for mid-range and highs. Response 35-20,000 Hz. 25 W input; 8 W min. power. 8 ohms. Oiled-walnut veneer cabinet. 18" H  $\times$  12" W  $\times$  9" D. . . \$79.95

## FISHER

### XP-7S Speaker System

Sealed 4-way bookshelf system with 12" woofer, 5 3/4" mid-range, 5 3/4" upper mid-range, and two 3" tweeters. Response 30-20,000 Hz; crossovers 350, 800, & 3500 Hz. 8 ohms impedance. 50 W dynamic maximum input power. 14" H  $\times$  24 1/2" W  $\times$  12" D. Walnut finish . . . \$169.95

### XP-44S Speaker System

Sealed 2-way bookshelf system with 6" woofer & 3" tweeter. Response 39-19,000 Hz; 1500 Hz crossover. 8 ohms impedance. 20 W dynamic maximum input power. 8 1/4" H  $\times$  15 1/2" W  $\times$  6 1/4" D. Walnut vinyl finish . . . . . \$49.95

### XP-55S Speaker System

Sealed 2-way bookshelf system with 8" woofer & 3" tweeter. Response 37-20,000 Hz; 1500 Hz crossover. 8 ohms impedance. 30 W dynamic maximum input power. 10" H  $\times$  20" W  $\times$  7 1/2" D. Walnut vinyl finish . . . . . \$59.95

### XP-56S 2-Way Speaker System

Bookshelf design with 8" woofer & 3" tweeter. Response 35-20,000 Hz.; 1500 Hz crossover. 8 ohms impedance. 30 W. dynamic maximum input power. 11 1/2"  $\times$  21"  $\times$  9". Walnut vinyl finish . . . . . \$89.95

### XP-65S Speaker System

Sealed 3-way bookshelf system with 10" woofer, 5" mid-range, and 3" tweeter. Response 33-20,000 Hz; 600 & 3000 Hz crossovers. 8 ohms impedance. 30 W dynamic maximum input power. 13" H  $\times$  23" W  $\times$  10" D. Walnut finish . . . . . \$109.95

## Sound Panels

Series of flat speaker systems designed to be hung on the wall like a picture. Response 40-18,000 Hz; 25 W continuous rms power. 8 ohms impedance. 29 3/4" H  $\times$  23 3/4" W  $\times$  2 7/8" D. Available in eight different abstract or scenic designs. Sound dispersion 360 degrees. Can also be used on the floor, inserted in special feet (included with each Sound Panel) . . . \$138.00

### ST-415 Two-Way Speaker System

Acoustic-suspension system with 8" woofer & 3" flare-dome tweeter; tweeter level control 2.5 dB/step; response 58-20,000 Hz; crossover 2500 Hz; 8 ohms; 30 W rms power handling. 11 1/2"  $\times$  9"  $\times$  21" H. Walnut vinyl with blue or black grille. . . . . \$69.95

### ST-425 Two-Way Speaker System

Has 10" woofer and 1" Mylar dome tweeter. Response 55-20,000 Hz; 2500 Hz crossover. Impedance 6-8 ohms. 15-20 W minimum amplifier input required. Has 3-position treble control. 20 W maximum power capacity. 12 1/4"  $\times$  22 1/2"  $\times$  10" D. Walnut vinyl. . . \$89.95

### ST-445 Three-Way Speaker System

Has 10" woofer, 4 1/2" cone mid-range, and 1" Mylar dome tweeter. Response 50-20,000 Hz. Impedance 6-8 ohms. 22 W maximum power capacity; 15-20 W minimum amplifier input required. Crossovers at 650 & 5500 Hz. Has 3-position treble control. 13"  $\times$  23 1/2"  $\times$  11" D. Walnut vinyl. . . . . \$109.95

### ST-465 Three-Way Speaker System

Has 12" woofer, 3 1/2" dome mid-range, and 1" Mylar dome tweeter. Response 40-20,000 Hz; crossovers at 450 & 5000 Hz. Impedance 6-8 ohms. Requires minimum of 25 W amplifier input; maximum power capacity 25 W. Has 3-position mid-range and treble controls. 14 1/4"  $\times$  24 1/2"  $\times$  11 3/4" D. Walnut vinyl finish . . . . . \$199.95

## FMI

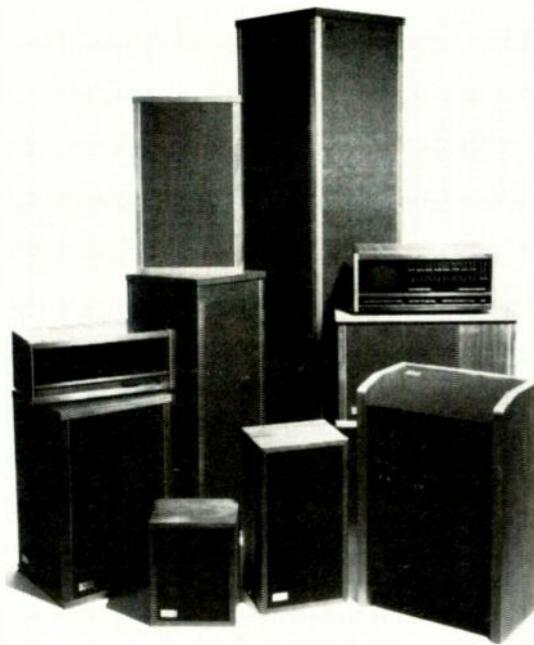
### J Modular Speaker System

System consists of separate "building blocks," each designed to operate separately to eliminate cross vibrations and nodal patterns; each "block" can be used with other systems if desired. Speaker complement: 1 low-bass woofer, 1 upper-bass woofer, one 8-inch low mid-range, two 2 1/4" upper mid-range, six-element electrostatic array. Frequency response 22-48,000 Hz; crossovers 40, 150, 1600 & 5000 Hz; nominal impedance 8 ohms. Power handling 110 W at 400 Hz; suggested amplifier power 25 W and up, 150 W program material, SPL 128 dB. American walnut veneer cabinet. 58 1/2"  $\times$  17 3/4"  $\times$  14" D. . . . . \$598.00

### FMI-120 Three-Way Speaker System

Three-way design with separate non-resonant mid-range cabinet built into main enclosure; has one 12", one 5", and two 2 1/4" speakers; response 30-22,000 Hz; crossovers 300 & 5000 Hz; 8 ohms; power handling 80 W at 400 Hz; suggested amplifier power 17 1/2 W and up (fused at 2 1/2 A), 120 W program material, SPL 120 dB. Walnut veneer cabinet. 14 1/2"  $\times$  25"  $\times$  12" D. . . . . \$249.00

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CIRCLE NO. 21 ON READER SERVICE CARD



# 10 Speaker Systems

## FMI-100 Two-Way Speaker System

Has one 10" & four 2 1/4" super-tweeters; response 40-22,000 Hz; crossover 1200 Hz; 8 ohms; power handling 60 W at 400 Hz; suggested amplifier power 12 W and up (fused at 2 1/2 A), 90 W program material, SPL 105 dB. Walnut veneer cabinet. 14" x 22" x 9 1/4" D. .... \$139.00

## FMI-80 Two-Way Speaker System

Two-way design with one 8" woofer & two 2 1/4" super-tweeters; response 50-22,000 Hz; crossover 1600 Hz; 8 ohms; will handle 50 W at 400 Hz; suggested amplifier power 7 1/2 W and up (fused at 2 1/2 A), 70 W program material, SPL 96 dB. Walnut veneer cabinet. 9 7/8" x 17 3/4" x 8 1/2" D. .... \$89.00

## FMI-60 Speaker System

Has dual-cone 6 1/2" extended-range speaker; response 60-15,000 Hz; 8 ohms; power handling 30 W, 45 W program material; suggested amplifier power 5 W and up (fused at 2 A). Walnut veneer cabinet. 8" x 15" x 8" D. .... \$59.00

## FRAZIER

### F4-4 Super Midget IV System

Tuned ducted-port bookshelf system. Response 52-12,000 Hz. 8 ohms imp. Oiled walnut finish all four sides, brown fabric grille cloth. 15 7/8" x 7 1/4" x 9 1/4"..... \$45.00

### F8-4SC Monte Carlo IV System

Two-way tuned ducted-port bookshelf system. Has 8" woofer & 3" tweeter. 8 ohms imp. Oiled walnut finish all four sides. Response 50-15,000 Hz. Brown fabric grille. 19" x 10 3/4" x 11 7/8"..... \$88.95

### F-10-HA Mark IV-A System

Two-way tuned ducted-port bookshelf system. Has 10" woofer, special high-frequency horn, and HF control. 2000 Hz crossover. Response 40-15,500 Hz. 8 ohms imp. Oiled walnut finish all four sides, brown sculptured double-knit grille. 14" x 24" x 12" ..... \$140.00

### F-10-3Y Manhattan III System

Two-way tuned ducted-port floor-standing system. Has 10" woofer, special high-frequency horn, and HF control. 2000 Hz crossover. 8 ohms imp. Oiled walnut finish all four sides, brown fabric grille cloth. Response 35-17,000 Hz. 23 3/8" x 19" x 11 7/8" ..... \$190.00

### F-10W-37 Concerto System

Two-way tuned ducted-port floor-standing system. 10" woofer, special high-frequency horn,



and HF control. 1500 Hz crossover. Response 30-17,000 Hz. Oiled walnut finish four sides, removable foam grille. 19" x 16" x 17". \$217.50

**F10W-H-U Capsule.** Same except flat black finish ..... \$150.00

### F12-2-5T Mark V System

Three-way tuned ducted-port floor-standing or bookshelf system. Has 12" woofer, two specially isolated 4" mid-range, special high-frequency horn, and separate mid-range and HF controls. 800 & 3300 Hz crossovers. Response 30-17,000 Hz. Oiled walnut finish four sides, brown fabric grille cloth. 14" x 25 3/4" x 12".... \$240.00

### F12-2-H Seven System

Three-way tuned ducted-port floor standing system. Has 12" woofer, two specially isolated 4" mid-range, two special high-frequency horns, and separate mid-range and HF controls. 400 & 3000 Hz crossovers. 8 ohms imp. Response 30-18,000 Hz. Oiled walnut finish four sides, with floor base. Foam removable grille available in burnt orange, brown and black-on-black. 19" x 29" x 16"..... \$320.00  
**F12-2-HU.** Utility version in flat black finish, no grille. .... \$275.00

### F12-8-WH Mark VI System

Three-way tuned ducted-port floor-standing system with 12" woofer, 8" mid-range, special high-frequency horn with separate mid-range & HF controls. 600 & 3000 Hz crossovers. 8 ohms imp. Oiled walnut finish. Response 25-17,500 Hz. Patterned grille cloth. 25 3/4" x 29" x 16 1/8" ..... \$375.00

### F333-1037 Dixielander

Dual exponential horn system consisting of folded LF horn and straight exponential HF horn. 10" woofer. Response 40-17,000 Hz. Utility grey finish. 22 3/4" x 26 1/2" x 15 3/4" .. \$310.00

## GENERAL ELECTRIC

### SA80 Three-Way Speaker System

Air-suspension, three-way system with 10" woofer, 5" mid-range, and 2" tweeter; 8 ohms imp., max. power 40 W rms/ch; has front-mounted brilliance control; removable acoustically transparent foam grille. Walnut-grain vinyl cabinet. 14" x 32 1/2" x 12"..... \$129.95

## HARMAN/KARDON

### HK20 2-Way Speaker System

Sealed, 2-way bookshelf system with 8" woofer & 3" tweeter. Response 42-20,000 Hz; 2000 Hz crossover. Has tweeter control. 8 ohms impedance. 11 1/4" H x 17 1/4" W x 8 3/4" D. Walnut. .... \$60.00

## HARTLEY

### Concertmaster Jr. Speaker System

Infinite baffle, 2-way floor-standing system with 10" woofer and 1" dome tweeter; 2500 Hz crossover frequency. 8 ohms impedance. 30 W maximum input. Size with kickbase 30" H x 25" W x 14" D. Walnut ..... \$330.00  
**Zodiac C.** Same enclosure but with Zodiac components. .... \$220.00

### Holton Jr. Speaker System

Same basic design as Concertmaster Jr. except measures 30" H x 15" W x 13" D. .... \$265.00

### Concertmaster III Speaker System

Open back (SoundSorber), 4-way floor-standing system with 18" woofer, 10" mid-range, 7" tweeter, and 1" dome tweeter. Response 15-25,000 Hz; 300 and 3000 Hz crossover frequencies. 8 ohms impedance. 33 1/2" H x 29" W x 16" D. Walnut ..... \$775.00  
**Concertmaster IV.** Same except Mediterranean styling. Walnut ..... \$800.00

### Concertmaster VI Speaker System

Doublet (SoundSorber), 4-way floor-standing

speaker system with 24" woofer, 10" mid-range, 7" tweeter, 1" super tweeter. Response 16-25,000 Hz; crossovers 300 and 3000 Hz. Impedance 6-12 ohms. 40" H x 29" W x 18" D. .... \$875.00  
**Model V.** Same but in Modern hand-rubbed walnut enclosure. .... \$850.00

### Zodiac 74 Speaker System

Infinite baffle, 2-way bookshelf or floor-standing system with 10" woofer with treated cone crossing at 2000 Hz and 1" dome tweeter. Response 30-25,000 Hz. 8 ohms impedance. For use with amplifiers of 10-50 W. 30" x 15" W x 12" D. Oiled walnut ..... \$128.00

### Zodiac 1 Speaker System

Same specifications as the Zodiac 74 except response 40-25,000 Hz. 21 1/4" H x 14 1/8" W x 8 3/4" D. .... \$89.00

### Holton A Speaker System

Infinite baffle, 2-way system with 10" woofer and 1" dome tweeter. 8 ohms impedance. 30 W maximum input power. 34" H x 24" W x 13" D. Oiled walnut ..... \$315.00  
**Zodiac A.** Same cabinet but with Zodiac components ..... \$200.00

## HEATH

### AS-101 2-Way Speaker System

Bass-reflex, 2-way floor-standing system with 15" woofer and Sectoral horn mid-range/tweeter. Response 30-20,000 Hz; 800 Hz crossover. Has horn-level control, 8 ohms impedance. 50 watts (rms) maximum input power. 29 5/8" H x 27 1/4" W x 19 1/8" D.  
 Kit ..... \$319.95

### AS-103 3-Way Speaker System

Sealed-enclosure, 3-way bookshelf system with 12" woofer, 1 1/2" mid-range, and dome-type 3/4" tweeter. Response 30-20,000 Hz ±5.0 dB; 575 and 5000 Hz crossovers. Has mid-range and tweeter controls, 4 ohms impedance. 25 watts (rms) driving power. Similar to AR-3a.  
 Kit ..... \$199.95

### AS-104 3-Way Speaker System

Infinite-baffle, 3-way speaker system with 10" woofer, 4 1/2" mid-range, 3 1/2" tweeter. Response 30-18,000 Hz. 10-100 watts maximum input power. 8 ohms. Walnut veneer cabinet. 24" W x 13 1/2" H x 11 1/2" D.  
 Kit ..... \$99.95

### AS-105 2-Way Speaker System

Infinite-baffle, 2-way speaker system with 10" woofer, 3 1/2" tweeter. Response 30-18,000 Hz. 10-100 watts maximum input power. 8 ohms. 24" W x 13 1/2" H x 11 1/2" D.  
 AS-105U Kit. Unfinished ..... \$69.95  
 AS-105W Kit. Walnut ..... \$79.95

### AS-106 2-Way Speaker System

Full-range speaker; will handle any 4 to 20 W amplifier; response 70-16,000 Hz; sealed acoustic-suspension infinite-baffle cabinet with fiber glass sound-damping material. Walnut veneer cabinet measures 12" H x 7" W x 6" D.  
 Kit ..... \$21.95

### AS-48 2-Way Speaker System

Features custom-designed JBL speakers, 14" woofer & 2" direct radiator; 8 ohms impedance; crossover 2000 Hz (unaffected by 3-position high-frequency level control); damped reflex, tuned-port cabinet of oak veneer and furniture-grade hardwoods. Will handle up to 50 watts; response 40-20,000 Hz. 14" H x 23 1/2" W x 12" D.  
 Kit ..... \$234.95

### AS-1042 2-Way Speaker System

Has high-compliance 8" woofer & 3 1/2" cone/dome tweeter; response 40-18,000 Hz; crossover 1500 Hz; system resonance 65 Hz. Rear-panel control tailors high frequencies to lis-

tening room. 10 W minimum driving power; can handle up to 50 W; 8 ohms nominal impedance. Walnut-toned vinyl cabinet. 19" H x 10" W x 8 7/8" D.  
Kit ..... \$39.95

**AS-1039 2-Way Speaker System**

Ultra-efficient system designed for use with low-power amplifiers; can be driven by as little as 5 W, will handle up to 25 W. 8 ohms nominal impedance. Has exponential horn tweeter and 8" woofer in vented bass-reflex enclosure. Level-control knob for tweeter on rear panel. Response 70-15,000 Hz; crossover 3500 Hz. Walnut-toned vinyl-clad cabinet. 21 1/2" H x 12" W x 10 1/2" D.  
Kit ..... \$49.95

**HED**

**V-8 Two-Way Speaker System**

Two-way system with 8" woofer and dome-type tweeter; crossover 2800 Hz; 8 ohms; max. power input 30 W rms; 120 degree dispersion. Vinyl-finished cabinet. 21" H x 11" W x 10" D.  
..... \$69.50

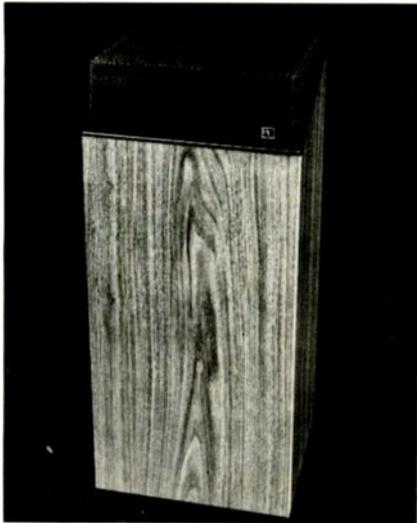
**V-10.** Same as V-8 but with 10" woofer; crossover at 2500 Hz; power input 40 W rms. 25" H x 14" W x 10" D. .... \$89.50

**V-12.** Same as V-8 but with 12" woofer; crossover at 2300 Hz; power input 25 W rms. 25" H x 14 1/2" W x 12" D. .... \$99.50

**HEGEMAN**

**H-1A Loudspeaker System**

Two-way coaxially mounted system with 8" full-range high-compliance driver and 1" dome su-



per-tweeter. Floor-standing, closed-back baffle enclosure. Response 30-20,000 Hz; 5000 Hz crossover. Will handle up to 25 W rms continuous; 20 W amp. power recommended. 8 ohms imp. 11" x 8 7/8" x 26". Walnut with black grille.  
..... \$159.00

**H-2 Speaker System**

Similar to the H-1 but with 10" full-range high-compliance driver and 2" super-tweeter. Response 25-25,000 Hz ±2.5 dB; 3500 Hz crossover. Will handle 30 W rms continuous; 80 W integrated program material. 8 ohms imp. Walnut with black grille. 14" x 12" x 34" ..... \$294.00

**HITACHI**

**HS-220 Speaker System**

Two-way air-suspension design with 8" woofer & 2 1/2" tweeter. Capacity 20 W. Response 50-

20,000 Hz. Wood cabinet with walnut vinyl ..... \$79.95

**HS-320 Speaker System**

Damped bass-reflex two-way design with 8" woofer & horn-type tweeter. Capacity 20 W. Response 40-20,000 Hz. Wood cabinet with walnut vinyl. .... \$119.95

**HS-350 2-Way Speaker System**

Damped bass-reflex design with the L-201 woofer and horn tweeter with acoustic lens. Response 40-20,000 Hz. Has tweeter-level control & walnut cabinet. .... \$239.95

**HS-500 Speaker System**

Tuned ducted-port 2-way floor-standing system with 8" woofer and horn-type tweeter. Response 40-20,000 Hz; 3000 Hz crossover. Has tweeter control, 8 ohms impedance. 20 W (rms) maxi-

mum input power. 24 1/8" H x 14 3/8" W x 13 7/8" D. Walnut ..... \$359.95

**HS-420 3-Way Speaker System**

Damped bass-reflex design with 10" woofer, 5" mid-range, and horn tweeter. Response 40-20,000 Hz. Wood cabinet with walnut vinyl ..... \$169.95

**IMC**

**Maloney Concert Master**

Five-way system with eight speakers, four 10" rolled-edge woofers; electronic crossovers at 500, 1000, 4000 & 8000 Hz; response 20-22,000 Hz; recommended minimum amp power 70 W rms per channel. Hand-rubbed oak or hand-rubbed walnut, butcher-block veneer with foam grille. 32" x 23 1/2" x 21" D. . . \$599.95

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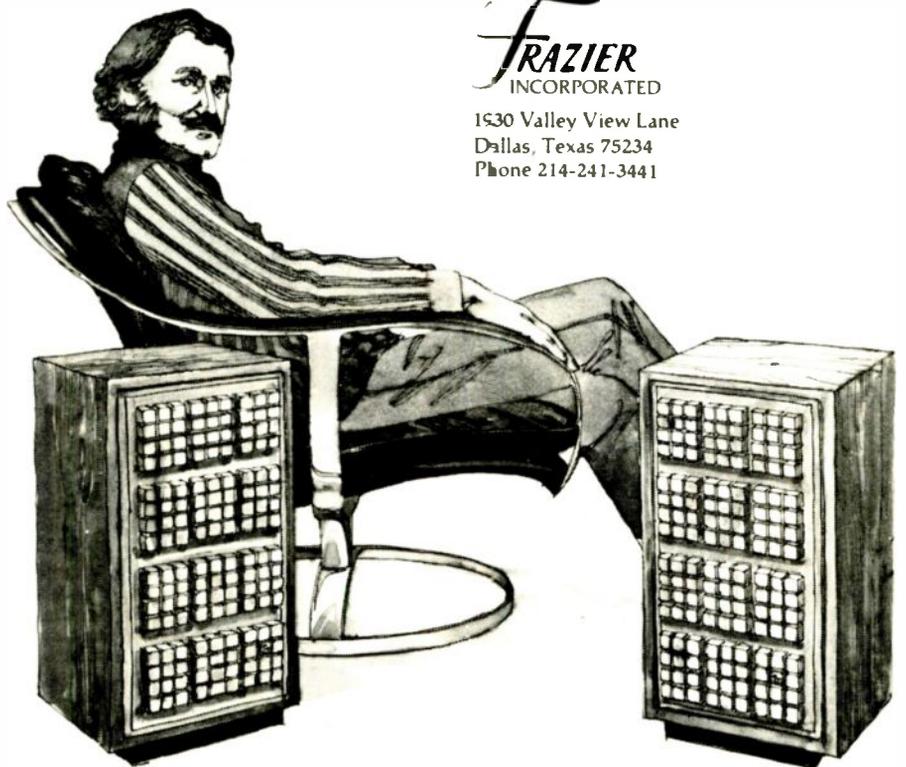
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**Maloney Jr. Concert Master**

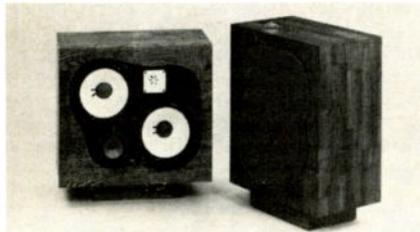
Five-way system with eight speakers, four 8" rolled-edge woofers, 4 1/2" mid-range, 10" mid-range horn, piezoceramic horn & dome tweeter for highs and ultra-highs; nine-way dual LC electronic crossovers at 500, 1000, 4000 & 8000 Hz; response 25-22,000 Hz; recommended minimum amp power 50 W rms per channel. Hand-rubbed oak or hand-rubbed dark walnut butcher block veneer with foam grille. 29" x 19 1/2" x 17" D. . . . . \$449.95

**Maloney M2-12-4 Speaker System**

Four-way, dual 12", 5-speaker system with electronic crossovers at 500, 5000 & 7500 Hz. response 28-21,000 Hz. 27" x 19" x 14" D. . . . . \$359.95  
M-12-4. Similar to M2-12-4 except response 32-21,000 Hz; single 12" woofer. 24" x 16" x 12" D. . . . . \$249.95

**Maloney Streakers**

Four-way, 5-speaker system with two 10" rolled-edge woofers, 4 1/2" mid-range, special piezo-



ceramic horn, and 2" dome tweeter; response 30-21,000 Hz; crossovers 1000-5000 & 7500 Hz. Hand-rubbed oak or hand-rubbed walnut butcher-block veneer. Grilles available in six decorator colors. 23" x 20" x 12" D. . . . . \$349.95

**8-3 Speaker System**

Three-way system with 8" rolled-edge woofer, 4 1/2" mid-range, and piezoceramic horn tweeter; dual 9-way LC electronic crossover 1500 & 7500 Hz; response 45-20,000 Hz. 20" x 12" x 10 1/2" D. . . . . \$99.95

**12-4 Speaker System**

Four-way system similar to the Maloney M-12-4; response 35-20,000 Hz; electronic crossovers at 1000, 4000 & 8000 Hz. 24" x 16" x 12" D. . . . . \$159.95

**15-4 Speaker System**

Four-way system with 15" rolled-edge woofer, 4 1/2" mid-range, 2" tweeter, and piezoceramic horn for ultra-highs; adjustable 9-way dual LC electronic crossovers at 500, 4000, & 8000 Hz; response 30-20,000 Hz. 27" x 19" x 14" D. . . . . \$219.95

**2-12-4 Speaker System**

Similar to Maloney M2-12-4; response 25-20,000 Hz; electronic crossovers at 800, 4000 & 8000 Hz. Optional see-through nylon grille. 27" x 19" x 14" D. . . . . \$229.95

**IMF****Monitor Mk III Speaker System**

Dual-transmission-line enclosure system. Four-way floor-standing design with large oval woofer, damped 5" mid-range, and dome-type tweeter. Has mid-range and tweeter controls. Impedance 8 ohms. Requires 30 W (dynamic) driving power. Walnut Formica. 43" H x 20" W x 17" D. . . . . \$950.00

**Studio Mk IIIA Speaker System**

Dual transmission-line enclosure system. Four-

way floor-standing design with 8" woofer, 5" damped mid-range, and dome-type tweeter. Response 20-40,000 Hz  $\pm 1.5$  dB; crossovers at 375, 3500 & 13,000 Hz. Has "Perspective" controls. Requires 25 W (dynamic) driving power. Teak or walnut. 35 1/2" x 15" x 14" . . . . . \$440.00

**ALS-40A Speaker System**

Free-standing or bookshelf speaker system. Features unique "active-line" design. 8" bass driver with foam surround, 8" sub-bass driver with roll surround, 5" mid-range with impregnated cone in separate line, and dome-type tweeter. Response 28-20,000 Hz  $\pm 2$  dB; crossovers at 180, 375 & 3000 Hz. Requires 25 W (dynamic) driving power. Teak or walnut. 26 1/2" x 13 1/2" x 13 1/2" . . . . . \$300.00

**"Super-Compact" Loudspeaker**

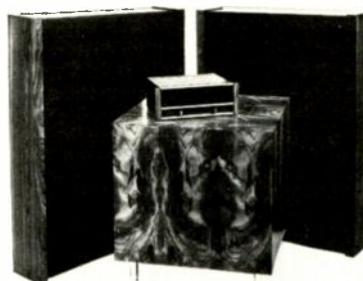
Bookshelf speaker with 8" bass driver with roll surround, 5" mid-range, and domed tweeter; crossovers 375 & 3000 Hz; frequency range 30-20,000 Hz. Efficiency (measured via pink noise 1 meter on-axis) 44 W produces 100 dB; nominal impedance 8 ohms; driving power required 20-50 watts. Transmission-line loading for the mid-band; bass loading by means of resistive tunnel. Supplied in "mirror image" pairs. 18" x 11" x 11 1/4" W . . . . . \$200.00 ea.

**INFINITY****1001A Speaker System**

Terminated-line, 2-way loudspeaker system with woofer and two tweeters (one in rear of enclosure to provide "ambiance"). Response 30-21,000 Hz  $\pm 4.5$  dB; 1300 Hz crossover. 6 ohms impedance. Requires 20 W rms power input. 26" x 18" x 12" D. Walnut . . . . . \$139.00

**Servo-Statik I Speaker System**

Three-enclosure system. Floor-standing with 18" woofer in decorator commode with separate 110 W (rms) power amplifier and servo amplifier, two electrostatic mid-ranges, and tweeter screens. Response 15-30,000 Hz  $\pm 2$  dB; 100 & 1650 Hz crossovers. Requires 60 W rms driving power; 50 W rms maximum input power to elec-



trostatics. Bass commode 22" H x 22" W x 19" D. Electrostatic screens 37" H x 28" W x 6 1/2" D. Brazilian rosewood . . . . . \$2100.00  
Servo-bass system including amplifier. In Brazilian rosewood . . . . . \$1200.00

**POS II Speaker System**

Two-way design 24" x 13" x 12" with a 10" woofer and closely coupled 2" tweeter. Features transmission-line loading and a frequency-boost network for the tweeter. Response 45-19,000 Hz  $\pm 4$  dB; 1500 Hz crossover. 6 ohms. 15 W rms/ch minimum amplifier input. . \$98.00

**Monitor Speaker System**

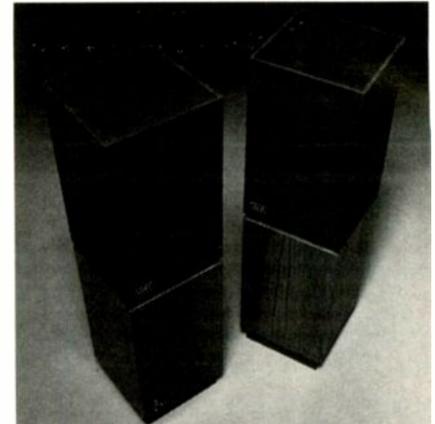
Three-way system with three different drive systems; a 12" woofer housed in a 2 1/2-cu ft tapered-transmission line enclosure; a specially designed 1 1/2" strengthened-dome mid-range; and a wave transmission line tweeter. Response 26-32,000 Hz  $\pm 4$  dB; crossovers 500 & 3000 Hz. Nominal impedance 8 ohms. Max. amp. power 200 W/ch program material; minimum amp power 35 W rms/ch . . . . . \$429.00

**2000AXT Speaker System**

Three-way floor-standing system with 12" woofer, 4" mid-range, and wave-transmission line tweeter. Crossovers 500 & 3000 Hz. 27 1/2" W x 20" W x 14" D. Walnut cabinet . . . \$299.00

**W-T-L Column Speaker**

Dual-driver, staggered-resonance transmission line system; has two 8" woofers, two 2" mid-



range/tweeters, and wave-transmission-line tweeter. High efficiency; crossovers at 500 Hz mechanical, 2000 & 8000 Hz; response 35-28,000 Hz  $\pm 4$  dB . . . . . \$239.00

**JANSZEN****130 High-Frequency Speaker System**

Electrostatic array with four radiators for add-on to existing woofer system. Response 700-20,000 Hz  $\pm 3$  dB; 700 Hz crossover. 8 ohms impedance. 100 W rms maximum input power. 7 1/4" H x 22" W x 13" D. Walnut . . . . . \$199.95

**132 High-Frequency Array**

Electrostatic array with two electrostatic elements for adding-on to existing woofer systems; response 1800-20,000 Hz  $\pm 3$  dB; 1800 Hz crossover; 4 ohms impedance; 50 W rms maximum input power. Walnut . . . . . \$99.95

**134.** Same except four electrostatic elements and 100 W rms maximum input power. \$149.00  
**134a.** Same except oiled-walnut enclosure. . . . . \$179.95

**134hp.** Same except response 800-20,000 Hz; 800 Hz crossover; 8 ohms impedance; 150 W rms maximum input power; oiled-walnut enclosure . . . . . \$199.95

**138.** Same except with eight electrostatic elements; response 800-20,000 Hz  $\pm 3$  dB; 800 Hz crossover; 8 ohms; 300 W rms maximum input power; oiled-walnut . . . . . \$299.95

**Z-410 Speaker System**

Two-way acoustic-suspension design with 10" woofer & four electrostatic elements (64 sq. in.). Response 35-20,000 Hz  $\pm 3$  dB; 1800 Hz crossover. Capacity 75 W rms. 4 ohms impedance. Features vertical & horizontal dispersion. Walnut cabinet with various foam grilles. 13 1/4" x 24" x 11 1/4" D . . . . . \$179.95

**Z-412A Speaker System**

Two-way acoustic-suspension design with 12" woofer & four electrostatic elements (64 sq. in.). Response 33-20,000 Hz  $\pm 3$  dB; 1800 Hz crossover. Capacity 100 W rms. 4 ohms. Has vertical and horizontal dispersion. Oiled walnut cabinet with foam front. 27" x 14 1/2" x 11 1/4" D. . . . . \$249.95

**Z-412HP.** High-power/high-performance version of Z-412A. Capacity 150 W rms. 900 Hz crossover . . . . . \$299.95

**Z-824 Speaker System**

Two-way acoustic-suspension design with two 12" HP woofers & eight electrostatic elements (128 sq. in.). Response 32-20,000 Hz  $\pm 3$  dB;

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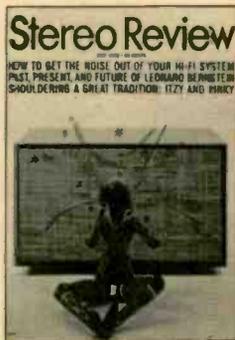
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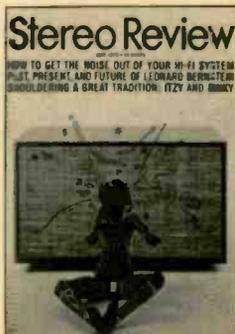
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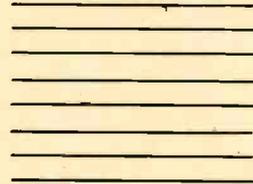
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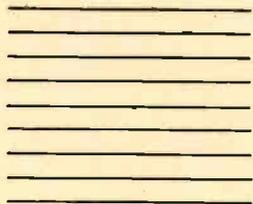
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# THE LAST LOUDSPEAKER (REVIEWED).

When we introduced the Ohm F a few months ago, we called it the last loudspeaker.

We explained that this new invention (U. S. Patent 3,424,873) is the last loudspeaker in the same sense as the wheel was the last device for transmitting rotary or rolling motion.

Like the wheel, we said, our speaker is a mathematically perfect engineering concept, utterly simple and unimprovable. Only its physical construction can evolve further, not the design itself. When a single cone reproduces 30 to 20,000 Hz without crossovers and has a cylindrical output in perfect phase with the input signal at all frequencies ("coherent sound"), the design can be considered final.

Since then, our claims for the Ohm F have found support in the authoritative editorial pages of Stereo Review. In the November 1973 issue, the Equipment Test Reports by Hirsch-Houck Laboratories asserted:

"The Ohm F can do some things that no other speaker in our experience is capable of."

After acknowledging that "the cone has not been designed to function as a 'piston' (as virtually all other cones are), but should be viewed as a terminated acoustic transmission line," the review states that "the Ohm F produced one of the flattest extended curves we have ever seen ... it has a uniform energy output across the full audio-frequency range..."

Square-wave tests of the Ohm F against "several other fine

speakers we had on hand," in the words of the review, showed that "only the Ohm F was able to produce a reasonable facsimile of a square wave." This plus the toneburst response of the speaker "tended to confirm . . . that it has transient-response capabilities surpassing those of the best conventional (piston) speakers."

Further excerpts from the Ohm F test report:

"In our simulated live-vs.-recorded test it rated A to A+ . . . with one of the larger power amplifiers, able to deliver 100 watts or more, the sound began to warrant the use of such words as 'awesome' . . . achieves state-of-the-art performance."

The conclusion of the review requires some reading between the lines:

"As to whether or not the Ohm F is therefore the 'best' speaker available—we will leave that to the ears of audiophiles; we are prepared to say, however, without reservations, that it is easily one of the best."

Think about that. Wouldn't any responsible journal hesitate to declare categorically that a totally new and unfamiliar product is the best, period? Even if they thought so?

The Ohm F comes in a striking, tapered column cabinet, about 3½ feet high, and is priced at \$400. If your local dealer doesn't carry it yet, write us and we'll help you.

We want your next loudspeaker to be the last loudspeaker.

Ohm Acoustics Corp.,  
241 Taaffe Place,  
Brooklyn, N.Y. 11205.



