

Stereo Review's

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STEREO DIRECTORY & BUYING GUIDE 1978

OVER 2000 MODELS * LATEST PRICES * FULL SPECIFICATIONS
COMPLETE FEATURES * PHOTOS * COMPONENT BUYING GUIDE

PLUS!
AUTO TAPE
EQUIPMENT
SECTION





Why Harman Kardon makes only ultrawideband components in a market full of narrowband components.

You can buy narrowband components, with flat frequency response from 20 to 20,000Hz, from every major high fidelity manufacturer.

Except one.

Harman Kardon makes only ultrawideband components.

Our lowest-priced receiver gives you flat frequency response from 5 to 70,000Hz, while other Harman Kardon components go from 4Hz or below to 100,000Hz and beyond.

Why we do it is simple.

The sound.

In sonic terms, ultrawideband components deliver two important benefits.

Phase linearity and outstanding transient response.

Outstanding transient response is the ability of a component to respond instantly to the onset of a sound.

Narrowband components can't respond quickly enough, softening transients and masking much of the clarity and excitement of the music.



ULTRAWIDEBAND
 ULTRAWIDEBAND
 ULTRAWIDEBAND
 ULTRAWIDEBAND
 ULTRAWIDEBAND

 PIONEER STEREO RECEIVER MODEL SX-750



Harman Kardon's ultrawideband components handle transients with ease. To give you a sound that's open, clear, accurate. Phase linearity describes a component's ability to pass multiple frequencies without changing their time relationships.

Narrowband components tend to exhibit phase shift at low frequencies, which can dull the sound over the entire audible range. Bass may seem louder, but it will be less distinct.

Harman Kardon's ultrawideband components deliver near-perfect phase linearity at low frequencies. So you get a sound that's consistently open—clear on down to the bottom.

The way we check for phase linearity and solid transient response is to take our testing beyond the single-frequency sine wave other manufacturers rely on to the square wave made up

of many frequencies, just like music. In square wave response, Harman Kardon components are unrivalled.

All of which leaves just one very pleasant thing for you to do.

Go to your Harman Kardon dealer. And listen.

Harman Kardon, 55 Ames Court, Plainview, NY 11803.

harman/kardon
 wide,
 open sound

"I was a victim of turntable hype."

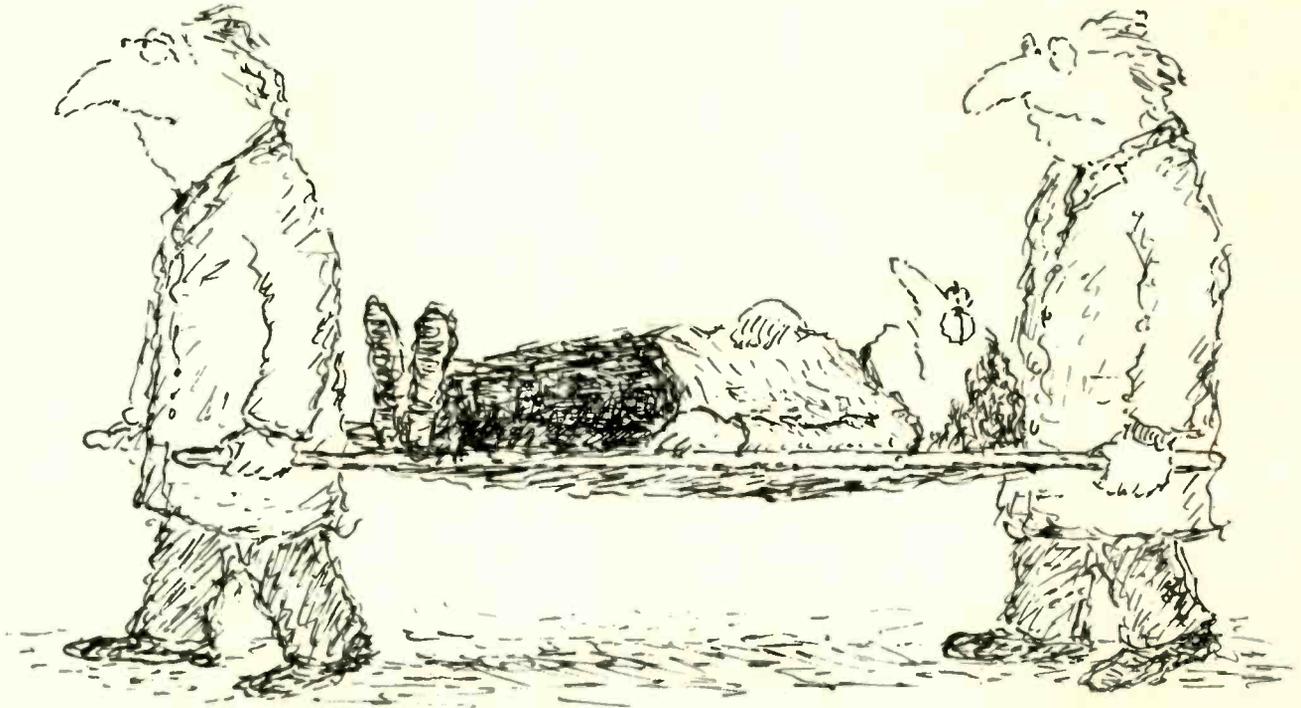
"It was the same old con you've heard before. Only a single play turntable can give you best performance.

And I believed it all until I started shopping for a new turntable.

What I discovered was that B·I·C has re-written all the old rules.

It's built in the USA so you're not paying for import duties, an ocean voyage, or currency fluctuations.

And, it's been engineered with fewer parts which not only saves money, but improves performance.



Korken

Plug a B·I·C into your system and you have a terrific single play unit, a great changer when you want it, and a precision instrument that's a joy to behold.

It was only a matter of time till someone re-wrote the rules, and brought you a first-class turntable from about \$85 to about \$289.

If you're sick of compromising, ask your hi-fi salesman about a B·I·C."

B·I·C[™]



"BEE-EYE-CEE" TURNTABLES SELL FROM ABOUT \$85 TO ABOUT \$289. FOR DETAILS AND SPECS GET OUR "5 TURNTABLES" FOLDER FROM YOUR DEALER OR WRITE US. B·I·C, WESTBURY, LI, NY 11590. ©1977 BRITISH INDUSTRIES CO. A DIVISION OF AVNET INC.

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Stereo Reviews's

STEREO DIRECTORY & BUYING GUIDE 1978

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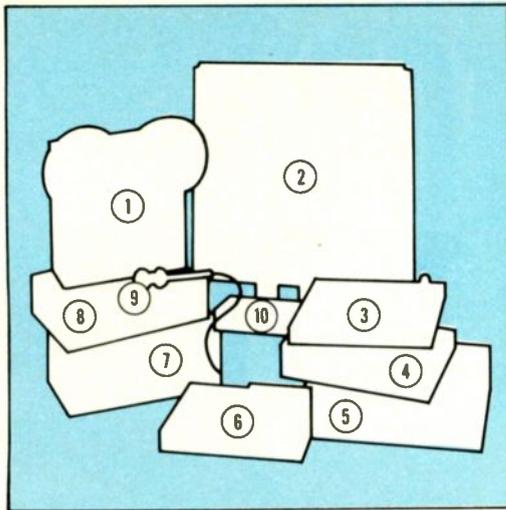
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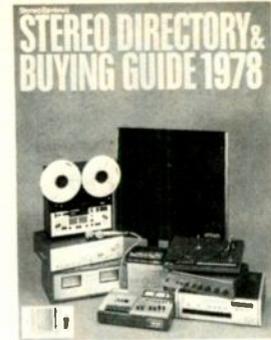
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THE COVER

1. Tandberg 10X Open-Reel Tape Machine
2. Dahlquist ST-10 Speaker
3. ADC Accutrac +6 Turntable
4. Kenwood L07C Control Amplifier
5. Sherwood Micro/CPU 100 Tuner
6. Aiwa AD-1800 Cassette Deck
7. Phase Linear 400 Stereo Power Amplifier
8. Scott R-376 AM/FM Stereo Receiver
9. AKG D-120 Microphones
10. MXR Stereo Graphic Equalizer

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STEREO DIRECTORY & BUYING GUIDE

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You've never heard anything like it. Not from us. Not from anyone. JBL's new L212: a totally new picture of high performance sound, from the people who wrote the book.

You hear the whole sound first. And when you catch your breath you search for words to describe the depth, the detail, the etched precision of the music.

That stunning pair of three-way speakers is sending clean, undistorted sound to every corner of the room. At every frequency. At every level. Loud or soft. High or low. It doesn't matter. The energy is constant.

You're experiencing three-dimensional imaging: Vocal up front. Lead guitar two steps back and one to the left. Drums further back. The piano closer, almost off the right edge of the sound.

Suddenly you're aware of a fullness in the music that you've heard before but never associated with recorded sound.

The bass! You've been hearing all of the bass, all of the fundamental tones you couldn't bring home from the concert. It's not only everything you've heard before. It's everything you haven't. The music is rich with sound at the lowest limit of your hearing.



Then you see the third speaker. The hero of the piece: The Ultrabass.

The Ultrabass is a system in itself—woofer, amplifier, equalizer and enclosure—designed, mated, blended to do one thing perfectly: reproduce sound at the threshold of sub-sonic frequencies.

It brings all the low frequency music within audible range, balancing it perfectly with the rest of the music. Without boominess. Without resonance. It also electronically sums left and right signals below 70 Hz—virtually eliminating turntable rumble and record warp noise. And, because of the non-directional character of the low frequency sound, the Ultrabass can be placed almost anywhere in the room. Without any loss of three-dimensional imaging.

The Ultrabass pays one final dividend: it allows the two three-way speakers to be specialists, too.

They can concentrate on the top 95% of the music. (Listen to the whole system, and you'll hear what that means. Even at a rug-curling, rock concert loudness, you'll get a clarity, a smoothness, an enthusiasm for detail you've never heard before.)

Finally, you look for the monster amplifier that's driving all that sound. There isn't one. The L212 takes one fourth the power you'd need with a conventional low efficiency loudspeaker.

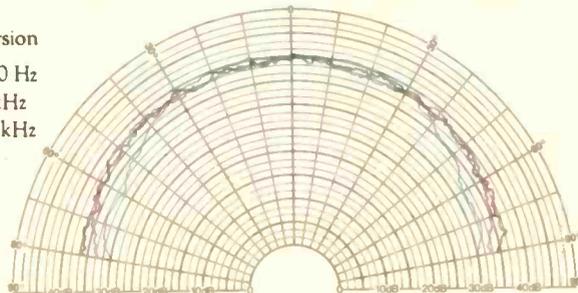
That's the story. What you've been reading about is, essentially, a no-trade-off loudspeaker system. Now we'll tell you the trade-off: The price is \$1740. (The L212 may take a little while becoming a household word.)

In the meantime we have two suggestions:

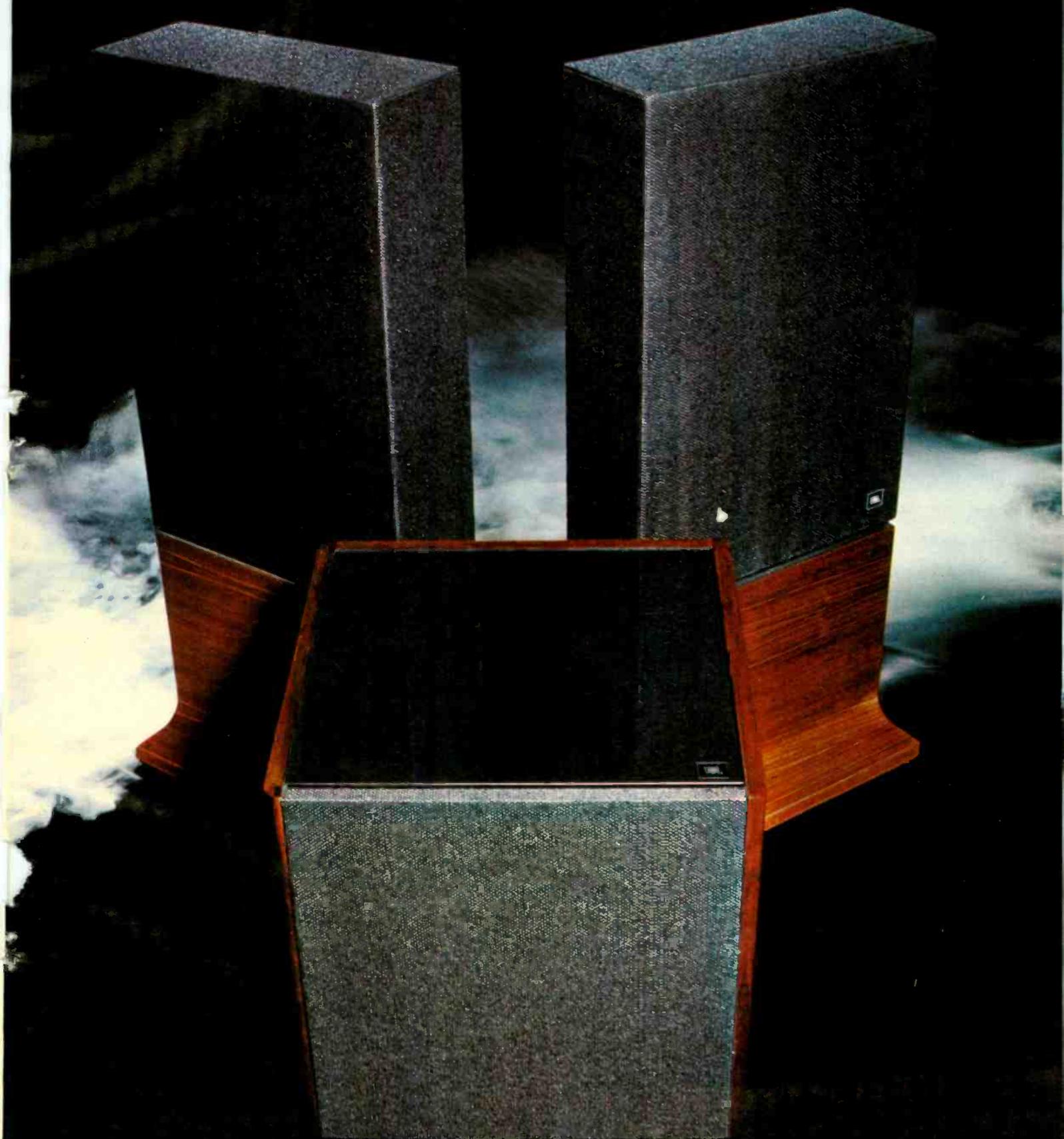
If you'd like a lot more technical information, write us and we'll send you an engineering staff report on the L212. Nothing fancy except the specs.

Or call your JBL dealer and ask him when you can hear the L212. You've never heard anything like it. Not from us. Not from anyone.