## 10 Speaker Systems



crossover 800 Hz. Capacity 300 W rms. 8 ohms. Light or dark oak cabinet. 48" x 16" x 16" D ..... \$695.00

### Z-210A Speaker System

Compact bookshelf speaker system. Two-way acoustic-suspension design with 10" woofer and two electrostatic elements (32 sq. in.). Response 45-20,000 Hz  $\pm 3$  dB; 1800 Hz crossover. Capacity 75 W rms. Impedance 6.9 ohms. Walnut cabinet with black foam front. 12.5" x 17.5" x 11" D ..... \$119.95

### 210ah Speaker System

Two-way acoustic-suspension design with 10" woofer and two electrostatic elements (32 sq. in.); response 35-20,000 Hz  $\pm 3$  dB; 1800 Hz crossover; capacity 50 W rms; 4 ohms impedance. Walnut cabinet with foam front. 13 1/4" x 24" x 11 3/4" D ..... \$149.95

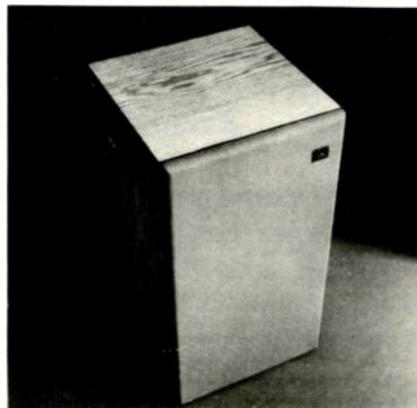
## JBL

### L16 Decade 16 Speaker System

Ducted-port, 2-way bookshelf system with 8" low-frequency and 1.4" high-frequency drivers; 2500 Hz crossover with h.f. level control on rear of enclosure; power capacity 35 W continuous program; recommended amp power 10-60 W rms/ch; 8 ohms impedance. Natural oak finish; brown stretch fabric grille. 11" H x 20" W x 10" D ..... \$135.00

### L26 Decade 26 Speaker System

Ducted-port, 2-way bookshelf system with 10" low-frequency and 1.4" high-frequency drivers; 2000 Hz crossover with high-frequency level



control behind grille; power capacity 35 W continuous program; recommended amp power 10-60 W rms/ch. Natural oak finish; stretch fabric grille available in orange, blue, or brown 13" H x 24" W x 13" D ..... \$156.00

### L36 Decade 36 Speaker System

Ducted-port, 3-way bookshelf system with 10" low-frequency and 1.4" high-frequency drivers; crossovers at 1500 & 6000 Hz with mid-range and h.f. level controls behind grille; power capacity 50 W continuous program; recommended amp power 10-100 W rms/ch; 8 ohms impedance. Natural oak finish; stretch fabric grille available in orange, blue, or brown. 14" H x 24" W x 14" D ..... \$198.00

### S109 Aquarius 4 Speaker System

Ducted-port, 2-way floor-standing system with 8" horn-loaded speaker and 2" direct radiator; upward radiating bass driver and dispersed high-frequency unit on upper rear panel; 6000 Hz crossover with continuous high-frequency level control; 8 ohms impedance; power capacity 35 W continuous program; recommended amp power 10-75 W rms/ch. Oiled walnut or satin white finish. 40" H x 10" W x 10" D ..... \$210.00

### L100 Century Speaker System

Ducted-port, 3-way bookshelf system with 12" speaker, 5" mid-range, and 1.4" direct radiator; crossover at 1500 & 6000 Hz with mid-range and h.f. level controls behind grille; 8 ohms impedance; power capacity 50 W continuous program; recommended amp power 10-150 W rms/ch. Oiled walnut finish with foam grilles available in orange, blue, or brown. 14" H x 24" W x 14" D ..... \$297.00

### L65 Jubal Speaker System

Ducted-port, 3-way floor-standing system with 12" bass, 5" mid-range, and 1.4" high-frequency components; crossovers 1000 & 6500 Hz with mid-range and h.f. level controls behind grille; power capacity 75 W continuous program; recommended amp power 10-150 W rms/ch; 8 ohms impedance. Oiled walnut finish with smoked glass top; stretch fabric grille available in blue, brown, or red. 24" H x 18" W x 13" D ..... \$396.00

### L45 Flair Speaker System

Ducted-port, 3-way floor-standing system which may be mounted horizontally or vertically; has 15" speaker, 5" mid-range, and 1.4" direct radiator; crossovers 1200 & 7500 Hz with mid-range and h.f. level controls behind grille; 8 ohms; power capacity 75 W continuous program; recommended amp power 10-150 W rms/ch. Oiled walnut finish with foam and fabric grille. 22" H x 30" W x 18" D ... \$471.00

### L200 Studio Master Speaker System

Ducted-port, 2-way floor-standing system with 15" speaker and high-frequency compression driver with horn/lens assembly; 1200 Hz crossover with 5-position h.f. level control behind grille; 8 ohms impedance; power capacity 100 W continuous program; recommended amp power 10-150 W rms/ch. Oiled walnut finish with foam grille in gray, black, blue, or red. 36" H x 24" W x 21" D ..... \$657.00

### S507 Olympus with S7R System

Ducted-port, 2-way floor-standing system with 15" speaker, 15" passive radiator, and high-frequency compression driver with horn/lens assembly; 500 Hz crossover with h.f. level control; 8 ohms impedance; power capacity 100 W continuous program; recommended amp power 10-150 W rms/ch. Oiled walnut finish. 33" H x 24" W x 21" D ..... \$837.00  
**S607 Sovereign.** Same as S507 except golden oak or country oak finish. 27" H x 39" W x 20" D ..... \$837.00

### S508 Olympus with S8R System

Ducted-port, 3-way floor-standing system with 15" speaker, 15" passive radiator, h.f. compression driver with horn/lens assembly, and ultra-high-frequency ring radiator; 500 & 7000 Hz crossovers with level controls for high and ultra-high components; 8 ohms impedance; power capacity 125 W continuous program; recommended amp power 10-150 W rms/ch. Oiled walnut finish. 27" H x 40" W x 20" D. \$1080.00

**S608 Sovereign.** Same as S508 except golden oak or country oak finish. 27" H x 39" W x 20" D ..... \$1080.00

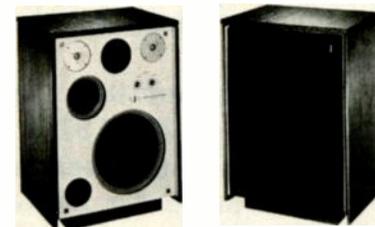
### Paragon Speaker System

Radial-refraction, dual 3-way floor-standing system with two 15" speakers, two mid-range compression drivers; and two ultra-high-frequency ring radiators; 500 & 7000 Hz crossovers with dual mid-range and ultra-high-frequency level controls; features special dispersion surface to recreate stereo image; 8 ohms impedance; power capacity 125 W continuous program; recommended amp power 10-150 W rms/ch. Oiled walnut finish. 36" H x 104" W x 24" D ..... \$3000.00

## JENSEN

### Model 15 Speaker System

Four-way, five-speaker system with 15" woofer, an 8" mid-range driver, a 5" rear-damped tweet-



er, and two Sonodome ultra-tweeters. Response 25-30,000 Hz. Power capacity 100 W; recommended minimum amp. power 10 W. Horizontal & vertical dispersion 170 degrees. THD 2% at 50 Hz, 1.2% at 100 Hz at 10 watts. Sensitivity: 1 W input produces 90 SPL at 6 feet. Has front-mounted balance controls for mid- and high frequencies plus bottom-mounted binding posts for concealed wiring. Finished on all four sides for use in any location. Simulated black slate top. 31" (including base) x 23" x 17" D ..... \$426.00

### Model 1 Speaker System

Full-range speaker system with 8", two-element driver. Response 40-18,000 Hz. Power capacity 30 W; recommended minimum amp. power 10 W. 8 ohms imp. 6000 Hz mechanical crossover. 120 degree dispersion. Walnut wood-grain vinyl cabinet, light-beige grille cloth. 14 1/2" x 10" x 8 1/2" D ..... \$42.00

### Model 2 Speaker System

Two-way system with 8" woofer and 3 1/2" direct-radiator tweeter. Response 38-20,000 Hz. Power rating 35 W; 10 W recommended minimum amp. power. 8 ohms. 1200 Hz crossover. HF balance control. Removable sculptured dark brown grille cloth. 18 3/4" x 11" x 8 3/8" D. \$69.00

### Model 3 Speaker System

Sealed two-way bookshelf system with 10" woofer & 3 1/2" tweeter. Response 36-20,000 Hz; 800 Hz crossover. Has 150-degree dispersion, a tweeter control, 8 ohms impedance. 12 1/2" H x 22 1/2" W x 10 3/4" D ..... \$99.00

### Model 4 Speaker System

Sealed three-way bookshelf system with 10" woofer, 5" mid-range, and dome-type tweeter. Response 36-30,000 Hz; 500 & 4000 Hz crossovers. Has mid-range and tweeter controls, 170-degree dispersion, and 8 ohms impedance. 13" H x 24" W x 12" D. Oiled walnut... \$129.00

### Model 5 Speaker System

Sealed three-way floor-standing system with 12" woofer, two 5" mid-range, and dome-type tweeter. Response 32-30,000 Hz; 500 & 4000 Hz crossovers. Has mid-range and tweeter controls, 170-degree dispersion, 8 ohms, impedance. 26" H x 15" W x 13" D ..... \$189.00

### Model 6 Speaker System

Sealed four-way floor-standing system with 15" woofer, 8" mid-range, 5" tweeter, and dome-type super tweeter. Response 27-30,000 Hz; 300, 1000 & 4000 Hz crossovers. Has mid-range and tweeter controls. 170-degree dispersion, 8 ohms impedance. 27" H x 20 1/2" W x 15" D. .... \$249.00

### JVC

### VS-5313 Speaker System

Omnidirectional, sealed spherical two-way floor-standing system with two 5" woofers and two 2" horn-type tweeters in each sphere. Response 60-20,000 Hz  $\pm 3$  dB; 5000 Hz crossover. 8 ohms impedance. 80 W peak maximum input power. 13 1/2" dia. Black metallic finish. .... \$229.95

### VS-5399 Two-Way Speaker System

Bass-reflex, 4-speaker slim column design. Has two 4 1/4" woofers and two 2" cone tweeters. Capacity 10 W rms. 8 ohms. 6000 Hz crossover. Speakers are mounted on two adjacent sides (90 degree angle). 27 1/2" H x 7 1/8" W x 7 1/8" D. Walnut finish. .... \$179.95 pr.

### VS-5397 Two-Way Speaker System

Two-way acoustic-suspension system with 8" woofer & 2 1/2" cone tweeter; response 40-20,000 Hz; 8 W rms/ch min. input power, 20 W rms max.; crossover 4000 Hz; imp. 8 ohms. Walnut enclosure. 18 1/8" H x 10 3/8" W x 9 1/4" D. .... \$99.95 pr.

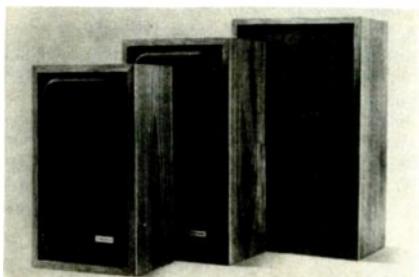
### SX-3 Speaker System

Wide-directional two-way speaker system with 10" woofer & 2" soft dome tweeter; response 35-20,000 Hz; 20 W rms/ch min. input power, 25 W rms max.; crossover 2000 Hz; 8 ohms. Walnut or spruce enclosure. 20 1/2" H x 12 3/4" W x 11 1/8" D. .... \$169.95

### KENWOOD

### KL-77 3-Way Speaker System

Air-suspension, 3-way speaker system with 12" 1.f. driver in air-tight enclosure, 3" mid-range



driver, 2" tweeter; response 27-18,000 Hz; 8 ohms; crossovers 1000 & 6000 Hz; recommended amp power 20-60 watts; 60 W max. program; standard brown grille or optional red & blue grilles. 15" x 26" x 12" D. .... \$129.95

### KL-55 2-Way Speaker System

Has 10" low-frequency driver & 3 1/2" tweeter; response 35-18,000 Hz; 8 ohms; 1500 Hz crossover; recommended amp power 20-60 watts; 60 W max. program; standard brown grille or optional red & blue grilles. 12 3/4" x 23 1/4" x 10 3/8" D. .... \$89.95

KL-44. Same as KL-55 except response 40-18,000 Hz; 50 W max. program; 11 1/8" x 20 1/2" x 9 3/8" D. .... \$69.95

### KIRKSAETER

### Monitor 35 Two-Way System

Has 8" woofer plus 1" dome tweeter. Dispersion 180 degrees. Will handle 35 W music program.

1975 EDITION

Response 30-20,000 Hz. Recommended amp. power 15-35 W rms. 4-8 ohms imp. Crossover 3500 Hz. 18" x 9" x 8"..... \$130.00

### Monitor 40 Three-Way System

Features 8" woofer, 1.5" dome mid-range, and 1" dome tweeter. Dispersion 180 degrees. Will handle 40 W music program. Response 28-22,000 Hz. 4-8 ohms imp. Crossovers at 1200 & 5500 Hz. Recommended amp power 20-40 W rms. 18" x 9" x 8"..... \$165.00

### Monitor 50 Three-Way System

Uses 10" woofer, 1.5" dome mid-range, and 1" dome tweeter. Dispersion 180 degrees. Will handle 50 watts music program. Response 22-22,000 Hz. Imp. 4-8 ohms. Recommended amp power 25-50 W rms. Crossovers at 1200 & 5500 Hz. 18" x 12.25" x 9.75"..... \$210.00

### Monitor 70 Three-Way System

Has 12" woofer, 1.5" dome mid-range, and one 1" dome tweeter. 180 degree dispersion. Will handle 70 watts music program. Response 20-22,000 Hz. Imp. 4-8 ohms. Recommended amp power 30-70 W rms. Crossovers at 1200 & 5500 Hz. 22.5" x 13" x 11"..... \$300.00

### Monitor 100 Double Three-Way System

Has two 10" woofers, two 1.5" dome mid-range, and two 1" dome tweeters. Dispersion 180 degrees. Will handle 100 watts music program. Recommended amp power 35-100 W rms. Response 18-22,000 Hz. Impedance 4-8 ohms. Crossovers at 1200 & 5500 Hz. 29.5" x 16.5" x 12"..... \$450.00

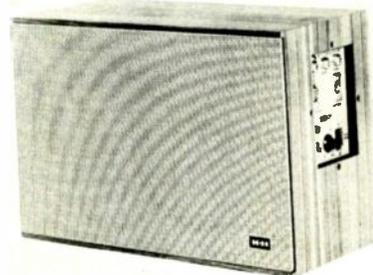
Each speaker is equipped with a 15-ft connecting cable. An additional 15-ft extension cord, with DIN female plug at one end and coded wire split-end at the other, is also supplied. All systems are housed in solid natural wood cabinets. Standard finish: selected grain walnut veneer.

Matte black or matte white muticoat polyester on wood, with silver grille fabric available optional extra.

### KLEIN & HUMMEL

### CY Monitor Speaker

Imported from West Germany. It is a wall-mounted design with two built-in 30 W (rms)



continuous sine wave (into 4 ohms) solid-state amplifiers. Response 40-16,000 Hz  $\pm 2$  dB. Has three individual speakers: one woofer driven by one of the amplifiers with electronic crossover at 500 Hz and one mid-range cone-type and one horn-type speakers driven by the second amplifier. Acoustic crossover for mid- and high-frequency speakers at 6000 Hz. Has level control and low- and high-frequency equalizer circuits. Input impedance 4700 ohms balanced & floating. Walnut finish. 19" x 12" x 9" D.. \$695.00

### KLH

### Five 3-Way Speaker System

Sealed, 3-way bookshelf system with 12" woof-

## In April, Stereo Review gave us our toughest test yet. Here's how we did.

*"Our initial impression of the Avid Model 103...utter smoothness...freedom from undue emphasis or coloration..."*

*"As easy sounding a speaker as we've heard in some time. All the tests completely confirmed our subjective response to the system."*

*"Outperforms many far larger and more expensive speaker systems we have heard."*

*"Clearly, the engineers at Avid not only know how to design a loudspeaker system, but also what a good speaker should sound like."*

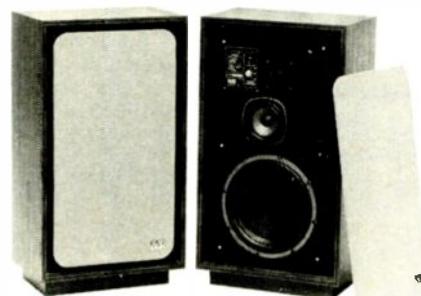
Now we're ready for the toughest test of all. Yours.

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CIRCLE NO. 6 ON READER SERVICE CARD



# 10 Speaker Systems

er, two 3" mid-range, and 1 1/4" tweeter; 2500 & 7000 Hz crossovers. Has mid-range and tweeter controls; 8 ohms impedance. 13 3/4" H x 26" W x 11 1/2" D. Oiled walnut ..... \$225.00

### Six 2-Way Speaker System

Sealed, 2-way bookshelf system with 12" woofer & 1 1/4" tweeter. Has tweeter control. 8 ohms impedance. 12 5/8" H x 23 1/4" W x 11 7/8" D. Walnut ..... \$149.95  
Walnut vinyl ..... \$129.95

### Nine Speaker System

Electrostatic, floor-standing, full-range speaker system. 16 ohms impedance. Requires 40 W (IHF) driving power. 70" H x 23 1/2" W x 2 7/8" D. Mahogany or walnut. Should be used in pairs ..... Each \$1495.00

### Seventeen 2-Way Speaker System

Sealed, 2-way bookshelf system with 10" woofer & 1 1/4" tweeter. Has tweeter control. 11 1/4" H x 23 1/4" W x 8 1/4" D. .... \$89.95

### Thirty-Three Speaker System

Sealed, 2-way bookshelf system with 10" woofer & 1 1/4" tweeter. 8 ohms impedance. 13 3/4" H x 23 3/8" W x 10 1/8" D. Oiled walnut. . \$110.00

### Thirty-Two Speaker System

Sealed, 2-way bookshelf system with 8" woofer & 1 1/4" tweeter. 8 ohms impedance. 19 3/4" H x 10 7/8" W x 7 3/16" D. Oiled walnut. Sold in pairs only (2 per carton). .... \$125.00 pr.

### Thirty-One Speaker System

Sealed 2-way bookshelf system with 8" woofer and 1 1/4" tweeter. 8 ohms impedance. Walnut grain enclosure with foam grille. 11" x 8 1/4" W x 17 1/2" D. Sold in pairs only (2 per carton) ..... \$99.95 pr.

### Thirty-Eight Speaker System

Sealed, 2-way bookshelf system with 10" woofer & 1 1/4" tweeter. 8 ohms impedance. 21 1/4" H x 12 1/8" W x 8 1/2" D. Oiled walnut. Sold in pairs only (2 per carton). .... \$149.95 pr.

### Twenty-Eight Speaker System

Sealed enclosure system containing three separate 2-way systems with three 10" woofers, & three 1 1/2" tweeters. Radiates in three directions. 17" H x 26" W x 15" D. Oiled walnut. Pedestal mounting ..... \$299.95

### Classic 1 Speaker System

Has one low-frequency driver & two high-frequency speakers; crossover 1750 Hz; 8 ohms impedance ..... \$89.95

**Classic 2.** Same as Classic 1 except crossover 1800 Hz. 12 1/2" x 9 3/4" x 22 1/2". .... \$109.95

**Classic 3.** Same as Classic 1 except crossover 1500 Hz. 13 7/8" x 11 1/8" x 25 7/8". .... \$129.95

**Classic 4.** Same as Classic 1 except crossover 1350 Hz. 14 1/4" x 12 1/4" x 26 7/8". .... \$149.95

### CB Column Speaker System

Reflex, two-way system with one high-frequency and one low-frequency driver; crossover 2000 Hz; 8 ohms impedance. 11" x 7 1/4" D x 19 1/2" H. .... \$89.95

**CM.** Same as Model CB except three-way system; crossovers 800 & 5000 Hz; 14" x 14" x 28" H. .... \$199.95

**CS.** Same as CM but with two high-frequency drivers; crossovers at 400 & 5000 Hz. 14" x 14" x 39" H. .... \$299.95

## KLIPSCH

### Cornwall II Speaker System

Tuned ducted-port, 3-way floor-standing sys-

tem with 15" woofer, horn-loaded mid-range, and horn-type tweeter. Response 38-17,000 Hz  $\pm 5$  dB; crossovers 600 & 6000 Hz. 8 ohms impedance. Recommended maximum amp: 150 W average sine wave power, 36" H x 25 1/2" W x 15 1/2" D. Furniture finishes. .... \$525.00

### Heresy Speaker System

3-way floor-standing system with 12" woofer, horn-loaded mid-range, and horn-type tweeter. Response 50-17,000 Hz  $\pm 5$  dB; crossovers 700 & 6000 Hz. 8 ohms impedance. Recommended max. amp: 100 W average sine wave power. 21 3/8" H x 15 1/2" W x 13 1/8" D. Furniture finishes. .... \$297.00

### Klipschorn Speaker System

Folded corner horn, 3-way floor-standing system with 15" woofer, horn-loaded mid-range, and horn-type tweeter. Response 33-17,000 Hz  $\pm 5$  dB; crossovers 400 & 6000 Hz. 8 ohms impedance. Recommended max. amp: 150 W average sine wave. 52" H x 31 1/4" W x 28 1/4" D. Furniture finishes. .... \$1040.00

### LaScala Speaker System

Folded horn, 3-way floor-standing system with 15" woofer, horn-loaded mid-range, and horn-type tweeter. Response 45-17,000 Hz  $\pm 5$  dB; crossovers 400 & 6000 Hz. 8 ohms impedance. Recommended max. amp: 150 W average sine wave. 34 1/2" x 23 3/4" W x 24 1/2" D. Raw or theater black finish ..... \$525.00

### Belle Klipsch Speaker System

Folded horn, 3-way floor-standing system with 15" woofer, horn-loaded mid-range, horn-type



tweeter. Response 45-17,000 Hz  $\pm 5$  dB; crossovers 400 & 6000 Hz. 8 ohms impedance. Recommended max. amp: 150 W average sine wave. 35 5/8" H x 30 5/8" W x 18 7/8" D. Oiled walnut. .... \$840.00

## LAFAYETTE

### Criterion 222 Two-Way Speaker System

Acoustic-suspension bookshelf system with 8" woofer & 2 1/2" cone tweeter. Response 55-18,000 Hz; 7000 Hz crossover. Will handle 25 W. Walnut-vinyl finish; charcoal brown grille cloth. 10" H x 13 1/2" W x 5 5/8" D. .... \$29.95

### Criterion 333 Two-Way Speaker System

Acoustic-suspension bookshelf system with 8" woofer & 3" sealed-back tweeter. Response 40-18,000 Hz; 2000 Hz electrical crossover. Will handle 30 W. Finished all four sides; charcoal brown grille cloth. 18" W x 11" H x 10" D. .... \$44.95

### Criterion 444 Three-Way Speaker

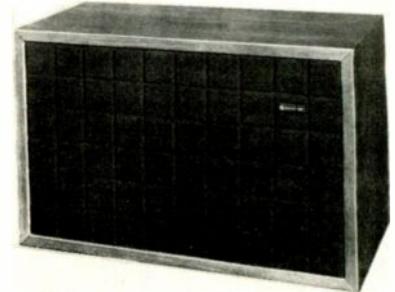
Acoustic-suspension bookshelf system with 8" woofer, 3 1/2" mid-range, and 1 1/2" dome tweeter. Response 40-19,000 Hz; crossovers 3000 & 10,000 Hz. Has high-frequency brilliance control. Will handle 30 W. Finished four sides in walnut-vinyl; charcoal brown grille cloth. 20" H x 11 1/4" W x 8 1/8" D. .... \$54.00

### Criterion 555 Three-Way Speaker

Acoustic-suspension bookshelf system with 10" woofer, 5" mid-range, and 3" tweeter. Has high-frequency brilliance control. Response 32-19,500 Hz; LC crossovers 800 & 3000 Hz. Will handle 50 W. Walnut-vinyl cabinet finished all four sides; charcoal brown grille cloth. 21" H x 12" W x 10" D. .... \$69.95

### Criterion 666 Three-Way Speaker

Acoustic-suspension bookshelf system with 10" woofer, 6" mid-range, and 2" direct-radiator



super tweeter. Response 28-20,000 Hz; crossovers 800 & 5000 Hz. Has mid-range and brilliance controls. Will handle 60 W. Oiled-walnut enclosure with charcoal brown grille cloth. 22" H x 14 1/2" W x 11" D. .... \$99.95

### Criterion 777 Three-Way Speaker

Acoustic-suspension bookshelf system with 10" woofer, 6" sealed-back mid-range, and 2" direct-radiator super tweeter. Has mid-range and brilliance controls. Response 20-20,000 Hz; crossovers 800 & 4000 Hz. Will handle 80 W. Oiled-walnut enclosure with 3-dimensional foam grille. 23" H x 15" W x 12" D. .... \$119.95

### Criterion 888 Four-Way Speaker

Acoustic-suspension bookshelf or floor-standing system with 12" woofer, 6" lower mid-range, 5" upper mid-range, and 2" direct-radiator super tweeter. Response 19-20,000 Hz; crossovers 400, 900 & 7000 Hz. Will handle 100 W. Has HF, upper mid-range, and lower mid-range controls. Finished all four sides. Oiled walnut cabinet with charcoal brown foam grille. 24" H x 15 1/2" W x 12" D. .... \$169.95

### Criterion 999 Four-Way Speaker

Acoustic-suspension floor-standing system with 15" woofer, 8" lower mid-range, 5" upper mid-range, and 2" direct-radiator super tweeter. Response 18-22,000 Hz; crossovers 400, 900 & 7000 Hz. Has HF, upper mid-range, and lower mid-range controls. Will handle 100 W. Oiled walnut cabinet with charcoal brown foam grille. 30" H x 20" x 16" D. Has 1 1/2" wood base ..... \$219.95

## LEAK

### Sandwich 600 Speaker System

Three-way system with 13" bass driver with Sandwich cone, 3 1/2" mid-range with Sandwich cone, and 2" domed super-tweeter. 8-element crossover. Response 40-20,000 Hz. 8 ohms impedance. 25 Hz free-air resonance of bass driver. 25 1/2" x 14 7/8" x 12 1/8" deep. Walnut finished (all four sides) with satin silver trim and brown grille cloth ..... \$295.00

### Sandwich Mk III Speaker System

Sealed enclosure, 2-way floor-standing system with 13" woofer and 1" tweeter. Response 30-20,000 Hz; 900 Hz crossover. Has tweeter control, 8 ohms impedance, and will handle 70 watts (rms) maximum input power. 26" H x 15" W x 12" D. Removable oiled-walnut grille. .... \$215.00

## LESLIE

### Plus 2 Model 450 Speaker System

Each cabinet includes a dome high-frequency



radiator, two 6" x 9" mid-range, a 15" bass driver, crossover networks, and 15" rotor and motor assembly. The system consists of two cabinets with one housing two 50 W rms power amps (one for each cabinet), and 360-degree random phase-shifting network. Designed to augment two-channel stereo by being added to present system. Can also be used as two of four speakers for four-channel system. High-imp. input. The omnidirectional low-frequency response of system breaks up standing waves. Walnut. 33" H x 29 1/2" W x 19 1/8" D ..... \$995.00

#### Plus 2 Model 470 Speaker System

Same as Plus 2 Model 450 except in contemporary cabinet. 30" W x 33" H x 20 1/2" D ..... \$995.00

#### Plus 2 Model 430 Speaker System

Same basic principle of operation as the Model 450 except two-way system with 12" bass speaker and high-frequency horn. 29 1/8" H x 24 1/8" W x 18 1/2" D ..... \$695.00

### MAGITRAN

#### DS-60 Sound Panel System

Features patented poly-planar multi-channel flat diaphragm reproducer (2" deep) providing response 40-20,000 Hz. Will handle 60 W max. music power; 28 W continuous rms power. 4-8 ohms imp. Each panel comes with floor-standing and wall-mounting hardware. 5 W min. amplifier power. Features replaceable snap-on/snap-off grilles in 13 different decorative motifs 29 3/8" H x 23 3/8" W x 2" D ..... \$79.95



DS-60P. Additional grilles ..... \$17.95

### MAGNEPLANAR

#### MG2167-F Speaker System

Consists of a large area permanent magnetic field with thin-film diaphragm stretched over it; speaker is 1/8" thick; two-way full range; mid-range/bass radiating area 500 sq. in; tweeter radiation area 85 sq. in; response 50-15,000 Hz ±4 dB; will handle up to 200 W rms per channel

on music or speech; recommended minimum power 15-25 W (background), 50-100 W (other); medium to low efficiency, 1.5 W rms at 1000 Hz will produce 85 dB SPL at 3 ft; impedance purely resistive, 6 ohms at any frequency; 6 dB/octave LC crossover at 2400 Hz; Walnut finished hardwood frame with panel covered in light-colored rayon, flax, silk fabric front & back. 22" x 71" x 2" mounted on 22" x 14" black base. 40 lbs each speaker. Sold in pairs. .... \$625.00

### MAGNUM OPUS

#### Opus S Speaker System

Acoustic-suspension system; contains one 10" woofer and one cone tweeter; response 35-18,000 Hz; crossover 2000 Hz; impedance 8 ohms; power input 12 W rms minimum, 50 W rms maximum. 24" H x 14 1/2" W x 11" D. .... \$99.95  
Pedestal ..... \$12.95  
Decorator panels ..... \$15.95  
**Opus 1.** Same as Opus S but has dome tweeter; response 35-20,000 Hz. .... \$139.95  
Same pedestals & decorator panels as for Opus S.

#### Opus 7 Speaker System

Dynamic damping system; contains two 10" woofers, one 5" mid-range; two dome tweeters, two cone tweeters; response 25-20,000 Hz; crossovers 750 & 3000 Hz; impedance 4 ohms; continuously variable mid-range and tweeter controls; power input 15 W rms min., 100 W rms max. 28" H x 15 1/4" W x 13 3/4" D. .... \$299.95  
Pedestal ..... \$24.95  
Decorator panels ..... \$19.95

#### Opus 200 Speaker System

Dynamic damping system; contains two 10" woofers & one dome tweeter; response 28-20,000 Hz; crossover 2000 Hz; impedance 4 ohms; variable tweeter control; power input 8 W rms min., 100 W rms max. 24" H x 14 1/2" W x 11" D. .... \$179.95  
Decorator panels ..... \$19.95

#### Lab 8 Speaker System

Dynamic damping system; contains two 10" woofers, one 5" mid-range, two cone tweeters, two dome tweeters, and one piezoelectric tweeter; response 25-45,000 Hz; crossovers 750, 3000 & 4000 Hz; impedance 4 ohms; continuously variable mid-range and tweeter control; power input 15 W rms min., 100 W rms max. 28" H x 15 1/4" W x 13 3/4" D. .... \$359.00  
Pedestal ..... \$24.95  
Decorator panels ..... \$19.95

#### Lab Sound Monitor

Dynamic damping system; contains four 10" woofers, one 5" mid-range, one dome tweeter, one piezoelectric tweeter; has sound pressure level indicator; response 26-45,000 Hz; crossovers 500, 2000 & 4000 Hz; impedance 8 ohms; continuously variable mid-range and tweeter control; power input 5 W rms min., 150 W rms max. 15 1/2" H x 28" W x 13 3/4" D. .... \$459.00

#### Lab 33 Speaker System

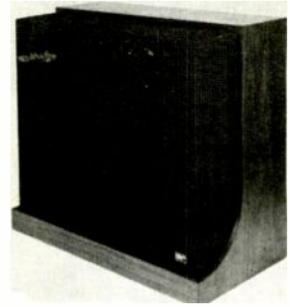
Acoustic-suspension system; contains one 10" woofer, one 5" mid-range, one dome tweeter, one piezoelectric tweeter; response 30-45,000 Hz; crossover 500, 2000 & 4000 Hz; impedance 8 ohms; power input 15 W rms min., 50 W rms max.; continuously variable mid-range and tweeter control. 24" H x 14 1/2" W x 11" D. .... \$199.00  
Decorator panels ..... \$15.95

#### Lab 1200 Speaker System

Dynamic damping system; contains one 12" woofer, one 10" woofer, one 5" mid-range, two dome tweeters, six cone tweeters, one piezoelectric tweeter; response 20-45,000 Hz; crossovers 750, 3000 & 4000 Hz; 4 ohms impedance; continuously variable mid-range and tweeter controls; power input 20 W rms min., 100 W rms max. 32" H x 18" W x 18 1/2" D. .... \$579.00

### Lab 2400 Speaker System

Dynamic damping system; contain four 12" woofers, four 5" mid-range, eight cone tweeters,



six dome tweeters, and two piezoelectric tweeters; response 20-45,000 Hz; crossovers 750, 3000 & 4000 Hz; impedance 4 or 8 ohms; continuously variable mid-range and tweeter control; power input 20 W rms min., 200 W rms max. overall size 32" H x 36" W x 18 1/2" D. .... \$1450.00

### MARANTZ

#### Imperial 4G Speaker System

Sealed-enclosure, 2-way bookshelf system with 8" woofer & 2" tweeter. Response 60-18,000 Hz; 2000 Hz crossover. 8 ohms impedance. 30 W (peak) maximum input power. 10 1/4" H x 18 1/8" W x 7 1/2" D. Walnut. .... \$59.95

#### Imperial 5 Speaker System

Tuned ducted-port, 2-way bookshelf system with 8" woofer & dome-type 3 1/2" tweeter. Response 50-15,000 Hz ±3 dB; 2000 Hz crossover. Has tweeter control. 8 ohms impedance. 40 W (dynamic) maximum input power. 12" H x 23" W x 9 1/2" D. Oiled walnut. .... \$79.95  
**Imperial 5-G.** Same as Imperial 5 but with acoustically transparent foam grille. ... \$99.95

#### Imperial 6 Speaker System

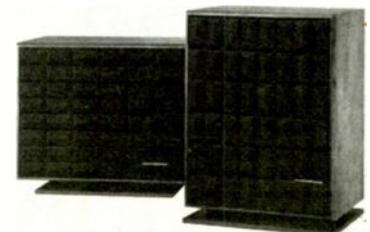
Tuned ducted-port, 2-way floor-standing system with 10" woofer & 2" dome-type tweeter. Response 40-18,000 Hz; crossover 3000 Hz. Has tweeter control. 8 ohms impedance. 100 W (dynamic) maximum input power. 25 1/2" H x 14 1/4" W x 11 1/2" D. Oiled walnut. ... \$119.95  
**Imperial 6-G.** Same as Imperial 6 but with acoustically transparent foam grille. ... \$139.95

#### Imperial 7 Speaker System

Three-way bookshelf system with 12" woofer, 3 1/2" mid-range, 1 1/4" tweeter. Has 3-position HF level & 3-position mid-range level selector switches. Response 35-20,000 Hz ±5 dB. 30 W continuous power input; 100 W integrated program material; 8 ohms imp. 25 1/2" H x 14 1/4" W x 11 1/2" D. .... \$199.95

#### Imperial 8 Speaker System

Three-way floor-standing system with 12" woofer, a rotatable air-coupled array consisting of three mid-range transducers & two tweeters. Response ±2 dB 40-18,000 Hz; ±5 dB 30-20,000 Hz. Will handle 75 W continuous power (125 W integrated); 8 ohms impedance. 27" H x 18 3/4" W x 14 1/2" D. .... \$319.95  
**Imperial 9.** Similar to Imperial 8 except has two 10" woofers, four mid-range, and two tweeters.