Frequency Dispersion
~~~~~ at 400 Hz  
~~~~~ at 2 kHz  
~~~~~ at 10 kHz



JBL CHANGES THE  
PICTURE OF SOUND.



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# The headphones that made believers out of the toughest reviewers in the world!



**Burwen Research**

The English publication *Hi-Fi News & Record Review* and the prestigious German magazine *Stereo* are hardly known for their effusiveness. ("Acceptable" is tantamount to a rave review.) But reviewers in both publications adjudged PMB Stereo Headphones "Best" among those tested (included in the tests were Audio-Technica, Yamaha, Koss, Pioneer, Beyer and practically every other important name in the business). And *Hi-Fi Stereophonie*, perhaps the most important high fidelity journal in Europe, in an

uncharacteristic display of enthusiasm described the PMB 8 and the PMB 6 as "Outstanding." (Burwen Research markets two Orthodynamic Stereo Headphones, the PMB 8 and the PMB 6, and three Dynamic Stereo Headphones, the PMB 4, the PMB 40, and the PMB 20.) The line, styled and developed by Burwen Research, is manufactured in Germany. The combination of talents and techniques on both sides of the Atlantic has produced stereo headphones that are not only very beautiful, but, indeed,

*outstanding* within every important performance parameter. Burwen Research PMB Headphones are now available at a select number of audio dealers. Listen to a pair soon. We think you'll agree that they are worthy of your most critical attention.

For technical information and excerpts of reviews, write to Burwen Research, 30 Cross St., Cambridge, Mass. 02139. In Canada: The Pringle Group, Don Mills, Ontario, Canada.

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- KING RESEARCH**  
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Sturgis, Mich. 49091
- KLARK-TEKNIK, Hammond Industries, Inc.**  
155 Michael Dr., Syosset, N.Y. 11791
- KLEIN & HUMMEL, Gotham Audio Corp.**  
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- KLH RESEARCH AND DEVELOPMENT CORP.**  
30 Cross St., Cambridge, Mass. 02139
- KLIPSCH AND ASSOCIATES, INC.**  
Box 688, Hope, Ark., 71801
- KMAL, Keith Monks Audio Ltd. of the U.S.A.**  
42 Tiffany Place, Brooklyn, N.Y. 11231
- KOSS CORP.**  
4219 N. Port Washington Ave., Milwaukee, Wis. 53212
- KUSTOM ACOUSTICS, Inc.**  
Irving Park Blvd., Chicago, Ill. 60634
- LAFAYETTE RADIO ELECTRONICS CORP.**  
111 Jericho Turnpike, Syosset, N.Y. 11791
- LE-BO PRODUCTS CO., INC.**  
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- LEAK, Rank Hi-Fi U.S.A.**  
22 Bushes La., Elmwood Park, N.J. 07407
- LENCO, Neosonics Corp. of America**  
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- LENTEK, American Audioport, Inc.**  
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- LUX AUDIO OF AMERICA, LTD.**  
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- MAGNEPAN, INC.**  
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- MAGNESONICS SALES**  
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- MARTIN SPEAKER DIV., Eastman Sound Mfg. Co., Inc.**  
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(Continued on page 218)

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You will be struck by a sense of immediacy and presence, spaciousness of sound, and accurate stereo image almost anywhere in the room. Equally startling are the realism and accuracy of the timbre of each instrument, the clarity and dynamic range of the deepest bass

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Spectacular performance and efficiency are the results of proven Bose design concepts and a whole series of technological improvements and innovations that include the unique Acoustic Matrix<sup>™</sup> enclosure, a new ultra-high-efficiency driver, and a completely redesigned electronic active equalizer.

To appreciate the spectacular performance of the Bose 901 Series III, simply ask a Bose dealer to play the 901 III in comparison to any other speaker, regardless of size or price.

For comprehensive literature, including a 16-page color brochure, 20-page owner's manual, and a copy

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to make your  
records  
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One, your records will last longer. Unlike other magnetic cartridges, Empire's moving iron design allows our diamond stylus to float free of its magnets and coils. This imposes much less weight on the record surface and insures longer record life.

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# BUYING TIPS FOR YOUR FIRST STEREO COMPONENT SYSTEM



**A**NYONE planning to buy a home stereo component music system for the first time must resolve two pre-buying questions: (1) What do you need and want? (2) Which models are in the appropriate product class and desirable price range?

An informed and sympathetic audio dealer can be of great help in guiding the buyer to a sensible approach to the foregoing matters, but some advance insights on the buyer's part can improve verbal communications between buyer and dealer. Here are some basic guidelines to assist you:

**Record Players.** There are three basic choices of source material to be heard over a stereo sound system. There are disc recordings. There are magnetic tapes. And there are radio broadcasts. Playing records is the most popular option, although most high-fidelity enthusiasts elect all three, perhaps adding one at a later date. Audio components give one this flexibility.

For playing stereo records you need a turntable, a tone arm and a stereo "pickup" or cartridge. Unless you own a large, old collection of 78-rpm discs and want to play them, you need only consider a two-speed (33 rpm and 45 rpm) turntable.

Your next concern is whether to select an automatic or a manual turntable. The former permits stacking several records and having them play in sequence. The latter requires that you remove a record after a single side has been played and either turn it over or place another record on the platter yourself. You should

be aware that the better automatics can also be used in single-play mode. Moreover, many of today's single-play turntables do offer some degree of automation, such as automatic arm set-down or lift-off at the end of play. The single-play turntables are generally capable of satisfactorily tracking record grooves at a smidgen lighter tracking forces, which means somewhat less record wear over the long run. Also, there is less to eventually break down since there are no mechanical linkages to effect automatic disc changing. And then there is the psychological aspect of showing off a single-play turntable that marks one as truly a hi-fi aficionado. On the other hand, the top automatics can play a great number of discs for those persons who want this facility available to them whenever they wish, as well as playing records singly.

In truth, performance specifications of both types are in the same ball park today, given equivalent price position within each category.

**Phono Cartridges.** The choice of a phono cartridge should be based on the best available model that will work satisfactorily in the record player's tone arm. "Best" in this area can be subjective when considering sound quality alone. Consequently, it is wise to comparatively audition more than one cartridge before making a final choice. Such "A-B" testing can be carried out at a well-equipped hi-fi dealer. To be meaningful, it should involve playing the same record through the reproducing system. Therefore, carry along your own familiar, mint-quality

record(s).

Most "hi-fi" cartridges are moving-magnet types. There are, however, a very few moving-coil types. The latter usually require a step-up transformer external to the amplifier in order to compensate for its extremely low voltage output. Note also that, whereas most moving-magnet types have user-replaceable styli, most moving-coil models must be sent back to the factory for replacement.

Do check manufacturers' literature and the directory listings that appear in this publication to be sure that the tracking force range (given in grams) is within the capabilities of the turntable you wish to buy.

**Tape Machines.** Tape is both a program source to play through a sound system, and a recording medium that enables you to make your own program material. In a sense, one's choice here relates closely to anticipated interest and activity in the tape medium. If you are very serious about making your own tape recordings, especially of live performers and with such options as multi-channel overdubbing, echo effects, mastering for other tape copies, etc., you should think in terms of an open-reel tape deck. If you are planning to make your own recordings with less "professional involvement," but still want genuine hi-fi results, you would do very well with any of today's top-performing cassette or Elcaset models. Such a unit will typically include a built-in noise-reduction system (the most widely used is the Dolby system) and some kind of switching or adjustment to handle "standard"

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**N 4506.** All the features of the N 4504—including optional on/off remote control—plus a built-in preamp. Less than \$650.

**N 4504.**

the speed of a turntable. And then using unsurpassed worldwide technical resources to produce that turntable precisely as it was designed.

Today, that same level of precision is yours to enjoy in a line of turntables, as well as in several other new components which offer innovative features, outstanding performance and reliability for less than you'd expect to pay.

Principal among the tables is the GA 222. To the mini-computer of the GA 312 Electronic, it adds an ultra-low-resonance tonearm and the convenience of fully automatic operation.

All single-play turntables suspend platter and tonearm over a free-floating subchassis to shield the stylus from vibration.

## The decks with logic circuitry.

And it's controlled logically—with time delay relays and solenoid switches—to smooth changes in function (from "rewind" to "fast-forward," for instance) without spilling tape. Quite remarkable, even in expensive professional equipment. Astonishing in the N 4504 at less than \$450.

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**GA 437.** Manual turntable with automatic shutoff. Less than \$120.

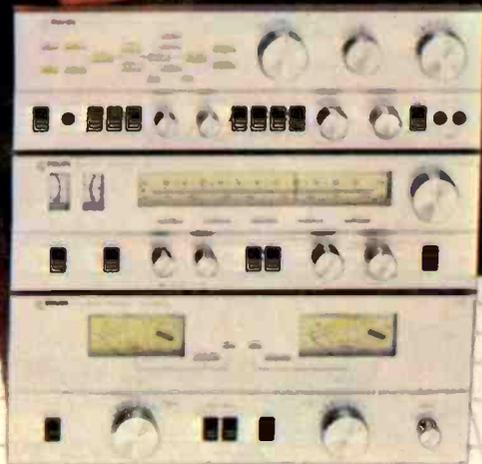
**GA 406.** The automatic turntable that can be used as a changer. Separate tonearm motor. Less than \$200.



**GA 312.** Electronic, even to its switches. Less than \$180.

**GA 222.** The Electronic Turntable turns automatic. Less than \$250.





**AH 572.** Six inputs, four outputs, five tape modes, five listening positions, all for less than \$600.\*

**AH 673.** Phase-locked loop multiplex decoder, dual-gate MOSFETs in FM, full-fidelity AM. Less than \$600.\*

**AH 578.** High-accuracy detent controls and high performance at a not-so-high price: less than \$700

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Finally. A preamp that illuminates function to eliminate confusion. You always see precisely what it's doing (inputs and outputs light up on a flow diagram), and you hear how well, too (less than 0.01% total harmonic distortion).

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### Big sound. Small speaker.

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Philips speakers are priced from less than \$122\* each to over \$1,000.

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(low-noise) tape and "special" (chromium-dioxide or ferrichrome) tapes.

Most cassette recorders are two-head designs, which means that the recording and playback functions are combined into one head. This arrangement is perfectly acceptable, but it means you cannot directly monitor the recording as it is being made. For this you need a separate playback head. A few of the costlier cassette models do include a separate playback head, but most cassette decks use the combined r/p head. The higher-speed open-reel tape machines can produce a wider frequency response with less noise than exhibited by cassette tape machines. Similarly, open-reel types display a greater dynamic range owing to its wider tape tracks. As a consequence, recorded sound quality with certain types of music will be more realistically reproduced by open-reel machines. Cassette machines have closed the performance gap, though, thanks to raw tape manufacturers who created "super" tapes to partially compensate for the comparative deficiencies of cassette machines. Furthermore, noise-reduction systems incorporated into cassette machines have largely eradicated "tape hiss" that is apparent when the NR system is not activated. Too, cassette tapes are easy to handle, while many people cannot (or are unwilling to) manually thread open-reel tapes. One trades off tape-handling simplicity for editing ease, however. But since most people do not edit tape, it is clear why cassette machines are so popular. Elcaset tape machines, which made their debut fairly recently, use wider tape at higher speed than cassette machines, and consequently are capable of matching many open-reel types in performance while providing the handling ease of a cartridge.

Should you plan to buy pre-recorded

tapes, then cassette machines are for you since there are very few open-reel recorded tapes on the market and none for Elcaset at this time. In the event that pre-recorded rock and pop music are your forte, keep in mind that 8-track has a much larger library than cassette. The drawbacks of 8-track machines include absence of a fast forward and rewind facility, very few models that can also record, and more tape storage space required due to its larger size as compared to cassettes. The latter fact is of greater import if you plan to install the same type of tape system you have at home in your automobile.

If you hope to purchase a 4-channel or quadraphonic audio system, note that cassette tape does not offer four separate channels. In contrast, some open-reel and 8-track do.

**Radio Broadcasts.** Most of the broadcasts that interest hi-fi enthusiasts are FM, particularly stereo FM. Its inherently lower susceptibility to noise is one reason (no static during a thunderstorm, for example). The other is superior programming offered by many FM broadcasters, coupled with less strident commercials to jar one's nerves.

You can secure FM broadcast reception by buying an audio amplifier that combines an FM tuner on one chassis, in which case the package is called a "Stereo FM Receiver." If the receiver also includes AM broadcast receiving provisions, as is the usual case, then it's a stereo FM/AM receiver. You can also buy a separate tuner, either stereo FM or stereo FM/AM. Naturally, you must add audio amplifiers in this case.

Determining which path to follow—all-in-one receiver or separate tuner and amplifier—depends largely on whether you wish to have a more compact system

or the flexibility of changing one part of your system at a later date.

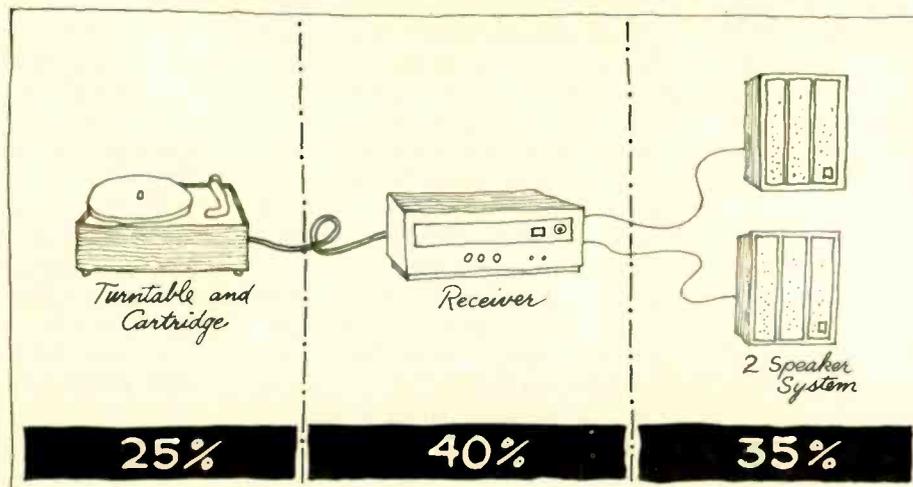
There are a host of specifications to consider for FM tuners. All are highly sensitive, so this specification is not as important as it once was. Pay special attention to "capture ratio," however, if you're located between two large cities or if you're in an urban area where large structures cause signal reflections that could mar reception. This would concern the tuner's ability to distinguish between the direct signal and the weaker reflection signal of the same broadcast frequency. It's measured in decibels (dB), and the lower figure the better (2 dB is better than 3 dB, for example).

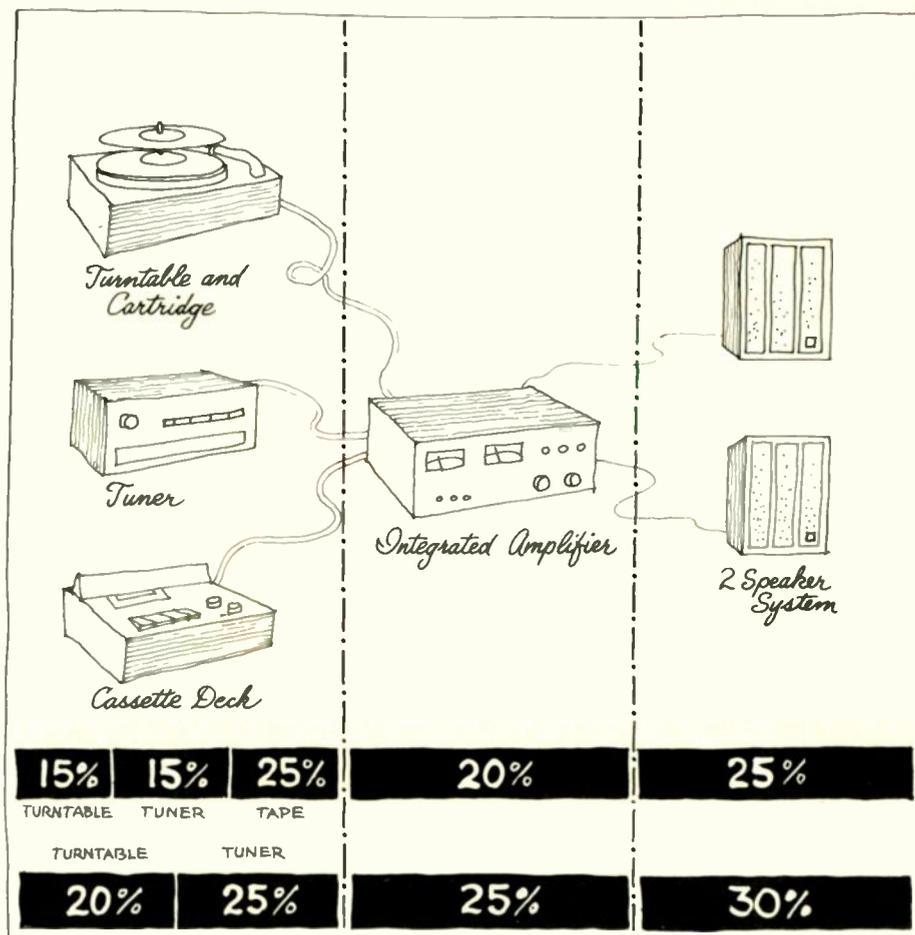
Control features are very appealing, but costly. For instance, a digital readout of frequency does not necessarily better a tuner's performance unless it is combined with a phase-locked-loop circuit. With the latter, tuning accuracy can be tighter. Among other attractive features are signal-strength and multi-path meters, and even with built-in oscilloscopes.

To obtain full reception performance value from an FM tuner or receiver, you should use an outside FM antenna. (A TV antenna is not suitable and may even degrade FM performance as compared to the usual FM unit's build-in antenna.)

**Amplifiers.** The various program sources (disc, tape, broadcast) all feed into an amplifier which controls and strengthens the signal to the level required for energizing the speakers over which they are heard. The process of amplification for this purpose actually consists of two general actions—voltage preamplification and power amplification—from which are derived the terms "preamplifier" and "power amplifier." These two functions may be obtained by

Apportioning dollars to a stereo receiver/turntable/speaker system.





Apportioning dollars to a component system including tuner and cassette deck.

separate components or by one component known as an "integrated amplifier" (preamp and power amp are combined on one chassis). The former approach is the most elaborate, the most flexible in terms of system expansion for future additions of various possible ancillary devices, and is also usually associated with systems in which extremely high power needs are anticipated. It also is the most demanding in terms of installation space, and it is usually the costliest route to take. Only less so (on all counts) is the integrated amplifier, and less so again is the receiver approach. To some extent, the flexibility of the separate preamp and power amp setup is realized by the so-called "circuit interrupt" option found on some integrated amplifiers and a few receivers. Also known as the "preamp out/power amp in" feature, it permits adding ancillary devices to the signal path of an integrated unit as if it were two separate units.

Such additional devices—decoders, noise-reducers, signal processors or various types—also can be added into the tape-monitor circuit typically found in today's receivers and amplifiers. Most often (but not always) the separate components provide more operating flexibility for this purpose, as well as other

features. If your tape deck has a separate playback head, the monitor feature also lets you check the quality of the recording while it is being made, and compare it instantly with the original source material.

Generally speaking, one's choice of an amplifier (whether as separate preamp and power amp, an integrated amp, or as part of a receiver) is based on its operating controls and features, and on its power output capability. The former consideration, which already has been touched on, involves certain items commonly found on most hi-fi units (e.g., separate bass and treble controls, headphone output jack, filters for high and/or low frequency noises, etc.) and some items unique to specific models—such as the facility for direct dubbing from one tape deck to another, or the more elaborate tone-control setups that go beyond the traditional two knobs for treble and bass. Such features should be considered in terms of their potential usefulness to the individual buyer. For some system owners they may have enormous importance; for others, no value. They do add to the cost of a product.

As for amplifier output power, the subject is far too complex to treat here except in the barest-outline form. At one

time, a power output of 10 watts was considered ample for home hi-fi use. Today you can buy units that boast up to twenty or more times that much power per channel. That does not mean, however, that such amplifiers will sound twenty times louder or "stronger." The relationship of amplifier power (in watts) to perceived loudness of sound (in decibels) is a tricky one. For practical purposes it can be summarized as follows: With a given loudspeaker in a given room, doubling the amplifier power will result in an increase in perceived sound of about 3 dB/SPL (decibels of sound-pressure level). An increase of 3 dB will make you aware that the sound is somewhat louder; a decrease of 3 dB, that it is somewhat softer. Thus, a 100-watt amplifier does not sound twice as loud as a 50-watt amplifier if both are driving the same speaker in the same room. The 100-watt unit simply has 3 dB more of signal "headroom" to accommodate musical crescendos, or to handle sudden peak-level signals cleanly. The fact is, to produce a sound level that is perceived as "twice as loud" as a previous sound level, an amplifier must produce ten times its previous power output, which would raise the dB/SPL level by 10. Thus, it would

take a 500-watt amplifier to sound "twice as loud" as a 50-watt amplifier, all other things being the same.

The amount of amplifier power to buy should be no less than is recommended to adequately drive the speakers of your choice, but no more than is recommended as the safe upper limit to feed into them. Because speakers vary in their internal construction, and because rooms vary in their acoustical properties, it is impossible to generalize about the power figures required for specific installations. For instance, a speaker that is of relatively low efficiency will require more amplifier power to produce a given sound level than would a speaker of high efficiency.

There are indeed a variety of other factors that require that you increase power requirements. These include very large listening rooms, major openings to the room (such as archways), heavy drapes, carpeting, acoustical ceiling tiles, large cushioned furniture, and so on. You should also determine if you plan to confine your sound to the main listening room or plan to add extension speakers for listening in other rooms or outdoors simultaneously. If so, you would logically require more amplifier power than would otherwise be needed.

Keep in mind, too, that the type of music you listen to and the volume you prefer to have plays an important part in choosing the amount of power you need. It's the crescendoes and sharp musical peaks that are most demanding. Also consider, previous advice aside, that you might wish to change speaker systems at a later date for possibly very inefficient ones that would need more power to drive them adequately. In this instance, you might choose higher power than you really need at the present.

**Speaker Systems.** As for the choice of speakers, this too, is a very complex subject. The best general advice is probably to trust your own ears rather than be swayed by someone else's personal preference. It also is easy to become overly involved in speaker design theory, whereby you may become convinced that a particular model sounds "good" because it is "supposed to." From the standpoint of the average buyer setting up a music system at home, the important consideration is *how* a speaker sounds rather than why it is supposed to sound a certain way.

You will certainly bump into speaker-design phrases such as "air suspension" (stronger bass from a smaller enclosure than would otherwise be required,

though it results in the need for more power to drive the system); "bass reflex" (a tuned port type of structure that uses the bass speaker's or "woofer's" rear-of-cone sound waves to come out the front in phase to reinforce the bass sound), and so on. You will also probably hear about direct radiating and reflecting speaker systems. The latter are claimed to make a speaker system's sound output less dependent upon placement in a room, etc. Then there are two-way speaker systems (a large "woofer" and a small "tweeter"), three-way systems (separate "woofer," "tweeter" and mid-range speakers, each of which carries a certain portion of the frequency spectrum), etc. But, again, the most important consideration is your own hearing preferences.

Do check the impedance of the system. It will most often be 8 ohms. There are some 4-ohm types, too. Should you plan to install remote speakers, however, avoid this type because operating 4-ohm main speakers and remote speakers (even if 8-ohm types) together can damage your amplifier.

When auditioning speaker systems in a dealer's showroom, be sure that sound output levels of each set of speaker systems are the same. Otherwise, you will tend to believe that the louder-sounding ones are better. Be sure, too, to check out how well the speaker disperses its high-frequency output since the higher frequencies produce a narrower beam of sound. You can do this by walking across the speaker system's sound field while in the normal listening area, to see if you hear a change in high-frequency output. It might be easier to check this out by listening to the hiss from an FM receiver tuned in between stations.

Where possible, try to secure the cooperation of your audio dealer in allowing you to audition the speaker systems right in your home. They will sound different, you know, since sound waves are influenced by their surroundings. Many dealers will allow customers to do this, with the understanding that they will definitely make a purchase from the store, even if the auditioned set is soon returned in exchange for another system.

**Narrowing the Choices.** It is possible to narrow the choices among audio components to a few models, from among which you make your final selection. You can start with any component and build around it, but the best way is probably to start with speakers and "work back." If you have had some exposure to hi-fi sound (at the home of a

friend, at an audio show, or at a dealer) you probably have formed an idea of what kind and price range of speakers you are interested in. If you have had no such exposure, you should try to get some. The best place to do so probably is at an audio dealer who has a satisfactory listening-room setup with several speakers on hand and the facility for rapidly switching between them for instant comparisons (A-B testing).

After some time in this environment, you very likely will have settled on a modest number of different speaker systems that appeal to you. Even if you have not narrowed your options to a specific model, it will be possible at this stage of the game to plan—if only on paper—much of the rest of the sound system, based mainly on the power requirements of the speakers under consideration since this factor will logically lead you to specific models of amplifiers or receivers.

From here you can continue to work back in terms of needed and/or anticipated controls and features, and finally the program sources to be fed through the system. Certain lines of approach will begin to become obvious. For instance, if you select high-efficiency speakers (because you favor their sound) you will need a relatively lower-powered amplifier than if you had chosen low-efficiency speakers. If you then decided that you were primarily interested in playing records and listening to broadcasts, you would logically look to a medium-powered receiver. Within this context, if you were planning to go seriously into tape recording you would look for a receiver with the most convenient tape-dubbing options, or you might get a separate amplifier (or separate preamp and power amp) with either a separate tuner for broadcast reception now, or at a later date—depending on your available budget.

If you were installing a sound system in a large room, using low-efficiency speakers, you would naturally become interested in higher amplifier power. Again, depending on your inclinations and plans, you could get that power from either a top-of-the-line receiver, from a separate power amp and preamp combination, or from an integrated amplifier. As a rule, the buyer seeking the highest available power and the greatest system versatility will turn to the separate power amp and preamp. Again, such a buyer who also wants FM (and/or AM) will get it from a separate tuner, purchased at the outset or at a later date, depending on available budget.

In any event, once you have reached

this stage of system planning, you will find that the product categories of available models from which to make the final choices have narrowed down considerably vis-a-vis the original abundance of components that presented themselves before you reached this stage.

We mentioned budgeting in terms of overall system cost. Are there any guidelines for apportioning amounts within that overall cost for specific classes of components? At one time a general rule of thumb here was to figure about one-third of the total budget to be allotted to each of the three main building-blocks of a sound system: record player (including tone arm and pickup); amplifier; speaker system. But note carefully that this system was a mono setup, not stereo, and that it lacked tape recording/playback and broadcast reception. With stereo, and with the inclusion of FM and AM, tape, and with the variations within those options, it is obvious that the old simple "one-third each" rule cannot apply. What *might* apply today would be several budget-proportions,

depending on the kind of system chosen. For instance, a stereo system built around a receiver, two speaker systems, and record player might be cost-apportioned thus: 40 to 50% of the total for a receiver; 35% to 40% for the speakers, and the remaining percentage for the record player and phono cartridge.

If the system is to include a cassette tape recorder, then obviously the proportions for each major product group must be revised to make room for it—perhaps the ratio then would come to something like 35% for the receiver; 25% for the cassette unit; 15% for the record player; 25% for the speakers. Remember, these percentages do not relate to the actual amounts spent but rather to the likely proportions spent for each product category within the overall system cost, whatever it is. To take one possible example: Say your system budget is around \$1300. Of this amount, figure on spending about \$450 for the receiver, about \$350 for the cassette deck, about \$200 for a turntable and cartridge, and about \$300 for a pair of

speaker systems. If you want to hold off for a while on the cassette recorder, you can of course assemble such a system less the \$350, but chances are the price of the cassette machine—like everything else these days—will have risen at some time in the future.

**Installation Hints.** From the standpoint of interconnecting the various components that make up a stereo system, there is little mystery even for the first-time system owner. Today's hi-fi components are standardized in terms of interconnections, and the owner's instruction manuals are generally thorough and clearly presented. These instructions, for each item in the system, should be read completely. Anything not clear should be referred for explanation to the dealer. If all still seems hopeless, the dealer can make the interconnections for you, but expect to pay a nominal additional fee for this service unless you have made some arrangement with him beforehand when buying the system.

Probably the largest single installation

TABLE I. TYPICAL SPECIFICATIONS OF SOME COMPONENTS

|                                                                                                                                                                                                                                                                                                     | LOW PRICE                                                                                                                            | MEDIUM PRICE                                                                                                                        | HIGH PRICE                                                                                                                          |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|
| <b>TUNER (OR TUNER SECTION OF RECEIVER)</b><br>IHF Sensitivity $\mu$ V (dBf) (mono)<br>50 dB quieting sensitivity $\mu$ V (dBf), mono/stereo<br>S/N (dB); mono; stereo<br>Selectivity (dB)<br>Capture Ratio (dB)<br>THD (%) (1 kHz, mono/stereo)<br>Stereo Separation (dB, 1 kHz)<br>AM Suppression | 3.0 (14.7)<br>or lower<br><br>10(25.2)/50(39.1)<br>60/50<br>50 or more<br>3.0 or less<br>1.0/1.5 or less<br>30 or more<br>40 or more | 2.0 (11.2)<br>or lower<br><br>5(11.2)/40(37.2)<br>68/60<br>60 or more<br>2.0 or less<br>0.5/0.8 or less<br>35 or more<br>50 or more | 1.8 (10.3)<br>or lower<br><br>3(14.7)/30(34.7)<br>70/65<br>80 or more<br>1.3 or less<br>0.2/0.3 or less<br>40 or more<br>60 or more |
| <b>AMPLIFIER (OR RECEIVER AMP SECTION)</b><br>Power Out/Channel (Continuous watts)<br>Rated THD (at full output) (%)<br>Rated IM Distortion (%)<br>Damping factor<br>Phono Hum (dB below 10 mV input)<br>Aux Hum (below rated output)                                                               | 10-30<br>1.0 or less<br>1.0 or less<br>10 or more<br>60 or more<br>70 or more                                                        | 30-100<br>0.5 or less<br>0.5 or less<br>30 or more<br>65 or more<br>75 or more                                                      | over 100<br>0.2 or less<br>0.2 or less<br>50 or more<br>70 or more<br>80 or more                                                    |
| <b>TURNTABLE SYSTEMS</b><br>Wow and Flutter (% Wrms)<br>Rumble (dB, per DIN B)                                                                                                                                                                                                                      | 0.15 or less<br>55 or more                                                                                                           | 0.10 or less<br>60 or more                                                                                                          | 0.05 or less<br>70 or more                                                                                                          |
| <b>CASSETTE DECKS</b><br>Frequency Response (Hz $\pm$ 3dB)<br>Wow and Flutter (% Wrms)<br>S/N (dB, less Dolby)                                                                                                                                                                                      | 50-12,000<br>0.2 or less<br>45 or more                                                                                               | 30-15,000<br>0.12 or less<br>48 or more                                                                                             | 20-18,000<br>0.1 or less<br>50 or more                                                                                              |
| <b>OPEN-REEL DECKS</b><br>Highest Speed (ips)<br>Freq. Response at highest speed (Hz $\pm$ 3 dB)<br>S/N<br>Wow and Flutter                                                                                                                                                                          | 7½<br><br>40-15,000<br>50 or more<br>0.15 or less                                                                                    | 7½<br><br>30-20,000<br>55 or more<br>0.1 or less                                                                                    | 15<br><br>20-21,000<br>60 or more<br>0.07 or less                                                                                   |

problem has to do with placing the speaker systems. Ideally, they should be located in a room so as to provide good stereo coverage for the main listening area. For most speaker systems this idea translates to separating the speakers from each other by a distance that is about equal to the distance from the listening area to an imaginary line between the two speakers.

But like most "rules" in audio system planning, this one too has many modifications and exceptions that could apply in any individual setup. For one, the "main listening area" of any room can be conceived of as relatively large or restricted, depending on your choice of seating. For another, speaker dispersion characteristics differ as per specific designs. As a result, the locations for speakers of one type in a room will not always prove as satisfactory for speakers of another type. The owner's manual can be of help here, but you should be prepared for some experimenting with different locations.

Another factor that is relevant here is the enhanced bass response that results as speakers are placed closer to large reflecting surfaces—floor, wall, or ceiling. Yet another consideration is the desirability of both speakers (of a stereo pair) radiating their sonic outputs into similar acoustic environments. And yet another point to keep in mind is that the speakers should be kept reasonably remote from the turntable to avoid the problem of acoustic feedback.

In most rooms, it is patently impossible to meet all these requirements completely. But juggling these requirements judiciously ("trading off" among them), it is possible to achieve a perfectly acceptable installation in most normal rooms.

Once the speakers have been placed it may be possible to "trim" the acoustic output of either or both by means of controls on the speaker or by tone-controls on the amplifier or receiver, or—in really difficult situations—by the use of a separate graphic equalizer, an accessory device that adjusts for response problems in specific frequency bands over the audio spectrum.

Placement of all other components can be largely a matter of personal preference while observing some common-sense ground-rules. For example, a turntable should be level, and it should be shock-mounted. Often the mounting base will have provision for both these requirements, although special isolation mounts may be purchased separately as accessories.

Audio components such as tuners and amps look nice completely enclosed in cabinet fronts, but make sure—if you install your system this way—that the components have some "breathing space" behind the wooden facade. Solid-state electronic units do not need as much ventilation as did tube-type units, but they still need some, and they should not (especially the higher-powered models) be too tightly confined in closed-up spaces. If you install your components on an open shelf, leave some space on either side; do not use a receiver as a bookend.

In arranging or "dressing" the many wires and cables that trail behind components, try to keep the power cords as far away as possible from the cables carrying the audio signals. This is especially important for the cables from a turntable. When power cords and signal cables run parallel to each other the danger of hum pickup is greatest; when they cross at right angles, that danger is minimized. Any number of simple household items can be used for keeping wires and cables dressed properly, and arranged neatly—including pipe-cleaners or plastic-bag ties wound around them, and small screw-in hooks over which they can be draped.

Use properly thick wire to connect the speakers to the amp or receiver. "Properly thick" means a low enough gauge number for the distance involved. For runs below 40 feet, no. 18 gauge (common lamp cord) will do. For longer runs no. 16 gauge (slightly thicker) is recommended, and for really long runs (say, over 75 feet), you might go to no. 14 gauge. Note too that you can lengthen a speaker-connecting wire by adding (i.e., securely splicing and soldering) a short length of a thinner wire. But in no case should you use, to connect speakers, the twin-lead "ribbon" commonly employed for antenna hookups. The temptation to use this type of wire for speaker hookups is based on its ability to lie flat and thus go under carpeting very nicely. However it is not thick enough to provide maximum signal transfer from amplifier to speaker.

Armed with the foregoing information, you should now be in a good position to examine the models listed in the accompanying Directory, referring to the glossary of technical terms that precedes it. When you narrow down the number of models in each category to a reasonable group, perhaps adding stereo headphones and other components, visit your local audio dealer and discuss your plans with him. □

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List Price \$119.00

## The Micro-Acoustics 2002-e Cartridge.\*

No matter how much you hear about tracking ability, it can't tell you everything about cartridge performance. Because tracking ability only tells how well a stylus stays in the groove on loud passages, at low pressures. Transient ability is just as important. Without it, no cartridge can reproduce music with really lifelike clarity—because music is mostly transients.

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Designed by the world's leading manufacturer of record-mastering styli, with direct-coupled electrets and low-mass beryllium stylus bar that offer the most transparent sound your critical ears have ever heard. Tracking at only one gram.

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# You can't beat The System. You can only change it.

The System, from Mitsubishi.

The only one-name, one-look, high-performance system with speakers as good as the amplifier. An amplifier as good as the pre-amp. A pre-amp as good as the turntable. A turntable as good as the tuner. A tuner as good as the speakers.

And no weak links.

So, no matter how much you care to spend on alternatives, you simply cannot improve The System. You can only make it different.

Consider the loudspeakers, for example. You could substitute other legendary names in the speaker business. But none are so legendary as Mitsubishi, whose speakers are noted for superb design, meticulous construction and testing, and absolutely faultless response.

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So, what all other names do for music, the one Mitsubishi name does for music. Without the time and trouble of collecting 7 different components from 7 different manufacturers with 7 different warranties to confuse you.

And since The System comes from one company, with one design philosophy and one standard of quality—it has to look better than any diverse assembly of components. (One Mitsubishi equipment rack is worth a thousand words.)

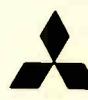
Still, The System isn't inflexible. You can tailor one to your needs, and your available funds. At prices ranging from about \$1,600 to about \$3,000.

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All-Mitsubishi.

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# HOW AUDIO ADD-ON EQUIPMENT ENHANCES SOUND QUALITY

ONCE you own the basic components of a high-fidelity system and learn to live with and enjoy them, you have an opportunity to actually improve that system's sonic excellence by adding accessory equipment. There is a vast array of equipment from which to choose. This discussion will deal with electronic add-ons or signal-processing devices.

## GRAPHIC EQUALIZERS

An add-on electronic product that has been gaining in popularity is the "graphic equalizer." Think of it as

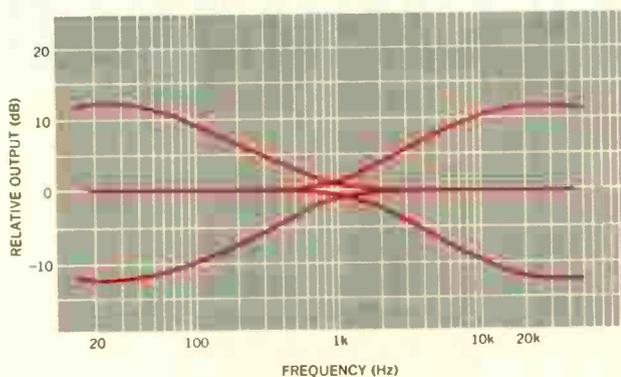


Fig. 1. Range of typical bass and treble tone controls.

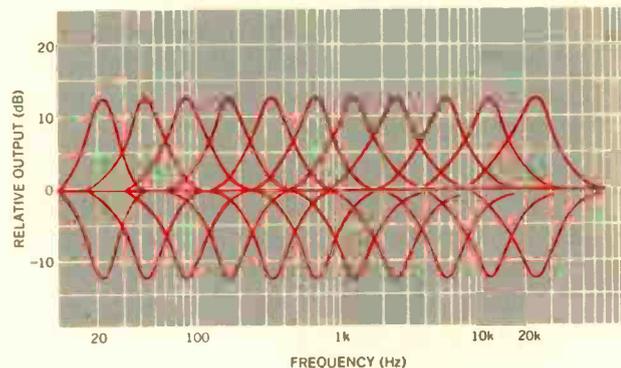


Fig. 2. Each equalizer control boosts or cuts part of the audio spectrum.

an extremely flexible tone control system which can compensate for incorrect overall frequency response of your entire system—including the acoustic deficiencies of your own listening room. While ordinary bass and treble tone controls can adjust a wide swath of frequencies, as illustrated in the graphs of Fig. 1, such overall control is *not* what is usually needed when you are trying to add a bit of deep-bass that

your loudspeaker system just cannot deliver uniformly, or an extra bit of top-treble sizzle to compensate for overly absorptive room furnishings, and the like.

By providing several individual controls, each of which boosts or attenuates only a small segment of the entire audio spectrum, equalizers give you a greater degree of control. Even a five-control (per channel) equalizer can do wonders in balancing the response of your total system, but equalizers are available with as many as twenty or more controls if you want to fine-tune your entire system that well. Perhaps the most popular form of equalizer is a type containing ten or twelve separate slider-controls, each of which boosts or attenuates approximately one octave of tones. (An octave represents a doubling of frequency, e.g., from 100 Hz to 200 Hz or from 4000 Hz to 8000 Hz. There are approximately ten octaves in the audible spectrum from 20 Hz to 20,000 Hz.)

Figure 2 illustrates the range of control possible with each of the ten sliders on a ten-band graphic equalizer. Obviously, with this degree of control it becomes possible to introduce very precise overall response curves. An example of how a response curve can be modified to truly compensate for lack of flat response in your system, whatever its cause, is shown in Fig. 3. Serious users of these devices will take great pains to "equalize" their entire systems using special

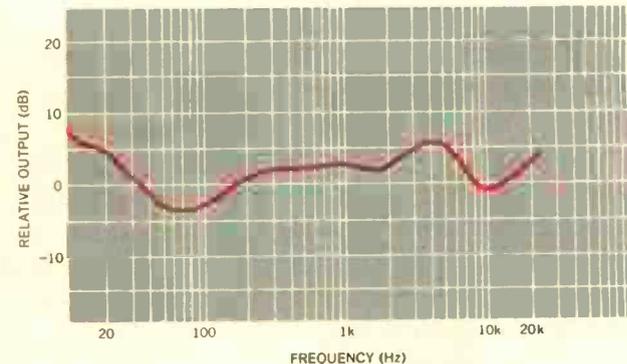


Fig. 3. Only an equalizer, not tone controls, could achieve this curve.

test records often supplied with the equalizer, and perhaps sound level meters or other test equipment. But even if you don't own or have access to such sophisticated tuning equipment, your ears and your own personal listening tastes will enable you to use an equalizer to good advantage, no matter what other components you now own. Equalizers are easily introduced into any component system via the familiar

# MOST COMPANIES VIEW PERFECTION AS A DISTANT GOAL. WE BELIEVE IT'S THE BEST PLACE TO START.

At Setton, for years we've been obsessed with perfection in the reproduction of sound. We're our own toughest critic because we never stop thinking, or re-thinking a problem through. Our line of highest fidelity equipment was developed by a demanding team of men with different, yet complementary disciplines. The result is a degree of perfection worthy of consideration by even the most discerning audiophile.

## Perfection is the child of time.

When units arrive from overseas, a grueling, eight-hour heat test reveals any element that might fail under more normal use. Then, in an arduous quality control check of well over an hour, we test power and adjust distortion levels using equipment you'll find only in the most exacting electronic laboratories. We spend time on every piece of electronic equipment so we can provide a full, five-year guarantee for both parts and labor.

## We deliver more than we promise.

Figures help tell how equipment will sound. (For example, our RS660 Receiver provides 120 watts per channel with only 0.035 IMD and THD.) But with Setton, you get a listing of the exact specs for each piece of equipment, which are always better than what we promise in our literature. And more important, we start with perfect sound in mind. By balancing IMD and THD we attain an airy, transparent sound, almost as if the electronics were not even there, for everything from the softest sonata to the hardest rock.

## Ideas that make us ideal.

The Setton RCS-X 1000 Control Center is a tuner/preamp that also provides remote control

of all basic functions. You can select sources, change speakers and record and transfer on tape. It's beautifully designed on the outside, while a glimpse inside reveals an elegant solution in sophisticated circuitry, with IC's neatly packaged into a startlingly small space. Illuminated digital displays show input selection, FM frequency and  $\pm$ dB readings for each of the four tone

controls. FM sound is at its best because LED's

tell you instantly when you're center tuned.

AFC is cancelled when you touch the

tuning control so you can find weak

stations, but it returns in seconds

for drift-free reception. LED's act

as instantaneous VU meters so

you can see clipping as it occurs.

All our electronic gear, including

the RCS-X 1000, has a security

panel that protects against over-

heating, distortion and speaker

overload.

Our TS-11 Automatic Front

Loading Turntable takes a new turn

in design. The dustcover slides back,

instead of lifting up, so you gain space

and lose vibration. And vertical controls

cut vibration still more. Taping from a

TS-11 assures a clean transfer of sound.

## Special equipment for the special few.

Perhaps no company will ever achieve perfection, but by taking it as our starting point, we know we'll

never be far away. As you might gather, Setton equipment is not inexpensive. But for its price, it offers un-

common value. We believe there is a relatively small

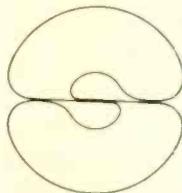
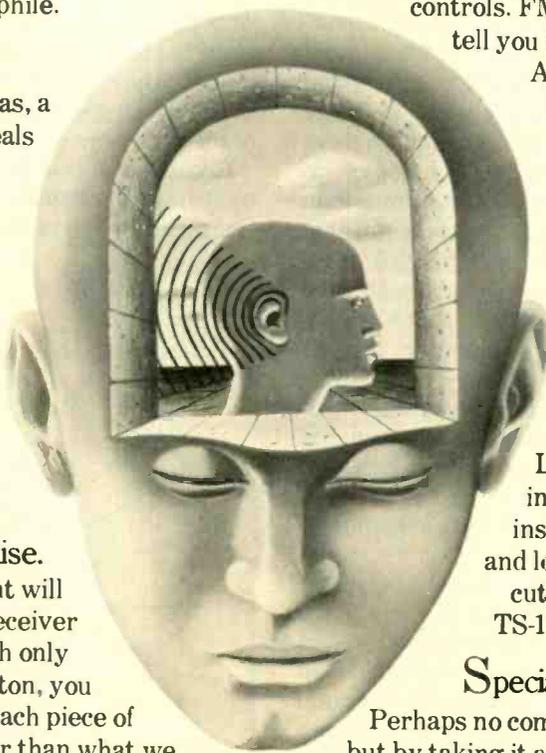
number of customers able to fully appreciate this

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# SETTON

Perfection. The best place to start.

CIRCLE NO. 86 ON READER SERVICE CARD

"tape recorder output" jacks and "tape monitor" or "tape play" input jacks on your amplifier or receiver.

## NOISE REDUCTION ADD-ONS

Dolby noise-reduction systems (and similar encode-decode systems) are effective in reducing noise generated during the recording or broadcast process, such as "hiss." However, they can do nothing to reduce noise that already exists as part of your program source, which includes records that have a high degree of surface noise because of wear, or tapes that were recorded without Dolby.

The simple filters (high-cut and low-cut) often supplied on amplifiers and receivers do cut down noise, but they generally attenuate music content at the same time. Happily, there are now a growing number of "one-sided" noise reducers that can help reduce program noise without significantly altering program content. Some of these so-called "dynamic filters" have circuits that can sense the difference between actual residual noise and true musical content. When there is noise but no music in a given frequency range, the filter "shuts down" the high-frequency response of the system, opening up the response momentarily when high frequencies with music content come along. Several other methods of one-sided noise reduction are available. The best way to judge the effectiveness of these devices is to audition them at your dealer's showroom, using a favorite disc which you know contains a higher level of surface noise than you would like to hear. Bear in mind, however, that these dynamic noise filters are most effective in reducing continuous or random noise. Faced with such impulse noises as "pops" and "clicks" which appear when a disc has been scratched accidentally, they do very little or nothing at all.

During the past year, the audio industry has introduced products that can also reduce or eliminate the audible effects of severe scratches on records. Known as impulse noise reducing circuits, the new device has been quickly dubbed a "pop and click eliminator," for that is exactly what it does.

In one form of "pop eliminator," a time-delay circuit delays the sounds you hear by a tiny fraction of a second (no more than three milliseconds or so), so that you are really listening to music that originated from your program source that fraction of a second earlier. Given this "time advantage," when a sharp click or pop does come along to interfere with the program, the circuit senses the presence of this disturbance and switches over to "real time" reproduction. This occurs for perhaps a millisecond or two, substituting this music for the delayed signal. By the time the circuit switches back to the delayed signal, the "pop" has come and gone and is therefore never heard by the listener. The amazing thing about all this is that you cannot detect what's happening. The time duration of the music substitution is too short for you to sense any discontinuity in the music.

## COMPANDERS

In a sense, Dolby noise-reduction devices may be thought of as compressor-expanders. During the

encoding process, high frequencies are compressed (or made "louder" on the tape recording) while during playback, those same frequencies are expanded downward (or made softer). In the process of playback, noise—which is essentially high frequency in nature—is correspondingly expanded downward and made less audible, while high-pitched musical frequencies are restored to their correct relative intensities.

Dolby serves well to reduce tape hiss and FM background noise but, as previously noted, it operates only in the high frequency audio region.

Live music often contains loud passages that are as much as 80 to 85 dB louder than the softest passages of the same musical selection. Unfortunately, most of our high fidelity program sources (FM broadcasts, tape recordings, phonograph discs) are incapable of storing or transmitting such a wide dynamic range. In the case of tape, for example, the loudest musical passages, if "untreated," may saturate the tape's magnetization capabilities. This leads to high levels of distortion during playback. Softest sounds, if unaltered, might end up buried below the residual noise or hiss level of the tape. So the studio engineers who prepare our recorded music are faced with the need to compress musical signals. The softs are made louder while the loudest sounds are made softer in order for all the music to be "contained" in the program-source medium.

Regrettably, this compressed quality tends to detract from the lifelike realism that we seek from hi-fi reproduction. To remedy this deficiency, several com-

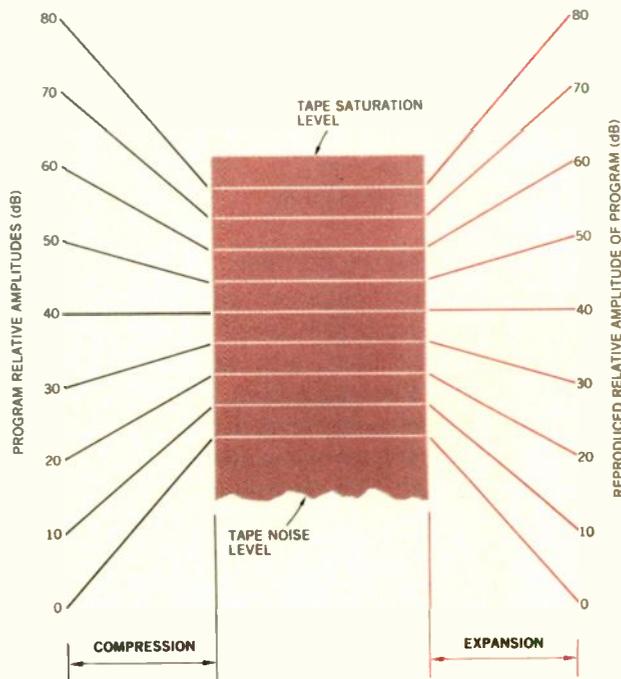


Fig. 4. How companders fit music's dynamic range onto tape.

panies manufacture devices known as companders. These are electronic add-ons that can make the loudest sounds louder and softest sounds even softer. Usually provided with adjustment controls, the compander, when inserted into a standard high fidelity component system, can be set to restore much of the dynamic range that is missing from many of our music

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program sources. It can also be used to *compress* live music sources that you are trying to record so that their loudness ranges will fit onto the tape. During playback, the reverse process is applied, and a similar degree of expansion takes place. The idea is best illustrated by the diagram of Fig. 4.

Of course, you don't need a whole compander just for playing back commercial recordings. Consequently, some companies offer expanders only, which are devices that simply make louds louder and softs softer during playback. Expansion can be linear (operating over the entire loudness range of the system) or may, at the push of a button, be arranged so that only those sounds above a certain level are expanded. The latter technique is often referred to as "peak unlimiting" and is the reverse of the peak limiting often employed at the broadcast studio or recording session.

### AUDIO TIME DELAY ADD-ONS

One of the obvious differences between music heard in a home listening environment and the same music heard while attending a concert in a large concert hall has to do with the acoustic qualities of the rooms in which the music is heard. A small room does not exhibit the reverberant qualities of a huge auditorium, naturally. The sense of space is missing because our hearing-brain combination doesn't receive as complex a combination of multiple, delayed sound waves as it would in a concert hall.

An audio time delay unit, however, can indeed create the illusion of being in a larger room. It does this by delaying the signals to us from speakers in the back of the room. Since echoes are our main clues to the size of the room we're in, the delayed "echoes" make the room sound larger. Up to a point, the greater the delay, the larger the room sounds, so by adjusting the delay, we can create the illusion that we're listening to music in an intimate nightclub (still larger than our own room) or even a vast concert hall.

Though delay units do require extra speakers and amplifiers to reproduce the delayed "rear echo" signal, they should not be confused with quadraphonic or 4-channel high-fidelity equipment. Both delay and quadraphonic systems require special 4-channel recordings. Delay units, in contrast, can get similar effects from ordinary stereo (or even monophonic) source material. And the extra speakers and amplifiers need not be of the same quality or cost as the elements in your primary system since the echoes should be much softer than the front-channel sound if the effect is to be natural. Also, don't confuse these new electronic delay devices with the so-called "reverberation" spring devices which were popular some years ago. Those employed mechanical springs to effect a time delay (usually not adjustable), but they were generally characterized by a false, "twangy" sound quality.

The newer, all-electronic audio time delay units employ no moving parts at all and perform their time-delay function using ultra sophisticated integrated circuits, including, in some cases, components borrowed from the world of digital and computer electronics. Because they are all-electronic, the amount of time delay can be varied to duplicate the acoustics

of different sized halls and to add the proper amount of reverberance to different kinds of music recorded in different locations.

Like the other add-ons discussed so far, audio time delay units simply plug into the "tape out" and "tape monitor input" jacks of an existing amplifier or receiver. An extra pair of output jacks feeds the delayed audio signals to the second stereo amplifier and pair of speakers. Positioning of these extra speakers has been found to be less critical than in the case of 4-channel systems.

### MAINTENANCE AND CONVENIENCE ADD-ONS

The second major category of add-ons you should know about make living with hi-fi more convenient or help to maintain both equipment and program sources in good working order. The list of these accessories is almost endless, but let's break them down into several areas and mention a few in each.

**Record Care Products.** After you've lived with your hi-fi system for a couple of years, you may be surprised to find that your inventory of records is worth more than the equipment on which they are played. Small wonder, then, that dedicated audio buffs try to keep their records as close to mint condition as possible. They do this by regularly cleaning the surfaces of those discs with any one of a number of specially designed products.

There are liquid cleaners supplied with soft bristle applicators, dry cleaning devices used to keep dust out of record grooves and, more recently, dry roller pads treated with an adhesive-like substance which, when rolled across a record surface in accordance with instructions supplied, lifts out tiny particles and grime which would otherwise shorten record life. There are also products which apply a protective micro-thin film coating to your records, reducing stylus friction and thereby decreasing record wear.

While everyone will acknowledge the importance of keeping records clean, few appreciate the importance of keeping the cartridge stylus tip free of dust and other debris which quickly collects about it. The common method of flicking away the clump of dust and dirt with your fingernail is one of the worst ways to take care of this problem, as one can easily damage or mis-orient the delicate stylus assembly. To take care of this maintenance chore properly several manufacturers offer stylus cleaning kits.

Records should be stored in their inner sleeves and outer cardboard jackets, preferably on edge. For this purpose, there are a great many record storage racks and bins available. You should choose the kind which has enough spaced partitions to keep your records from leaning over and applying pressure to other discs. Such pressure can cause permanent warp in your records—a condition not easily reversed. For owners of vast record collections, there are a number of easy-to-use cataloguing systems available which simplify identification and retrieval of the record you want to play. Some ingenious record collectors identify the music categories within their collections by applying readily available self-adhesive colored dots to the outside thin edges of the record jackets. □

# GLOSSARY OF AUDIO TECHNICAL TERMS

## AMPLIFIERS (Section 1)

**Decibel (dB):** A measure of the ratio between two power levels. Doubling or halving the power corresponds to a 3-dB change, and 10-dB corresponds roughly to the audible effect of doubling or halving the *loudness* of a signal (although it represents a power ratio of 10:1). Decibels are frequently used to specify variation in signal level throughout a range of frequencies (i.e., 20-20,000 Hz  $\pm$  1 dB) and to specify such other ranges as signal-to-noise (S/N) ratio.

**Distortion:** An undesired change in the waveform of a signal. With a single frequency (sine wave) signal, distortion appears as harmonics (multiples of the input frequency). The rms (effective a.c. point) sum of all harmonic distortion components, plus hum and noise, is known as *total harmonic distortion*, or THD. When a two-tone test signal is used, distortion components appear at frequencies which are sums and differences of multiples of the input frequencies. Their magnitude is expressed as *intermodulation* (IM) distortion, which is more distressing to hear than THD. The lower the distortion in any form, the better.

**Equalization:** An intentional departure from response flatness to compensate for complementary characteristics introduced elsewhere in the system (as with discs, tape, and FM broadcasting). Also used to correct for response deficiencies in speakers and other components.

**Filter:** A circuit that attenuates signals above or below a specific frequency without materially affecting signals in its pass-band. The action of a filter is usually defined by its slope (in dB per octave—usually some multiple of 6 dB/oct) and by its *Turnover Frequency*.

**Frequency Response:** Always specified as a range, such as 50 to 15,000 Hz; but in order to be meaningful it must be further defined in terms of decibel variation from absolute flatness over a specified frequency range (e.g.,  $\pm$  3 dB from 50 to 15,000 Hz). An indication of a sound system's ability to reproduce all audible frequencies supplied to it, maintaining the original balance among the low, middle (or mid-range), and high frequencies.

**Hz:** The standard abbreviation for Hertz, the unit of frequency, amounting to one complete waveform cycle per second.

**Integrated Amplifier:** A single component combining the functions and circuitry of a Power Amplifier and Preamplifier. Also called, occasionally, a "control amplifier," since it is an amplifier with controls.

**Intermodulation (IM):** See *Distortion*.

**Loudness Compensation:** A form of equalization, coupled with the volume control, that progressively emphasizes low frequencies (and sometimes also high frequencies) relative to the middle frequencies as the volume is reduced. Intended to correct for the human ear's natural loss of hearing sensitivity at the frequency extremes when sound level is reduced, and thus to

preserve proper frequency balance at different listening volume levels.

**Noise:** Any unwanted addition of frequencies unrelated to the signal that tends to obscure the signal information. In audio, noise is usually heard as hiss (random noise) or as hum (the power line frequency and its harmonics). Since signals must be, in general, stronger than the noise level in order to convey information, noise defines the lower limits of a component's dynamic range. (The upper limit is imposed by the maximum tolerable distortion.) Noise may be defined in terms of absolute levels, but in audio equipment it is usually defined in terms of its "distance" in decibels below the maximum tolerably distorted signal. See *Signal-to-Noise Ratio*.

**Power Amplifier:** An amplifier driven by a relatively low voltage, low-power signal, of the order of 0.1 milliwatts or less, which delivers a substantial power output to low impedance speaker loads. Typical power outputs may range from a few watts to several hundred watts, into impedances in the range of 2 to 16 ohms. The term "power amplifier" is commonly used to distinguish an amplifier that does not handle source signals directly and does not have control functions. See *Preamplifier*.

**Power Output:** FTC rules require that amplifier power be measured with all channels operating, after a standard pre-conditioning period to bring amplifier components to their maximum working temperature. Advertised power must be expressed in the form: "50 watts minimum rms per channel into 8 ohms with less than 0.3% harmonic distortion from 20 Hz to 20,000 Hz." The manufacturer is free to establish its own power, frequency, and distortion ratings, and implicit in the rating is the statement that rated distortion will not be exceeded at any power from 0.25 watts to rated power.

**Preamplifier:** Also known as control amplifier, or control center. A switching, amplification, and equalization component designed to select input signals, amplify them by amounts from 0 to 60 dB, and deliver an output voltage compatible with the input requirements of a power amplifier.

**Signal-to-Noise Ratio (S/N):** The ratio in dB between a reference power output (usually the amplifier's rated power) and the hum and noise power in the output of the amplifier. The higher this ratio, the better. (Also rates other components.)

**Tape Monitor:** An interruption in the signal path of a preamplifier, from which the selected input signal is supplied to an external tape recorder, and to which the playback output of the recorder is returned for further amplification and processing. Tape monitor circuits allow the owner of a recorder with separate recording and playback heads to listen to a tape as it's recorded, ensuring it is being recorded properly. They also allow the use of external signal-processing devices such as equalizers, noise reducers and expanders, and are sometimes known as "external processor loops" for that reason.

**THD:** See *Distortion*.

**Tone Control:** A circuit designed to increase or decrease the amplification in a specific frequency range, with little or no effect at other frequencies. Bass tone controls usually affect frequencies below a turnover frequency which may vary between 100 and 1,000 Hz. Treble tone controls are typically "hinged" to affect frequencies above 1,500 Hz. The range of a tone control (the maximum amount by which it can vary the amplification within its operating range) is typically about  $\pm$  15 dB, but may be as low as  $\pm$  7 dB or as great as  $\pm$  20 dB. Due to the popularity of "equalizers," which provide tone control over five or more frequency bands, some amplifiers and preamplifiers are now being produced with no built-in tone controls, on the assumption that external equalizers will be used instead; other amplifiers may actually include such equalizers.

**Turnover Frequency:** The "knee" of the tone control or filter frequency response curve. Though normally thought of as the frequency where the control begins to have its effect, the turnover point is actually the frequency at which response has already been altered by 3 dB relative to the unfiltered signal. Some tone controls and filters offer a choice of turnover frequencies, usually switch-selected.

## TUNERS (Section 2)

**AM (Amplitude Modulation):** A process in which the program information is imposed on a carrier signal of constant frequency, by varying its amplitude in proportion to program level. Used on the standard broadcast band (550 to 1650 kHz), and on longwave and shortwave bands.

**AM Suppression:** The ability of an FM tuner to reject AM signals. Expressed in decibels (dB), it is the ratio between the tuner output with a 100% modulation FM signal to its output with a 30% modulated AM signal.

**Capture Ratio:** The minimum ratio between the strengths of two FM signals on the same frequency that will enable the tuner to suppress the weaker by 30 dB so that both signals will not be heard at once. The smaller this ratio (measured—like most ratios in audio—in dB) the better. This is most useful in suburban and fringe areas where co-channel signals from two almost equidistant stations are more likely to be received, or in urban areas with *multipath* problems.

**De-emphasis:** A form of equalization used in FM tuners, complementary to a pre-emphasis used in transmission. The purpose is to improve the overall S/N ratio, while maintaining a uniform frequency response. It is expressed in the form of a time constant, or product of a resistance and capacitance. Standard FM broadcasts use a 75 microsecond time constant in the United States, and 50 microseconds in Europe, while Dolby "B" transmissions use a 25 microsecond time constant.

**Dolby "B":** A noise reduction system, originally developed for tape recording, but now adapted to FM broadcasting.

**FM (Frequency Modulation):** A process in which the program information is imposed on a carrier signal of constant amplitude by varying its instantaneous frequency in proportion to the program level. Used on the FM broadcast band (88 to 108 MHz).

**I-f Rejection:** The ability of a superheterodyne AM or FM tuner's i-f circuits to reject external interference at the intermediate frequency. Measured in dB (the higher the better), it is of more significance in AM than in FM reception because the lowest broadcast AM frequency, now 530 kHz, is so close to the standard AM i-f frequency of 455 kHz.

**IHF (Institute of High Fidelity):** An organization whose technical committees have developed standards for measuring and specifying the performance of high fidelity components. Current IHF Standards cover amplifiers and tuners.

**Image Rejection:** The ability of a superheterodyne receiver to ignore signals removed from the desired frequency by twice the intermediate frequency (10.7 MHz in home FM receivers, 455 kHz

in home AM receivers). Image response can be reduced by using selective tuned stages in the input circuits of the tuner. As with most tuner "rejection" or "suppression" specifications, it is measured in dB, with higher numbers indicating more suppression.

in home AM receivers). Image response can be reduced by using selective tuned stages in the input circuits of the tuner. As with most tuner "rejection" or "suppression" specifications, it is measured in dB, with higher numbers indicating more suppression.

**Multipath:** A condition in which a signal reaches the receiving antenna over two or more paths of different lengths. The resulting interference causes distortion in the receiver, as well as loss of stereo channel separation. Multipath distortion can be minimized by using a directional receiving antenna, and by tuners having a low capture ratio and high AM suppression. Some tuners also have visual or audible multipath indicators which can be used as aids in adjusting the antenna for minimum multipath interference.

**Multiplex:** The system used to transmit two stereo program channels on a single FM carrier in such a form that the complete program (left plus right channels) can be heard on a mono FM tuner. A multiplex demodulator in the tuner converts the composite received program to its two channel form.

**Selectivity:** The ability of a tuner to reject unwanted signals on nearby channels. It is the ratio (in decibels) of the signal strength that produces a standard output on the desired channel to the strength of a signal on a nearby channel needed to produce an output 30 dB below the standard level. Selectivity measurements usually refer to signals on the *alternate channel* (400 kHz from

the desired channels in FM and 20 kHz in AM); selectivity measured on the *adjacent channel* (200 kHz for FM, 10 kHz for AM) is usually lower. The higher the selectivity, the less interference there will be from signals on nearby channels; this is most important in crowded metropolitan areas.

**Sensitivity.** In FM, the signal strength a tuner requires in order to reduce noise and distortion to specified levels. "Quieting sensitivity" measures the input signal needed to reduce noise and distortion to 50 dB below the output audio signal level, a fairly listenable condition. "Usable sensitivity" defines the signal level needed to reduce noise and distortion to 30 dB below the audio output, a condition noisy enough to render "usable" a misnomer. Sensitivity is usually stated both in microvolts ( $\mu\text{V}$ ) of signal across the tuner's 300-ohm input (figures across the 75-ohm input would be lower) and in "dBf"—decibels above a signal level of one femtowatt ( $10^{-15}\text{W}$ ), equivalent to  $0.55 \mu\text{V}$  into 300 ohms. The lower the figure, in any case, the better, as this indicates that the tuner will achieve rated

performance with a weaker signal. Sensitivity, like many other FM tuner specifications, will be worse (in this case, numerically higher) in stereo than in monophonic reception. See chart.

**Synthesizer:** A system for generating a precise and stable frequency whose accuracy is determined by a quartz crystal oscillator, instead of inductance/capacitance tuned circuits. As compared to the latter, a synthesizer circuit can result in a tuner whose frequency setting is known with great accuracy, and which is free from drift or other tuning errors. True digital tuners (as opposed to those which tune conventionally, but have digital frequency displays) use synthesizers in order to jump in discrete steps from one exact channel frequency to another without passing through the unwanted frequencies between.

## TURNTABLES (Section 4)

**Acoustic Feedback:** The pickup, by a turntable, of vibrations from the loudspeaker. If these vibrations reach the *cartridge*, they will be amplified, causing noise (usually a rumble, but in extreme cases a howl) and/or distortion.

**Anti-Skating:** A system for neutralizing the lateral skating force developed with a tonearm having an offset cartridge angle. See *Skating Force*.

**Automatic Turntable:** A record player whose tone arm is positioned automatically for playing records when a control is operated, and which shuts off automatically at the end of play. See

*Record Changer.*

**Belt Drive:** A system for transferring power from the motor to the turntable platter through a flexible belt.

**Cueing Device:** A lever or control that raises and lowers the tonearm without direct handling by the operator. Usually viscous damped for uniform rise and fall times, no matter how rapidly the control is moved.

**Direct Drive:** A record playing system whose motor is designed to turn at the record speed. No intermediate coupling devices are used, and the platter rests directly on the motor shaft. Direct-drive motors generally utilize *Electronic Speed Control*.

**Dynamically Balanced Arm:** A type of tonearm whose masses are balanced about its pivot, with tracking force applied by a spring. This type of arm does not require that the turntable be level for proper tracking.

**Electronic Speed Control:** A system whereby a motor's speed is controlled by feedback from a frequency-sensing circuit attached to the device being powered; changes from the desired speed cause corrective signals to speed up or slow down the motor. Changes in speed, whether gross (as from  $33\frac{1}{2}$  to 45 rpm) or small (as in "pitch control" adjustments, normally on the order of  $\pm 3\%$ ) can be made with this system simply by alternating components in the external speed regulation circuit, rather than by mechanically shifting belts or idler wheel.

**Flutter:** The audible effect of short-term record speed fluctuations, occurring at a low audio or an infrasonic rate (0.5 to 200 Hz). This causes a frequency modulation of the program material, heard as a wavering or roughness of the sound. It is described as a percentage of rated speed; the smaller this percentage, the less audible the flutter. The percentage is generally combined with wow. (See *Wow*.) It is often "weighted" (wrms) so that it corresponds to the average human hearing response.

**Idler Drive:** A system for transferring power from the motor to the turntable through a rubber wheel which contacts the motor shaft and the inside rim of the platter.

**Pitch Control:** A circuit which permits a turntable's speed to be varied slightly. It is used to raise and lower the musical pitch of the recording being played (hence the name), or to slightly lengthen or shorten playing time.

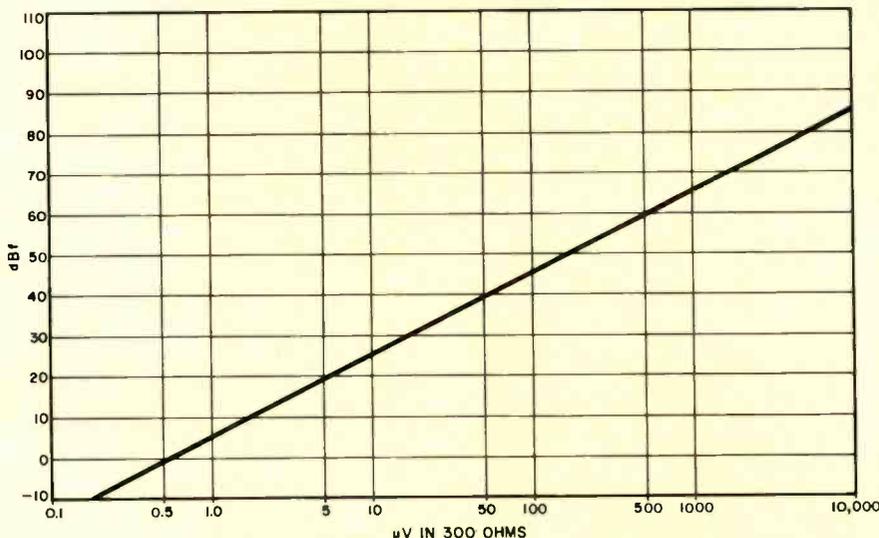
**Pivot:** A low-friction bearing in the support of a tonearm that allows it freedom of movement in vertical and horizontal planes. In lower-priced tone arms, it may be a simple point-in-cup pivot, but more expensive tonearms usually have precision ball bearings or knife-edge pivots.

**Platter:** The flat disc that supports the record and is turned by a motor at a constant speed. Usually machined from a non-ferrous alloy, but is sometimes a lightweight stamped or pressed disc.

**Radial Tonearm:** A tonearm that moves along a track parallel to the record radius, maintaining perfect tangency to the groove. Sometimes called *straight line tracking arm*.

**Record Changer:** A type of automatic turntable capable of playing a number of records (usually 6 to 10) in sequence.

**Rumble:** The audible effect of low-frequency vibration transmitted from the motor or other moving parts to the record or the tonearm. Heard (as a hum or rumbling sound) only when the pickup stylus is on a rotating record. Rumble is measured in dB below a specified signal level. The farther below (i.e., the larger the number), the less audible the rumble. Since some rumble frequencies are more annoyingly audible than others, it is common to "weight" the rumble measurement, counting the most annoying frequencies most heavily, and less annoying ones



lightly. Such weighted measurements (usually according to the DIN "B" weighting curve) are usually higher than unweighted ones.

**Semi-Automatic:** Having automatic arm return and motor shut-off at the end of a record, but no automatic start and tonearm set-down at the beginning of play.

**Servo Control:** A technique by which the speed or position of a moving device is forced into conformity with a desired, or standard speed or position. The speed of a servo-controlled turntable is established by a precision voltage or frequency standard, to which it is compared and automatically adjusted to reduce the difference to a minimum (see *Electronic Speed Control*). In a servo-controlled tonearm, a small departure of the cartridge from tangency to the groove is sensed, where it is used to activate a motor drive that moves the tonearm to minimize the error.

**Skating Force:** A frictional force between the pickup stylus and the record material, tending to move the pickup toward the center of the record. It is present only when the cartridge is offset at an angle to reduce tracking error, and is a function of tracking force, offset angle, stylus size and shape, record material, and recorded amplitude. The effect of skating force is to increase the stylus-to-groove contact force on the left channel and decrease it on the right channel. See *Anti-Skating*.

**Statically Balanced Arm:** A type of tonearm whose masses are first balanced about the pivot, then deliberately unbalanced by a gram or so in order to provide the required tracking force.

**Stroboscope:** A means by which a rotating object can be made to appear stationary, by illuminating it with a flashing light at the correct frequency. Many turntable platters carry a band of dots around their rims, or on their under surfaces, lit by a neon lamp. When the platter speed is adjusted to exactly  $33\frac{1}{3}$  or 45 rpm, the dots appear to stand still.

**Tonearm:** The portion of a record player that supports the phono cartridge and maintains it in the correct relationship to the record surface and the spiral groove. On conventional pivoted tonearms, the cartridge is mounted at an offset angle, and with a slight overhang beyond the turntable center to reduce the tracking error. The mass of the cartridge and the forward portion of the arm is balanced by an adjustable counterweight, and the desired vertical tracking force is supplied by a slight mass unbalance or a spring. See *Radial Tonearm*.

**Tracking Error:** The angle between the front-rear axis of the phono cartridge and a line tangent to the record groove. Ideally it should be zero, but can be maintained at less than 0.5 degrees per inch of playing radius in a well designed tonearm. Excessive error can cause increased distortion on heavily recorded passages, especially near the inner grooves of the record.

**Wow:** The audible effect of a low frequency flutter, occurring at a rate of 0.5 to 10 Hz. Most audible and objectionable on sustained tones. See *Flutter*.

## PHONO CARTRIDGES (Section 5)

**Biradial:** See *Elliptical*

**Cantilever:** The rod, or tube, that supports the stylus at its free end, is pivoted at or near its other end, and transfers the stylus motion to the generating elements of the cartridge. Usually made of aluminum, but beryllium is used in some recent cartridges. Also known as the "shank."

**Cartridge:** The device which holds the stylus (or "needle") and translates into an electrical signal the motions of the stylus as it tracks the wiggling modulations of the groove. Most cartridges are either *Magnetic* or *Piezoelectric* types.

**CD-4:** A discrete four channel disc recording and

playback system, using a frequency modulated 30-kHz carrier to convey additional information that can be combined with the audio output of the cartridge to produce four essentially independent program channels. Requires a cartridge frequency response to at least 45 kHz, and a special demodulator.

**Ceramic:** The more common type of *piezoelectric* phono cartridge.

**Channel Separation:** The amount of stereo program material from one channel appearing in the cartridge output for the other channel. Expressed in decibels relative to the desired channel output, with values of 20 to 30 dB (the higher figure being preferable) through most of the audible frequency range being typical of good cartridges.

**Compliance:** The ease with which a stylus can be deflected by the groove wall. Expressed in micro-centimeters per dyne ( $\text{cm}^6/\text{dyne}$ ) as the distance through which the stylus will be deflected by a force of 1 dyne. Typical values are from 10 to 50 micro-centimeters per dyne.

**Damping:** The application of a mechanical resistance, such as a rubber or silicone material, to the cantilever pivot to reduce the amplitude of the resonance between the tip mass and the compliance of the vinyl record material (which usually occurs between 15 and 30 kHz).

**Electret:** A special plastic *piezoelectric* element, polarized during manufacture to become the equivalent of a permanently charged capacitor. Generates an amplitude responsive output voltage, like a ceramic element, but requires less energy from the stylus system. By loading with a resistance, its output can be converted to the equivalent of a magnetic cartridge's velocity-responding output characteristic.

**Elliptical Stylus:** A stylus whose cross-section, as seen from above, is an ellipse placed across the record groove. Elliptical stylus can more readily trace the finer high-frequency modulations of the groove than spherical styli can. Such stylus have two radii (e.g.,  $0.4 \times 0.7$  mil).

**Magnetic:** A type of cartridge which generates its signal from the relative motions of a magnetic field and a coil or coils (either the field or the coils may move, depending on cartridge design). The output is proportional to the velocity of the stylus motion. This requires an equalization circuit in the preamplifier to restore proper frequency balance, since records are cut with more nearly constant-amplitude than constant-velocity characteristics.

**Mass (tip):** The combined effect of the mass of the diamond stylus, its mounting, the cantilever rod, and the generating elements, as seen by the record groove which must accelerate that mass. Usually from 0.25 to 1 milligram in modern cartridges.

**Mil:** One one-thousandth of an inch.

**Moving-coil:** A type of magnetic cartridge in which the coils, connected to the stylus, move within a stationary magnetic field. Output from such cartridges is low, and the stylus can usually not be replaced by the user, but some users feel the sound quality outweighs these inconveniences.

**Multi-Radial:** See *Shibata*.

**Output:** A cartridge's output (also known as its "sensitivity") is measured with relation to a specific signal level on the record. Since the output of magnetic cartridges (the majority type manufactured for "hi-fi" equipment) is a function of the stylus's velocity in tracking the groove, it is expressed in terms of a specific velocity. Some cartridge output specifications are given in terms of a velocity of one centimeter per second (e.g., "output  $1 \text{ mV} \pm 2 \text{ dB}$  at  $1 \text{ cm/sec}$ "), others at 5 cm/sec (e.g., "output  $3.5 \text{ mV}$  at  $5 \text{ cm/sec}$ "). To compare these figures, multiply the first by five; note that the first cartridge's output is actually

greater ( $1 \text{ mV}$  @  $1 \text{ cm/sec} = 5 \text{ mV}$  @  $5 \text{ cm/sec}$ ) than the second's.

**Piezoelectric:** A type of cartridge whose generating element is a ceramic, crystal or electret which generates electricity when bent, twisted or stressed. The output of such cartridges can be fairly high. It is also proportional to the amplitude of the stylus motion, rather than stylus velocity, and so requires no equalization (see *Magnetic*). Both these factors allow the use of simpler input circuits, one reason why piezoelectric (chiefly ceramic) cartridges are used in low-cost equipment.

**Sensitivity:** See *Output*.

**Shibata Stylus:** The first of several multi-radial stylus designs, for CD-4 use with two flat facets forming a vee-shaped "prow" in front, and a blunter stern. The main claimed advantage is that the stylus's sharp edges can easily track the ultra-fine, high-frequency modulations of a CD-4 record, while the long line of contact along that edge distributes tracking force over a larger area, reducing the effective pressure (pressure equals force divided by area) on the record surface.

**Spherical Stylus:** A stylus whose shape is conical, with the downward-facing point of the cone rounded to a specified radius of curvature, usually 0.5 or 0.7 mil.

**Stylus:** The specially shaped jewel tip (normally a diamond) that rides in a record groove and follows the variations in groove shape and position. Its motion is transmitted through the supporting cantilever to the generating elements in the cartridge. Stylus come in several shapes: see *Elliptical*, *Spherical* and *Shibata*.

**Tracking Force:** The vertical force (in grams) exerted by the stylus on the record groove. Must be high enough to keep the stylus in contact with the groove at all times. Insufficient as well as excessive force will increase record wear. Most cartridges operate best in the upper half of their recommended tracking force range. Tracking forces for modern cartridges are extremely low, mostly in the range from 1 to 2 grams (one gram equals 0.035 oz.) Tracking pressures, however, are extremely high, since the force is concentrated on such a small area.

**Transducer:** A device which converts information from one physical form to another. Examples include the phono cartridge (mechanical to electrical), loudspeaker (electrical to acoustical), and microphone (acoustical to electrical).

## TAPE MACHINES (Sections 7-9)

**ANRS, Super ANRS:** A noise reduction system used by JVC. ANRS operates on principles similar to those used by the *Dolby system*. Therefore, there is a degree of compatibility between recordings made with either system.

**Automatic Level Control (ALC):** A circuit which automatically maintains recording level within permissible limits, so that, no matter how loud or soft the sound being recorded, the signal on the tape will not get strong enough to overmodulate and distort or soft enough to be lost in noise. Also known as Automatic Volume Control (AVC).

**Automatic Reverse:** The ability of some four-track stereo tape recorders to play the second pair of stereo tracks automatically (in the reverse direction) without the necessity for interchanging the empty and full reels after the first pair of stereo tracks is played. (See also *Four-Track Recording*)

**Automatic Shut-Off:** A device (usually a mechanical switch) incorporated into most tape recorders that automatically stops the machine when the tape runs out or breaks.

**AVC:** Automatic Volume Control—See *Automatic Level Control*.

**Bias:** A high frequency current which is com-



bined with the signal being recorded. Necessary for low distortion and noise, and must be adjusted for the properties of the tape used.

**Bidirectional:** In open-reel or cassette recorders, the ability to play (and, in some cases, record) both stereo track pairs on a tape by reversing the tape's direction of motion without removing and replacing the tape reels or cassette.

**Capstan:** A shaft rotating at constant speed, which is pressed against the tape and moves it past the heads.

**Channel:** An independent signal path. Stereo recorders have two such channels, quadraphonic ones have four

**Closed-loop drive:** A tape transport mechanism in which the tape's speed and tension are controlled by contact with a capstan at each end of the head assembly.

**Crossfield Recording:** A system in which the *Bias* is not applied to the tape by the recording head, but by a separate head on the tape's backing side, so that the bias signal will not partially erase high frequencies as they are being recorded.

**Cue Control:** A switch which temporarily disables a recorder's *Tape Lifters* during fast-forward and rewind, so the operator can judge what portion of the recording is passing the heads.

**dbx:** A noise reduction system by which the program is compressed before being recorded, and expanded upon playback to restore the original dynamic range.

**Dolby "B":** A noise reduction system widely used in cassette recorders, as well as some open reel and cartridge machines, and in FM broadcasting. The high frequency portions of signals being recorded are compressed, with the degree of compression being greater as signal level decreases. An opposite expansion process takes place in playback, restoring the original frequency response, but with a reduction in high frequency hiss.

**Dual Capstan:** See *Closed Loop*.

**Dynamic Range:** The ratio between the maximum recorded level (usually that which results in 3% playback distortion) and the playback noises from a tape recorded with no signal input. Expressed in decibels (dB).

**Echo:** A special recording effect, in which a portion of the recorded program is taken from the playback head, a short interval after being recorded, and mixed with the incoming program. Principally used at tape speeds greater than 3%

ips, where the delayed signal is not heard as a separate sound.

**Elcaset:** A new tape system using a cassette similar in plan to the compact cassette, but holding 1/4-inch tape running at 3 1/2 inches per second; the tape is looped out of the cassette to reach the heads and capstan during recording and playback. (In other cassette systems, the heads contact the tape through windows in the cassette shell.)

**Equalization:** Different equalization characteristics are used in the recording and playback amplifiers of a tape recorder, to compensate for the magnetic characteristics of the tape and the heads. Playback equalization is standardized to give flat frequency response with any properly recorded tape, while recording equalization is a property of a particular machine, depending on its head design and the tape for which it was meant.

**Flutter:** A rapid pitch fluctuation, caused by uneven tape movement across the heads. Usually heard as a slight roughness, and in extreme cases as a "gargling" sound.

**Four Track (Quarter Track):** A tape format in which the width of the tape is recorded in four parallel magnetic tracks, separated by narrow unrecorded guard bands.

**Half Track:** See *Two Track*.

**Head:** A magnetic component containing a coil through which a signal current is passed, and a narrow gap in its pole structure against which the tape presses. Heads are used to supply erase signals, to record a program, and to play back a recorded tape.

**Line:** A term used to denote a high level signal input or output circuit. Line level is usually of the order of a volt, as distinguished from the microphone level of the order of millivolts.

**Memory Counter (or Rewind):** A system which allows the tape to be rewound automatically to any predetermined point on the tape.

**Monitor Head:** A separate playback head on some tape recorders that makes it possible to listen to the material on the tape an instant after it has been recorded, and while the recording is still in progress. On some cassette decks with monitor capability, the monitor "head" is not completely separate, but is built into the same shell as the record head.

**Motion-Sensing:** A type of tape transport in which certain actions which could break or spill the tape are prevented or delayed until the instant the tape has come to a stop or reached a speed which allows the action to take place safely.

**MPX Filter, Multiplex Filter:** Circuits to remove 19 kHz tones from a signal to be recorded, in order to prevent audible interference between the tape recorder's bias signal and the 19 kHz pilot tone in the output signal from a stereo FM tuner or receiver. Some receivers and tuners have such filters built in, too.

**Pause Control:** A feature of some tape recorders that make it possible to stop the movement of tape temporarily without switching the machine from "play" or "record."

**Peak Indicator:** An indicator, usually of the flashing-light type, showing when transient signal levels exceed a recorder's ability to handle them without distortion. Such indicators are often used to supplement *Recording-Level Meters*, which usually indicate average signal levels.

**Peak-Reading meter:** A type of *Recording-Level Meter* whose needle rises quickly and falls back at moderate speed, permitting the operator to judge the levels of transient peak waveforms.

**Program Selector:** Control which switches an 8-track recorder from one set of tracks to another.

**Quarter Track:** see *Four Track*.

**Recording-Level Meter:** An indicator on a tape recorder that provides some idea of the signal-levels being applied to the tape from moment to moment. It is intended as an aid in setting the recording levels to ensure that the tape is neither overloaded with excessive levels or "under-recorded" with too little signal, allowing hiss and other noise to intrude. Recording-level meters come in a variety of types, including meters that register the approximate *average* value of the signal (of which the professional *VU Meter* is an example), those designed to show the instantaneous *peak* levels of the signal, and some not readily classifiable into any group.

**Saturation:** An effect that occurs when a tape is fully magnetized, and further increase of signal input level does not produce a corresponding increase in recorded level. Saturation can also occur in the magnetic structure of the heads.

**Signal-to-Noise Ratio (S/N):** See *Dynamic Range*.

**Sound-on-Sound:** A process in which a program is recorded first on one track, then played back and re-recorded with added material on the other track.

**Sound-with-Sound:** A process by which a program is recorded on one track, then monitored as a second program is recorded on another track.

**Synch, Sync:** The maintenance of correct time relationships between events. Examples in recording include synchronization of sound and film for motion-picture use, synchronization of a slide-changing projector with a tape by means of signals recorded on the tape, and "Selective Synchronization," or "Sel-Sync" as it was originally named by Ampex, used to synchronize several tracks when they are recorded one at a time.

**Tape Speed:** The speed at which tape moves past the head in recording or playback modes. Standard tape speed for home use is 7 1/2 ips or half that speed (3 1/2 ips). Speeds of 1 1/2 and 1 3/4 ips are found on some machines, but on reel-to-reel recorders are usually suitable only for non-critical voice recording. Some cartridge machines, using special tape and circuits, achieve very good results at the slow speeds. Professional recording speed (for making original master tapes of music, for example) is usually 15 ips and sometimes higher. Higher tape speeds increase fidelity and simplify editing (the sounds to be edited are spaced farther apart), but increases tape consumption and hence cost.

**Tension Arm:** An arm, or feeler, over which the tape rides as it enters or leaves the heads. It is lightly spring loaded to take up any tape slack and maintain a uniform tension, in order to reduce flutter. Should the tape end or break, the arm causes the transport to shut off.

**Three-Motor:** Having separate motors for the capstan and each of the two reel motors. This simplifies the mechanical design of a recorder, with some increase in reliability, but increases its cost as well.

**Track:** The path on the magnetic tape along which a single channel of sound is recorded.

**Two Track (Half Track):** A tape format in which the width of the tape is recorded in two parallel magnetic tracks, separated by an unrecorded guard band. As compared to *Four Track* recording, the two track system gives improved dynamic range and can be edited without loss of program, since the tape is passed in a single direction only.

**VU Meter:** A type of *Recording Level Indicator* which shows average signal levels in decibels relative to a fixed 0-dB reference level (and, often, in percent of maximum recommended modulation). While the term is frequently used for any level meter using this scale, it applies most strictly to meters having a specified, standard

degree of damping; it is widely used in professional equipment in the United States, because the standardized damping allows the operator familiar with one VU meter to closely judge signal levels on any other true VU meter.