Response  $\pm 1.5$  dB 35-17,000 Hz;  $\pm 3$  dB 30-18,000 Hz. Will handle 100 W continuous power (150 W integrated). 30 $\frac{1}{2}$ " H  $\times$  24" W  $\times$  18" D ..... \$499.95

## MARTIN

### Crescendo Speaker System

3-way, sealed infinite baffle system with 12" woofer, 3 $\frac{1}{2}$ " mid-range, and wide-dispersion 2 $\frac{1}{2}$ " tweeter. Response 30-18,000 Hz; mid-range and tweeter level controls. 8 ohms impedance. Walnut formica finish. 14 $\frac{1}{2}$ " H  $\times$  25 $\frac{1}{2}$ " W  $\times$  12" D ..... \$199.00

### Laboratory MK II Speaker System

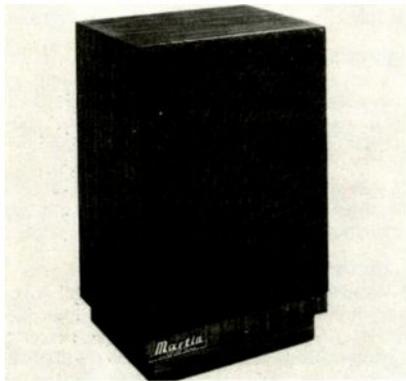
3-way, sealed infinite baffle system with 10" woofer, 3 $\frac{1}{2}$ " mid-range, and wide-dispersion 2 $\frac{1}{2}$ " tweeter. Response 35-18,000 Hz; mid-range and tweeter level controls. 8 ohms impedance. 50 watts (dynamic) maximum input power. Walnut formica finish. 12 $\frac{1}{2}$ " H  $\times$  21 $\frac{1}{2}$ " W  $\times$  10" D ..... \$139.00

### Magnificat Speaker System

3-way, floor-standing sealed infinite baffle system with two 12" woofers, 6" mid-range, and two wide-dispersion 2 $\frac{1}{2}$ " tweeters. Response 28-20,000 Hz; mid-range and tweeter level controls. 4 ohms impedance; 80 watts (dynamic) maximum input power. Walnut formica finish. 37 $\frac{1}{2}$ " H  $\times$  18" W  $\times$  14 $\frac{3}{4}$ " D ..... \$349.00

### Exorcist Speaker System

3-way, floor-standing smaller version of the Magnificat; 15" woofer, 5" curvilinear mid-



range, two compression horn tweeters; response 28-20,000 Hz; 8 ohms impedance; crossovers 350 & 5000 Hz at 12 dB/octave; will handle up to 80 W. 28" H  $\times$  18" W  $\times$  14" D ..... \$319.00

### Micro-Max Speaker System

2-way, sealed enclosure system with 8" woofer and wide dispersion 3" tweeter. Has tweeter balance control. 8 ohms impedance. Walnut formica finish. 10 $\frac{3}{4}$ " H  $\times$  18" W  $\times$  9 $\frac{3}{4}$ " D ..... \$79.00

### Spectrum Slope Speaker System

2-way, sealed infinite baffle system with two 8" woofers and two wide-dispersion 2 $\frac{1}{2}$ " tweeters. Response 35-18,000 Hz. 8 ohms impedance; 50 watts (dynamic) maximum input power. Walnut formica finish. 12 $\frac{1}{2}$ " H  $\times$  21 $\frac{1}{2}$ " W  $\times$  10" D ..... \$169.00

### Super Spectrum Speaker System

3-way, sealed infinite baffle system with two 8" woofers, 3 $\frac{1}{2}$ " mid-range, and wide-dispersion 2 $\frac{1}{2}$ " tweeter. Response 30-18,000 Hz; mid-range and tweeter level controls. 4 ohms imped-

ance; 60 watts (dynamic) maximum input power. Walnut formica finish. 12 $\frac{1}{2}$ " H  $\times$  21 $\frac{1}{2}$ " W  $\times$  10" D ..... \$199.00

### 840 Sound Tower Column System

3-way column, sealed enclosure system with four 8" woofers, two 4" mid-range, and two flare dome 2" tweeters. Response 28-20,000 Hz; mid-range and tweeter level controls. 100 watts (dynamic) maximum input power. Walnut formica finish. 52" H  $\times$  16 $\frac{1}{4}$ " W  $\times$  7 $\frac{3}{4}$ " D ..... \$379.00

## MICRO/ACOUSTICS

### Microstatic Speaker System

One-way miniature closed system with four tweeters. Response 3500-18,000 Hz  $\pm 2$  dB. Dispersion 180 degrees. Has range selector and level control. 4 to 8 ohms impedance. 60 W maximum (rms) input power. For use with medium and low-efficiency systems to augment treble. 3 $\frac{3}{4}$ " H  $\times$  9 $\frac{1}{8}$ " W  $\times$  5 $\frac{1}{4}$ " D. Walnut. \$58.50

### FRM-1 Speaker System

A bookshelf system with an array of five high-frequency drivers radiating 180 degrees and in both vertical and horizontal planes plus an MW-28 woofer. Response 35-18,000 Hz. Grille cloths available in burnt orange, blue, black or brown. 25 $\frac{3}{4}$ "  $\times$  15 $\frac{3}{8}$ " W  $\times$  12 $\frac{3}{4}$ " D ..... \$165.00

### FRM-2 Speaker System

Two-way floor-standing system; response 40-16,000 Hz  $\pm 4$  dB; dispersion 160 degrees horizontal & vertical at 15,000 Hz; 10" acoustic-suspension woofer & three 1 $\frac{1}{2}$ " tweeters mounted in trihedron array; power required 10 W rms min., 60 W rms max.; impedance 8 ohms; high-frequency level control adjusts all three tweeters simultaneously; LRC crossover at 1700 Hz. Walnut vinyl with brown stretch knit grille cloth. 12 $\frac{1}{4}$ "  $\times$  15 $\frac{3}{8}$ " W  $\times$  25 $\frac{3}{4}$ " H ..... \$129.00

### FRM-3 Speaker System

Two-way floor-standing system; response 40-15,000 Hz  $\pm 3$  dB; dispersion 140 degrees horizontal & vertical at 15,000 Hz; 10" acoustic-suspension woofer, two 1 $\frac{1}{2}$ " tweeters in duhedron array; power required 8 W min., 50 W max.; impedance 8 ohms; LRC crossover at 1700 Hz. Walnut vinyl with brown stretch knit grille cloth. 10 $\frac{1}{2}$ " D  $\times$  15 $\frac{3}{8}$ " W  $\times$  25 $\frac{3}{4}$ " H ..... \$99.00

## MICROTOWER

### MT1 Speaker System

Spherical-sound design; suitable for front, rear, or four-channel use; has organ pipe low-frequency driver & two 4 $\frac{1}{2}$ " cone mid-range speakers; crossover 200 Hz; 8 ohms; 5 W min., 50 W max. power handling capacity; response 50-12,000 Hz  $\pm 3$  dB. White or walnut finish. 32" H  $\times$  8 $\frac{1}{2}$ "  $\times$  8 $\frac{1}{2}$ " ..... \$69.95

### MT2 Speaker System

Drivers are mounted on all sides for uniform response; uses two 1" wide-dispersion tweeters, two 4 $\frac{1}{2}$ " mid-range, and organ pipe for response below 200 Hz; crossovers 200 & 3000 Hz; 8 ohms; will handle from 15-70 W; tweeter control. Walnut finish. 34"  $\times$  8 $\frac{1}{2}$ "  $\times$  8 $\frac{1}{2}$ " ..... \$129.95

### MT3 Speaker System

Features organ-pipe low-frequency driver; four 4 $\frac{1}{2}$ " mid-range & two linear air-spring tweeters; response 35-18,000 Hz  $\pm 3$  dB; will handle 30-80 W rms ..... \$209.95

## MODULAR SOUND

### "T" Omni Speaker Cube

Five-driver system featuring four 3" tweeters in

360-degree array, one 8" woofer/mid-range in infinite baffle enclosure; can be used as bookshelf speaker or combined with 8B omnidirectional bass cube to form a three-way system with 40-20,000 Hz  $\pm 3$  dB response; crossover 500 & 3000 Hz. 12 $\frac{1}{8}$ "  $\times$  12 $\frac{1}{8}$ "  $\times$  12 $\frac{1}{8}$ " .. \$79.95

### 8B Slot-Loaded Bass Cube

Contains one 8" floor-loaded woofer with two mechanical crossovers; can be used as bass booster for any bookshelf speaker system; terminal strip connections for both amplifier input and speaker system output; used in conjunction with the "T" Omni it becomes three-way floor-standing system. Same dimensions & enclosure as the "T" ..... \$69.95

### "F" Two-Way Speaker System

Tuned-port, two-way system with one 3" tweeter and 8" woofer; high efficiency; 23 $\frac{3}{8}$ "  $\times$  12 $\frac{1}{8}$ "  $\times$  11" D ..... \$89.95

## MX

### 2830 Speaker System

Three-way air-suspension system with 15" high-compliance woofer, 2" hemispherical dome, 2" phenolic ring cone tweeter; 8 ohms impedance; response 20-20,000 Hz; system resonance 43 Hz; crossovers 1500 & 4500 Hz; mid-range & tweeter level controls; power input 10 W rms min./100 W rms max. Oiled walnut veneer cabinet; removable foam grille. 29"  $\times$  20 $\frac{1}{2}$ "  $\times$  14 $\frac{1}{4}$ " ..... \$499.95 pr.  
**2820.** Same features as 2830 except 12" woofer; response 25-20,000 Hz; system resonance 45 Hz; power input 10 W rms min./75 W rms max. 25 $\frac{3}{4}$ "  $\times$  15 $\frac{3}{8}$ "  $\times$  13 $\frac{1}{4}$ " ..... \$399.95 pr.  
**2810.** Same features as 2830 except 10" woofer; response 30-20,000 Hz; system resonance 47 Hz; power input 10 W rms min./50 W rms max. 23 $\frac{1}{2}$ "  $\times$  15 $\frac{1}{4}$ "  $\times$  12 $\frac{1}{2}$ " ..... \$299.95 pr.

## NT-T

### CK10-2 Speaker System Kit

Two-way system with 6 $\frac{1}{2}$ " woofer & 2" tweeter. Response 35-18,000 Hz. 8 ohms imp. Max. power input 20 W. 13" H  $\times$  8" W  $\times$  8" D ..... \$34.95  
 Pair of kits ..... \$59.95

### CK20-2 Speaker System Kit

Two-way system with 8" woofer & 2 $\frac{1}{4}$ " tweeter. Response 40-20,000 Hz. 8 ohms imp. Max. power input 60 W. 20" H  $\times$  10 $\frac{1}{4}$ " W  $\times$  9 $\frac{1}{2}$ " D ..... \$59.95  
 Pair of kits ..... \$99.95

### CK 20-3 Speaker System Kit

Three-way system with 8" woofer, 5" mid-range,

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 knowledgeably. It  
 can save you both time  
 and money . . . so keep  
 it handy and use it  
 often.

and 2 1/2" tweeter. Response 40-20,000 Hz. 8 ohms imp. Max. power input 80 W. 20" H x 10 1/2" W x 9 1/2" D. .... \$69.95  
 Pair of kits ..... \$119.95

**CK50-4 Speaker System Kit**

Four-way system with 10" woofer, 5" x 7" mid-range, and two 2 1/2" tweeters. Response 30-18,000 Hz. 8 ohms imp. Max. power input 80 W. 26 1/2" H x 15" W x 10 1/2" D ..... \$99.95  
 Pair of kits ..... \$179.95

**OHM ACOUSTICS**

**Model A Speaker System**

Air-suspension system. Floor-standing model with full-range omnidirectional coherent transmission-line radiator. 18" driver is ±4 dB from 25-20,000 Hz. Impedance 8 ohms. 48" H x 22" W x 22" D. Price depends on cabinetry and finish (walnut, oak, teak, rosewood available) ..... \$1000.00 to \$1100.00

**Model B Speaker System**

Air-suspension, two-way floor-standing system with 12" woofer and 1" dome-type tweeter. Response 35-18,000 Hz ±4 dB; 1760 Hz crossover. Has tweeter control. 8 ohms impedance. Oiled walnut finish. 26" H x 15" W x 10 1/4" D ..... \$200.00

**Model C Speaker System**

Air-suspension, two-way system with 10" woofer and 1" dome-type tweeter. Response 40-18,000 Hz ±4 dB; 1700 Hz crossover. Has tweeter control. 8 ohms impedance. Oiled walnut. 25" H x 14" W x 9 3/4" D ..... \$150.00

**Model D Speaker System**

Resistance-loaded, two-way reflex system with 10" woofer and 3" tweeter. Response 42-18,000 Hz ±4 dB; 1700 Hz crossover. Has tweeter control. 8 ohms impedance. Oiled walnut. 25" H x 14" W x 8" D ..... \$110.00  
 Vinyl ..... \$100.00

**Model E Speaker System**

Air-suspension, two-way system with 8" woofer and 3" phenolic-surround cone tweeter. Response 48-18,000 Hz ±4 dB on axis. Crossover 1700 Hz. 8 ohms impedance. Has tweeter control. Walnut. 21 1/2" x 11 1/2" x 7 1/4" ..... \$80.00  
 Vinyl ..... \$70.00

**Model F Speaker System**

Air-suspension system. Floor-standing model with full-range omnidirectional coherent transmission-line radiator. 12" driver is ±4 dB 33 to 20,000 Hz. Impedance 4 ohms. 43 1/2" H x 17 1/4" x 17 1/4". Oiled walnut or rosewood. .... \$400.00 to \$550.00

**ONKYO**

**15 Speaker System**

Three-way linear-suspension bookshelf design with 10" woofer, 1 1/8" hemispheric dome mid-range, and 1" hemispheric dome tweeter. Capacity 40 W. Response 30-20,000 Hz; crossovers at 1000 & 7000 Hz. 5-position mid-range & tweeter level control. 10 W/ch rms minimum driving power. 8 ohms. 22 3/8" x 12 3/8" x 11 3/8". Walnut ..... \$129.95

**20 Speaker System**

Three-way, linear-suspension design with 12" woofer, 2" hemispheric dome mid-range, and 1" hemispheric dome tweeter. Capacity 50 W. Response 35-20,000 Hz; crossovers at 700 & 7000 Hz. Has mid-range & tweeter level control. 10 W/ch rms minimum driving power. 23 1/4" x 13 1/2" x 11 3/8". Walnut ..... \$199.95

**25A Speaker System**

Three-way, linear-suspension design with 14" woofer, 2" hemispheric dome mid-range, and 1" hemispheric dome tweeter. Capacity 60 W. Response 30-20,000 Hz; crossovers at 700 &

7000 Hz. Has mid-range & tweeter level control. 10 W/ch rms minimum driving power. 8 ohms. 25 1/2" x 11 3/4" x 11 3/8". Walnut ..... \$249.95

**30 Speaker System**

Three-way, linear-suspension design with 12" woofer, horn-type (10 1/2" x 3 1/2") mid-range, and 2 1/4" horn-type tweeter. Response 20-20,000 Hz; 700 & 5000 Hz crossovers. 60 W capacity. Has mid-range & tweeter level control. 8 ohms. 15 W/ch rms minimum driving power. 28 1/2" x 16 1/2" x 15 1/2". Walnut ..... \$299.95

**Radian III Two-Way Speaker System**

Bass-reflex design with two high-compliance 6 1/2" woofers and two 3" cone-type tweeters; 1500 Hz crossover. Frequency response 60-20,000 Hz. Max. input power 30 watts; 8 ohms impedance. Has 5-step high-range level control; built-in dispersion baffles and angled tweeters for 180-degree sound dispersion. 9 1/2" W x 33 1/2" H x 11 3/8" D ..... \$119.95

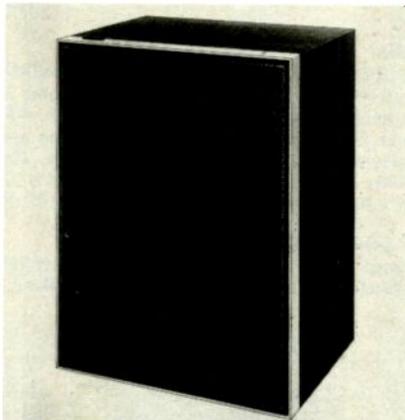
**8 Speaker System**

Two-way, bass-reflex tuned-port speaker system; 8" woofer & 2" cone-type tweeter; response 35-20,000 Hz; maximum power capacity 30 W; 8 ohms imp; crossover 6000 Hz. Walnut-grained vinyl finished enclosure. 11 3/8" W x 21 3/8" H x 9 3/4" D ..... \$89.95

**PHILIPS**

**RH532 Motional Feedback System**

Three-way system with 8" motional-feedback woofer, 5" mid-range, 1" dome tweeter; two in-



tegrated power amplifiers (bass, 40 W sine wave, 0.1% dist. at 30 W. power bandwidth 10-3000 Hz, frequency range 5-2000 Hz; intermediate & treble, 20 W sine wave, 0.1% dist. at 15 W, power bandwidth 100-50,000 Hz, frequency range 500-60,000 Hz); crossover 500 Hz (active) & 4000 Hz (passive); inputs: switchable signal, preamp 1 V at 3000 ohms, power amp 7.5 V at 25 ohms, low-power amp 3 V at 35 ohms; power. 15" H x 11" W x 8" D. .... \$365.00

**PIONEER**

**CS-44G Speaker System**

Sealed, 2-way bookshelf enclosure with 8" woofer and cone-type 2 1/2" tweeter. Response 35-20,000 Hz. 8 ohms impedance. 25 W (dynamic) maximum input power. Oiled walnut. 11 1/8" H x 19 1/8" W x 9 3/4" D. .... \$79.95

**CS-63DX Speaker System**

Sealed, 4-way floor standing enclosure with 15" woofer, two 5" mid-range, a horn-type tweeter, and two super-tweeters. Response 20-22,000 Hz. Has mid-range and tweeter controls. 8 ohms impedance. 80 W (dynamic) maximum input power. 28 3/8" H x 18 1/8" W x 13 1/8" D. Oiled walnut. .... \$279.95

**CS-66G Speaker System**

Sealed, 3-way bookshelf enclosure with 10" woofer, 6 1/2" mid-range, and cone-type tweeter. Response 35-20,000 Hz. Has tweeter control. 8 ohms impedance. 40 W (dynamic) maximum input power. 12 1/4" H x 22" W x 11 1/2" D. \$119.95

**CS-99A Speaker System**

Sealed, 5-way floor-standing enclosure with 15" woofer, 5" mid-range, horn-type tweeter, cone tweeter, and dome super-tweeter. Response 25-22,000 Hz. Has mid-range and tweeter controls. 8 ohms impedance. 80 W (dynamic) maximum input power. 25" H x 16" W x 11 1/4" D. Walnut ..... \$239.95

**CS-A500 Speaker System**

Sealed, 3-way bookshelf enclosure with 10" woofer, 4 1/4" mid-range, and 3" tweeter. Response 40-20,000 Hz; 800 & 6000 Hz crossovers. Has tweeter control. 8 ohms impedance. 50 W (dynamic) maximum input power. 13" H x 22 1/2" W x 12 1/8" D. Walnut ..... \$149.95

**CS-A700 Speaker System**

Sealed, 3-way floor-standing enclosure with 12" woofer, 4 3/4" mid-range, and horn-type tweeter. Response 35-20,000 Hz; 500 & 4500 Hz crossovers. Has mid-range and tweeter controls on front panel. 8 ohms impedance. 60 W (dynamic) maximum input power. Has individual speaker connections to the firm's multi-amp system. 26" H x 12 3/4" W x 15" D. Walnut ..... \$189.95

**R300 Speaker System**

Bass-reflex, 2-way design with 10" woofer and horn-type tweeter. 8 ohms. Response 45-20,000 Hz. 6300 Hz crossover. 40 W max. input. Has removable grille. Saran cloth color combination black/orange-red. 13" x 22 1/2" x 11 1/8" D ..... \$119.95

**R500 Speaker System**

Bass-reflex, 3-way design with 10" woofer, 5" mid-range, and horn tweeter; crossovers at 800 & 5200 Hz. 8 ohms. Response 35-20,000 Hz. Max. input 60 W. Has removable grille and Saran cloth color combination black/blue. 13 1/2" x 24 1/8" x 12 1/8" D. .... \$169.95

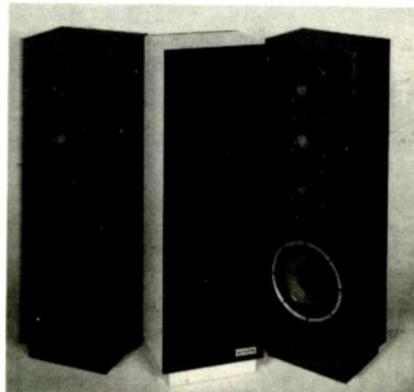
**R700 Speaker System**

Bass-reflex, 3-way design with 12" woofer, horn mid-range, and multicellular horn super-tweeter; crossovers at 750 & 14,000 Hz. 8 ohms. Response 35-20,000 Hz. Max. input 75 W. Has removable grille and Saran cloth color combination is black/brown. 15" x 26" x 13 3/8" D ..... \$249.95

**POLK AUDIO**

**Nine Controlled Dispersion Array**

Three-way free-standing tower design with four 4 1/2" extended-range drivers, an 8" bass radiator cone, and piezoelectric h.f. unit in controlled dispersion array, arranged on front & rear baffles to provide dipolar radiation of bass & mid-range and direct radiation of highs; acoustic crossover 12 dB/octave at 180 Hz;



response 48-27,000 Hz  $\pm$ 2 dB, 41-35,000 Hz  $-4$  dB; max. output level 108 dB at 1 meter (any frequency above 100 Hz); power required 5 W rms/ch min., 100 W rms/ch max.; imp. nominal 8 ohms, min. 9.5 ohms at 70 Hz. 33 $\frac{1}{2}$ " H  $\times$  9" D  $\times$  10 $\frac{1}{2}$ " W. Walnut woodgrain cabinet. White finish available extra. . . . . \$165.00 ea.

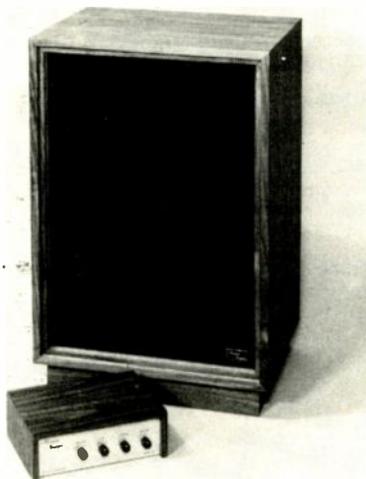
## PRECISION ACOUSTICS

### 208 Two-Way Speaker System

Has two 8" woofers and one 2" tweeter. Response 25-20,000 Hz. Will handle 40 W continuous rms power. Impedance 8 ohms. Hand-rubbed oiled-walnut finish. 20 $\frac{1}{2}$ " W  $\times$  13" H  $\times$  10 $\frac{1}{2}$ " D. System consists of two speakers and Model 102 equalizer. . . . . \$475.00

### 112 Three-Way Speaker System

Has 12" woofer, 6" mid-range, and 2" tweeter. Response 25-20,000 Hz. Will handle 50 W con-



tinuous rms power. Impedance 8 ohms. Hand-rubbed oiled-walnut finish. 22 $\frac{1}{2}$ " W  $\times$  15" H  $\times$  11 $\frac{1}{4}$ " D. System consists of two speakers and Model 102 equalizer . . . . . \$575.00

### 210 Three-Way Speaker System

Has two 10" woofers, one 6" mid-range, and one 2" tweeter. Response 20-20,000 Hz. Will handle 70 W continuous rms power. Impedance 8 ohms. Hand-rubbed oiled walnut finish. Right and left speakers are mirror images. 17" W  $\times$  25" H  $\times$  11 $\frac{1}{4}$ " D. System consists of two speakers and Model 102 equalizer . . . . . \$675.00

### 212 Three-Way Speaker System

Has two 12" woofers, two 6" mid-range, and one horn tweeter. Response 20-22,000 Hz. Will handle 100 W continuous rms power. 8 ohms impedance. Hand-rubbed oiled-walnut finish. 21" W  $\times$  29"  $\times$  15 $\frac{1}{2}$ " D. Right and left speakers are mirror images. System consists of two speakers and Model 102 equalizer . . . \$975.00

### 215 Three-Way Speaker System

Has two 15" woofers, two 6" mid-range, and two horn tweeters. Response 20-22,000 Hz. Will handle 200 W continuous rms power. 8 ohms impedance. Hand-rubbed oiled-walnut finish. 24" W  $\times$  34" H  $\times$  16 $\frac{1}{8}$ " D. Right and left speakers are mirror images. System consists of two speakers and Model 102 equalizer . . \$1300.00

## RADIO SHACK

### Nova 7B Speaker System

Sealed, 2-way bookshelf system with 10" woofer

and two 3 $\frac{1}{2}$ " tweeters. Response 20-20,000 Hz. 8 ohms impedance. 60 W rms maximum input power. 12 $\frac{1}{2}$ " H  $\times$  22 $\frac{1}{8}$ " W  $\times$  11" D. Oiled walnut . . . . . \$119.95

### Optimus 1B Speaker System

Sealed, 2-way bookshelf system. Response 20-25,000 Hz; 1000 Hz crossover. Has tweeter control. 8 ohms impedance. 12" H  $\times$  23" W  $\times$  11 $\frac{1}{2}$ " D. Walnut . . . . . \$89.95

### Optimus 5 Speaker System

Sealed, 2-way floor-standing system with 12" woofer, two mid-range, and a 3" tweeter. Response 20-20,000 Hz. Has mid-range and tweeter controls. 8 ohms impedance. 25" H  $\times$  14" W  $\times$  11 $\frac{1}{2}$ " D. Oiled walnut. . . . . \$114.50

## RECTILINEAR

### Model XIa 2-Way Speaker System

Bass-reflex, 2-way bookshelf system with 10" woofer and 3" tweeter. Response 45-20,000 Hz  $\pm$ 4 dB; 1000 Hz crossover. Has tweeter level control; 8 ohms impedance. Requires 10 watts (rms) driving power; 50 watts (rms) maximum power. 12" H  $\times$  23" W  $\times$  10 $\frac{1}{2}$ " D. Oiled walnut finish. . . . . \$89.00  
Optional fretwork grille kit. . . . . \$10.00

### Model XII 3-Way Speaker System

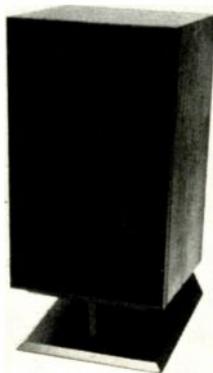
Bass-reflex 3-way bookshelf system with 10" woofer, 5" mid-range, and 3" tweeter. Response 45-17,000 Hz  $\pm$ 3 dB; 350 and 4000 Hz crossovers. Has mid-range and tweeter level controls; 8 ohms impedance. Requires 10 watts (rms) driving power; 40 W rms maximum power. 25" H  $\times$  14" W  $\times$  10 $\frac{1}{4}$ " D. Oiled walnut finish. . . . . \$149.00

### Mini III 3-Way Speaker System

Sealed acoustic-suspension, 3-way bookshelf system with 8" woofer, 5" mid-range, and 2" tweeter. Response 50-18,500 Hz  $\pm$ 4 dB; 400 and 8000 Hz crossovers. Has mid-range and tweeter level controls; 4 ohms impedance. 100 watts (IHF) maximum input power. 12" H  $\times$  19" W  $\times$  9 $\frac{1}{2}$ " D. Oiled walnut finish. . . . . \$109.00

### 5 Contemporary Lab Series

Sealed acoustic-suspension, 4-way bookshelf system with optional "Delta Dispersion Base;"

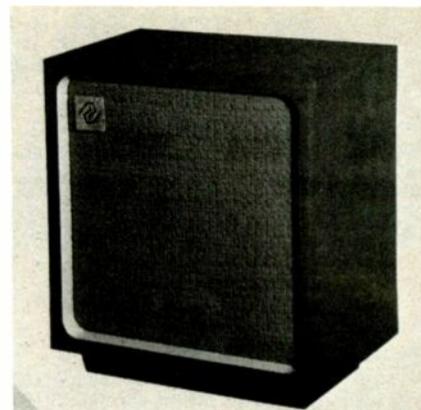


12" woofer, 7" woofer, 1 $\frac{1}{2}$ " dome mid-range, 1" dome tweeter; response 30-20,000 Hz  $\pm$ 2 dB; crossovers 200, 1800 & 10,000 Hz; no controls; 6 ohms nominal impedance; 150 W rms power handling. Oiled walnut finish. 25"  $\times$  15"  $\times$  14 $\frac{1}{2}$ ". . . . . \$299.00  
With base. . . . . \$319.00

## ROMEX

### RV-11 Two-Way Speaker System

High-efficiency tuned-port reflex design; 8 $\frac{1}{4}$ " woofer & 4" tweeter; half-wave frequency divider network 12 dB/octave; constant resistance, zero phase shift at 1750 Hz crossover; 3-pos. room acoustics compensating control; will handle 25 W; response 40-22,000 Hz;



nominal imp. 8 ohms; contemporary styling; hardwoods & veneers; finished on all six sides; press-fit grille. 14 $\frac{3}{8}$ " H  $\times$  13 $\frac{3}{8}$ " W  $\times$  9 $\frac{1}{2}$ " D. . . . . \$219.50 pr.  
RV-8. Same except traditional cabinet. 13 $\frac{3}{8}$ " H  $\times$  13 $\frac{3}{8}$ " W  $\times$  9 $\frac{1}{2}$ " D. . . . . \$219.50 pr.

### RV-27 Three-Way Speaker System

High-efficiency tuned-port reflex design; 10" woofer, 6" mid-range & 4" tweeter in hermetically isolated sub-enclosures; half-wave frequency divider network; constant resistance, zero phase shift at crossovers (1750 & 7000 Hz); 3-pos. room acoustics compensating controls; will handle 50 W; response 35-22,000 Hz; nominal impedance 8 ohms; contemporary styling; hardwoods & veneers; finished all six sides; press-fit grille. 23 $\frac{3}{8}$ " H  $\times$  13 $\frac{3}{8}$ " W  $\times$  13 $\frac{3}{8}$ " D. . . . . \$199.50  
RC-25. Same as RV-27 except traditional styling. . . . . \$199.50

### RV-47 Three-Way Speaker System

High-efficiency tuned-port reflex design; 12" woofer, 6" mid-range & two 4" tweeters; two hermetically isolated sub-enclosures for mid-range & tweeters; half-wave frequency divider network, 12 dB/octave, constant resistance, zero phase shift at crossovers 875 & 7000 Hz; two 3-pos. room acoustics compensating controls; will handle 100 W; response 30-22,000 Hz; nominal impedance 8 ohms; contemporary styling; hardwoods & veneers; finished all six sides; press-fit grille. 26" H  $\times$  21 $\frac{7}{8}$ " W  $\times$  12 $\frac{1}{8}$ " D. . . . . \$299.50  
RV-45. Same as RV-47 but traditional styling. . . . . \$299.50

## RTR

### HPR-12 Three-Way Speaker System

Rear-loaded three-way system with 12" woofer, 5" cone mid-range, 2" cone tweeter. Response 35-18,500 Hz  $\pm$ 4 dB; crossover 1500 & 10,000 Hz; imp. 8 ohms. Will handle 60 W continuous rms power. Walnut enclosure with black grille cloth. 14 $\frac{1}{2}$ "  $\times$  13"  $\times$  36" . . . . . \$199.00

### ESR-6 Electrostatic Tweeter System

Electrostatic add-on tweeter with built-in crossover and level controls for both tweeter & woofer. Response 1500-30,000 Hz  $\pm$ 3 dB; crossover 1500 Hz. Will handle 60 W continuous rms power (24 V max.); 8 ohms. Walnut cabinet with black grille cloth. 14 $\frac{1}{2}$ "  $\times$  12"  $\times$  14 $\frac{1}{2}$ ". . . . . \$169.00

ESR-15. Larger version of ESR-6. Has 15 electrostatic panels with built-in crossover at 1000 Hz. Response 1000-30,000 Hz  $\pm$ 3 dB. Will handle 100 W rms power. 8 ohms. Walnut cabinet with black grille cloth. 20"  $\times$  20"  $\times$  23 $\frac{1}{2}$ ". . . . . \$279.00

### 280DR Three-Way Speaker System

Features four 10" woofers, five 2 $\frac{1}{2}$ " mid-range/tweeters, one piezoelectric super tweeter; response 22-25,000 Hz; crossovers 2500 & 7500 Hz; impedance 8 ohms nominal; recommended amp power 25 to 100 W rms/channel; has mid-

range & tweeter level controls, speaker protection circuit breaker with push-button reset, dual 5-way input jack. Hand-rubbed walnut veneer cabinet. 16½" x 39" x 16½" D. . . . . \$329.00

**180D Two-Way Speaker System**

Features two 10" woofers and four 2½" tweeters; response 28-18,500 Hz; crossover 3000 Hz; impedance 8 ohms nominal; recommended amp power 25 to 60 W rms/ch; has tweeter level control, tweeter protection circuit breakers with push-button reset, bi-amp switch, dual 5-way input jacks. Hand-rubbed walnut veneer cabinet; 14" x 33¼" x 14" D. . . \$219.00

**HPR-12 Magnum Speaker System**

Designed for use with low-power amps; has one 12" passive radiator, one 12" woofer, one 5" mid-range, and one 3" solid-state tweeter; response 30-25,000 Hz; crossovers 1500 & 7500 Hz; impedance 8 ohms nominal; recommended amp power 15 to 100 W continuous power into 8 ohms; mid-range and tweeter (continuously variable) controls, speaker protection circuit breaker, dual 5-way binding post. Hand-rubbed walnut veneer cabinet. 14½" x 36" x 13" D. . . . \$249.00

**400E Three-Way Speaker System**

Features one 12" woofer, four 5¼" x 5¼" electrostatic mid-range panels, one 3" piezoelectric super tweeter; response 30-25,000 Hz; crossovers 470 & 7800 Hz; impedance 7 ohms minimum; recommended amp power 20 to 100 W rms; has mid-range and tweeter level control, speaker protection circuit breaker. Hand-rubbed walnut veneer cabinet. 18" x 27½" x 12" D. . . . . \$279.00

**88D Two-Way Speaker System**

Features 8" woofer & three 2½" tweeters; response 40-18,500 Hz; crossover 2500 Hz; 8 ohms nominal impedance; recommended amp power 20 to 60 W rms; has tweeter level control, circuit breaker, dual 5-way binding post. Hand-rubbed walnut veneer cabinet. 11" x 26¼" x 11" D. . . . . \$139.00

**SAE**

**Mark XII Electrostatic Transducer**

Solid-state design; 8 ohms impedance. Power requirement 60 W rms. Has 12" dynamic-type woofer, 5" dynamic-type mid-range, and three electrostatic elements—two to provide mid- and high-frequency and one to provide primary high-frequency coverage of unusually high dispersion. Crossovers of low-freq. driver adjustable to 120, 240, or 480 Hz at 6 dB/octave; mid-freq. driver 240 Hz at 6 dB/octave with continuously variable output; electrostatic units 1440 Hz at 12 dB/octave with level adjust from -3 to +3 dB. 120 V a.c. operation. 27" x 17" x 12¼" D. Oiled walnut . . . . . Pair \$950.00

**Mark XIV Electrostatic Transducer**

Has 12.3" low-frequency transducer; 5" mid-frequency transducer and constant-charge, bipolar-radiating electrostatic elements. Crossovers: low-freq. driver adjustable to 120 Hz, 240 Hz, 480 Hz at 12 dB/octave; mid-freq. drivers 240 Hz at 6 dB/octave continuously variable calibrated adjustment from -16 dB through +4 dB; electrostatics 1440 Hz at 12 dB/octave, efficiency level adjustable from -4 dB through +10 dB, continuously variable adjustment. Solid-state electronic protection. Minimum power input 100 W/ch; maximum power input no limit. 8 ohms impedance. Available in oiled walnut or rosewood with ebony fabric grille cloth. 42¾" H x 24" W x 18" D at base (6" D at top). Oiled walnut . . . . . Pair \$1650.00  
Rosewood . . . . . Pair \$1850.00

**Mark X Dynamic Transducer**

12" low frequency driver; 5" mid-frequency driver in an air-tight enclosure, and two 2½" tweeters

(one radiating toward the rear). Crossovers at 1440 Hz, 240 Hz, 480 Hz all at 6 dB/octave. Has continuously adjustable high-frequency level control (-7 dB to +5 dB) and mid-frequency level control (-16 dB to +4 dB). 8 ohms imp. Minimum power input 20 W rms. Hand-rubbed oiled walnut cabinet. 25" H x 14½" W x 12" D . . . . . \$200.00

**Mark XI Dynamic Transducer**

Three-way system with 12" driver; two 5 mid-range; three 2½" forward-radiating tweeters, and one 2½" rear-radiating tweeter. Crossovers at 1440 Hz (high) and 240 Hz (mid-frequency) both at 6 dB/octave. Adjustable low-frequency crossovers at 120, 240, and 480 Hz at 6 dB/octave. Has continuously adjustable high-frequency (-7 dB to +5 dB) and mid-frequency (-16 dB to -4 dB) level controls. 8 ohms imp. Minimum power input 30 W rms. Hand-rubbed walnut enclosure. 27" H x 17" W x 12¼" D. . . . \$275.00

**SANSUI**

**SP-3500 4-Way, 6-Speaker System**

Multi-directional bass-reflex design with one 14" cone woofer, two 4" cone mid-range, one 4" x 2" horn mid-range, and two 2" horn tweeters. Response 25-20,000 Hz; crossovers at 700, 2000 & 6500 Hz. Power capacity 100 W. 8 ohms imp. 24¼" H x 17¼" W x 11½" D. Walnut open-pore finish . . . . . \$269.95

**SP-2500 3-Way, 5-Speaker System**

Multi-directional bass-reflex design with one 12" cone woofer, two 5" cone mid-range, two 2" horn tweeters. Response 30-20,000 Hz; crossovers at 700 & 6500 Hz. Power capacity 80 W. 8 ohms imp. 23¼" H x 15¾" W x 10¾" D . . . . \$229.95

**SP-1700 3-Way, 5-Speaker System**

Multi-directional bass-reflex design with one 12" cone woofer, two 4" cone mid-range, and two 2" cone tweeters. Response 30-20,000 Hz; crossovers at 700 & 6500 Hz. Power capacity 70 W. 8 ohms imp. 25¼" H x 16¼" W x 10¾" D. Walnut open-pore finish . . . . . \$199.95

**SP-1200 3-Way, 5-Speaker System**

Multi-directional bass-reflex design with one 10" cone woofer, two 4" mid-range, and two 2" cone tweeters. Response 35-20,000 Hz; crossovers at 700 & 6500 Hz. Power capacity 60 W. 8 ohms imp. 23¼" W" H x 15¾" W x 10¾" D . . . . . \$179.95

**SF-2 Omni-Radial Speaker System**

Frequency response 50-20,000 Hz; two 8" woofers & one 2¼" cone tweeter; crossover 2000 Hz; 8 ohms imp.; max. power input 65 W peak; full 360-degree sound dispersion; porous foam acoustic diffuser; suitable as stereo or 4-ch component. Natural wood and chipboard, fretwork grille. 15¾" W x 24¼" H x 15¾" D. . . . . \$199.95

SF-1. Similar to SF-2 except two 6½" woofers & one 2¼" cone tweeter; max. power input 45 W peak; response 55-20,000 Hz. 14¼" W x 22¼" H x 14¼" D. . . . . \$159.95

**SCOTT, H.H.**

**S-71 Speaker System**

Sealed, 3-way floor-standing system with 12" woofer, 4½" mid-range, and two 1" dome tweeters. Response 28-20,000 Hz; 900 & 4500 Hz crossovers. Has 3-position mid-range/tweeter level switch. 8 ohms impedance. Requires 20 W minimum amplifier power; handles 100 W program material. 25" H x 15¼" W x 11¼" D. . . . \$199.95

**S-61 Speaker System**

Sealed, 3-way floor-standing system with 10"

woofer, 4½" mid-range, and 1" dome tweeter. Response 30-20,000 Hz; 1000 & 5000 Hz crossovers. Has 3-position mid-range/tweeter level switch. 8 ohms impedance. Requires 18 W minimum input; handles 75 W program material. 25" H x 14½" W x 11½" D. . . . . \$169.95

**S-52 Speaker System**

Sealed, 2-way floor-standing system with 10" woofer and 1½" dome tweeter. Response 30-17,000 Hz; 1200 Hz crossover. Has tweeter control. 8 ohms impedance. Requires 18 W (IHF) driving power; 60 W (IHF) maximum input. 24" H x 14½" W x 10½" D. Walnut . . \$114.95

**S-42 Speaker System**

Sealed, 2-way bookshelf system with 8" woofer and 1" dome tweeter. Response 35-20,000 Hz; 2200 Hz crossover. Has tweeter control. 8 ohms impedance. Requires 10 W (IHF) driving power; 35 W (IHF) maximum input. 11¼" W x 22" H x 8½" D. Walnut . . . . . \$79.95

**S-11D Speaker System**

Sealed, 3-way floor-standing system with 10" woofer, 3½" mid-range, and 3" tweeter. Response 35-20,000 Hz; 900 & 3500 Hz crossovers. Has mid-range and tweeter controls. 8 ohms impedance. Requires 10 W (IHF) driving power; 50 W (IHF) maximum input. 24" H x 14½" W x 11¼" D. Walnut . . . . \$149.95

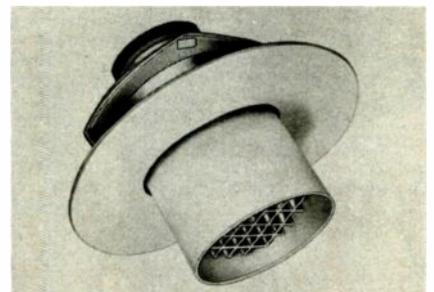
**S-15 Speaker System**

Sealed, 3-way bookshelf system with 10" woofer, 4" mid-range, and 3" tweeter. Response 35-20,000 Hz; 800 & 4000 Hz crossovers. Has 3-position tweeter/mid-range level switch. 8 ohms impedance. Requires 10 W driving power; will handle 50 W program material. 23½" H x 11¼" W x 9" D. . . . . \$134.95

**SHERRON**

**DKSP4-C Decorspeaker**

Response 65-17,500 Hz; 5" speaker; 10 oz. ceramic magnet; impedance 8 ohms; power



handling 18 watts. Features 360-degree swivel tube for directing sound. Requires 5" depth for mounting; 6" o. d. . . . . \$90.00 pr.