## SPEAKER SYSTEMS (Section 10)

**Acoustic Suspension:** A speaker system in which the woofer cone is loosely suspended, and its motion controlled to a great extent by the stiffness of the enclosed air. Noted for its extended, low distortion bass output and low efficiency. A form of *Infinite Baffle*.

**Active Equalizer:** An equalizer designed to correct deficiencies in a speaker system's response (see definition under *Amplifiers*). Such equalizers, which are designed to precisely match specific speaker systems, usually connect between the amplifier and preamplifier, or in one of the amplifier's tape-monitor circuits.

**Air-motion transformer:** A type of speaker in which the air is not pushed into vibration by a piston, but rather "squeezed" by the contractions of a folded diaphragm.

**Coaxial:** Tweeters are sometimes mounted in front of woofers; since each driver fires along the same axis, they are said to be coaxial.

**Crossover Network:** A filter which passes low frequencies to a woofer, middle frequencies to a mid-range driver (in three-way systems) and high frequencies to a tweeter. Frequencies outside the range of each driver are attenuated at a rate determined by the network design (see *Slope*). A crossover frequency is a frequency at which each of two drivers is receiving half the amplifier's power; below or above that point, one speaker will receive more power than the other.

**Dipole:** A form of speaker which radiates in approximately equal amounts to the rear and the front.

**Direct/Reflected:** A form of speaker in which a small part of the total output is radiated directly forward, with the major part reflected from the wall behind the speaker.

**Dispersion:** The spread of a speaker's high frequencies, measured in degrees.

**Driver:** Any individual speaker within a system, such as the *woofer*, *tweeter*, etc.

**Dynamic:** A speaker drive principle using the interaction between the magnetic field surrounding a voice coil carrying a signal current and a fixed magnetic field to move the coil and the cone to which it is attached.

**Efficiency:** The percentage of the electrical input power to a speaker that is converted to acoustic energy. Varies from a small fraction of one percent to as much as ten percent or more, depending on the design of the speaker. Higher efficiency means that less electrical amplifier power is required for a given listening volume, but is not directly related to sound quality.

**Electret:** A type of *piezoelectric* speaker.

**Electrostatic:** A speaker drive principle in which a thin plastic membrane, or diaphragm, is suspended in an electric field that is varied by the signal from the amplifier. This causes the diaphragm to move uniformly, propagating a pressure wave in the air.

**Impedance:** A speaker's resistance to the flow of an alternating current, which varies with frequency. A speaker's rated impedance is usually the value measured at 400 Hz. When two or more speakers are connected in parallel, speakers with impedances of 8 ohms or more are recommended.

**Infinite Baffle:** A fully sealed box enclosing the speaker.

**Molecular Film:** A type of *piezoelectric* speaker.

**Motional Feedback:** Correction of a speaker's response by feeding information about its motion back to the amplifier. The amplifier then compares the speaker's motions with its own output and changes this output in such a way as to counteract any changes (distortions) created by the speaker. Such speakers usually have special "servo" amplifiers built in, though a few can be used with other amplifiers if these are modified.

**Moving-Coil:** See *Dynamic*.

**Omnidirectional:** Emitting sound equally in all directions. Frequently applied to speakers that are only "omni" in the forward or upward hemisphere.

**Piezoelectric:** A speaker drive principle using a ceramic element which expands or bends under the application of a signal voltage. This deflection generates a sound output. Used in some tweeter designs.

**Polar Response:** The variation of output, at any given frequency, at different angles to the forward axis of symmetry of the speaker. In general, it will be different in horizontal and vertical planes, as well as with frequency. See *Dispersion*.

**Port:** An opening in a speaker enclosure, permitting the bass radiation from the back of the woofer cone to be combined with its forward radiation to enhance the total response.

**Ribbon:** A form of high-frequency driver using a light ribbon suspended in a magnetic field to generate sound when current is passed through it. In its basic form, a very high quality but fragile high frequency driver.

**Servo amplifier:** See *Motional Feedback*.

**Slope:** The rate of attenuation of frequencies beyond the pass-band of a crossover network. Usually either 6 dB or 12 dB per octave of frequency.

**Sub-Woofer:** A speaker designed only to handle very low frequencies, usually from a top of 100 Hz to a bottom below 20 Hz.

**Super-Tweeter:** A tweeter used only for extremely high frequencies; usually in 4-way or 5-way systems.

**Tweeter:** A high frequency driver.

**Walsh Radiator:** A type of driver invented by the late Lincoln Walsh, in which a gently sloping cone, moving up and down, so displaces the air with its sloped sides as to radiate a cylindrical wave-front in a 360° horizontal circle.

**Two-way, Three-way:** Refers to the number of frequency bands into which a speaker's output is divided. A two-way system would divide the spectrum into two such bands, one of which would be handled by a woofer or woofers, the other by a tweeter or tweeters. A three-way system would have one or more woofers, mid-range speakers and tweeters. Systems up to five-way have been marketed.

**Woofer:** A low-frequency driver.

## HEADPHONES & MICROPHONES (Section 12)

**Air-Motion Transformer:** See definition in *Speakers*.

**ASA:** American Standards Association.

**Bi-Directional:** Responding equally well to sounds from two opposite directions (a figure-8 pattern).

**Cardioid:** A heart-shaped polar response, with strong rejection to signals arriving from the rear.

**Circumaural:** A headphone in which the ear-piece completely surrounds the wearer's ear, and is sealed to the head to provide tight bass coupling.

**Condenser:** A type of microphone characterized by its wide frequency range and low distortion. Used for precision measurements and high-quality recording. Can be omni-directional or cardioid.

**Dynamic:** A headphone driver using a voice coil in a magnetic field, driving a paper or plastic diaphragm as in a speaker.

**EIA:** Electronic Industries Association.

**Electret:** A permanently polarized form of capacitor microphone. See definition in *Cartridges*.

**Electrostatic:** A headphone drive system using a thin plastic membrane in a high voltage electrostatic field, whose variation by the signal voltage moves the entire diaphragm to create a sound pressure wave.

**Impedance:** See definition under *Speakers*. Note, however, that while most headphones have impedances on the order of 8 to 16 ohms, some have impedances on the order of 25 to 200 ohms. Some headphone output jacks will work with either type of phone, but others require a closer impedance match.

**Moving Coil:** See *Dynamic*.

**Omnidirectional:** Responding equally to sounds arriving from any direction.

**Ribbon:** A type of microphone using a light metal foil ribbon in a powerful magnetic field. Widely used in studios.

**Self-Energizing:** A type of electrostatic phone which uses the stepped-up signal voltage to supply the d.c. polarizing voltage required for operation.

**Sensitivity:** A measurement of the electrical output of a microphone for a given sound pressure level at its diaphragm.

**Super-Cardioid:** Similar to cardioid (see above) but with a narrower response lobe.

## SIGNAL PROCESSORS (Section 13)

**Auto-Correlator:** A circuit that distinguishes coherent programs (music or speech) from random noise (hiss) and operates filters that attenuate noise without audible loss of program frequencies.

**CD-4:** A discrete four channel disc recording system. See definition under *Cartridges*.

**dbx:** A complementary compressor/expander system. See definition under *Tape Recorders*.

**Delay:** An electronic time delay device that can introduce time delays from a few milliseconds to about 100 milliseconds without significantly degrading signal quality. Can be used to restore acoustics of a large auditorium to recorded programs heard in a normal sized room.

**Dolby "B":** A system for minimizing noise added to a program during recording. See definition under *Tape Recorders*.

**Expander:** A device used to restore natural dynamic range by counteracting the compression of dynamic range used in the making of recordings and in broadcasting.

**Graphic Equalizer:** A multi-band equalizer whose controls are sliders, so that their settings can be seen as a rough graph of their frequency response characteristics. See also *Equalization* under *Amplifiers*.

**Matrix:** A means of encoding four channels into two, and vice versa. See definition under *Cartridges*.

**QS:** A matrix system developed by Sansui.

**SQ:** A matrix system developed by CBS.

# We're rather well-known for our expensive amplifiers and tuners.

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When LUX Audio products were introduced to the U.S. in late 1975, we had already played a leading role in Japan electronics for more than five decades. And our audio components had enjoyed an enthusiastic following in Asia and Europe for many years.

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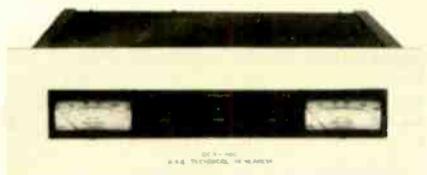
# 1

# AMPLIFIERS

## A&E

### DCA-400 DC Stereo Power Amp

200 W/ch rms into 8 ohms over 20-20,000 Hz with 0.02% THD; frequency response 0-



500,000 Hz  $\pm 0/-3$  dB; S/N 100 dB; crosstalk  $-70$  dB (over 20-20,000 Hz); damping factor 300; low-cut filter (6 dB/octave at 6 Hz); sensitivity variable over 0 to  $-31$  dB and  $-\infty$ ; two peak-level meters calibrated in watts and dB; phase shift  $\pm 1^\circ$ ; d.c. drift, thermal, and over-current protected ..... \$3250.00

### DCA-120 DC Stereo Power Amp

60 W/ch rms into 8 ohms over 20-20,000 Hz with 0.02% THD; frequency response 0-500,000 Hz  $\pm 0/-3$  dB; phase accuracy  $0-3^\circ$  (over 0-20,000 Hz); slew rate 20 V/ $\mu$ sec; damping factor 300; S/N 100 dB; crosstalk  $-70$  dB (over 20-20,000 Hz); group time delay 0.42  $\mu$ sec; switch-selectable low-cut filter with 6 dB/octave slope and 7 Hz turnover frequency; power transistors are current- and voltage-limiter protected ..... \$800.00

### SCA-2000 Preamplifier

Frequency response 1-500,000 Hz  $\pm 0/-3$  dB (phono), 0-500,000 Hz  $\pm 0/-3$  dB (aux.); S/N (IHF A) 80 dB (phono), 90 dB (aux.); THD 0.01%; group time delay 0.7  $\mu$ sec; max. output level 10 V; output imp. 600 ohms (record jacks) accommodating 10,000-ohm loads or higher; phase shift  $0-3^\circ$ ; RIAA accuracy within  $\pm 0.2$  dB; switch-selectable phono input imp. of 100,000, 68,000, 47,000, 33,000, 1000, and 100 ohms; phono sensitivity 2 mV; d.c. output cut off at 1 Hz (6 dB/octave); provision for reciprocal dubbing; pushbutton attenuation (15 dB) adds to setting of 32-point rotary volume control; low-boost (6 dB below 100 Hz) and low-cut (6 dB/octave) filters; phono, tuner, and two aux. inputs ..... \$950.00

## ACCUPHASE

### C-220 Disc Equalizer/Head Amplifier

RIAA disc equalizer with built-in head amplifier (26 dB gain) for moving-coil (MC) cartridges;



class-A symmetrical push-pull circuit; ring-emitter transistor in head-amplifier section;

1978 EDITION

equalizer circuit uses low-impedance differential push-pull circuit for 85 dB S/N for 2 mV input; frequency response 20-20 kHz,  $\pm 0.2$  dB; THD 0.01% at rated output level from 20-20k Hz; control tracking error less than 1 dB at  $-60$  dB setting ..... \$900.00

### P-300 Stereo Power Amplifier

150 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD (200 W/ch into 4 ohms, 75 W/ch into 16 ohms); frequency response 20-20,000 Hz  $\pm 0/-0.2$  dB; hum and noise 100 dB below rated output; 6" H  $\times$  17 $\frac{1}{2}$ " W  $\times$  14" D... \$800.00  
AWC-1. Walnut case ..... \$45.00

### P-20 Stereo Power Amplifier

70 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD (100 W/ch into 4 ohms, 35 W/ch into 16 ohms); frequency response 20-20,000 Hz  $\pm 0/-0.2$  dB; hum and noise 100 dB below rated output; output load imp. 4, 8, and 16 ohms; subsonic filter 18 dB/octave; cutoff frequency 17 Hz; incorporates two independent power supplies; front-panel stereo headphone jack; dual mounting handles; screw-type speaker terminals; 6" H  $\times$  19" W  $\times$  13 $\frac{3}{4}$ " D... \$750.00

### C-200 Stereo Preamplifier

Frequency response 20-20,000 Hz  $\pm 0/-0.2$  dB (high level), 20-20,000 Hz  $\pm 2$  dB (low level); 0.5% dist. at rated output; hum and noise  $-74$  dB (10 mV phono input); sensitivity variable over 2-6 mV (phono), 200 mV (aux.); high- and low-cut filters; built-in headphone amplifier; tape monitor/copy facilities; mike inputs on front panel; 6" H  $\times$  17 $\frac{1}{2}$ " W  $\times$  14" D... \$650.00  
AWC-1. Walnut case ..... \$45.00

### E202 Integrated Stereo Amplifier

100 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD (140 W/ch into 4 ohms, 50 W/ch into 16 ohms); hum and noise  $-94$  dB (main amp),  $-80$  dB (high level),  $-74$  dB (low level); phono sensitivity variable over 2.5-5 mV; phono imp. 30,000, 47,000, 100,000 ohms (switchable); 6" H  $\times$  18" W  $\times$  14" D ..... \$500.00  
AWC-2. Walnut case ..... \$45.00

## ACE AUDIO

### 35 $\times$ 2 Stereo Power Amplifier

35 W/ch into 4 or 8 ohms over 20-20,000 Hz with 0.1% THD; IM dist. 0.1% (full output), 0.05% (1 W output); sensitivity 1 V for rated output; frequency response 20-20,000 Hz  $\pm 0.2$  dB at 1 W; hum and noise 90 dB below 35 W; rear-panel heatsink and perforated covers for cooling; handles facilitate rack mounting; 3 $\frac{1}{8}$ " H  $\times$  14" W  $\times$  8 $\frac{1}{2}$ " D ..... \$212.00  
35  $\times$  2 Super. Similar, with double-sized filter capacitors in power supply, greater peak power ..... \$225.00

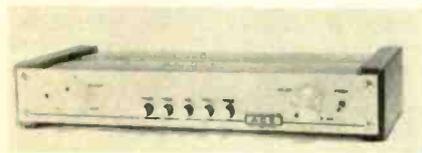
### Basic Stereo Preamplifier

High-level inputs (FM, aux. 1 and 2): sensitivity 0.1 V for 1 V output; input imp. 41,000 ohms at full volume, 50,000 ohms at  $-20$  dB setting; output imp. 100 ohms; harmonic and IM dist. 0.05% at 2 V output; frequency response 20-20,000 Hz  $\pm 0.1$  dB; hum and noise 85 dB below

0.5 V input; output 10 V into 15,000 ohms; phono input: sensitivity 2.2 mV for 1 V output; input imp. 47,000 ohms; harmonic dist. 0.05% (midband); equalization RIAA  $\pm 0.5$  dB; hum and noise 70 dB below 10 mV input; overload 250 mV; inputs: RIAA phono, FM, aux. 1 and 2, and tape monitor; outputs: main, tape; four a.c. outlets (three switched); 117-V a.c. (220-V models available, \$5 additional), 5W... \$149.50  
Kit ..... \$99.50  
BSPW High. Similar but  $+6$  dB gain on all inputs ..... \$156.00

### 3000 Stereo Preamplifier

Output into 10,000-ohm load 2 V (rated), 8 V (max.); gain 20 dB (high-level inputs), 60 dB (phono input); phono overload 90 mV; frequency response 20-20,000 Hz  $\pm 0.1$  dB,  $-1$  dB at 1 and 75,000 Hz; harmonic dist. 0.02% max.; intermodulation 0.02% max.; hum and noise 90 dB below 0.8 V input (high level), 73 dB below 8 mV input (phono); phono equalization RIAA  $\pm 0.5$  dB; input imp. 33,000 ohms (high level),



47,000 ohms (phono); output imp. 470 ohms; outputs: main, tapes 1 and 2; inputs: phono, tuner, aux., and tapes 1 and 2; volume and balance controls; three a.c. outlets (1000 W max.), one switched, two unswitched; 120- or 240-V a.c., 5 W; 2 $\frac{3}{4}$ " H  $\times$  14 $\frac{1}{2}$ " W  $\times$  7" D ... \$250.00  
Kit ..... \$156.00  
3100. Stereo preamplifier similar to 3000 but uses external power supply ..... \$325.00

### Zero-Distortion Preamp

High-level inputs (FM, aux. 1 and 2): sensitivity 1 V for 1 V output; input imp. 50,000 ohms (no load), 25,000 ohms (50,000-ohm load); output imp. 0-12,500 ohms (varies with volume setting); harmonic and IM dist. 0; frequency response  $-3$  dB at 67 kHz ( $-6$  dB volume setting); hum and noise 86 dB below 1 V input; phono input: sensitivity 10 mV for 1 V output; input imp. 47,000 ohms; harmonic dist. 0.05% (midband, 5-V output level); equalization RIAA  $\pm 0.5$  dB; hum and noise 76 dB below 10 mV input; overload 110 mV; 117-V a.c. (220-V models available), 3 W; black anodized front panel with Canadian maple end caps ..... \$122.50  
Kit (with conversion sheet) ..... \$99.50

## ACOUSTIQUE 3a

### Alpha 300 Stereo Power Amp

110 W/ch rms into 8 ohms over 20-20,000 Hz with 0.08% THD; IM dist. 0.03% at rated output; frequency response 5-350,000 Hz  $\pm 1.5$  dB; S/N 100 dB (phono); damping factor 150; rise time 1  $\mu$ sec; two independent power supplies; 6" H  $\times$  19" W  $\times$  12" D ..... \$1099.00

### Arpege 300 Stereo Preamp

Frequency response 5-400,000 Hz  $\pm 1.5$  dB; 0.03% THD at rated output; 0.02% IM dist. at

# 1 AMPLIFIERS

rated output; S/N 72 dB (phono); rated output 1.55 V; sensitivity 200 mV (high level), 5 mV (phono); input imp. 100,000 ohms (tape); includes 10-band frequency equalizer; delta constant all electronic touch tune switching; 6" H x 19" W x 12" D ..... \$1099.00

## AKAI

### AM-2800 Integrated Stereo Amp

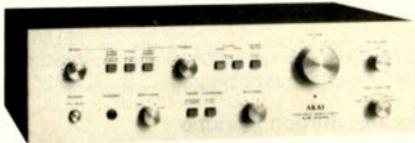
80 W/ch rms into 8 ohms over 20-20,000 Hz with 0.08% THD; S/N (IHF) 75 dB (phono), 95 dB (aux.); residual noise 0.5 mV (8 ohms); channel separation (IHF) 55 dB (phono, 1 kHz); damping factor 60 (8 ohms, 1 kHz); load imp. 8-16 ohms (speakers), 4-16 ohms (headphones); preamp section: input sensitivity/imp. 3 mV/50,000 ohms (phono 1), 3 mV/33,000, 47,000, or 100,000 ohms (phono 2), 150 mV/100,000 ohms (aux., tape PIN), 30 mV/180,000 ohms (tape DIN); frequency response 30-15,000 Hz  $\pm 0.5$  dB (phono), 7-70,000 Hz  $+0/-1$  dB (tuner, aux., tape); bass, mid-range, and treble tone controls; 120-V a.c., 60 Hz; 6.5" H x 17.3" W x 16.6" D ..... \$400.00

### AM-2600 Integrated Stereo Amp

60 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD; S/N (IHF) 75 dB (phono), 95 dB (aux.); residual noise 0.5 mV (8 ohms); channel separation (IHF) 55 dB (phono, 1 kHz); damping factor 60 (8 ohms, 1 kHz); load imp. 8-16 ohms (speakers), 4-16 ohms (headphones); preamp section: input sensitivity/imp. 3 mV/50,000 ohms (phono 1), 3 mV/33,000, 47,000 or 100,000 ohms (phono 2), 150 mV/100,000 ohms (aux., tuner, tape PIN), 30 mV/180,000 ohms (tape DIN); frequency response 30-15,000 Hz  $\pm 0.8$  dB (phono), 7-70,000 Hz  $+0/-1$  dB (tuner, aux., and tape); bass and treble tone controls; 120-V a.c., 60 Hz; 5.6" H x 17.3" W x 13" D ..... \$300.00

### AM-2400 Integrated Stereo Amp

40 W/ch rms into 8 ohms over 20-20,000 Hz with 0.15% THD; S/N (IHF) 75 dB (phono), 95



dB (aux.); residual noise 0.5 mV (8 ohms); channel separation (IHF) 55 dB (phono, 1 kHz); damping factor 60 (8 ohms, 1 kHz); load imp. 8-16 ohms (speakers), 4-16 ohms (headphones); preamp section: input sensitivity/imp. 3 mV/50,000 ohms (phono), 150 mV/100,000 ohms (aux., tuner, and tape PIN), 30 mV/180,000 ohms (tape DIN); frequency response 30-15,000 Hz  $\pm 1$  dB (phono), 7-70,000 Hz  $+0/-1$  dB (tuner, aux., and tape); bass and treble tone controls; 120-V a.c., 60 Hz; 5.6" H x 17.3" W x 13" D ..... \$200.00

### AM-2200 Integrated Stereo Amp

23 W/ch rms into 8 ohms over 20-20,000 Hz with 0.5% THD; S/N (IHF) 75 dB (phono), 95 dB (aux.); residual noise 0.8 mV (8 ohms); channel separation (IHF) 55 dB (phono, 1 kHz); damping factor 60 (8 ohms, 1 kHz); load imp. 8-16 ohms (speakers), 4-16 ohms (headphones); preamp section: input sensitivity/imp. 3 mV/47,000 ohms (phono), 150 mV/100,000 ohms (aux., tuner, and tape PIN), 30 mV/180,000 ohms (tape DIN); frequency response 30-15,000 Hz  $\pm 1$  dB (phono); bass and treble tone controls; 120-V a.c., 60 Hz; 4.9" H x 15" W x 10.3" D ..... \$150.00

## ALL-TEST

### ATD-25 Phono Preamp

Amplifies magnetic phono cartridge signals to level which will drive high-level inputs of any stereo amp, integrated amp, or receiver; IM distortion 0.01%, 0.005% typical; noise 80 dB below 10 mV input, 20-20,000 Hz (input shorted); negative feedback 70 dB at 1 kHz; gain 36 dB at 1 kHz; input imp. 47,000 ohms  $\pm 5\%$ ; frequency response 20-20,000 Hz  $\pm 0.5$  dB of RIAA curve; channel separation 80 dB at 10,000 Hz; max. output 8 V rms into 47,000 ohms or higher, 7 V rms into 10,000 ohms; channel balance within  $\pm 0.1$  dB ..... \$170.00

## ANALOG ENGINEERING

### A-620 Power Amplifier

325 W/ch rms over 5-40,000 Hz with 0.05% IM dist.; min. load imp. 2 ohms; slew rate 65 V/ $\mu$ sec; damping factor 500 (1 kHz); S/N 110 dB; input sensitivity 2 V; has two peak-following ballistometric meters with transient LED indicator on meter face plate; rack mountable ..... \$1090.00

### A-555 Power Amplifier

55 W/ch over 5-30,000 Hz with 0.05% IM dist.; damping factor 400 (1 kHz); has ballistometric peak-following output meters with three-position meter sensitivity switch; power reset switch; logic system monitors voltage, current, temperature, speaker imp., etc. and disconnects speakers if shorting or overheating occurs; complementary Darlington outputs, other circuitry is all FET; rack mountable ..... \$590.00

### A-610 Power Amplifier

150 W/ch over 5-40,000 Hz with 0.08% THD and 0.05% IM dist.; damping factor 500; min. load imp. 2 ohms; S/N 110 dB; front-mounted peak-following meters with sensitivity switch; has amp/speaker protection circuitry; rack mountable ..... \$690.00

### Analogue 520 Preamplifier

Frequency response 10-60,000 Hz  $+0/-0.5$  dB; THD 0.005% at 2.5 V rms output; IM dist. 0.005%; S/N 100 dB at full output (unwtd.); gain 23 dB (high level in to main out); max. output 7.5 V rms; output imp. 100 ohms; recommended load 30,000 ohms or greater; bass and treble controls; low and high cut filters; phono section: frequency response RIAA  $\pm 0.5$  dB; THD 0.004%; IM dist. 0.004% (phono in to tape out); S/N 84 dB below 10 mV (1 kHz); gain 34 dB (phono in to tape out), 57 dB (phono in to main out); phono overload 120 mV rms (1 kHz); input imp. 47,000 ohms ..... \$590.00

### A-515 MC Cartridge Preamp

Moving-coil cartridge preamplifier; frequency response 10-30,000 Hz  $+0/-5$  dB; S/N 127 dB; phono sensitivity 0.0005 mV; THD and IM dist. 0.005%; hum-shielded chassis; input and output jacks are 24 k gold plated ..... \$590.00

## AUDIO GENERAL

### 511A Stereo Preamplifier

Response 20-20,000 Hz  $\pm 0.1$  dB (high-level inputs); phono inputs within 0.25 dB of RIAA curve; THD and IM below 0.005%, 20-20,000 Hz; hum and noise -88dB (phono input, "A" weighting), -106 dB (unweighted, 20-20,000 Hz, high-level inputs); no filters or tone controls; "tone send" button controls external processor loop for equalizers or other signal processors; slew rate 250 V/msec (phono), 50 V/msec (high-level); rise time 10 nsec (phono), 250 nsec (high-level); two tape monitor inputs; 20 A power switch ..... \$435.00

## AUDIO INTERNATIONAL

### CM912a Stereo Power Amplifier

150 W/ch rms into 8 ohms (225 W/ch rms into 4 ohms) over 20-20,000 Hz with 0.1% THD; IM

dist. 0.1% at rated output; frequency response 20-20,000 Hz  $\pm 0.1$  dB at rated output; damping factor 50 (8 ohms, 20-20,000 Hz); slew rate 40 V/ $\mu$ sec; hum and noise -100 dB; sensitivity 1 V input for rated output; relay-type speaker protection; thermostatically controlled forced-air cooling; two peak-reading power meters; power requirements: 100, 120, 200, or 240 V a.c., 50/60 Hz, 35 W (idle), 700 W (max.); bronze anodized aluminum finish; 5 1/4" H x 17 1/2" W x 17 1/2" D ..... \$899.00  
**CM912-1.** Power module for CM912a ..... \$249.00

### CM914 Stereo Power Amplifier

100 W/ch rms into 8 ohms (150 W/ch rms into 4 ohms) over 20-20,000 Hz with 0.1% THD; IM dist. 0.1% at rated output; frequency response 20-20,000 Hz  $\pm 0.1$  dB at rated output; damping factor 50 (8 ohms, 20-20,000 Hz); slew rate 40 V/ $\mu$ sec; hum and noise -100 dB; sensitivity 1 V input for rated output; relay rack mountable; direct connection for feedback speakers; power requirements: 100, 120, 200, 220, 240 V a.c., 50/60 Hz, 35 W (idle), 600 W (max.); bronze anodized aluminum finish; 5" H x 17 1/2" W x 10" D ..... \$449.00  
**CM914-1.** Handle/side panel kit for CM914 ..... \$50.00  
**CM914-2.** Meter kit for CM914 ..... \$99.00  
**CM662.** Feedback speaker coupler ... \$75.00

### CM300 Stereo Control Center

Output 2 V rms into 100,000 ohms, 1000 pF (10 V rms max.), and 1 V rms into 600 ohms (5 V rms max.); frequency response 5-20,000 Hz  $\pm 0.1$  dB (high level), 30-15,000 Hz  $\pm 0.25$  dB (phono); input imp. 250,000 ohms (high level), 47,000 ohms (phono); output source imp. 600 ohms; THD 0.05%; IM dist. 0.02%; channel separation 70 dB (1 kHz); S/N -100 dB (high level, ASA A), -80 dB (phono, 10 mV input); phono overload 100 mV (1 kHz, 40-dB gain); sensitivity 1.6-6.4 mV (phono), 200 mV (high level, for rated output); bass, treble, and balance controls; high and low filters; two phono, two tape inputs; 120/240-V a.c., 50/60 Hz; relay rack mounting; 5 1/4" H x 17 1/2" W x 17" D ..... \$549.00

## AUDIO RESEARCH

### D-100 Stereo Power Amplifier

100 W/ch into 8 ohms over 1-20,000 Hz with 0.2% THD and 0.05% IM dist.; S/N 100 dB (phono, 10 mV input); sensitivity 1.5 V rms (high level); load imp. 4 ohms (min.); damping factor 200 (1 kHz); 5 1/4" H x 19" W x 10 1/2" D ..... \$995.00  
**WC-3.** Walnut finished wood cabinet for D-100 ..... \$79.50

### SP-4 Stereo Preamplifier

Frequency response 1-100,000 Hz  $+0/-3$  dB; 2 V rated output (10 V overload); 0.005% THD and IM dist. at rated output; S/N 80 dB (phono, 10 mV input); sensitivity 0.1 V (high level), 2 mV (phono); phono overload 300 mV; tape imp./output 2000 ohms/0.5 V; 3 1/2" H x 19" W x 8 1/2" D ..... \$895.00  
**WC-2.** Walnut finished wood cabinet for SP-4 ..... \$75.00

### SP-5 Stereo Preamplifier

Frequency response 1-100,000 Hz  $+0/-3$  dB; 2 V rated output (10 V overload); 0.005% THD and IM dist. at rated output; S/N 80 dB (phono, 10 mV input); sensitivity 0.1 V (high level), 2 mV (phono); phono overload 300 mV; tape imp./output 2000 ohms/0.5 V; 3 1/2" H x 19" W x 8 1/2" D ..... \$595.00  
**WC-2.** Walnut finished wood cabinet for SP-5 ..... \$75.00

### MCP-1 "Pre"-Preamplifier

Frequency response 5-100,000 Hz  $+0/-3$  dB; 1 V rated output; S/N 80 dB (phono, 10 mV input); sensitivity 100 mV (phono); phono overload 100 mV; serves as moving coil pre-preamp for SP-4 and SP-5 ..... \$150.00

**AUDIONICS OF OREGON**

**BA-150 A/D Power Amplifier**

Hybrid design with solid state front end and microprocessor-controlled bias optimization; THD less than 0.25% with feedback switched in; frequency response 20-20,000 Hz; power output 150 W/ch rms into 4, 8, or 16 ohms . . . \$2000.00

**PZ3-II Stereo Power Amplifier**

100 W/ch rms into 8 ohms over 20-20,000 Hz with 0.03% THD; frequency response 20-20,000 Hz  $\pm 0.5$  dB; sensitivity 1 V for rated output; input imp. 20,000 ohms (below 20 kHz); damping factor 50 (8 ohms, 1 kHz); load imp. 4 ohms to infinity; hum and noise -95 dB; direct-coupled output; rack mountable; 6" H x 19" W x 15" D . . . \$449.00

**PZ3-HP.** Same but with input level controls



and peak-reading meters . . . \$549.00

**BT-2 Stereo Preamplifier**

Output 6 V rms into 10,000 ohms, 3 V rms into 500 ohms; THD and IM dist. 0.01% max.; source imp. 500 ohms; load imp. 500 ohms (min.); recorder output/imp. 0.2-2 V/10,000 ohms; THD and IM dist. 0.01%; sensitivity 100 mV (tape, tuner, aux.), 2 mV (phono); input imp. 25,000 ohms (tape, tuner, aux.); noise (A wtd.) -82 dB (phono, 10 mV input); phono overload 130 mV; equalization accuracy 30-20,000 Hz  $\pm 0.5$  dB (phono) . . . \$379.00

**BGW**

**Model 1500 Power Amplifier**

275 W continuous into 8 ohms with 0.2% THD; frequency response 5-10,000 Hz  $\pm 0/-3$  dB; hum and noise -100 dB; input sensitivity 2 V  $\pm 2\%$  for 200 W into 8 ohms; input imp. 47,000 ohms; damping factor 1000; output imp. 1 ohm or greater; brushed satin silver rack mount panel; 7" H x 19" W x 17" D . . . \$1599.00

**Model 1000 Stereo/Mono Power Amp**

250 W/ch continuous into 8 ohms with 0.2% THD; frequency response 20-20,000 Hz  $\pm 0/-0.2$  dB; hum and noise -110 dB (stereo), -100 dB (mono); input sensitivity 2 V  $\pm 2\%$  for 200 W into 8 ohms (stereo), 80 W out (mono); input imp. 47,000 ohms; damping factor 500 (stereo), 250 (mono); output imp. 2 ohms or greater (stereo), 4 ohms or greater (mono); brushed satin silver rack mount panel; 7" H x 19" W x 17" D . . . \$1499.00

**Model 750A Power Amplifier**

200 W/ch continuous sine wave into 8 ohms over 20-20,000 Hz with 0.1% THD and 0.02% IM dist. (300 W/ch into 4 ohms, 600 W into 8 ohms mono); frequency response 20-20,000 Hz  $\pm 0/-0.25$  dB (small signal); hum and noise -110 dB; input sensitivity 2 V for rated output; input imp. 47,000 ohms; damping factor 200; output imp. 2-ohm load or greater; two-speed cooling fan; fast-acting circuit breaker protection; bridging switch; 19" rack mountable; 120-V (15 A) or 240-V (7.5 A) a.c.; 7" H x 19" W x 12" D . . . \$1029.00  
**500D.** Similar to 750A but 251 W/ch into 4 ohms, 501 W into 8 ohms mono . . . \$899.00

**Model 410 Power Amplifier**

200 W continuous into 8 ohms; frequency response 20-20,000 Hz  $\pm 0/-0.2$  dB; THD 0.05%; IM dist. 0.01%; residual hum and noise -110 dB; slew rate 40 V/ $\mu$ sec; rise time 3  $\mu$ sec; input sensitivity 2 V for rated output; high speed relay activated arc-interrupter speaker protection; four-position speaker selector; low-imp.



headphone jack; two input sensitivity controls; meter display of average responding LED's (10 on each of two meters) with three-position (-20, -10, and 0 dB) meter sensitivity switch; 5 1/4" H x 19" W x 11 3/4" D . . . \$699.00

**Model 250B Power Amplifier**

90 W/ch continuous sine wave into 8 ohms over 20-20,000 Hz with 0.1% THD (126 W/ch into 4 ohms, 251 W into 8 ohms mono); IM 0.03%; frequency response 20-20,000 Hz  $\pm 0/-0.25$  dB (small signal); hum and noise -110 dB; input sensitivity 1.5 V for rated output; input imp. 47,000 ohms; damping factor 500 (8 ohms); output imp. 2-ohm load or greater; 120-V (6 A) or 240-V (3 A) a.c.; 5 1/4" H x 19" W x 11 3/4" D . . . \$549.00

**Model 100 Power Amplifier**

30 W/ch continuous sine wave into 8 ohms over 20-20,000 Hz with 0.1% THD and 0.01% IM dist. (40 W/ch into 4 ohms, 80 W into 8 ohms mono); frequency response 20-20,000 Hz  $\pm 0/-0.25$  dB (small signal); hum and noise -106 dB; input sensitivity 0.78 V for rated output; input imp. 10,000 ohms; damping factor 200 (8 ohms); output imp. 4-ohm load or greater; individual channel gain controls; front-panel low-imp. headphone jack; LED clipping indicators; available with Cannon-type XL connectors and octal connectors; 120-V (3 A) or 240-V (1.5 A) a.c.; 1 3/4" H x 19" W x 12" D . . \$329.00

**Model 203 Stereo Control Center**

Gain 42 dB (phono to tape out, 1 kHz), 22 dB and 10 dB (high level to line out) with high-low gain switch set to high and low, respectively; frequency response 20-20,000 Hz  $\pm 0.2$  dB (high level),  $\pm 0.25$  dB of RIAA (phono); input imp. 47,000 ohms (phono), 90,000 ohms (high level); input overload 100 mV (phono, 1 kHz), 10 V (high level); max. output 8 V rms into 600 ohms (line), 10 V rms into 5000 ohms (phono to tape out), 4 V rms into 5000 ohms (rated output); THD 0.01%; subsonic and scratch filters; front-panel tape copy and headphone jacks; provisions for remote MC preamp and a.c. power switching; active bass and treble tone circuitry; equalizer in/out jacks; 5 1/4" H x 19" W x 10 3/4" D . . . \$649.00  
**202.** Similar to 203 . . . \$399.00

**Model 50 Pre-Preamplifier**

MC cartridge preamplifier; gain 26 dB; S/N 82 dB (ref. 1 mV); frequency response -1 dB at 5 and 100,000 Hz; input imp. 10, 30, and 1000 ohms (selectable); output imp. 5000-ohm load; power drawn for nominal 47,000-ohm load; power drawn from Model 203 ( $\pm 15$ -20 V d.c., 40 mA). . . \$149.00

**4-CHANNEL**

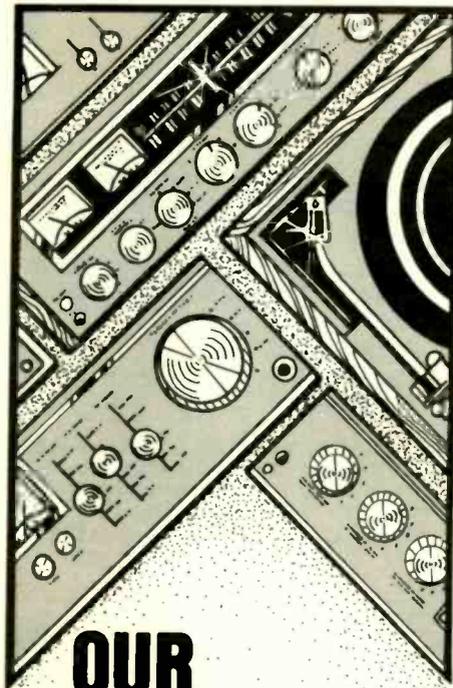
**Model 4 x 250 Power Amplifier**

200 W/ch (four channels driven) into 8 ohms with 0.2% THD; frequency response 20-20,000 Hz  $\pm 0/-0.2$  dB; hum and noise -110 dB; input sensitivity 2 V  $\pm 2\%$  for rated output; input imp. 47,000 ohms; damping factor 500; output imp. 4 ohms or greater; electronic power limiter short circuit protection; brushed satin silver rack mount panel; 7" H x 19" W x 17" D . . . \$1649.00

**BOSE**

**1801 Power Amplifier**

250 W/ch into 8 ohms over 20-20,000 Hz with 0.5% THD; frequency response 20-20,000 Hz  $\pm 1$  dB; hum and noise 100 dB below rated output; input imp. 100,000 ohms; damping factor 40; input sensitivity 1.5 V for rated output; two



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# 1 AMPLIFIERS



integrated VU meters plus LED peak-level display; brushed aluminum control panel with black-out display panel; power consumption 86 W (idle), 1960 W (at rated output); 7<sup>3</sup>/<sub>16</sub>" H x 18" W x 18<sup>1</sup>/<sub>2</sub>" D ..... \$986.00

## 4-CHANNEL

### 4401 Four-Channel Preamplifier

Rated output 2 V rms, 7 V rms before overload; input sensitivity 2 mV at 1 kHz (phono), 200 mV (tuner, aux., tape); output imp. 600 ohms; input imp. high level 100,000 ohms, phono (except CD-4 mode) 47,000 ohms, phono (CD-4 mode) 100,000 ohms; frequency response 20-20,000 Hz  $\pm$ 0.2 dB (high level), RIAA  $\pm$ 1 dB (phono); IM and harmonic dist. 0.2%; hum and noise 80 dB below rated output (high level), within 8 dB of noise-free amplification (phono, A weighted); 105-130-V or 210-260-V a.c., 50-60 Hz, 30 W; 6" H x 18" W x 13<sup>1</sup>/<sub>8</sub>" D ..... \$599.00  
**WEP-1.** Walnut enclosure ..... \$34.95  
**SQM-1.** SQ decoder module ..... \$74.95  
**CDM-1.** CD-4 demodulator module ... \$119.95

## BOZAK

### 929 Audio Power Amplifier

150 W/ch continuous sine-wave into 8 ohms (20-20,000 Hz) at 0.2% THD; response at full output power 20-20,000 Hz +0 dB, -0.2 dB; THD at 1000 Hz 0.1%; response 3-100,000 Hz +0 dB, -3 dB (at 1 W); damping factor 100 at 20 and 1000 Hz; S/N (unweighted) 100 dB; input imp. 35,000 to 100,000 ohms (100k pot); two power meters; matte black front panel; walnut veneer enclosure optional extra; 7" H x 17<sup>3</sup>/<sub>8</sub>" W x 12" D ..... \$849.00  
**929-PV.** Same except without the meters ..... \$749.00

### 939 Audio Power Amplifier

70 W/ch continuous sine wave into 8 ohms (20-20,000 Hz) at 0.2% THD; frequency response 20-20,000 Hz +0, -0.2 dB; S/N (unweighted) 90 dB; subsonic switch; damping factor 100; input level controls; 32 dB gain; black front panel; walnut veneer enclosure optional extra ..... \$479.50

### 919 Mixer/Preamplifier

Designed to be used with the 929 power amplifier; features bass, treble, and mid-range equalization; high and low filters; bass turnovers at 200 and 400 Hz; treble turnovers at 2000 and 4000 Hz; three simultaneous inputs with individual level controls (phono, mike, choice of tape, tuner, or aux.); separate bass, mid-range, and treble controls for each channel; cue selector for monitoring each input separately; mode selector for stereo, reverse stereo, stereo blend, or stereo plus; response (RIAA phono equalization) 30-15,000 Hz  $\pm$ 0.5 dB; has full complement of inputs, outputs, and operating controls; matte black panel; walnut veneer enclosure optional extra ..... \$797.00

### 909 Preamplifier

Features plug-in circuits; all-silicon circuitry;

active filters; switchable tape outputs: flat or equalized; inputs: phono #1 and #2, tuner, aux. tape monitor #1 and #2; controls: bass and treble for each channel, balance, volume, lo/hi filters, EQ defeat, stereo/mono, tape dubbing; frequency response 20-20,000 Hz  $\pm$ 0.25 dB; dist. 0.1% IM and HD; S/N (unweighted) 80 dB (phono), hi-level 90 dB (unweighted); 12 V output into 600 ohms ..... \$450.00

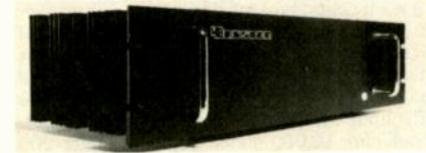
## BRYSTON

### 4B Stereo Power Amplifier

200 W/ch into 8 ohms (400 W/ch into 4 ohms, 800 W bridged into 8 ohms) over 20-20,000 Hz with 0.05% THD and 0.025% IM dist. at 200 W/ch; noise -100 dB; crosstalk below noise; slew rate 60 V/ $\mu$ sec; damping factor 500 (8 ohms, 20 Hz); input sensitivity/imp. 1.25 V/50,000 ohms; has bridging switch; each channel separated back to line cord; LED pilot light and overdrive (clipping) indicators; 5<sup>1</sup>/<sub>4</sub>" H x 19" W x 13<sup>1</sup>/<sub>2</sub>" D ..... \$1250.00

### 3B Stereo Power Amplifier

100 W/ch into 8 ohms (200 W/ch into 4 ohms, 400 W bridged into 8 ohms) over 20-20,000 Hz



with 0.05% THD and 0.025% IM dist. at 100 W/ch; noise -100 dB; crosstalk below noise; slew rate 60 V/ $\mu$ sec; damping factor 500 (8 ohms, 20 Hz); input sensitivity/imp. 1 V/50,000 ohms; has bridging switch; each channel separated back to line cord; LED pilot light and overdrive (clipping) indicators; 5<sup>1</sup>/<sub>4</sub>" H x 19" W x 9" D ..... \$785.00

### 2B Stereo Power Amplifier

50 W/ch into 8 ohms (100 W/ch into 4 ohms, 200 W bridged into 8 ohms) over 20-20,000 Hz with 0.05% THD and 0.025% IM dist. at 50 W/ch; noise -100 dB; crosstalk below noise; damping factor 500 (8 ohms, 20 Hz); input sensitivity/imp. 0.75 V/50,000 ohms; has bridging switch; each channel separated back to line cord; LED pilot light and overdrive (clipping) indicators; 3<sup>1</sup>/<sub>2</sub>" H x 19" W x 10" D ... \$495.00

## CERWIN-VEGA

### The Earthshakers Power Amplifiers

Typical specifications: harmonic dist. 0.08%; IM dist. 0.025%; frequency response 10-60,000 Hz +0/-1 dB (1 W); stable with any load or source imp.; input imp. 10,000 ohms nominal; sensitivity 1.4 V for 200 W; hum and noise -100 dB; limiter, thermal, and d.c. and a.c. fuse protection; black anodized aluminum finish; 7" H x 19" W x 11<sup>1</sup>/<sub>2</sub>" D.

**A-3000I.** 365 W/ch rms into 8 ohms, 575 W/ch rms into 4 ohms; output meters and incandes-



cent output indicators; three-position switchable crossovers for bi-amping without auxiliary crossovers (250 Hz standard crossover point) ..... \$1200.00  
**A-1800I.** Similar to A-3000I but 225 W/ch rms into 8 ohms, 350 W/ch rms into 4 ohms. .... \$899.00  
**A-1800M.** 225 W/ch rms into 8 ohms, 350 W/ch into 4 ohms; channel 1 and 2 gain controls; illuminated output meters; front-panel headphone jack and switching for two sets of speak-

ers; meter sensitivity switch (0 and -10 dB); headphone on/off switch ..... \$850.00  
**A-1800.** 225 W/ch rms into 8 ohms, 350 W/ch rms into 4 ohms; channel 1 and 2 gain controls; LED indicators activate at 7% and 100% of rated output ..... \$799.00

## CROWN

### M-600 Power Amplifier

Monaural power amplifier; 600 W into 8 ohms over 1-20,000 Hz with 0.05% THD and 0.01% IM dist., 1000 W rms into 4 ohms over 1-15,000 Hz with 0.05% THD; frequency response 0-20,000 Hz  $\pm$ 0.1 dB (1 W into 8 ohms); input sensitivity 3.46 V rms  $\pm$ 1% for 600 W rms into 8 ohms; hum and noise 120 dB below rated output; phase response +0/-15 degrees (0-20,000 Hz, 1 W into 8 ohms); damping factor greater than 800; input imp. 25,000 ohms  $\pm$ 30% (standard input); short, mismatch, open circuit, high line voltage, and input overload protection; includes meter and indicator lamps with adjustable thresholds; 120- and 240-V



a.c., 50-60 Hz, 80 W (idle), 1000 W (at rated output); fits 19" standard rack mount; 8<sup>3</sup>/<sub>4</sub>" H x 16<sup>1</sup>/<sub>2</sub>" D ..... \$1795.00  
**M-2000.** Consists of two M-600 units coupled together; 2000 W into 8 ohms over 1-15,000 Hz with 0.05% THD and 0.01% IM dist., 1200 W into 16 ohms over 1-20,000 Hz with 0.05% THD; frequency response 0-20,000 Hz  $\pm$ 0.2 dB (1 W into 8 ohms); input sensitivity 3.16 V rms  $\pm$ 1% for 2000 W into 8 ohms; hum and noise 115 dB below rated output; phase response +0/-20 degrees (0-20,000 Hz, 1 W into 8 ohms); damping factor greater than 250; 120- and 240-V a.c., 50-60 Hz, 160 W (idle), 3800 W (at rated output) ..... \$3590.00

### DC-300A Stereo/Mono Amplifier

Single- or dual-channel power amplifier; stereo mode: 155 W/ch into 8 ohms over 1-20,000 Hz with 0.05% THD and 0.01% IM dist.; frequency response 0-20,000 Hz  $\pm$ 0.1 dB (1 W into 8 ohms); input sensitivity 1.71 V  $\pm$ 2% for 155 W into 8 ohms; hum and noise 110 dB below rated output; phase response +0/-15 degrees (0-20,000 Hz, 1 W); damping factor greater than 750; input imp. 25,000 ohms  $\pm$ 30%; short, mismatch, open circuit, thermal, and input overload protection; 120-, 128-, 240-, 248-, and 256-V a.c.  $\pm$ 10%; 50-400 Hz, 40 W (idle), 510 W (at rated output); fits 19" standard rack mount; 7" H x 9<sup>3</sup>/<sub>4</sub>" D ..... \$849.00  
**7R.** Cabinet ..... \$55.00

### D-150A Stereo/Mono Amplifier

Single- or dual-channel power amplifier; stereo mode: 80 W/ch into 8 ohms over 1-20,000 Hz with 0.05% THD and 0.01% IM dist.; frequency response 0-20,000 Hz  $\pm$ 0.1 dB (1 W into 8 ohms); input sensitivity 1.19 V  $\pm$ 2% for 80 W into 8 ohms; hum and noise 110 dB below rated output; phase response +0/-15 degrees (0-20,000 Hz, 1 W); damping factor greater than 400; input imp. 25,000 ohms  $\pm$ 30%; short, mismatch, open circuit, thermal, and input overload protection; 120- and 240-V a.c.  $\pm$ 10%, 50-400 Hz, 30 W (idle), 250 W (at rated output); 5<sup>1</sup>/<sub>4</sub>" H x 17" W (19" wide with standard rack mounting bracket installed) x 8<sup>3</sup>/<sub>4</sub>" D. \$499.00  
**5R.** Cabinet ..... \$45.00

### D-60 Stereo/Mono Amplifier

Single- or dual-channel power amplifier; stereo



mode: 32 W/ch into 8 ohms over 20-20,000 Hz with 0.05% THD and 0.01% IM dist.; frequency response 20-20,000 Hz  $\pm 0.1$  dB (1 W into 8 ohms); input sensitivity 0.78 V  $\pm 2\%$  for 32 W into 8 ohms; hum and noise 106 dB below rated output; phase response  $+10/-15$  degrees (20-20,000 Hz, 1 W); damping factor greater than 400; input imp. 25,000 ohms  $\pm 30\%$ ; short, mismatch, open circuit, and input overload protection; 120- or 240-V a.c.  $\pm 10\%$ , 50-400 Hz; standard rack mount ..... \$299.00

#### IC-150A Control Center/Preamp

Input gain/imp. 20.8 dB  $\pm 0.2$  dB/100,000 ohms (25,000 ohms max. volume) for high-level inputs, 30-50 dB (adjustable)/47,000 ohms for phono inputs; sensitivity 0.75 mV at 1 kHz for rated output at max. gain; frequency response 3-100,000 Hz  $\pm 0.6$  dB with high-imp. load and 10-20,000 Hz  $\pm 0.1$  dB with IHF load (high-level),  $\pm 0.5$  dB of RIAA (phono); hum and noise 95 dB below rated output (high-level), 85 dB below 10-mV input (phono); THD less than 0.0005% at 1 kHz, 0.05% over 20-20,000 Hz at rated output with IHF load; IM dist. less than 0.002% at rated output with IHF load; inputs: one tuner, three aux., two tape, and two phono (overload 33-330 mV at 1 kHz, depending on gain); max. output 12 V, 600-ohm imp.; max. phono output 11 V rms at 1 kHz, high imp.; continuously variable panorama control; tone control ( $\pm 15$  dB at 30 and 15,000 Hz); rumble and scratch filters; 120- or 240-V a.c., 50-60 Hz, 2 W; fits 19" standard rack mount; 5 1/4" H x 8 1/8" D ..... \$399.00  
Walnut cabinet ..... \$45.00

#### DB SYSTEMS

##### DB-1 Preamplifier

Frequency response: (phono) 5-20,000 Hz  $\pm 0.25$  dB, (high level) 2-50,000 Hz  $+0, -1$  dB,



10-20,000 Hz  $+0, -0.25$  dB; filters: (low cut) flat, 18 Hz, 36 Hz at 6 dB/octave (phono only), (high cut) flat, 5000 Hz, 10,000 Hz at 6 dB/octave; output imp. 1000 ohms; max. output voltage 6 V into 10,000 ohms; max. load for rated dist. 10,000 ohms/3000 pF; input sensitivity for 1 V output: phono 2 mV into 50,000 ohms/100 pF, high level 120 mV into 50,000 ohms; controls: selector, balance, volume, low cut, high cut, tape monitor (includes "mute" position); requires separate regulated power supply; 8.5" x 3.2" x 7" ..... \$397.00

**DB-2.** Power supply; wired for 120 V or 240 V operation; supplies up to 300 mA at 33 V (includes protective current limiter) .... \$78.00  
**DBP-3.** Solid walnut case for DB-1 .... \$34.95

##### DB-4 Pre-Preamp

Low-distortion pre-preamp for use with moving-coil cartridges; gain selectable with internal



switch to handle all available cartridges; requires DB-2 power supply if not used with DB-1 preamplifier ..... \$150.00

#### DCE

##### Dreadnaught 1000 Power Amp

250 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.25% dist. (500 W/ch into 4 ohms); input sensitivity/imp. 1.75 V rms/100,000 ohms; hum and noise  $-100$  dB; direct-



coupled output; individual channel level controls; three-position meter range switch; two VU meters; two-speed cooling fan; uncased rack mount; 7" H x 19" W x 15" D .. \$1500.00  
Walnut-veneer cabinet ..... \$80.00  
**Dreadnaught 500.** Same as Dreadnaught 1000 except 150 W/ch into 8 ohms (300 W/ch into 4 ohms); input sensitivity 1.2 V rms; uncased rack mount; 7" H x 19" W x 12" D ... \$899.00  
**Dreadnaught 250.** Same as Dreadnaught 500 except 125 W/ch into 8 ohms (200 W/ch into 4 ohms) ..... \$675.00  
Walnut-veneer cabinet ..... \$60.00

##### Model 10 Preamplifier

Frequency response 5-200,000 Hz  $\pm 3$  dB; THD and IM dist. 0.05%; hum and noise  $-90$  dB; phono sensitivity 1 mV; phono overload 180 mV; output 4 V; 3 1/2" H x 19" W x 12" D ..... \$675.00  
Walnut-veneer cabinet ..... \$40.00



## try the Crown EQ-2 Equalization System.

If you've followed the trials and tribulations of Avery Fisher Hall, in New York you can understand how important room shape and decoration can be for good sound — for both live performance and reproduction.

If your own listening room sounds like "early Avery Fisher," the Crown EQ-2 Equalization System may make it possible to correct the problems without calling a building contractor.

The EQ-2 System includes the

new Crown 11-band octave center stereo equalizer, the Crown Equalization test record, frequency response chart paper and a manual that tells you exactly how to equalize your sound system for "live-performance" fidelity.

The complete story of the system is told in a new brochure now available from your Crown dealer or by writing directly to Crown. Get your free copy soon.



# CROWN

Box 1000, Elkhart IN 46514

CIRCLE NO. 26 ON READER SERVICE CARD

# 1 AMPLIFIERS

## DYNACO

### Stereo 416A Power Amplifier

200 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.25% THD and 0.1% IM dist.



(300 W/ch into 4 ohms, 100 W/ch into 16 ohms); frequency response 20-20,000 Hz  $\pm 0.5$  dB; hum and noise  $-95$  dB ( $-100$  dB over 20-20,000 Hz); sensitivity 1.6 V for rated output; input imp. 50,000 ohms (normal), 20,000 ohms (control by-pass); slew rate 8 V/ $\mu$ sec; damping factor 80 (8 ohms, 1 kHz); 11 A max. current drain; 7" H  $\times$  19" W  $\times$  14" D.

Kit ..... \$649.00  
Assembled ..... \$949.00

### Stereo 400 Power Amplifier

200 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.25% THD and 0.1% IM dist.; frequency response 8-50,000 Hz  $+0/-1$  dB (1 W into 8 ohms); S/N 100 dB; sensitivity 1.6 V; Dynaguard power limiting speaker protection; has input level controls, high and low filters, front-panel fuses, and relay-operated d.c. protection circuit; 7" H  $\times$  17" W  $\times$  14" D.

Kit ..... \$499.00  
Assembled with meters (ST-400M) .. \$799.00  
Assembled ..... \$725.00  
MC-4. Output meter accessory kit .... \$85.00  
FAN-1. Cooling fan kit ..... \$30.00  
PBK-400. Rack-mount brackets ..... \$29.95  
MB1-400. Permits mono operation ... \$17.95

### Stereo 300 Power Amplifier

150 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.25% THD; frequency response 10-40,000 Hz  $+0/-1$  dB (1 W into 8 ohms); d.c. coupled circuitry after input; complementary output stage; may be internally rewired to power lower imp. loads; can be used as 4  $\times$  75 W with internal wiring changes; phono jack inputs; three-way binding post output connections; walnut veneer end panels; 7 1/2" H  $\times$  18 1/2" W  $\times$  15" D.

Kit ..... \$399.00  
Assembled ..... \$599.00

### Stereo 410 Power Amplifier

200 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.25% THD; circuitry similar to ST-400; built-in cooling fan; provision for adding level controls; fits PBK-400 rack mounts.

Kit ..... \$399.00  
Assembled ..... \$799.00

### Stereo 150 Power Amplifier

75 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.25% THD and IM dist.; d.c. coupled circuitry after input; fully complementary output stage; MC-2 output meter kit optional; supplied with walnut veneer end panels.

Kit ..... \$269.00  
Assembled ..... \$399.00

### Mark VI Disco Mono Power Amp

100 W into 4, 8, or 16 ohms over 20-20,000 Hz with 0.25% THD; S/N 95 dB; tube circuitry; illuminated power output/bias adjust meter; front-panel speaker fuse holder; XLR connector input option/low filter input option; black panel with handles; rack mountable; 8 3/4" H  $\times$  19" W  $\times$  12" D.

Kit ..... \$425.00  
Assembled ..... \$649.00

### Stereo 120 Power Amplifier

60 W/ch continuous into 8 ohms over 25-15,000 Hz with 0.5% THD and IM dist.; hum and noise  $-95$  dB; sensitivity 1.5 V for rated output; 4 1/4" H  $\times$  13 1/2" W  $\times$  10 1/2" D.

Kit ..... \$209.00  
Assembled ..... \$289.00

### SCA-80Q Stereo Power Amplifier

Combines a two-channel amplifier (Model 80) with Quadaptor decoding circuitry for four-channel operation; preamp is similar to PAT-4; 30 W/ch continuous sine wave into 8 ohms over 20-20,000 Hz with 0.5% HD; sensitivity 3 mV (phono), 0.13 V (aux.); 4 1/4" H  $\times$  13 1/2" W  $\times$  10" D.

Kit ..... \$199.00  
Assembled ..... \$325.00

### Mark III Power Amplifier

Vacuum tube mono amplifier; 50 W continuous into 4, 8, or 16 ohms over 50-10,000 Hz with 1% THD and 0.5% IM dist.; frequency response 6-60,000 Hz  $\pm 0.5$  dB (1 W); sensitivity 1.6 V for rated output; 6 3/4" H  $\times$  9" W  $\times$  9" D.

Kit ..... \$169.00  
Assembled ..... \$225.00

### Stereo 70 Power Amplifier

Vacuum tube stereo amplifier; 20 W/ch continuous into 8 ohms over 50-10,000 Hz with 1% THD and IM dist.; frequency response 15-40,000 Hz  $\pm 0.5$  dB (1 W); sensitivity 1.3 V for rated output; 6 1/2" H  $\times$  13" W  $\times$  19 1/2" D.

Kit ..... \$169.00

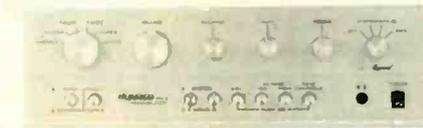
### Stereo 80 Power Amplifier

30 W/ch into 8 ohms over 20-20,000 Hz with 0.5% THD and 0.1% IM dist.; sensitivity 1.3 V for rated output; 4 1/4" H  $\times$  13 1/2" W  $\times$  9" D.

Kit ..... \$149.00  
Assembled ..... \$224.00

### PAT-5/FETA Improved Preamp

Frequency response 10-50,000 Hz  $\pm 1$  dB (high level),  $\pm 0.5$  dB of RIAA curve (low level);



0.007% THD and IM dist. (2 V output into 10,000 ohms, 1000 pF); hum and noise  $-70$  dB (magnetic phono, 10 mV input at 1 kHz),  $-90$  dB (high level, 0.5 V input); phono input acceptance 115 mV min. (low, 1 kHz), 45 mV (high, 1 kHz); bass and treble tone controls; high and low filters; output 7 V min. into 10,000 ohms, 4.5 V min. into 1000 ohms; imp. 47,000 ohms (220 pF, phono), 50,000 ohms (high level), 15,000 ohms or greater (tape out from phono inputs), 600 ohms (audio output); separation 70 dB (2 kHz, 2 V into 10,000 ohms); 120- or 240-V a.c., 50/60 Hz, 12 W; 4 1/4" H  $\times$  13 1/2" W  $\times$  11 3/4" D.

Kit ..... \$289.00  
Assembled ..... \$449.00

### SCA-50 Preamp/Amplifier

25 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.5% THD and 0.1% IM dist.; frequency response (1 W) 15-45,000 Hz  $\pm 0.5$  dB (high level),  $\pm 1$  dB of RIAA curve (phono); hum and noise  $-60$  dB (phono),  $-80$  dB (high level); input sensitivity/imp. 1.4 mV/47,000 ohms (phono), 100 mV/50,000 ohms (high level); separation 60 dB (1 kHz); 4 1/4" H  $\times$  13 1/2" W  $\times$  12" D.

Kit ..... \$149.00  
Assembled ..... \$249.00

### PAS-3X Preamplifier

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

Kit ..... \$159.00

### PAT-4 Preamplifier

Frequency response 5-100,000 Hz  $\pm 0.5$  dB; THD and IM dist. 0.05% at 2 V output; hum and noise  $-70$  dB (phono); three-step high-cut filter, low-cut filter, loudness compensation, independent tone controls, and front panel input and output; 600 ohm output imp.; 4 1/4" H  $\times$  13 1/2" W  $\times$  9" D.

Kit ..... \$139.00  
Assembled ..... \$229.00

## 4-CHANNEL

### QSA-300 Four-Channel Amplifier

75 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.25% THD; d.c. coupled circuitry after input; fully complementary output stage; MC-3 output meter kit optional; supplied with walnut veneer end panels; 8" H  $\times$  18 1/2" W  $\times$  15 1/2" D.

Kit ..... \$399.00

QSA-300M/A. Assembled with four illuminated output meters ..... \$699.00

## EPICURE

### Model One Power Amplifier

125 W/ch rms over 20-20,000 Hz with 0.2% THD and IM dist.; frequency response 20-



20,000 Hz  $+0/-1$  dB; rise time 1.5  $\mu$ sec; damping factor 100; slew rate 17 V/ $\mu$ sec; S/N 100 dB; phase response  $\pm 15^\circ$ ; input imp. 10,000 ohms; input capacitance 50 pF; input sensitivity 1 V for rated output; short, mismatch, and open circuit proof, line voltage and speaker fused, plus thermal cut-out switch; 7 1/2" H  $\times$  18 1/2" W  $\times$  12 1/2" D ..... \$649.00  
With 19" rack mount kit ..... \$680.00

### Model Four Preamplifier

Frequency response 20-20,000 Hz  $\pm 0.25$  dB from RIAA curve (phono), 10-100,000 Hz  $\pm 0.25$  dB; THD 0.005%; S/N  $-85$  dB (phono, C wtd.),  $-105$  dB (high level); phono overload 150 mV (1 kHz); phase shift at 20,000 Hz  $5^\circ$  (phono),  $2^\circ$  (high level); rated output 2.5 V rms; input imp. 47,000 ohms (phono), 100,000 ohms (high level); output imp. 600 ohms; input capacitance 37 pF (phono), 47 pF (high level); high and low filters; selectable bass and treble tone compensation; 5 1/2" H  $\times$  18 1/2" W  $\times$  9 1/2" D ..... \$450.00  
With 19" rack mount kit ..... \$480.00

## FISHER

### CA2310 Stereo Amplifier

70 W/ch continuous rms sine wave into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; damping factor 40; preamp section: frequency response 30-15,000 Hz  $\pm 1$  dB (phono), 20-20,000 Hz  $\pm 1$  dB (aux.); input sensitivity/imp. 2 mV/50,000 ohms (phono), 150 mV/100,000 ohms (tape, tuner, aux.); phono overload 220 mV; bass and treble tone controls; subsonic filter; hum and noise (IHF A)  $-78$  dB (phono),  $-100$  dB (tuner, aux., and tape); output level/imp. 150 mV/600 ohms (tape); three a.c. convenience outlets; 5 1/16" H  $\times$  17 1/2" W  $\times$  14 1/16" D ..... \$349.95

### CA2110 Stereo Amplifier

55 W/ch continuous rms sine wave into 8 ohms over 20-20,000 Hz with 0.2% THD and 0.1% IM dist.; damping factor 30; preamp section: frequency response 30-15,000 Hz  $\pm 1$  dB (phono), 20-20,000 Hz  $\pm 1$  dB (aux.); input sensitivity/imp. 2 mV/50,000 ohms (phono), 150 mV/100,000 ohms (tuner, aux., tape); phono overload 150 mV; bass and treble tone controls; low filter; hum and noise (IHF A) -75 dB (phono), -95 dB (tuner, aux., and tape); output level/imp. 150 mV/200 ohms (tape); two a.c. convenience outlets; 5 $\frac{1}{16}$ " H  $\times$  16 $\frac{1}{16}$ " W  $\times$  13 $\frac{3}{4}$ " D . . . \$249.95

### DAVID HAFLER

#### DH-101 Stereo Preamp

Rated output 3 V; max. output 7 V; dist. 0.0006% (phono, 1 kHz, 3 V output), 0.001%



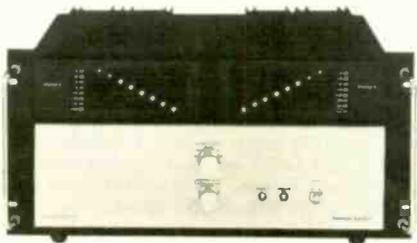
(high level); slew rate 12 V/ $\mu$ sec; phono overload 200 mV (1 kHz); hum and noise (A wtd.) -88 dB (phono, 1 kHz, 10 mV input), -90 dB (high level, 1 V); frequency response 2-20,000 Hz  $\pm 0.5$  dB (phono), 20-20,000 Hz  $\pm 0/-0.25$  dB (high level); gain 34 dB (phono, 1 kHz), 20 dB  $\pm 1$  dB (high level); input imp. 25,000 ohms (high level); bass and treble controls; provision for patching in external equipment; three switched a.c. convenience outlets; 3.25" H  $\times$  13.75" W  $\times$  8.38" D.

Kit . . . . . \$199.95  
Assembled . . . . . \$299.95

### HARMAN/KARDON

#### Citation 16 Power Amplifier

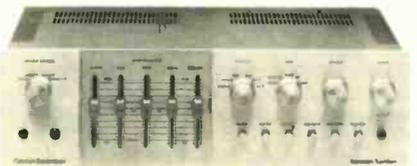
150 W/ch rms into 8 ohms over 20-20,000 Hz with 0.05% THD; frequency response 4-



120,000 Hz (1 W/ch); IM dist. 0.05%; hum and noise -100 dB; separate power supplies for each channel; LED power output display; supplied with metal case; silver or black finish; 9 $\frac{1}{4}$ " H  $\times$  19" W  $\times$  14" D . . . . . \$795.00  
Citation 16s. Similar to Citation 16 but without LED display; black finish only . . . . . \$595.00

#### Citation 17 Preamp

Incorporates equalizer section; high-frequency and subsonic filters; two tape monitor loops



controlled by front-panel switches; two phono, three highlevel aux., and tuner inputs; switching for two sets of speakers and two headphone jacks; stepped attenuation; max. output 14 V rms into 2200 ohms; 0.001% THD and 0.0025% IM dist. at 2 V rms output; S/N 92 dB (2 V rms, high-frequency filter in); input sensitivity 2.8 mV for 2 V rms output; phono preamp: S/N 80 dB (10 mV input, 1 kHz); overload 180

mV (1 kHz); 4 $\frac{1}{2}$ " H  $\times$  16 $\frac{1}{16}$ " W  $\times$  12" D . . \$575.00

Citation 17s. Similar to Citation 17 but without equalizer section . . . . . \$425.00

#### Citation 10 Power Amplifier

100 W/ch rms into 8 ohms over 20-20,000 Hz

with 0.08% THD; frequency response 5-45,000 Hz  $\pm 0.5$  dB; IM dist. 0.08%; hum and noise -100 dB; damping factor 125; input sensitivity 1.25 V for rated output; may be bridged for 220 W into single 16-ohm load over 20-20,000 Hz with 0.16% THD; . . . . . \$495.00

## AN IMPORTANT WORD ABOUT PRICES . . . . .

All prices quoted in this Directory are manufacturers' "Suggested Retail" or "Fair Retail Value," in conformance with new FTC rules following discontinuance of Fair Trade Laws. There may be a price differential for various sections of the U.S. depending on the manufacturer's location.



The Crown C-15CA/D-150A stereo combination pre-amp/amp is a good place to begin building your ultimate system. This Crown approach to the design of an "integrated" amp offers some unusual advantages

**Power now** 80 watts per channel minimum RMS into 8 ohms, 1 Hz-20 KHz, total harmonic distortion of 0.05%.

**More power later** The D-15CA amp converts instantly to mono. Delivers 250 RMS watts into 8 ohms in mono. Two D-150A's could be the way to big power without big instant money.

**Reliability** Craves almost any speaker. Can't be hurt by hookup problems. Three-year full warranty includes round-trip shipping.

**Total control** Eight inputs, switch selectable. Front panel jack. "Panorama" control.

**Future expansion** Add other D-15JA's or IC-150A's for more power, for quad, for bi-amp.

Start your ultimate system with a good foundation: the Crown IC-150A/D-150A combination. You may never outgrow its specs.

Write. We'll send you literature, specs and test reports. Check it out at your nearest Crown Dealer.



CIRCLE NO. 27 ON READER SERVICE CARD

# 1 AMPLIFIERS

## HEATH

### AA-1640 Stereo Power Amplifier

200 W/ch min. rms into 8 ohms at 0.1% THD over 20-20,000 Hz; frequency response 7-50,000 Hz +0/-1 dB, 5-100,000 Hz +0/-3 dB; IM dist. 0.1%; input sensitivity 1.5 V for full output; turn-on delay, relay, and fuses to protect speakers; optional peak-reading meters display output in dB and watts into 8 ohms; 7 1/4" H x 19" W x 18" D.

Kit ..... \$449.95  
Optional Meters. Kit ..... \$69.95

### AA-1515 Stereo Power Amplifier

70 W/ch min. rms into 8 ohms at 0.08% THD over 20-20,000 Hz; frequency response 8-45,000 Hz +0/-1 dB; input sensitivity 2 mV (phono), 150 mV (aux., tuner, tape, tape monitor, and tape dub); secondary controls concealed behind fold-down front panel; outputs for two speaker pairs; stereo headphone jack; lighted power meters and program legends; 6 7/8" H x 17 1/2" W x 14 1/4" D.

Kit ..... \$299.95

### AA-1506 Stereo Power Amplifier

60 W rms/ch into 8 ohms (20-20,000 Hz) at 0.1% THD; hum and noise -95 dB; styled to match Modulus AN-2016 tuner/preamp; includes input level controls; main/remote speaker switches, plug-in polarized speaker connectors; 5 7/8" H x 14 1/2" W x 8" D.

Kit ..... \$179.95

AA-1505. Same as AA-1506 except 35 W rms/ch ..... \$129.95

### AA-1219 Stereo Power Amplifier

15 W/ch into 8 ohms at 0.5% THD over 20-20,000 Hz; phono, tape, tuner, and aux. inputs; tape monitor circuit; 3 7/8" H x 12 3/4" W x 12" D.

Kit ..... \$109.95

### AP-1615 Stereo Preamplifier

Basic preamp; THD and IM dist. 0.05%; -65 dB hum and noise (phono); frequency response 20-20,000 Hz +0/-0.2 dB; phono input: 100 dB dynamic range; built-in subsonic filter; tape dubbing facilities; hi and lo filters; power on/off relay; solid walnut end panels; 4 7/32" H x 17 1/2" W x 8" D.

Kit ..... \$129.95

## 4-CHANNEL

### AA-2015 Four-Channel Amplifier

35 W/ch min. rms into 8 ohms with less than 0.25% THD over 20-20,000 Hz; frequency response 7-40,000 Hz +0/-1 dB; IM less than 0.2% at full power; stereo and four-channel headphone jacks; front and rear channel speaker on/off switches; plays all discrete four-channel program material, accepts optional SQ and CD-4 decoders; 6 1/4" H x 18" W x 14 3/4" D.

Kit ..... \$299.95

## HITACHI

### HMA/8300 Power Amplifier

200 W/ch continuous into 4 or 8 ohms over 20-20,000 Hz with 0.1% THD; frequency response 5-80,000 Hz  $\pm 1$  dB; input sensitivity/imp. 1 V/50,000 ohms; load imp. 4-16 ohms; damping factor 50 (20-20,000 Hz, 8 ohms); channel separation 80 dB (1 kHz, 8 ohms); S/N 110 dB (IHF A network); two peak meters; output level control; subsonic filter; 120-V a.c., 60 Hz, 700 W; 7 3/16" H x 17 1/8" W x 16" D ..... \$750.00

### HCA/8300 Preamplifier

Output level/imp. 1 V/600 ohms (pre out), 100 mV/600 ohms (tape out, PIN), 40 mV/80,000 ohms (tape out, DIN), 50 mV/8 ohms (head-



phones); frequency response 5-100,000 Hz  $\pm 1.5$  dB (tuner, aux.), RIAA  $\pm 0.2$  dB (phono); THD 0.01% (phono, 20 V at rec out; tuner, aux., 7 V at pre out); S/N 75 dB at 2 mV input (phono), 100 dB at 100 mV input (tuner, aux.), 100 dB at 100 mV input (tape); input sensitivity/imp. 2-6 mV/50,000 ohms (phono 1), 2 mV/50,000 ohms (phono 2), 100 mV/50,000 ohms (tuner, aux., tape); 120-V a.c., 60 Hz, 9.5 W; 6" H x 17 1/8" W x 12 1/8" D ..... \$350.00

### HA/1100 Integrated Amplifier

100 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.1% THD and IM dist.; frequency response 6-60,000 Hz  $\pm 1$  dB (aux.), RIAA  $\pm 0.5$  dB (phono); input sensitivity/imp. 2 mV/50,000 ohms (phono 1), 1.6-6 mV/50,000 ohms (phono 2), 100 mV/50,000 ohms (tuner, aux., and tape), 1 V/70,000 ohms (main); hum and noise (IHF A network) 75 dB (phono), 90 dB (aux.); damping factor 70; phono overload 430 mV (phono 1), 330-1300 mV (phono 2); power consumption 430 W; 5 7/8" H x 18 1/8" W x 15 1/4" D ..... \$599.95

### HA/610 Integrated Amplifier

60 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.3% THD and IM dist.; frequency response 10-30,000 Hz +0/-1 dB (aux.), RIAA  $\pm 0.5$  dB (phono); input sensitivity/imp. 2 mV/50,000 ohms (phono 1), 1.6-6 mV/50,000 ohms (phono 2), 100 mV/55,000 ohms (aux., tuner, and tape), 400 mV/50,000 ohms (DIN); hum and noise (IHF A network) 75 dB (phono), 90 dB (aux.); damping factor 70; phono overload 280 mV; 120-V a.c., 60 Hz, 280 W; 5 7/8" H x 17 1/8" W x 15 1/4" D ..... \$399.95

## INFINITY

### DSP Switching Amplifier

250 W rms/ch into 8 ohms (20-20,000 Hz) at 0.1% THD; class-D amplification; frequency response 10-100,000 Hz at 1 V; power bandwidth 20-20,000 Hz; delay time 300 nsec; damping ratio 100; max. power handling 2000 W, 25 W min.; unit consists of three sections: regulated 2000 W power supply; switching amplifier modules (analog pulse-width converter, switching section, and smoothing and averaging section); DSP hybrid digital chip which controls entire function; controls: left and right volume; sensitivity 2.2 V input for 250 W output; hum and noise 100 dB below 250 W; input imp. 100 k; operates at any a.c. voltage from 100-240 V/50-400 Hz; d.c. 160 V min/240 V; 4 1/2" H x 19" W x 15" D ..... \$2000.00

### FET Preamplifier

Designed to be used with company's DSP Switching Amplifier; frequency response  $\pm 0.02$  dB of RIAA equalization curve (phono), -3 dB at 3 Hz and 50,000 Hz (phono with moving coil engaged), line 20-100,000 Hz  $\pm 1$  dB, 1-230,000 Hz -3 dB; HD and IM dist. at 2 V out: phono and line 0.05%, 0.07% (phono with moving coil engaged); S/N -82 dBV (phono), -70 dBV (phono with moving coil), -90 dBV (line); max. output 7 V into 10 k; min. load imp. 10 k; power supply +40 V at 500 mA, 1% regulated; full complement of inputs/outputs; 4 1/2" H x 18 1/2" W x 15" D ..... \$1000.00

## JENNINGS RESEARCH

### The Amp Power Amplifier

200 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.25% THD, 400 W/ch into 4 ohms using optional fan package, 800 W mono into 8 ohms or using optional fan package when strapped for mono; frequency response 20-

20,000 Hz  $\pm 0.25$  dB; IM dist. 0.01%; noise -101 dB; input imp. 25,000 ohms; input sensitivity 0.75 V rms for rated output; crosstalk -80 dB (1 kHz); 5 1/4" H x 19" W x 10 1/4" D ..... \$650.00

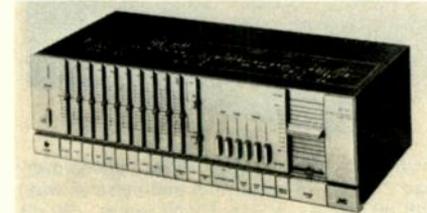
## JVC

### M-3030 "DC" Stereo Power Amp

100 W/ch rms into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist. (130 W/ch rms into 4 ohms); frequency response 0-100,000 Hz +0/-1 dB (1 W, "Direct" input); input sensitivity/imp. 1 V/50,000 ohms or more; S/N (IHF A) 116 dB; damping factor 75; output imp. 4-16 ohms; 6 1/4" H x 16 1/4" W x 11 1/4" D ..... \$699.95

### JP-S7 S.E.A. Preamplifier

Input sensitivity/imp. 2 mV/33,000, 47,000, or 100,000 ohms selectable (phono), 200 mV/



80,000 ohms (tuner), 200 mV/70,000 ohms (aux.), 200 mV/50,000 ohms (tape); capacitance selectable, 100 or 330 pF; max. input 350 mV (phono, 1 kHz), 35 V (tuner, aux.); rated output 1 V (output), 200 mV (tape); output imp. 600 ohms (output), 80 ohms (tape PIN), 70,000 ohms (tape DIN); THD 0.02% at 1 V output, 0.05% at 5 V output (1 kHz); S/N (IHF A) 75 dB (phono), 96 dB (tuner, aux., tape); frequency response  $\pm 0.3$  dB from RIAA curve (phono), 15-100,000 Hz +0/-0.5 dB (tuner, aux., tape); S.E.A. graphic equalizer has 10 controls (one per octave) with  $\pm 12$  dB range; subsonic and high filters; 6 1/32" H x 22 3/4" W x 10 1/32" D ..... \$700.00

### P-3030 Control Preamplifier

Input sensitivity/imp. 2 mV/100, 33,000, 47,000, and 100,000 ohms selectable (phono), 0.1 mV/30 ohms (MC phono), 140 mV/50,000 ohms (tuner, aux., tape); capacitance selectable 100, 220, 330, and 470 pF; output/imp. 140 mV/2000 ohms (tape), 1 V/600 ohms (rated), 20 V/600 ohms (max.); phono overload 300 mV rms (phono, 1 kHz), 15 mV rms (MC phono, 1 kHz); THD 0.005% (phono, aux., 10 V output), 0.05% (MC phono, 1 V output); frequency response  $\pm 0.3$  dB from RIAA curve (phono),  $\pm 0.5$  dB from RIAA curve (MC phono), 10-40,000 Hz  $\pm 0.5$  dB (aux.); S/N (IHF A, 1 V output) 76 dB (phono), 66 dB (MC phono), 96 dB (aux., tuner); bass and treble tone controls; two switched and one unswitched a.c. convenience outlets; 2 7/8" H x 16 1/4" W x 13 1/4" D ..... \$399.95

### JA-S71 Integrated Stereo Amplifier

80 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD; frequency response 10-70,000 Hz +0/-1 dB; S/N 100 dB; direct coupled pure complementary OCL power circuit; preamp section: input sensitivity/imp. 2.5 mV/33,000, 47,000, 100,000 ohms (phono), 180 mV/50,000 ohms (tuner, aux., tape); capacitance selectable 0, 100, 330 pF; output 180 mV (tape), 30 mV (DIN rec.); S/N 65 dB (phono), 85 dB (aux., tape); independent tape dubbing; tone defeat and loudness, subsonic/high filters; -20 dB audio muting; negative-feedback tone controls; 6 5/8" H x 16 5/8" W x 15 1/32" D ..... \$399.95

### JA-S41 Integrated Stereo Amplifier

60 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD and IM dist.; damping factor 30 (8 ohms); S/N (IHF A) 75 dB (phono); phono overload 200 mV rms; frequency response 20-50,000 Hz +0/-1 dB; sensitivity 2.5 mV (phono); phono equalization RIAA curve  $\pm 0.5$  dB;

bass and treble tone controls; subsonic filter; 6" H x 15 7/8" W x 13" D ..... \$280.00

**JA-S31 Integrated Stereo Amplifier**

40 W/ch rms into 8 ohms over 20-20,000 Hz with 0.2% THD; frequency response 20-50,000 Hz +0/-1 dB; direct-coupled pure complementary OCL power circuit; preamp section: input sensitivity/imp. 2.5 mV/47,000 ohms (phono), 160 mV/50,000 ohms (tuner, aux., tape); output 160 mV (tape rec.); S/N 65 dB (phono), 85 dB (tuner, aux., tape); master volume control; loudness/balance switches; 5 1/8" H x 15 1/32" W x 13" D ..... \$199.95

**JA-S11 Integrated Stereo Amplifier**

30 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.1% THD and 1M dist.; damping factor 30 (8 ohms, 1 kHz); S/N 65 dB (phono); phono overload 150 mV (1 kHz); phono equalization RIAA ±0.5 dB; frequency response 25-40,000 Hz +0/-1 dB; sensitivity 2.5 mV (phono); bass and treble tone controls; two tape monitoring circuits with tape-to-tape dubbing; protection for speakers and power transistors; three-position speaker selector; front panel headphone jack; 5 3/32" H x 15 1/32" W x 13" D ..... \$140.00

**KENWOOD**

**KA-9100 Integrated Stereo Amp**

90 W/ch rms into 8 ohms over 20-20,000 Hz with 0.03% THD; d.c. power amplifier; dual



power supplies; two selectable-range power meters; independent preamplifier power supply; two tape deck capability with intertape dubbing and tape-through circuit; tone control defeat; gain sensitivity control (accommodates MC cartridges with 0.8 mV sensitivity); two-position loudness control; high and subsonic filters (12 dB/octave); stepped attenuator-type volume control; 5 7/8" H x 17" W x 15 1/8" D ..... \$500.00

**KA-7300 Integrated Stereo Amp**

65 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD; dual power supplies; direct-



coupled phono equalizer; two tape deck capability with intertape dubbing and tape-through circuit; mid-range presence control; selectable turnover points for bass and treble; three-position loudness compensation; high, low, and subsonic filters (12 dB/octave); stepped attenuator-type volume control; 20-dB attenuator switch; provisions for three pairs of speakers; 5 7/8" H x 17" W x 14 7/8" D ..... \$325.00

**KA-7100 Integrated Stereo Amp**

60 W/ch rms into 8 ohms over 20-20,000 Hz with 0.02% THD; d.c. power amplifier; dual power supplies; direct coupled phono equal-



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izer; two tape deck capability with A-B dubbing and tape-through circuit; tone control defeat; two-position loudness compensation; high and low filters (6 dB/octave); stepped attenuator-type volume control; 20-dB attenuator switch; 5 $\frac{7}{8}$ " H x 17" W x 15 $\frac{1}{8}$ " D ..... \$300.00

#### KA-3500 Integrated Stereo Amp

40 W/ch rms into 8 ohms over 20-20,000 Hz with 0.2% THD; pure complementary output capacitorless circuitry; area-of-safe-operation protection circuit; direct coupled phono equalizer; two tape deck capability with intertape dubbing and tape-through circuit; loudness compensation; high filter control; stepped attenuator-type volume control; 5 $\frac{1}{2}$ " H x 15" W x 10" D ..... \$170.00

#### Audio Purist Group

##### L-09M Single-Channel Power Amp

300 W rms into 8 ohms over 20-20,000 Hz with 0.02% THD; triple push-pull class AB full complementary symmetry circuitry; chimney-type structural heat sinks; residual noise less than 35  $\mu$ V; S/N 120 dB; gold-plated screw-type pin plugs with special audio cable for preamp connection; remote power switch for control by L-07C control amplifier; 6 $\frac{1}{2}$ " H x 19" W x 16 $\frac{1}{8}$ " D ..... \$600.00

**L-07M.** Similar to L-09M but 150 W/ch rms into 8 ohms over 20-20,000 Hz with 0.008% THD .. \$450.00

##### 600 Integrated Stereo Amplifier

130 W/ch rms into 8 ohms over 20-20,000 Hz with 0.08% THD; independent power supply for each channel; ASO protection circuit; all-FET direct coupled preamp; max. input 220 mV; dual-level attenuation before and after control preamp section; negative feedback tone controls; selectable turnover points (150, 400, 3000, and 6000 Hz); two-position presence control; defeat switch; four-position loudness control; high/low steep-slope filters; dual tape provision with "tape-through" circuit; selectable cartridge imp.; provision for two phono, two aux., tuner, and three speaker systems. .... \$700.00

**500.** Same but 100 W/ch ..... \$550.00

##### L-07C Control Amplifier

Features two independent phono equalizers, one for use with MC cartridge; input sensitivity 2 mV; S/N 84 dB; residual noise suppression -120 dBV at output terminals; channel separation 100 dB; THD 0.003% (1 V output, phono 1, tuner, aux., tape), 0.009% (phono 2); low-capacitance audio cable with screw-type locking pin plugs; 4" H x 19" W x 13" D ..... \$550.00

#### LAFAYETTE

##### LT-40 Integrated Stereo Amp

40 W/ch rms into 8 ohms over 20-20,000 Hz with 0.3% THD; hum and noise -85 dB (aux., tuner, tape), -66 dB (phono); input sensitivity/imp. 120 mV/50,000 ohms (tuner, aux., tape), 2 mV/47,000 ohms (phono); max. input 10 V (tuner, aux., tape), 150 mV (mag. phono); IM dist. 0.1%; damping factor 50 (8 ohms, 1 kHz); channel separation 55 dB (1 kHz); tape output level 120 mV; bass and treble tone controls; low-frequency filter; loudness control; 5 $\frac{5}{8}$ " H x 15 $\frac{3}{8}$ " W x 12 $\frac{3}{8}$ " D ..... \$149.95

#### LEAK

##### 2200 Integrated Amplifier

50 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD; frequency response 20-50,000 Hz +0/-2 dB; hum and noise -90 dB; crosstalk -50 dB (10 kHz); sensitivity 2.5 or 6.5 mV

(phono, 1 kHz), 150 mV (tape, tuner), 2.4 mV (mike); may be operated in 120-W mono mode; two power output meters; illuminated function indicators; separate tape and cassette inputs; PA capability; four-channel matrix switch; teak-finished cabinet; 5.3" H x 16.3" W x 12.5" D ..... \$650.00

##### 2100 Integrated Amplifier

35 W/ch into 8 ohms over 20-30,000 Hz with 0.1% THD and IM dist.; hum and noise -66 dB (aux.); sensitivity 2 or 6 mV (mag. phono), 400 mV (aux.), 60 or 140 mV (tuner); high- and low-cut filters; matrix decoder for simulated four-channel sound; ganged tone controls; multiple speaker switching; headphone jack; tape monitoring facilities; 5.3" H x 16.3" W x 12.5" D ..... \$495.00

#### LUX

##### M-6000 Stereo Power Amplifier

300 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 5-50,000 Hz  $\pm$ 1 dB; input sensitivity 1.25 V; S/N 100 dB; residual noise 0.5 mV; crosstalk -70 dB (20 kHz); damping factor 100 (8 ohms); two VU meters and LED peak level indicators; muting function; on/off switch may be remote-controlled; d.c. drift, thermal, over current, and power TR fuse protected; 8 $\frac{1}{16}$ " H x 22 $\frac{7}{16}$ " W x 16 $\frac{3}{4}$ " D ..... \$2995.00

##### M-4000 Stereo Power Amplifier

180 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; fre-



quency response 3-100,000 Hz; input sensitivity 1 V; input imp. 50,000 ohms; residual hum and noise -180 dB; crosstalk -90 dB (1 kHz); damping factor 100 (8 ohms); meter sensitivity switch; two power output meters and LED peak level indicators; d.c. drift, thermal, over current, and power TR fuse protected; 6 $\frac{7}{8}$ " H x 19 $\frac{1}{8}$ " W x 15 $\frac{3}{8}$ " D ..... \$1495.00

##### M-2000 Stereo Power Amplifier

120 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 5-100,000 Hz +0/-1 dB; input sensitivity 800 mV; input imp. 50,000 ohms; residual hum and noise -108 dB; crosstalk -90 dB; damping factor 100 (8 ohms); two VU meters and two LED peak-indicating scales (sensitivity adjustable); 6 $\frac{7}{8}$ " H x 19 $\frac{1}{8}$ " W x 11 $\frac{3}{8}$ " D ..... \$995.00

##### MB3045 Monophonic Power Amp

50 W into 4/8/16 ohms over 20-20,000 Hz with 0.3% THD; IM dist. 0.3%; frequency response 10-40,000 Hz +0/-1 dB; input sensitivity 700 mV; damping factor 16 (8 ohms); residual hum and noise -95 dB; 6 $\frac{1}{16}$ " H x 14 $\frac{1}{8}$ " W x 9 $\frac{7}{16}$ " D ..... \$495.00

##### CL35/III Stereo Control Center

Vacuum tube design; frequency response 15-40,000 Hz +0/-1 dB; THD 0.06%; output 15 V max.; output imp. 550 ohms; sensitivity 1.4 mV (phono), 140 mV (aux. 2, aux. 1 and 3 variable), 0.5 mV (mike); input imp. 100,000, 50,000, 30,000 ohms (phono 1), 50,000 ohms (phono 2), 100,000 ohms (aux. 1 and 3), 150,000 ohms (aux. 2), 50,000 ohms (mike); S/N 64 dB (phono), 77 dB (aux.), 60 dB (mike);

RIAA equalization  $\pm$ 0.3%; controls include tone, low and high cut filters, monitor and tape reprint switches, balance and volume controls, bass and treble turnover switches, etc.; 7 $\frac{3}{4}$ " H x 19 $\frac{1}{2}$ " W x 11" D ..... \$795.00

##### C-1010 Stereo Control Center

Output 1 V (13 V max.); THD 0.007%; frequency response 2-80,000 Hz +0/-0.5 dB; input sensitivity 2.5 mV (phono), 150 mV (aux., tuner, monitor); input imp. 30,000-100,000 ohms (phono 1), 50,000 ohms (phono 2, aux.), 70,000 ohms (tuner); S/N 65 dB (phono); phono overload 450 mV rms (1 kHz); RIAA equalization  $\pm$ 0.2 dB; has tone controls, high and low cut filters, audio attenuator, output muting, linear equalizer, tape dubbing and monitoring; 6 $\frac{7}{8}$ " H x 19 $\frac{1}{8}$ " W x 9 $\frac{3}{8}$ " D ..... \$645.00

##### CL32 Stereo Control Center

Vacuum tube design; output 1 V (15 V max.); THD 0.03%; frequency response 10-40,000 Hz +0/-1 dB; output imp. 600 ohms (pre out), 560 ohms (rec. out); input sensitivity 2 mV (phono), 160 mV (tape, aux. 1), 160 mV-5 V (tuner, aux. 2); input imp. 30,000, 50,000, 100,000 ohms (phono 1), 200,000 ohms (tape, aux. 1), 100,000 ohms (tuner, aux. 2), 50,000 ohms (phono 2); S/N (IHF A) 74 dB (phono), 89 dB (tuner, aux., tape); phono overload 400 mV rms (1 kHz); RIAA equalization  $\pm$ 0.3 dB; crosstalk -60 dB; has linear equalizer, low cut, flat, and subsonic filters, tape monitoring and dubbing, audio attenuator, three a.c. convenience outlets (two switched); 3 $\frac{7}{32}$ " H x 17 $\frac{1}{4}$ " W x 12 $\frac{1}{16}$ " D ..... \$645.00

##### L-100 Integrated Amplifier

110 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 5-50,000 Hz  $\pm$ 1 dB; residual hum and noise -90 dB; damping factor 50 (8 ohms); preamp section: output 910 mV (12 V max.); frequency response 5-50,000 Hz +0/-1 dB; THD 0.007% (1 kHz, 1 V); input sensitivity 3 mV (phono, gain 0 dB), 180 mV (aux., tuner); input imp. 30,000-100,000 ohms (variable); S/N 65 dB (phono); phono overload 450 mV rms (1 kHz); RIAA equalization  $\pm$ 0.2 dB; residual hum and noise 40  $\mu$ V; crosstalk -60 dB; has touch mute switch and linear equalizer; 6 $\frac{7}{8}$ " H x 19 $\frac{1}{8}$ " W x 13 $\frac{3}{4}$ " D ..... \$995.00

##### L-85V Integrated Amplifier

80 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 10-50,000 Hz +0/-1 dB; input sensitivity 2.5 mV (phono), 200 mV (aux., tuner); input imp. 50,000 ohms (phono, aux., tuner); S/N 62 dB (phono), 84 dB (tuner, aux.); phono overload 300 mV; damping factor 40 (8 ohms); residual hum and noise 1.2 mV; has linear equalizer, tape dubbing and monitoring, attenuator, tone, and filter switches; 6 $\frac{7}{16}$ " H x 17 $\frac{3}{16}$ " W x 12 $\frac{3}{16}$ " D ..... \$765.00

##### L-80V Integrated Amplifier

50 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 5-50,000 Hz +0/-1 dB; input sensitivity 2.5 mV (phono), 120 mV (aux., tuner); input imp. 65,000 ohms (phono), 50,000 ohms (tuner, aux., monitor); S/N 65 dB (phono), 80 dB (tuner, aux., monitor); crosstalk -60 dB (phono), -65 dB (tuner, aux., monitor); damping factor 40 (8 ohms); residual hum and noise 1.2 mV; has bass and treble tone controls with turnover frequency selector, high and low cut filters, low-boost and loudness switches, tape dubbing and monitoring, headphone jack, two a.c. convenience outlets (one switched); 6 $\frac{5}{16}$ " H x 17 $\frac{27}{32}$ " W x 11 $\frac{1}{16}$ " D ..... \$475.00

#### Laboratory Reference Series

##### 5M21 DC Stereo Power Amplifier

100 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.008% THD and IM dist.; frequency response 0-100,000 Hz +0/-1 dB; damping factor 80 (8 ohms); input sensitivity

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That's what Onkyo is all about. Listening. That's why only Onkyo has Quartz-Locked tuning. See your Onkyo dealer or write for information and test reports on the Quartz-

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Quartz Crystal



# 1 AMPLIFIERS

890 mV; input imp. 50,000 ohms; residual hum and noise 0.1 mV; crosstalk -90 dB (1 kHz); S/N (IHF A) 120 dB; slew rate 30 V/ $\mu$ sec; pure d.c. design; class A/B output stage; separate dual polarity supplies for each channel; speaker and amplifier protection circuits; electrostatic/normal speaker switch; 5.8" H x 17.7" W x 16" D ..... \$1195.00

## 5C50 Stereo Control Preamp

Output 1 V (pre out), 150 mV (rec. out), 18 V (max.); THD 0.005%; IM dist. 0.002%; fre-



quency response RIAA  $\pm$ 0.2 dB (phono), 0.5-200,000 Hz +0/-0.5 dB (tuner, aux.); S/N 80 dB below 2.5 mV (phono, IHF A), 100 dB (tuner and aux., IHF A); input sensitivity for 1 V pre. out 2.5 mV (phono), 150 mV (tuner, aux.); input imp. 30,000, 50,000, 100,000 ohms (phono), 50,000 ohms (tuner, aux.); output imp. 500 ohms; crosstalk -80 dB (phono), -95 dB (tuner, aux.); phono overload 300 mV rms (1 kHz); residual noise 0.33 mV (phono), 5  $\mu$ V (tuner, aux.); has linear equalizer, switch-selected subsonic notch filter circuitry, selectable sharp high frequency filters, tape dubbing and monitoring, muting switch; 4" H x 17.7" W x 16" D .....

## MARANTZ

### 510M Stereo Power Amplifier

256 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD; direct-coupled out-



put; 3 $\frac{1}{2}$ " VU meters (two) and peak indicators; separate left and right channel gain controls; 5 $\frac{1}{2}$ " H x 15 $\frac{1}{8}$ " W x 14" D ..... \$999.95  
510. Same without meters ..... \$899.95

### 250M Stereo Power Amplifier

126 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.19% THD; direct-coupled output; two 3 $\frac{1}{2}$ " illuminated VU meters; 5 $\frac{1}{2}$ " H x 15 $\frac{1}{8}$ " W x 10 $\frac{3}{8}$ " D ..... \$599.95

### 3800 Preamp/Control Console

Incorporates full process Dolby noise-reduction system; THD 0.02%; IM dist. 0.01% (3 V output); variable frequency tone turnover points; graphic bass, mid-range, and treble tone controls; tape monitoring for two decks; tape equalization circuit; 5 $\frac{1}{2}$ " H x 15 $\frac{1}{8}$ " W x 9 $\frac{1}{4}$ " D ..... \$599.95

### 3600 Preamp/Control Console

THD 0.02%; IM dist. 0.01% (3 V output); variable frequency tone turnover points; graphic bass, mid-range, and treble controls; tape monitoring circuitry for two tape decks; 5 $\frac{1}{2}$ " H x 15 $\frac{1}{8}$ " W x 9 $\frac{1}{4}$ " D ..... \$499.95

## 4-CHANNEL

### 4140 Stereo 2 + Quad 4 Amp

70 W/ch (stereo), 25 W/ch (quadradial) continu-

ous into 8 ohms over 20-20,000 Hz with 0.3% THD; has Vari-Matrix with dimension control; input sensitivity 1.8 mV (phono), 180 mV (aux.); jacks for optional SQ decoder and remote control; four level meters; tape monitor for two decks; 5 $\frac{1}{2}$ " H x 15 $\frac{1}{8}$ " W x 12 $\frac{3}{8}$ " D ... \$549.95

### 4070 Stereo 2 + Quad 4 Amp

35 W/ch (stereo), 15 W/ch (quadradial) continuous into 8 ohms over 40-20,000 Hz with 0.9% THD; has Vari-Matrix with dimension control; input sensitivity 1.8 mV (phono), 180 mV (aux.); four-channel headphone jack; 4 $\frac{1}{2}$ " H x 14 $\frac{1}{8}$ " W x 11" D ..... \$299.95

### 4000 Quad 4 Preamp Adaptor

Converts stereo systems to four-channel with the addition of two speakers; serves as control center for volume, balance, mode, rear-channel tone; existing preamp controls remain completely operable; has Vari-Matrix, balance controls, low and high filters, four illuminated meters, remote control output; 5 $\frac{1}{2}$ " H x 15 $\frac{1}{8}$ " W x 12 $\frac{3}{8}$ " D ..... \$249.95

## MITSUBISHI

### DA-A15 Dual Mono Power Amplifiers

Two completely separate monaural power amplifiers; 150 W/ch into 8 ohms (200 W/ch into 4 ohms) over 20-20,000 Hz with 0.1% THD and IM dist.; frequency response 20-20,000 Hz  $\pm$ 0.1 dB at rated output; input sensitivity/imp. 1 V (variable)/50,000 ohms; damping factor 100; channel separation 90 dB at 1 kHz, 80 dB at 20 kHz; S/N 101 dB; power consumption 520 W at rated output; 6 $\frac{1}{2}$ " H x 16 $\frac{1}{2}$ " W x 11 $\frac{1}{4}$ " D ..... \$590.00  
DA-A10. Similar but 100 W/ch into 8 ohms (135



W/ch into 4 ohms); S/N 100 dB; power consumption 380 W at rated output ... \$390.00  
DA-M10. Power output level meter unit for above amplifiers; power amplifier function controls on meter unit front panel; 6 $\frac{1}{2}$ " H x 16 $\frac{1}{2}$ " W x 4 $\frac{1}{8}$ " D ..... \$140.00

### DA-P10 Stereo Preamplifier

Two completely separate amplifiers for left and right channels; frequency response 30-15,000 Hz  $\pm$ 0.2 dB (phono, RIAA), 10-70,000 Hz +0/-0.5 dB (tuner, aux., play); channel separation 100 dB at 1 kHz, 80 dB at 20 kHz (phono), 85 dB at 20 kHz (tuner, aux., play); THD 0.05% max.; S/N (IHF A) 73 dB (phono), 90 dB (tuner, aux., play); phono overload 270 mV; input sensitivity/imp. 2.2 mV/50,000 ohms (phono 1 and 2), 150 mV/60,000 ohms (tuner, aux., play); output level 9 V max. (pre out, 50,000 ohms), 150 mV (rec out, 50,000 ohms), 50 mV (headphones, 8 ohms); 6 $\frac{1}{2}$ " H x 16 $\frac{1}{4}$ " W x 8" D ..... \$290.00

## NAKAMICHI

### 620 Stereo Power Amplifier

100 W/ch continuous sine wave into 8 ohms over 5-20,000 Hz with 0.01% THD and 0.002% IM dist.; frequency response 5-100,000 Hz  $\pm$ 0.5 dB; S/N 120 dB (IHF A); class B operation with "complete-mirror" push-pull circuitry; complete speaker and power transistor protection; peak indicating lamps with selectable triggering points; 6 $\frac{1}{2}$ " H x 15 $\frac{1}{4}$ " W x 9 $\frac{3}{8}$ " D ..... \$630.00  
BA-100. Self-powered unit permits bridging of Nakamichi 420 and 620 power amplifiers for monaural operation; single unit connects ster-

eo outputs of preamplifier to two power amplifiers for stereo operation; bridged 620 is rated at 350 W min. continuous sine wave into 8 ohms over 5-20,000 Hz with 0.05% THD; bridged 420 is rated at 120 W min. continuous sine wave into 8 ohms over 5-20,000 Hz with 0.05% THD; bridged Nakamichi amplifiers are stable with loads of 8 ohms or more; 2 $\frac{1}{2}$ " H x 7 $\frac{1}{2}$ " W x 3 $\frac{1}{4}$ " D ..... \$75.00

### 420 Stereo Power Amplifier

50 W/ch min. continuous sine wave into 8 ohms over 5-20,000 Hz with less than 0.02% THD



and 0.002% IM dist.; frequency response 5-50,000 +0/-1 dB; S/N 110 dB (IHF A); damping factor 100; unconditional load stability; full amplifier and loudspeaker protection; 3 $\frac{1}{2}$ " H x 16" W x 8 $\frac{7}{8}$ " D ..... \$330.00

### 610 Stereo Control Preamplifier

Combines preamplifier circuitry, test circuitry, and mixing facilities; 19 different inputs with full dubbing and 5-in/2-out mixing; built-in sine wave tones, pink noise, phase check, and invert capabilities; remote speaker/amplifier selection; mike input attenuators; frequency response 30-100,000 Hz  $\pm$ 0.75 dB (mike), 20-100,000 Hz  $\pm$ 0.75 dB (aux.), RIAA  $\pm$ 0.3 dB (phono); S/N (IHF A) 65 dB (mike with 15-dB attenuation), 80 dB (phono re 1 mV), 93 dB (aux.); THD 0.01% (mike), 0.005% (phono and aux.) ..... \$580.00  
610B. Same but with black matte finish ..... \$600.00  
RM-610. Remote control unit; permits switching of up to three speaker pairs or amplifiers from front-panel controls of preamplifier ..... \$75.00

### 410 Stereo Preamplifier

Frequency response 20-50,000 Hz  $\pm$ 0/-1.5 dB (aux., tape), RIAA  $\pm$ 0.3 dB (phono); S/N (IHF A)



102 dB (aux., tape), 80 dB (phono re 1 mV); phono overload 250 mV (1 kHz, 5 mV sensitivity); dist. 0.003%; switchable phono input sensitivity (1, 2, or 5 mV); defeatable active subsonic phono filter (-45 dB at 10 Hz); tone control circuitry bypass switch; variable contour control; 3 $\frac{1}{2}$ " H x 16" W x 8 $\frac{1}{2}$ " D ..... \$310.00

## NIKKO

### Alpha V Lab Standard Power Amp

Class A stereo power amplifier; 100 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.06% THD; frequency response 0-60,000 Hz; S/N (IHF A) 110 dB; input sensitivity/imp. 1 V/100,000 ohms; a.c./d.c. amp selector; two VU meters; cooling fan; rack mountable; 9" H x 19" W x 17" D ..... \$3000.00

### Alpha II Stereo Power Amp

110 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.03% THD; frequency response 5-100,000 Hz; S/N (IHF A) 115 dB; two VU meters with four-button range control; relay and speaker protection circuitry; rack mountable ..... \$400.00

### Alpha I Stereo Power Amp

220 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.08% THD; frequency response 10-100,000 Hz; S/N 100 dB; direct-coupled pure complementary circuitry; protection circuitry; rack mountable; 7" H x 19" W x 11 1/2" D ..... \$600.00

### Beta I Stereo Preamplifier

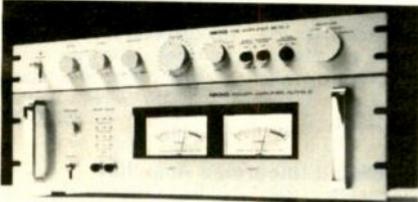
All-FET stereo preamplifier; input sensitivity/imp. 2 mV/50,000 ohms (phono), 100 mV/50,000 ohms (tuner, aux.); S/N 72 dB (phono), 100 dB (tuner); output 1 V (rated); 10 V (max.); five-position tape monitor control; three-way phono imp. switching; phono level controls; rack mountable; 2 1/2" H x 19" W x 11 1/2" D ..... \$300.00

### Beta V Stereo Preamplifier

Input sensitivity/imp. 2 mV/22, 33, 47, 68, 100 kohms (phono), 100 mV/22, 33, 47, 68, 100 kohms (tuner, aux.); S/N 72 dB (phono), 100 dB (tuner, aux.); rated output 1 V; has subsonic filter and audio muting; five-position tape monitor control; three-way capacitance switching; rack mountable; 2" H x 19" W x 17" D ..... \$750.00

### Beta II Preamplifier

Input sensitivity/imp. 2.5 mV/22, 47, 100 kohms (phono), 150 mV/50,000 ohms (tuner,



aux.); S/N 80 dB (phono), 100 dB (tuner); RIAA equalization  $\pm 0.2$  dB; five-way tape monitoring system; tone defeat; audio muting; subsonic filter; rack mountable; 2 1/2" H x 19" W x 11 1/2" D ..... \$200.00

### NA 850 Integrated Amplifier

60 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; input sensitivity/imp. 2.2 mV/47,000 ohms (phono), 150 mV/50,000 ohms (tuner, aux., tape); phono overload 220 mV; two VU meters; tone defeat; five-position tape dubbing control; speaker protection circuit; subsonic filter; 5 3/4" H x 15 1/4" W x 12 1/4" D ..... \$250.00

### TRM 770 Integrated Amplifier

55 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.15% THD and 0.2% IM dist.; S/N (IHF A) 100 dB; input sensitivity/imp. 2.5 mV/50,000 ohms (phono, tape), 180 mV/50,000 ohms (aux., tuner), 2.5 mV/20,000 ohms (mike); audio muting; five-position tape dubbing control; speaker protection circuit; mike/mixing circuitry; high and low filters; 5 3/4" H x 15 1/4" W x 12 1/4" D ..... \$220.00

### NA 550 Integrated Amplifier

45 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; damping factor 50; input sensitivity/imp. 2.2 mV/47,000 ohms (phono), 150 mV/50,000 ohms (tuner, aux., tape); hum and noise -75 dB (phono), -95 dB (tuner, aux., tape); phono overload 190; two VU meters; five-way tape dubbing control; speaker protection circuitry; 5 3/4" H x 15 1/4" W x 12 1/4" D ..... \$200.00

## ONKYO

### M-505 Stereo Power Amplifier

105 W/ch into 8 ohms over 20-20,000 Hz with 0.05% THD (140 W/ch into 4 ohms); IM dist. 0.01%; damping factor 100 (8 ohms, 1 kHz); frequency response 0-150,000 Hz  $\pm 0.1$  dB; input sensitivity 1.5 V; input imp. 100,000 ohms; load imp. 4-16 ohms; S/N 110 dB (IHF A); embossed vinyl over metal cabinet; 6 1/2" H x 17 3/4" W x 12 1/4" D ..... \$549.95

1978 EDITION

### P-303 Preamplifier

Rated output/imp. 150 mV/2000 ohms (tape), 1.5 V/100 ohms (accessory send), 1.5 V (15 V max.)/600 ohms (output); input sensitivity/imp. 100  $\mu$ V/10 ohms (phono MC), 2.5 mV/30,000, 50,000, 100,000 ohms (switchable, phono MM), 150 mV/50,000 ohms (tuner, tape), 1.5 V/82,000 ohms (accessory receive); frequency response 3.5-200,000 Hz  $\pm 0.1$  dB (tuner), RIAA  $\pm 0.2$  dB (phono); phono overload 330 mV rms at 1 kHz, 0.05% THD (phono MM), 13 mV rms at 1 kHz, 0.05% THD (phono MC); THD 0.006% (phono MM, 3 V output), 0.03% (phono MC, 3 V output); IM dist. 0.01%; S/N (IHF A) 70 dB (phono MC), 83 dB (phono MM), 100 dB (tuner); African wood veneer over Luan plywood finish; 3 1/4" H x 17 3/4" W x 14 1/8" D ..... \$399.95

### A-10 Integrated Amplifier

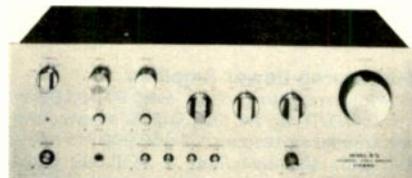
85 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD (110 W/ch into 4 ohms); IM dist. 0.1%; damping factor 50 (8 ohms); frequency response 2-80,000 Hz  $\pm 1$  dB; rated input 1.5 V; input imp. 50,000 ohms; load imp. 4-16 ohms; S/N 110 dB (IHF A); preamplifier section: input sensitivity/imp. 100  $\mu$ V/20 ohms (phono MC), 2.5 mV/50,000 ohms (phono), 150 mV/50,000 ohms (tuner, aux., tape); THD 0.05%; IM dist. 0.08%; frequency response 10-50,000 Hz  $\pm 0.1$  dB (aux.), 30-15,000 Hz  $\pm 0.2$  dB (phono); phono overload 230 mV rms at 1 kHz, 0.1% THD; S/N (IHF A) 68 dB (phono MC), 78 dB (phono), 90 dB (aux.); output voltage 1.5 V (pre out), 150 mV (rec out); output imp. 27,000 (pre out), 25,000 ohms (rec out); 6 1/4" H x 17 1/2" W x 15 1/8" D ..... \$449.95

### A-7 Integrated Amplifier

65 W/ch into 8 ohms over 20-20,000 Hz with 0.1% THD and IM dist. (70 W/ch into 4 ohms); frequency response 2-80,000 Hz  $\pm 1$  dB; S/N (IHF A) 110 dB; damping factor 50 (8 ohms); input imp. 100,000 ohms; rated input 1.5 V; load imp. 4-16 ohms; preamplifier section: input sensitivity/imp. 2.5 mV/50,000 ohms (phono), 150 mV/50,000 ohms (tuner, aux., tape); THD 0.05%; IM dist. 0.08%; frequency response 30-15,000 Hz  $\pm 0.2$  dB (phono), 10-50,000 Hz  $\pm 0.1$  dB (tuner, aux.); phono overload 230 mV rms at 1 kHz, 0.1% THD; output voltage 1.5 V; output imp. 27,000 ohms; S/N (IHF A) 80 dB (phono), 90 dB (tuner, aux.); embossed vinyl over metal cabinet; 6 1/4" H x 17 1/2" W x 15" D ..... \$349.95

### A-5 Integrated Amplifier

45 W/ch into 8 ohms over 20-20,000 Hz with 0.1% THD (50 W/ch into 4 ohms); frequency



response 2-70,000 Hz  $\pm 1$  dB; S/N (IHF A) 110 dB; damping factor 50 (8 ohms); input imp. 25,000 ohms; rated input 1.5 V; load imp. 4-16 ohms; preamplifier section: input sensitivity/imp. 2.5 mV/50,000 ohms (phono), 150 mV/50,000 ohms (tuner, tape); THD 0.08%; IM dist. 0.08%; frequency response 30-15,000 Hz  $\pm 0.3$  dB (phono), 15-40,000 Hz  $\pm 0.1$  dB (tuner); phono overload 170 mV rms at 1 kHz, 0.1% THD; output voltage 1.5 V; output imp. 2200 ohms; S/N (IHF A) 75 dB (phono), 90 dB (tuner); embossed vinyl over metal cabinet; 6 1/4" H x 17 1/2" W x 15" D ..... \$249.95

## OPTONICA

### SM-4646 Integrated Amplifier

85 W/ch rms into 8 ohms over 20-20,000 Hz with 0.08% THD and 0.1% IM dist.; damping factor 45; preamp section: input sensitivity 2.5 mV/22, 47, 100 kohms (phono 1), 2.5 mV/



47,000 ohms (phono 2), 150 mV/47,000 ohms (aux., tuner, tape), 150 mV/82,000 ohms (tape DIN); phono overload 370 mV (1 kHz); output level/imp. 150 mV/47,000 ohms (tape), 30 mV/82,000 ohms (tape DIN); frequency response 20-20,000 Hz  $\pm 0.18$  dB (phono), 10-70,000 Hz  $\pm 1.5$  dB (tuner, aux., tape); automatic protection circuit; high and low filters; tone controls with turnover frequency selection; 41-position detent volume control; 5.7" H x 17.4" W x 14.4" D ..... \$449.95

### SM-3636 Integrated Amplifier

65 W/ch rms into 8 ohms over 20-20,000 Hz with 0.09% THD and 0.1% IM dist.; damping factor 45; preamp section: input sensitivity/imp. 2.5 mV/22, 47, 100 kohms (phono 1), 2.5 mV/47,000 ohms (phono 2), 150 mV/47,000 ohms (tuner, aux., tape), 150 mV/82,000 ohms (tape DIN); phono overload 220 mV (1 kHz); output level/imp. 150 mV/47,000 ohms (tape), 30 mV/82,000 ohms (tape DIN); frequency response 20-20,000 Hz  $\pm 0.25$  dB (phono), 10-80,000 Hz (tuner, aux., tape); automatic protection circuit; high and low filters; tone controls with turnover frequency selection; 41-position detent volume control; 5.7" H x 17.4" W x 14.4" D ..... \$399.95

### SM-1515 Integrated Amplifier

40 W/ch rms into 8 ohms over 20-20,000 Hz with 0.19% THD and 0.03% IM dist.; damping factor 40; preamp section: input sensitivity/imp. 3 mV/47,000 ohms (phono), 150 mV/

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| Maxell UDC-90                  | 2.55       |
| Maxell UDC-120                 | 3.45       |
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| Maxell UDXL 1 or 2 C-90        | 3.12       |
| Memorex C-90 3pk               | 4.99 for 3 |
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| Scotch Master III C-90         | 3.29       |
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| TDK D C-90                     | 1.56       |
| TDK D C-120                    | 1.98       |
| TDK D C-180 (180 minutes)      | 2.88       |
| TDK AD C-60                    | 1.62       |
| TDK AD C-90                    | 2.40       |
| TDK AD C-120                   | 3.30       |
| TDK SA C-60                    | 1.98       |
| TDK SAC-90                     | 2.88       |
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| Maxell UDXL 35-908 1800 ft     | 5.46       |
| Maxell U50-60 1200 ft          | 3.87       |
| Maxell U35-90 1800 ft          | 4.50       |
| Maxell U35-180 3600 ft 10 1/2" | 12.00      |
| Scotch 206 1200 ft             | 3.99       |
| Scotch 207 1800 ft             | 4.49       |
| Scotch 212 1800 ft             | 3.59       |
| 8 TRACK                        |            |
| Maxell LN 8T 90 min            | 1.79       |
| Memorex 2 pk 90 min            | 3.59 for 2 |
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# 1 AMPLIFIERS

47,000 ohms (tuner, aux., tape); phono overload 240 mV (1 kHz); output level/imp. 150 mV/47,000 ohms (tape); frequency response 20-20,000 Hz  $\pm 0.3$  dB (phono), 10-80,000 Hz (tuner, aux., tape); two output meters; two-way tape dubbing; tone controls; low filter; loudness contour; audio muting; 41-position detent volume control; 5.7" H x 16.1" W x 10" D ..... \$229.95

## PHASE LINEAR

### 700B Stereo Power Amplifier

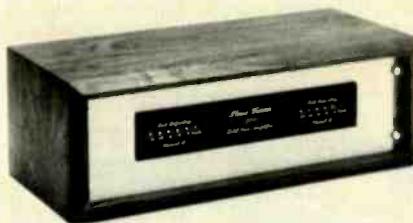
345 W/ch into 8 ohms over 20-20,000 Hz with 0.25% THD; frequency response 0-250,000 (1 V, direct-coupled inputs); sensitivity 1.14 V; hum and noise -100 dB; load imp. 4-16 ohms; light brushed gold, baked enamel panel ..... \$879.95  
Walnut cabinet ..... \$39.95

### 400 Stereo Power Amplifier

201 W/ch rms into 8 ohms over 20-20,000 Hz with 0.25% THD; frequency response 0-250,000 Hz (1 W); hum and noise -100 dB; load imp. 4-16 ohms; sensitivity 1.75 V; light brushed gold, baked enamel, and black anodized panel; 7" H x 19" W x 10" D ..... \$549.95  
Walnut cabinet ..... \$39.95

### 200 Stereo Power Amplifier

105 W/ch rms into 8 ohms over 20-20,000 Hz with 0.25% THD; hum and noise -95 dB; sen-



sitivity 1.5 V; input imp. 18,000 ohms; two peak-responding meters with LED displays; current-limiting amplifier protection; relay protection for speakers; rear-panel switch for current feedback reduction; 5 1/2" H x 19" W x 8 3/4" D ..... \$399.95  
Walnut cabinet ..... \$39.95

### 4000 Stereo Preamplifier

Features single-pass noise-reduction and dynamic-range-recovery systems; frequency response 20-20,000 Hz  $\pm 1$  dB; gain 65 dB (phono), 15 dB (high level); hum and noise -72 dB; 6-dB octave boost below 50 Hz, shelving +3 dB at 20 kHz and +6 dB at 20 Hz; two monitor switches for two-deck operation; switched outlets handle 25 A; 7" H x 19" W x 10" D ..... \$659.95  
Walnut cabinet ..... \$39.95

### 2000 Stereo Preamplifier

Controls include separate bass and treble tone controls for each channel, tone defeat, active equalizer, tone turnover controls; two tape monitor circuits; THD 0.1%; frequency response RIAA  $\pm 0.5$  dB (phono); input sensitivity 40,000 ohms (high level), 47,000 ohms (phono, 290 pF); hum and noise -88 dB (high level, 2 V), -74 dB (low level, 10 mV); 5 1/2" H x 19" W x 6" D ..... \$299.00  
Walnut cabinet ..... \$39.95

## PHILIPS

### AH 578 Stereo Power Amplifier

210 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.08% THD and IM dist.; fre-



quency response 10-30,000 Hz  $\pm 0.5$  dB; separation 60 dB (1 kHz); damping factor 90 (8 ohms); S/N 100 dB; input sensitivity 1 V; input imp. 50,000 ohms; subsonic filter; function display; two output meters; thermal and speaker protection; 8" H x 18" W x 15" D .... \$699.95

### AH 572 Preamplifier

Input sensitivity 1.5-18 mV (phono, adjustable); THD and IM dist. 0.01%; S/N (A wtd.) 75 dB (phono), 90 dB (tuner, aux., tape); phono overload 750 mV; frequency response RIAA +0/-0.5 dB (phono), 10-45,000 Hz +0/-1 dB (tuner, aux., tape); separation 55 dB; crosstalk -75 dB; output 2 V (rated), 12 V (max.); record output 200 mV; tone controls; loudness action; high and low cut filters; muting; 5 1/2" H x 18" W x 13 1/2" D ..... \$599.95

## PICKERING

### PP-1 Stereo Preamplifier

Stereo preamplifier with rumble filter; input imp. 47,000 ohms; gain at 1 kHz 38 dB; frequency response (RIAA) 30-15,000 Hz  $\pm 2$  dB; S/N 60 dB ..... \$29.95

## PIONEER

### SPEC-2 Stereo Power Amplifier

250 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD; frequency response 1-80,000 Hz +0/-1 dB; damping factor 70; hum and noise -110 dB (IHF A); imp. selector for 4 or 8 ohms; input sensitivity control; two peak power level meters; built-in surge current control and protection circuits; 6 7/8" H x 18 1/16" W x 13 3/16" D ..... \$900.00

### SPEC-4 Stereo Power Amplifier

150 W/ch rms into 8 ohms over 20-20,000 Hz with 0.01% THD (180 W/ch into 4 ohms with 0.03% THD); IM dist. 0.01% at rated output; frequency response 5-100,000 Hz +0/-1 dB; input sensitivity/imp. 1 V/50,000 ohms; load imp. 4-16 ohms; damping factor 100 (8 ohms); hum and noise 115 dB (IHF A); 120-V a.c., 60 Hz, 760 W; 7 3/8" H x 18 2/32" W x 17 1/32" D ..... \$700.00

### M-22 Stereo Power Amplifier

30 W/ch rms into 8 ohms over 10-30,000 Hz with 0.01% THD; IM dist. 0.01% at rated output; frequency response 2-150,000 Hz +0/-1 dB; input sensitivity/imp. 1 V/50,000 ohms; load imp. 8 ohms; damping factor 60; S/N 106 dB (IHF A); 120-V, 60 Hz, 280 W; 6 1/32" H x 16 17/32" W x 14 7/16" D ..... \$650.00

### SPEC-1 Stereo Preamplifier

Input sensitivity/imp. 2.5 mV/50,000 ohms (phono, mike), 150 mV/100,000 ohms (tuner, aux., tape); 0.05% THD at 2 V output; frequency response 30-15,000 Hz  $\pm 0.2$  dB (phono), 10-70,000 Hz +0/-0.5 dB (tuner, aux., tape); tone controls; filters; mixing facilities; level adjust; input imp. selector; 6 7/8" H x 18 1/16" W x 16 5/16" D ..... \$500.00

### C-21 Stereo Preamplifier

Input sensitivity/imp. 2.5 mV/100 ohms, 10, 25, 50, 75, 100 kohms (phono), 150 mV/50,000 ohms (aux., tape); cartridge load 100, 150, 200, 300, 400, 500 pF; phono overload 300 mV (1 kHz); output level/imp. 150 mV/1000 ohms (tape rec), output 1 V/450 ohms (20 V/150 ohms max.); THD 0.006% at 1 V output (phono),

0.003% at 5 V output (aux., gain control at 0 dB); frequency response 20-20,000 Hz  $\pm 0.2$  dB (phono), 3-300,000 Hz +0/-1 dB (aux.); S/N (IHF A) 80 dB at 1 V output (phono), 100 dB at 1 V output (aux.); 120-V a.c., 60 Hz, 15 W (max.); 3 1/16" H x 16 17/32" W x 14 7/16" D ..... \$350.00

### SA-9900 Integrated Amplifier

Integrated stereo amplifier; 110 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD; frequency response 10-80,000 Hz +0/-1 dB; preamplifier section: input sensitivity 2.5 mV (phono), 6-24 mV (mike), 150 mV (tuner, aux., tape); input imp. 85,000 ohms (mike), 50,000 ohms (tuner, aux., tape); frequency response 30-15,000 Hz  $\pm 0.2$  dB (phono), 7-40,000 Hz +0/-1 dB (tuner, aux., tape); 6 1/2" H x 16 1/2" W x 15 7/8" D ..... \$750.00

### SA-9500 II Integrated Amplifier

Stereo integrated amplifier; 80 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD; IM dist. 0.05% at rated output; frequency response 5-100,000 Hz +0/-1 dB; input sensitivity/imp. 1 V/50,000 ohms; damping factor 30 (8 ohms); hum and noise 110 dB (IHF A); preamplifier section: input sensitivity/imp. 2.5 mV/10, 25, 50, 100 kohms (phono), 150 mV/50,000 ohms (tuner, aux., tape); cartridge load 100, 200, 300, 400 pF; phono overload 300 mV (1 kHz); THD 0.01% max.; frequency response 20-20,000 Hz  $\pm 0.2$  dB (phono), 5-50,000 Hz +0/-1 dB (tuner, aux., tape); hum and noise (IHF A) 75 dB (phono), 95 dB (tuner, aux., tape); 120-V a.c., 60 Hz, 230 W; 5 29/32" H x 16 17/32" W x 14 13/16" D ..... \$450.00

### SA-8500 II Integrated Amplifier

Stereo integrated amplifier; 60 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD (75 W/ch into 4 ohms); IM dist. 0.05% at rated output; frequency response 5-100,000 Hz +0/-1 dB; input sensitivity/imp. 1 V/50,000 ohms; damping factor 30 (8 ohms); hum and noise -110 dB (IHF A); preamplifier section: input sensitivity/imp. 2.5 mV/50,000 ohms (phono), 150 mV/50,000 ohms (tuner, aux., tape); cartridge load 100, 200, 300, 400 pF; phono overload 250 mV (1 kHz); THD 0.02% max.; frequency response 20-20,000 Hz  $\pm 0.02$  dB (phono), 5-50,000 Hz +0/-1 dB (tuner, aux., tape); hum and noise (IHF A) -75 dB (phono), -95 dB (tuner, aux., tape); 120-V a.c., 60 Hz, 180 W; 5 29/32" H x 16 17/32" W x 14 13/16" D ..... \$350.00