**RS6-C Out-of-Sight**

Completely recessed 5" speaker; response 65-17,500 Hz; 10 oz. ceramic magnet; impedance 8 ohms; power handling 18 watts. Can be used in pairs for stereo; or matched pairs for quadraphonic. Requires 6¼" depth for mounting; 6" o. d. . . . . \$80.00 pr.

**RS9-C Out-of-Sight**

Features two-way 8" speaker; response 28-20,000 Hz; 2½ lb. magnet structure; impedance 8 ohms; power handling 33 watts. Requires 7" depth for mounting; 9" o. d. . . . . \$180.00 pr.

**SOUNDCRAFTSMEN**

**Lancer 9534-X Speaker System**

Tuned ducted-port 2-way bookshelf system. Response 40-18,000 Hz; 3000 Hz crossover. 8 ohms impedance. Requires 5 W dynamic driving power; 30 W max. dynamic input. Oiled walnut finish. 11¼" H x 23½" W x 11¼" D. \$69.50

**Lancer 9535-2 Speaker System**

Tuned ducted-port 2-way bookshelf system with 12" woofer & separate tweeter. Response 30-20,000 Hz; 3000 Hz crossover. 8 ohms impedance. Requires 5 W dynamic driving power; 35 W maximum dynamic input. Oiled walnut finish. 14 $\frac{1}{4}$ " H x 25" W x 11 $\frac{3}{4}$ " D ..... \$99.50

**SC-12ES Electrostatic Speaker System**

Acoustic-suspension design with 12" woofer (15 Hz free-air resonance), a 5" dual-cone mid-range, and 144-sq. in. electrostatic radiator. Response 20-30,000 Hz. Needs 20 W amplifier. Capacity 150 W rms. Has variable crossovers: 240-1000 Hz, 1500-6000 Hz. 8 ohms impedance. Features electrostatic radiators with a frequency dispersion "Reflectrostatic" back-wave doubler & a response-equalization control panel with 100% variable mid-range controls plus 3-stage low-frequency roll-off. 18" x 14" D x 28" ..... \$399.50

**Lancer SC-4 Speaker System**

Acoustic-suspension design with 12" heavy-duty woofer, sealed-back 5" mid-range, and 2 $\frac{1}{4}$ " direct radiator; three-way crossover uses air-core inductors & electrolytic capacitors; mid-range & high-frequency level controls; 8 ohms; response 20-20,000 Hz; 10 W rms minimum, 50 W rms max. power input; features acoustic foam grille and oiled walnut finish. 23 $\frac{1}{2}$ " x 15" x 12 $\frac{1}{2}$ " ..... \$169.50

**Lancer SC-10A Speaker System**

Acoustic-suspension design with 10" heavy-duty woofer, & 2 $\frac{1}{4}$ " direct radiator; two-way LC crossover; 8 ohms; 20-20,000 Hz; 10 W rms minimum, 50 W rms maximum power input; features acoustic foam grille and oiled walnut finish. 20 $\frac{1}{4}$ " x 12 $\frac{1}{2}$ " x 10" ..... \$119.50

**SC-7 Speaker System**

Acoustic-suspension, three-way design using a 12" heavy cast-frame woofer, 5" isolated mid-range, and dome radiator; three-way LC crossover uses four air-core inductors plus electrolytic capacitors; mid-range and high-frequency level controls; 8 ohms; response 20-20,000 Hz; 10 W rms minimum, 60 W rms maximum input power; features acoustic foam grille and oiled walnut finish. 25 $\frac{1}{2}$ " x 15" x 11 $\frac{3}{4}$ " ..... \$229.50

**SOUND WEST****Tower 1 Speaker System**

Pedestal-design speaker, 37" tall x 10" deep. Has two 8-inch high-compliance bass speakers and a 2-inch cone driver for handling 50 watts continuous program material. Response 34-20,000 Hz; impedance 8 ohms ..... \$119.95

**SPENDOR****BC-3 Studio Monitor Speaker**

Four-way system using same drivers as in BC-1 plus 12" woofer. 80 W power handling capacity. 14" x 14" x 32". Available in same finishes as BC-1. .... \$750.00

**BC-1 Monitor Speaker**

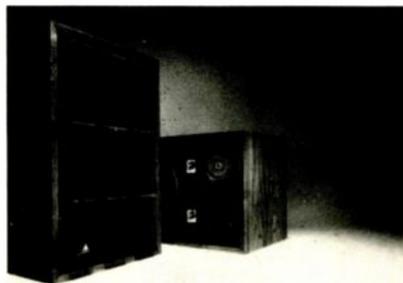
Three-way system using 8" plastic cone of special design as bass driver, a Celestion Type 1300 mid-range, and an STC Type 4001G



tweeter with LC network and matching transformer crossover. 8 ohms imp. Response 40-20,000 Hz  $\pm$ 4 dB. Available in teak, walnut, rosewood, and white. 25" x 12" x 12" .. \$295.00  
**BC-2.** Same as BC-1 except will handle 50 W ..... \$395.00  
 Trolleys (recommended for best performance with all three systems) available in black, satin chrome, or white ..... \$60.00 pr.

**STARK DESIGNS****SR-1 Bookshelf System**

3-way acoustic-suspension system with 10" woofer, 5" cone mid-range, and 1" dome tweeter. High-frequency dispersion is adjustable to control room acoustics by means of rotatable directed-dispersion module; crossovers at 650 & 5600 Hz; front-mounted tweeter and mid-range controls; impedance 8 ohms; 40 W continuous program; recommended amplifier power 10-80 watts rms/ch. Hand-rubbed oiled walnut finish. Foam grille available in red, orange, blue, brown, black. 24" H x 15" W x 10 $\frac{1}{4}$ " D ..... \$135.00



**SR-2.** Same as SR-1 except has 12" long-throw woofer; 50 W continuous program; recommended amplifier power 12-100 watts rms/ch. 24" H x 15" W x 13" D ..... \$180.00  
**SR-3.** Same as SR-2 with additional 5" mid-range and 1" dome tweeter on rear for 50% rearward dispersion above 650 Hz; 60 W continuous program; recommended amplifier power 15-120 watts rms/ch. 24" H x 16 $\frac{1}{2}$ " W x 13" D ..... \$225.00

**Floor Bases.** Available for all three models (FB-1, FB-2, FB-3) in hand-rubbed walnut finish with felt top ..... \$15.00 pr.

**STR****Alpha 3-Way Speaker System**

High-efficiency bookshelf system with 10" woofer, 4 $\frac{1}{2}$ " mid-range, piezoelectric tweeter; impedance 4 ohms; response 35-20,000 Hz  $\pm$ 5 dB; min. input power 5 W rms, max. 50 W rms; fast-blow fuse. Vinyl-covered walnut with black grille cloth. 12 $\frac{1}{2}$ " x 14 $\frac{1}{4}$ " x 23 $\frac{1}{8}$ " ..... \$129.00

**P10 3-Way Speaker System**

Floor-standing, 3-way tube vented bass-reflex system with 10" woofer, 4 $\frac{1}{2}$ " mid-range, two piezoelectric tweeters; full-range tweeter controls; 4 ohms impedance; response 35-20,000 Hz  $\pm$ 5 dB; min. input power 10 W rms, max. 50 W rms; fast-blow fuse. Satin walnut with black grille cloth. 13 $\frac{3}{8}$ " x 15 $\frac{1}{8}$ " x 25 $\frac{1}{8}$ " ..... \$179.00

**P12 3-Way Speaker System**

Floor-standing, acoustic-suspension system with 12" woofer, 4 $\frac{1}{2}$ " open-back mid-range in sealed enclosure, three piezoelectric tweeters; full-range mid-range & tweeter controls 8 ohms impedance; response 27-20,000 Hz  $\pm$ 3 dB; min. input power 15 W rms, max. 100 W rms; fast-blow fuse. Satin walnut with black grille cloth. 15 $\frac{1}{2}$ " x 15 $\frac{1}{8}$ " x 31 $\frac{1}{4}$ " ..... \$249.00

**Sigma I Speaker System**

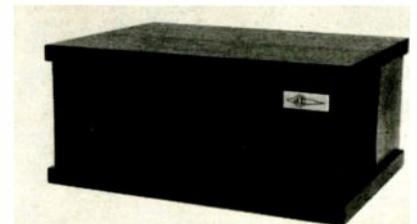
Three-way, tube-vented, floor-standing reflex system with 12" woofer, 4 $\frac{1}{2}$ " mid-range, three piezoelectric tweeters; full-range mid-range & tweeter controls; 8 ohms impedance; response 30-20,000 Hz  $\pm$ 3 dB; min. input power 15 W rms, max. 200 W rms; fast-blow fuse. Satin walnut with black grille cloth. 15 $\frac{1}{2}$ " x 15 $\frac{1}{8}$ " x 31 $\frac{1}{4}$ " ..... \$299.00

**Omega I Speaker System**

Three-way, floor-standing tuned acoustic-suspension system with cavity resonator; two 12" woofers, two 4 $\frac{1}{2}$ " mid-ranges, three piezoelectric tweeters; full-range control on tweeter; response 23-20,000 Hz  $\pm$ 5 dB; min. input power 20 W rms, max. 200 W rms; fast-blow fuse. Satin walnut with black grille cloth. 31 $\frac{1}{4}$ " x 31 $\frac{1}{4}$ " x 15 $\frac{1}{4}$ " ..... \$499.00

**Theta 1 Add-On Tweeter**

Features five piezoelectric transducers coupled together through phase-aligning network;



linear frequency response 2000-30,000 Hz; controlled dispersion 270° horizontal, 120° vertical; 200 W rms power handling capacity at 8 ohms; 31% energy conversion. 12 $\frac{1}{8}$ " W x 9 $\frac{1}{2}$ " D x 5 $\frac{1}{8}$ " H. .... \$75.00

**P3 Add-On Tweeter**

Features three piezoceramic transducers mounted in half-hexagonal, wide-dispersion case; response 2500-22,000 Hz  $\pm$ 3 dB; power handling 100 V peak-to-peak or 192.8 W rms at 8 ohms; 31% energy conversion; dispersion 180 degrees. Walnut enclosure with a acoustically transparent black grille. 12" W x 6" D x 6" H. .... \$99.00 pr.

**SYLVANIA****AS3712W Speaker System**

Sealed air-suspension design with 12" woofer, 4" mid-range, and 1" dome tweeter. Response 25-20,000 Hz, crossovers at 1500 & 6000 Hz. 8 ohms. Capacity 50 W continuous. 25 $\frac{1}{8}$ " x 16 $\frac{1}{8}$ "

× 11 7/8" D. Walnut-grained vinyl... \$229.95 pr.

**AS3710W Speaker System**

Sealed air-suspension design with 10" woofer, 3" mid-range, and 2 1/2" tweeter. Response 30-18,000 Hz. 8 ohms. Capacity 50 W continuous. 22 7/8" × 14 3/8" × 11 3/8" D. Walnut-grained vinyl. \$209.95 pr.

**AS225A Speaker System**

Sealed air-suspension design with 12" woofer, 4 1/2" lower mid-range, 1 1/2" dome upper mid-range, and 1" dome tweeter. Response 20-20,000 Hz; crossovers at 350, 2000 & 9000 Hz. 8 ohms imp. Will handle up to 150 W continuous power per channel. Has tweeter, upper mid-range, and lower mid-range level switches. Cabinet in hardwoods, genuine veneers, and decorative non-wood material. Removable lattice-work grille cloth assembly. 28 1/2" (plus 2 1/8" base) × 17 3/8" W × 12 1/2" D. \$249.95

**AS125B Speaker System**

Sealed air-suspension design with 12" woofer, 1 1/2" dome mid-range, and 1" dome tweeter. Response 20-20,000 Hz; crossovers at 600 & 6000 Hz. 8 ohms impedance Will handle up to 100 W continuous power per channel. Has tweeter and mid-range level switches. Cabinet of genuine walnut veneers. 27 1/4" H × 15 3/4" W × 12 1/2" D. \$179.95

**AS3708W Speaker System**

Sealed air-suspension design with 8" woofer and 3" tweeter. Response 40-16,000 Hz; crossover at 5000 Hz. 8 ohms imp. Will handle up to 35 W continuous power per channel. Walnut-grained vinyl. 18 3/4" H × 12" W × 9" D. \$129.95 pr.

**AS210A Speaker System**

Sealed air-suspension design with 10" woofer, 1 1/2" dome mid/tweeter; crossover 1500 Hz; response 33-15,000 Hz ±3 dB; two-position level control for frequencies above 8000 Hz; 3-pos. mid-range level control. Walnut-grained vinyl with removable grille (finished interior speaker baffle. 24" H × 15 3/8" × 11 3/4" D. \$99.95

**TANNOY**

**Nova Speaker System**

Tuned ducted-port bookshelf system with 12" woofer, 4" mid-range, and 2.5" tweeter; crossovers at 1200 & 6000 Hz; has variable controls; 8 ohms impedance. Oiled walnut. 23 1/2" × 14 3/8" × 11 1/2" D. \$141.00

**Lancaster Speaker System**

Bass-reflex, ducted-port floor-standing system with 15" dual concentric speaker. Response 35-20,000 Hz; 1000 Hz crossover. Has balance and tweeter controls, 8 ohms impedance. 50 watts (dynamic) maximum input power. Oiled walnut. 29" H × 26" W × 19 3/8" D. \$414.00

**Mallorcan Speaker System**

Tuned, ducted-port bookshelf system with 12" dual concentric speaker. Response 35-20,000 Hz; 1000 Hz crossover. Has balance and tweeter controls, 8 ohms impedance. Oiled walnut. 14 3/8" H × 23 1/2" W × 11 1/2" D. \$255.00

**Belvedere Speaker System**

Bass-reflex, ducted-port floor-standing system with 15" dual concentric speaker. Response 35-20,000 Hz; 1000 Hz crossover. Has balance and tweeter controls, 8 ohms impedance. 50 watts (dynamic) maximum input power. Oiled walnut. 33 1/2" H × 23 3/4" W × 16" D. \$363.00

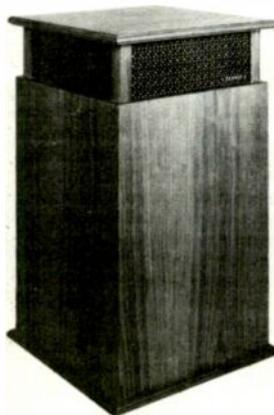
**GRF Speaker System**

Horn-loaded design with 15" dual-concentric speaker which is rear loaded below 350 Hz where acoustic crossover takes place and front radiation is obtained up to 1000 Hz. Above this the non-directional horn-loaded high-frequency unit, which is part of the dual-concentric, takes over. Response 50-20,000 Hz ±2 dB. Capacity

50 W. 42" × 17" D × 23 3/4". Oiled walnut, modern styling cabinet. \$480.00  
**Windsor GRF.** Same except with molded top & base and decorator grille. 41" × 18 1/2" D × 25" D. \$540.00

**Orbitus-I Speaker System**

Omnidirectional, tuned floor-standing system with 12" dual-concentric speaker. Response 35-



20,000 Hz; 1000 Hz crossover. Has balance and tweeter controls, 8 ohms impedance. 30 watts maximum input power. Oiled walnut. 29" H × 17" W × 17" D. \$315.00

**Stuart Speaker System**

Bass-reflex, ducted-port floor-standing system with 12" dual-concentric speaker. Response 35-20,000 Hz; 1000 Hz crossover. Has balance and tweeter controls, 8 ohms impedance. 30 watts (dynamic) maximum input power. 25 1/2" H × 24 3/8" W × 16 3/8" D. Oiled walnut. \$330.00

**Studio Professional Monitor**

Bass-reflex, floor-standing system with 14" dual-concentric speaker. Response 35-20,000 Hz; 1000 Hz crossover. Has balance and tweeter controls, 16 ohms impedance. 50 watts (dynamic) maximum input power. Walnut vinyl. 43" H × 30 1/2" W × 24" D. \$497.00

**TECHNICS BY PANASONIC**

**T-200 Two-Way Bookshelf System**

Response 44-18,000 Hz ±3 dB (down 10 dB at 35 Hz, free field); dispersion 120 degrees at 10,000 Hz; power rating 10 W min. amp. input, 100 W max. speech/music input without fusing; will withstand sine-wave input of 40 W (400 Hz) for 5 min., peak power pulses beyond 450 W; 8 ohms imp. Has 10" woofer & 1 3/4" tweeter; 1800 Hz crossover; tweeter level control. Sculptured removable grille available in blue or brown. 21 3/4" H × 12" W × 10 1/2" D. \$99.95

**T-300 Three-Way Bookshelf System**

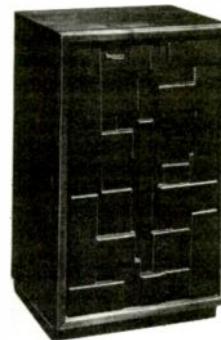
Response 40-20,000 Hz ±3 dB; 10" woofer, 3" mid-range & 2" super tweeter; crossovers 1500 & 7500 Hz; has tweeter, mid-range level controls; 10 W min. amp. power, 100 W max. speech/music input without fusing; 8 ohms imp. Sculptured removable grille available in blue or brown. 24 3/8" H × 13 3/4" W × 12 1/2" D. \$179.95

**T-400 Four-Way Floor System**

Response 38-20,000 Hz ±3 dB; 12" woofer, 5" mid-range, 3 1/2" tweeter, and two 2" super tweeters; crossovers 700, 3000 & 7500 Hz; 10 W min. amp. power, 100 W max. speech/music input without fusing; 8 ohms imp. Sculptured removable grille available in blue or brown; removable base. 27" H × 15" W × 13 1/4" D (inc. base) \$279.95

**T-500 Four-Way Floor System**

Response 35-20,000 Hz ±3 dB; two 10" woofers, 5" mid-range, two 1 3/4" tweeters, two 2"



super tweeters; crossovers 600, 2000 & 8000 Hz; nas tweeter, mid-range level controls- 10 W min. amp power, 100 W max. speech/music input without fusing; 8 ohms imp. Sculptured removable grille available in blue or brown; removable base. 29" H × 18 3/4" W × 14 1/2" D (inc. base) \$429.95

**TECHNISOUND**

**Varo Reflecting Speaker System**

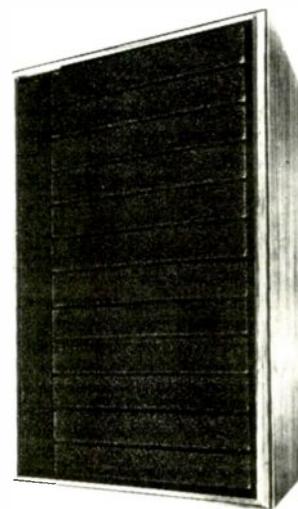
Features one-knob adjustment of ambience; bass system is 9-ft air column; resonance 32 Hz



(down 2 dB at 24 Hz), inductive & acoustic cut-off at 800 Hz, radial dispersion only; mid-range 600-6000 Hz in either direct or radial positions; tweeter 6000-24,000 Hz direct-forward. Has grille fabric on all four vertical surfaces. 24" H × 14" × 14" \$200.00

**TRUSONIC**

**JR-100M 3-Way Speaker System**



# 10 Speaker Systems

Tuned-port, bass-reflex design with 10" woofer, 5" acoustically isolated mid-range, and horn-loaded phenolic dome tweeter. Has level control and sculptured foam grille. Response 30-20,000 Hz; crossovers at 1500 & 5000 Hz. Capacity 80 W peak. 8 ohms impedance. 14" x 23" x 10" D. Oiled walnut . . . . . \$119.95

## JR-200M 3-Way Speaker System

Tuned-port bass-reflex design with 12" woofer, 5" acoustically isolated mid-range, and a horn-loaded dome tweeter; crossovers at 2500 & 7000 Hz. Response 20-20,000 Hz. Capacity 100 W peak. Has mid-range & tweeter level controls. 8 ohms impedance. 24" x 15 1/4" x 12" D. Oiled walnut . . . . . \$149.95

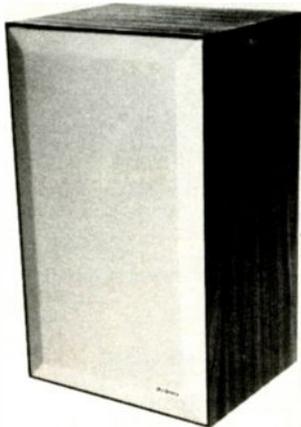
## ULTRALINEAR

### 50 Two-Way Speaker System

Two-way bookshelf system with 10" woofer & 3" tweeter; "blow-out-proof" circuit breaker with reset push-button; response 40-17,000 Hz; crossover 2500 Hz; impedance 8 ohms; power requirement 3 W rms min., 30 W rms max.; high-density particle board enclosure, reversible foam grille. 23 1/8" x 11 3/4" x 9 1/4" D. . . . . \$79.95

### 100A Three-Way Speaker System

Three-way system featuring 12" woofer, 4 1/2" mid-range, and 3" tweeter; resettable circuit



breaker; response 32-17,500 Hz; crossovers 1500 & 4000 Hz; impedance 8 ohms; power requirement 5 W rms min., 40 W rms max.; high-density particle board enclosure; double-knit grille (available in choice of four colors). 24 3/8" x 14 1/2" x 12" . . . . . \$99.95

### 150A Two-Way Speaker System

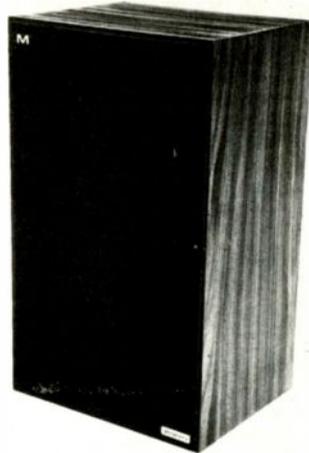
Air-suspension design with 12" woofer & 3" tweeter; crossover 1500 Hz; variable tweeter-level adjust.; impedance 8 ohms; power requirement 8 W rms min., 40 W rms max.; resettable circuit breaker. Walnut finished particle board, sculptured acoustic foam grille. 24 3/8" x 14 1/2" x 12" . . . . . \$129.95

### 200 Three-Way Speaker System

Air-suspension design with 12" woofer, 5" sealed mid-range, 2" super-tweeter; response 28-20,000 Hz; crossovers at 400 Hz & 1500 Hz with mid-range control; imp. 8 ohms; power requirement 10 W rms min., 50 W rms max. Walnut finished particle board, three-dimensional grille front (available in choice of four colors). 24 3/8" x 14 1/2" x 12" D. . . . . \$159.95

## 1000 Two-Way Speaker System

Features 10" acoustic-suspension woofer equipped with "inertial equalizer disc" for con-



trol of acoustic behavior of cone & "dual-mode array" incorporating two 3 1/2" cone tweeters; response 35-22,000 Hz; crossover 2600 Hz through RLC network with h.f. level control; power requirements 25 W rms min., 60 W rms max. Walnut-finished enclosure, sculptured black acoustic foam grille. 27" x 14 1/2" x 12". Base included . . . . . \$199.95

## UTAH

### MP-2000 Three-Way Speaker System

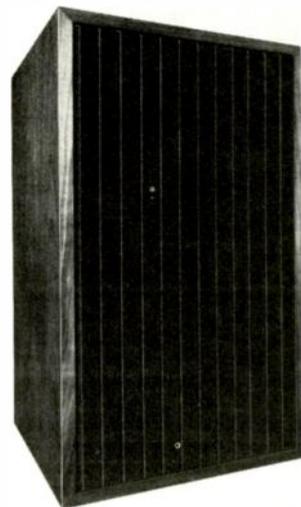
Three-way acoustic-suspension system with 12" woofer, 5" mid-range, 1" dome tweeter; response 30-20,000 Hz; will handle 30 W program (60 W peak); crossovers 2500 & 5000 Hz; variable mid & high-frequency control. Walnut veneer with acoustical foam grille available in blue, brown, or burnt orange. 15 1/4" x 24" x 12" D. . . . . \$139.95

### MP 3000 3-Way Speaker System

Floor-standing design with 15" woofer, 5" acoustically isolated mid-range, and two horn-loaded dome-radiator tweeters. Response 20-20,000 Hz; crossovers at 2500 & 7000 Hz (12 dB/octave LC types). Capacity 100 W peak. 8 ohms impedance. Has separate tweeter & mid-range controls and sculptured foam grille. Supplied with base. 27" x 20 1/2" x 14" D (without base) . . . . . \$199.95

### HS4-B 3-Way Speaker System

Tuned-port design with 12" woofer, compression horn mid-range, and horn-loaded phenolic



dome tweeter. Has treble control, sculptured

foam front, and oiled walnut cabinet. Response 25-19,500 Hz; LC crossovers at 2500 & 5000 Hz. Capacity 90 W peak. 8 ohms impedance. 15" x 25 1/4" x 14" D. . . . . \$159.95

## AS-5 Three-Way Speaker System

Three-way acoustic-suspension system with 10" woofer, 6" mid-range, 3 1/4" tweeter; electrical crossovers at 2500 & 5000 Hz; response 40-18,000 Hz; will handle 25 W program, 50 W peak; 8 ohms impedance; sealed enclosure with fiberglass damping. Deep walnut finish, dark tweed grille cloth. 12 1/2" x 22" x 9" D. . . . . \$69.95

## As-7 Three-Way Speaker System

Three-way tuned-port system with 12" woofer, 3 1/2" x 8" elliptical mid-range, 3 1/2" tweeter; capacitive crossover at 2500 & 5000 Hz; response 35-18,000 Hz; will handle 30 W program, 60 W peak; 8 ohms impedance. Deep walnut finish dark tweed grille cloth. 14" x 23" x 10" D. . . . . \$89.95

## WOLLENSAK

### A-1050 Speaker System

Sealed-enclosure system. Response 8-12,000 Hz. 8 ohms impedance. Requires 6 W rms driving power. 7 1/4" cube on pedestal base . . \$79.95

## YAMAHA

### NS-670 Three-Way Speaker System

Three-way system with 10" woofer, 2 1/2" mid-range, and 1 1/4" tweeter; crossovers at 800 & 6000 Hz; fundamental resonance frequency 45 Hz; frequency response 40-20,000 Hz; will handle 50 W; 8 ohms; separate mid-range & tweeter controls. Walnut. 22 3/4" H x 12 3/4" W x 10 3/4" D. . . . . \$460.00 pr.

### NS-690 Three-Way Speaker System

Three-way system with 12" woofer, 3" mid-range, and 1 1/4" tweeter; crossovers at 800 & 6000 Hz; fundamental resonance frequency 40 Hz; frequency response 35-20,000 Hz; will handle 60 W; 8 ohms; separate mid-range & tweeter controls; separate input terminals for woofer, mid-range & tweeter to permit use of multi-amp system. Walnut. 24 3/4" H x 13 3/4" W x 11 1/2" D. . . . . \$560.00 pr.

## ZENITH

### E9012 Allegro 1000 System

Two-way system with 6 1/2" woofer & treble horn; LC crossover; frequency response 60-15,000 Hz; imp. 8 ohms. Grained walnut-colored cabinet with formed grille cover. 16 1/2" H x 10 1/2" W x 7 1/2" D. . . . . \$49.95

**E9014 Allegro 2000.** Similar to 1000 except 8" woofer; frequency response 50-15,000 Hz; imp. 16 ohms. Also available in white with blue grille. 18 3/8" H x 12 3/8" W x 7 1/8" D. . . . . \$59.95

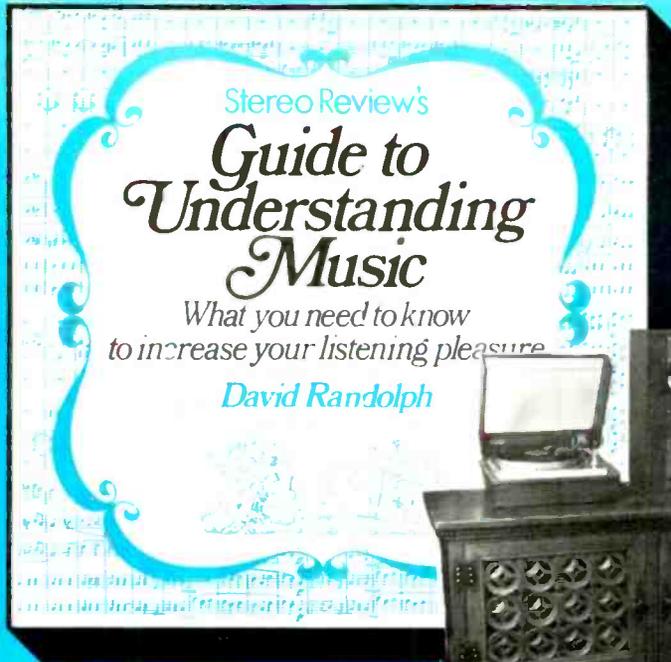
**E9018 Allegro 3000.** Similar to 1000 except 10" woofer; frequency response 40-15,000 Hz; imp. 16 ohms. 22 3/4" H x 14 1/2" W x 8 1/8" D. . . . . \$74.95

## IF YOU NEED. . .

. . . additional information on any of the products listed, don't hesitate to write the manufacturer. See list of addresses on pages 6 & 7.

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How Music Is Unified

Record III — Form in Music

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Record IV — Can Music Tell a Story or Paint a Picture?

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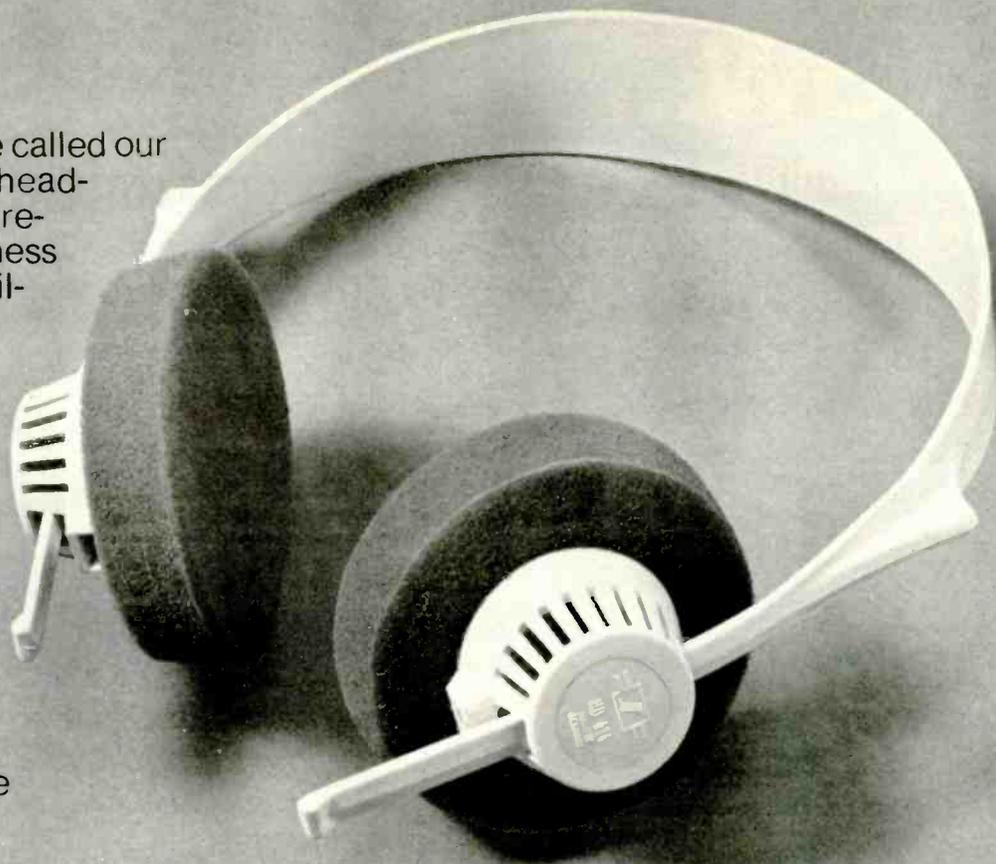
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# 11

# HEADPHONES & MICROPHONES

## AKAI

### ASE-22 Dynamic Headphones

Moving-coil type. Response 20-20,000 Hz. Sensitivity 1.0 mW, distortion 1% at 1.0 mW. 8 ohms impedance. 1/2 W maximum input per phone. Has individual earphone volume controls. 6-ft. coiled cord. Weight 20 ounces. . . . . \$39.95

## AKG

### K-180 Dynamic Headphones

Has adjustable drivers for subjectively controllable sound. Response characteristics vary due to change in volume. Response 16-20,000 Hz. Efficiency: 1 mW for 112 dB SPL. Distortion less than 1% at 125 dB SPL. Impedance: 600 ohms each driver for multi-impedance matching 4 to 1000 ohms. 21 ounces . . . . . \$69.00

## AUDIO-TECHNICA

### AT-701 Dynamic Headphones

Uses a 47-mm dynamic driver; non-resonant, thermo-formed polymer diaphragm; copper-plated aluminum wire voice coil for minimum mass; response 30-20,000 Hz; impedance 4 to 16 ohms; sensitivity 97 dB  $\pm$  2 dB/mW at 1000 Hz. Comes with coiled cord. Ear pads may be removed for replacement. 6.3 ounces . . . \$39.95  
AT-702. Same as AT-701 except response 25-20,000 Hz; sensitivity 97 dB/mW at 1000 Hz . . . . . \$49.95  
AT-703. Same as AT-701 except response 20-20,000 Hz; sensitivity 94 dB/mW at 1000 Hz . . . . . \$69.95

### AT-706 Electret Condenser Phones

Condenser-type drivers with permanently charged diaphragm in push-pull configuration; diaphragm 58 mm dia.  $\times$  3 microns thick; accessory adapter matches high impedance of condenser element to any standard amplifier output and includes headphone/speaker switch; response 10-22,000 Hz; impedance 4-16 ohms; THD 0.1% at 120 dB SPL at 1000 Hz. 10.3 ounces . . . . . \$129.95

## AUDIOTEX

### Marquis Stereo Headphones

Open-air, lightweight design. Response 20-20,000 Hz; 8 ohms imped. matches all amplifier 4-16 ohm outputs 6-ft cord and plug. Cushioned earpieces and adjustable padded headband. 30-5205 . . . . . \$39.95

### Mark IV Stereo Headphones

Wide-range dynamic type. Frequency range to above audibility at 1% distortion between 10-18,000 Hz. Removable, soft cushions; padded headband. 10-ft coiled cord with stereo plug. Imp. 8 ohms. Matches all 4-16 ohm outputs. 30-5206 . . . . . \$59.95

### Mark III Stereo Headphones

Slide-type volume control on each earpiece; response 20-18,000 Hz. 12-ft coiled cord with stereo plug. 8 ohms. Matches all 4-16 ohm outputs. 30-5204 . . . . . \$37.95

### Mark II Stereo Headphones

Response 20-20,000 Hz; 8 ohms. Comes with 6-ft flexible cord and stereo plug. 30-5202 . . . . . \$21.50

### Mark I Stereo Headphones

Response 30-15,000 Hz; 8 ohms. Comes with 10-ft coiled cord and stereo plug. 30-5200 . . . . . \$17.95

### Headphone Remote Control

Plugs directly into amplifier to control volume and balance of headphones; noise-free slide controls for each earpiece permit adjustment of volume and balance. Special switch allows for mono/stereo selection. Has 5-ft cord and 3-conductor stereo phone plug. 30-5250 . . . . . \$12.95

## BEYER/DYNAMIC

### DT-48 Dynamic Headphones

Moving-coil type. Originally designed as an audiometry instrument for measuring human hearing in lab research. Range 16-20,000 Hz  $\pm$  2 dB. Response virtually flat. Comes with 10-ft cord . . . . . \$120.00  
DT48-K. Same as DT-48 except with plug-in coiled cable . . . . . \$125.00

### DT900 Dynamic Headphones

Moving coil type. Response 30-18,000 Hz. 5-2000 ohms impedance. 200 mW maximum input per phone. 6-ft. cord . . . . . \$29.95

### DT96A Dynamic Headphones

Moving coil type. Response 30-17,000 Hz. Sensitivity 1.0 mW at 400 Hz produces 110 dB (re  $2 \times 10^{-4}$   $\mu$ bar). 50-200 ohms impedance. 100 mW maximum input per phone. 5-ft. cord. 8 ounces . . . . . \$47.50

### DT100 Dynamic Headphones

Moving coil type. Response 30-18,000 Hz. Sensitivity 1 mW at 400 Hz produces 110 dB (re  $2 \times 10^{-4}$   $\mu$ bar). 5-100-400-2000 ohms impedance. 1 W maximum input per phone . . . . . \$64.00

### DT480 Dynamic Headphones

Moving coil type. Response 20-18,000 Hz. Sensitivity 1 mW at 400 Hz produces 115 dB (re  $2 \times 10^{-4}$   $\mu$ bar). 25-200 ohms impedance. 1 W maximum input per phone . . . . . \$90.00

## BEYER/GOTHAM

### DT-48S Stereo Headphones

Dynamic design extending from 20-18,000 Hz  $\pm$  2 dB. Dist. 0.3% below 100 Hz & 0.1% above. Peak power demand 200 mW or 1 V max. per phone. Input 10 mV. Impedance: 5 ohms each for stereo (10 ohms total for mono) . . . \$120.00  
DT-48SN. 50-ohm mono design . . . . . \$120.00  
DT-48SP. Stereo design with separate plugs on each phone . . . . . \$120.00  
DT-48KS. With coiled cord . . . . . \$123.00  
TR-48. Plug-in transformer for 600-ohm input . . . . . \$22.00  
TR-48. Pair for stereo use . . . . . \$40.48  
UG-8. Speaker/phone switcher box . . . \$11.33

## FISHER

### HP-70 Dynamic Headphones

Response 30-18,000 Hz. Sensitivity 2.5 mW for average listening. Max. power 0.5 W. 16 ohms. 10-ft. coiled cord. 12 ounces . . . . . \$29.95

### HP-100 Dynamic Headphones

Response 18-22,000 Hz. Sensitivity 2 mW for average listening. Max. power 0.7 W. 50 ohms. 10 ounces .8 ft. coiled cord . . . . . \$49.95

## HEAR-MUFFS

### HM-1A Headphones

Stereo headphones; washable cotton velour cover; 10-ft coiled cord; 3 1/2" dynamic drivers; compatible with 4-16 ohm output impedance; response 20-18,000 Hz; THD 1% at 115 dB SPL; 1.5 W/ch max. power handling capability; 20 ounces . . . . . \$29.95

### HM-4000 "Supermuffs"

Stereo headphones; washable high-pile acrylic cover; 10-ft coiled cord; 4" dynamic drivers; compatible with 4-16 ohm output impedance; response 20-20,000 Hz; THD unmeasurable at 95 dB SPL; 1.5 W/ch continuous power handling capability; 21 ounces . . . . . \$37.95

## KOSS

### ESP-9 Electrostatic Headphones

Frequency response 15-15,000 Hz  $\pm$  2 dB. Sensitivity 80 dB SPL (reference 0.0002 dyne/cm<sup>2</sup>). Distortion less than 0.2% at 110 dB SPL. 4 to 16 ohms impedance. 6-ft. coiled cord. 19 ounces. Black, fluid-filled earcups for ambient noise isolation. Designed for critical studio monitoring . . . . . \$175.00

### ESP-6 Electrostatic Headphones

Frequency response 30-19,000 Hz  $\pm$  5 dB. Sensitivity 80 dB SPL (reference 0.0002 dyne/cm<sup>2</sup>). Distortion less than 0.2% at 110 dB SPL. 4 to 16 ohms impedance. 10-ft. coiled cord. 27 ounces. Black, fluid-filled earcups for ambient noise isolation. Self-contained polarizer . . . . . \$130.00

**PRO-4AA Dynamic Headphones**

Frequency response 10-20,000 Hz. Distortion is negligible at 95 dB SPL. 3.2 to 600 ohms impedance. 10-ft. coiled cord. 19 ounces. Fluid-filled earcups for ambient noise isolation ..... \$65.00

**PRO-600AA Dynamic Headphones**

Same as PRO-4AA except nominally 600 ohms voice-coil impedance for matching audio transmission lines. 600 ohms characteristic impedance. Available on special order ..... \$70.00

**KO-727B Dynamic Headphones**

Frequency response 10-16,000 Hz. Distortion unmeasurable at 95 dB SPL. 3.2 to 600 ohms impedance. 10-ft. coiled cord. 19 ounces. Dark green finish ..... \$34.95

**K-6LC Dynamic Headphones**

Frequency response 10-16,000 Hz. Distortion unmeasurable at 95 dB SPL. 3.2 to 600 ohms impedance. 10-ft. coiled cord. Individual earphone volume controls. Brown/beige .. \$29.95  
**Model K-6.** Same except without volume controls ..... \$19.95

**SP-3XC Headphones**

Frequency response 10-14,000 Hz. 3.2 to 600 ohms impedance. 10-ft. coiled cord. Brown ..... \$15.95

**HV-1 Dynamic Headphones**

Has 2" dia. driver & will operate from 3.2 to 600 ohm outputs. Response 20-20,000 Hz; capacity 5 V continuous with provision for 14 dB-SPL transient peaks. 9.3 ounces. 10-ft coiled cord ..... \$44.95

**HV/1LC Dynamic Headphones**

Has 2" velocity operated driver; designed to operate from 3.2 to 600 ohm outputs. Response



15-20,000 Hz; capacity 5 V rms continuous with provision for 14 dB-SPL transient peaks miniature rotary-type volume/balance control per earcup; 9.9 ounces, less cord; 3-conductor, 10-ft coiled cord; acoustical sponge earcushions, self-adjusting headband with pivoting yokes and padded vinyl cover ..... \$54.95

**T-4A Connector Box**

Accepts up to five sets of stereophones. 14-ft. cord with 3-conductor phone plug fits standard headphone jack. Private listening for five persons at one time. Unit measures 6" diameter and has walnut-like base combined with black trim and aluminum plug-in panel. \$12.95

**T-10A Chairside Listening Station**

Offers remote control for two sets of stereophones. Features separate volume controls for each stereophone and a speaker "on-off" switch. Wires directly to amplifier or receiver. Unit measures 6" diameter and has a walnut-like base ..... \$19.95

**T-5A Remote Control Station**

Similar to T-10A. Has jacks for two sets of stereophones. Left- and right-channel volume controls and speaker "on-off" switch. Has walnut-like base combined with black trim. .... \$9.95

**T-3 Speaker/Headphone Transfer Switch**

Provides a speaker "on-off" switch and stereophone jack. Connects to speaker terminals of amplifier or receiver. Adds low-impedance jack to system for wide-range performance of stereophones ..... \$7.95

**T-1 Monitoring Adapter**

For use with dynamic phones in monitoring tapes from high-impedance sources such as tape recorders with preamps only. Adapter contains matching transformers to match 600 to 10,000 ohm outputs down to 4 ohms. Equipped with two output jacks for stereophones and two pin-type jacks for inputs ..... \$7.95.

**HV/1a Stereophones**

Features low-mass "Decilite" driver elements for coverage 15-20,000 Hz; will operate from outputs of 3.2 to 600 ohms; dist. 0.5% at 109 dB SPL; will handle 5 V rms continuous with provision for 14-dB SPL transient peaks; acoustical sponge ear cushions; extendable headband with self-adjusting, pivoting yokes and soft padded vinyl cover; 3-conductor coiled cord (10-ft extended); 9.3 ounces .... \$49.95  
**HV/1LC.** Same except response 20-20,000 Hz; miniature volume/balance control per earcup. 9.9 ounces ..... \$54.95

**"Phase/2" Stereophones**

Frequency response 10-20,000 Hz; will operate from outputs of 3.2 to 600 ohms; dist. 1% at 100 dB SPL; 100 dB SPL/2.5 V rms; will handle 5 V rms continuous with provision for 14-dB SPL transient peaks; fluid-filled ear cushions for high-ambient noise isolation; two rotary panoramic source controls on each earcup; slide-type ambience expander on right earcup; comparator switch on left earcup; extendable stainless steel headband with self-adjusting pivoting yokes and sponge cushion cover. 24 ounces ..... \$75.00

**LAFAYETTE****F-600 Open-Acoustic Headphones**

Open-acoustic stereo design. Response 20-20,000 Hz. Lightweight open-air foam ear cushions with adjustable headband. Imp. 200 ohms. Comes with 5-ft cord and plug ..... \$24.95

**F-990 Stereo Headphones**

Response 20-20,000 Hz. Has two 3/2" wide-range transducers; air-tight earphone cushions; fully adjustable cushioned headband. Imp. 8 ohms. Comes with 6 1/2-ft cable and standard stereo phone plug ..... \$29.95

**MARANTZ****SE-1S Electrostatic Headphones**

Response 20-20,000 Hz  $\pm 3$  dB; dist. 0.5% 40-20,000 Hz at 100 dB SPL, 1.5% at 20 Hz; im-



pedance 30 ohms; energizer has built-in headphone/speaker switching; facilities for addi-

tional set of phones; protective circuit for regulating extremely loud passages; overload protection; 14 ounces ..... \$129.95

**MURA****SP-100 Stereo Headset**

Lightweight headset. Frequency response 30-15,000 Hz. Comes equipped with 8-ft cord. .... \$9.95.

**SP-202 Stereo Headset**

Features volume controls for each earpiece. Response 30-15,000 Hz. Imp. 8 ohms. Comes with 10-ft coiled cord ..... \$11.50

**SP-402 Stereo Headset**

Features fully padded headband and oversized ear cushions. Individual volume and tone controls and stereo/mono switch included. Response 30-18,000 Hz. 8 ohms imp. 10-ft coiled cord ..... \$16.95

**SP-600 Stereo Headset**

Open-air design to accommodate surrounding sounds while listening. Mylar speakers for improved response. Response 20-20,000 Hz. 1 mW power required. 8 ohms impedance. Comes with 10-ft coiled cord. .... \$18.95

**SP-103A Stereo Headset**

Features tone and volume controls on each earcup. Response 20-20,000 Hz. Has stereo/mono switch, 8 ohms impedance. 10-ft coiled cord. .... \$24.95

**SP-205 Stereo Headset**

Features slide-type volume and tone controls; Mylar speakers; stereo/mono switch. Impedance 8 ohms. Response 30-20,000 Hz  $\pm 5$  dB. Includes 16-ft coiled cord and zippered storage case. .... \$37.50

**SP-206 Stereo Headset**

Features Mylar speakers and vented housing with bass-reflex-type enclosure. Has individual volume and tone controls. Response 20-20,000 Hz  $\pm 4$  dB. Impedance 8 ohms. Stereo/mono switch. Comes with 25-ft coiled cord and zippered storage case. .... \$37.50

**PICKERING****OA-1 Headphones**

Lightweight, open-air design. 8 ohms. Max. input 300 mW. Sensitivity: 100 dB at 600 Hz. Response 30-19,000 Hz. Is equipped with 7-ft cord ..... \$19.95

**OA-2 Headphones**

Lightweight, open-air design with special adapter for use with portable radios, tape recorders, and TV sets. 8 ohms. Max. input power 300 mW; sensitivity 100 dB at 600 Hz; response 30-19,000 Hz; dist. 1% (100 dB SPL). 7-ft cord. 10.9 ounces. .... \$22.95

**OA-3 Headphones**

Lightweight, open-air design. 15 ohms  $\pm 10\%$  at 1000 Hz; max. power input 0.2 W rms/ch; response 20-20,000 Hz; dist. 1/2% at 100 dB SPL; sensitivity 100 dB SPL at 0.10 V input at 1000 Hz each channel. 1 1/2" Mylar diaphragm dynamic transducer. Extend-adjust. headband with full pivot yoke and padded vinyl cover; soft vinyl foam ear cushions; 10-ft, 3-cond. coiled cord. Weighs 7.5 ounces (without cord) ..... \$39.95

**4955 Headphones**

Dynamic type. 8 ohms impedance; response 40-11,000 Hz  $\pm 3$  dB; 30-18,000 Hz  $\pm 6$  dB; sensitivity 100 dB SPL; max. input 0.5 W rms; distortion 1% at 115 dB SPL; 10-ft coiled cord. 28 ounces ..... \$59.95

# 1975 STEREO DIRECTORY & BUYING GUIDE

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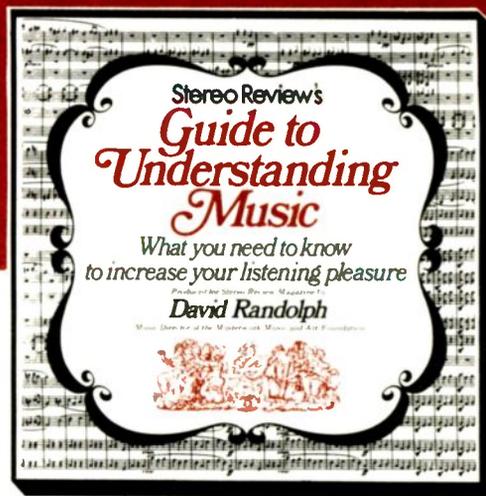
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## PIONEER

### SE-205 Stereo Headphones

Dynamic type covering a frequency range of 20-20,000 Hz. Cone-type speaker in each earpiece. Matching imp. 4 to 16 ohms. Max. input power 500 mW each channel. Comes with 8.2-ft cable. 16 ounces ..... \$24.95

### SE-305 Stereo Headphones

Dynamic type covering a frequency range of 20-20,000 Hz. 8 ohms imp. each channel; matching imp. 4 to 16 ohms. Max. input power 500 mW each channel. Comes with 16-ft, 5-in coiled cord. 15 ounces ..... \$34.95

### SE-405 Stereo Headphones

Dynamic type covering a frequency range of 20-20,000 Hz. 8 ohms imp.; input power 500 mW, each channel. Unit features polyester-film diaphragm; special ear pads with sliding-type adjusting headband and clickstops for easy listening; volume controls for both left and right channels. 16½-ft coiled cord ..... \$44.95

### SE-505 Headphones

Two-way stereo dynamic design with a woofer & tweeter in each phone; 8 ohms each channel. Response 20-20,000 Hz. Sensitivity 108 dB/0.3 V; Features both tone & volume controls on each phone. maximum input 500 mW each phone. With 16-ft coiled cord ..... \$59.95

### SE-700 Stereo Headphones

Features high-polymer driver elements; frequency range 20-20,000 Hz; matching impedance 4 to 16 ohms; sensitivity 100 dB/3 V ..... \$79.95

### SE-L401 Stereo Headphones

Lightweight, open-air stereo headphones; polyester film driver elements; frequency range 20-20,000 Hz; matching impedance 4 to 16 ohms; sensitivity 111 dB/0.3 V; max. input power 200 mW/ch. 10 ounces ..... \$39.95  
SE-L201. Same as SE-L401 except 9 ounces. .... \$29.95

## RADIO SHACK

### Nova-15 Headphones

Dynamic type. Ported open-back earcups. Response 20-20,000 Hz. 10-ft cord. 4 to 16 ohms impedance ..... \$21.95

### Pro-1 Headphones

Dynamic type. Ported open-back earcups. Response 20-20,000 Hz. 10-ft cord. 4 to 16 ohms ear cushions. Has individual earphone volume controls. .... \$54.95

### Custom Pro Headphones

Dynamic type. Response 20-20,000 Hz. Impedance 4 to 16 ohms; bass port ..... \$24.95

### Nova Pro Headphones

Stereo dynamic design with volume controls on each earcup. Response 20-20,000 Hz; 8 ohms impedance. 10-ft. coiled cord ..... \$34.95

### LV-10 High-Velocity Phones

Features electro-acoustical design plus 2" dynamic elements; response 20-20,000 Hz; 0.5% dist.; acoustical sponge earpieces; soft vinyl-covered headband with self-adjusting yokes; 4-16 ohms imp.; 10-ft coiled cord; plug. .... \$39.95

## SANSUI

### SS-2 Dynamic Headphones

Moving-coil type. Response 20-18,000 Hz, distortion 1% at 1 mW. 8 ohms impedance. 500 mW max. input per phone. 6-ft. cord. 12.6 ounces. Black and white ..... \$16.95

## SCINTREX

### Mark IV Stereophones

Features flat response 15-20,000 Hz; response 20-15,000 Hz  $\pm 3$  dB. Sensitivity (100 dB SPL) 10 mW. Maximum input 2 W; max. output 120 dB. HD 0.3% at 1000 Hz at max. dB. Ambient noise isolation 40 dB at 1000 Hz. 4-8 ohms impedance. ABS ear cups and fluid-filled ear cushions. Features patented dual-driver cavity assembly. Comes with 14-ft coiled cord with special strain-relief feature. Black with chrome-plated headband. 18 oz ..... \$45.00

### PRO-500 Stereophones

Response 15-20,000 Hz; 20-18,000 Hz  $\pm 3.5$  dB. HD 0.9% at 1000 Hz at max. dB. Sensitivity (100 dB SPL) 6.3 mW; max. input 1 W; max. output 110 dB. 4-300 ohms impedance. Ambient noise isolation 40 dB at 1000 Hz. Equipped with patented dual-driver cavity assembly. Liquid-filled ear cushions. Individual volume controls in each earcup. 14-ft coiled cord with strain-relief feature. 18 oz ..... \$60.00

### "Supra" Lightweight Stereophones

Open-air design with "Supraform" acoustics and high velocity drivers. Weighs only 6.5 oz,



including cord. Response 20-20,000 Hz; 20-12,000 Hz  $\pm 6$  dB. Impedance 4-200 ohms. HD at max. dB less than 1%. Sensitivity 0.5 mW at 100 dB SPL. Max. input 4 mW; max. output 110 dB. Foam plastic ear cushions, 10-ft coiled cord with strain-relief feature. Chrome-plated headband ..... \$29.95

### 88 Stereophones

Lightweight (9 oz) circumaural design which will withstand rugged use. Impedance 4-300 ohms. Sensitivity (100 dB SPL) 4 mW. Maximum input 1 W; max. output 110 dB. Response 15-20,000 Hz. HD 0.9% at 1000 Hz at max. dB. Ambient noise isolation 20 dB at 1000 Hz. Cyclocar ear cups with foam ear cushions. Has automatic frequency compensation. Black with Polypropylene headband. 14-ft coiled cord with strain-relief feature ..... \$24.95

### SX-4 Stereo Headphones

Incorporates four separate drivers for spatial and dimensional effect of 4-ch sound in stereo mode; response 15-20,000 Hz (20-15,000 Hz  $\pm 4$  dB); HD at 110 dB SPL, 1000 Hz: 0.8% stereo, 0.6% "Experiential"; impedance 4-1000 ohms; max. input power (loaded) 43 mW; max. acoustic output (loaded) 110 dB; ambient attenuation 40 dB; liquid earseals; padded head cushion; 14-ft coiled cord; 19 ounces. .... \$49.95

### 98 Stereophones

Features patented dual-cavity design and contoured response for accented bass and treble to match hearing characteristics. 4-300 ohms impedance. Sensitivity 6 mW; max. input 1 W; max. output 110 dB. Response 15-20,000 Hz. HD 1% at 1000 Hz at max. dB. Ambient noise isolation 40 dB at 1000 Hz. ABS ear cups and liquid-filled ear cushions. Chrome-plated headband. Comes with 14-ft coiled cord with strain-relief feature. 16 oz ..... \$39.95

## SENNHEISER

### HD414 Headphone

Patented dynamic "open-air" design. 2000 ohms/ch. Response 20-20,000 Hz. Sensitivity 17.7  $\mu$ bar/V. Normal power 1 mW/ch (1.41V) for sound pressure of 102 dB. HD 1% at 22 V & 1000 Hz. Can be connected to any preamp output. 5 ounces without cord. 10-ft. cable ..... \$45.95

### HD424 Headphone

Deluxe dynamic headphone with patented "open-air" design. 2000 ohms/ch. Response 15-20,000 Hz. Sensitivity 17.7  $\mu$ bar/V. Normal power 1 mW/ch (1.41 V) for sound pressure of 102 dB; HD less than 1% at 22 V and 1000 Hz. Can be connected to any preamp output. 6.5 ounces without cord. Removable head and ear cushions. 10-ft cable ..... \$74.95

### HD44 Headphone

Lightweight stereo headphone (1.2 ounces without cable). Patented dynamic "open-air" system with under-the-chin configuration. 600 ohms/ch. Response 52-10,000 Hz. Normal power 1 mW/ch (1.41 V) for average listening level. Comes equipped with a 10-foot cable. .... \$26.95

## STANTON

### Dynaphase Sixty Headphones

Dynamic design; two-way system—woofer & tweeter with individual LC crossover. Response 40-11,000 Hz  $\pm 3$  dB. Sensitivity 95 dB for 1 mW at 1000 Hz (100 dB sound pressure level). Distortion 1% at 115 dB SPL. Impedance 8 ohms. Power input 0.5 W rms max. per phone. 10-ft. coiled cord. 28 ounces. Blue and black ..... \$59.95

### Dynaphase Forty Headphones

Dynamic design. Response 60-10,000 Hz  $\pm 3$  dB. Distortion 1% at 115 dB SPL. 8 ohms impedance at 1000 Hz; Power input 0.5 W rms max. per phone. 10-ft cord. 21 ounces. Blue-black/chrome ..... \$39.95  
Model 5748. Same as Dynaphase Forty except 600 ohms imp ..... \$47.95

### Dynaphase Fifty Headphones

Same as Dynaphase Forty except has volume control on each earpiece ..... \$49.95

### Dynaphase Seventy-Five Headphones

Dynamic design with remote control for volume & tone, 13-ft coiled cord. Response 40-11,000 Hz  $\pm 3$  dB. Sensitivity 100 dB SPL (at 0.11-V at 1000 Hz). Max. input 0.5 W rms; dist. 1.0% with 115 dB SPL. Input 12 ohms imp. Features two-way design with separate woofer & tweeter with LC crossover network. 28 ounces ..... \$74.95  
Model 5741. Same as used on Dynaphase Seventy-Five. Separate volume & tone controls for each channel, stereo/mono switch & 17-ft. extension coiled cord ..... \$19.95  
Model 5742. Accessory 25-ft. extension coiled cord. .... \$7.95

## STAX

### SR-3 Headphones

Electrostatic push-pull type; response 30-25,000 Hz  $\pm 1$  dB; SPL 95 dB at 100 V rms input; maximum level 115 dB; weight 432 g including cord. Comes with SRD-6 energizer, a polarizing supply and signal source; response 20-20,000 Hz  $\pm 1$  dB; dist. 0.1% at 1 W, 1000 Hz. Overall size 2 1/16" W  $\times$  2 3/8" H  $\times$  6 1/2" D ..... \$125.00

### SR-X Superphones

Electrostatic push-pull type; response 20-

27,000 Hz  $\pm 1$  dB; SPL 95 dB at 100 V rms input; maximum level 115 dB; weight 370 g including cord. Comes with SRD-7 energizer, a polarizing supply and signal source; response 10-30,000 Hz  $\pm 2$  dB; distortion 0.02% at 1 W, 1000 Hz. 2 $\frac{1}{8}$ " W  $\times$  4 $\frac{1}{4}$ " H  $\times$  8" D . . . . \$225.00

## SUPEREX

### PRO-B-VI Headphones

Has acoustic-suspension woofer and ceramic tweeter. Response 15-22,500 Hz. 4 to 16 ohms impedance. 2 W maximum input per phone. 15-ft. coiled cord. Cordovan, ivory, or transparent . . . . . \$60.00

### ST-V Headphones

Moving-coil dynamic type. Response 20-18,000 Hz. 4 to 16 ohms impedance. 2 W maximum input per phone. Individual earphone volume controls. 15-ft. coiled cord . . . . \$30.00

### SST Headphones

Response 20-20,000 Hz. Maximum music power 2 watts. Has volume and tweeter controls at each earpiece. Supplied with 15-ft coiled cord. Cordovan or ivory. 4 - 16 ohms. . . \$40.00

### ST-F-2 "Feather-Fone"

Weighs only 8 ounces (excluding 15-ft coiled cord) with a 25-17,500 Hz response. Maximum power 0.5 watt. Ivory/Cordovan . . . . \$30.00

### ST-N "Newport"

Contemporary design dynamic stereophones with post and yoke headband. Response 30-15,000 Hz. Cordovan . . . . . \$19.95

### 930 Headphones

Moving-coil dynamic type. Response 40-14,500 Hz. Adjustable stainless headband. 7-ft cord . . . . . \$14.95

### SW-IV Headphones

Dynamic element. Response 30-15,000 Hz. Adjustable headband. 10-ft coiled cord. Black with red trim . . . . . \$24.95

### 927 Headphones

Woofer/tweeter headphone. Response 25-19,000 Hz. Dynamic woofer, ceramic tweeter, L-R crossover. Fully adjustable stainless headband. 10-ft coiled cord . . . . . \$35.00

### PEP-79E Electrostatic Headphones

Electrostatic system consisting of PEP-74 stereophones and CC-79 control console; response 10-22,000 Hz  $\pm 5$  dB; accommodates one set of stereophones; designed to use level controls of main amp or receiver; no connection to a.c. power line; source impedance matched for 4-16 ohm termination; for bookshelf or table-top installation. Wood-grain vinyl over steel case. 7" W  $\times$  2 $\frac{1}{2}$ " H  $\times$  4" D . . . . \$90.00  
PEP-74. Extra set of stereophones . . . \$70.00  
STEX-15-P. 15-ft extension cord for PEP-74. . . . . \$9.95

### PEP-77E Electrostatic Headphones

Same listening characteristics and sound quality as 79E but has self-energized console; two phone jacks; volume controls for both stereo channels (20 dB range); accommodates two sets of stereophones; nominal impedance 4-16 ohms; speaker/phone selector rocker & illuminated "on-off" rocker switches; incorporates PEP-74 "Trans-aire" headset with fully adjustable headband; 12 ounces. Cabinet walnut veneer. 11"  $\times$  3 $\frac{1}{4}$ "  $\times$  6 $\frac{1}{2}$ " . . . . . \$125.00

### EP-5 Electrostatic Headphones

Combines a Mylar woofer with an electrostatic

tweeter for heavier bass capability; separate energizer which can be driven from any power amp or receiver; response 10-24,000 Hz; crossover 4000 Hz; energizer has speaker/phones switch, internal overload protection; fully adjustable headband; 15-ft coiled cord. Wood-grained vinyl finish cabinet. . . . . \$80.00

### PRO-VII Headphones

Features Mylar woofer/tweeter combination; response 15-23,000 Hz; fully adjustable padded headband; 15-ft coiled cord with molded plugs & strain reliefs. 18 ounces . . . . \$65.00

### Uni-Pro Headphones

Features wide-range Mylar element; response 15-20,000 Hz; fully adjustable headband, soft replaceable cushions; 15-ft cord. 14 ounces . . . . . \$50.00

### TL-3 Trans-linear Headphones

Features trans-air principle; response 25-20,000 Hz; fully adjustable steel & aluminum headband; snap-on soft-foam replaceable cushions; coiled cord with molded plug and strain relief. . . . . \$40.00

## SYLVANIA

### SP20BN Stereo Phones

Full-frequency phones with foam-filled earcups to reduce room noise and increase comfort. Lightweight construction and with adjustable headband. Has 14-ft coiled cord. Black vinyl finish. . . . . \$19.95

### SP40 Stereo Phones

Response 20-20,000 Hz. Distortion less than 1% at 120 dB. Features foam-filled earcups for good coupling to ear for extended bass response. Lightweight construction and with adjustable headband. 8-ft coiled cord. Black and white vinyl finish with chrome trim . . . \$39.95

## TEAC

### HP-101 Dynamic Headphones

Stereo design. Frequency response 18-20,000 Hz. 8 ohms. Input sensitivity 1 mW, maximum power 500 mW. 6-ft. cable . . . . . \$39.00  
HP-102. Same as HP-101 except 10,000 ohms impedance . . . . . \$39.00

### HP-100 Stereo Headphones

High-velocity stereo headphones which permit listening to ambient sounds as well as music. Response 15-20,000 Hz; 8-16 ohms impedance (each channel); sensitivity 115 dB at 1 kHz, 1 mW; max. input 0.5 W. Has 2 $\frac{1}{4}$ " Mylar cone drive for each channel. Comes with 13 $\frac{1}{2}$ -ft coiled cord . . . . . \$29.50

## TECHNICS BY PANASONIC

### EAH-80A Electret Headphones

Electret element supplies advantages of electrostatic without its drawbacks. Distortion-canceling design. Adapter/control box included for direct connection to speaker output and control of speaker and headphone output. Lightweight headset (12.5 oz) with self-adjusting assembly. 6-ft, 7-in cord to control box plus 6-ft, 7-in coiled cord to headphone. Max. input (to adapter) 5 V; input imp. to adapter 4 to 16 ohms. Sensitivity (1 V, 500 Hz) 101 dB. Max. sound pressure level output 115 dB. Distortion (101 dB, 500 Hz) 0.8%. Response 20-20,000 Hz . . . . . \$79.95

## TELEPHONICS

### TEL-26 Dynamic Headphones

Sensitivity 102 dB-SPL at 1 kHz for 1 mW; dist. 0.2% max. Volume and tone controls on each earpiece; stereo/mono switch. Black and chrome finish; coiled cord. 16 ounces. \$36.95

### TEL-111 Electret Headphones

Response 18-24,000 Hz; sensitivity 104 dB; dist. 0.2% at 115 dB SPL. Separate power pack



requires no external a. c. power. Black and chrome finish. Designed for studio monitoring. 17 ounces . . . . . \$87.50

### TEL-14 Dynamic "Two-Way" Headphones

Moving coil woofer and tweeter in each earpiece. Response 20-20,000 Hz; dist. 0.2% max. at 95 dB-SPL. 17 ounces . . . . . \$29.95

### TEL-29 Dynamic Headphones

Lightweight. Has individual volume controls; coiled cord; response 30-18,500 Hz; chrome finish. 7 ounces . . . . . \$19.95

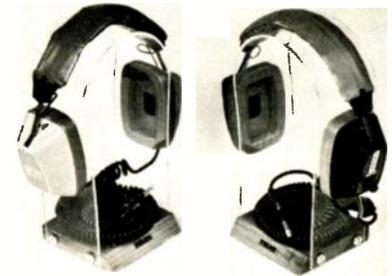
## TELEX

### Studio 1 Headphones

Dynamic design. Response 20-22,000 Hz. Sensitivity 105 dB SPL/mW. Distortion 1.0% at 122 dB SPL. 3 to 16 ohms impedance. 1.0 W maximum input per phone. Has volume controls on each earphone. 15-ft. coiled cord. 24 ounces. . . . . \$73.45  
Studio 2. Same but without volume controls . . . . . \$62.95

### 300 Stereo Headphones

Dynamic design. Has 15-ft coiled cord. 8 ohms.