### SA-7500 II Integrated Amplifier

Stereo integrated amplifier; 45 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD (50 W/ch into 4 ohms); IM dist. 0.1% at rated output; damping factor 30 (8 ohms); preamplifier section: input sensitivity/imp. 2.5 mV/50,000 ohms (phono), 150 mV/50,000 ohms (tuner, aux., tape); phono overload 200 mV (1 kHz); frequency response 20-20,000 Hz  $\pm 0.3$  dB (phono), 10-40,000 Hz +0/-1 dB (tuner, aux., tape); hum and noise (IHF A) -73 dB (phono), -95 dB (tuner, aux., tape); 120-V a.c., 60 Hz, 135 W; 5 13/32" H x 14 3/32" W x 12 1/8" D ..... \$250.00

### SA-6500 II Integrated Amplifier

Stereo integrated amplifier; 30 W/ch rms into 8 or 4 ohms over 20-20,000 Hz with 0.1% THD; IM dist. 0.1% at rated output; damping factor 30 (8 ohms); preamplifier section: input sensitivity/imp. 2.5 mV/50,000 ohms (phono), 150 mV/50,000 ohms (tuner, aux., tape); phono overload 200 mV (1 kHz); frequency response 20-20,000 Hz  $\pm 0.3$  dB (phono), 10-40,000 Hz +0/-1 dB (tuner, aux., tape); hum and noise (IHF A) -72 dB (phono), -93 dB (tuner, aux., tape); 120-V a.c., 60 Hz, 100 W; 5 13/32" H x 14 3/32" W x 12 1/8" D ..... \$175.00

### SA-5500 II Integrated Amplifier

Stereo integrated amplifier; 15 W/ch rms into 8 ohms over 20-20,000 Hz with 0.5% THD; IM



dist. 0.5% at rated output; damping factor 30; preamplifier section: input sensitivity/imp. 2.5 mV/50,000 ohms (phono), 150 mV/50,000 ohms (tuner, aux., tape); phono overload 130 mV (1 kHz); frequency response 20-20,000 Hz  $\pm 0.5$  dB (phono), 20-20,000 Hz  $\pm 1$  dB (tuner, aux., tape); hum and noise (IHF A) -71 dB (phono), -87 dB (tuner, aux., tape), 120 V a.c., 60 Hz, 70 W; 4 $\frac{7}{8}$ " H x 14 $\frac{1}{2}$ " W x 10 $\frac{1}{2}$ " D ..... \$125.00

#### PLANAR

##### SA2100 Integrated Stereo Amplifier

65 W/ch continuous power into 8 ohms over 20-20,000 Hz at 0.5% THD; built-in four-channel speaker matrixing; two peak VU meters monitor power level; two fast-acting fuses/ch; preamp section: bass, treble, and balance control; volume and loudness controls; high filter; tape dubbing switch; source/monitor switch; source selector; dubbing in/out; source, tape and stereo indicator lights; phono sensitivity 2 mV/47 kohms; high-level 100 mV/100 kohms; preamp output 1.0 V/1 kohms; walnut veneer cabinet, polymeric grille; ..... \$399.95

#### PROFESSIONAL SYSTEMS

##### Studio One Stereo Control Amp

Discrete class A design; THD 0.01% (ref. 2 V); noise -88 dB (IHF A, 10 mV, phono, 1 kHz), -98 dB (2 V output); slew rate 50 V/ $\mu$ sec; RIAA response  $\pm 0.25$  dB (phono), 20-20,000 Hz  $\pm 0.25$  dB (line); gain 45 dB at 1 kHz (phono), 20 dB (line); 15 dB boost or cut for bass and treble; low and high filters; ..... \$495.00

##### Studio Two Stereo Power Amp

80 W/ch rms into 8 ohms with 0.02% THD, 140 W/ch rms into 4 ohms with 0.04% THD over 20-20,000 Hz; sensitivity 1.2 V for 100 W into 8 ohms; slew rate 100 V/ $\mu$ sec; damping factor 2000 (at amp output), 200 (at speaker terminals); noise -100 dB; ..... \$495.00

#### QUINTESSENCE

##### Power Amplifier II

200 W/ch into 8 ohms; sensitivity 0.7 V for rated output; input imp. 10,000 ohms; frequency response 20-20,000 Hz  $\pm 0.3$  dB; output imp. 0.075 ohms; damping factor 107; dist. 0.2%; S/N 95 dB; incorporates dual feedback loops and separate power supplies for each channel ..... \$1300.00

##### Power Amplifier I-R

90 W/ch into 8 ohms; sensitivity 1.5 V for rated output; input imp. 15,000 ohms; frequency response 20-20,000 Hz  $\pm 0.3$  dB; output imp. 0.12 ohms; damping factor 67; dist. 0.2%; S/N 95 dB; incorporates dual feedback loop. \$650.00

##### Studio Preamplifier

Phono: 47,000-ohm imp.; 1 mV input for 0 dBm out; max. input 120 mV; S/N 90 dB (unweighted); frequency response RIAA  $\pm 0.25$  dB; THD 0.01%; tuner, aux., and tape: 10,000-ohm imp.; 78 mV input for 0 dBm out; max. input 260 mV; 90 dB (unweighted), 72 dB (tuner, unweighted); frequency response 10-100,000 Hz  $\pm 0.25$  dB; THD 0.005% ..... \$550.00

#### RAM

##### 512 Stereo Power Amplifier

180 W/ch continuous average power into 8 ohms over 20-20,000 Hz with 0.07% THD; IM

dist. 0.1%; frequency response 15-20,000 Hz  $\pm 0.1$  dB; input sensitivity 1.69 V for rated out-



put; input imp. 47,000 ohms; slew rate 20 V/ $\mu$ sec; damping factor 1000 (8 ohms); hum and noise -100 dB; relay speaker protection; fuse amplifier protection; two output meters;

20-dB (1 W) peak LED indicators; RF protection; 5 $\frac{1}{4}$ " H x 17 $\frac{1}{2}$ " W x 14" D ..... \$1150.00

##### 510 Stereo Power Amplifier

100 W/ch into 8 ohms over 20-20,000 Hz with 0.08% THD; IM dist. 0.1%; frequency response 15-25,000 Hz  $\pm 0.1$  dB; input sensitivity 1.26 V for 100 W into 8 ohms; input imp. 22,000 ohms; slew rate 20 V/ $\mu$ sec; damping factor 100 (8 ohms); S/N 100 dB; instrument-type fuses for speaker protection; 3 $\frac{1}{2}$ " H x 15" W x 10" D ..... \$435.00

##### 200 Preamp/Control Console

Output 2.5 V rms; frequency response 5-30,000 Hz  $\pm 0.1$  dB (main), RIAA  $\pm 0.2$  dB (phono); input imp. 100,000 ohms (main), 6-47,000 ohms (phono 1), 1000-78,000 ohms in 13-ohm steps (phono 2); output imp. 500 ohms (100

## Separates or an integrated unit? Don't you owe it to yourself to seriously consider the alternatives?

A complete home stereo system built around a Phase Linear power amplifier and a Phase Linear preamplifier, is now within the reach of every serious listener. The development of the new Phase Linear 200B power amplifier makes this possible. In combination with the 2000 preamplifier, the 200B provides the nucleus for an awesome, medium-powered stereo system. The increased dynamic range, faster transient response, lower distortion and greater flexibility make the Phase Linear System 200B a serious alternative to comparably priced systems built around integrated components. For those who are serious about acquiring state-of-the-art performance from a medium-powered high fidelity system, we present the Phase Linear System 200B. The serious alternative.

The new Phase Linear 200B power amplifier is a handcrafted, reliable amplifier with outstanding sonic performance in the tradition of the famous 700B and 400 models. *Power output:* 105 watts per channel, minimum R.M.S. at 8 ohms from 20Hz to 20kHz with no more than .25% total harmonic distortion. *Hum and noise:* 100dB below rated power.

The Phase Linear 2000 preamplifier is one of the quietest preamps ever made. *Signal to noise ratio:* 74 dB below 10mV. *Total Harmonic Distortion:* 0.1%. *Variable ambience injection circuit* recovers music lost with most preamps.



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# 1 AMPLIFIERS

ohms optional); THD 0.02%; IM dist. 0.02%; phono overload 150 mV rms (1 kHz); phono sensitivity 2.5 mV rms (1 kHz); S/N 90 dB (high level), 80 dB (phono); high and low filters; two tape monitor selectors; external processor selector; balance selector and attenuator; LED dual output level indicators; 3.5" H x 17" W x 14" D ..... \$1050.00

## 9210SG Record Transducer System

Preamp section: output 2.5 V rms into 50,000 ohms; frequency response 5-25,000 Hz  $\pm 0.5$  dB; THD 0.05%; input sensitivity 30 mV for rated output; channel balance  $\pm 0.25$  dB; separation 70 dB; slew rate 3 V/ $\mu$ sec; LED power indicator; cartridge: semiconductor strain gauge (variable resistance); frequency response 0-50,000 Hz  $\pm 2$  dB; separation 20 dB (1 kHz); imp. 1000 ohms; compliance  $10 \times 10^{-9}$  cm/dyne (dynamic); tracking force 1-3 g; bi-radial diamond stylus tip; weight 3.8 g; system specs: frequency response 5-20,000 Hz  $\pm 1$  dB, RIAA  $\pm 1$  dB; THD 0.1%; S/N 70 dB; 2.25" H x 3.5" W x 8.5" D ..... \$299.00

## 203 Preamp/Control Center

Output 2.5 V rms; rated load 10,000 ohms; frequency response 20-20,000 Hz  $\pm 0.2$  dB (main), RIAA  $\pm 0.5$  dB (phono); input imp. 50,000 ohms (main), 47,000 or 70,000 ohms (phono); output imp. 600 ohms; THD 0.1% (main); IM dist. 0.1% (main); phono gain 20-40 dB (variable); main amp gain 20 dB; phono overload 320 mV rms; S/N 90 dB (main), 70 dB (phono); high and low filters; tape monitor and mode switches; independent level controls with switchable loudness contour; tone in/out select; independent treble boost/cut controls with switchable turn-over frequency (2000 or 4000 Hz); 3 1/2" H x 15" W x 8" D ..... \$225.00

## REALISTIC

### SA-2000 Integrated Stereo Amplifier

55 W rms/ch into 8 ohms over 20-20,000 Hz with 0.3% THD; IM dist. 0.3% at 50 W; frequency response 20-20,000 Hz  $\pm 1.5$  dB; S/N 60 dB (phono), 75 dB (aux); phono sensitivity 3 mV; phono overload 160 mV; tuner, aux., two mag. phono inputs; recording outputs; dubbing and monitor facilities for two tape decks; coupled gain and volume controls; selectable crossover frequencies for bass and treble controls; all three tone controls can be switched out of circuit; "Quatravox" 4-channel synthesizer; direct-reading power meters; headphone jack; stereo/mono switch; main/remote speaker switching; hi and low filters; walnut-veneer case; 4 3/8" H x 16" W x 12 1/8" D ..... \$269.95

### SA-1000 Integrated Stereo Amplifier

25 W rms/ch into 8 ohms over 20-20,000 Hz with 0.5% THD; IM dist. 0.2% at 15 W; frequency response 20-70,000 Hz  $\pm 2$  dB at 1 W; S/N 60 dB (phono), 75 dB (aux); phono sensitivity 2.5 mV; phono overload 150 mV; inputs: mag. phono, tuner, two aux.; record outputs; tape monitor button; "Quatravox" synthesizer for simulated 4-channel sound from stereo sources; headphone jack; stereo/mono switch; switching for two speaker pairs; switched and unswitched a.c. convenience outlets; walnut-veneer case; 4 3/8" H x 15 1/4" W x 11 1/2" D ..... \$169.95

## REVOX

### A740 Stereo Power Amplifier

100 W/ch into 8 ohms over 45-15,000 Hz with 0.1% dist.; frequency response 20-20,000 Hz  $\pm 0.5$  dB; sensitivity 1 V for rated output; fea-

tures peak-indicating power output meters; 3-dB stepped input level controls; front-panel headphone jacks; carrying handles; dual phono and XLR input connections; switchable high-pass filter at input; 6" H x 17" W x 14" D ..... \$1499.00

### A722 Stereo Power Amplifier

Power output 60 W/ch rms into 4 ohms with both channels fully driven; power bandwidth 40-15,000 Hz at stated output power; dist. 0.2% max. throughout power bandwidth at any output power from 100 mV rms to 60 W rms; response 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

### A78 Integrated Amplifier

Power output 40 W/ch rms into 4 ohms with both channels fully driven; power bandwidth 40-15,000 Hz at stated output power; dist. 0.3% max. throughout power bandwidth at any output; response 20-20,000 Hz  $\pm 1$  dB; sensitivity: mike 3 mV; tuner 100 mV; tape 250 mV; has tape monitoring input with before/after switch and switched outputs for two pairs of speakers; 6 1/4" H x 16 3/8" W x 9 3/8" D .. \$563.00

## ROTEL

### RB-5000 Stereo Power Amplifier

500 W/ch rms into 8 ohms over 20-20,000 Hz with 0.009% THD; frequency response 0-100,000 Hz  $\pm 1$  dB (1 W/ch into 8 ohms); IM dist. less than 0.009%; hum and noise -120 dB (IHF A, closed circuit); input 1 V; two average power meters with three-position sensitivity switch (0, -10, and -20 dB) plus LED peak indicators; standby, overload, protection, and speaker select LED indicators; three-position filter (lab test, normal, and low filter) ..... \$2250.00

### RZ-8 Stereo Play Mixer/Preamp

Rhythm section features variable tempo, bass, treble, mode, gain, variation switch, and foot switch input; two line inputs with fader and separate gain controls; mic/guitar section has three inputs with variable imp. and gain; echo gain and mode control; two phono inputs with gain and fader controls; master gain control; two VU meters; headphone jack .... \$600.00

### RA-1412 Stereo Integrated Amplifier

110 W/ch into 8 ohms over 20-20,000 Hz with 0.05% THD; 2-dB step bass and treble controls with two-position rollover for each; two-position high and low filters, loudness switch, and audio muting switch; tape monitoring with full dubbing; mic mixing; two power meters; two phono inputs with three-position sensitivity and imp. switches ..... \$780.00

### RA-1312 Stereo Integrated Amplifier

80 W/ch into 8 ohms over 20-20,000 Hz with 0.05% THD; 2-dB step bass and treble controls with two-position rollover for each; two-position low filter; high filter; loudness switch; audio muting switch; tape monitoring with full dubbing; mic mixing; two phono inputs with variable sensitivity and imp.; two power meters ... \$570.00

### RA-913 Stereo Integrated Amplifier

60 W/ch into 8 ohms over 20-20,000 Hz with 0.05% THD; two phono inputs; tone defeat, mode, audio muting, and loudness switches; subsonic, low, and high filters; tape monitoring with full dubbing; two power meters .. \$370.00

### RA-713 Stereo Integrated Amplifier

45 W/ch into 8 ohms over 20-20,000 Hz with 0.1% THD; low and high filters; loudness

switch; audio muting; tape monitoring with full dubbing; power meters ..... \$260.00

### RA-413 Stereo Integrated Amplifier

35 W/ch into 8 ohms over 20-20,000 Hz with 0.2% THD; low and high filters; loudness switch; tape monitoring with full dubbing; two power meters ..... \$200.00

### RA-313 Stereo Integrated Amplifier

25 W/ch into 8 ohms over 20-20,000 Hz with 0.2% THD; high and low filters; loudness switch; tape monitoring with full dubbing ..... \$170.00

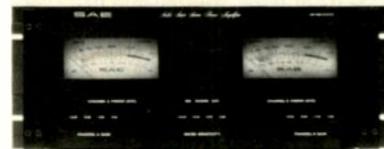
### RA-212 Stereo Integrated Amplifier

10 W/ch into 8 ohms over 50-20,000 Hz with 1% THD; magnetic or ceramic phono inputs; loudness switch; tape monitoring ... \$130.00

## SAE

### 2600 Stereo Power Amplifier

400 W/ch rms into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist. (600 W/ch rms



into 4 ohms with 0.1% THD); relay protection for speakers; fully complementary plus parallel output stage; 7" H x 19" W x 15.75" D ..... \$1350.00

### 2400L Stereo Power Amplifier

200 W/ch rms into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; relay protection for speakers; volt/amp limiter; complementary double differential inputs and full complementary series-connected output stages; feedback level control; 7" H x 19" W x 10.5" D ..... \$800.00

### 2200 Stereo Power Amplifier

100 W/ch rms into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; frequency response 20-20,000 Hz  $\pm 0.1$  dB; S/N 100 dB; sensitivity 1 V rms for rated output, 100,000 ohms; LED display; walnut cabinet; 5.25" H x 19" W x 8.5" D ..... \$450.00

### Mark XXXIB Stereo Power Amplifier

50 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD and IM dist.; frequency response 20-20,000 Hz  $\pm 0.1$  dB; S/N 100 dB; sensitivity 1 V rms for rated output; 5.25" H x 19" W x 8" D ..... \$250.00

### 2100 Stereo Parametric Preamp

Serves as complete control center; incorporates parametric equalizer; frequency response 20-20,000 Hz  $\pm 0.25$  dB; THD and IM dist. 0.005%; S/N 80 dB (phono); stepped volume control; gain control; full tape EQ/dubbing facilities; speaker switching; scope outputs; four phono circuits with separate feedback gain controls; 6.5" H x 19" W x 7" D ..... \$900.00  
Optional cabinet ..... \$45.00  
2100L. Same as 2100 but without parametric



equalizer; has LED display which monitors output at tape, line, or power amp level .. \$750.00

### 2900 Stereo Parametric Preamp

Incorporates parametric equalizer, full tape EQ/dubbing facilities, relay muting, and feedback

# In the Black II

Performance, beauty, quality — three attributes that have always been the hallmarks of SAE products. SAE systems in the past have had them, this system's predecessor had them, and the new In The Black system has them and much more.

The 2900 Parametric Preamplifier offers our new flexible parametric tone control system, full dubbing and tape EQ. New phono and line circuitry results in unparalleled clarity and definition with distortion of less than 0.01% THD & IM.

The 2200 Stereo Power Amplifier with fully complementary circuitry delivers 100 Watts RMS per channel from 20-20K at less than 0.05% Total Harmonic Distortion, from 250mW to full rated power.

The 8000 Digital FM Tuner has linear phase filters, phase-lock multiplex, and of course, our famous digital readout tuning indicator system.

Combine these products together and you have a system that ensures superior performance in all areas, excellent control flexibility, and the sonic quality that is typically SAE.



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# 1 AMPLIFIERS

gain control; THD and IM dist. 0.01%; frequency response 20-20,000  $\pm$ 0.5 dB (phono), 20-20,000 Hz  $\pm$ 0.25 dB (line); S/N 75 dB (phono), 95 dB (aux.); 5.25" H  $\times$  19" W  $\times$  3.5" D ..... \$450.00

## Mark XXX Stereo Preamplifier

Frequency response 10-100,000 Hz  $\pm$ 0.25 dB (high level), 20-20,000 Hz  $\pm$ 1 dB (phono); THD 0.03% (2.5 V); IM dist. 0.03% at rated output; S/N 72 dB (phono, 10 mV), 90 dB (high level); gain 57 dB (phono, 1 kHz), 15 dB (high level); max. output 9 V into 100,000 ohms; 5.25" H  $\times$  19" W  $\times$  8" D ..... \$200.00

## SANSUI

### BA-5000 Stereo Power Amplifier

300 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD; frequency response 15-30,000 Hz  $\pm$ 0/2 dB (1 W); two VU meters; triple protection circuit; forced-ventilation system; designed for rack mounting; 8 $\frac{3}{4}$ " H  $\times$  19" W  $\times$  18 $\frac{1}{2}$ " D ..... \$1300.00

### AU20000 Integrated Stereo Amplifier

170 W/ch rms into 8 ohms over 20-20,000 Hz with 0.05% THD; channel separation 55 dB (phono), 60 dB (tuner and aux.); hum and noise -70 dB (phono), -80 dB (tuner and aux.); dual-amplifier phono equalizer; triple tone controls; selectable phono sensitivity and impedance; accepts up to three stereo tape decks with individual monitoring and deck-to-deck dubbing; tone defeat switch; two-step low/high filters; meter sensitivity switch; illuminated level meters; 7" H  $\times$  18 $\frac{1}{8}$ " W  $\times$  15 $\frac{3}{4}$ " D ..... \$1000.00

**AU11000.** Similar to AU20000 but 110 W/ch

rms; input/output facilities for two stereo tape decks; hum and noise 65 dB (phono); no meters

..... \$750.00

**AU9900.** Similar to AU11000 but 80 W/ch rms; frequency response 10-50,000 Hz  $\pm$ 0/-1 dB (1 W) ..... \$600.00

### AU-717 Stereo Integrated Amplifier

85 W/ch rms into 8 ohms over 20-20,000 Hz with 0.025% THD; frequency response 0-



200,000 Hz  $\pm$ 0/-3 dB (from main in), RIAA  $\pm$ 0.2 dB (phono); S/N 78 dB (phono); phono overload 350 mV; click-stop tone controls have dual turnover frequencies; subsonic and high-cut filters; two-system speaker selection ..... \$450.00

### AU-517 Stereo Integrated Amplifier

65 W/ch rms into 8 ohms over 20-20,000 Hz with 0.025% THD; frequency response 0-200,000 Hz  $\pm$ 0/-3 dB (from main in); RIAA  $\pm$ 0.2 dB (phono); S/N 78 dB (phono); phono overload 320 mV; click-stop tone controls provide up to 10 dB of boost or cut at 50 and 15,000 Hz (may be bypassed); subsonic filter; two-system speaker selection ..... \$370.00

### AU5900 Stereo Integrated Amplifier

45 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD and IM dist.; frequency response 10-50,000 Hz  $\pm$ 0/-1.5 dB (aux.); hum and noise -75 dB (phono), -90 dB (aux.); loudness and audio muting switches; 5 $\frac{1}{2}$ " H  $\times$  16 $\frac{3}{16}$ " W  $\times$  12 $\frac{3}{16}$ " D ..... \$260.00

### AU4900 Stereo Integrated Amplifier

35 W/ch rms into 8 ohms over 40-20,000 Hz with 0.15% THD and 0.2% IM dist.; frequency response 10-40,000 Hz  $\pm$ 0.5/-1.5 dB; hum and noise -75 dB (phono), -90 dB (aux.); bass and treble tone controls; low/high filter; tape monitor; mike mixing; two-system speaker selection; two a.c. outlets (one switched); 4 $\frac{3}{4}$ " H  $\times$  15 $\frac{3}{4}$ " W  $\times$  9 $\frac{1}{2}$ " D ..... \$200.00

**AU3900.** Similar to AU4900 but 22 W/ch; high filter only ..... \$160.00

## SANYO

### DCA1001 Stereo Power Amplifier

45 W/ch rms into 8 ohms over 20-20,000 Hz with 0.5% THD; frequency response 15-35,000 Hz; input sensitivity/imp. 2.5 mV/50,000 ohms (phono), 140 mV/50,000 ohms (tuner, aux.), 130 mV/50,000 ohms (tape); tape rec. out level 140 mV; damping factor 40 (8 ohms, 1 kHz); has bass, treble, and loudness controls; tone defeat switch; low filter; two-deck tape monitoring and copy control; switched and unswitched a.c. convenience outlets; supplied with audio cables; all-metal cabinet; 5 $\frac{3}{32}$ " H  $\times$  15 $\frac{1}{4}$ " W  $\times$  13 $\frac{3}{4}$ " D ..... \$199.95

## SCOTT

### A-457 Integrated Amplifier

60 W/ch rms into 8 ohms over 20-20,000 Hz with 0.2% THD; high and low filters; loudness switches; volume control with detents; two tape monitors plus copy; stereo mike inputs; individual channel slide tone controls; two VU meters; rack mount handles ..... \$249.95

### A-437 Integrated Amplifier

42 W/ch rms into 8 ohms over 20-20,000 Hz with 0.3% THD; high and low filters; loudness switches; volume control with detents; two tape monitors plus copy; two mike inputs; slide tone



controls; two power level meters; rack mount handles ..... \$199.95

### A-417 Integrated Amplifier

25 W/ch rms into 8 ohms over 20-20,000 Hz with 0.3% THD; two tape monitors; speaker selection buttons; slide switch tone controls ..... \$149.95

### A-407 Integrated Amplifier

15 W/ch rms into 8 ohms over 20-20,000 Hz with 0.3% THD; tape monitor and loudness switches; slide switch tone controls; external speaker fuses; DIN tape record/play jack ..... \$119.95

## Professional Series

### Alpha 1 Preamp

Frequency response 20-20,000 Hz  $\pm$ 5 dB; 0.5% THD at 2.5 V over 20-20,000 Hz; IM dist. 0.08%; S/N 75 dB (phono); two phono, two aux., and tuner inputs; two tape monitors with tape-to-tape copy; switchable accessory; 20-dB muting; contour and tone bypass functions; bass, mid-range, and treble controls with switchable four-position turnover points; four-position filters; rack mount handles ..... \$399.95

### Alpha 20 Power Amplifier

200 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD and IM dist.; S/N 105 dB; two logarithmic power meters; individual level controls; switching for three sets of speakers; relay protection circuitry, amp overload, and over-heat protection; rack mount handles ..... \$749.95

### Alpha 10 Power Amplifier

100 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD and IM dist.; S/N 100 dB; logarithmic power meters; individual level controls; switching for two sets of speakers; rack mount handles ..... \$549.95

### Alpha 6 Power Amplifier

60 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD and IM dist.; S/N 100 dB; logarithmic power meters; switching for two sets of speakers; individual level controls; rack mount handles ..... \$399.95

## SETTON

### AS-5500 Stereo Integrated Amplifier

Two-chassis amplifier incorporates separate preamp (PS-5500) and amplifier (BS-5500); BS-5500 consists of two separate mono amps on single chassis; each amp has on/off, gain, and speaker controls; includes two logarithmic wattmeters; PS-5500 has two banks of bass, mid-range, and treble controls; two turnover controls and high and low filters; fader control allows fading from phono 1 to phono 2, aux. 1 to aux. 2, phono 1 to aux. 2, phono 2 to aux. 1; stereo mike mixing; three sets of bridged outputs ..... \$1099.95

### AS-3300 Stereo Integrated Amplifier

69 W/ch into 8 ohms over 20-20,000 Hz with 0.08% THD and IM dist.; frequency response 20-20,000 Hz  $\pm$ 0.5 dB; hum and noise (IHF A) 90 dB (aux., tape), 75 dB (phono, low), 65 dB (phono, high); input sensitivity for rated output 2.5 mV (phono, high), 5 mV (phono, low), 150 mV (tape, aux.), 6 mV/10,000 ohms (mike); damping factor 35 (8 ohms, 1 kHz); phono overload 150 mV (high), 300 mV (low); channel separation 55 dB (aux., 1 kHz); bass, mid-range,

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# Where superior technology makes the musical difference: Sansui's new DC integrated amplifier and matching tuner.

Sansui is proud to introduce the new AU-717 DC integrated amplifier and matching TU-717 tuner, designed for your greatest listening pleasure. We are proud of the superlative specifications that our sophisticated research has achieved. The finest available at any price.

But the best specs alone don't always mean the finest music reproduction. And so we are proud that our precision engineering and superior circuitry design create pure and brilliantly clean tonal quality that's distinctly superior.

Listen to what we offer. Frequency response of the AU-717 from main in, 0Hz to 200kHz (+0dB, -3dB), (the widest of any DC integrated amplifier available), gives you sharp, clean transients and greatly reduced phase shift problems. Total harmonic distortion is astoundingly low, less than 0.025%, from 20-20,000Hz. 85 watts/channel min. RMS, both channels driven into 8 ohms.

Dual independent power supplies provide true stereo separation and a large power reservoir. For uncolored phono reproduction equalization is within  $\pm 0.2$ dB (20-20,000Hz, extended RIAA curve). And the calibrated

attenuator level control guarantees volume precision.

The matching TU-717 tuner features dual IF bandwidth to let you select for lowest distortion (0.07% mono, 0.09% stereo) or maximum selectivity (80dB). S/N is excellent: 80dB mono, 77dB stereo.

In addition, the AU/TU 717's are elegantly styled, offer rack mounting adaptors and are most attractively priced. Less than \$450\* for the AU-717 and less than \$320\* for the TU-717.

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CIRCLE NO. 83 ON READER SERVICE CARD

# 1 AMPLIFIERS

and treble controls; loudness switch; high-frequency filter; 164 mm H x 500 mm W x 295 mm D ..... \$459.95

## AS-1100 Stereo Power Amplifier

50 W/ch into 8 ohms over 20-20,000 Hz with 0.06% THD and IM dist.; frequency response 20-20,000 Hz  $\pm 0.5$  dB; hum and noise (IHF A) 85 dB (aux., tape), 70 dB (phono, low), 65 dB (phono, high); input sensitivity for rated output 3.5 mV (phono, high), 7 mV (phono, low), 150 mV (tape, aux.); damping factor 30 (8 ohms, 1 kHz); phono overload 220 mV (high), 440 mV (low); channel separation 55 dB (aux., 1 kHz); bass, mid-range, and treble controls; loudness switch; high-frequency filter; 164 mm H x 500 mm W x 295 mm D ..... \$379.95

## RCS-X 1000 Hi-Fi Control Center

Incorporates tuner with six preselected FM channels; AFC with four-digit display; two volume levers; bass and treble tone control with two crossover frequencies and numerical display of amount of correction in dB; high and low filters with tone defeat control; switching for three sets of speakers; two headphone jacks; two phono, tuner, and two aux. inputs; LF pink noise generator; double monitoring on mag 1 and 2; LED tuning meter; two-component design with interconnecting cable ..... \$3500.00

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CIRCLE NO. 36 ON READER SERVICE CARD

## SHERWOOD

### HP-2000 Integrated Stereo Amp

120 W/ch rms into 8 ohms over 20-20,000 Hz with 0.08% THD and IM dist.; S/N 83 dB (phono, 10 mV); has dual power meters with LED peak indicators; 22-position detented volume controls; 11-position variable loudness contour; high and low filters; -20 dB audio muting; switching for independent use of preamp and power amp sections; six a.c. convenience outlets; solid walnut end panels are available ..... \$750.00



HP-1000. Same but 60 W/ch rms; S/N 73 dB (phono, 10 mV) ..... \$500.00

## SONY

### TAN-5550 Stereo Power Amplifier

50 W rms/ch into 8 ohms (20-20,000 Hz) at 0.1% THD; features vertical FET output amplifier stage with complementary parallel push-pull circuit ..... \$450.00

### 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 5-200,000 Hz -2 dB. HD and IM 0.1% at rated output; hum and noise -110 dB at rated output; has multiple speaker switching and level input adjustment; damping factor 170; 5 7/8" H x 15 3/4" W x 12 3/4" D ..... \$400.00

### TAE-5450 Stereo Preamplifier

Direct-coupled FET differential amplifiers and buffer amplifiers in phono equalizer and tone-control stages; connections for tuner, two phono, three aux. sources, two tape decks; two external adapters ..... \$450.00

### TA-5650 Integrated Stereo Amplifier

50 W/ch (20-20,000 Hz) at 0.1% THD; true complementary push-pull V-FET output; has inputs for tuner, two phono, three aux., two tape decks, plus two external adapters ..... \$520.00

### TA-3650 Integrated Stereo Amplifier

55 W rms/ch into 8 ohms (20-20,000 Hz) at 0.1% THD; has full complement of inputs and outputs ..... \$300.00

### TA-2650 Integrated Stereo Amplifier

45 W rms/ch into 8 ohms (20-20,000 Hz) at 0.2% THD; has full complement of inputs and outputs ..... \$220.00

## SOUNDCRAFTSMEN

### "New Class" Stereo Power Amp

250 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD; "Vari-Portional" system meters output power requirements for optimum efficiency; class AB amplifier; solid-state crowbar fail-safe overload protection circuitry with automatic reset; nonlimiting output circuitry ..... \$699.00

## SPECTRO ACOUSTICS

### Model 500 Stereo Amplifier

Stereo power amplifier; 250 W/ch rms into 8 ohms over 20-20,000 Hz with 0.25% THD and IM dist.; input sensitivity 1.5 V rms for rated output; noise 107 dB below rated output; LED power level indicators; readout attenuation; gain attenuators ..... \$695.00  
Model 500SR. Same but with rack mount 19" face plate ..... \$695.00  
Model 500R. Same as 500SR but without LED

power level indicators, gain attenuators, readout attenuators ..... \$595.00

### 202 Stereo Power Amplifier

100 W/ch into 8 ohms over 20-20,000 Hz with 0.25% THD and IM dist.; input sensitivity 1 V rms for rated output; peak-level indicators; class AB design ..... \$375.00  
202C. Same with 19" rack mount front panel ..... \$375.00

### 101B Preamp-Equalizer

Five-band "shelving" type graphic equalizer with oil-damped slide controls and hybrid gyrator/coil design that can be "pushbutton patched" into line or tape outputs, or bypassed for EQ in/out comparisons; dual taping facilities include twin monitor circuits, low-impedance buffered outputs, bidirectional "bypass" copying and simultaneous recording from any selected source, with optional EQ inserted before, between or after the tape machines; features dual slide controls for level; function push-buttons for mode, equalizer in/out, monitor, record, source selection; equalizer range:  $\pm 15$  dB in five bands from below 20 Hz to beyond 20 kHz; THD 0.05% over 20-20,000 Hz; IM 0.005% at 60 and 7000 Hz mixed 4:1; S/N 81 dB phono, 95 dB high-level; dynamic range 95 dB phono, 108 dB high-level; 6" H x 15" W x 7" D ..... \$335.00

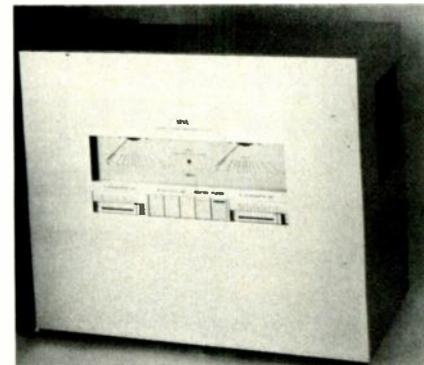
### 217 Preamplifier

Straightline design with no tone controls or equalization, for ultra-linear output response; front-panel-accessible cartridge-loading adjustments with 16 combinations to match and load most magnetic phono cartridges; high-level switching section permits choice of source, bidirectional-bypass copying in the tape-monitor section and stereo or mono operation; response: phono, 20-20,000 Hz  $\pm 0.5$  dB; high-level, 10-100,000 Hz  $\pm 0.25$ , 2-250,000 Hz  $\pm 3$  dB; dist. 0.05% THD, 0.01% IM at rated output; 3 1/2" H x 17" W x 6 3/4" D ..... \$250.00  
217. Same with 19" rack mount front panel ..... \$250.00

## STAX

### DA-300 Stereo Power Amplifier

150 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.01% THD and IM dist.; damp-



ing factor 800 (1 kHz); residual hum and noise -97 dB; input sensitivity 1.7 V rms; protection circuits for shorts, speakers, and thermal overload; class A amplifier; d.c. coupling; two VU meters ..... \$3890.00

### DA-80 Stereo Power Amplifier

45 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.005% THD and 0.01% IM dist.; residual hum and noise -100 dB; input sensitivity 0.89 V; protective circuits for shorts, speakers, and thermal overload, class A amplifier; d.c. coupling ..... \$1480.00

### DA-80m Mono Power Amplifier

95 W continuous into 8 ohms over 20-20,000 Hz with 0.007% THD and 0.01% IM dist.; resid-

ual hum and noise -100 dB; input sensitivity 1.26 V; protective circuits for shorts, speakers, and thermal overload; class A amplifier; d.c. coupling ..... \$1400.00

**SWTP**

**207-A Mono Power Amplifier**

Single-channel power amp designed to be used in any multiples as required (for stereo or four-channel systems); 60 W min. continuous sine wave (20-20,000 Hz) at 0.05% THD into 4 or 8 ohms; IM dist. 0.01%; damping factor 100; hum and noise -90 dB; sensitivity 1 V rms; features volt-amp and fuse protection plus over-heat thermostat; output meter on front panel; perforated metal cover; 5" H x 4 1/4" W x 15" D (four will fit standard 19" relay rack) .. \$110.00  
207. Kit version ..... \$77.50

**215 Stereo Power Amplifier**

25 W continuous sine-wave power into 4 or 8 ohms (20-20,000 Hz) at 0.05% THD; IM 0.01%; damping factor 100; hum and noise -85 dB; output meter for each channel; 4 1/2" H x 4 3/4" W x 13" D.  
Kit ..... \$69.50

**275 Mono Power Amplifier**

Single-channel power amp designed to be used in any multiples as required; 85 W continuous sine wave into 4 ohms, 70 W into 8 ohms (20-20,000 Hz) at 0.05% THD; IM dist. 0.03%; damping factor 100; hum and noise 90 dB; sensitivity 1.0 V rms; has volt-amp protection, speaker, power-supply, and line fuses; 5" H x 4 1/2" W x 15" D (four will fit standard 19" relay rack) ..... \$64.25  
2-275. Pair for stereo ..... \$125.00  
AC-275. Accessory kit with front-panel switch, overheat indicator, output meter, and level-control for rear panel ..... \$7.90

**198/A Stereo Preamp**

Preamp/control center with push-button input and tone-control settings; features loudness compensation; tape monitor functions; inputs: tape, tuner, aux., phono, mike; bass and treble tone controls: +4, +8, +12, -4, -8, -12 dB; left/right balance controls; frequency response 10-100,000 Hz ±1 dB; dist: 0.05% IM or HD at rated output; noise: phono and mike -65 dB down; others -70 dB; sensitivity: phono and mike 2.0 mV for 1 V output; others 100 mV for 1 V output; two switched a.c. receptacles on rear; comes with brushed gold finished front panel and wood-grain cover.  
Kit ..... \$74.50

**TECHNICS BY PANASONIC**

**SE-9600P Power Amplifier**

110 W/ch into 8 ohms; THD and IM dist. 0.08%; frequency response 5-150,000 Hz +0/-3 dB; S/N 110 dB; damping factor 1 to 100 in four steps; input sensitivity/imp. 1 V/40,000 ohms; variable output imp.; peak-level output meters with range switching; full overload protection for amplifier and speakers; may be rack mounted; 7 5/8" H x 17 3/4" W x 13 3/4" D ..... \$799.95

**SE-9060 Power Amplifier**

Stereo d.c. power amplifier; 70 W/ch sine wave rms into 8 ohms over 20-20,000 Hz with 0.02% THD and IM dist.; frequency response 20-20,000 Hz +0/-0.1 dB; S/N (IHF A) 115 dB; damping factor 70; load imp. 4-16 ohms (main or remote), 8-16 ohms (main plus remote); 120-V a.c., 60 Hz, 240 W; 3 3/16" H x 19" W x 14 3/16" D ..... \$399.95

**SU-9600P Control Center/Preamp**

Frequency response 2-100,000 Hz +0/-3 dB (aux.), RIAA ±0.3 dB (phono); 0.02% THD and IM dist.; S/N 95 dB (tuner and aux.), 69-76 dB (phono); 20 dB audio muting switch; 18 dB/octave high and low filters with variable cut-offs (15 or 30 Hz low, 10 or 15 kHz high); max.

phono input 1350 mV at 3 mV sensitivity; inter-deck tape dubbing capability; fixed and variable phono input sensitivity and switchable phono input imp.; may be rack mounted; 6 3/16" H x 17 3/4" W x 13 3/4" D ..... \$629.95

**SU-9070 Preamplifier**

Stereo d.c. preamplifier; output voltage/imp. 20 V/600 ohms (pre out max.), 150 mV (rec out



tape); frequency response 20-20,000 Hz +0/-0.1 dB (tuner, aux.), RIAA ±0.2 dB (phono); S/N (IHF A) 88 dB (phono MM), 72 dB (phono MC), 105 dB (tuner, aux.); THD 0.004%; input sensitivity/imp. 2.5 mV/47,000 ohms (phono MM), 60 μV/50 ohms (phono MC), 150 mV/47,000 ohms (tuner, aux.); max. phono input voltage (1 kHz, rms) 350 mV (phono MM), 8 mV (phono MC); 120-V a.c., 60 Hz, 30 W; 3 3/16" H x 19" W x 14 1/2" D ..... \$399.95

**SU-8080 Integrated Amplifier**

Stereo integrated d.c. amplifier; 72 W/ch sine wave rms into 8 ohms over 20-20,000 Hz with



0.02% THD; frequency response 20-20,000 Hz

+0/-0.1 dB; S/N 115 dB (IHF A); input sensitivity/imp. 1 V/47,000 ohms; damping factor 70; load imp. 4-16 ohms (main or remote), 8-16 ohms (main plus remote); preamp section: input sensitivity/imp. 2.5 mV/27,000 ohms, 47,000 ohms (phono 1, 2), 200 mV/35,000 ohms (tuner, aux., tape); max. phono input 280 mV; S/N (IHF A) 88 dB (phono), 100 dB (tuner, aux., tape via tone), 106 dB (tuner, aux., tape direct); phono frequency response RIAA ±0.2 dB. output 9 V max. (pre out), 200 mV (rec out, tape); 120-V a.c., 60 Hz, 190 W; 5 1/2" H x 17 3/32" W x 14 1/32" D ..... \$449.95

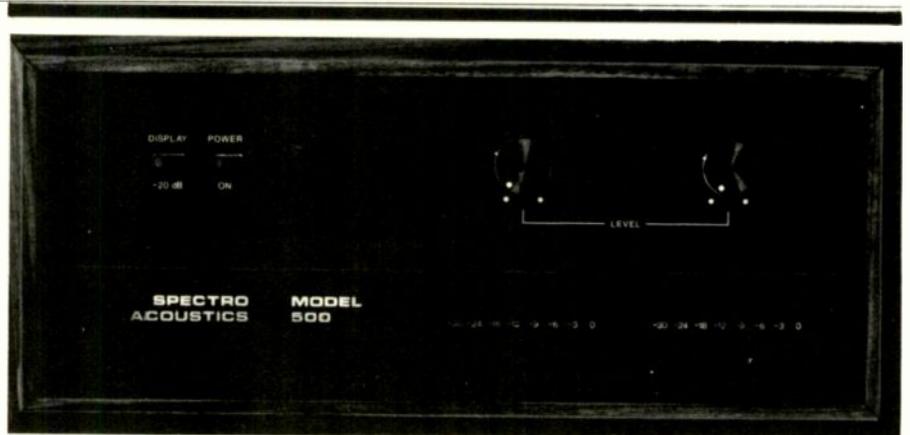
**SU-8600 Integrated Amplifier**

73 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.08% IM and THD; frequency response 20-20,000 Hz +0/-0.2 dB; hum and noise 0.3 mV; sensitivity 2 mV (phono), 150 mV (tuner, aux., tape); provision for two stereo tape decks with monitor circuits for tape-to-tape dubbing in both directions; two turnover frequencies for bass and treble controls ..... \$349.95

**SU-7700 Integrated Amplifier**

Stereo integrated amplifier; 50 W/ch rms into 8 ohms over 20-20,000 Hz with 0.08% THD and IM dist.; residual hum and noise 0.6 mV; damping factor 50 (8 ohms), 25 (4 ohms); load imp. 4-16 ohms (main or remote), 8-16 ohms (main plus remote); preamp section: input sensitivity/imp. 2.5 mV/47,000 ohms (phono), 150 mV/47,000 ohms (tuner, aux., tape); max. phono input voltage (1 kHz, rms) 150 mV; S/N (IHF A) 78 dB (phono), 97 dB (tuner, aux.); frequency response 20-20,000 Hz ±0.5 dB (tuner, aux.), RIAA ±0.2 dB (phono); output voltage 150 mV (tape, rec out); 120-V a.c., 60 Hz, 160 W; 5 3/4" H x 17 1/16" W x 13 3/32" D ..... \$249.95

**SU-7300 Integrated Amplifier**



Model 500 Power Amplifier

Suggested Retail \$695.00

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... a finishing touch of gold can be found in Spectro Acoustics equipment. It's there as a silent reminder to the audiophile of the value Spectro places on quality. All that glitters isn't gold, however. It's performance. Power output of the Model 500 power amp is 250 watts RMS per channel with both channels driven into an 8 ohm load, 20 Hz to 20 kHz with less than .25% THD. Typical power at clipping is 325 watts RMS per channel. THD is less than .25% at any frequency between 20 Hz and 20 kHz and at any power level from 250 mW to 250 W into 8 ohms. You'll find frequency from response 20 Hz to 20 kHz ±0.1 dB.

For all the specs, contact Spectro Acoustics. You can't make a mistake by asking for the dealer nearest you. And if there isn't an authorized dealer nearby name the dealers you like doing business with; Spectro will contact them.

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CIRCLE NO. 92 ON READER SERVICE CARD

Stereo integrated amplifier; 41 W/ch rms into 8 ohms over 20-20,000 Hz with 0.08% THD and IM dist.; residual hum and noise 0.6 mV; damping factor 40 (8 ohms), 20 (4 ohms); load imp. 4-16 ohms; preamp section: input sensitivity/imp. 2.5 mV/47,000 ohms (phono), 150 mV/47,000 ohms (tuner, tape); max. phono input voltage (1 kHz, rms) 150 mV; S/N (IHF A) 78 dB (phono), 97 dB (tuner); frequency response 20-20,000 Hz  $\pm 0.5$  dB (tuner), RIAA  $\pm 0.3$  dB (phono); output voltage 150 mV (tape, rec out); 120-V a.c., 60 Hz, 140 W;  $5\frac{3}{4}$ " H  $\times$   $17\frac{1}{16}$ " W  $\times$   $13\frac{3}{32}$ " D ..... \$199.95

### THRESHOLD

#### 400A Stereo Power Amplifier

100 W/ch into 8 ohms over 20-20,000 Hz with 0.05% THD and IM dist.; slew rate 50 V/ $\mu$ sec



(max.); frequency response 20-20,000 Hz  $\pm 0$  dB; damping factor 100; hum and noise 1 mV; current limiting, thermal, fuse, and circuit breaker protected; peak vs average output level indicators for each channel; grained and black anodized face plate with smooth black anodized chassis, heat sinks, and handles;  $6\frac{15}{16}$ " H  $\times$  19" W  $\times$  11" D ..... \$1147.00

## NOTICE TO READERS

We consider it a valuable service to our readers to continue, as we have in previous editions of Stereo Directory & Buying Guide, to print the price set by the manufacturer or distributor for each item described as available at presstime. However, almost all manufacturers and distributors provide that prices are subject to change without notice.

We would like to call our readers' attention to the fact that during recent years the Federal Trade Commission of the U.S. Government has conducted investigations of the practices of certain industries, in fixing and advertising list prices. It is the position of the Federal Trade Commission that it is deceptive to the public, and against the law, for list prices of any product to be specified or advertised in a trade area, if the majority of sales of that product in that trade area are made at less than the list prices.

It is obvious that our publication cannot quote the sales price applicable to each trading area in the United States. Accordingly, prices are listed as furnished to us by the manufacturer or distributor. It may be possible to purchase some items in your trading area at a price that differs from the price that is reported in this edition.

The Publisher

## TOSHIBA

### SB-420 Integrated Amplifier

42 W/ch rms into 8 ohms over 20-20,000 Hz with 0.3% THD; all stages direct-coupled OCL circuitry and push-pull type symmetrical complementary circuitry; RIAA equalization  $\pm 0.3$  dB; phono overload 350 mV; attenuator type volume control; two-step audio muting; two tape monitors; two phono inputs; two-step turn-over switches with tone defeat; mike mixing with independent volume control;  $5\frac{13}{16}$ " H  $\times$   $17\frac{1}{16}$ " W  $\times$   $14\frac{3}{4}$ " D ..... \$219.95

## YAMAHA

### C-1 Master Control Center

Incorporates all-stage FET circuitry; built-in audio test instrument for calibration/alignment; has pink noise source; two peak-reading output meters; frequency response RIAA  $\pm 0.2$  dB (phono), 10-50,000 Hz  $+0/-0.5$  dB (tuner, aux., tape); continuous loudness control; six-way phono input imp. selection; adjustable phono input level (2-8 mV); tone equalizer section; separate level controls for all inputs except tuner; monitor lamps for each function; inputs: three phono, tuner, two aux., three tape, and mike; outputs: pre-out, tape rec. out (three), headphones, osc ..... \$1800.00

### B-1 Basic Power Amplifier

150 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD and IM dist.; frequency response 5-100,000 Hz  $+0/-1$  dB (1 W); hum and noise (IHF A) -110 dB; damping factor 100-(8 ohms, 1 kHz); load imp. 4-16 ohms . . \$1600.00

**UC-1.** Control unit for use with B-1; rumble filter; on/off and level controls for five sets of speakers; peak-reading meters calibrated in watts and dB; overload warning indicators . . . \$250.00

### B-2 Power Amplifier

100 W/ch rms into 8 ohms over 20-20,000 Hz

with 0.08% THD and 0.3% IM dist.; frequency response 10-100,000 Hz  $+0/-1$  dB (1 W); peak-reading meters calibrated in watts and dB; two inputs; two outputs ..... \$850.00

### C-2 Preamplifier

Incorporates all-FET circuitry; frequency response 30-15,000 Hz  $\pm 0.2$  dB (phono), 5-100,000 Hz  $+0/-1.5$  dB (tuner, aux., tape); head amp for moving-coil cartridges; bass, treble, and four-gang volume/balance controls; subsonic filter; inputs: three phono, tuner, aux., two tape; outputs: two pre out, two rec. out ..... \$650.00

### CA-2010 Integrated Amplifier

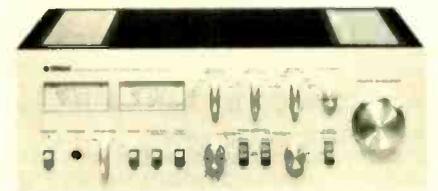
Amplifier section switchable between classes A and B; 120 W/ch rms (class B), 30 W/ch rms (class A) into 8 ohms with 0.03% THD; preamp section incorporates equalizer amp with 96 dB S/N (IHF A); moving-coil amp has 71 dB S/N (IHF A) and 50  $\mu$ V input sensitivity; tone control amp has tone, filter, and buffer amps; two-ganged volume controls for each channel (one each on input/output); peak level output meters have -50 to +5 dB range and may be switched to read rec. out terminal output; selectable phono imp. (47, 68, and 100 kohms); switching for independent use of preamp and power sections; audio muting switch ..... \$750.00

### CA-1010 Integrated Amplifier

Fully complementary OCL power amp section switchable between classes A and B; 90 W/ch (class B), 18 W/ch (class A); preamp section has 96 dB S/N (IHF A) and input sensitivity of 10 mV; dist. 0.003% (phono to rec. out); 310 mV dynamic margin for phono input; moving-coil head amp has 68 dB S/N (IHF A) and 50  $\mu$ V input sensitivity; tone control amp has tone, filter, and buffer amp; two-ganged volume control for each channel; peak level meters have a range of -50 to +5 dB and may be switched to read rec. out terminal output; three input imp. for MM cartridges (47, 68, and 100 kohms); switching for independent use of preamp and power amp sections; audio muting switch ..... \$600.00

### CA-810 Integrated Amplifier

65 W/ch continuous rms over 20-20,000 Hz with 0.05% dist.; preamp dist. 0.005%; S/N 83



dB (IHF A); input sensitivity 2.5 mV; moving-coil head amp has 73 dB S/N and 60  $\mu$ V input sensitivity; has negative feedback tone controls with individual defeat controls for bass and treble; power output meters cover 0.5 mW to 158 W; phono imp. selectable (47, 68, 100 kohms); rec. out selector switch ..... \$380.00

## VAN ALSTINE

### Double 400 Amplifier

240 W/ch rms into 8 ohms over 20-20,000 Hz with 0.06% THD; incorporates 16 200-W output transistors; load imp. of 2 ohms safe with nearly 500 W/ch; cooling fan ..... \$1200.00  
Meters ..... \$100.00

### Model 1 Preamplifier

Direct-coupled linear phase stereo preamp; no phase shift or TIM; bandwidth in excess of 5 MHz; no interaction with source or load ..... \$600.00

# 2

# TUNERS

## ACCUPHASE

### T-100 AM-FM Stereo Tuner

FM sensitivity 2.0  $\mu$ V; capture ratio 1.5 dB; S/N 75 dB; THD 0.1% at 1000 Hz; stereo separation 45 dB at 1000 Hz; response 20-15,000 Hz +0, -1 dB; 6" H x 17 1/2" W x 14" D ..... \$750.00  
**AWC-1.** Walnut case ..... \$45.00

### T-101 FM Stereo Tuner

FM sensitivity 2.0  $\mu$ V; capture ratio 2.0 dB; S/N 70 dB; THD 0.1% at 1000 Hz; stereo separation 45 dB at 1000 Hz; response 20-15,000 Hz +0, -1 dB; 6" H x 18" W x 14" D ..... \$500.00  
**AWC-2.** Walnut case ..... \$45.00

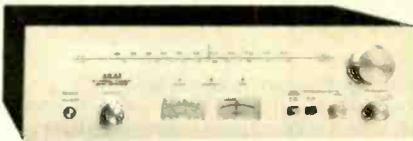
## AKAI

### AT-2600 AM-FM Stereo Tuner

FM section: sensitivity (IHF) 1.7  $\mu$ V; capture ratio 1 dB; image response -110 dB; i-f response -110 dB; AM suppression 55 dB; S/N 75 dB; has signal strength/deviation and FM tuning meter; stereo separation 45 dB (1 kHz); AM section: sensitivity (IHF) 13  $\mu$ V (with external antenna); image response -80 dB; i-f response -70 dB; S/N 50 dB; 5.6" H x 17.3" W x 13.2" D ..... \$325.00

### AT-2400 AM-FM Stereo Tuner

FM section: sensitivity (IHF) 1.8  $\mu$ V; capture ratio 1 dB; image response -90 dB; i-f response



-100 dB; AM suppression 55 dB; S/N 75 dB; has signal strength and FM tuning meters; stereo separation 42 dB (1 kHz); AM section: sensitivity (IHF) 15  $\mu$ V (with external antenna); image response -55 dB; i-f response -45 dB; S/N 50 dB; 5.6" H x 17.3" W x 13.2" D ..... \$225.00

### AT-2200 AM-FM Stereo Tuner

FM section: sensitivity (IHF) 1.9  $\mu$ V; capture ratio 1.3 dB; image response -55 dB; i-f response -85 dB; AM suppression 50 dB; S/N 70 dB; has signal strength and FM tuning meters; stereo separation 40 dB (1 kHz); AM section: sensitivity (IHF) 17  $\mu$ V (with external antenna); image response -55 dB; i-f response -45 dB; S/N 45 dB; 4.9" H x 15" W x 10.3" D... \$165.00

## DYMEK

### AM7 International AM Tuner

AM-only (150-300 kHz and 540-1600 kHz) solid-state tuner; sensitivity: 3  $\mu$ V medium-wave, 6  $\mu$ V long-wave at 10 dB S/N; -6 dB r-f bandwidth  $\pm$ 4 kHz (narrow),  $\pm$ 7.5 kHz (wide); -50 dB r.f. bandwidth  $\pm$ 10 kHz (narrow),  $\pm$ 14 kHz (wide); THD (30% mod, 1 kHz) 0.5%, (80% mod, 1 kHz) 1.5%; audio output 1 V rms 5000 ohms, +2 dBm 600 ohm optional; tuning meter;

110/220 V, 60 Hz; 3.5" H x 17.5" W x 10" D... \$320.00

### AM5 AM Tuner

AM-only solid-state tuner; sensitivity 3  $\mu$ V for 10 dB S/N; bandwidth -6 dB r-f; narrow mode  $\pm$ 4 kHz, wide mode  $\pm$ 10 kHz; modulation response -3 dB at 15 Hz and 9 kHz; THD (30% mod, 1 kHz) 0.5%; 80% modulation 1.5%; front-mounted slide volume control; 3.5" H x 17.5" W x 10" D (option 19" rack-mount hardware); designed to be used with active directional antenna (Dymek DA5) ..... \$295.00

## DYNACO

### FM-5 FM Stereo Tuner

Response 20-15,000 Hz  $\pm$ 1 dB; 40 dB stereo separation at 1000 Hz; FM sensitivity 10.2 dBf 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 Dynatune automatic tuning for exact center-of-channel; 4 1/2" H x 13 1/2" W x 9" D.

Kit ..... \$199.00

Assembled ..... \$319.00

**AF-6.** The FM section is similar to that used in the Model FM-5.

Kit ..... \$269.00

Assembled ..... \$395.00

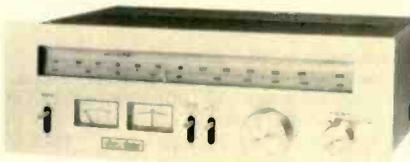
## FISHER

### FM2310 AM-FM Stereo Tuner

FM section: sensitivity 4.3  $\mu$ V; S/N 70 dB; capture ratio 0.8 dB; image response -80 dB; i-f response -100 dB; AM suppression 65 dB; frequency response 20-15,000 Hz  $\pm$ 1 dB; AM section: sensitivity 280  $\mu$ V/m; S/N 55 dB; image response -56 dB; i-f response -70 dB; 5 1/8" H x 17 1/2" W x 14 3/16" D ..... \$249.95

### FM2110 AM-FM Stereo Tuner

FM section: sensitivity 4.6  $\mu$ V; S/N 66 dB; capture ratio 1 dB; image response -60 dB; i-f re-



sponse -75 dB; AM suppression 60 dB; frequency response 20-15,000 Hz  $\pm$ 1 dB; AM section: sensitivity 300  $\mu$ V/m; S/N 55 dB; image response -50 dB; i-f response -50 dB; 5 1/8" H x 16 9/16" W x 13 3/4" D ..... \$159.95

## HARMAN/KARDON

### Citation 18 FM Tuner

Capture ratio 1.5 dB; S/N 64 dB; image response -100 dB; i-f response -100 dB; frequency response 10-50,000 Hz  $\pm$ 0.5 dB; has FM quieting meter for tuning; pushbutton for

external processor use; 25  $\mu$ sec de-emphasis; noise filter; headphone monitoring; output level adjustment; 4 3/4" H x 16" W x 13 1/2" D ..... \$595.00

### T403 AM-FM Tuner

Multiplex separation 30 dB; capture ratio 2 dB; frequency response 6-120,000 Hz +0/-3 dB;



AM rejection 55 dB; image response -45 dB; i-f response -80 dB; 75  $\mu$ sec de-emphasis; summing meter combines signal-strength and center-of-channel tuning; adjustable muting; variable output level; 5 3/8" H x 15 3/8" W x 15 1/2" D ..... \$195.00

## HEATH

### AN-2016 Modulus Tuner/Preamp

Stereo/four-channel; combines preamp and digital-readout AM-FM tuner; THD or IM dist. 0.05% (preamp); hum and noise -75 dB (phono); Baxandall tone controls; peak-responding output meters; FM sensitivity 1.7  $\mu$ V (3.5  $\mu$ V for 50 dB quieting); selectivity 100 dB; stereo separation 40 dB; optional plug-in circuit boards add Dolby FM (AD-1504, \$39.95), CD-4 (AD-1507, \$79.95), and full-logic SQ (AM-1503, \$49.95) 6 1/2" H x 19" W x 14 1/2" D.