Gold with cinnamon brown trim. . . . . \$36.70  
400. Designed for additional convenience. Has volume control on each earpiece; audio metric driver. . . . . \$47.20

## TOSHIBA

### HR-80 Dynamic Headphones

Dynamic headphones; response 20-20,000 Hz; rated input power 15 mW/ch. Imp. 4-50 ohms. Comes with 6.6-ft cord . . . . . \$17.95

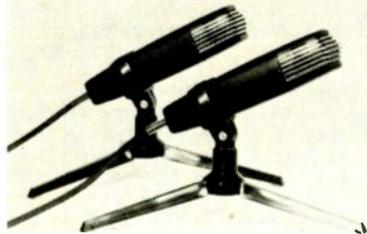
### HR-50 Stereo Headphones

Two-way dynamic headphones with stereo effect changeover switch (stereo/binaural); rated power 1 mW/ch; response 20-20,000 Hz; crossover 400 Hz; imp. 4-16 ohms. Comes with 6.6-ft. cord . . . . . \$29.95

## ADVENT

**MDC-1 Microphones**

Matched pair of low-impedance microphones. Cardioid pickup pattern. Frequency response



50-16,000 Hz. Balanced output. Has 20-ft cables and stands. Pair ..... \$90.00

## AKG

**D-109 Dynamic Microphone**

Sensitivity -56 dB ASA. Response 50-15,000 Hz  $\pm$ 3.5 dB. 200 ohms impedance. Omnidirectional pattern. Use for speech. Has lavalier, dust filter or windscreens, 30-ft. cable, and chrome finish. Connector not included. \$49.00

**D-160E Dynamic Microphone**

Sensitivity -55 dB ASA. Response 50-15,000 Hz  $\pm$ 3 dB. 200 ohms impedance. Omnidirectional pattern. Use for tape recording. Has slip-in stand attachment, dust filter or windscreens, with detachable windscreens. With windscreens presence rise, without windscreens linear response. Comes with 15-ft. cable, XLR connector, and chrome finish ..... \$69.00

**D-190E Dynamic Microphone**

Sensitivity -53 dB ASA. Response 40-15,000 Hz  $\pm$ 3 dB. 200 ohms impedance. Cardioid pattern. Use for music. Has slip-in stand attachment, dust filter or windscreens, XLR connector. Comes with 15-ft. cable. .... \$59.00  
**Model D-190TS:** Same as D-190E except high impedance operation with "on-off" switch. Has 24-ft. cable and phone plug ..... \$79.00

**D-200E Dynamic Microphone**

Sensitivity -55 dB ASA. Response 30-15,000 Hz  $\pm$ 3 dB. 200 ohms impedance. Cardioid pattern. Use for music and tape recording. Has slip-in stand attachment, dust filter or windscreens. Comes with 15-ft. cable, XLR connector, matte grey finish ..... \$79.00  
**Model D-200TS:** Same as D-200E except for high impedance operation with "on-off" switch, 24-ft. cable, and phone plug ... \$99.00

**D-707E Dynamic Microphone**

Sensitivity -52 dB ASA. Response 50-15,000 Hz  $\pm$ 3.5 dB. 200 ohms impedance. Cardioid pattern. Use for tape recording. Comes with slip-in stand attachment, pop or blast filter, chrome finish, 15-ft. cable, and XLR connector ..... \$49.00  
**Model D-707TS:** Same as D-707E but for high impedance operation with "on-off" switch, 24-ft. cable, phone jack ..... \$69.00

**D-1000E Dynamic Microphone**

Sensitivity -53 dB ASA. Response 40-16,000 Hz  $\pm$ 3 dB. 200 ohms impedance. Cardioid pattern. Use for rock vocals. Has slip-in stand attachment, pop or blast filter, chrome finish, 15-ft cable, and XLR connector ..... \$69.00  
**Model D-1000TS:** Same as D-1000E but for high impedance operation with "on-off"

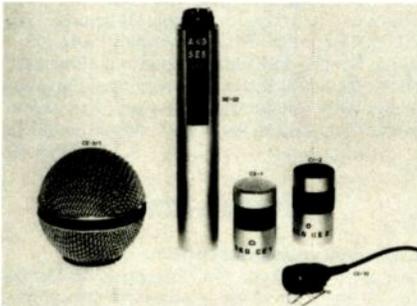
switch, 24-ft. cable, and phone plug . . \$89.00

**D-140E Dynamic Microphone**

Sensitivity -51 dB; 0.23 mV/ $\mu$ bar; response 30-17,000 Hz  $\pm$ 2.5 dB; cardioid pattern; 200 ohms impedance; use for on-stage requirements; will handle up to 128 dB with less than 1% dist. System internally suspended and encapsulated with wire mesh windscreens, lined with polyurethane foam. Has -10 dB bass-attenuation switch, XLR-3 connector, SA-11 stand adapter. 6" long  $\times$  1 1/4" dia. 6.2 oz. .... \$150.00

**Electret Condenser Mike System**

Modular system consisting of one basic powering module, four interchangeable capsules, and accessories. Powering module has battery compartment for 5.6-volt battery, "on-off" switch for shifting battery to clean contact points, 550-hour continuous operation, and adaptability for phantom powering off d.c. supply. Interchangeable capsules include: CE-1 cardioid capsule plus condenser mike preamp; CE-2 omnidirectional capsule with preamp; CE-5/1 cardioid capsule with integral suspension and



wire mesh screen plus preamp; CE-10 miniature lavalier attachment with integrated FET preamp.

SE-5E. Powering module ..... \$60.00  
 CE-1 ..... \$45.00  
 CE-2 ..... \$45.00  
 CE-5/1 ..... \$55.00  
 CE-10 ..... \$85.00  
**CE-501.** For cardioid operation; consists of CE-1 capsule, SE-5E powering module, SA-11/1 stand adapter, W-3 windscreens ..... \$119.00  
**CE-505.** For cardioid operation; consists of integral suspension and windscreens, CE-5/1 capsule, SE-5E powering module, and SA-11/1 stand adapter ..... \$129.00  
**CE-510.** For lavalier operation; consists of CE-10 lavalier element and SE-5E powering module ..... \$145.00

## ASTATIC

**850 "Ball Head" Microphone**

Ultra-cardioid type for indoor, outdoor, and close-miking applications; features positive anti-feedback characteristics; an exclusive "Sibrophase" acoustic phasing system for 25 dB front-to-back rejection ratio; chrome-plated steel "ball head" screen encloses acoustic filters, foam filter, and magnetic screen; conversion from high to low impedance by means of solderless connection. Response 40-15,000 Hz; impedance/output level: Hi-Z -50 dB, Lo-Z -54 dB. Chrome/black satin chrome finish. 2 1/8" dia.  $\times$  6 1/8" long ... \$95.00  
**850s.** Same as Model 850 except has integral "on-off" dpdt switch; swivel allows easy positioning from vertical to more than 50 degrees. 18-ft two-conductor, shielded, hum-free cable included; broadcast-type connector interchangeable with Cannon XLR-4 ..... \$99.00

**860 "Ball Head" Microphone**

Omnidirectional type for close-talking or musical group applications; features integral "ball head" filter; response 40-18,000 Hz; impedance/output level: Hi-Z -61 dB, Lo-Z -60 dB; wired for high impedance but can be converted to low impedance by means of solder-

less connection. Has swivel adapter and permanently attached cable; easily changed from stand-mount to hand-held operation. 1 1/8" dia.  $\times$  10" long. Brushed chrome finish ... \$89.50  
**860s.** Same as Model 860 except features positive swivel positioning and an integral "on-off" switch; broadcast-type connector is fitted with 18-ft cable ..... \$95.00

**810 Ultra-Cardioid Microphone**

Features sintered bronze acoustic filter; front-to-back rejection ratio of 25 dB; response 40-15,000 Hz; output -50 dB at Hi-Z, -54 dB at Lo-Z. Has swivel adapter and can be changed from stand mount to hand held ..... \$85.00  
**810s.** Same as Model 810 except has "on-off" switch; non-reflecting brushed satin chrome finish with black chrome trim ..... \$89.00  
**810 Gold.** Same as Model 810 but finished in brushed satin gold ..... \$90.00  
**810s Gold.** Same as 810s but finished in brushed satin gold ..... \$94.00

**840 Lavalier Microphone**

Low-impedance, lightweight lavalier unit with 50-12,000 Hz response especially engineered to prevent chest-cavity resonance problems; output -59 dB; finished in brushed satin chrome; can be converted to hand-held mike (50-16,000 Hz response). Comes with 30 feet of shielded cable, neck cord, and spring clip ..... \$85.00  
**840s.** Same as Model 840 except has recessed "on-off" switch ..... \$90.00

## AUDIOTEX

**Low-Impedance Microphone**

Designed as a replacement unit for many tape recorders built prior to 1969 as well as some later models. Cord terminated in miniature and subminiature plugs to fit most tape recorders; adapter for recorders using concentric jack included. 200 ohms. 30-2300 ..... \$8.95  
**30-2302.** Same except 50,000 ohms impedance ..... \$9.75  
**30-2304.** Same except equipped with 5-pin and 3-pin DIN plugs found on all European and some American and Japanese recorders. 200 ohms ..... \$9.75

**Dynamic Microphone**

For recording groups and soloists; cardioid pattern. Wide, flat frequency response. 50-13,000 Hz; output -58 dB (on high impedance). Rugged construction, built-in windscreens. 20-ft cable with standard phone plug and adapter for floor or desk stand. Built-in volume control with on-off switch. Dual (hi/lo) impedance. 30-2314 ..... \$39.95

**Omnidirectional Microphone**

Response 55-13,000 Hz; output -62 dB (on high impedance). Rugged construction. Comes with 15-ft cable, standard phone plug, swivel holder, on-off slide switch, and windscreens for outdoor use. Dual (hi/lo) impedance. 30-2312 ..... \$34.95

**Omnidirectional Microphone**

Response 80-13,000 Hz. High impedance. Comes with 10-ft cable with standard phone plug, on-off slide switch, desk stand. Sensitivity: -58 dB. 30-2310 ..... \$32.95

**Microphone Mixer**

Allows combination of up to four mikes mono or two mikes to each stereo channel; separate control for each mike; on-off switch; stereo/mono selector switch; 9-volt battery operated. Standard 1/4" phone jack inputs, phono pin jack outputs. 30-2320 ..... \$26.95

**Microphone Boom**

Fits all standard mike floor stands. Has adjustable counterweight; movable clamp and hinge design for any desired position. Stan-



dard  $\frac{1}{8}$ -27 thread. 31" long. 30-2370 . . \$12.95

#### Floor-Type Stand

Heavy cast-iron, self-leveling base with polished chrome-plated telescoping tubing. Adjusts from 34" to 64". Top of tubing has standard  $\frac{1}{8}$ -27 thread to fit all standard mikes. 30-2360 . . . . . \$14.95

#### Folding Microphone Stand

Folds and unfolds in seconds; weight  $\frac{3}{2}$  pounds; chrome-plated tubing extends to 60"; folded size 33". Legs have rubber tips to prevent skidding and scratching. 30-2362 . . . . . \$19.50

### BEYER/DYNAMIC

#### A-500 Dynamic Ribbon Microphone

Super-cardioid; response 40-18,000 Hz  $\pm 2.5$  dB. Sensitivity: -153 dBm (EIA); 200 ohms imp. Has four-stage integral blast filter and Cannon XLR termination. Especially designed for rock vocals; low pop and breath noise even when singer's lips touch microphone . . . . \$140.00

#### M-160 Double-Ribbon Microphone

Super-cardioid dynamic type. Response 40-18,000 Hz  $\pm 2.5$  dB. Sensitivity: -152 dBm (EIA); 200 ohms impedance. Low sensitivity at 120 degrees to axis. Suitable for stereo recording. Cannon XLR termination . . . . . \$230.00

#### M-260 Dynamic Ribbon Microphone

Super-cardioid design. Response 50-18,000 Hz  $\pm 2.5$  dB. Sensitivity -153 dBm (EIA). High-energy ribbon. 200 ohms imp. Suitable for speech, music, or vocals  $1\frac{3}{4}$ " mesh head  $\times 6$ " long. Cannon XLR termination . . . . . \$110.00  
**M-260SM.** Same as M-260 except with "on-off" and bass-cut switch . . . . . \$125.00

#### M-550S Moving-Coil Microphone

Omnidirectional dynamic type. Response 70-18,000 Hz. For tape recording and general applications. Sensitivity: -152 dBm (EIA); will work with all impedances. Suitable for use indoors and outdoors. Comes with clamp, table stand, cable with jack plug, "on-off" switch, and presentation case . . . . . \$37.50

#### M-810-N Moving-Coil Microphone

Dynamic cardioid design. Response 50-16,000 Hz. Sensitivity: -148 dBm. Suits all impedances. Designed for tape recording applications. Comes with windshield, clamp, and detachable 16-ft cable with jack, all housed in lined case . . . . . \$65.00

#### "Soundstar" X1N Dynamic Microphone

Dynamic cardioid design. Response 30-18,000 Hz  $\pm 2.3$  dB. Sensitivity: -146 dBm (EIA); 200 ohms imp. Front-to-back attenuation greater than 20 dB. For tape recording, music, and vocals. Has built-in pop screen and hum compensation coil. Cannon XLR termination . . \$80.00  
**"Soundstar" X1HL.** Same as X1N except with high/low imp. switch . . . . . \$90.00

#### M-69 Moving-Coil Microphone

Dynamic cardioid design. Response 50-16,000 Hz  $\pm 3$  dB. Sensitivity: -144 dBm (EIA); 200 ohms imp. For indoor/outdoor applications; unaffected by temperature or humidity . . \$95.00  
**M-69-SM.** Same as M-69 but with "on-off" and bass-cut switch . . . . . \$110.00

#### M-67 Moving-Coil Microphone

For tape recording, interviewing, and general outdoor/indoor work. Cardioid type. Response 40-18,000 Hz  $\pm 2.5$  dB. Sensitivity: -148 dBm

(EIA); 200 ohms imp. Special transducer mounting minimizes handling noise. Has built-in "on-off" bass-cut switch.  $7\frac{3}{4}$ "  $\times$   $1\frac{1}{2}$ ". Cannon XLR termination . . . . . \$120.00

#### M-101 Moving-Coil Microphone

Omnidirectional type. Response 40-20,000 Hz. Sensitivity: -150 dBm (EIA); 200 ohms imp. Withstands pressures associated with modern music (modulated voltages up to 2V). Low handling noise.  $4\frac{1}{2}$ "  $\times$   $7\frac{1}{8}$ ". Cannon XLR termination . . . . . \$115.00

#### M-201 Moving-Coil Microphone

Super-cardioid dynamic type. Response 40-18,000 Hz. Sensitivity: -149 dBm (EIA); 200 ohms imp.  $6$ "  $\times$   $1\frac{9}{16}$ ". Cannon XLR termination. Comes with clamp and presentation case . . . . . \$165.00

#### M-88 Moving-Coil Microphone

Super-cardioid dynamic type. Response 30-20,000 Hz  $\pm 2.5$  dB. Sensitivity: -144 dBm (EIA). Special transducer mounting eliminates body noise. Will withstand rough handling, humidity and temperature changes. For studio work, recording artists, and instrumentalists . . . . . \$218.00

### ELECTRO-VOICE

#### 635A Dynamic Microphone

Sensitivity -149 dB EIA. Response 80-13,000 Hz  $\pm 3$  dB. 150 ohms impedance. Omnidirectional pattern. Hand-held with slip-in stand attachment and lavalier neckcord assembly. Use for tape recording and broadcasting. Has a four-stage pop or blast filter, 15-ft. cable, Switchcraft A3F connector. Fawn beige matte finish . . . . . \$60.00

#### 670 Dynamic Microphone

Sensitivity -152 dB EIA. Response 60-14,000 Hz. User selects high or low impedance. Single-D cardioid. Hand-held with slip-in stand attachment. Use for speech, rock vocals, music, and tape recording. Has built-in "Acoustifoam" pop or blast filter, "on-off" switch, 15-ft. cable, and Switchcraft A3F connector. Frequency response varies with distance from microphone (maximum bass response is  $\frac{1}{4}$ " from source). Features an anodized brass finish . . . . . \$55.50

#### 670V Dynamic Microphone

Sensitivity -152 dB EIA. Response 60-14,000 Hz. User selects high or low impedance. Single-D cardioid. Hand-held with slip-in stand attachment. Use for speech, rock vocals, music, and tape recording. Has built-in "Acoustifoam" pop or blast filter, "on-off" switch, 15-ft. cable and Switchcraft A3F connector. Features a special thumb-actuated volume control for user convenience. Bass response varies with distance from sound source. Anodized finish . . . . . \$59.40

#### RE10 Dynamic Microphone

Response 90-13,000 Hz. Super-cardioid polar pattern. 150 ohms impedance. Output -56 dB (0 dB = 1 mW/10 dynes/cm<sup>2</sup>). Sensitivity -150 dB EIA. Has 18-ft. cable.  $6\frac{3}{4}$ "  $\times$   $1\frac{3}{8}$ " with carrying case . . . . . \$110.10

#### RE55 Dynamic Microphone

Response 40-20,000 Hz. Omnidirectional pattern. 150 ohms impedance. Output -55 dB (0 dB = 1 mV/10 dynes/cm<sup>2</sup>). Sensitivity -149 dB EIA. 18-ft. cable.  $10\frac{1}{2}$ "  $\times$   $1\frac{7}{32}$ " with carrying case . . . . . \$177.20

#### 671 Dynamic Microphone

Sensitivity -154 dB (EIA) low-Z; -156 dB (EIA) hi-Z. Response 60-14,000 Hz. User selects high

or low imp. Cardioid pattern. Features hand-held design with slip-in stand clamp, integral Acoustifoam pop or blast filter, "on-off" switch, 15-ft cable, and A3F connector. Directional single-D emphasizes low-frequencies when used close-up. Satin chrome finish. . . . \$60.00

#### 660 Dynamic Microphone

Sensitivity -150 dB (EIA) low-Z; -150.5 dB (EIA) hi-Z. Response 90-13,000 Hz. User selects high or low imp. Super-cardioid pattern. Can be used hand-held or in stand clamp. Variable-D for smooth response on or off-axis with no proximity effect. Professional-style 15-ft cable and mike-end connector. Satin chrome finish . . . . . \$69.80  
**661.** Same as Model 660 except with "on-off" switch . . . . . \$71.30

#### 631A Dynamic Microphone

Sensitivity -149 dB EIA. Response 80-13,000 Hz. May be ordered hi or lo impedance. Omnidirectional pattern. Hand-held with slip-in stand attachment. Use for speech, vocals, music, and tape recording. Has silent, magnetic "on-off" switch with removable actuator button; 15-ft cable; Switchcraft A3F connector. Satin chrome finish . . . . . \$45.55  
 All of the above prices are "Net."

### GROUP 128

#### SD-140 Electret Condenser Mike

Response 40-16,000 Hz  $\pm 3$  dB; 0.3% dist. at 100 dB; SPL 140 dB; usable dynamic range 113 dB; omnidirectional polar pattern; 1000 ohm output impedance; output level -49 dB; output connector standard phone jack in battery/level control module at end of 6-ft cable; uses standard 9-V transistor radio battery; mike element enclosed in foam blast screen at end of 10-in aluminum shaft with stand adapter;  $\frac{5}{8}$ "  $\times$  27 thread . . . . . \$134.50  
**SD-140Z.** Same except professional model with balanced line output and XLR-3 connector . . . . \$189.00  
**P700.** Universal instrument pickup with same element as above but designed for direct attachment to bell of instrument or drum . . . . \$114.50  
**P700Z.** Same as P700 except professional model with balanced line output and XLR-3 connector . . . . . \$169.00

### HITACHI

#### NDM-32 Dynamic Microphone

Sensitivity -78 dB. Response 70-12,000 Hz  $\pm 4$  dB. Impedance 600 ohms. Omnidirectional with desk stand. Use for speech and recording applications. Supplied with plug connector and windscreens. 16-ft. cable. Black . . . . . \$39.95

### LAFAYETTE

#### Deluxe Ball Dynamic Microphone

General-purpose, omnidirectional, dual-impedance (50,000 & 250 ohms), selectable at cable end. Output at high impedance -59 dB. Frequency response 100-10,000 Hz. Has "on-off" switch. Includes ball screen, 6-ft detachable cable with mike plug at one end, black metal desk stand, and floor-stand adapter. Die-cast case finished in satin aluminum. Case is  $6\frac{1}{4}$ " long  $\times$   $2\frac{1}{8}$ " max. dia. of ball . . . . . \$19.50

#### Electret Condenser Microphone

Unidirectional cardioid pattern with high front-to-back rejection ratio and flat frequency response from 30-16,000 Hz. Impedance 600 ohms but can be used with inputs up to 20,000 ohms. FET circuitry. Powered by one "AA" penlite cell. Foam windscreens, 15-ft shielded cable, standard  $\frac{1}{4}$ "-phone plug, metal tripod-type desk stand, floor-stand adapter, and battery are included . . . . . \$29.95

### Cardioid Dynamic Microphone

Dual-impedance, general-purpose microphone; unidirectional pickup; response 100-10,000 Hz; output level -57 dB; dual impedance switch, selected; on/off switch; chrome finish; pop-proof wire mesh grille; 20-ft detachable cable; stand swivel adapter. 8" long x 1" dia. .... \$24.50

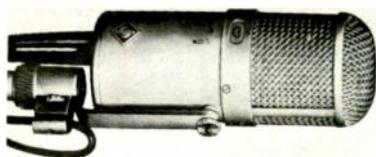
### MU-100 Dynamic Microphone

Unidirectional pickup; output level 75 dB at 600 ohms; response 150-7000 Hz; user selects high- or low impedance; hand-held with snap-in clamp mount for floor stand; "on/off" switch; shock-mounted transducer and Mylar diaphragm for rugged use; use for speech, rock vocals, and tape recording; supplied with 16-ft cable & connector; die-cast case; non-glare finish ..... \$39.95

## NEUMANN

### FET-80 Condenser Microphones

A line of studio microphones that come in many configurations from omni, figure-8, cardioid,



multiple pattern to multiple pattern stereo. All can be either battery or phantom (separate power supplies) powered.

U-47FET ..... \$474.00  
Other FET-80 models ..... from \$283.80

## PML

### DC-20 Condenser Microphone

Omnidirectional pattern. Response 30-20,000 Hz. Sensitivity -56 (1.5 mV); noise 23 dB; impedance 200 ohms. Comes with stand adapter and connecting cable ..... \$122.95

DC-21. Same except cardioid pattern. \$122.95

### DC-73 Condenser Microphone

Cardioid pattern. Has electrical pop filter. Response 30-20,000 Hz (100-20,000 Hz); Sensitivity -60 dB. (1.0 mV); noise 21 dB; impedance 200 ohms. Comes with stand adapter and connecting cable ..... \$160.95

### DC-96 Condenser Microphone

Cardioid pattern. Response 30-18,000 Hz. Sensitivity -61 dB (0.9 mV); noise 17 dB; impedance 200 ohms. Comes with stand adapter and connecting cable ..... \$242.95

### EK-71 Condenser Microphone

Omnidirectional pattern. Response 80-18,000 Hz. Sensitivity (hi-Z) -38 dB (2.5 mV); impedance hi-Z. Comes with stand adapter and connecting cable ..... \$97.95

EC-71. Same except cardioid pattern. \$97.95

### FP-92K Electret Microphone

Omnidirectional pattern. Pre-polarized with built-in 6 V battery. Response 30-20,000 Hz. Sensitivity -66 dB (0.5 mV); noise 23 dB; impedance 200 ohms. Comes with stand adapter and connecting cable ..... \$146.95

FP-92C. Same except cardioid pattern \$146.95

FP-92C+. Same except has windscreen and shockmount ..... \$183.95

FP-92K+. Same as FP-92K except has windscreen and shockmount ..... \$183.95

### S/BE CL3 Electret Microphone

Tie-bar design. Omnidirectional pattern. Response 80-17,000 Hz. Sensitivity -30 dB; noise 23 dB; impedance 200 ohms. Requires 22½ V battery ..... \$163.95

### Power Supplies

Battery supply for DC-20, DC-21, DC-73, DC-96. 48 V d. c. output. Impedance 50,200, 600, and hi-Z.

7320-M. Mono ..... \$49.95

7320-S. Stereo ..... \$55.95

110 V. a. c. supply for DC-20, DC-21, DC-73, DC-96.

6320-M. Mono ..... \$74.95

6320-S. Stereo ..... \$102.95

Battery supply for EC-71 and EK71.

7140-M. Mono ..... \$45.95

7140-S. Stereo ..... \$53.95

## RADIO SHACK

### Pro-100 Microphone Kit

Supplied as a pair with 13-piece accessory package including wind screens, table stands, floor stand adapters, lavalier cords, and cables. Response 10-10,000 Hz. Switchable 250 and 10,000 ohm impedance .... \$39.95

### Highball Dynamic Microphone

Cardioid design. Response 50-15,000 Hz. Features "on-off" switch and internal push-on impedance change 50/250 ohms or 50,000 ohms. Has pop filter and 15-ft. cable .. \$39.95

### Highball 5 Dynamic Microphone

Cardioid design. Response 70-13,000 Hz. Has change plug for 600 to 20,000 ohm impedance. Includes stand adapter and 15-ft. cable ..... \$34.95

### Electret-1045 Condenser Microphone

Cardioid design. Response 30-15,000 Hz. Can be switched from low imp. (600 ohms) to high imp. (20,000 ohms). Has windscreen and desk stand. Powered by single penlight battery ..... \$34.95

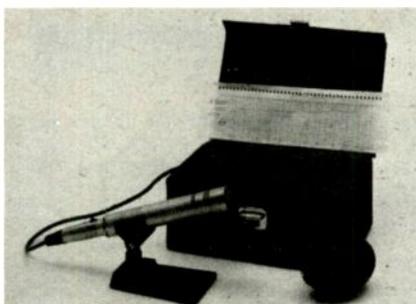
### Electret-1044 Condenser Microphone

Omnidirectional pattern. Response 30-15,000 Hz. Can be switched from 600 to 20,000 ohm impedance. Has foil diaphragm, windscreen, and mike stand. Powered by single penlight battery. .... \$29.95

## REVOX

### 3500 Dynamic Microphone

Dynamic unidirectional moving-coil type; cardioid pattern; response 40-18,000 Hz; im-



pedance 600 ohms; comes with windscreen, clamp, table stand, and case; Cannon XLR connector; each unit supplied with own frequency-response curve. .... \$165.00

## SENNHEISER

### MD-211U Dynamic Microphone

Omnidirectional unit. Response 40-20,000 Hz. Sensitivity -58 dBm (0.13 mV/μbar) ±2.5 dB. Has extremely wide, flat response unusual in a moving-coil microphone. 4¾" x 1" dia. Fitted with Cannon XLR connector. .... \$195.00

### MD21N Dynamic Microphone

Omnidirectional, 200-ohm impedance design. Response 50-15,000 Hz ±3 dB. Sensitivity 0.2

mV/μbar at 1000 Hz. EIA rating -145.8 dB. Output level -53 dBm (1 mW/10 dynes/cm²). Fitted with small Tuchel connector. Has balanced output. 10 ounces. 4¾" x 1¾" x 1¾". .... \$105.00

### MD421U Dynamic Microphone

Cardioid, 200-ohm impedance design. Response 30-17,000 Hz ±5 dB. Sensitivity 0.2 mV/μbar ±3 dB at 1 kHz. EIA rating -145.8 dB. Output level -53 dBm (1 mW/10 dynes/cm²). Has front-to-back ratio 18 dB, -2 dB and a variable bass attenuator. Fitted with XLR connector. 14 ounces. 7" x 1¾" x 1¾". .... \$176.00

### MD412HLM Dynamic Microphone

Super-cardioid. Features a built-in triple-impedance transformer to permit mike to be con-



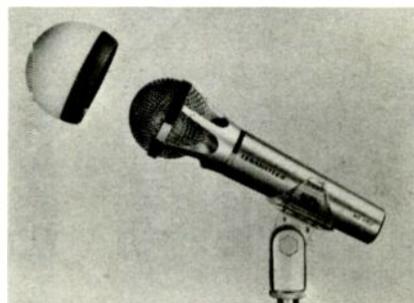
nected directly to any tape recorder. High impedance is 25,000 ohms for tube units; 800 ohms medium impedance for transistor recorders; 200 ohms low impedance for recorders of either type fitted with low-impedance input transformers. Response 50-12,000 Hz. Side attenuation 20 dB at 120 degrees. Sensitivity 1.25 mV/μbar at 1 kHz; EIA rating -154 dB; output level -58.1 dBm (1 mW/10 dynes/cm²) all at high-imp. setting. Comes with table stand, floor stand adapter, and zippered case. 8 ounces. .... \$61.00

### MD441 Dynamic Microphone

Super-cardioid design. Response 40-20,000 Hz; sensitivity 0.2 mV/μbar ±3 dB. Has brilliance switch for nominal 5 dB boost at 5 kHz; 5-position bass attenuator. Front-to-back ratio is 20 dB, -3 dB. Comes with quick-release mount that fits on floor stand or accessory table stand MZT-441. Windscreen for microphone is Model MZW441. 1.3" H x 1.4" W x 9.6" long. . \$247.00

### MD416 Dynamic Microphone

Cardioid type especially designed for close miking. Response 50-15,000 Hz; sensitivity 0.13



mV/μbar ±3 dB; impedance 200 ohms; Cannon XLR connector. Has built-in isolation system to eliminate handling noise; built-in pop filter; outdoor pop filter; threaded stand mount with quick-release clip. .... \$159.00

## SHURE

### 300 Ribbon Microphone

Sensitivity -153 dB (EIA). Response 40-15,000 Hz. User selects high or low impedance. Bidirectional. Hinge mount to stand. Use for

speech and music. Has 20-ft. cable and connector. Gray ..... \$115.20

#### 515SA "Unidyne B" Microphone

Dynamic type. Sensitivity -154 dB (EIA). Response 80-13,000 Hz. High impedance. Cardioid pattern. Hand-held with slip-in stand attachment. Use for speech, rock vocals, and music. Has "on-off" switch and 15-ft. cable. Chrome finish ..... \$30.30  
**Model 515SB.** Same as Model 515SA except low impedance. .... \$30.30

#### 545 "Unidyne III" Microphone

Dynamic type. Sensitivity -149 dB (EIA). Response 50-15,000 Hz. User selects high or low impedance. Cardioid pattern. With slip-in stand attachment and hinge mount to stand. Designed specifically for speech, music, and tape recording. Supplied with 15-ft. cable and Amphenol-type MC4M connector. Chrome finish ..... \$64.20  
**Model 545S.** Similar to Model 545 but has cable connection through hinge and "on-off" switch in upright. .... \$68.40  
**Model 545SD.** Same as Model 545 but has "on-off" switch on microphone barrel. . \$68.40  
**Model 545L.** Similar to Model 545 but has lavalier cord and clip. .... \$53.85

#### 546 "Unidyne III" Microphone

Dynamic type. Sensitivity -154 dB (EIA). Response 50-15,000 Hz. User selects high or low impedance. Cardioid pattern. Hinge mount to stand. Use for speech, rock vocals, and music. Comes with 20-ft. cable and connector. Chrome finish. .... \$103.80

#### 548SD "Unidyne IV" Microphone

Dynamic type. Sensitivity -141 dB (EIA). Response 40-15,000 Hz. User selects high or low impedance. Cardioid pattern. Hand-held with slip-in stand attachment. Use for speech and music. Has "on-off" switch, 15-ft. cable, and connector. Chrome finish. .... \$80.40

#### 55S "Unidyne II" Microphone

Sensitivity -148 dB (EIA). Response 50-15,000 Hz. User selects high or low impedance. Cardioid pattern. Hinge mount to stand. Use for speech and music. Supplied with Amphenol-type MC3M connector and 15-ft. cable. Chrome finish ..... \$64.20  
**Model 55SW.** Same as Model 55S except has built-in "on-off" switch. .... \$65.40

#### 565 "Unisphere 1" Microphone

Dynamic type. Sensitivity -148.5 dB (EIA). Response 50-15,000 Hz. User selects high or low impedance. Cardioid pattern. Hinge mount to stand. Use for speech, rock vocals, and music. Has pop or blast filter, 15-ft. cable, and connector. Chrome finish ..... \$72.60  
**Model 565SD.** Same as Model 565 except has "on-off" switch. .... \$75.60  
**Model 566.** Similar to Model 565 except with shock mount. .... \$110.40

#### 578 "Omnidyne" Microphone

Sensitivity -154 dB (EIA). Response 50-15,000 Hz. User selects high or low impedance. Omnidirectional pattern. Hand-held. Use for speech and music. Has "on-off" switch, a 15-foot cable, and connector. Supplied with chrome finish. .... \$60.00  
**Model 578S.** Similar to Model 578 except has swivel assembly. .... \$67.20

#### 579SB "Vocal Sphere" Mike

Sensitivity -151 dB (EIA). Response 50-15,000 Hz. Low impedance, omnidirectional pattern. Has slip-in stand attachment, "on-off" switch, pop or blast filter. Use for speech, rock vocals,

and music. Supplied with 20-ft. cable and connector. Chrome finish ..... \$50.85

#### 580SA(B) "Unidyne A" Mike

Sensitivity -151 dB (EIA). Response 50-13,000 Hz. User specifies high or low impedance. Cardioid pattern. Hand-held with slip-in stand attachment. Use for speech and music. Comes with "on-off" switch, 15-ft. cable, and connector. Chrome finish ..... \$46.65

#### 585SA(B) "Unisphere A" Mike

Sensitivity -151 dB (EIA). Response 50-13,000 Hz. User specifies high or low impedance. Cardioid pattern. Hand-held with slip-in stand attachment. Use for speech, rock vocals, and music. Has pop or blast filter, "on-off" switch. Supplied with 15-ft. cable and connector. Chrome finish ..... \$50.85  
**Model 585SAV.** Similar to Model 585SA(B) but has volume control on microphone barrel. .... \$55.65

#### 588SA(B) "Unisphere B" Mike

Sensitivity -155 dB (EIA). Response 80-13,000 Hz. User specifies high or low impedance. Cardioid pattern. Hand-held with slip-in stand attachment. Use for speech, rock vocals, and music. Has pop or blast filter, "on-off" switch. Comes with 15-ft. cable and connector. Chrome finish ..... \$43.65

### SONY from SUPERSCOPE

#### ECM.16 Tie Clasp/Lapel Mike

Sensitivity -57.8 dB (0 dB = 1 V/10  $\mu$ bar). Response 50-13,000 Hz. Low impedance, omnidirectional pattern. Lavalier-type for speech and tape recording. Supplied with mini connector. Internal battery operation. 6-ft. cable.  $\frac{1}{8}$ " dia.  $\times$   $1\frac{1}{8}$ " long. Silver .... \$34.95

#### ECM-18 Condenser Microphone

Sensitivity -56.8 dB (0 dB = 1 V/10  $\mu$ bar). Response 50-12,000 Hz. Low impedance, cardioid pattern. Hand-held type for speech, music, and tape recording. Supplied with mini connector, dust filter or windscreen. 6.5-ft. cable. Internal battery operation. Silver gray and black. .... \$27.95

#### ECM-33P Condenser Microphone

Sensitivity -54.8 dB (0 dB = 1 V/10  $\mu$ bar). Response 40-15,000 Hz; Low impedance, bal-



anced 250/600 ohms. Cardioid pattern. Hand-held with "slip-in" stand attachment. Use for speech, rock, vocals, music, and tape recording. Comes with dust filter or windscreen and 20-ft. cable. Connector not included. Internal battery/phantom powering. .... \$129.95

#### ECM-99 Condenser Microphone

Sensitivity -53 dB (0 dB = 1 V/10  $\mu$ bar). Response 50-12,000 Hz. Low impedance. Cardioid (dual) pattern. Hand-held with "slip-in" stand attachment. Use for music and tape recording. Comes with dust filter or windscreen, 10-ft. cable, mini (2) connector, one-point stereo pickup. Internal battery operation. Nickel satin finish ..... \$49.95

#### F-27 Dynamic Microphone

Sensitivity -58 dB (0 dB = 1 V/10  $\mu$ bar). Low impedance. Cardioid pattern. Hand-held. Use for speech and tape recording. Supplied with mini connector and 6.5-ft. cable. .... \$14.95

#### ECM-170 Condenser Microphone

Sensitivity -56 dB. Response 20-16,000 Hz. Low impedance. Omnidirectional pattern. Use for live recording of large ensembles. Has voice/music switch for adjusting frequency

response. Comes with two-conductor shielded cable, accessory windscreen, and microphone holder. .... \$79.95

#### ECM-220 Condenser Microphone

Sensitivity -57/-41 dB. Response 50-12,000 Hz. Impedance 200/10,000 ohms. Unidirectional pattern. Use for live music pickup. Has "on-off" switch; dual-impedance switch; built-in windscreen. Comes with microphone holder, battery, and audio cable. .... \$49.95

#### ECM-250 Condenser Microphone

Sensitivity -57 dB. Response 50-14,000 Hz. Low impedance. Cardioid pattern. For all types of recording. Has built-in windscreen, making it suitable for outdoor recording. Comes with battery, mike stand adapter, cable, and carrying case. .... \$59.95

#### ECM-270 Condenser Microphone

Sensitivity -56 dB. Response 40-16,000 Hz. Low impedance. Unidirectional pattern. Use for recording live musical performances. Lightweight for stage, nightclub, and other situations where performer holds mike. Comes with accessory windscreen, microphone holder, and cable. .... \$79.95

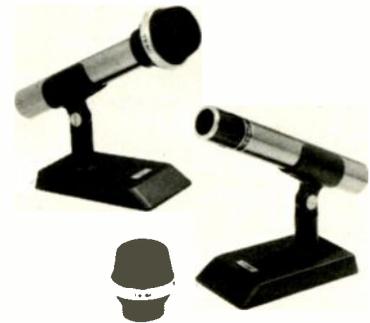
#### ECM-280 Condenser Microphone

Sensitivity: -56 dB. Response 30-18,000 Hz. Low impedance. Cardioid pattern. Has bass roll-off switch and a built-in windscreen. An additional removable windscreen works in conjunction with the unidirectional pickup pattern for outdoor recordings free from wind and background noise. Incorporates FET electronics. Comes with battery, mike stand adapter, cable, and carrying case. .... \$99.95

### TEAC

#### MC-201 Microphone

Electret. Response 50-15,000 Hz. Balanced



600 ohms. Has slip-in stand attachment, windscreen, and 10-ft. cable. .... \$80.00

### TECHNICS BY PANASONIC

#### RP-3850 Electret Condenser Mike

Cardioid pattern; FET head amplifier; tone-adjust switch; PAD 10-dB sensitivity switch; detachable windscreen; response 20-16,000 Hz; sensitivity -72 dB at 1000 Hz; 0 dB = 1 V/ $\mu$  bar; output Z 600 ohms balanced; S/N 46 dB; max. input = 128 dB SPL. Operates 5000 hrs on single AA cell. Comes with Cannon cable connector. .... \$149.95  
**RP-3830E.** Similar to 3850 except response 50-15,000 Hz; sensitivity -74 dB; Switchcraft cable connector. .... \$99.95  
**R?-3550E.** Similar to RP-3830E except fixed windscreen; Switchcraft cable connector. .... \$79.95

### TURNER

#### 500 Microphone

Dynamic type. Sensitivity -151 dB (EIA), response 40-12,000 Hz. User selects high or low

impedance. Cardioid pattern. Hand-held with "slip-in" stand attachment. For use in recording speech, rock vocals, and music. Pop or blast filter. Detachable 20-ft. cable. Supplied with XLR connector. Satin chrome finish. . . . \$105.00  
**Model S-500.** Same except with rotary "on-off" switch. . . . \$110.00

**35 Microphone**

Dynamic type. Sensitivity -151 dB (EIA), response 40-12,000 Hz. User selects high or low impedance. Cardioid pattern. Hand-held for use in speech applications. 25-ft. cable. Non-reflecting desert gold finish. . . . \$75.00

**700 Microphone**

Dynamic type. Sensitivity -151 dB (EIA), response 40-15,000 Hz. User selects high or low impedance. Cardioid pattern. Hand-held with "slip-in" stand attachment. For speech, rock vocals, and music. Pop or blast filter, "on-off" switch. Detachable 20-ft. cable. Comes with Switchcraft A4F connector. Satin chrome finish. . . . \$110.00

**2300 Microphone**

Dynamic type. Sensitivity -151 dB (EIA), response 50-15,000 Hz. High-impedance, omnidirectional. Hand-held with "slip-in" stand attachment. For speech, rock vocals, music, and

tape recording. Has 20-ft cable, "on-off" switch, and phone plug. Satin chrome finish. . . . \$85.00

**Model 2302.** Same except low-impedance version. . . . \$85.00

**S-2850 Microphone**

Dynamic type. Sensitivity -161 dB (EIA), response 70-12,000 Hz. User selects high or low impedance. Cardioid pattern. Hand-held with "slip-in" stand attachment, lavalier clip. Use for speech and tape recording. Does not include connector but does have "on-off" switch and 12-ft. cable. Black. . . . \$55.00

**45 Cardioid Microphone**

Dynamic design. Sensitivity -155 dB (EIA), response 100-13,000 Hz. High impedance. Use for speech, group singing, and music. Supplied with 20-ft. cable, phone plug, stand adapter, and "on-off" switch. . . . \$45.00

**Model 45A.** Same except low-impedance version. . . . \$45.00

**603H Microphone**

Dynamic type. Sensitivity -151 dB (EIA), response 50-15,000 Hz. High impedance. Cardioid pattern. Hand-held with "slip-in" stand attachment. For speech, rock vocals, and music. Pop or blast filter, "on-off" switch. Detachable 20-ft. cable. Satin chrome finish. . . . \$95.00

**Model 603L.** Same except low-impedance version. . . . \$95.00

**UNIVERSITY**

**1655 Omnidirectional Microphone**

Dynamic design; 200 ohms balanced. Response 50-15,000 Hz. Output -56 dBm (re: 10 dynes/cm<sup>2</sup>). Has built-in wind/pop filters; standard mounting swivel adapter. Supplied with 18 ft. cable. 6 1/2" long x 1 1/2" diam. tapering to 3/4". 6 3/4 ounces. . . . \$88.00

**1656 Dynamic Microphone**

Cardioid pattern; 200 ohms balanced. Response 60-15,000 Hz. Output -56 dBm (re: 10 dynes/cm<sup>2</sup>); SPL 0.5% at 126 dB (400 μbar at 1000 Hz); integral pop and breath-blast filter; extra rugged swedge steel case for applications involving rough handling; supplied with 18-ft, 2-cond. shielded cable with standard 3-pin female connector; standard 3-pin male audio receptacle on base; matte nickel finish. 1 3/4" dia. tapering to 3/4" x 6 1/2" overall length. 8 ounces. . . . \$104.00  
**1656G.** Same as 1656 but without switch; has threaded handle for flexible gooseneck stands or special boom adapters; 8-ft cable, 2-cond. shielded cable lead. . . . \$89.00

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 1900 N. Austin Ave., Chicago, Ill. 60639

# Introducing the premium blank tape especially attuned to music

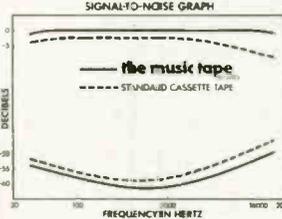
Introducing the music tape BY CAPITOL. It's a new premium blank tape with an extra high output/low noise formula for full dimensional sound. Simply the best blank tape you can buy for recording music.