Kit ..... \$599.95

### AJ-1510A Digital FM Stereo Tuner

Frequency-synthesized FM tuning provides 0.005% accuracy; digital frequency readouts; push-button or punched-card frequency selection; automatic frequency sweep; FM sensitivity 1.8  $\mu$ V IHF; frequency response 20-15,000 Hz  $\pm$ 1 dB; channel separation 40 dB at mid-frequencies.

Kit ..... \$579.95

**AJA-1510-1.** Pecan-stained veneer case ..... \$26.95

### AJ-1515 AM-FM Stereo Tuner

Digital frequency readout tuner utilizing same circuitry as AR-1515 receiver; FM sensitivity 1.8  $\mu$ V; capture ratio 1.5 dB; frequency response 20-15,000 Hz  $\pm$ 1 dB; center-tune and signal-strength meters; output level control; stereo and program indicators; AM section features nine-pole LC filter; secondary controls are concealed behind fold-down front panel; 6 1/8" H x 17 1/2" W x 14 1/4" D.

Kit ..... \$379.95

### AJ-1219 AM-FM Stereo Tuner

FM sensitivity 2  $\mu$ V; selectivity 60 dB; capture ratio 2 dB; stereo channel separation 40 dB typically, 35 dB min.; push-button band selection; flywheel tuning with slide-rule dial; stereo indicator; 3 3/8" H x 13" W x 11" D.

Kit ..... \$109.95

# 2 TUNERS

## HITACHI

### FT/920 AM-FM Stereo Tuner

FM usable sensitivity 28 dBf (14  $\mu$ V); 50 dB quieting sensitivity 36 dBf (34  $\mu$ V); S/N 68 dB (at 65 dBf); frequency response 30-15,000  $\pm$ 1 dB; capture ratio 1 dB; alternate channel selectivity 80 dB; spurious response ratio 100 dB; stereo separation 45 dB at 1000 Hz; PLL circuitry; two (signal/multipath and FM tuning) meters; auto-lock a.f.c. circuit; a.g.c.; 5 $\frac{3}{4}$ " H  $\times$  17 $\frac{1}{8}$ " W  $\times$  15 $\frac{1}{4}$ " D ..... \$299.95

**FT/520.** Similar to FT/920 except 50 dB quieting sensitivity 37 dBf (39  $\mu$ V); single output level control; signal/FM tuning meter ..... \$239.95

## JVC

### T-3030 FM Stereo Tuner

Digital frequency synthesizer FM tuner; sensitivity 1  $\mu$ V; image response -110 dB; i-f response -110 dB; capture ratio 1 dB; AM suppression 65 dB; S/N 72 dB; 25, 50, and 75  $\mu$ sec de-emphasis; variable output level; seven pre-selected station memory; LED digital frequency display; five-LED signal strength indicator; automatic scanning; anti-birdie filter (switchable); 2 $\frac{3}{8}$ " H  $\times$  16 $\frac{1}{8}$ " W  $\times$  13 $\frac{1}{16}$ " D ..... \$399.95

### JT-V71 AM/FM Stereo Tuner

FM sensitivity 1.8  $\mu$ V (10.3 dBf); frequency response 20-20,000 Hz +0.2 dB, -1.0 dB; 50 dB quieting sensitivity 38  $\mu$ V stereo; S/N 68 dB stereo; capture ratio 1 dB; alternate channel selectivity 75 dB; stereo separation 45 dB (100 Hz), 50 dB (1 kHz), 40 dB (10 kHz); features single-unit four-resonator ceramic filter combined with four-pole phase-linear LC filter; FM stereo PLL circuit; subsonic filter; two-step hi-blend; two-step FM muting; twin tuning meters; 6 $\frac{3}{8}$ " H  $\times$  16 $\frac{3}{8}$ " W  $\times$  14 $\frac{3}{32}$ " D ..... \$269.95

### JT-V31 AM/FM Stereo Tuner

FM sensitivity 1.9  $\mu$ V (10.77 dBf); frequency response 30-15,000 Hz +0.5 dB, -2.5 dB; 50 dB quieting sensitivity 40 dB stereo; S/N 50 dB stereo; capture ratio 1.2 dB; alternate channel selectivity 60 dB; stereo separation 40 dB (100 Hz), 45 dB (1 kHz), 35 dB (10 kHz); features four-resonator single-unit ceramic filter; FM stereo PLL circuit; twin tuning meters; 6" H  $\times$  15 $\frac{1}{32}$ " W  $\times$  14 $\frac{3}{32}$ " D ..... \$169.95

## KENWOOD

### Audio Purist Group

#### L-07T FM Stereo Tuner

Features double-diffused MOSFET front end; seven-gang tuning capacitor with built-in oscillator; selectable i-f bandwidth (wide or narrow); PLL auto response switching in MPX, double-switching demodulator for 45 dB separation over 50-10,000 Hz (wideband); high-linearity signal meter; center-channel tuning meter; 25  $\mu$ sec de-emphasis; 270-mil linear frequency tuning dial; sensitivity 1.6  $\mu$ V; S/N 75 dB; capture ratio 1 dB (wide), 1.5 dB (narrow); 4" H  $\times$  19" W  $\times$  13 $\frac{1}{4}$ " D ..... \$500.00

#### KT-8300 AM-FM Stereo Tuner

FM sensitivity 9.3 dBf (1.6  $\mu$ V at 75 ohms); 50 dB quieting sensitivity 14.2 dBf (2.8  $\mu$ V at 75 ohms) mono, 34.8 dBf (39  $\mu$ V) stereo; S/N at 65 dBf 78 dB mono, 75 dB stereo, capture ratio 1 dB (wideband), 1.5 dB (narrow band); alternate channel selectivity 40 dB (wide), 110 dB (narrow); stereo separation (50-10,000 Hz) 45 dB (wide), 35 dB (narrow); spurious response 110 dB; 5 $\frac{7}{8}$ " H  $\times$  17" W  $\times$  14 $\frac{3}{4}$ " D ... \$379.95

#### KT-7300 AM-FM Stereo Tuner

FM sensitivity 10.3 dBf (1.8  $\mu$ V at 75 ohms); 50

dB quieting sensitivity 16.8 dBf (3.8  $\mu$ V at 75 ohms) mono, 38.3 dBf (45  $\mu$ V) stereo; S/N at 65 dBf 73 dB mono, 68 dB stereo; capture ratio 1 dB; alternate channel selectivity 80 dB; stereo separation (50-10,000 Hz) 35 dB; spurious response -90 dB ..... \$259.95

#### KT-5300 AM-FM Stereo Tuner

FM sensitivity 10.8 dBf (1.9  $\mu$ V at 75 ohms); 50 dB quieting sensitivity 19.2 dBf (5  $\mu$ V at 75 ohms) mono; capture ratio 1 dB; alternate channel selectivity 60 dB; stereo separation (50-10,000 Hz) 30 dB; spurious response -70 dB; 5 $\frac{1}{2}$ " H  $\times$  15" W  $\times$  11 $\frac{3}{8}$ " D ..... \$129.95

## LAFAYETTE

### LA-40 AM-FM Tuner

FM section: sensitivity 18 dBf; capture ratio 1.6 dB; stereo separation 40 dB (1 kHz); i-f response -90 dB; S/N 68 dB; image response -50 dB; AM section: sensitivity (IHF) 25  $\mu$ V; image response -40 dB; S/N 44 dB; 5 $\frac{3}{8}$ " H  $\times$  15 $\frac{3}{8}$ " W  $\times$  14 $\frac{3}{8}$ " D ..... \$229.95

## LEAK

### 2300 AM-FM Stereo Tuner

Designed to be used with the company's 2100 or 2200 amplifier; frequency response 40-14,000 Hz  $\pm$ 1.5 dB; sensitivity for 30 dB S/N 1.6  $\mu$ V; HD 0.5% at 1 kHz stereo; hum and noise -65 dB; alternate channel rejection 50 dB; capture ratio 1.5 dB; channel separation 35 dB at 1 kHz, 30 dB at 10,000 Hz; quasi stereo separation 20 dB at 1 kHz, 4 dB at 10 kHz; features tuning meter, stereo beacon, adjustable mute level control, and quasi stereo (for reducing background noise on distant stereo programs without losing stereo effect); teak finish; 5.3" H  $\times$  16.3" W  $\times$  12.2" D .... \$495.00

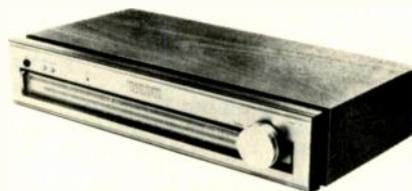
## LUX

### 5T50 Stereo FM Tuner

Features full digital frequency synthesis; LED digital frequency readout; pushbutton tuning with scanning and predetermined channel (seven) modes; full Dolby system; 400-Hz test tone; FM muting; sensitivity 4.5  $\mu$ V (IHF); S/N 70 dB; capture ratio 1.1 dB; i-f response -100 dB; image response -100 dB; AM suppression 55 dB; stereo separation 40 dB (100 Hz); output voltage 1 V (fixed) and 0-1 V (variable); 4" H  $\times$  17.7" W  $\times$  16" D ..... \$1495.00

### T-110 FM/FM-MPX Tuner

Features signal strength and center tuning meters; four-channel decoder terminal; fixed



and variable output terminals; sensitivity 1.6  $\mu$ V; AM suppression 53 dB; capture ratio 1.3 dB; image response -100 dB; i-f response -100 dB; stereo separation 48 dB (1 kHz); S/N 72 dB; 4 $\frac{1}{2}$ " H  $\times$  19" W  $\times$  9 $\frac{1}{8}$ " W ..... \$525.00

### T-88V AM-FM Stereo Tuner

Has FM blend, muting circuits, and output level adjust control; FM section: sensitivity 2  $\mu$ V; AM suppression 50 dB; capture ratio 1.8 dB; image response -75 dB; i-f response -85 dB; S/N 68 dB; stereo separation 43 dB (1 kHz); AM section: sensitivity 230  $\mu$ V; image response -45 dB; i-f response -40 dB; S/N 50 dB; 6 $\frac{3}{8}$ " H  $\times$  17 $\frac{3}{32}$ " W  $\times$  11 $\frac{1}{16}$ " D ..... \$345.00

## MARANTZ

### 2140 AM-FM Stereo Tuner

Features two tuning meters; PLL FM multi-



plex demodulator; has plug-in Dolby capability; 400-Hz record calibration tone; selectable FM i-f bandwidth; sensitivity (IHF) 1.5  $\mu$ V; 25  $\mu$ V for 50-dB quieting (stereo); multipath indication; 5 $\frac{3}{4}$ " H  $\times$  16 $\frac{3}{8}$ " W  $\times$  11 $\frac{1}{16}$ " D .... \$399.95

### 2120 AM-FM Stereo Tuner

Features two tuning meters; PLL FM multiplex demodulator; plug-in FM Dolby capability; 400-Hz record calibration tone; selectable FM i-f bandwidth; sensitivity (IHF) 1.8  $\mu$ V; 35  $\mu$ V for 50-dB quieting (stereo); 5 $\frac{3}{4}$ " H  $\times$  16 $\frac{3}{8}$ " W  $\times$  9 $\frac{7}{16}$ " D ..... \$299.95

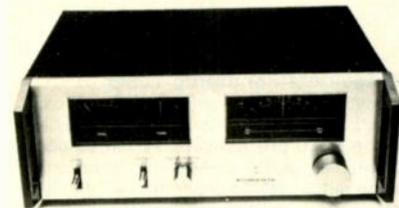
### 2100 AM-FM Stereo Tuner

Features two tuning meters; PLL FM multiplex demodulator; 25  $\mu$ sec Dolby de-emphasis network; sensitivity (IHF) 1.9  $\mu$ V; 40  $\mu$ V for 50-dB quieting (stereo); 5 $\frac{3}{4}$ " H  $\times$  16 $\frac{3}{8}$ " W  $\times$  9 $\frac{7}{16}$ " D ..... \$199.95

## MITSUBISHI

### DA-F10 AM-FM Stereo Tuner

AM-FM stereo tuner featuring switchable selectivity (wide and narrow); FM section (stereo



mode): usable sensitivity 7.8  $\mu$ V; S/N 70 dB; dist. at 65 dBf 0.1% (wide), 0.5% (narrow); alternate channel selectivity 45 dB (wide), 75 dB (narrow); stereo separation 45 dB at 1 kHz and 40 dB at 10 kHz (wide), 35 dB at 1 kHz and 30 dB at 10 kHz (narrow); AM section: usable sensitivity 45 dB/m; dist. 1%; hum and noise 50 dB; 6 $\frac{3}{4}$ " H  $\times$  16 $\frac{3}{4}$ " W  $\times$  10 $\frac{3}{8}$ " D ..... \$260.00

## NAKAMICHI

### 630 FM Tuner/Preamplifier

Features switchable phono input sensitivity (1, 2, or 5 mV); stepped tone and variable con-



tour controls; independent tape copying; MOSFET front end; switchable i-f section selectivity (normal and narrow); PLL MPX demodulator; Dolby FM reception; preamp section: frequency response 20-50,000 Hz +0/-1.5 dB (aux., tape); RIAA equalization  $\pm$ 0.3 dB; S/N (IHF A) 102 dB (aux., tape), 80 dB (phono, 1 mV); phono overload 250 mV (1 kHz, 5 mV sens.); tuner section: sensitivity 33 dBf; S/N 73 dB (Dolby off); separation 50 dB (1 kHz); 6 $\frac{1}{16}$ " H  $\times$  16" W  $\times$  9 $\frac{1}{16}$ " D ..... \$630.00

## NIKKO

### NT 850 AM-FM Stereo Tuner

Features switchable (normal and narrow) i-f band; multipath switching; PLL MPX circuit;

FM tuner: sensitivity (IHF) 1.8  $\mu$ V; S/N 75 dB; stereo separation 48 dB (wide); capture ratio 1 dB (wide); AM tuner: S/N 50 dB; image response -50 dB; i-f response -40 dB; 5 $\frac{1}{2}$ " H x 15 $\frac{1}{4}$ " W x 13 $\frac{1}{2}$ " D ..... \$210.00

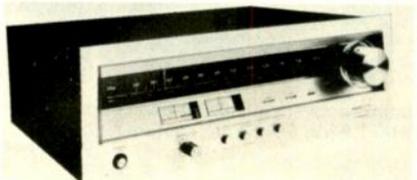
**FAM 450 AM-FM Stereo Tuner**

Has PLL IC multiplex circuit; quadrature detector in i-f stage; FM tuner: sensitivity 2  $\mu$ V; S/N 65 dB; stereo separation 42 dB; image response -45 dB; i-f response -70 dB; capture ratio 1.6 dB ..... \$140.00

**ONKYO**

**T-9 AM-FM Stereo Tuner**

Incorporates quartz-locked tuning; PLL MPX circuitry; tape recording level switch; FM sec-



tion: sensitivity 4  $\mu$ V; capture ratio 1.5 dB; i-f response -100 dB; S/N 65 dB; AM suppression 50 dB; stereo separation 40 dB (1 kHz); frequency response 30-15,000 Hz +0.5/-2 dB; AM section: sensitivity 25  $\mu$ V; image response -55 dB; i-f response -55 dB; S/N 45 dB; has de-emphasis switch (25, 50, and 75  $\mu$ sec); 6 $\frac{1}{4}$ " H x 17 $\frac{1}{2}$ " W x 15" D ..... \$279.95

**T-4 AM-FM Stereo Tuner**

Servo-locked tuning circuit; two tuning meters; PLL MPX circuitry; i-f de-emphasis switch for FM Dolby reception; FM section: sensitivity 4.5  $\mu$ V; capture ratio 1.5 dB; image response -60 dB; i-f response -90 dB; S/N 60 dB; AM suppression 50 dB; stereo separation 40 dB (1 kHz); frequency response 30-15,000 Hz +0.5/-2 dB; AM section: sensitivity 25  $\mu$ V; image response -40 dB; i-f response -30 dB; S/N 40 dB; 6 $\frac{1}{4}$ " H x 17 $\frac{1}{2}$ " W x 15" D ..... \$199.95

**OPTONICA**

**ST-3636 FM Stereo/AM-FM Tuner**

Features Opto-Lock tuning; dual tuning meters; built-in FM muting; 400-Hz tape calibration



tone; fixed and variable outputs; FM section: sensitivity (IHF) 1.7  $\mu$ V; S/N 77 dB; capture ratio 2 dB; image response -120 dB; i-f response -110 dB; AM suppression 50 dB; frequency response 35-15,000 Hz  $\pm$ 1.5 dB; stereo separation 50 dB (1 kHz); AM section: quieting sensitivity 250  $\mu$ V/m; S/N 42 dB; image response -60 dB; i-f response -60 dB; 5.7" H x 17.4" W x 14.7" D ..... \$299.95

**ST-1515 FM Stereo/AM-FM Tuner**

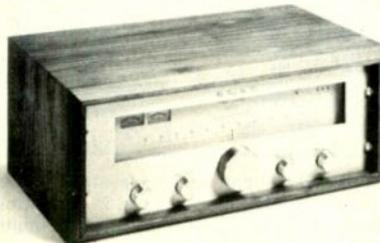
Incorporates tape calibration circuitry; FM muting and high blend; dual tuning meters; FM section: sensitivity (IHF) 1.7  $\mu$ V; S/N 72 dB; capture ratio 1.2 dB; image response -82 dB; i-f response -90 dB; AM suppression 50 dB; frequency response 30-15,000 Hz  $\pm$ 3 dB; stereo separation 45 dB (1 kHz); AM section: quieting sensitivity 250  $\mu$ V/m; S/N 42 dB; image response -45 dB; i-f response -30 dB; 5.7" H x 16.1" W x 10.8" D ..... \$179.95

**PHASE LINEAR**

**5000 Stereo FM Tuner**

Features dynamic range expander; multipath

1978 EDITION



**PIONEER**

**TX-9500II AM-FM Stereo Tuner**

Has switchable i-f bandwidth (wide, narrow); surface acoustic wave filter; automatic pilot signal cancelling; audio multipath detector; record level calibration with 440-Hz signal generator; output level control; FM section: 50-dB quieting sensitivity 35  $\mu$ V; S/N 77 dB; frequency response 20-15,000 Hz +0.2/-0.5 dB; capture ratio 0.8 dB (wide); stereo separation 50 dB (1 kHz, wide); image response -120 dB; i-f response -105 dB; AM suppression 65 dB; AM section: sensitivity 300  $\mu$ V/m (IHF, with ferrite antenna); S/N 55 dB; image response -70 dB; i-f response -65 dB; 5 $\frac{1}{2}$ " H x 16 $\frac{1}{32}$ " W x 15 $\frac{1}{16}$ " D ..... \$400.00

dist. indicator; variable muting; variable outputs; 25 and 75  $\mu$ sec de-emphasis; tuning and signal strength meters; S/N 66 dB, 72 dB with expander; frequency response 50-15,000 Hz  $\pm$ 0.5 dB; stereo separation 40 dB (1 kHz); optional walnut cabinet available; 7" H x 19" W x 10" D ..... \$499.00

**TX-8500II AM-FM Stereo Tuner**

Has switchable i-f bandwidth (wide, narrow); automatic pilot signal canceller; record level calibration with 440-Hz signal generator; MPX noise filter; output level control; FM section: 50 dB quieting sensitivity 40  $\mu$ V; S/N 75 dB; frequency response 20-15,000 Hz +0.2/-0.5 dB; capture ratio 0.8 dB (wide); stereo separation 45 dB (1 kHz, wide); image response -85 dB; i-f response -100 dB; AM suppression -55 dB; AM section: sensitivity 300  $\mu$ V/m (IHF, with ferrite antenna); S/N 45 dB; image response -45 dB; i-f response -50 dB; 5 $\frac{1}{2}$ " H x 16 $\frac{1}{32}$ " W x 15 $\frac{1}{16}$ " D ..... \$300.00

**PHILIPS**

**AH673 AM-FM Stereo Tuner**

Has signal strength, center tuner, and switchable to multipath meters; function indicator



lights; FM muting; FM section: sensitivity 3  $\mu$ V; capture ratio 1 dB; AM response -50 dB; i-f response -110 dB; image response -110 dB; stereo separation 47 dB (1 kHz); hum and noise -75 dB; AM section: sensitivity 200  $\mu$ V/m (rod antenna); image response -65 dB; i-f response -50 dB; hum and noise -60 dB; 5 $\frac{1}{2}$ " H x 18" W x 13 $\frac{1}{2}$ " D ..... \$599.95

**TX-6500II AM-FM Stereo Tuner**

Features PLL AM MPX circuit; five-stage AM interference noise limiter; FM muting; tuning meter combines center-of-channel and signal-strength functions; FM section: 50-dB quieting sensitivity 44  $\mu$ V; S/N 68 dB; frequency response 20-15,000 Hz +0.2/-1 dB; capture ratio 1 dB; image response -60 dB; i-f response -90 dB; AM suppression 50 dB; AM section: sensitivity 300  $\mu$ V/m (IHF, with ferrite antenna);

**FREE McIntosh CATALOG and FM DIRECTORY**

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## 2 TUNERS



S/N 50 dB; image response -40 dB; i-f response -70 dB; 5<sup>1</sup>/<sub>32</sub>" H x 14<sup>3</sup>/<sub>32</sub>" W x 12<sup>1</sup>/<sub>16</sub>" D ..... \$200.00

### TX-5500II AM-FM Stereo Tuner

Incorporates PLL IC in FM MPX demodulator section; FM front end has three-gang variable capacitor and FET; i-f section has ceramic filter/IC design; FM section: 50-dB quieting sensitivity 44  $\mu$ V; S/N 68 dB; capture ratio 1 dB; image response -60 dB; i-f response -90 dB; AM suppression 50 dB; stereo separation 35 dB (1 kHz); AM section: sensitivity 300  $\mu$ V/m (IHF, with ferrite antenna); S/N 50 dB; image response -40 dB; i-f response -70 dB; 4<sup>7</sup>/<sub>8</sub>" H x 14<sup>1</sup>/<sub>32</sub>" W x 10<sup>1</sup>/<sub>32</sub>" D ..... \$150.00

### REALISTIC

#### 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; walnut veneer wood case ..... \$169.95

### REVOX

#### A720 Digital FM Tuner/Preamp

Features step-type channel tuning and pre-set push-button tuning; volume and 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 and one stereo aux. input; high and 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 and  $\pm$ 40 kHz deviation; quartz-stabilized frequency synthesizer; five-digit frequency display; signal-strength and center-channel tuning meters; remote-control facility ..... \$1729.00

#### A76 FM Stereo Tuner

Sensitivity 1  $\mu$ V for 30 dB quieting; response 30-15,000 Hz -1 dB; capture ratio 1 dB; distortion 0.2%; S/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 control; 6<sup>1</sup>/<sub>4</sub>" H x 16<sup>3</sup>/<sub>16</sub>" W x 9<sup>5</sup>/<sub>16</sub>" D ..... \$750.00

### ROTEL

#### RT-1024 AM-FM Stereo Tuner

Incorporates Dolby NR; FM sensitivity 1.5  $\mu$ V (mono); S/N 75 dB; has multipath, signal strength, FM center tune, and Dolby level meters; variable headphone output level control; hi-blend switch; multipath switch; output level control; 400-Hz test tone; FM Dolby/external Dolby switch; 10 and 30  $\mu$ V FM muting; stereo and Dolby LED indicators ..... \$570.00

#### RT-925 AM-FM Stereo Tuner

FM sensitivity 1.7  $\mu$ V (mono); S/N 70 dB; has



center tune/multipath and signal strength meters; variable headphone output level control; hi-blend switch; variable output level; multipath switch; 25- $\mu$ sec de-emphasis; FM muting ..... \$340.00

#### RT-725 AM-FM Stereo Tuner

FM sensitivity 1.8  $\mu$ V (mono); S/N 70 dB; has center tune and signal strength meters; variable output level control; hi-blend and FM muting switches ..... \$200.00

RT-425. Similar but FM sensitivity 1.9  $\mu$ V (mono); without variable output level control ..... \$170.00

### SAE

#### 8000 FM Digital Tuner

Features LED digital frequency display; five-gang, dual-gate FET front end; sensitivity 1.6  $\mu$ V; linear-phase monolithic i-f filters with PLL MPX circuitry; 0.2% THD; stereo separation 30 dB (over 50-15,000 Hz); log meters for center-channel tuning and signal strength; 5.25" H x 19" W x 10.5" D ..... \$650.00  
Optional cabinet ..... \$40.00

### SANSUI

#### TU-9900 AM-FM Stereo Tuner

FM sensitivity (IHF) 1.5  $\mu$ V; THD 0.08% (stereo wide), 0.8% (stereo narrow) both at 1000 Hz; stereo separation 40 dB (50 and 10,000 Hz), 50 dB (1000 Hz); frequency response 30-15,000 Hz +0.5 dB, -0.8 dB; S/N 76 dB (stereo); spurious rejection 100 dB (98 MHz); 6<sup>3</sup>/<sub>16</sub>" H x 18<sup>1</sup>/<sub>8</sub>" W x 12<sup>1</sup>/<sub>4</sub>" D ..... \$450.00

#### TU-717 AM-FM Stereo Tuner

Has selectable dual i-f bandwidth; dual-gate MOSFET and four-gang tuning capacitor in



front end; signal-strength and center-tune meters; PLL multiplex demodulator; switched 400-Hz tape level adjustment signal; FM muting and MPX noise canceller; S/N 77 dB; sensitivity (IHF) 1.85  $\mu$ V; stereo separation 45 dB; rack mounting adaptors are available ..... \$320.00

#### TU-5900 AM-FM Stereo Tuner

FM sensitivity 10.3 dBf (1.8  $\mu$ V); 50-dB quieting sensitivity 38 dBf stereo; S/N 60 dB stereo; THD 0.35% stereo; capture ratio 2 dB; stereo separation 40 dB at 1 kHz; PLL multiplex demodulator; frequency-linear FM dial scale; twin tuning meters; Dolby FM facilities; facilities for reproducing Sansui QS broadcasts (using four-channel amplifier and QS decoder); universal de-emphasis 50/75  $\mu$ s plus 25  $\mu$ s; 5<sup>1</sup>/<sub>4</sub>" H x 16<sup>1</sup>/<sub>16</sub>" W x 9<sup>9</sup>/<sub>16</sub>" D ..... \$230.00

TU-3900. Similar to TU-5900 except FM sensitivity 11.2 dBf (2.0  $\mu$ V); THD 0.4% stereo; S/N 70 dB mono; signal-strength and center-of-channel meters; antenna attenuator button; 4<sup>3</sup>/<sub>4</sub>" H x 15<sup>3</sup>/<sub>4</sub>" W x 9<sup>1</sup>/<sub>2</sub>" D ..... \$160.00

### SANYO

#### FMT1001K AM-FM Stereo Tuner

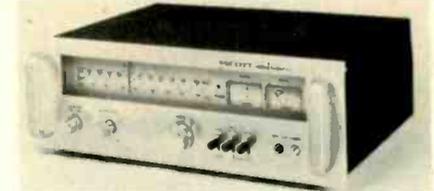
Has FM muting; high blend switch for FM noise filtration; AM signal strength and FM center

tuning meters; FM section: sensitivity (IHF) 2  $\mu$ V; i-f response -90 dB; image response -60 dB; AM suppression 55 dB; capture ratio 1 dB; S/N 70 dB; stereo separation 40 dB (1 kHz); AM section: sensitivity 300  $\mu$ V/m; image response -48 dB; i-f response -42 dB; S/N 50 dB; 5<sup>7</sup>/<sub>32</sub>" H x 15<sup>3</sup>/<sub>4</sub>" W x 14" D ..... \$149.95

### SCOTT

#### T-527 AM-FM Stereo Tuner

Has variable output level control; Dolby de-emphasis switch; signal strength and center



tuning meters; rack mount handles; sensitivity (IHF) 1.8  $\mu$ V; S/N 65 dB; capture ratio 1.5 dB ..... \$249.95

#### T-526 AM-FM Stereo Tuner

Incorporates switchable MPX filter; AM noise suppression circuitry; Dolby de-emphasis switch; signal strength and center tuning meters; sensitivity (IHF) 1.9  $\mu$ V; S/N 65 dB; capture ratio 1.5 dB ..... \$229.95

#### T-516 AM-FM Stereo Tuner

Features signal strength meter; FM muting switch; LED stereo indicator light; sensitivity (IHF) 2.2  $\mu$ V; S/N 65 dB; 0.5% THD; capture ratio 1.5 dB ..... \$149.95

### SEQUERRA

#### Model I FM-Stereo Tuner/Monitor

Features instrumentation functions and oscilloscope display, including analysis of: signals being transmitted; signal delivered from antenna; signal as tuned; internal vector separation; stereo and quad signals from external sources; for total system checks. Additional features include: discrete digital frequency readout; Dolby-B system for FM; variable muting; interstation noise muting; inter-stereo muting for mono; hi-blend. Muting threshold 12.2 dBf (variable); capture ratio 0.75 dB; alternate channel selectivity better than 100 dB; usable sensitivity 15.5 dBf (3.2  $\mu$ V) stereo; 50-dB quieting sensitivity 35.8 dBf (34.0  $\mu$ V); S/N at 65 dBf (977  $\mu$ V) 70 dB; THD at 50-dB quieting (100 Hz, 1 kHz, 6 kHz) 0.4%; IM distortion 0.5%; stereo separation 51 dB at 100 Hz, 52 dB at 1 kHz, 38 dB at 10 kHz; 7" H x 19" W x 14<sup>1</sup>/<sub>4</sub>" D ..... \$2995.00  
Rosewood cabinet ..... \$150.00  
Clear or black anodized panel ..... \$25.00  
19-inch rack panel and frame ..... \$150.00  
Remote push-button tuning assembly ..... \$150.00

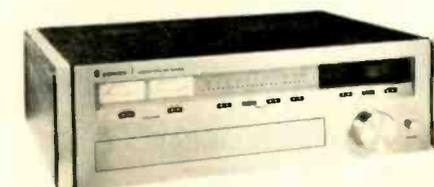
#### Model II FM-Stereo Tuner

Same as Model I, without oscilloscope monitor; features preselection of up to three stations; variable selectivity; connections for separate display unit; 3<sup>1</sup>/<sub>2</sub>" H x 17" W x 14" D ..... \$1600.00

### SHERWOOD

#### Micro/CPU 100 FM Stereo Tuner

FM sensitivity 1.7  $\mu$ V for 30 dB S/N; stereo dis-



tortion 0.15% at 100% mod.; spurious rejection 120 dB; stereo separation 50 dB (1000 Hz); digitally synthesized tuner controlled by CPU with a wide and narrow i-f system; six-section varactor front end; advance digital detection system; PLL multiplex; LED dial scale; digital station readout; station call-letter readout; auto scan and memory tuning ..... \$2000.00

**HP-5500 AM-FM Stereo Tuner**  
FM sensitivity 1.7  $\mu$ V for 30 dB; distortion (stereo) 0.2% at 100% mod.; separation 50 dB at 1000 Hz; capture ratio 1 dB; six-section front end; digital detection system; PLL multiplex; switchable de-emphasis; walnut end panels included ..... \$400.00

**ST-8080 AM-FM Stereo Tuner**  
Professional Series component; has built-in 440-Hz record calibration oscillator; two-way muting; MPX hi-blend for improved distant-station reception; FM section: sensitivity (IHF) 1.9  $\mu$ V; capture ratio 1 dB; image response -85 dB; i-f response -100 dB; AM suppression 55 dB; stereo separation 45 dB (1 kHz); AM section: sensitivity 30  $\mu$ V; image response -45 dB (1 kHz); i-f response -40 dB ..... \$249.95

**ST-7300 AM-FM Stereo Tuner**  
Has 440-Hz tape calibration generator; zero-center and signal-strength tuning meters; PLL FM decoder; FM section: sensitivity 2  $\mu$ V; S/N 70 dB; frequency response 20-15,000 Hz +0.2/-1 dB; capture ratio 1 dB; image response -55 dB; i-f response -82 dB; AM suppression 55 dB; stereo separation 45 dB (1 kHz); AM section: sensitivity 30  $\mu$ V; image response -45 dB (1 kHz); i-f response -40 dB (1 kHz); 5 $\frac{3}{4}$ " H x 17 $\frac{1}{16}$ " W x 12 $\frac{1}{32}$ " D ..... \$179.95

#### SONY

**ST-5950SD AM-FM Stereo Tuner**  
Built-in Dolby noise-reduction system; "uniphase" i-f filters for improved selectivity and lower distortion; balanced dual FET mixer circuit with buffered local oscillator ..... \$450.00

**ST-3950SD AM-FM Stereo Tuner**  
Built-in Dolby noise-reduction system; full complement of tuning and control facilities ..... \$300.00

**ST-2950SD AM-FM Stereo Tuner**  
Built-in Dolby noise-reduction system; PLL FM multiplex decoder; full complement of controls. .... \$220.00

#### TECHNICS BY PANASONIC

**ST-9030 FM Stereo Tuner**  
Professional Series component; has automatic narrow and wide i-f bandwidth selection; PLL MPX IC circuitry; pilot and subcarrier canceling circuits; servo tuning circuit; eight-ganged variable tuning capacitor; signal meter (linear to 81 dBf); sensitivity 1.2  $\mu$ V; image response -135 dB; i-f response -135 dB; AM suppression 58 dB (wide); stereo separation 50 dB (1 kHz, wide) ..... \$399.95

**ST-8600 AM-FM Stereo Tuner**  
FM sensitivity (IHF) 1.9  $\mu$ V (10.8 dBf); response 20-18,000 Hz +0.2/-0.8 dB; capture ratio 1 dB; THD 0.25% (stereo); S/N 72 dB (stereo); image rejection 95 dB (98 MHz); i-f rejection 105 dB (98 MHz); selectivity 85 dB; has full complement of controls and outputs, including built-in pink-noise generator; signal-strength and center-tuning meters ..... \$329.95

#### TOSHIBA

**ST-910 FM Digital Synthesizer Tuner**  
FM sensitivity 1.5  $\mu$ V for 30 dB S/N; S/N 70 dB; capture ratio 1 dB; selectivity 100 dB; image rejection 100 dB; 75 and 300 ohm antenna inputs; output: 1.5 V fixed; 0-1.5 V variable; features crystal-controlled PLL frequency-synthesizer tuner; no knob control; digital display; has seven programmable pre-set stations; auto-

matic searching; manual tuning ... \$1800.00

**ST-420 AM-FM Stereo Tuner**  
Incorporates FET and frequency linear four-gang variable capacitor in front end; PLL IC MPX circuitry; built-in calibrator for air check level; variable output; FM vertical and horizontal multipath outputs; signal and tuning meters ..... \$219.95

#### 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 seven-stage differential amplification, ceramic filter block, and discriminator circuit for 1 dB capture ratio; ceramic and LC filters; seven-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  
**CT7000BL.** Same as CT7000 except black metal finish ..... \$1200.00

**CT-1010 AM-FM Stereo Tuner**  
Has PLL multiplex decoder; wide-gap five-gang variable capacitor; image response -110 dB; sensitivity 1.9  $\mu$ V; 19-kHz pilot carrier cancellation; manual tuning with automatic disengagement of AFC; muting circuit; signal strength/quality and center-zero metering; 333-Hz recording signal calibration generator ..... \$350.00  
**CT-810.** Similar to CT-1010 but has -90 dB image response and 1.8  $\mu$ V sensitivity ..... \$250.00

## Phase Linear FM Tuner with exclusive Dynamic Range Expander.

With the new Phase Linear 5000 FM Tuner you can actually improve FM broadcasts to rival that of tapes and records. Advanced electronics combine excellent reception capabilities with a unique Dynamic Range Expander that restores compressed FM signals to their original sonic quality. The Phase Linear 5000 has many other un-

usual features not available on most conventional tuners, including an L.E.D. Multipath Distortion Indicator that identifies this type of distortion, thus simplifying its removal; a Variable Muting Control; De-emphasis; and more.

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The Powerful Difference



See your dealer and listen to this remarkable tuner.



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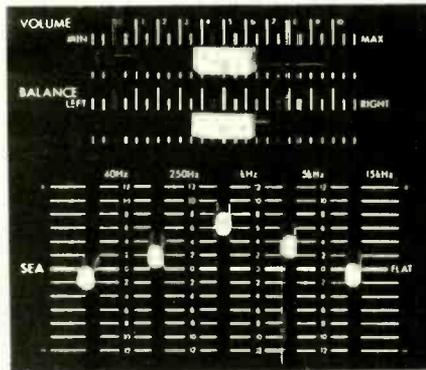
# Only three receivers in the world give you master control of the entire music spectrum.

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|                                             | S600 II | S400 II | S300 II |
|---------------------------------------------|---------|---------|---------|
| RMS power/channel, 8 ohms, 20Hz to 20,000Hz | 120 W.  | 80 W.   | 50 W.   |
| Total harmonic distortion                   | 0.08%   | 0.08%   | 0.1%    |
| Approx. retail value                        | \$650.  | \$530.  | \$400.  |

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# 3

# RECEIVERS

## ADVENT

### 300 FM-Stereo Receiver

Combines Holman phono preamp circuit, FM multiplex tuner, and 30-W power amplifier; FM sensitivity 2.5  $\mu$ V; frequency response 20-20,000 Hz; power bandwidth 40-20,000 Hz; 15 W/ch rms (20-20,000 Hz) at 0.5% THD; stereo separation 35 dB; S/N 82 dB (phono); capture ratio 1.2 dB; spurious rejection 95 dB; inputs: phono, tape, aux.; controls: volume, balance, bass, treble, loudness, tape monitor, mono/stereo; front-panel headphone jack; black metal enclosure; 3 1/2" H x 15 7/8" W x 9" D (plus 1 3/4" for knob clearance) ..... \$269.95  
Unit with switching mode power supply for use on 12-V d.c. .... \$319.95

## AIWA

### AX-7500 Stereo Receiver

AM-FM stereo receiver; amp section: continuous power output 30 W/ch min. rms at 8 ohms



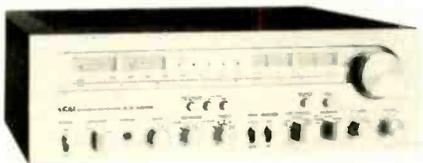
over 20-20,000 Hz with 0.2% THD and IM dist.; frequency response 30-15,000 Hz  $\pm$ 0.3 dB phono (RIAA eq.), 10-70,000 Hz  $\pm$ 0/-1 dB aux., tape, and DIN; S/N 80 dB (aux., DIN, tape 2), 90 dB (tape 1), 75 dB (phono); phono overload (1 kHz) 200 mV (rms), 560 mV (p-p); FM tuner section: usable sensitivity 11.2 dBf (2  $\mu$ V); capture ratio 1.5 dB; selectivity 60 dB; spurious rejection 80 dB; AM suppression 50 dB; harmonic dist. 0.25% (mono), 0.4% (stereo); S/N 70 dB; stereo separation 43 dB (1 kHz); AM tuner section: sensitivity 300  $\mu$ V/m (IHF); S/N 50 dB; 120-V a.c., 60 Hz, 110 W; 6 7/16" H x 17 1/16" W x 14 7/16" D ..... \$360.00

SB-10. Decorator side panel for AX-7500 ..... \$17.50

## AKAI

### AA-1200 AM-FM Stereo Receiver

120 W/ch rms into 8 ohms over 20-20,000 Hz with 0.08% THD; FM sensitivity (IHF) 1.7  $\mu$ V; FM selectivity (IHF) 80 dB; one phono and two tape inputs; three a.c. outlets (one switched); speaker selector switch for two sets of speakers; tape dubbing and monitoring facilities; tuning and signal-strength meters; power me-



1978 EDITION

ters with switchable 3- and 120-W ranges; FM muting switch; separate bass, mid-range, and treble controls; dual power supply; lighted mode indicators ..... \$649.95

### AA 1175 AM-FM Stereo Receiver

75 W/ch rms into 8 ohms over 20-20,000 Hz with 0.08% THD; FM sensitivity (IHF) 1.7  $\mu$ V; FM selectivity (IHF) 80 dB; one phono and two tape inputs; three a.c. outlets (one switched); speaker selector switch for two sets of speakers; tape dubbing and monitoring facilities; tuning and signal-strength meters; FM muting switch; high- and low-frequency filters; separate bass, mid-range, and treble controls; dual power supply; lighted mode indicators ..... \$499.95

### AA-1150 AM-FM Stereo Receiver

50 W/ch rms over 20-20,000 Hz with 0.1% THD; FM sensitivity (IHF) 1.8  $\mu$ V; FM selectivity (IHF) 70 dB; one phono and two tape inputs; two a.c. outlets (one switched); speaker selector switch for two sets of speakers; tape dubbing and monitoring facilities; tuning and signal-strength meters; FM muting switch; high- and low-frequency filters; dual bass and treble controls; lighted mode indicators ..... \$399.95

### AA-1135 AM-FM Stereo Receiver

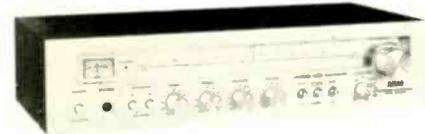
35 W/ch rms into 8 ohms over 20-20,000 Hz with 0.2% THD; FM sensitivity (IHF) 1.8  $\mu$ V; FM selectivity (IHF) 70 dB; one phono and two tape inputs; two a.c. outlets (one switched); speaker selector switch for two sets of speakers; tape dubbing and monitoring facilities; tuning and signal-strength meters; FM muting switch ..... \$299.95

### AA-1125 AM-FM Stereo Receiver

25 W/ch rms into 8 ohms over 20-20,000 Hz with 0.3% THD (27 W/ch rms into 4 ohms); S/N (IHF) 75 dB (phono), 90 dB (aux.); channel separation (IHF) 50 dB at 1 kHz (phono); damping factor 30 (1 kHz, 8 ohms); input sensitivity/imp. 3 mV/47,000 ohms (phono), 150 mV/100,000 ohms (aux.); frequency response 30-15,000 Hz  $\pm$ 1 dB (phono), 10-70,000 Hz  $\pm$ 0/-2 dB (aux., tape monitor); FM tuner: sensitivity (IHF) 1.9  $\mu$ V; capture ratio 1.3 dB; selectivity (IHF) 70 dB; image response -65 dB; i-f response -90 dB; spurious response -90 dB; AM suppression 50 dB; S/N 65 dB; HD 0.3% (mono), 0.6% (stereo); stereo separation 40 dB (1 kHz); AM tuner: sensitivity (IHF) 180  $\mu$ V/m, 10  $\mu$ V (with external antenna); selectivity (IHF) 30 dB; image response -65 dB; i-f response -45 dB; S/N 45 dB; FM center tuning indicator; AM signal strength meter; 4.8" H x 18.9" W x 10.6" D ..... \$239.95

### AA-1115 AM-FM Stereo Receiver

15 W/ch rms into 8 ohms over 40-20,000 Hz with 0.5% THD (17 W/ch rms into 4 ohms); S/N (IHF) 75 dB (phono), 90 dB (aux.); channel separation (IHF) 50 dB at 1 kHz (phono); damping factor 30 (1 kHz, 8 ohms); input sensitivity/imp. 3 mV/47,000 ohms (phono), 150 mV/100,000 ohms (aux.); frequency response 30-

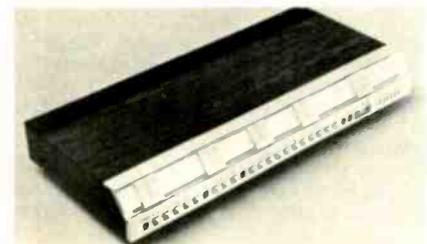


15,000 Hz  $\pm$ 1 dB (phono), 10-70,000 Hz  $\pm$ 0/-2 dB (aux.); FM tuner: sensitivity (IHF) 1.9  $\mu$ V; capture ratio 1.3 dB; selectivity 60 dB; image response -65 dB; i-f response -90 dB; spurious response -90 dB; AM suppression 50 dB; S/N 65 dB; HD 0.3% (mono), 0.6% (stereo); AM tuner: sensitivity 180  $\mu$ V/m, 10  $\mu$ V (with external antenna); selectivity (IHF) 30 dB; image response -65 dB; i-f response -45 dB; S/N 45 dB; FM center tuning indicator; AM signal strength meter; 4.8" H x 18.9" W x 10.6" D ..... \$189.95

## BANG & OLUFSEN

### Beomaster 4400 FM Receiver

FM stereo receiver; amp section: 70 W/ch rms into 4 ohms; frequency response 20-20,000



Hz; max. THD 0.1%; IM dist. 0.1%; input sensitivity/imp. 2.2 mV/47,000 ohms (phono), 200 mV/470,000 ohms (tape); S/N (linear) 60 dB (phono), 65 dB (tape); tuner section: sensitivity for 50 dB quieting 18 dBf (mono), 38 dBf (stereo); THD at 50 dB quieting 1% max. (stereo, 6 kHz); S/N at 65 dBf 63 dB (mono), 62 dB (stereo); capture ratio 4 dB (mono); AM suppression 50 dB (mono); selectivity 4.5 dB (mono, adj. channel), 58 dB (mono, alternate channel); image response -69 dB (mono); i-f response -85 dB (mono); 117-V a.c., 50-60 Hz, 30-310 W; 3 3/4" H x 22 3/4" W x 11" D ..... \$695.00

### Beomaster 1900 FM Receiver

FM stereo receiver; amp section: 30 W/ch rms into 4 ohms; frequency response 20-20,000 Hz; max. THD 0.2%; IM dist. 0.15%; input sensitivity/imp. 3 mV/47,000 ohms (phono), 220 mV/470,000 ohms (tape); S/N (linear) 60 dB (phono), 65 dB (tape); tuner section: sensitivity for 50 dB quieting 18.5 dBf (mono), 38.9 dBf (stereo); THD at 50 dB quieting 1% max. (stereo/mono, 100 Hz); capture ratio 4.5 dB (mono); AM suppression 50 dB (mono); selectivity 4.5 dB (mono, adj. channel), 58 dB (mono, alternate channel); image response -69 dB (mono); i-f response -85 dB (mono); 117-V a.c., 50-60 Hz, 2.5-185 W; 2 1/2" H x 24 1/2" W x 9 3/4" D ..... \$495.00

## DYMEK

## AM8 AM Receiver

AM-only solid state receiver; S/N 10 dB; sensitivity 3  $\mu$ V; -6 dB r-f bandwidth 8 kHz (narrow), 20 kHz (wide); -50 dB r-f bandwidth 20 kHz (narrow), 50 kHz (wide); mod. response -3 dB at 15 Hz and 9 kHz; THD (30% mod., 1 kHz) 0.5%, (80% mod., 1 kHz) 1.5%; output: 20 W rms into 8 ohms over 20-20,000 Hz with 0.5% THD; tuning indicator; 3.5" H x 17.5" W x 10" D. .... \$320.00

## FISHER

## RS1080 Stereo Receiver

170 W/ch continuous rms sine wave into 8 ohms over 20-20,000 Hz with 0.08% THD and



IM dist.; preamp section: frequency response 30-15,000 Hz  $\pm$ 0.5 dB (phono), 20-20,000 Hz  $\pm$ 0.5 dB (aux.); input sensitivity/imp. 2 mV/50,000 ohms (phono), 150 mV/100,000 ohms (tape and aux.); phono overload 300 mV (1% THD, 1 kHz); hum and noise -95 dB (IHF A; tape, aux.), -78 dB (IHF; phono); FM tuner: sensitivity 3.5  $\mu$ V (stereo); S/N 75 dB (stereo); capture ratio 0.8 dB; alternate channel selectivity ( $\pm$ 400 kHz) 75 dB; image response -100 dB; spurious response -110 dB; i-f response -106 dB; AM suppression 65 dB; THD (65 dBf, stereo) 0.25%; stereo separation 46 dB (1 kHz); frequency response 20-15,000 Hz  $\pm$ 1 dB; AM tuner: sensitivity 280  $\mu$ V/m; selectivity ( $\pm$ 10 kHz) 45 dB; S/N 55 dB; image response -70 dB; i-f response -80 dB; three a.c. outlets; 108-132 V a.c., 50/60 Hz, 1 kW; 7 $\frac{3}{8}$ " H x 23 $\frac{1}{4}$ " W x 18 $\frac{1}{8}$ " D. .... \$999.95  
**RS1060.** Similar to RS1080 but 125 W/ch continuous rms sine wave into 8 ohms over 20-20,000 Hz with 0.08% THD and IM dist.; power consumption 800 W. .... \$700.95

## RS1058 Stereo Receiver

90 W/ch continuous rms sine wave into 8 ohms over 20-20,000 Hz with 0.1% THD and IM dist.; preamp section: frequency response 30-15,000 Hz  $\pm$ 0.5 dB (phono), 20-20,000 Hz  $\pm$ 0.5 dB (aux.); input sensitivity/imp. 2 mV/50,000 ohms (phono), 150 mV/100,000 ohms (tape and aux.); phono overload 180 mV (1% THD, 1 kHz); hum and noise -90 dB (IHF A; tape, aux.), -76 dB (IHF; phono); FM tuner: sensitivity 4.3  $\mu$ V (stereo); S/N 70 dB (stereo); capture ratio 0.8 dB; alternate channel selectivity ( $\pm$ 400 kHz) 75 dB; image response -80 dB; spurious response -100 dB; i-f response -100 dB; AM suppression 65 dB; THD (65 dBf, stereo) 0.25%; stereo separation 45 dB (1 kHz); frequency response 20-15,000 Hz  $\pm$ 1 dB; AM tuner: sensitivity 300  $\mu$ V/m; selectivity ( $\pm$ 10 kHz) 43 dB; S/N 55 dB; image response -56 dB; i-f response 70 dB; two a.c. outlets; 108-132 V a.c., 50/60 Hz, 500 W; 6 $\frac{3}{8}$ " H x 20 $\frac{3}{4}$ " W x 14 $\frac{1}{4}$ " D. .... \$549.95

**RS1056.** Similar to RS1058 but 68 W/ch continuous rms sine wave into 8 ohms over 20-20,000 Hz with 0.1% THD and IM dist.; FM tuner S/N 75 dB (stereo); power consumption 400 W. .... \$449.95

## RS1052 Stereo Receiver

50 W/ch continuous rms sine wave into 8 ohms over 20-20,000 Hz with 0.2% THD and IM dist.; preamp section: frequency response 30-15,000 Hz  $\pm$ 1 dB (phono), 20-20,000 Hz  $\pm$ 1 dB (aux.);

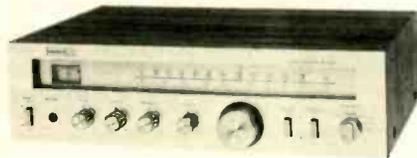
input sensitivity/imp. 2 mV/50,000 ohms (phono), 150 mV/100,000 ohms (tape, aux.); phono overload 110 mV (1% THD, 1 kHz); hum and noise -90 dB (IHF A; tape, aux.), -75 dB (IHF; phono); FM tuner: sensitivity 4.6  $\mu$ V (stereo); S/N 66 dB (stereo); capture ratio 1 dB; alternate channel selectivity ( $\pm$ 400 kHz) 68 dB; image response -56 dB; spurious response -85 dB; i-f response -70 dB; AM suppression 55 dB; THD (65 dBf, stereo) 0.4%; stereo separation 40 dB (1 kHz); frequency response 20-15,000 Hz  $\pm$ 1.5 dB; AM tuner: sensitivity 300  $\mu$ V/m; selectivity ( $\pm$ 10 kHz) 40 dB; S/N 55 dB; image response -50 dB; i-f response -45 dB; two a.c. outlets; 108-132 V a.c., 50/60 Hz, 230 W; 6 $\frac{1}{8}$ " H x 19 $\frac{1}{8}$ " W x 13 $\frac{1}{8}$ " D. .... \$349.95

**RS1035.** Similar to RS1052 but 35 W/ch continuous rms sine wave into 8 ohms over 20-20,000 Hz with 0.2% THD and IM dist.; power consumption 190 W. .... \$229.95

**RS1022.** Similar to RS1052 but 22 W/ch continuous rms sine wave into 8 ohms over 20-20,000 Hz with 0.5% THD and IM dist.; power consumption 160 W. .... \$249.95

## MC2000 Stereo Receiver

10 W/ch continuous rms sine wave into 8 ohms over 60-20,000 Hz with 1% THD and 0.5% IM



dist.; preamp section: frequency response 30-15,000 Hz  $\pm$ 2 dB (phono), 20-20,000 Hz  $\pm$ 2 dB (aux.); input sensitivity/imp. 2 mV/50,000 ohms (phono), 150 mV/100,000 ohms (tape, aux.); phono overload 100 mV (1% THD, 1 kHz); hum and noise -85 dB (IHF A; tape, aux.), -70 dB (IHF; phono); FM tuner: sensitivity 5.5  $\mu$ V (stereo); S/N 60 dB (stereo); capture ratio 1 dB; alternate channel selectivity ( $\pm$ 400 kHz) 50 dB; image response -56 dB; spurious response -80 dB; i-f response -50 dB; AM suppression 55 dB; THD (65 dBf, stereo) 0.7%; frequency response 20-15,000 Hz  $\pm$ 2 dB; AM tuner: sensitivity 300  $\mu$ V/m; selectivity ( $\pm$ 10 kHz) 40 dB; S/N 50 dB; image response -45 dB; i-f response -45 dB; one a.c. outlet; 108-132 V a.c., 50/60 Hz, 50 W; 5" H x 17 $\frac{3}{8}$ " W x 13 $\frac{1}{4}$ " D. .... \$179.95

## HARMAN/KARDON

## Citation Receiver

Stereophonic receiver designed for uncompromised performance; electronic touch sensors



for input selection; patented Quieting Meter for FM tuning; unique dual dial scale can be read from top or front; separate power supply for each channel; dubbing possible while listening to a separate program source; rosewood top panel with anodized aluminum side panels; 7" H x 19 $\frac{3}{4}$ " W x 17 $\frac{3}{8}$ " D. .... \$1170.00

## 730 AM-FM Stereo Receiver

40 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD; frequency response 4-130,000 Hz  $\pm$ 0.5 dB; IM dist. 0.12%; hum and noise -60 dB (unweighted); preamp input sensitivity/imp. 2.5 mV/47,000 ohms (phono), 150 mV/30,000 ohms (tape, aux.); FM sensitivity 1.9  $\mu$ V; capture ratio 2 dB; image response -70 dB; spuri-

ous response -80 dB; alternate channel selectivity 80 dB; stereo separation 80 dB (1 kHz); patented Quieting Meter for FM tuning; preamp and amp are separable for insertion of accessories in line; 5 $\frac{1}{2}$ " H x 17" W x 14 $\frac{1}{2}$ " D. .... \$419.95

## 430 AM-FM Stereo Receiver

25 W/ch rms into 8 ohms over 20-20,000 Hz with 0.5% THD and 0.12% IM dist.; frequency response 4-140,000 Hz (1 W/ch); hum and noise -65 dB (unweighted); damping factor 40; FM sensitivity 1.9  $\mu$ V; S/N 77 dB; capture ratio 1.7 dB; image response -60 dB; spurious response -82 dB; alternate channel selectivity 50 dB; stereo separation 39 dB; 5 $\frac{1}{2}$ " H x 17" W x 14 $\frac{1}{2}$ " D. .... \$319.95

## 330c AM-FM Stereo Receiver

20 W/ch rms into 8 ohms over 20-20,000 Hz with 0.5% THD and 0.3% IM dist.; frequency response 20-20,000 Hz  $\pm$ 0.5 dB; hum and noise -75 dB (phono), -85 dB (aux.); input sensitivity/imp. 2.8 mV/47,000 ohms (phono), 200 mV/20,000 ohms (aux.); FM tuner: capture ratio 1.8 dB; image response -50 dB; spurious response -75 dB; alternate channel selectivity 60 dB; FM dist. 1% (stereo); 4 $\frac{1}{2}$ " H x 15 $\frac{3}{8}$ " W x 13" D. .... \$229.95

## HEATH

## AR-1515 AM-FM Stereo Receiver

70 W/ch min. rms into 8 ohms at 0.08% THD over 20-20,000 Hz; IM less than 0.08% at full



power; frequency response 8-45,000 Hz +0/-3 dB; input sensitivity 2 mV (mag. phono), 200 mV (aux., tape, and dub); FM sensitivity 1.8  $\mu$ V for 30 dB quieting; capture ratio 1.3 dB; digital readout; signal-strength and center-tune meters; secondary controls concealed behind fold-down front panel; accepts Dolby FM module; 6 $\frac{3}{8}$ " H x 21 $\frac{1}{2}$ " W x 15" D.

Kit ..... \$549.95  
**AD-1504.** Dolby FM module (kit) ..... \$39.95

## AR-1500A AM-FM Stereo Receiver

60 W/ch min. rms into 8 ohms at 0.25% THD over 20-20,000 Hz; IM 0.1% at full power; frequency response 5-120,000 Hz  $\pm$ 0/-3 dB at 1 W; input sensitivity 1.8 mV (mag. phono), 140 mV (tape, aux., and tape monitor); FM sensitivity 1.8  $\mu$ V for 30 dB quieting; capture ratio 1.5 dB; 5 $\frac{1}{8}$ " H x 18 $\frac{1}{2}$ " W x 13 $\frac{3}{8}$ " D.

Kit ..... \$399.95  
**ARA-1500-1.** Walnut-stained veneer case ..... \$24.95

## AR-1429 AM-FM Stereo Receiver

35 W/ch min. rms into 8 ohms at less than 0.1% THD over 20-20,000 Hz; IM less than 0.2% at full power; frequency response 5-45,000 Hz +0/-1 dB at 1 W; input sensitivity 2 mV (mag. phono), 200 mV (aux., tape, and tape monitor); FM sensitivity 3.5  $\mu$ V (16.1 dBf); capture ratio 1.5 dB; two tuning meters; stereo indicator; main and remote speaker selection; headphone jack; 4 $\frac{3}{8}$ " H x 20" W x 13 $\frac{1}{2}$ " D.

Kit ..... \$319.95

## AR-1219 AM-FM Stereo Receiver

15 W/ch min. rms into 8 ohms at 0.5% THD over 20-20,000 Hz; frequency response 7-100,000 Hz  $\pm$ 1 dB; FM response 20-15,000 Hz  $\pm$ 1 dB; channel separation 40 dB typically, 35 dB min.; sensitivity 2  $\mu$ V; capture ratio 2 dB; preassembled FM tuner section; stereo light; headphone jack; 3 $\frac{7}{8}$ " H x 17" W x 13" D.

Kit ..... \$189.95

## AC-1118 AM-FM Stereo Receiver

4.5 W/ch min. rms into 8 ohms at 1% THD over 50-15,000 Hz; FM tuner sensitivity 5  $\mu$ V; selec-

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tivity 60 dB; stereo separation 30 dB; ceramic phono and aux. inputs; bass and treble controls; headphone jack; speaker on/off switch; simulated walnut-grained vinyl-clad metal and plastic case; 4" H x 17" W x 15" D.

Kit ..... \$139.95

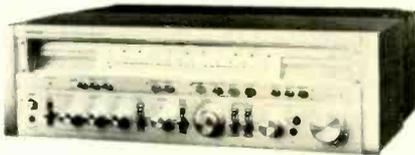
**AC-1120.** Same with factory assembled and aligned 8-track stereo tape player; 4" H x 22" W x 15" D.

Kit ..... \$179.95

### HITACHI

#### SR-2004 Class G Stereo Receiver

200 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.08% THD; input sensitivity/



imp. 2.5 mV/47,000 ohms (phono), 150 mV/50,000 ohms (tape, aux.); FM sensitivity 1.5  $\mu$ V; FM alternate channel selectivity 85 dB; FM THD 0.2% (1 kHz, stereo); FM S/N 75 dB; stereo separation 50 dB (1 kHz) ..... \$950.00

#### SR-903 Class G Stereo Receiver

75 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.1% THD; input sensitivity/imp. 1.9 mV/47,000 ohms (phono), 150 mV/50,000 ohms (tape, aux.); FM sensitivity 1.6  $\mu$ V; FM alternate channel selectivity 80 dB; FM THD 0.25% (1 kHz, stereo); FM S/N 74 dB; stereo separation 45 dB (1 kHz) ..... \$550.00

#### SR-803 Stereo Receiver

50 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.1% THD; input sensitivity/imp. 2.5 mV/47,000 ohms (phono), 150 mV/50,000 ohms (tape, aux.); FM sensitivity 1.7  $\mu$ V; FM alternate channel selectivity 80 dB; FM THD 0.25% (1 kHz, stereo); FM S/N 74 dB; stereo separation 45 dB (1 kHz) ..... \$369.95

#### SR-703 Stereo Receiver

40 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.3% THD; input sensitivity/imp. 2.5 mV/47,000 ohms (phono), 200 mV/50,000 ohms (tape, aux.); FM sensitivity 1.8  $\mu$ V; FM alternate channel selectivity 60 dB; FM THD 0.3% (1 kHz, stereo); FM S/N 72 dB; stereo separation 40 dB (1 kHz) ..... \$329.95

#### SR-603 Stereo Receiver

30 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.3% THD; input sensitivity/imp. 2.5 mV/47,000 ohms (phono), 200 mV/40,000 ohms (tape, aux.); FM sensitivity 1.8  $\mu$ V; FM alternate channel selectivity 60 dB; FM THD 0.3% (1 kHz, stereo); FM S/N 74 dB; stereo separation 45 dB (1 kHz) ..... \$279.95

#### SR-503 Stereo Receiver

20 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.3% THD; input sensitivity/imp. 2.5 mV/47,000 ohms (phono), 200 mV/40,000 ohms (tape, aux.); FM sensitivity 1.9  $\mu$ V; FM alternate channel selectivity 60 dB; FM THD 0.15% (1 kHz, stereo); FM S/N 74 dB; stereo separation 74 dB (1 kHz) ..... \$229.95

#### SR-303 Stereo Receiver

15 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.5% THD; input sensitivity/imp. 2.5 mV/47,000 ohms (phono), 200 mV/40,000 ohms (tape, aux.); FM sensitivity 1.9  $\mu$ V; FM alternate channel selectivity 56 dB; FM THD 0.3% (1 kHz, stereo); FM S/N 72 dB;

stereo separation 40 dB (1 kHz) ..... \$199.95

### JVC

#### JR-S600II AM-FM Stereo Receiver

Features five-zone (40 and 250 Hz, 1, 5, and 15 kHz) S.E.A. graphic equalizer which may be



switched into tape recorder circuit for equalization while recording; 120 W/ch continuous rms into 8 ohms over 20-20,000 Hz with 0.08% THD and 0.1% IM dist.; damping factor 50 (8 ohms); S/N 75 dB (phono), phono overload 250 mV; FM sensitivity 1.7  $\mu$ V; S/N 70 dB (stereo); stereo separation 50 dB (1 kHz); capture ratio 1 dB; alternate channel selectivity 80 dB; two-way tape monitor and recording/dubbing while simultaneously listening to another program source; center-tune, signal-strength, and two power meters; 6 $\frac{1}{16}$ " H x 22 $\frac{1}{16}$ " W x 17" D ..... \$600.00

#### JR-S400II AM-FM Stereo Receiver

Features S.E.A. graphic equalizer (see JR-S600II); 80 W/ch rms into 8 ohms over 20-20,000 Hz with 0.08% THD and 0.1% IM dist.; damping factor 50 (8 ohms); S/N 75 dB (phono); phono overload 200 mV; FM sensitivity (IHF) 1.7  $\mu$ V; S/N 70 dB (stereo); capture ratio 1 dB; alternate channel selectivity 80 dB; stereo separation 50 dB; (1 kHz); center-tune, signal-strength, and two power meters; dual tape monitor recording/duplication permits listening to any other source while dubbing; 6 $\frac{1}{16}$ " H x 22 $\frac{1}{16}$ " W x 17" D ..... \$500.00

#### JR-S300II AM-FM Stereo Receiver

Features S.E.A. graphic equalizer (see JR-S600II); 50 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.1% THD and IM dist.; damping factor 50 (8 ohms); S/N 70 dB (phono); phono overload 200 mV; FM sensitivity (IHF) 1.9  $\mu$ V; S/N 60 dB (stereo); capture ratio 1.2 dB; selectivity 60 dB; stereo separation 45 dB (1 kHz); center-channel, signal-strength, and two power meters; dual tape monitor recording/dubbing circuits; FM detector output jack for four-channel FM broadcasts; 6 $\frac{1}{16}$ " H x 19 $\frac{1}{16}$ " W x 13 $\frac{1}{16}$ " D ..... \$400.00

#### JR-S200 AM-FM Stereo Receiver

35 W/ch rms into 8 ohms over 20-20,000 Hz with 0.5% THD and 0.5% IM dist.; damping factor 40 (8 ohms); load imp. 4-16 ohms; input sensitivity/imp. 2.5 mV/50,000 ohms (phono), 150 mV/70,000 ohms (tape, aux.); S/N 70 dB (phono), 95 dB (tape, aux.); FM sensitivity 2  $\mu$ V; stereo separation 45 dB (1 kHz); capture ratio 1.2 dB; 6 $\frac{1}{16}$ " H x 19 $\frac{1}{16}$ " W x 13 $\frac{1}{16}$ " D ..... \$299.95

**JR-S100.** Similar to JR-S200 except 20 W/ch rms into 8 ohms over 40-20,000 Hz with 0.5% THD; S/N 96 dB (tape, aux.); FM sensitivity 2.2  $\mu$ V; stereo separation 35 dB (1 kHz); capture ratio 2.5 dB ..... \$199.95

### KENWOOD

#### KR-9600 AM-FM Stereo Receiver

160 W/ch rms into 8 ohms over 20-20,000 Hz with 0.08% THD; dual power supplies; two



selectable-range power meters; separate equalizer amplifier for each phono input; microphone sound injection/public address; two tape deck capability with intertape dubbing and tape-through circuit; triple tone controls with defeat; dual-gate MOSFET low-noise FM front end; low-dist, eight-element linear phase i-f filter; PLL in multiplex for improved separation; dual-tuning signal/deviation meter; five-gang FM tuning capacitor; 25  $\mu$ sec Dolby de-emphasis switch; 6 $\frac{1}{8}$ " H x 22 $\frac{1}{8}$ " W x 16 $\frac{1}{2}$ " D .. \$750.00