What's the most demanding sound for a tape to reproduce? It's music. Particularly the variety of pitch and sound levels found in symphonic music.

Ordinary tapes lose this range of sound. They round off an instrument's unique characteristics, its "color." They distort when the pitch (frequency) is high. Or create interference noise when the sound level (amplitude) is low.

When you record ordinary things, use an ordinary tape. But when you record music, record on **the music tape** BY CAPITOL.

Engineers can plot these performance limits on a SNR (signal-to-noise ratio) graph like the one below. The greater the distance between the top and bottom lines, the better the tape's SNR. The wider the area covered, the better the frequency response.



This SNR graph shows the superiority of the music tape BY CAPITOL over conventional tape. It's another reason we think the music tape BY CAPITOL—cassette, cartridge and open reel—is best for recording music.

You might say the music tape BY CAPITOL is the blank tape with an ear for music.



*Pratt Hare*

CAPITOL MAGNETIC PRODUCTS A DIVISION OF CAPITOL RECORDS, INC., LOS ANGELES CALIFORNIA 90028

# 12

# BLANK TAPE & ACCESSORIES

## ADVENT

### Chromium-Dioxide Cassettes

Comes in screw-type housing with special lead-



er tape that cleans heads. In lots of six, comes with free optional storage album.

C-60	\$2.25
C-90	\$2.99
C-120	\$3.99

## BASF

### LP-35 Recording Tape

Polyester base, tensilized 1-mil., long play.

900 ft., 5" reel	\$3.85
1800 ft., 7" reel	\$7.00
1800 ft., 7" reel (3 pack)	\$19.85

### DP-26 Recording Tape

Polyester base, tensilized 1/4-mil., double play.

1200 ft., 5" reel	\$5.60
2400 ft., 7" reel	\$9.60
2400 ft., 7" reel (3 pack)	\$27.35

### TP-18 Recording Tape

Polyester base, tensilized, 1/2-mil., triple play.

1800 ft., 5" reel	\$7.00
3600 ft., 7" reel	\$12.50

### LP-35LH Long-Play Tape

1-mil polyester base. Low-noise, high-output.

900 ft., 5" reel	\$4.60
1800 ft., 7" reel	\$8.10

### DP-26LH Double-Play Tape

1/4-mil polyester base. Low noise, high-output.

1200 ft., 5" reel	\$6.60
2400 ft., 7" reel	\$10.50

### TP-18LH Triple-Play Tape

1/2-mil polyester base. Low-noise, high-output.

1800 ft., 5" reel	\$9.60
3600 ft., 7" reel	\$14.35

### "Chromdioxid" SM Cassettes

Plastic box.

30 min/side C-60	\$3.35
45 min/side C-90	\$5.00
60 min/side C-120	\$6.35

### LHSM Cassettes

Plastic box.

C-60	\$3.10
C-90	\$4.60
C-120	\$6.10

### SKLH Cassettes

1975 EDITION

### Mailer box

C-60	\$2.25
C-90	\$3.10
C-120	\$4.10

### "Sound Loop 8" Cartridges

45 minutes	\$2.60
64 minutes	\$2.85
90 minutes	\$3.25

### "Sound Loop 8+" Cartridges

Low-noise, high-output cartridges.

45 min	\$3.25
64 min	\$3.50
90 min	\$3.85

## CAPITOL

### Capitol 1 Cassettes

C-30, 15 min/side	\$0.89
C-60, 30 min/side	\$1.09
C-90, 45 min/side	\$1.79
C-120, 60 min/side	\$2.49
C-30, Three pack	\$2.52
C-60, Three pack	\$3.09
Cassette head cleaner	\$1.09
Cassette saver	\$2.19

### Capitol 1 8-Track Cartridges

32 min/150 ft	\$1.69
40 min/190 ft	\$1.99
64 min/300 ft	\$2.19
80 min/380 ft	\$2.29
100 min/470 ft	\$2.49
4 pk of 40 min	\$5.79
4 pk of 80 min	\$6.98
Cartridge head cleaner	\$1.19

### Capitol 1 Open-Reel Tape

Standard play, 1.5-mil polyester

600 ft., 5" reel	\$2.39
1200 ft., 7" reel	\$2.79

Extra play, 1.0-mil polyester

900 ft., 5" reel	\$2.79
1800 ft., 7" reel	\$3.79

0.5-mil polyester, tensilized

1800 ft., 5" reel	\$4.29
2400 ft., 7" reel	\$4.79

### "the music tape" Cassettes



High-output/low noise with "cushion-aire" backing.

C-45, 45 min.	\$2.69
C-60, 60 min.	\$2.98
C-90, 90 min.	\$4.49

C-120, 120 min.	\$5.98
C-45, Stak-pak (2 paks)	\$5.38
C-60, Stak-pak (2 paks)	\$5.96
C-90, Stak-pak (2 paks)	\$8.98
C-120, Stak-pak (2 paks)	\$11.96

### "the music tape" Cartridges

High-output/low noise.

8T-45, 45 min.	\$2.98
8T-60, 60 min.	\$3.19
8T-90, 90 min.	\$3.59
8T-100, 100 min.	\$3.79

### "the music tape" Open-Reel

High-output/low noise with "cushion-aire" backing.

FDS-1200, 1200 ft, 7" reel	\$5.98
FDS-1800, 1800 ft, 7" reel	\$7.59
FDS-2500, 2500 ft, 10 1/2" reel	\$11.98
FDS-3600, 3600 ft, 10 1/2" reel	\$16.68

## COLUMBIA

### Cassette Tapes

Each side color-coded for easy identification. High-output/low-noise gamma-ferric oxide. Response 20-20,000 Hz. Tensilized polyester base. Delrin rollers; constant-tension pressure pad for consistent tape-to-head contact; mounted in three-sided Mumetal shield to prevent pickup of hum and noise.

2CB-80040, 40 min.	\$2.29
2CB-80060, 60 min.	\$2.79
2CB-80090, 90 min.	\$3.49
2CB-80012, 120 min.	\$4.49
2CB-800HC, Head cleaner.	\$1.79

### 8-Track Tapes

Back-lubricated high-output/low-noise gamma-ferric oxide tape. Response 20-20,000 Hz. Three-point Delrin tape suspension; silicone/rubber pinch roller; foam pressure pad; one-piece hub; features "ConvertaQuad" plastic slug for activating sensing device on 4-ch tape deck.

8CB-80740, 40 min.	\$2.69
8CB-80750, 50 min.	\$2.79
8CB-80780, 80 min.	\$2.99
8CB-80710, 100 min.	\$3.49
8CB-807HC, Head cleaner.	\$1.69

### Open-Reel Tapes

High-output/low-noise gamma-ferric oxide tape. Index and timing chart included with all packages.

4CB-80412, 7" x 1200 ft, 1.5-mil polyester.	\$4.79
4CB-80418, 7" x 1800 ft, 1.0-mil polyester.	\$5.98
4CB-80424, 7" x 2400 ft, 0.5-mil polyester.	\$7.99
4CB-80436, 7" x 3600 ft, 0.5-mil polyester.	\$9.99

## HITACHI

### "Ultra-Dynamic" Cassettes

UDC-60, 60 min	\$3.70
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# 12 Blank Tape

UDC-90, 90 min ..... \$4.80  
UDC-120, 120 min ..... \$6.70

## Low-Noise Cassettes

C-30, 30 min ..... \$1.65  
C-60, 60 min ..... \$2.25  
C-90, 90 min ..... \$3.20  
C-120, 120 min ..... \$4.30

All "suggested list" prices

## IRISH

### 200 Series Professional Tape

Standard, 1 1/2-mil, polyester base, 1/4"  
231-131, 600 ft., 5" reel ..... \$2.75  
231-151, 1200 ft., 7" reel ..... \$4.80  
Extra-length, 1-mil, polyester base, 1/4"  
241-131, 900 ft., 5" reel ..... \$3.60  
241-151, 1800 ft., 7" reel ..... \$5.60  
Double-length, 1/2-mil polyester tensilized base.  
251-151, 2400 ft., 7" reel ..... \$9.15  
0.5-mil, polyester tensilized base, 1/4"  
261-151, 3600 ft., 7" reel ..... \$12.40

### 270 Series Tape

Low-noise, high-output type.  
1-mil, polyester base, 1/4"  
274-151, 1800 ft., 7" reel ..... \$7.95  
274-173, 3600 ft., 10 1/2" NAB aluminum reel ..... \$22.25  
Low-noise, high-output, back coated.  
276-151, 1200 ft., 7" reel ..... \$6.75  
276-173, 2500 ft., 10 1/2" NAB aluminum reel ..... \$17.60  
276-273, 2500 ft., 10 1/2" NAB aluminum reel ..... \$33.65  
277-151, 1800 ft., 7" reel ..... \$10.75

### Hi-Fi Series Cassettes

Soft plastic boxes  
199-C40, 20 min/side ..... \$1.25  
199-C60, 30 min/side ..... \$1.45

### Professional-Series Cassettes

In album/mailer  
261-C40, 20 min/side ..... \$1.80  
261-C60, 30 min/side ..... \$1.85  
261-C90, 45 min/side ..... \$2.90  
261-C120 60 min/side ..... \$3.45

### Low-Noise, Extended-Range Cassettes

Flip-top plastic box  
262-C40, 20 min/side ..... \$2.35  
262-C60, 30 min/side ..... \$2.55  
262-C90, 45 min/side ..... \$3.35

### Chromium-Dioxide Cassettes

Flip-top plastic box  
263-C60, 30 min/side ..... \$3.75  
263-C90, 45 min/side ..... \$4.75

### "3-in-a-Bag"

261-C60-3PA ..... \$4.95

### "2-in-a-Bag"

261-C90-2PA ..... \$5.40

### Cassette Package

Four cassettes plus a storage tray.  
261-C60-4P ..... \$8.50  
261-C90-4P ..... \$12.70  
261-C120-4P ..... \$14.90

### 8-Track Cartridges

8T42, 42 min. .... \$2.50  
8T64, 64 min. .... \$2.80  
8T84, 84 min. .... \$3.00

### 8-Track Cartridge Package

Four 40-minute, 8-track cartridges, one head cleaner, plus storage tray.  
8T-160-P ..... \$12.50

### 8-Track Cartridge Package

Four 80-minute, 8-track cartridges, one head cleaner, plus storage tray.  
8T-320-P ..... \$14.90

## LAFAYETTE

### Tensilized Reel-to-Reel Tapes

Tensilized Mylar. 0.5-mil.  
300 ft, 3" reel, double-play ..... \$0.79  
600 ft, 3 1/4" reel, double-play ..... \$1.09  
3600 ft, 7" reel, triple-play ..... \$5.29

### Mylar-Base Reel-to-Reel Tapes

On clear plastic reels.  
1200 ft, 5" reel, 0.5-mil ..... \$1.89  
1800 ft, 7" reel, 1.0-mil ..... \$2.49  
2400 ft, 7" reel, 0.5-mil ..... \$3.49

### Chromium-Dioxide Cassettes

Chromium-based coating to provide low distortion, increased high-frequency levels, and reduced inherent tape noise. For recorders with chromium-dioxide bias switches.  
60 min ..... \$2.29  
90 min ..... \$2.99

### Criterion Dynamic-Range Cassettes

Low-noise, high-output. Wide dynamic range with high-frequency response of 30-20,000 Hz. Head cleaner section at one end, sensing foils at each end to activate machines having reversing mechanism, but may be used on all cassette recorders. Hard, clear plastic storage box.  
C-60. 60 min ..... \$2.40  
C-90. 90 min ..... \$3.60  
C-120. 120 min ..... \$4.75

### Criterion Deluxe Cassettes

C-45 45 min ..... \$1.15  
C-60 60 min ..... \$1.29  
C-90 90 min ..... \$1.99  
C-120 120 min ..... \$2.99

### Voice-Grade Cassettes

C-45. 45 min ..... \$0.89  
C-60. 60 min ..... \$0.99  
C-90. 90 min ..... \$1.49  
C-120. 120 min ..... \$2.19

### 8-Track Mylar Cartridges

40 min ..... \$1.69  
70 min ..... \$1.95  
80 min ..... \$2.25

## LONGINES SYMPHONETTE

### Music-Grade Cassettes

M40. C-40, 40 min ..... \$1.99  
M60. C-60, 60 min ..... \$2.29  
M90. C-90, 90 min ..... \$2.99  
M120. C-120, 120 min ..... \$3.49

### All-Purpose Cassettes

AP60. C-60, 60 min ..... \$1.29  
AP90. C-90, 90 min ..... \$1.79  
APS60. C-60 three-pack ..... \$3.87  
APS90. C-90 three-pack ..... \$5.37

### 8-Track Cartridges

8M40. 40 min. single in sleeve ..... \$2.49  
8M80. 80 min. single in sleeve ..... \$2.99

### Cassette Tote Box

2AP60C (2-C60's) ..... \$2.19  
2AP90C (2-C90's) ..... \$2.99

### Head Cleaners

CMS-2 Cassette Maintenance Kit ... \$2.99  
8HCS-4 8-track (4-way head cleaner kit & demagnetizer) ..... \$4.99

## MALLORY

### Duratape Cassettes

Includes special head-cleaning leader. Packaged in Philips box.

LNFF60. 60 min ..... \$1.95  
LNFF90. 90 min ..... \$2.95  
LNFF120. 120 min ..... \$3.45

### Professional Duratape Cassettes

Cobalt-energized, extended frequency. Packaged in Philips box.  
EFR30. 30 min ..... \$1.95  
EFR60. 60 min ..... \$2.95  
EFR90. 90 min ..... \$3.95

### Fliptape Cassettes

Low-noise cassettes designed specifically for youth market. Packaged in poly box.  
FL40P. 40 min ..... \$1.45  
FL60P. 60 min ..... \$1.55  
FL90P. 90 min ..... \$2.25

### Voicetape Cassettes

V030P ..... \$1.65  
V060P ..... \$1.75  
V090P ..... \$2.45

### Duratape 8-Track Cartridges

8T-40. 40 min ..... \$2.50  
8T-80. 80 min ..... \$2.95  
8T-HC. Head cleaner ..... \$1.85

### Duratape Open-Reel Tape

3 x 150. 1 1/2-mil, 150 ft, 3" reel, polyester (4 pak) ..... \$2.05  
5 x 600. 1 1/2-mil, 600 ft, 5" reel, tensilized polyester ..... \$1.95  
5 x 1200. 1/2-mil, 1200 ft, 5" reel, tensilized polyester ..... \$3.05  
5 x 1800. 1/2-mil, 1800 ft, 5" reel, polyester ..... \$4.90  
7 x 1200. 1 1/2-mil, 1200 ft, 7" reel, polyester ..... \$2.65  
7 x 1800. 1-mil, 1800 ft, 7" reel, tensilized polyester ..... \$3.45  
7 x 2400. 1/2-mil, 2400 ft, 7" reel, tensilized polyester ..... \$4.30  
7 x 3600. 1/2-mil, 3600 ft, 7" reel, polyester ..... \$6.50

## MAXELL

### Ultra-Dynamic Cassettes (High Bias)

UDC-46, 23 min/side ..... \$3.00  
UDC-60, 30 min/side ..... \$3.35  
UDC-90, 45 min/side ..... \$4.90  
UDC-120, 60 min/side ..... \$6.55

### Low-Noise Cassettes (Normal Bias)

LCN-30, 15 min/side ..... \$1.93  
LCN-60, 30 min/side ..... \$2.20  
LCN-90, 45 min/side ..... \$3.35  
LCN-120, 60 min/side ..... \$4.45

### Low-Noise Tape (Normal Bias)

1.5-mil polyester  
LNE-50-7, 1200 ft., 7" reel ..... \$6.00  
LNE-50-10R, 2500 ft., 10 1/2" reel ... \$15.00  
1-mil polyester  
LNE-35-7, 1800 ft., 7" reel ..... \$7.70  
LNE-35-10R, 3600 ft., 10 1/2" reel ... \$19.50  
0.5-mil polyester  
LNE-25-7, 2400 ft., 7" reel ..... \$10.50  
0.5-mil polyester  
LNE-18-7, 3600 ft., 7" reel ..... \$12.40

### Extended-Range Tape (High Bias)

Ultra-dynamic, high-energy type.  
1.5-mil polyester  
UD50-7, 1200 ft., 7" reel ..... \$6.70  
UD50-10R, 2500 ft., 10 1/2" reel ..... \$16.70  
1-mil polyester  
UD35-7, 1800 ft., 7" reel ..... \$8.40  
UD35-10R, 3600 ft., 10 1/2" reel ..... \$21.20

### 8-Track Cartridges (Normal Bias)

8T-200, 40 minutes ..... \$2.95  
8T-300, 60 minutes ..... \$3.35  
8T-400, 80 minutes ..... \$3.60

## MEMOREX

### Low-Noise, High-Output Tape

Standard play, 1.5-mil polyester, 1/4"	
600 ft, 5" reel	\$2.39
1200 ft, 7" reel	\$4.59
2500 ft, 10 1/2" reel	\$10.99
Long-play, 1-mil polyester, 1/4"	
900 ft, 5" reel	\$3.39
1800 ft, 7" reel	\$5.69
3600 ft, 10 1/2" reel	\$15.49
Double-play, tensilized polyester, 1/4"	
1200 ft, 5" reel	\$4.59
2400 ft, 7" reel	\$7.79

### MRX<sub>2</sub> Oxide Cassettes

C-30. 15 min/side	\$1.79
C-45. 22 1/2 min/side	\$1.95



C-60. 30 min/side	\$2.19
C-90. 45 min/side	\$3.19
C-120. 60 min/side	\$4.19

### Chromium-Dioxide Cassettes

C-45. 22 1/2 min/side	\$2.69
C-60. 30 min/side	\$3.19
C-90. 45 min/side	\$4.69

### 8-Track Cartridges

45 min	\$2.49
60 min	\$2.69
90 min	\$2.89

### Accessories

Library (6 empty cassette albums)	\$3.29
8-track head cleaner	\$1.59
Cassette head cleaner	\$1.59
Empty 7" album	\$1.59

## SCOTCH

### Cassettes

#### High Energy

Features "High Energy" tape for quality sound; fully compatible with all cassette recorders. Has "Posi-Trak" back treatment. Album package.

45 min	\$3.00
60 min	\$3.25
90 min	\$4.90

#### Low-Noise/High-Density

Multi-purpose cassette featuring full dynamic



range throughout the audible sound spectrum. "Posi-Trak" back treatment. Album package.

45 min	\$2.25
60 min	\$2.50
90 min	\$3.75
120 min	\$5.00

#### Highlander/Low-Noise

For all-purpose cassette use. Polyester base.

45 min	\$1.50
60 min	\$1.60
90 min	\$2.50
120 min	\$4.10

### Open-Reel Tapes

#### High-Output/Low-Noise

Provides 50% increase in signal output and additional 3 dB in dynamic range over conventional low-noise tapes.

No. 206. Polyester base, "Posi-Trak" backing, leader, and trailer. 1.5-mil. 60 min at 7 1/2 ips; 7" reel	\$6.85
No. 207. Polyester base, "Posi-Trak" backing, leader, and trailer, 1-mil. 90 min at 7 1/2 ips; 7" reel	\$8.75

#### Low-Noise/Dynarange

Provides high-fidelity recording even at 3 1/4 ips. Multi-purpose tape providing full dynamic range throughout audible spectrum. S/N is 4 to 6 dB better than standard tapes.

No. 211. Polyester backing, white yellow trailers. 1.5-mil. 30 min at 7 1/2 ips (5" reel); 60 min (7" reel). 30 min	\$3.25
60 min	\$5.60
No. 212. 1.0-mil. 45 min at 7 1/2 ips (5" reel); 90 min (7" reel). 45 min	\$4.35
90 min	\$7.50
No. 213. 0.5-mil tensilized. 120 min at 7 1/2 ips (7" reel)	\$11.25
No. 214. 0.5-mil tensilized. 90 min at 7 1/2 ips (5" reel); 180 min (7" reel). 90 min	\$7.50
180 min	\$15.00

#### Highlander/Low-Noise

All-purpose economy tape for vocals as well as speech.

No. 228. 1-5 mil. 60 min at 7 1/2 ips (7" reel)	\$3.75
No. 229. 1-mil. 90 min at 7 1/2 ips (7" reel)	\$5.60

### 8-Track Cartridges

Features low-noise oxide coating on heavy-duty lubricated polyester backing.

#### High-Output/Low-Noise

Full 2-dB increase in output over premium tapes. Captures full balanced sound.

8TR-45 HO/LN. 45 min	\$3.25
8TR-90 HO/LN. 90 min	\$3.85

#### Low-Noise/Dynarange

All-purpose cartridge

8TR-45. 45 min	\$2.60
8TR-90. 90 min	\$3.25

### "Classic" Open-Reel Tapes

High-frequency performance 3 dB higher than No. 206-207; S/N 8 dB higher than standard recording tape; polyester base; "Posi-Trak" backing; leader, trailer. Padded book-style box.

CL-7R60. 1.5-mil, 60 min. at 7 1/2 ips (7" reel)	\$9.95
CL-7R90. 1.0-mil, 90 min. at 7 1/2 ips (7" reel)	\$12.45
CL-7R120. 0.5-mil, 120 min. at 7 1/2 ips (7" reel)	\$16.20
CL-10R120. 1.5-mil, 120 min. at 7 1/2 ips (10" reel)	\$23.70
CL-10R180. 1.0-mil, 180 min at 7 1/2 ips (10" reel)	\$28.70
CL-10R240. 0.5-mil, 240 min at 7 1/2 ips (10" reel)	\$37.45

### "Classic" 8-Track Cartridges

Features special low-noise ferric-oxide coating for high-frequency sensitivity of 7 dB higher; S/N at low frequencies 6 dB higher than standard cartridges; fully compatible, oxide coating heavy-duty lubricated polyester backing.

8TR-45. 45 min	\$3.75
8TR-90. 90 min	\$5.00

### "Classic" Cassettes

Features layers of chromium-dioxide and low-noise ferric-oxide to produce high-frequency performance equal to "chrome," but an additional 5 dB increase over CrO<sub>2</sub> in low-frequency range; fully compatible with all recorders; "Posi-Trak" back treatment. Album package.

45 min	\$3.75
60 min	\$4.35
90 min	\$6.25

### Chrome Cassettes

Features chromium-dioxide tape for extended high-frequency range; designed specifically

for tape decks equipped to handle CrO<sub>2</sub>; "Posi-Trak" back treatment. Album.

45 min	\$3.00
60 min	\$3.35
90 min	\$5.00
120 min	\$6.75

## SONY from SUPERSCOPE

### Professional Recording Tape

Extra-heavy-formula Oxi-coat homogenized oxide coating; polyester back, "lubri-cushion" impregnated lubricant.

PR-150-3. 300 ft, 3 1/4" reel, 1 mil	\$1.99
PR-150-9. 900 ft, 5" reel, 1 mil	\$3.49
PR-200-12. 1250 ft, 5" reel, 0.5 mil	\$4.49
PR-150-18. 1800 ft, 7" reel, 1 mil	\$4.99

### Low-Noise, High-Output Tape

On 1-mil polyester base.

SLH-180-18. 1800 ft, 7" reel	\$6.49
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### Auto-Sensor Cassette Tape

C-45 Plus 2. 23 min/side	\$1.59
C-60 Plus 2. 31 min/side	\$1.69
C-90 Plus 2. 46 min/side	\$2.49
C-120 Plus 2.61 min/side	\$3.69

### Ultra-High-Fidelity Cassette Tape

With Auto-Sensor

UHFC-60 Plus 2.31 min/side	\$2.69
UHFC-90 Plus 2.46 min/side	\$3.79
UHFC-120 Plus 2. 61 min/side	\$4.99

### Chromium-Dioxide Cassettes

CRO-60. 60 min	\$3.29
CRO-90. 90 min	\$4.29

### Ferri-Chrome Cassettes

FeCr-60 Plus 2. 31 min/side	\$3.99
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### 8-Track Cartridges

8T-40 Plus 2. 21 min/side	\$3.49
8T-60 Plus 2. 31 min/side	\$3.99
8T-80 Plus 2. 41 min/side	\$4.49

### Empty Tape Reels

Computer-styled tape reels, with box.

MTRB-7. 7"	\$1.29
MTRB-5. 5"	\$0.99
MTRB-3. 3 1/4"	\$0.69

## SOUNDCRAFT

### Cassette Tapes

2SR-80130. 30 min.	\$0.79
2SR-80140. 40 min.	\$0.89
2SR-80160. 60 min.	\$1.39
2SR-80190. 90 min.	\$1.69
2SR-80112. 120 min.	\$1.99
2SR-801HC. Head cleaner.	\$1.39

### 8-Track Tapes

8SR-80340. 40 min.	\$1.69
8SR-80380. 80 min.	\$1.99
8SR-803HC. Head cleaner.	\$1.29

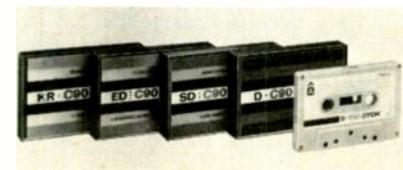
### Open-Reel Tapes

4SR-80512. 7" x 1200 ft.	\$2.79
4SR-80518. 7" x 1800 ft.	\$3.58
4SR-80524. 7" x 2400 ft.	\$4.79
4SR-80536. 7" x 3600 ft.	\$6.64

## TDK

### "Extra Dynamic" Cassettes

Exclusive "stagnetite" coating for highest MOL (maximum output level), wide dynamic range,



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## Blank Tape

high S/N. Response 20-23,000 Hz. Includes new 45-min. "record-album-length." Polyester base.

ED-C45, 45 min	\$3.35
ED-C60, 60 min	\$3.75
ED-C90, 90 min	\$5.60

**"Super Dynamic" Cassettes**

High-performance gamma ferric oxide for wide dynamic range, low-noise, and distortion-free output. Response 30-20,000 Hz. Polyester back.

SD-C45, 45 min	\$2.75
SD-C60, 60 min	\$3.00
SD-C90, 90 min	\$4.50
SD-C120, 120 min	\$6.00

**"Dynamic" Cassettes**

Features company's new M-400 gamma ferric-oxide coating. Includes new 3-hour "4-record-album-length" cassette plus new single-album-length cassette. Polyester back.

D-C45, 45 min	\$2.25
D-C60, 60 min	\$2.50
D-C90, 90 min	\$3.75
D-C120, 120 min	\$5.00
D-C180, 180 min	\$6.85

**"Krom" Chromium-Dioxide Cassettes**

Outstanding linearity at very high frequencies. Use on machines with CrO<sub>2</sub> bias. Polyester back. Packed in plastic boxes.

KR-C60, 60 min	\$3.75
KR-C90, 90 min	\$5.60

**"Endless" Cassettes**

Endless-loop design with safety feature against accidental reversal. Usable in conventional cassette machines. Polyester backing. Packaged in plastic boxes.

EC-20S, 20 sec	\$5.00
EC-30S, 30 sec	\$5.00
EC-1, 1 min	\$5.00
EC-3, 3 min	\$5.25
EC-6, 6 min	\$5.75
EC-12, 12 min	\$6.85

**Head Cleaner Cassette**

Chromium trioxide removes deposits, laps and polishes pitted heads. Unique check-off chart on box keeps record of cleaner life.

HC-1	\$1.50
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**"Super Dynamic" 8-Track Cartridges**

Full-fidelity 8-track cartridges with gamma ferric oxide. Response 20-23,000 Hz. High saturation and output level (MOL). Has broad dynamic range, high S/N, and minimum distortion.

8TR-40SD, 40 min	\$3.75
8TR-80SD, 80 min	\$5.00

**"Audua" Open-Reel Tape**

High-density ferric-oxide coating for high output, low noise, stability and durability.

L1200. 1200 ft, 7" low-torque reel	\$8.00
L1800. 1800 ft, 7" reel	\$10.50
L3600. 3600 ft, 10 1/2" NAB reel	\$31.50

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## Accessories

## ADVENT

**MPR-1 Microphone Preamplifier**

For use with low-impedance balanced or unbalanced microphones. Switchable gain for either 40 or 60 dB. Operated by power supply of Advent 201 cassette deck. 5 1/2" x 2 3/4" x 1" D

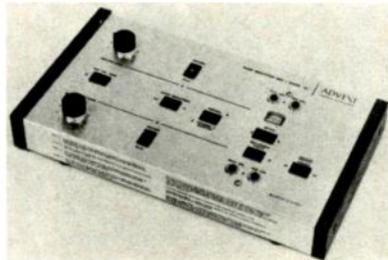
**100A Dolby System**

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Noise-reduction unit with Dolby system for home tape recording/playback. Also plays Dolby-encoded pre-recorded commercial tapes and FM broadcasts. Provides four-input mixing (two on each channel), headphone monitoring, and sound-on-sound recording. Harmonic and IM distortion 0.1%. 5" x 12 7/8" x 8 3/4" D. Cabinet extra

**101 Dolby System**

Similar in principle to Model 100A, but can only be used in record or playback mode (uses same



circuitry), but not simultaneously for two operational modes

## ALTEC

**729A "Acousta-Voicette"**

Used to modify combined response of room and speaker as required for optimum flatness of frequency response in specific listening area. Has narrow-band adjustable filters, each covering 1/3 octave. Stereo design with 24 filters for each channel covering center frequencies between 63 and 12,500 Hz. Loss/octave adjustable from 0 to 12 dB. 17 dB gain each channel to compensate for equalization losses. \$875.00

## ASCOM

**ASC-100 "Stereo X-pander"**

Add-on unit for car stereo systems. AM-FM stereo preamplifier providing 20 dB signal boost; installs between receiver and antenna without mounting. Circuit board is imbedded in transparent lucite with all components visible, including safety LED which glows if device is properly connected. 2" x 1 1/2" x 3/8" . . \$19.95

## ATLAS SOUND

**MS-50 Floor Stand**

Triangular-based general-purpose microphone stand; grip-action clutch; scuff-resistant steel base with protective pads; upper tube chrome plated, lower tube and stand base in black; height 35" to 63"; base 14 1/2"; weight 6 1/2 lbs.

MS-10C. Popular version with charcoal wrinkle 10" dia. base; weight 10 lbs. . . . \$17.10

**MS-11C Floor Stand**

General-purpose stand; grip-action clutch; low-profile chrome base with added weight for extra stability; 34" to 62"; 10" dia. chrome base; weight 13 lbs. . . . \$22.10

MS-12C. Economy version with charcoal wrinkle-finish base. . . . \$18.05

**MS-11S Floor Stand**

Automatic clutch stand; instantaneous changes in height by grasping control sleeve and raising or lowering microphone; removing hand automatically locks stand height; low silhouette chrome base; 39" to 62"; 10" dia. chrome base; weight 13 lbs. . . . \$42.50

## AUDIO-TECHNICA

**AT-6001 Disc Cleaner**

Double-action cleaning system combines soft bristle brush and plush pad to loosen and re-

move groove dirt; small arm on weighted base may be placed wherever convenient on motor-board; may be used with any manual turntable or automatic when in manual mode; replacement pad & brush kit available . . . \$7.95  
AT-601. Replacement kit for AT-6001 . . \$1.75

**AT-6003 Tri-Capsule**

For keeping extra cartridges and plug-in shells safe and handy; consists of three smoked plexiglass domes which will house three cartridge-shell assemblies . . . \$7.95

## AUDIOTEX

The company carries a complete line of tape accessories for use with open-reel, cassette, and 8-track equipment.

30-2150. Cleaning pen for tape heads	\$1.95
30-126. Kleentape for open-reel recorder heads	\$2.25
30-026. Tape cleaning cloth	\$0.90
30-129. Tape Care Kit, Jr. contains head cleaner, cotton swabs, and cleaning cloth	\$1.60
30-630. "Blast-off" tape head cleaner, 3-oz. aerosol can	\$1.95
30-128. Same except in 6-oz aerosol can	\$2.50
30-124-1. Recording head cleaner, 2-oz bottle	\$1.00
30-124-2. Recording head lubricant, 2-oz bottle	\$1.00
30-636. Tape player care kit contains cleaner and head lubricant, two 6" brushes, 10 plastic pouches to protect tape reels, cassettes, or cartridges	\$2.95

## BSR-ELECTRONICS

**FEW-3 Frequency Equalizer**

Stereo frequency equalizer provides 12 zones



of control for each channel. Has two VU meters, defeat switch, and switch back control for both playback and recording. Distortion 0.007% . . . \$199.95

**FEW-2 Frequency Equalizer**

Two-channel, five-zone per channel, frequency equalizer. Response: flat setting 5-100,000 Hz ±1 dB; tone control range ±12 dB at 60, 240, 1000, 3500, and 10,000 Hz. IM dist. 0.05% at 2 V output; HD 0.05% at 2 V output (20-20,000 Hz); max. output 9 V . . . \$99.95

FEW-4. Similar to FEW-2 but 4-channel version . . . \$199.95

## BURWEN

**DNF 1200 Dynamic Noise Filter**

Will work on any 2-channel or matrix encoded source; provides 14 dB noise reduction; does not require pre-encoding. Push-button controls to select proper mode of noise reduction: Phono position for any 33 or 45 record played directly or recorded on FM; Phono 78 is for 78 rpm discs; Tape/FM is for cassette, open-reel, cartridge, or FM broadcasts. Includes sensitivity control. Frequency response (minimum bandwidth) -3 dB at 500 Hz, -10 dB at 1000 Hz, -20 dB at 2500 Hz; (maximum bandwidth) ±0.5 dB max. 10-20,000 Hz. HD 0.2% max. 20-10,000 Hz at 3 V input, sensitivity max.; 0.0 dB gain at 1 kHz, adjustable via rear-panel controls; internal noise 100 μV rms 20-20,000

Hz. Has six phono pin jacks, extra parallel input jacks for connection to tape deck. 9" x 4 1/8" H x 12 3/4" D. 115 V ±10%, 50-60 Hz (8 W, 230 V version available) ..... \$249.95

## CHEMTRONICS

### Tape Head Cleaner

Aerosol cleaner formulated for cassette, reel-to-reel, and 8-track recorders and players. Removes dirt, film, and oxides from heads, tape guides, capstan rollers, and other critical parts. Furnished with spray extender for pinpoint application. #THC-6 ..... \$2.65  
**504-3.** Same except 2-oz. bottle with special felt applicator ..... \$1.70  
**THC-4** Same, except 4-oz. spray can ... \$1.95

### Non-Slip Drive/Belt Restorer

Restores hardened and glazed rubber drives and belts. Fast drying. Prevents slippage and insures uniform speed. 2 ounces. #507-7. \$1.75

### Cassette Head Cleaner

Non-abrasive buffing tape. Cleans graphite deposits from tape head. To be used the same as regular cartridge. #CHC ..... \$1.98

### Cassette Maintenance Kit

Performs double cleaning function of tape head and capstan shaft cleaner. Uses special cleaning liquid applied directly to non-abrasive buffing tape. #CHC-Kit ..... \$2.98

### 8-Track Head Cleaner

Cleans graphite deposits from tape heads with gentle wiping action. In use it is inserted in tape player and run for 30 seconds for every 50 hours of operation. #TR-8 ..... \$1.98

### 8-Track Maintenance Kit

Cleans player head and capstan shaft with special cleaning liquid applied to tape. Prepared cartridge is inserted in player and job is done in seconds. Designed to be used weekly. #TR-8 Kit ..... \$3.05

## C/M LABS

### 601 Electronic Crossover

Frequency response from selected cut-off to 100,000 Hz +0, -3 dB (high-pass), 1 Hz to selected cut-off +0, -3 dB (low-pass), 1-100,000 Hz +0, -3 dB (wideband model); 6 dB/octave crossover; has left & right channel outputs; THD 0.5% at rated output; IM 0.5% at 2 V equiv. single frequency amplitude; over-all gain 0 dB, ±1 dB max; individual level controls for high- & low-pass amps (no balance control between channels). 2 1/2" H x 11 1/8" W x 5 1/4" D. .... \$144.00

## CONCORD

### DBA-9 Dolby Adapter

Record/playback noise-reduction system using Dolby-B type circuits. Has individual record and output level controls; dual VU meters. Input imp. 25,000 ohms. Sensitivity 30 mV; output 0.58 V adjustable. Output imp. 2500 ohms. Response 20-15,000 Hz ±0.5 dB. HD 0.2%. Noise reduction 8 dB at 2000 Hz & 10 dB at 5000 Hz. Supplied with Dolby-level pre-recorded tape (1 cassette & 1 3" reel) for calibration. 10 3/8" W x 3" x 7 1/2" D ..... \$114.95

### DBA-10 Dolby Adapter

Record/playback noise-reduction system using Dolby B-type circuitry. Has individual input/output channel-level controls with calibration adjustments available from front panel. Includes a built-in calibration tone signal and twin DIN/Dolby NAB meters. Response 20-20,000 Hz ±0.5 dB, HD 0.4%. Input sensitivity 30 mV, output 0.58 V adjustable. Noise reduction 8 dB at 2000 Hz, 10 dB at 5000 Hz. 13 1/2" x 3 1/2" x 7 1/4" D ..... \$139.95

1975 EDITION

## CROWN INTERNATIONAL

### OC-150 Stereo Output Control Center

Designed to increase system flexibility in sophisticated audio installations. Provides output monitoring capabilities supplied by two 3 1/2" meters; speaker switching for three sets of speakers; two variable-pad headphone jacks. Meters can be used in either of two measuring modes in any of five full-scale ranges; full-scale voltage sensitivity of meter is variable from 1.4 volts to 140 volts. Will monitor three separate amplifier outputs, including main system amplifier output. Two front-panel jacks are available with three levels of attenuation; one position feeds jack directly from amplifier output; other two positions provide different degrees of attenuation for more sensitive headphones. 5 1/4" x 17" x 8 1/8" ..... \$299.00

### VFX-2 Crossover/Filter

Dual-channel unit can perform either crossover or bandpass functions. Two filters per channel, each continuously variable from 20 to 20,000 Hz. Filter rolloff is at a fixed 18 dB/octave. Response 20-20,000 (IHF load) ±0.1 dB; 2-58,000 Hz (IHF load) typically ±0.2 dB; 18-38,000 Hz (600 ohm load) ±0.5 dB. Gain 15.5 dB max. from balanced/unbalanced input; hum & noise 113 dB below rated output from shorted unity gain input 20-20,000 Hz; IM dist. less than 0.01% at rated output; has separate 18-dB Butterworth high-pass and low-pass filters with adjustable corner frequencies. All aluminum black and clear brushed anodized chassis. 19" standard rack mount x 3 1/2" H x 5 3/4" D ..... \$249.00

dbx

### 117 Dynamic Range Enhancer

A compressor/expander that permits listener to

restore up to 20 dB of the dynamic range missing from records, tapes, or FM broadcasts. As a classical compressor/expander, allows the recordist to make full dynamic range tapes on moderately priced recorders and obtain 20 dB or more improvement (S + N)/N ..... \$159.00

### 150 Series Noise Reduction Systems

Allows recordists to make noise-reduced tapes to studio standards on better-grade audiophile recorders. Fully compatible with company's studio professional models but with single-ended inputs/outputs and RCA-type phono connectors to facilitate connections to audiophile recorders, amplifiers, etc. Provides 30 dB noise reduction with 10 dB more headroom. Extruded aluminum and solid walnut cabinet. 3 1/2" H x 9" W x 10 1/2" D.

**Model 157.** Two-channel simultaneous record and play. .... \$567.00

**Model 152.** Two-channel switchable record or play. .... \$410.00

**Model 154.** Four-channel switchable record or



play (may also be used as two-channel simultaneous record and play). .... \$646.00

## DISCWASHER

### dII Record Cleaning System

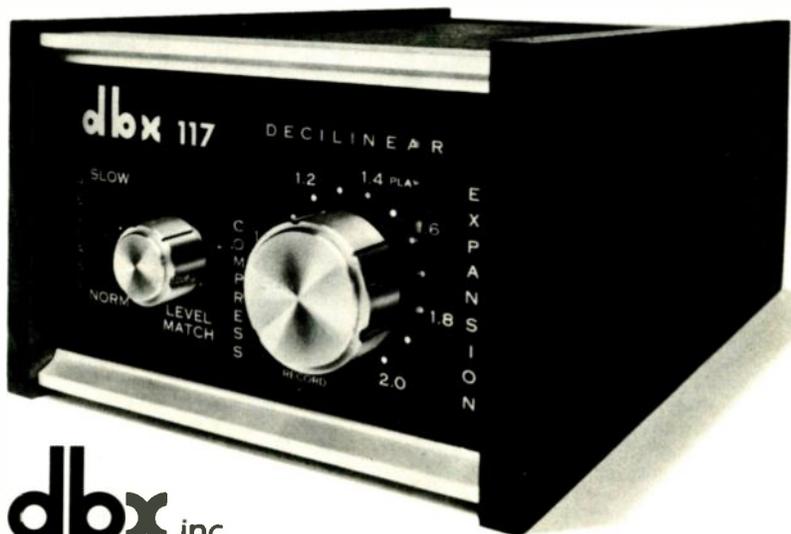
System comprises a two-part kit containing special fluid and soft-pile fiber brush. Removes

**are you missing the surprise in Haydn's Surprise Symphony?**

It was probably intentionally sacrificed by the record or tape manufacturer (for reasons we explain in our literature).

The dbx 117 Dynamic Range Enhancer Noise Reduction Unit restores up to 20 db of the dynamics missing from records, tapes, and FM broadcasts and puts life back into the music. The Model 117 also lets you make professionally noise-free, full dynamic range recordings on even a modestly priced tape recorder.

The stereo dbx 117 is available from better audio dealers at \$159. dbx, Incorporated, 296 Newton Street, Waltham, Massachusetts 02154



**dbx** inc.

CIRCLE NO. 17 ON READER SERVICE CARD

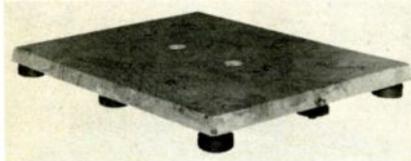
micro-dust, fingerprints, and cigarette smoke. Also eliminates destructive biological growth. Leaves no residue. Complete kit. . . . \$12.95  
Replacement fluid . . . . . \$2.25

#### "discorganizer"

Solid walnut organizer which will house the record-cleaning system and provides space for reserve spindles, stylus guards, cartridges, and other phono accessories . . . . . \$5.95

#### "Turntable Foundation"

Cultured marble base with critically engineered damping feet to reduce bass feedback from



high-quality speakers; has two apertures which puts a marble barrier between preamp cords and power line connections to eliminate 60-Hz hum; reduces skipping from floor vibration. 17" x 22" . . . . . \$40.00

### EDITALL

#### KP-2 Editing Kit

Complete kit includes splicing block, 30 splicing tapes, demagnetized razor blade, and grease pencil for 1/4" audio tape . . . . . \$4.50

#### KS-2 Editing Kit

For 1/4" tape, includes a 4" x 3/4" x 1/4" block, marking pencil, roll of splicing tape, and cutting blade . . . . . \$11.50

#### KS-3 Editing Kit

Same as KS-2 except includes larger block (5 3/8" x 1" x 3/8") . . . . . \$13.50

### FERROGRAPH

#### RTS-2 Recorder Test Set

Will test wow & flutter, frequency response, (S + N)/N ratio, gain, distortion, crosstalk, erasure, input sensitivity, output power, and drift. Input required 35 mV to 5 V. Has output for oscilloscope. 17 3/8" x 10" x 5 3/8" H. . . . . \$1500.00

### FINCO

#### FM-5 Antenna

Ten-element, deluxe gold Corodized antenna. Has twin drive elements and maximum gain over full FM band. . . . . \$44.55

#### FM-3 Antenna

Four-element broadband FM yagi. Features narrow directivity pattern. Aluminum construction, gold Corodized . . . . . \$16.70

#### FM-4G Antenna

Twin-drive FM antenna with impedance-control "T" match stubs. Six elements, wideband (88-108 MHz) yagi. Aluminum construction, gold Corodized . . . . . \$30.45

#### FMT-1 Antenna

All-directional FM antenna kit with two folded dipoles at right angles with quarter-wave phasing stub for 360-degree pickup pattern without rotor. Supplied with 50 ft, 300-ohm twin lead, 5-ft. mast, mounting hardware. Gold Corodized . . . . . \$16.40

#### FM Stereo "S" Antenna

All-directional "S" type design. High gain. Gold

Corodized . . . . . \$4.65

#### 75-Ohm FM Antennas

75-ohm versions of the Models FM-5 and FM-4G. To be used with coax-cable transmission lines in difficult, high-interference areas. Furnished with indoor matching balun transformer to balance 75-ohm coax to 300-ohm input of set.

CX-FM-5 . . . . . \$55.10  
CX-FM-4G . . . . . \$41.05

### HEATH

#### AD-1013 Audio-Scope

Audio oscilloscope capable of monitoring such parameters as channel separation, phasing, relative signal strengths, multi-path reception, and center tuning on all 2- and 4-channel stereo systems. Inputs for left-front, left-back, right-front, right-back, and multi-path, independently switchable or in any combination; front-panel input provided for observing any external source (permitting use as conventional scope); lighted function indicators; built-in 20-20,000 Hz audio oscillator; front-panel controls for selecting frequency of audio oscillator and controlling amplitude of generated signals. 5 1/8" H x 18 1/2" W x 13 1/2" D. Kit, less cabinet . . . . . \$199.95  
ARA-1500-1. Walnut cabinet . . . . . \$24.95

### JERROLD

#### QFM-9 Quadraphonic FM Antenna

Nine-element Paralog FM antenna designed for reception of FM stereo, FM mono, and future quadraphonic broadcasts; features flat bandwidth; 20 dB front-to-back ratio minimizes multipath distortion; square boom construction; 66" W x 101" L; turning radius 62"; 4.5 lbs . . . . . \$21.53

#### C677M Omnidirectional Antenna

Brings in FM stereo and FM mono over full 360 degrees; reception range 35 miles; pre-assembled with elements which swing up and snap into place; can be attached with side-arm mount (included) to existing TV mast; gold permanized finish to prevent corrosion . . . . . \$11.66

#### FM-5 Yagi Antenna

Five-element yagi with 300-ohm output; flat response and high gain across entire FM band . . . . . \$13.34

### JFD

#### FM Stereo Antennas

Log periodic antennas designed specifically for FM/FM stereo; features full-wavelength cap-electronic dipole design; high gain and S/N; extra-high front-to-back ratio; pinpoint directivity (10 to 25 degrees narrower than yagi); low v.s.w.r.; 300-ohm impedance match (convertible to 75 ohms by means of Color Shield-82 coaxial cable and 300 ohm/75 ohm matching transformer); gold alodized aircraft aluminum construction.

**LPL-FM-10.** Ten cell system for far fringe reception. Gain 9.9 dB ±0.6 dB/half wavelength dipole; "E" plane half-power beamwidth 43 degrees; v.s.w.r. median 1.5:1; front-to-back ratio median 26 dB; turning radius 97". 116" long x 112" W . . . . . \$62.16

**LPL-FM8A.** Eight cell system for fringe reception. Gain 8.7 dB; half-power bandwidth 46 degrees; v.s.w.r. median 1.8:1, front-to-back ratio median 20 dB; turning radius 84". 121" long x 112" W . . . . . \$50.40

**LPL-FM6A.** Six cell system for near fringe reception. Gain 8.3 dB; half-power bandwidth 48 degrees; v.s.w.r. median 1.5:1, front-to-back ratio median 18 dB; turning radius 72". 98" long x 112" W . . . . . \$37.30

**LPL-FM4A.** Four cell system for suburban/local reception. Gain 6.5 dB; half-power beamwidth

49 degrees; v.s.w.r. median 1.6:1; front-to-back ratio median 16.6 dB; turning radius 63". 63" long x 112" W . . . . . \$24.85

### JVC

#### SEA-10 Sound Effects Amplifier

Five-zone sound-effects amplifier/equalizer circuit, switchable to 40, 60, 250, 1000, 5000, 10,000 and 15,000 Hz. Permits sound equalization during recording as well as playback. 5 1/4" x 7 1/2" x 10" D. . . . . \$129.95

#### NR-1020 ANRS Noise-Reduction Unit

Automatic noise-reduction unit for use with reel-to-reel, cassette, and cartridge tape decks. Improves (S + N)/N by 5 dB at 1000 Hz and 10 dB at 10,000 Hz. Includes built-in 400-Hz oscillator, two meters, two recording-level and two playback-level controls, reel-to-reel and cassette calibration tapes. 3 5/8" x 13 1/8" x 7 1/2" D . . . . . \$149.95

### LAFAYETTE

#### Bulk Tape Eraser

Tape degausser for erasing 1/4" tapes or smaller and demagnetizing tape, magnetically stripped film, tools, and watches. Hand-held custom-finished plastic case, "on-off" switch, power cord. . . . . \$12.95

#### Tape Head Demagnetizer

Pencil-shaped with one extending probe which allows for reaching all heads in all positions. With "on-off" switch . . . . . \$4.50

#### Telephone Pickup Coil

Designed to feed into the microphone input of tape recorder of any high-gain amplifier. Easily fastened to the telephone by rubber suction-type attachment. Has 4 1/4-ft shielded cable with 1/8" miniature plug . . . . . \$1.39

#### DNR-50 Noise-Reduction Unit

Can be used with any tape deck or self-contained tape recorder having audio inputs and outputs. Increases S/N 10 dB at 10,000 Hz; 5 dB at 1 kHz. Has built-in Dolby reference meter with three-position function switch; separate slide lever record level controls, play/record push-button switch. Response 20-15,000 Hz ±2 dB. Must be used with separate Dolby calibration tape. 9" x 7 3/8" x 3 1/8" . . . . . \$79.95  
Dolby cassette calibration tape . . . . . \$5.79

### LAMB

#### PML422 Mixer

Four-channel input; stereo or mono output with provision for 4-ch output upon interconnection of a second unit; individual faders for each channel; separate high-, medium-, and low-frequency equalization; two-channel & four-channel; pan pots & echo send controls; group faders for each output channel; limiters with adjustable threshold and release; two VU meters monitor output; Cannon XLR input termination; jack sockets at outputs. . . . . \$675.00

### MAGNESONICS

#### Eras-Sure Tape Eraser

Will erase a cassette or 8-track cartridge to -65 dB from 0 reference. Battery operated (four "A" cells). 4" x 3 1/2" x 2 3/4" . . . . . \$17.50

### MURA

#### A-10 Stereo Volume Control

Stereo/mono switch enables headset to be used with radio, TV, electronic organ, or other mono program sources. Features electronic slide controls and 15-ft extension cord. . . . . \$7.50

## NAKAMICHI

### Head Demagnetizer

Slim-line, easy-to-use recorder head demagnetizer, specially designed for the company's Models 1000 and 700 cassette decks... \$15.80

## NUCLEAR

### 3C500 Staticmaster

Soft-hair retractable brush with extra-strength polonium element. Designed to neutralize static and remove dust from records... \$12.95  
Replacement cartridge... \$7.95

## NORTRONICS

### 5600 Quadrasonic Record/Play Heads

Four-track, four-channel, laminated core heads with all-metal hyperbolic face construction. #5601. Special record-only head, low imp., 50 mH, 500  $\mu$ in gap spacer. For use with vacuum-tube or transistor circuits. No-mount type... \$99.00  
#5602. Low imp., 90 mH, 100  $\mu$ in gap spacer. For use with vacuum-tube or transistor circuits. No-mount type... \$99.00  
#5603. Medium imp., 370 mH, 100  $\mu$ in gap spacer. For use with vacuum-tube or transistor circuits. No-mount type... \$99.00

The company has prepared a 31-page "Recorder Care Manual" which is available without charge from local Nortronic distributors.

## PAGEANT

### 8-Track Accessories

PTB-801. Head cleaner with beep tone... \$2.50  
PTA-802. 8-track maintenance kit... \$2.98  
PTA-803. Maintenance cart. & demagnetizer... \$4.50

### Cassette Accessories

PTA-502. Cassette maintenance kit... \$2.98  
PTB-501. Cassette head cleaner... \$2.50  
PTA-503. Maintenance cassette & demagnetizer... \$5.95

## PANASONIC

### RP-966 Outboard Dolby Unit

Has built-in oscillator for proper recording level meter, Dolby level meter for proper Dolby level adjustment, recording level control for matching program source levels to tape deck levels, and Dolby for FM broadcasts in both playback and record... \$69.95

## PICKERING

### PST-1 Stylus Timer

Measures actual stylus wear-time from 0 to 1000 hours in increments of 100 hours. Features mercury coulometer, powered by standard mercury battery, as indicator; easily resettable after 1000 hours. Mounts on turntable under tonearm. 2 $\frac{1}{8}$ " long x 1" W x 1" H. Comes with mercury battery... \$13.95

## PIONEER

### SR-202W Reverberation Amp

Double-scatter system blends direct signals from source with reverb effect. Reverb time 0-2.5 seconds at 1 kHz. HD less than 0.2% at 1 kHz reverb time. Minimum output level 330 mV. Response 20-35,000 Hz  $\pm$ 2 dB (min. reverb time) and 20-50,000 Hz  $\pm$ 10 dB (max. reverb time). (S + N)/N 65 dB at 330 mV output. Universal power supply... \$139.95

1975 EDITION

## SD-1100 Stereo Display

Designed for measurement and scoping of all audio components and stereo characteristics. Will show any waveform and measure voltage level and phase shift. Has built-in audio oscillator 20-20,000 Hz with automatic or manual sweep. Can also be used for 4-channel analysis. With universal power supply... \$599.95

### MA-62 6-Channel Mixing Amp

Has input facilities for up to six mikes; each channel has alternative terminal for line or phono inputs; two channels equipped with pan pots; four with location switches; mike attenuators for each channel; low-cut filters for mike input; portable design; has two stereo output terminals; pointer-index markers for each of the six long-throw faders (plus master volume faders). 15 $\frac{3}{4}$ " W x 5 $\frac{3}{16}$ " H x 10 $\frac{3}{8}$ " D... \$249.95

## ROBINS

### Cassette Storage Album

Library-designed album holds 12 cassettes. Built-in stops prevent tape from unwinding and becoming slack. Walnut wood-grained cover. 10 $\frac{3}{8}$ " x 9 $\frac{3}{8}$ " x 1 $\frac{1}{4}$ ". #TSA-1W... \$4.15

### Cassette Tape Mailers

15 cardboard mailers ready for addressing. Has stops to protect tape from unwinding. #TCB-18... \$1.85

### Cassette Head Demagnetizer

Removes excessive magnetic build-up. Designed to be used every 15-20 hours of player/recorder use. 110 V, 50-60 Hz operation. #TD-10... \$9.95

### Head Cleaner Tape

Non-abrasive tape for cleaning cassette recorder/player heads. Removes accumulated oxide, grime, and foreign particles. #THC-4... \$2.50

### Test/Clean Cassette

Performs three functions to help maintain optimum recorder/player performance: cleans heads, tests for correct head alignment, and tests stereo balance equalization between channels. #THC-6... \$2.95

## RUSSOUND

### TMS-1W Tape Recorder Selector

Allows up to three tape recorders or other signal sources to be interfaced through the tape input/output of a single receiver or amplifier. Record or play any or all, at the same time, in any combination. Use for tape duplicating, editing, mixing, program production. Also interconnects graphic equalizers, Dolby and dbx devices, sound-effects generators, echo chambers, delay lines, and synthesizers. Walnut cabinet... \$32.95  
TMS-1. Same but in utility steel cabinet. \$22.95

## SAE

### Mark XXVII Octave Equalizer

Dual-control active equalizer for altering frequency response, octave-by-octave, of a stereo sound system; has 22 frequency level controls; 22 toroidal bandpass filters; level control range of  $\pm$ 16 or  $\pm$ 8 dB; zero dB center detent position; EQ defeat switch; tape monitor switch; frequency response 20-20,000 Hz  $\pm$ 0.25%, 3 dB down to 600,000 Hz; HD 0.05% at rated output 2.5 V rms (20-20,000 Hz); IM 60 & 7000 Hz 4/1; 60 & 12,000 Hz 4/1; 60 & 2000 Hz 4/1 less than 0.05%; S/N 90 dB; max. output 7 V into high imp.; input imp. 10,000 ohms; equalizer control range 40, 80, 160, 320, 640, 1280, 2500, 10,000, 15,000 & 20,000 Hz. 17" W x 7" D x 8 $\frac{3}{8}$ " H... \$550.00  
Walnut cabinet available optional extra.  
Rack panel (19") version with 600 ohm output impedance available at extra cost.

## SCOTT INSTRUMENT

### 451C Sound-Level Meter

Features "C" weighting for flat response; measures sound levels from 45 dB (below background noise level for most rooms) up to 130 dB; useful for balancing output of stereo or 4-channel systems, setting A-B levels of speakers; reads out directly in dBC; momentary "on" switch conserves battery life; uses 9-V transistor radio-type battery. Meets or exceeds ANSI standards... \$98.00

## SHURE

### SA-1 "Solo-Phone"

Stereo amplifier for headphones. Permits two sets of phones to be used simultaneously. Has balance control, dual input for tape/tuner or phono. Inputs: phono 47,000 ohms equalized for magnetic cartridge, tuner 250,000 ohms. Output 8 ohms, 100 mV. 10 $\frac{1}{4}$ " x 3 $\frac{1}{2}$ " x 3 $\frac{1}{8}$ " D... \$33.33  
Model SA-1F. Same as SA-1 except panel-mounting version... \$39.33

### M68 Microphone Mixer

Five channels. A transistorized portable mixer for p.a. and tape recorders. Has four mike inputs for high- or low-impedance microphones, one high-level auxiliary input for tape, tuner & accessories, individual volume control to balance each of five inputs, and a master volume control to simultaneously control level of all inputs. Has high-impedance mike and auxiliary outputs. 105-130 V, 50/60 Hz... \$93.60

### M67 Microphone Mixer

Four low-impedance balanced mike inputs & one line input. Has built-in tone oscillator for calibration. Response 20-20,000 Hz  $\pm$ 2 dB. Has automatic switchover to battery if power fails. Gain 90 dB max. (150-ohm mike into 600-ohm line). Battery power supply \$25.00 extra. 11 $\frac{3}{8}$ " x 7 $\frac{1}{2}$ " x 2 $\frac{1}{2}$ "... \$181.20

## SIGNAL SCIENCE

### WS-10 Ultrasonic Control

Wireless, remote control for switching TV and audio equipment on or off; receiver plugs into 110-V outlet and controlled equipment plugs into receiver outlet; remote control is a soft rubber bulb which activates receiver. 2 $\frac{1}{2}$ " W x 4 $\frac{1}{4}$ " H x 2" D (plug-in unit); 1 $\frac{1}{2}$ " dia. x 4" long (transmitter)... \$17.95  
WS-20. Same as WS-10 but transmitter is handheld and push-button operated; 1 $\frac{3}{4}$ " W x 4 $\frac{3}{4}$ " L x 2" D... \$19.95

## SONY from SUPERSCOPE

### MX-14 Stereo/Mono Mixer

Active six-channel mixer for mixing down six channels of input into two of output. Operates on 8 "C" cells. Straight-line volume controls for each input. Has reference tabs and two VU meters... \$229.95

### NR-115 Dolby Adapter

Designed to be used with any two- or three-head open reel, cassette, or 8-track cartridge tape recorder. Has line-input facility; built-in 400-Hz oscillator for input/output balancing; record/playback mode switch; illuminated meter with right/left channel switching; two playback semi-fixed controls; and two input level controls... \$119.95

### NR-335 Dual-Process Dolby Adapter

Specifically designed for three-head machines. Permits simultaneous operation in both record and playback modes. Features built-in headphone jack; two mike input jacks; two professional VU meters; a two-position mike attenuator switch; tape/source monitor switch. Has built-in 19-kHz filter switch; two playback vol-

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12 Accessories

ume controls, two record-level controls; built-in 400-Hz oscillator for input/output balancing ..... \$299.95

SOUNDCRAFTSMEN

RP2212 Record/Playback Equalizer

Stereo audio frequency equalizer using four LED's to provide front-panel display for balancing input-to-output signal ratios; plugs into any receiver or preamp with tape monitor inputs and outputs; includes tape monitor inputs and outputs with push-button selection for tape monitor, equalized or unequalized output for speakers/room equalization, or equalized tape recording separate outputs for tape recorder and amplifier hookup; features two separate ten-octave equalization panels with plus or minus 12 dB boost & cut; separate equalized signal zero-gain controls. Walnut vinyl case. .... \$349.50

PE2217 Preamp-Equalizer

Provides continuous visual monitoring of input-to-output balance as well as overload warning using LED's; discrete ten-octave equalizers for each channel; push-button patching for control flexibility with interlocked push-buttons to prevent inadvertent program destruction; has 39 separate front-panel control functions permitting simultaneous tape-dubbing into two recorders with output equalized or unequalized while monitoring either input or output; full-spectrum gain controls for each channel; automatic equalizer-defeat when line or tape equalization is not in use; six a.c. outlets; dual outputs for scope, bi-amp, 4-ch hookup, or other special applications; response 5-100,000 Hz ±0.25 dB; THD & IM 0.01%. Walnut grained cabinet. 7 1/4" x 20" x 11 1/4" ..... \$499.50

SWITCHCRAFT

"Mini-Mix" Mike Mixer

Has two high-impedance inputs each with own level control; single output available with variety of connectors. 2" x 1 3/4" x 1" ... \$10.45

306 Stereo Mike Mixer

Stereo/mono mixer; will handle four sound sources (mikes, electric instruments, etc.); through one amplifier; accepts up to two high-impedance inputs in stereo mode, four high-impedance inputs in mono mode. 2" H x 6 W x 3" D ..... \$29.00

306TR. Same as 306 except has two built-in transistorized amplifiers. .... \$49.00

301. Similar to 306 except mono; mixes four mono sound sources. .... \$27.00

301TR. Same as 301 except has one built-in transistorized amplifier. .... \$39.00

308TR Mixer/Preamp

Individual controls for four inputs; master output gain control; mono/stereo and phono equalization switches on back panel; a.c. powered. .... \$190.00

676 Listening Station

Compact audio junction box that provides four auxiliary outputs for multiple headphone use; has four 2-conductor phone jacks wired in parallel, two side-panel grommets for multiple wiring. .... \$6.00  
The company also carries a comprehensive line of adapters, interconnect cables, and audio accessory kits.

TEAC

AN-180 Outboard Dolby System

Record/playback control center with Dolby

noise-reduction system. Recording section contains microphone & line preamps plus Dolby by recording circuitry. Playback section has playback line preamps & Dolby playback circuitry. Can be used with any good tape deck. Has separate input level controls for mike and line inputs for each stereo channel, two VU meters, internal test-tone oscillator, Dolby level standard tapes, source/tape monitor switch. A multiplex filter prevents recording interference from pilot tone frequencies or unsuppressed multiplex carrier by the FM tuner ... \$329.50

AN-80 Outboard Dolby System

Less elaborate version of AN-180. Input mixing feature omitted and only one Dolby circuit per



channel. Circuit operates for recording, then playback, but not together. Provides 10 dB noise reduction. .... \$169.50

AN-60 Outboard Dolby System

Frequency response 20-15,000 Hz ±2 dB. Increased (S + N)/N 10 dB at 10,000 Hz & 5 dB at 1000 Hz. Input sensitivity 0.1 V. Output to tape deck 0.3 V & line 0.58 V. Has 400-Hz tone oscillator & a reference meter for calibration. Dolby calibration tape for both open reel & cassettes supplied. Overall size 3 3/4" H x 6 3/8" W x 10 3/8" D ..... \$99.50

UHER

Stereo Mix 500 Mixing Console

Will handle up to five sound sources simultaneously in mono mode (five mikes or radio, tuner, record player, tape recorder, mikes) or two stereo sound sources and one mono. Each input has separate all-transistor amplifier channel. Has five studio-type slider controls calibrated for accurate cross-fading; built-in level tone generator. Frequency range 20-20,000 Hz; dynamic range 60 dB; output voltage 2 x 30 mV + 2 x 500 mV. Powered by 9-volt battery ..... \$173.95

WATTS, C. E.

Dust Bug Record Cleaner

An easy-mounting record cleaner which tracks over the grooves. Supplied with anti-static agent ..... \$7.95

Record Care Equipment

PR Disc Preener ..... \$4.95  
PA-MK4 Hi-Fi Parastat ..... \$16.50  
PA-MK11A Manual Parastat ..... \$19.95  
NF Anti-Static Formula Fluid ..... \$3.00  
RWB Record Wash Brush ..... \$5.50  
SC Stylus Cleaner ..... \$2.00

WINEGARD

SC-650 FM Antenna

Has 11 elements for deep-fringe reception; boom length 131 inches; turning radius 76 inches; 75 or 300 ohm output impedance; weather-proof cartridge housing accepts solid-state FM preamp (AC-695B for 75-ohm coax); gold acrylic aluminum finish. .... \$50.25

SC-600 FM Antenna

Has 7 elements; boom length 61 inches; turning radius 44 inches; 75 or 300 ohm output impedance; cartridge housing for AC-695B solid-state FM preamp; gold acrylic aluminum finish. .... \$30.75

# KENWOOD SOUNDS BEST

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2 professional turntables, 2 state-of-the-art  
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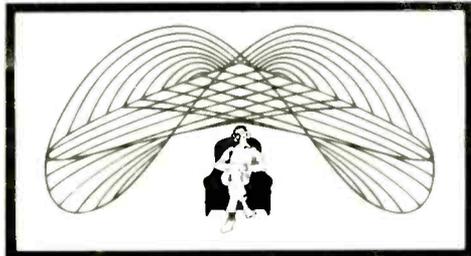
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# KOSS INTRODUCES PHASE 2<sup>T.M.</sup>



## The world's first stereophone with panoramic source controls.<sup>T.M.</sup>

Koss engineers have developed a second phase to stereophone listening. A new concept so exciting and so different from other stereophones, we called it Phase 2<sup>T.M.</sup> You'll hear a Sound of Koss never before achieved. And you'll be able to do things to your favorite recordings that, until now, only a re-



recording engineer could do at the original recording session.

Slip on the new Koss Phase 2 Stereophone and flip the Ambience Expander switch to the N position. As you rotate the Panoramic Source Controls on each ear cup, you'll be drawn closer and closer, like a zoom lens on a camera, to the center of the performing musicians. At the fully advanced position of both controls, you'll feel as though you're

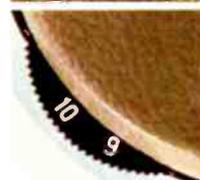
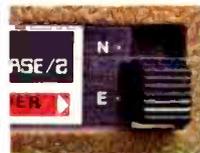
brushing shoulders with the performers. Indeed, the delicate, intimate sounds of breathing, fingers against strings, even brushes trailing over cymbals, become so clearly defined that you'll feel you're actually one of the performers. And by adjusting one control separately from the other, you'll be able to move from one side of the performing group to the other.

Now flip the Ambience Expander switch to the E position. As you advance the Panoramic Source Controls, you'll hear a dramatic expansion of the center channel on your recordings. You'll feel totally surrounded by the performing musicians. And as you rotate one Panoramic Source Control separately from the other, you'll feel yourself move from the piano bench one minute to the middle of the violin section the next.

All in all, Phase 2 will make listening to your favorite recordings a whole new experience. Koss has even added a Comparator

Switch to allow the listener a brief return to regular stereophone listening in the +1 position. Release the switch to the +2 position and you'll automatically return to Phase 2: a breathtaking panorama of musical perspectives that creates an exciting new intimacy and depth in your listening experience.

Ask your Audio Specialist to let you hear the new Koss Phase 2 Stereophones. And write for our free, full-color catalog, c/o Virginia Lamm. You'll find Phase 2 a whole new phase in personal listening.



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# **KOSS**® stereophones

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