#### KR-7600 AM-FM Stereo Receiver

80 W/ch into 8 ohms over 20-20,000 Hz with 0.3% THD; FM sensitivity 1.7  $\mu$ V; capture ratio 1.5 dB; alternate channel selectivity 80 dB; stereo separation 35 dB (50-10,000 Hz); tape-through circuit; injection circuit; acoustic boost 3 or 6 dB at 50 and 800 Hz; 25  $\mu$ sec de-emphasis switch; 6" H x 20 $\frac{3}{8}$ " W x 14 $\frac{3}{8}$ " D ..... \$530.00

**KR-6600.** Similar to KR-7600 but 60 W/ch rms; acoustic boost 6 dB at 50 and 800 Hz ..... \$450.00

#### KR-4070 AM-FM Stereo Receiver

40 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD; shock noise-elimination cir-



cuit; center-off tone controls; loudness compensation; tape monitor; FET low-noise FM front end with three-gang tuning capacitor; low-dist. four-element linear phase i-f filter; PLL in multiplex for improved separation; signal-strength and center-tune FM meters; simulated walnut-grain side panels optional; 5 $\frac{1}{8}$ " H x 18 $\frac{1}{2}$ " W x 15 $\frac{1}{2}$ " D ..... \$300.00

#### KR-2600 AM-FM Stereo Receiver

15 W/ch rms into 8 ohms over 20-20,000 Hz with 0.8% THD; FM sensitivity 2.5  $\mu$ V; S/N 64 dB (stereo); capture ratio 2.5 dB; alternate channel selectivity 50 dB; stereo separation 33 dB (1 kHz); simulated walnut-grain cabinet; 5 $\frac{1}{16}$ " H x 17 $\frac{1}{2}$ " W x 11 $\frac{1}{16}$ " D ..... \$200.00

### LAFAYETTE

#### LR-9090 AM-FM Stereo Receiver

90 W/ch rms into 8 ohms over 20-20,000 Hz with 0.1% THD; hum and noise -80 dB (aux., tape), -65 dB (phono, low), -60 dB (phono, high); input sensitivity for rated output 2.5 mV (phono, high), 5 mV (phono, low), 150 mV (aux., tape), 6 mV (mike); phono overload 180 mV (high), 360 mV (low); tape output level 0.15 V (at rated input); FM sensitivity 21 dBf; alternate channel selectivity 80 dB (1 kHz); capture ratio 1.25 dB (1 kHz, 1 mV in, 30% mod.); FM dist. 0.2% (1 kHz, stereo); stereo separation 40 dB (1 kHz, 1 mV in, 30% mod.); S/N 67 dB (stereo); spurious response -90 dB; image response -80 dB (1 kHz); i-f response -90 dB (1 kHz); tape output level 0.77 V (1 kHz); AM sensitivity 20  $\mu$ V; image response -60 dB (600 kHz); alternate channel selectivity 45 dB (1 kHz); S/N 45 dB (1 kHz); tape output level 0.3 V (1 kHz); variable microphone mixing with any program source; switchable turnover on bass and treble for extended range tone controls; dual reversible tape monitors for tape-to-tape dubbing; 6 $\frac{1}{2}$ " H x 20 $\frac{3}{8}$ " W x 16" D ..... \$599.95

#### LR-5555 AM-FM Stereo Receiver

55 W/ch rms into 8 ohms over 20-20,000 Hz with 0.3% THD; hum and noise -80 dB (aux., tape), -65 dB (phono, low), -60 dB (phono, high); input sensitivity for rated output 2.5 mV (phono, high), 5 mV (phono, low), 150 mV (aux., tape), 6 mV (mike); phono overload 150 mV (high, 300 mV (low); tape output level 0.15 V

# Everything you'll ever need. The Scott R 376 Receiver.



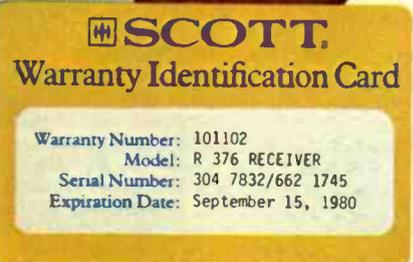
The Scott R 376 AM/FM Stereo Receiver is our top of the line. It delivers all the power and performance you'll ever need to enjoy records, tapes and broadcasts. Now and tomorrow.

The Scott R 376 provides a full 75 watts minimum continuous RMS power output per channel. Power enough to drive even low efficiency speakers to room-filling volume. Both channels are driven into 8 ohms from 20 Hz to 20 kHz with an incredibly low 0.1% total harmonic distortion.

The Scott R 376 has every performance feature you'll ever need, too. Separate channel bass, treble and midrange controls allow you to adjust response to best match your speaker locations, room acoustics and listening taste. Dual tape monitors allow you to operate two tape machines simultaneously. You can record live performances or even copy tape-to-tape while another source is playing.

For three decades, Scott has been satisfying the needs of discerning listeners with the very finest in high fidelity. Today, the R 376, like every Scott receiver, continues this tradition of excellence.

For specifications on our complete line of audio components, contact your nearest Scott dealer, or write H.H. Scott, Inc. Corporate Headquarters, 20 Commerce Way, Woburn, MA 01801. In Canada: Paco Electronics, Ltd., Quebec.



Scott's unique, gold warranty card. Individualized with your warranty, model and serial numbers, and expiration date. Scott's fully transferable, three-year parts and labor-limited warranty is your assurance of lasting enjoyment.

**IM distortion (lower than 0.1%).**  
Provides cleaner sound and eliminates listening fatigue.

**Individual low and high filters.**  
Minimizes turntable rumble, tape hiss, record and broadcast noise.

**Center channel and signal strength tuning meters.**  
Provides precise tuning and indicates optimum signal strength.

**Phase locked loop multiplex section.**  
Maintains superior stereo separation.  
**Three position FM de-emphasis switch.**  
Permits proper reception of domestic, Dolbyized\* or European broadcasts.

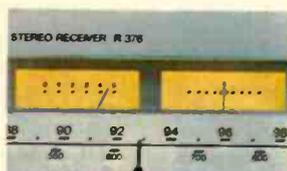
**FM Muting.**  
Silences interstation hiss and prevents the receiver from picking up weak stations.

**Loudness switch.**  
Boosts treble and bass at low volume levels.  
**Log-linear volume control with detents.**  
Spreads out the volume levels over a greater portion of the knob rotation to provide finer control at low to moderate listening levels.

\*Dolby is a registered trademark of Dolby Laboratories



Separate bass, treble and midrange controls.



Signal strength and center channel tuning meters.



Individual high and low filters.

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The Name to listen to.

Receivers / Tuners / Amplifiers / Turntables / Speakers / Cassette Decks

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# 3 RECEIVERS

(at rated input); FM sensitivity 21 dBf; alternate channel selectivity 80 dB (1 kHz); capture ratio 1.25 dB (1 kHz, 1 mV in, 30% mod.); FM dist. 0.4% (1 kHz, stereo); stereo separation 40 dB (1 kHz, 1 mV in, 30% mod.); S/N 67 dB (stereo); spurious response -85 dB; i-f response -80 dB (1 kHz); tape output level 0.77 V (1 kHz); AM sensitivity 20  $\mu$ V; image response -60 dB (600 kHz); alternate channel selectivity 45 dB (1 kHz); S/N 45 dB (1 kHz); tape output level 0.3 V (1 kHz); variable microphone mixing with any program source; dual meters for signal strength and FM center tuning; bass, mid-range, and treble controls; 6 1/2" H x 19 1/4" W x 14" D ..... \$399.95

## LR-3030 AM-FM Stereo Receiver

30 W/ch rms into 8 ohms over 20-20,000 Hz with 0.5% THD; hum and noise -75 dB (aux., tape), -60 dB (phono); input sensitivity for rated output 3.5 mV (phono, high), 7 mV (phono, low), 150 mV (aux., tape); phono overload 180 mV (high), 360 mV (low); tape output level 0.15 V (at rated input); FM sensitivity 2  $\mu$ V; alternate channel selectivity 70 dB; capture ratio 1.5 dB; FM dist. 0.4% (1 kHz, stereo); stereo separation 40 dB (1 kHz); S/N 65 dB (stereo); i-f response -80 dB; image response -55 dB; tape output level 0.77 V; AM sensitivity 25  $\mu$ V; image response -40 dB; alternate channel selectivity 45 dB; S/N 45 dB; tape output level 0.3 V; dual tape monitors; derived four-channel built-in; dual tuning meters; three tone controls; 6 1/2" H x 19 1/4" W x 14" D ..... \$299.95

## LR-2020 AM-FM Stereo Receiver

20 W/ch rms into 8 ohms over 20-20,000 Hz with 0.6% THD; hum and noise -75 dB (aux., tape); -60 dB (phono); input sensitivity for rated output 4 mV (phono), 150 mV (aux., tape, NR adapter); phono overload 180 mV; tape output level 0.15 V (at rated input); FM sensitivity 23 dBf; alternate channel selectivity 70 dB; capture ratio 1.5 dB; FM dist. 0.4% (1 kHz, stereo); S/N 65 dB (stereo); spurious response -70 dB; i-f response -80 dB; image response -55 dB; tape output level 0.77 V; AM sensitivity 25  $\mu$ V; image response -40 dB; alternate channel selectivity 45 dB; S/N 45 dB; tape output level 0.3 V; dual-purpose meter for signal strength and FM center tuning; NR (noise reduction) adapter connections serve as second tape monitor; 5 7/8" H x 16 1/2" W x 11 5/8" D ..... \$249.95

## LR-1515A AM-FM Stereo Receiver

15 W/ch rms into 8 ohms over 40-20,000 Hz with 0.7% THD; hum and noise -75 dB (aux., tape), -60 dB (phono); input sensitivity for rated output 4 mV (phono), 150 mV (aux., tape); phono overload 180 mV; tape output level 0.15 V (at rated input); FM sensitivity 25 dBf; alternate channel selectivity 60 dB; capture ratio 2 dB; FM dist. 0.8% (1 kHz, stereo); stereo separation 35 dB (1 kHz); S/N 63 dB (stereo); spurious response -70 dB; i-f response -80 dB; image response -50 dB; tape output level 0.77 V; AM sensitivity 25  $\mu$ V; image response -40 dB; alternate channel selectivity 35 dB; tape output level 0.3 V; signal strength tuning meter; detent-type controls for volume, bass, treble; derived four-channel circuit built-in; 5 7/8" H x 16 1/2" W x 11 5/8" D ..... \$199.95

## LEAK

### 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%; IM dist. 0.1% (70 Hz and 5000 Hz 4:1). 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 and inputs; two AM tuner ranges (150-350 kHz and 510-1650 kHz).  
..... \$750.00

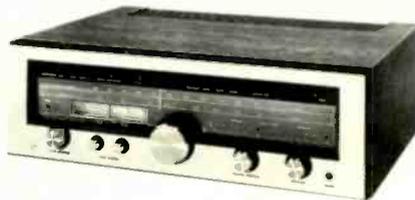
## LUX

### R-1120 AM-FM Stereo Receiver

120 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD 0.03%; IM no more than 0.05%; frequency response 10-60,000 Hz  $\pm$ 1 dB; FM sensitivity for 50 dB quieting, 14.1 dBf (2.8  $\mu$ V) mono, 36.8 dBf (38.0  $\mu$ V) stereo; IHF usable sensitivity 10.3 dBf (1.8  $\mu$ V) mono, 17.2 dBf (4.0  $\mu$ V) stereo. FM distortion 0.1-0.3% mono, 0.2-0.4% stereo; selectivity 80 dB; capture ratio 1.3 dB; stereo separation 42 dB at 1000 Hz; AM suppression 55 dB; image rejection 80 dB; i-f rejection 85 dB; S/N 74 dB mono, 70 dB stereo; SCA rejection 60 dB; AM usable sensitivity (IHF) 200  $\mu$ V/m; image ratio 75 dB; i-f rejection 80 dB; S/N 52 dB; distortion 0.5%; selectivity 32 dB; amplifier section, power as above; input sensitivity 2.6 mV phono, 160 mV line; phono overload 175 mV; S/N, weighted (IHF "A") 94 dB phono, 95 dB line, unweighted, 66 dB (phono), 86 dB (line); filter frequencies (12 dB/oct) subsonic 15 Hz, low-cut 70 Hz, high-cut 7,000 Hz; has loudness compensation, peak indicator, speaker switch, tape dubbing switch ..... \$895.00

### R-1050 AM/FM stereo receiver

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



0.05%; IM no more than 0.05%; frequency response, 10-50,000 Hz, +0, -1 dB. Features LED peak-power output indicators, signal-strength and center-channel tuning meters; speaker selector, tape dubbing switch, provision for plug-in Dolby decoder board; low-cut and high-cut filters; loudness compensation switch; two tape monitor circuits; FM specifications same as R-1120 except: IHF usable sensitivity (stereo) 18.2 dBf (4.6  $\mu$ V); selectivity 70 dB; AM suppression 52 dB; spurious response rejection 90 dB; stereo separation 40-45 dB; AM specification same as R-1120 except usable sensitivity rated for external antenna, 15  $\mu$ V; 7 1/8" H x 19 1/8" W x 14" D ..... \$595.00

### R-1040 AM/FM Stereo Receiver

40 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD 0.03%; IM 0.05% max.; frequency response 10-50,000 Hz, +0, -1 dB; features similar to R-1050, except single tuning meter, no Dolby provision, one tape monitor circuit. FM sensitivity for 50 dB quieting, 18.2 dBf (4.5  $\mu$ V) mono, 39.8 dBf (51  $\mu$ V) stereo; IHF usable sensitivity 11.2 dBf (2  $\mu$ V) mono, 19 dBf (4.8  $\mu$ V) stereo; FM distortion 0.2-0.3% mono, 0.3-0.5% stereo; selectivity 55 dB; capture ratio 1.2 dB; stereo separation 40-45 dB; AM suppression 50 dB; image rejection 55 dB; i-f rejection 70 dB; S/N 74 dB mono, 70 dB stereo; SCA rejection 60 dB AM usable sensitivity (external antenna) 15  $\mu$ V; image rejection 50 dB; i-f rejection 40 dB; S/N 50 dB; 7 7/8" H x 19 1/8" W x 13 1/8" D ..... \$445.00

## MARANTZ

### 2500 AM-FM Stereo Receiver

250 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD; five-gang dual-gate MOSFET FM front end; PLL FM multiplex de-



modulator; full complementary direct coupled output; turbo-flow heat dissipation system; built-in 3" oscilloscope display; peak indicators; plug-in Dolby FM capability; high- (9 kHz, 18 dB/octave) and low-frequency (15 Hz, 18 dB/octave) filters; independent tape-to-tape copy; 7" H x 19 1/4" W x 17 1/8" D ..... \$1750.00

### 2385 AM-FM Stereo Receiver

185 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD; five-gang dual-gate



MOSFET FM front end; PLL FM multiplex demodulator; full complementary direct coupled output; peak indicators; plug-in Dolby FM capability; high- (9 kHz, 18 dB/octave) and low-frequency (15 Hz, 18 dB/octave) filters; independent tape-to-tape copy; 5 7/8" H x 19 1/4" W x 15 1/4" D ..... \$1099.95

### 2330B AM-FM Stereo Receiver

130 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD; four-gang dual-gate MOSFET FM front end; PLL multiplex demodulator; full complementary direct coupled output; plug-in Dolby FM capability; high- (9 kHz, 18 dB/octave) and low-frequency (15 Hz, 18 dB/octave) filters; independent tape-to-tape copy; selectable tone turnover frequencies; 5 7/8" H x 17 1/4" W x 14 1/8" D ..... \$769.95

### 2285B AM-FM Stereo Receiver

85 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD; four-gang dual-gate MOSFET FM front end; PLL multiplex demodulator; full complementary direct coupled output; plug-in FM Dolby capability; high-frequency filter (9 kHz, 18 dB/octave); independent tape-to-tape copy; selectable tone turnover frequencies ..... \$639.95

### 2265B AM-FM Stereo Receiver

65 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD; four-gang dual-gate MOSFET FM front end; PLL FM multiplex demodulator; full complementary direct coupled output; plug-in FM Dolby capability; independent tape-to-tape copy; low and high filters; selectable tone turnover frequencies; 5 7/8" H x 19 1/4" W x 15 1/4" D ..... \$549.95

### 2252B AM-FM Stereo Receiver

52 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.05% THD; dual-gate MOSFET FM front end; PLL FM multiplex demodulator; full complementary direct coupled output; plug-in Dolby FM capability; independent tape-to-tape copy ..... \$449.95

### 2238B AM-FM Stereo Receiver

38 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.08% THD; dual-gate MOSFET FM front end; PLL FM multiplex demodulator; full complementary direct coupled output; plug-in Dolby FM capability; separate L/R bass, mid-range, and treble controls; 5 7/8" H x 17 1/4" W x 14 7/8" D ..... \$359.95

### 2226B AM-FM Stereo Receiver

26 W/ch continuous into 8 ohms over 20-

# Sansui has just raised the standards for budget-class high fidelity: the new G-3000 stereo receiver.

Strikingly attractive new styling. Advanced engineering. State-of-the-art technology. Beautifully pleasing musical performance. The new Sansui G-3000 has it all. (And at less than \$280.)\* Because Sansui knows how important your high fidelity component music system can be in your life.

The new G-3000 brings a unique new look to receivers. You will be proud to have it in your home. The bright brushed aluminum face is highlighted by a rich gold dial. And the G-3000 is the first receiver available today that is totally symmetrical, with the tuning knob and volume control positioned accordingly.

A pleasure to look at, the G-3000 is also a pleasure to use. It offers an ultra wide frequency-linear dial; separate signal-strength and center-tune meters; an extra-sensitive, large flywheel-assisted tuning knob; stepped-attenuator volume control; two-system speaker selector; and mic-mixing input.

Above all, you'll love to listen to the amazingly clean sound of the G-3000. With total harmonic distortion of less than 0.15% over the entire audible range, you get musical quality and

performance usually available only in much higher priced models.

Signal-to-noise ratio is extraordinarily high, stereo separation extraordinarily wide, and distortion extraordinarily low for any receiver in this power class. \*\*

Go to your nearest franchised Sansui dealer. Touch the controls of a G-3000 and listen to its superb tonal quality. You'll know why it represents a tremendous advance in high fidelity developmental engineering.

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Also available is the G-2000 at under \$230.†

\* Approximate nationally advertised value. The actual retail price will be set by the individual dealer at his option.

\*\* 26 watts per channel, min. RMS, both channels driven into 8 ohms from 20-20,000 Hz with no more than 0.15% total harmonic distortion.

G-2000: 16 watts per channel with no more than 0.2% total harmonic distortion under the same conditions.

Cabinets simulate walnut grain.



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#### 2216B AM-FM Stereo Receiver

16 W/ch continuous into 8 ohms over 20-20,000 Hz with 0.15% THD; dual-gate MOSFET FM front end; PLL FM multiplex demodulator; full complementary direct coupled output; dual-purpose AM-FM tuning meter; main/remote speaker switching ..... \$249.95

#### 4-CHANNEL

#### 4400 Stereo 2 + Quad 4 Receiver

125 W/ch (stereo) and 50 W/ch (quadradial) continuous into 8 ohms over 20-20,000 Hz with 0.15% THD; full process Dolby RN system; PLL FM multiplex demodulator; built-in oscilloscope display; FM sensitivity 1.8  $\mu$ V; THD 0.3% (stereo); selectivity 75 dB; capture ratio 1.5 dB; stereo separation 42 dB (1 kHz); spurious response -95 dB; image response -90 dB; separable preamp/tuner and amp; accepts optional SQ decoder or four-channel matrix decoder; Vari-Matrix for synthetic four-channel; 5 $\frac{3}{4}$ " H  $\times$  19 $\frac{1}{4}$ " W  $\times$  15 $\frac{1}{2}$ " D ..... \$1350.00

#### 4300 Stereo 2 + Quad 4 Receiver

100 W/ch (stereo) and 25 W/ch (quadradial) continuous into 8 ohms over 20-20,000 Hz with 0.15% THD; Dolby NR system; PLL FM multiplex demodulator; FM sensitivity (IHF) 1.9  $\mu$ V; THD 0.3% (stereo); capture ratio 1.5 dB; spurious response -90 dB; separable preamp/tuner and amp; accepts SQ decoder and CD-4 demodulator; Vari-Matrix for stereo program enhancement ..... \$949.95

#### 4270 Stereo 2 + Quad 4 Receiver

70 W/ch (quadradial) and 25 W/ch (quadradial) continuous into 8 ohms over 20-20,000 Hz with 0.3% THD; Dolby NR system; PLL FM multiplex demodulator; FM sensitivity (IHF) 1.9  $\mu$ V; THD 0.3% (stereo); capture ratio 1.5 dB; spurious response -90 dB; separable preamp/tuner and amp; accepts SQ decoder and CD-4 demodulator; Vari-Matrix for stereo program enhancement; 5 $\frac{3}{8}$ " H  $\times$  17 $\frac{1}{2}$ " W  $\times$  14 $\frac{3}{8}$ " D ... \$749.95

#### 4240 Stereo 2 + Quad 4 Receiver

40 W/ch (stereo) and 17 W/ch (quadradial) continuous into 8 ohms over 20-20,000 Hz with 0.5% THD; Dolby NR system; FM sensitivity (IHF) 1.9  $\mu$ V; capture ratio 1.5 dB; spurious response -90 dB; separable preamp/tuner and amp; accepts SQ decoder and CD-4 demodulator; Vari-Matrix for stereo program enhancement; 5 $\frac{3}{8}$ " H  $\times$  17 $\frac{1}{2}$ " W  $\times$  14 $\frac{3}{8}$ " D ... \$649.95

#### 4230 Stereo 2 + Quad 4 Receiver

30 W/ch (stereo) and 12 W/ch (quadradial) continuous into 8 ohms over 20-20,000 Hz with 0.5% THD; Dolby NR system; FM sensitivity (IHF) 2.8  $\mu$ V; has four-channel balance controls; remote control outlet; provision for two recorders; accepts SQ decoder and CD-4 demodulator ..... \$549.95

#### 4220 Stereo 2 + Quad 4 Receiver

20 W/ch (stereo) and 8 W/ch (quadradial) into 8 ohms over 20-20,000 Hz with 0.95 THD; built-in SQ decoder and ambience circuit; 4 $\frac{3}{4}$ " H  $\times$  14 $\frac{3}{8}$ " W  $\times$  11" D ..... \$329.95

#### MIIDA

#### 3140 AM-FM Stereo Receiver

43 W rms/ch into 8 ohms; THD and IM dist. 0.4%; power bandwidth 20-30,000 Hz; frequency response 10-30,000 Hz  $\pm$ 1 dB; S/N 70

dB; phono input sensitivity 2.5 mV; aux. input sensitivity 200 mV; FM sensitivity 1.8  $\mu$ V; S/N 72 dB; capture ratio 1.5 dB; selectivity 60 dB; THD 0.3% stereo; AM suppression 56 dB; channel separation 40 dB at 100 Hz; SCA rejection 65 dB; full complement inputs/outputs; detented balance, loudness, and treble controls; two signal-strength and one LED malfunction indicator; wood-grained vinyl on wood cabinet; 5 $\frac{1}{2}$ " H  $\times$  19" W  $\times$  14" D ..... \$349.95

#### 3125 AM-FM Stereo Receiver

22 W rms/ch into 8 ohms; THD and HD dist. 0.5%; frequency response 20-20,000 Hz  $\pm$ 2 dB; S/N 70 dB; input sensitivity: 2.5 mV phono, 200 mV aux.; FM sensitivity 2.5  $\mu$ V; S/N 70 dB; capture ratio 3 dB; selectivity 50 dB; THD 0.5% stereo; AM suppression 40 dB; channel separation 30 dB at 100 Hz; full complement inputs/outputs; tuning and signal-strength meters; stereo indicator; wood-grained vinyl on wood; 5 $\frac{1}{2}$ " H  $\times$  19 $\frac{1}{4}$ " W  $\times$  14" D ..... \$249.95

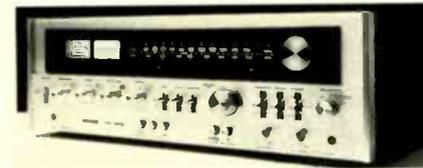
**3120.** Similar to 3125 except 17 W rms/ch into 8 ohms (30-15,000 Hz) at 0.5% THD; IM dist. 0.75%; combined tuning/signal-strength meter; 5 $\frac{1}{2}$ " H  $\times$  19 $\frac{1}{4}$ " W  $\times$  13 $\frac{1}{2}$ " D ..... \$219.95

**3100.** Similar to 3120 except 8 W rms/ch into 8 ohms (40-20,000 Hz) at 0.9% THD ..... \$179.95

#### NIKKO

#### NR 1415 AM-FM Stereo Receiver

175 W/ch continuous power into 8 ohms with both channels driven (15-20,000 Hz); THD



0.045%; features dual-mode (wide/narrow) i-f bandwidth; microphone mixing; LED function indicator lights; circuit-protection indicator LED; audio muting; tone control defeat; dual tuning meters; FM IHF usable sensitivity 1.7  $\mu$ V normal bandwidth, 2.0  $\mu$ V narrow-band; selectivity 65 dB normal, 85 dB narrow; capture ratio 1.0 dB normal, 1.5 dB narrow; AM S/N 75 dB; 7 $\frac{3}{4}$ " H  $\times$  22" W  $\times$  20" D ..... \$800

**NR 1015.** Similar to NR 1415, but 85 W/ch (20-20,000 Hz) at 0.05% THD; single-mode i-f bandwidth; FM IHF usable sensitivity 1.8  $\mu$ V; selectivity 80 dB; S/N 45 dB; image rejection 45 dB; 6 $\frac{3}{4}$ " H  $\times$  21" W  $\times$  16" D ..... \$530.00

**NR 815.** Similar to NR 1015, but 55 W/ch (20-20,000 Hz); 0.07% THD; FM stereo separation 45 dB ..... \$430.00

#### NR 715 AM-FM Stereo Receiver

38 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD 0.2%; features high filter, connections for two pair of speakers, patented circuit breakers; FM usable sensitivity 2.0  $\mu$ V; selectivity 75 dB; capture ratio 1.5 dB; stereo separation 45 dB; image rejection 60 dB; AM signal-to-noise 45 dB; AM image rejection 45 dB; 6 $\frac{1}{8}$ " H  $\times$  18" W  $\times$  13 $\frac{1}{2}$ " D ..... \$290.00

**NR 615.** Similar to NR 715, but 28 W/ch at 0.3% THD; single tuning meter ..... \$200.00

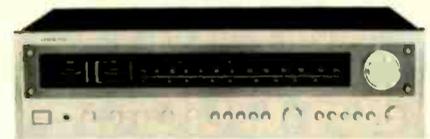
**NR 515.** Similar to NR 615, but 18 W/ch at 0.5% THD; FM usable sensitivity 1.1  $\mu$ V; selectivity 55 dB; capture ratio 2.0 dB; stereo separation 40 dB; 5 $\frac{1}{4}$ "  $\times$  17 $\frac{1}{4}$ "  $\times$  17 $\frac{1}{4}$ " ..... \$200

**NR 315.** Similar to NR 515; 10W/ch (40-20,000 Hz) at 0.8% THD; FM usable sensitivity 2.4  $\mu$ V ..... \$160.00

#### ONKYO

#### TX-8500 AM-FM Stereo Receiver

110 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz.); THD 0.1%; IM 0.1%; frequency response 15-30,000 Hz  $\pm$ 1 dB; features quartz-locked tuning with Accutouch automatic unlock and muting when



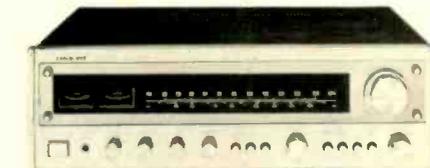
tuning knob is touched; dual power supplies; provision for up to three tape decks with independent monitoring and dubbing; connections for three pair of speakers; detented tone (including mid-range) and volume controls; switched Dolby adapter (optional) and de-emphasis change; FM sensitivity for 50 dB quieting, 14.7 dBf (3  $\mu$ V) mono, 35 dBf (35  $\mu$ V) stereo; IHF usable sensitivity 9.8 dBf (1.7  $\mu$ V) mono, 17.2 dBf (4.0  $\mu$ V) stereo; distortion 0.15% mono, 0.3% stereo; selectivity 70 dB; capture ratio 1.5 dB; stereo separation 32 dB; AM suppression 50 dB; image rejection 83 dB; i-f rejection 100 dB; SCA rejection 60 dB; spurious rejection 95 dB; S/N 70 dB mono, 65 dB stereo; AM usable sensitivity 15  $\mu$ V; S/N 45 dB; THD 0.8%; image rejection 55 dB; i-f rejection 55 dB; 7 $\frac{3}{16}$ " H  $\times$  22 $\frac{1}{16}$ " W  $\times$  17 $\frac{1}{16}$ " D .. \$699.95

#### TX-4500 AM-FM Stereo Receiver

55 W rms/ch into 8 ohms (20-20,000 Hz) at 0.1% THD; frequency response 15-30,000 Hz  $\pm$ 1 dB; FM sensitivity for 50 dB quieting 17.2 dBf (4  $\mu$ V) mono, 37.2 dBf (40  $\mu$ V) stereo; IHF usable sensitivity 10.3 dBf (1.8  $\mu$ V) mono, 19.2 dBf (5  $\mu$ V) stereo; capture ratio 1.5 dB; image rejection 70 dB; S/N 65 dB; HD 0.4% stereo; frequency response 30-15,000 Hz  $\pm$ 0.5/-2 dB; features center-tuning and signal-strength meters; linear FM-dial scale, FM muting, quartz locked tuning system, Accutouch control for optimum FM tuning, 3 tape monitors with tape-to-tape dubbing, outputs for 3 speaker systems, full complement of input/output terminals; walnut-grained vinyl over Lauan plywood. 6 $\frac{7}{16}$ " H  $\times$  21 $\frac{3}{16}$ " W  $\times$  16 $\frac{1}{16}$ " D ..... \$449.95

#### TX-2500 AM-FM Stereo Receiver

27 W rms/ch into 8 ohms (40-20,000 Hz) at 0.5% THD; frequency response 20-30,000 Hz



$\pm$ 1 dB; FM sensitivity for 50 dB quieting, 17.2 dBf (4  $\mu$ V) mono, 37.2 dBf (40  $\mu$ V) stereo; IHF usable sensitivity 11.2 dBf (2  $\mu$ V) mono, 19.2 dBf (5  $\mu$ V) stereo; capture ratio 2 dB; image rejection 45 dB; S/N 60 dB; HD 0.4% stereo; frequency response 30-15,000 Hz  $\pm$ 0.5/-2 dB; features linear FM-dial scale, two tuning meters (signal-strength and center tuning), FM muting, servo locked tuning system, Accutouch control for optimum FM tuning, 2 tape monitors with tape-to-tape dubbing, two a.c. outlets, full complement of input/output terminals; walnut-grained vinyl over Lauan plywood; 6 $\frac{7}{16}$ " H  $\times$  19 $\frac{1}{16}$ " W  $\times$  16 $\frac{3}{16}$ " D ..... \$299.95

**TX-1500.** similar to TX-2500, but 15 W/ch frequency response 20-20,000 Hz  $\pm$ 1 dB; FM sensitivity for 50 dB quieting, 18.3 dBf (4.5  $\mu$ V) mono, 39.2 dBf (50  $\mu$ V) stereo; IHF usable sensitivity, 12.4 dBf (2.3  $\mu$ V) mono, 19.2 dBf (5  $\mu$ V) stereo; HD 0.25% mono, 0.5% stereo; single tuning meter; 5 $\frac{7}{8}$ " H  $\times$  17 $\frac{1}{16}$ " W  $\times$  12 $\frac{3}{16}$ " D ..... \$199.95

#### OPTONICA

#### SA-5151 AM-FM Stereo Receiver

85 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz.); THD 0.09%; IM 1.0%; features dual phono inputs, dual tape monitor circuits with dubbing; dual tuning meters; signal generator to calibrate

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channel, minimum RMS, at 8 ohms,  
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tape deck to match tuner output; 41-step volume control; FM usable sensitivity (IHF) 1.8  $\mu$ V; distortion 0.2% mono, 0.4% stereo; selectivity 70 dB; capture ratio 1.0 dB; stereo separation 35 dB; AM suppression 55 dB; image rejection 81 dB; i-f rejection 86 dB; S/N 72 dB mono; AM sensitivity 400  $\mu$ V/m; selectivity 36 dB; S/N 44 dB; THD 0.8%; image rejection 40 dB; i-f rejection 55 dB; 6 $\frac{1}{2}$ " H  $\times$  21 $\frac{1}{8}$ " W  $\times$  19 $\frac{1}{8}$ " D ..... \$499.95  
**SA-4141.** Similar to SA-5151, but 65 W/ch; IM 0.1%; FM sensitivity 1.9  $\mu$ V (IHF); selectivity



60 dB; image rejection 60 dB; AM suppression 50 dB; spurious rejection 66 dB ..... \$399.95

### PANASONIC

#### RA-6100 AM/FM Stereo Receiver

12 W/ch continuous power into 8 ohms with both channels driven (40-20,000 Hz); THD



0.8%; features magnetic and ceramic phono inputs; speaker switching; mic mixing; 41-step volume control; detented bass and treble controls; FM usable sensitivity (IHF) 2  $\mu$ V; distortion 0.3% mono, 0.4% stereo; selectivity 55 dB; stereo separation 40 dB at 1 kHz; S/N 68 dB; AM usable sensitivity 100  $\mu$ V/m; selectivity 25 dB; image rejection 40 dB; i-f rejection 40 dB; 7" H  $\times$  19" W  $\times$  12 $\frac{1}{4}$ " D ..... \$199.95  
**RA-6600.** Same, with built-in 8-track cartridge recorder ..... \$299.95  
**RA-6500.** Same, with built-in cassette recorder ..... \$329.95  
**RA-6800.** Same as RA-6500, but 25 W/ch ..... \$379.95

### PIONEER

#### SX-1250 AM-FM Stereo Receiver

160 W/ch rms into 8 ohms over 20-20,000 Hz; THD and IM dist. 0.1% frequency response 5-100,000 Hz  $\pm$ 0/-1 dB; FM tuner sensitivity 2.9  $\mu$ V (14.5 dBf); capture ratio 1 dB; selectivity 83 dB; S/N 74 dB; image and spurious response -110 dB; i-f response -120 dB; stereo HD 0.25% at 100 Hz (65 dBf); frequency response 30-15,000 Hz  $\pm$ 0.3/-1 dB (tuner), 30-15,000 Hz  $\pm$ 0.2 dB (phono, RIAA EQ), 10-50,000 Hz  $\pm$ 0/-1 dB (aux., tape play); phono overload level 500 mV (0.1% THD, 1 kHz); signal-strength and tuning meters; 7 $\frac{1}{8}$ " H  $\times$  21 $\frac{1}{8}$ " W  $\times$  18 $\frac{1}{8}$ " D ..... \$900.00

#### SX-1050 AM-FM Stereo Receiver

120 W/ch rms into 8 ohms over 20-20,000 Hz; THD and IM dist. 0.1%; frequency response 7-90,000 Hz  $\pm$ 0/-1 dB; FM tuner sensitivity 15.7 dBf; capture ratio 1 dB; selectivity 80 dB; S/N 73 dB; i-f and spurious response -100 dB; image response -85 dB; stereo HD 0.25% at 100 Hz (65 dBf); phono overload level 300 mV (0.1% THD, 1 kHz); signal-strength and tuning meters; 6 $\frac{1}{16}$ " H  $\times$  20 $\frac{3}{4}$ " W  $\times$  17 $\frac{1}{8}$ " D ..... \$700.00

#### SX-950 AM-FM Stereo Receiver

85 W/ch rms into 8 ohms over 20-20,000 Hz; THD and IM dist. 0.1%; frequency response 7-90,000 Hz; FM tuner sensitivity 7.1  $\mu$ V (22.2 dBf); capture ratio 1 dB; selectivity 80 dB; S/N 67 dB; i-f and spurious response -100 dB; image response -85 dB; stereo HD 0.3% at 100 Hz (65 dBf); phono overload level 200 mV (0.1% THD, 1 kHz); signal-strength and tuning meters; 6 $\frac{1}{16}$ " H  $\times$  20 $\frac{3}{4}$ " W  $\times$  16 $\frac{1}{16}$ " D ..... \$600.00  
**SX-850.** Same as SX-950 except 65 W/ch rms ..... \$500.00

#### SX-750 AM-FM Stereo Receiver

50 W/ch rms into 8 ohms over 20-20,000 Hz; THD and IM dist. 0.1%; FM tuner sensitivity 4.9  $\mu$ V (19 dBf); capture ratio 1 dB; selectivity 80 dB; S/N 67 dB; spurious response -90 dB; i-f response -100 dB; image response -80 dB; stereo HD 0.3% at 100 Hz (65 dBf); phono overload level 200 mV (0.1% THD, 1 kHz); signal-strength and tuning meters; 5 $\frac{1}{8}$ " H  $\times$  18 $\frac{1}{16}$ " W  $\times$  14 $\frac{1}{8}$ " D ..... \$400.00

#### SX-650 AM-FM Stereo Receiver

35 W/ch rms into 8 ohms over 20-20,000 Hz; THD and IM dist. 0.3%; FM tuner sensitivity 4.9  $\mu$ V (18.2 dBf); capture ratio 1 dB; selectivity 60 dB; S/N 65 dB; spurious response -75 dB; i-f response -90 dB; image response -65 dB; stereo HD 0.3% at 100 Hz (65 dBf); phono overload level 200 mV (0.1% THD, 1 kHz); signal-strength and tuning meters; 5 $\frac{1}{8}$ " H  $\times$  18 $\frac{1}{16}$ " W  $\times$  14 $\frac{1}{8}$ " D ..... \$300.00  
**SX-550.** Similar to SX-650 but 20 W/ch rms; FM tuner sensitivity 5.5  $\mu$ V (20 dBf); AM-FM tuning meter; 5 $\frac{1}{16}$ " H  $\times$  17 $\frac{1}{16}$ " W  $\times$  12 $\frac{3}{32}$ " D ..... \$250.00  
**SX-450.** Similar to SX-650 but 15 W/ch rms; i-f response -85 dB; IM and THD 0.5%; phono overload level 150 mV (0.1% THD, 1 kHz); AM-FM tuning meter; 5 $\frac{1}{16}$ " H  $\times$  17 $\frac{1}{16}$ " W  $\times$  12 $\frac{3}{32}$ " D ..... \$200.00

### 4-CHANNEL

#### QX-949A Four-Channel 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 over 20-20,000 Hz; power bandwidth (IHF, four channels driven) 7-40,000 Hz with 0.3% HD; frequency response 10-25,000 Hz  $\pm$ 1 dB (aux.); FM usable (IHF) sensitivity 1.8  $\mu$ V; capture ratio 1 dB; selectivity 80 dB; HD 0.2% (mono), 0.4% (stereo); four-channel level indicator; outputs for four pairs of speakers systems and three tape decks; two turntable inputs and additional aux. source input ..... \$750.00

### PLANAR

#### SR2100 AM-FM Stereo Receiver

65 W/ch continuous power into 8 ohms (20-20,000 Hz) at 0.5% THD; built-in 4-channel speaker matrixing; FM sensitivity 1.5  $\mu$ V for 30 dB quieting; S/N 74 dB; THD (50-15,000 Hz) 0.3% stereo; stereo separation 40 dB at 1 kHz; bass, treble, balance and volume controls; loudness control; source/monitor switch; source selector; dubbing in/out; dual-function tuning meter; twin VU meters; phono sensitivity 2 mV/47 k; high level sensitivity 100 mV/150 k; preamp level 1.0 V/1 k; Dolby B 25  $\mu$ sec de-emphasis switch; walnut veneer cabinet with polymeric grille; 6 $\frac{1}{2}$ " H  $\times$  19 $\frac{3}{8}$ " W  $\times$  14 $\frac{1}{8}$ " D ..... \$529.95

#### SR2040 AM-FM Stereo Receiver

22 W/ch continuous power into 8 ohms (20-20,000 Hz) at 0.5% THD; built-in 4-channel speaker matrixing; FM sensitivity 1.9  $\mu$ V for 30 dB quieting; THD (50-15,000 Hz) 0.4% stereo; stereo separation 40 dB at 1 kHz; phono sensitivity 2.5 mV/47 k; high level sensitivity 150 mV/110 k; preamp output 200 mV at rated output; full complement of controls and switches; wood-grain vinyl veneer cabinet; 5 $\frac{1}{8}$ " H  $\times$  17 $\frac{1}{8}$ " W  $\times$  15" D ..... \$269.95

### REALISTIC

#### STA-2000 AM-FM Stereo Receiver

75 W/ch rms into 8 ohms over 20-20,000 Hz with 0.25% THD; frequency response 15-25,000 Hz  $\pm$ 2 dB; IM dist. 0.1% (50 W); S/N 70 dB (phono), 75 dB (aux.); FM tuner sensitivity 1.7  $\mu$ V; capture ratio 1.5 dB (1 kHz); alternate channel rejection 1.7 dB; stereo separation 48 dB (1 kHz); S/N 70 dB; DIN and phono-type tape in/out jacks for two decks; 11-position tone controls; switched and unswitched a.c. convenience outlets; edge-lighted dial; signal-strength and power meters; brushed aluminum front panel; 6 $\frac{1}{4}$ " H  $\times$  19 $\frac{1}{4}$ " W  $\times$  16 $\frac{1}{2}$ " D ..... \$499.95

#### STA-90 AM-FM Stereo Receiver

45 W/ch rms into 8 ohms over 20-20,000 Hz with 0.5% THD; frequency response 20-20,000 Hz  $\pm$ 2 dB; S/N 60 dB (phono), 85 dB (aux.); FM tuner sensitivity 2  $\mu$ V; capture ratio 2 dB; alternate channel selectivity 70 dB; stereo separation 35 dB (1 kHz); S/N 65 dB; front and rear dubbing outputs; two pairs of tape in/out jacks; signal-strength and center-channel meters; Quatravox for simulated four-channel sound; 5 $\frac{1}{8}$ " H  $\times$  19 $\frac{1}{4}$ " W  $\times$  14 $\frac{1}{2}$ " D ..... \$379.95

#### STA-85 AM-FM Stereo Receiver

35 W/ch rms into 8 ohms over 20-20,000 Hz with 0.3% THD; frequency response 20-20,000 Hz  $\pm$ 1 dB; S/N 60 dB (phono), 70 dB (aux.); FM tuner: sensitivity (IHF) 2  $\mu$ V; capture ratio 2 dB; alternate channel selectivity 50 dB; stereo separation 40 dB (1 kHz); THD 0.5% (stereo), 0.3% (mono); AM tuner: sensitivity 250  $\mu$ V/m for 20 dB S/N; selectivity 28 dB; image response -35 dB; 11-step detented Baxandall-type tone controls; tape in/out, aux., and magnetic phono inputs; switchable 25  $\mu$ sec de-emphasis for FM Dolby-B with standard Dolby equipment; edge-lighted dial; 75- and 300-ohm FM inputs; 5 $\frac{1}{2}$ " H  $\times$  18 $\frac{1}{8}$ " W  $\times$  12 $\frac{1}{4}$ " D ..... \$299.95

#### STA-78 AM-FM Stereo Receiver

22 W/ch rms into 8 ohms over 20-20,000 Hz with 0.5% THD; frequency response 20-20,000 Hz  $\pm$ 2 dB; S/N 65 dB (phono), 75 dB (aux.); FM tuner: sensitivity (IHF) 1.9  $\mu$ V; capture ratio 1.5 dB; alternate channel selectivity 60 dB; stereo separation 38 dB (1 kHz); THD 0.5% (stereo), 0.1% (mono); AM tuner: sensitivity 200  $\mu$ V/m for 20 dB S/N; selectivity 32 dB; image response -45 dB; S/N 45 dB; FET/IC FM; 25  $\mu$ sec de-emphasis for FM; taping and dubbing jacks; 75- and 300-ohm FM inputs; unswitched a.c. convenience outlet; 6" H  $\times$  17" W  $\times$  12 $\frac{1}{2}$ " D ..... \$269.95

#### STA-64 AM-FM Stereo Receiver

16 W/ch rms into 8 ohms over 20-20,000 Hz with 0.8% THD; frequency response 15-30,000 Hz  $\pm$ 2 dB; S/N 60 dB (phono), 70 dB (aux.); FM tuner sensitivity 2.2  $\mu$ V; capture ratio 2 dB; alternate channel selectivity 70 dB; stereo separation 38 dB (1 kHz); THD 0.6% (stereo); S/N 65 dB; DIN and phono-type jacks for tape in/out; signal-strength meter; Quatravox circuitry for simulated four-channel; 5 $\frac{1}{4}$ " H  $\times$  18 $\frac{1}{2}$ " W  $\times$  14" D ..... \$249.95

#### STA-52 AM-FM Stereo Receiver

12 W/ch rms into 8 ohms over 20-20,000 Hz with 0.9% THD; frequency response 15-30,000 Hz  $\pm$ 2 dB; S/N 60 dB (phono), 65 dB (aux.); FM tuner sensitivity 2.5  $\mu$ V; capture ratio 2 dB; alternate channel rejection 70 dB; stereo separation 34 dB (1 kHz); THD 0.6% (stereo); signal-strength meter; a.c. convenience outlet; Quatravox circuitry for simulated four-channel; 5 $\frac{1}{16}$ " H  $\times$  17 $\frac{1}{8}$ " W  $\times$  11 $\frac{1}{4}$ " D ..... \$199.95  
**STA-21.** Similar to STA-52 but 7 W/ch rms; FM tuner sensitivity 2.8  $\mu$ V; capture ratio 3 dB; 5 $\frac{1}{8}$ " H  $\times$  16 $\frac{1}{4}$ " W  $\times$  11 $\frac{1}{8}$ " D ..... \$159.95  
**STA-16.** Similar to STA-52 but 3.5 W/ch rms; frequency response 30-22,000 Hz  $\pm$ 2 dB; FM sensitivity 3  $\mu$ V; capture ratio 3.5 dB; 4 $\frac{1}{2}$ " H  $\times$  16 $\frac{1}{4}$ " W  $\times$  10 $\frac{1}{4}$ " D ..... \$199.95

## ROTEL

### RX 1603 AM-FM Stereo Receiver

180 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD 0.05%; FM sensitivity for 50 dB quieting 11.5 dBf (2.1  $\mu$ V) mono, 36 dBf (35  $\mu$ V) stereo; FM usable sensitivity 8.9 dBf (1.5  $\mu$ V) mono; features dual tuning meters; switchable tone control turnover frequencies; high-cut and dual-frequency low-cut filters; dual phono inputs; dual tape monitors with dubbing; stepped volume, bass, and treble control; loudness switch; adjustable phono sensitivity and impedance; FM muting switch, hi-blend switch; multipath metering switch; 25  $\mu$ sec de-emphasis switch; LED function indicators; in rack-type chassis with handles; 7 $\frac{1}{16}$ " H x 23 $\frac{3}{16}$ " W (panel) 18 $\frac{7}{16}$ " D . . . . . \$1100.00

**RX-1203.** Similar, but 120 W/ch; FM usable sensitivity 9.3 dBf (1.6  $\mu$ V); 7 $\frac{1}{16}$ " H x 22 $\frac{1}{16}$ " W x 17 $\frac{9}{16}$ " D . . . . . \$750.00

**RX-803.** Similar, but 75 W/ch at 0.1% THD; FM sensitivity for 50 dB quieting, 14.5 dBf (3  $\mu$ V) mono, 38 dBf (4.4  $\mu$ V) stereo; FM usable sensitivity 9.8 dBf (1.7  $\mu$ V); tone control frequencies not variable, tone controls not stepped; single-frequency low filter; no FM hi-blend; no multipath metering; 5 $\frac{1}{16}$ " H x 19 $\frac{1}{16}$ " W x 15 $\frac{3}{4}$ " D . . . . . \$480.00

**RX-603.** Similar, but 50 W/ch; FM usable sensitivity 16 dBf (3.5  $\mu$ V) mono, 38 dBf (4.4  $\mu$ V) stereo; usable sensitivity 10.3 dBf (1.8  $\mu$ V); single phono input pair; no low filter; no tone defeat; no de-emphasis selector; 5 $\frac{1}{16}$ " H x 19 $\frac{1}{16}$ " W x 15" D . . . . . \$380.00

**RX-503.** Similar, but 35 W/ch; FM sensitivity for 50 dB quieting 17.4 dBf (4  $\mu$ V) mono, 39.2 dBf (50  $\mu$ V) stereo; FM usable sensitivity 10.8 dBf (1.9  $\mu$ V); volume control not stepped; single tape monitor; 5 $\frac{1}{16}$ " H x 19 $\frac{1}{16}$ " W x 14 $\frac{1}{16}$ " D . . . . . \$300.00

**RX-403.** Similar, but 25 W/ch (40-20,000 Hz) at 0.2% THD; FM usable sensitivity 11.2 dBf (2.0  $\mu$ V); single tuning meter; no front handles; 5 $\frac{1}{16}$ " H x 18 $\frac{1}{2}$ " W x 10 $\frac{1}{16}$ " D . . . . . \$230.00

### RX-7707 Touch-Tuning AM-FM Stereo

35 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD 0.5% FM usable sensitivity 11.2 dBf (2.0  $\mu$ V); features touch-sensitive tuning buttons for pre-setting and recall of up to 5 FM stations; slider-type volume, bass, treble, and balance controls; low and high filters; loudness switch; FM muting . . . . . \$480.00

### RX-102 Mk II AM-FM Stereo Receiver

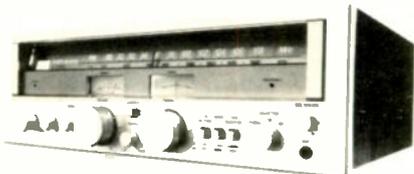
10 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD 1.0%; FM sensitivity for 50 dB quieting 19.2 dBf (5  $\mu$ V) mono, 39.2 dBf (50  $\mu$ V) stereo; FM usable sensitivity 14.8 dBf (3  $\mu$ V); features magnetic and crystal phono inputs; tape monitor; switching for two pair of speakers; tuning meter; tape monitor; loudness switch; 4 $\frac{1}{2}$ " H x 18 $\frac{3}{4}$ " W x 10 $\frac{5}{8}$ " D . . . . . \$170.00

## SANSUI

### G-3000 AM-FM Stereo Receiver

26 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD 0.25%; frequency response 10-50,000 Hz +1, -2 dB; features low-pass filter to suppress carrier leakage; microphone mixing; twin tuning meters; high-fidelity AM section with beat filter; loudness switch; speaker selector; FM-section distortion 0.18% mono, 0.25% stereo; 6 $\frac{1}{16}$ " H x 17 $\frac{1}{16}$ " W x 13 $\frac{1}{16}$ " D . . . . . \$280.00

**G-2000.** Similar, but 16 W/ch, 0.2% HD . . . . .

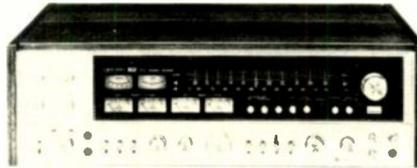


. . . . . \$230.00  
**2020.** Similar, but 12 W/ch, 1.0% HD; 5 $\frac{1}{8}$ " H x 17 $\frac{1}{2}$ " W x 14 $\frac{1}{16}$ " D . . . . . \$190.00  
**1010.** Similar, but 8 W/ch; FM selectivity 60 dB; FM signal-to-noise 65 dB; distortion 0.6% mono, 0.8% stereo . . . . . \$170.00

## 4-CHANNEL

### QRX-9001 4-Ch AM-FM Stereo Receiver

120 W/ch stereo, 60 W/ch quadrasonic, with all channels driven into 8 ohms (20-20,000 Hz);



THD 0.3%; IM 0.3%; frequency response 20-30,000 Hz  $\pm$ 1 dB; channel separation 45 dB stereo; 20 dB adjacent, 30 dB diagonal on QS decoding or synthesizing; 20 dB between front channels, 12 dB center front to center rear on SQ; 40 dB left-to-right, 25 dB front to rear on CD-4; features Dolby noise reduction available for FM or tape use; mic mixing; "Peak Range" tuning indicator with 250-kHz calibrations; dual tuning meters, four level meters; built-in Dolby calibration oscillator; allows simultaneous recording with and without Dolby encoding; FM sensitivity for 50 dB quieting, 5.6 dBf mono, 38 dBf stereo; IHF usable sensitivity 10.3 dBf (1.8  $\mu$ V); distortion 0.3% mono, 0.4% stereo; selectivity 80 dB; capture ratio 1.5 dB; stereo FM separation 28-40 dB; AM suppression better than 50 dB; image rejection 75 dB; i-f rejection 95 dB; S/N 70 dB mono, 65 dB stereo. AM usable sensitivity 50  $\mu$ V/m; selectivity 35 dB; image rejection 35 dB; i-f rejection 30 dB; 6 $\frac{7}{8}$ " H x 23 $\frac{3}{8}$ " W x 16 $\frac{3}{8}$ " D . . . \$1000.00  
**WRX-8001.** Similar, but 100 W/ch stereo, 40 W/ch quadrasonic; FM sensitivity 16 dBf mono, 38 dBf stereo for 50 dB quieting, 10.8 dBf (1.9  $\mu$ V) IHF; selectivity 60 dB . . . \$800.00

## SANYO

### JCX2400K AM-FM Stereo Receiver

50 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD 0.3%; features click-stop bass, treble and volume controls, dual tape monitor with dubbing, loudness contour switch, high filter, dual tuning meters, speaker selector; FM usable sensitivity 10.3 dBf (1.8  $\mu$ V) mono; distortion 0.3% mono, 0.4% stereo; selectivity 67 dB; capture ratio 1.0 dB; stereo separation 40 dB at 1 kHz; AM suppression 55 dB; image rejection 50 dB; i-f rejection 55 dB; spurious rejection 80 dB; S/N 70 dB mono, 67 dB stereo. AM usable sensitivity 300  $\mu$ V/m; selectivity 33 dB; S/N 50 dB; image rejection 48 dB; i-f rejection 50 dB; 5 $\frac{7}{8}$ " H x 17 $\frac{3}{8}$ " W x 15" D . . . . . \$299.95  
**JCX2300K.** Similar, but 26 W/ch at 0.4% THD; no high filter; FM usable sensitivity 10.8 dBf



(1.9  $\mu$ V); selectivity 65 dB; AM suppression 55 dB; image rejection 50 dB; i-f rejection 55 dB; 5 $\frac{7}{8}$ " H x 17 $\frac{3}{8}$ " W x 13" D . . . . . \$229.95  
**JCX2100K.** Similar to JCX 2300K, but 13 W/ch at 0.5% THD; FM usable sensitivity 11.2 dBf (2  $\mu$ V); FM S/N 68 dB mono, 65 dB stereo; spurious response rejection 70 dB; capture ratio 1.2 dB; 5 $\frac{1}{2}$ " H x 16 $\frac{3}{4}$ " W x 11 $\frac{3}{4}$ " D . . . \$169.95

## SCOTT

### R376 AM-FM Stereo Receiver

75 W rms/ch into 8 ohms (20-20,000 Hz) at 0.2% THD; FM sensitivity 12 dBf (2.2  $\mu$ V) capture ratio 1.2 dB; selectivity 70 dB; S/N 68 dB at 65 dBf; image rejection 70 dB; spurious response rejection 85 dB; individual tone controls for bass, midrange, treble with click-stop detents; full complement of inputs, switching, and controls; direct fiber optic dial lighting; direct tape-to-tape copying; LED function lamps; front-panel mic jack; two separate tape monitors; 5 $\frac{3}{4}$ " H x 19 $\frac{1}{2}$ " W x 16" D . . . \$549.95

### R-357 AM/FM Stereo Receiver

60 W/ch continuous into 8 ohms 20-20,000 Hz, 0.2% THD; FM sensitivity 10.8 dBf (1.9  $\mu$ V); detented volume control; de-emphasis switch for use with Dolby decoders; dual tape monitors with dubbing; high and low filters; dual tuning meters . . . . . \$399.95  
**R-337.** Similar, but 42 W/ch at 0.3% THD; high



filter and loudness switch . . . . . \$329.95  
**R-327.** Similar to R-337, but 25 W/ch, single tuning meter . . . . . \$259.95  
**R-307.** Similar to R-327, but 28 W/ch, 40-20,000 Hz, 0.5% THD; FM sensitivity 12 dBf (2.2  $\mu$ V); no Dolby de-emphasis switch . . . . . \$199.95

## Don't Forget . . .

If you need additional information on any of the products listed in this directory, don't hesitate to write directly to the manufacturers. They will be pleased to assist you. (See company address list beginning on page 8.)

For more information on audio products advertised in this guide, the post-paid "Free Information" Cards on page 185 are easy and convenient to use. Simply circle the numbers on the card corresponding to the key numbers at the bottom of the advertisements that interest you to obtain information free of charge.

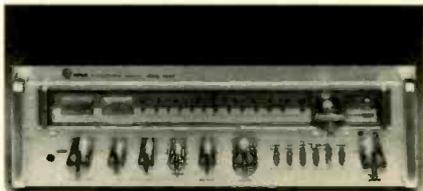
## SETTON

**RS-660 AM-FM Stereo Receiver**

125 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD 0.02%; IM 0.02%; frequency response 20-20,000 Hz  $\pm 0.5$  dB; power bandwidth 5-40,000 Hz; features 12 dB/oct high and low filters with switchable frequencies; bass, treble and mid-range controls with switchable hinge points for bass and treble; provision for external Dolby FM adapter; dual tape monitors with two-way dubbing; mic mixing; illuminated function indicators; dual tuning meters; outputs for three sets of speakers; switchable FM and audio muting; switchable loudness; front handles; styling by Pierre Cardin studios; FM sensitivity for 50 dB quieting, 16 dBf mono, 29.8 dBf stereo; IHF usable sensitivity 10.3 dBf mono, 18 dBf stereo; distortion on FM 0.15-0.3% mono, 0.4-0.5% stereo; selectivity 80 dB; capture ratio 1.25 dB; stereo separation 32-40 dB; i-f rejection 95 dB; S/N 72 dB mono, 67 dB stereo; AM usable sensitivity 25  $\mu$ V (external antenna); selectivity 45 dB; S/N 45 dB; image rejection 60 dB; 6 $\frac{1}{16}$ " H  $\times$  22 $\frac{7}{16}$ " W  $\times$  13 $\frac{3}{4}$ " D ..... \$799.95

**RS-440.** Similar, but 69 W/ch at 0.085% THD and IM; no filters; no external Dolby provision; one-way dubbing; distortion on FM 0.15-0.4% mono; selectivity 70 dB; i-f rejection 90 dB; 6 $\frac{1}{16}$ " H  $\times$  21 $\frac{1}{2}$ " W  $\times$  11 $\frac{13}{16}$ " D ..... \$579.95

**RS-220.** Similar, but 50 W/ch at 0.08% THD and IM; no mic mixing; outputs for 2 sets of speak-



ers; no audio muting; tone control frequencies fixed; does have high filter; power bandwidth 10-35,000 Hz; FM sensitivity for 50 dB quieting 18.3 dBf mono, 39.0 dBf stereo; usable sensitivity 11.2 dBf mono, 19.0 dBf stereo; i-f rejection 80 dB; S/N 70 dB mono, 65 dB stereo ..... \$499.95

## SHERWOOD

**S-9910 AM-FM Stereo Receiver**

100 W rms/ch into 8 ohms (20-20,000 Hz) at 0.1% THD; IM dist. 0.1% at rated output (0.03% at 20 W); FM sensitivity 1.7  $\mu$ V; S/N 70 dB; capture ratio 1.0 dB; stereo separation 45 dB at 1000 Hz; dual tuning meters with positive indicators; PLL multiplex circuitry; digital detection system; subsonic and high filter; FM de-emphasis and FM-stereo-only switch; mic mixing; wide-range bass, mid-range and treble controls with tone defeat switch; ARS circuit to recover 4-channel information from stereo program material; provision for three sets of speakers; front-panel dubbing jack; comes with case; 5 $\frac{7}{8}$ " H  $\times$  21 $\frac{1}{4}$ " W  $\times$  15 $\frac{5}{8}$ " D ..... \$700.00

**S-7910 AM-FM Stereo Receiver**

60 W rms/ch into 8 ohms (20-20,000 Hz) at 0.1% THD; IM dist. 0.1% at rated output (0.03% at 20 W); FM sensitivity 1.7  $\mu$ V; S/N 70 dB; capture ratio 1.0 dB; stereo separation 45 dB at 1000 Hz; dual tuning meters with positive indicators; PLL multiplex circuitry; digital detection system; high filter; FM de-emphasis and FM-stereo-only switch; wide-range detented bass and treble controls with tone defeat switch; ARS circuit to recover 4-channel information from stereo program material; provision for 2 sets of speakers; 7 $\frac{7}{8}$ " H  $\times$  21 $\frac{1}{4}$ " W  $\times$  15 $\frac{5}{8}$ " D ..... \$500.00

**S-8910.** Same as S-7910 except FM-stereo only ..... \$475.00

**S-7310A AM-FM Stereo/Dynaquad**

40 W rms/ch into 8 ohms (30-20,000 Hz) at 0.3% THD; IM dist. 0.3% into 8 ohms at rated output (0.15% at 10 W); FM tuner sensitivity 1.8  $\mu$ V; S/N 70 dB; capture ratio 1.2 dB; stereo separation 40 dB at 1000 Hz; features built-in ARS circuit to recover 4-channel information from stereo program material; center-tune meter; PLL multiplex; FM muting; provision for two sets of speakers; provision for future 4-channel FM broadcasts, 4-channel adapter; wide-range detented bass and treble controls; high-frequency filter; front-panel tape dubbing jack; comes with case; 5 $\frac{1}{4}$ " H  $\times$  17 $\frac{1}{2}$ " W  $\times$  13 $\frac{1}{4}$ " D; ..... \$400.00

**S-7210A AM-FM Stereo/Dynaquad**

30 W rms/ch into 8 ohms (20-20,000 Hz) at 0.5% THD; IM dist. 0.5% into 8 ohms at rated



output (0.2% at 10 W); direct-coupled power amplifier; FM tuner sensitivity 1.9  $\mu$ V; S/N 70 dB; capture ratio 1.4 dB; hum and noise—85 dB; features signal-strength meter; PLL multiplex; flywheel-assisted tuning; FM muting; output for future 4-channel broadcasts; provision for 4-channel adapter; outputs for two sets of speakers; front-panel dubbing jack; built-in ARS 4-channel circuit; wide-range detented bass and treble controls; comes with case; 5 $\frac{1}{4}$ " H  $\times$  17 $\frac{1}{2}$ " W  $\times$  13 $\frac{1}{4}$ " D ..... \$300.00

**S-7110B AM Stereo Receiver**

20 W rms/ch into 8 ohms (20-20,000 Hz) at 0.7% THD; IM dist. 0.7% into 8 ohms at rated output (0.2% at 10 W); direct-coupled amplifier; FM sensitivity 2.0  $\mu$ V; S/N 70 dB; capture ratio 1.5 dB; stereo separation 40 dB at 1000 Hz; features switchable FM muting; signal-strength meter; PLL multiplex; provision for switching two sets of speakers; wide-range bass and treble controls; comes with case; 5 $\frac{1}{4}$ " H  $\times$  17 $\frac{1}{2}$ " W  $\times$  15 $\frac{1}{4}$ " D ..... \$250.00

**S-7010A AM-FM Stereo Receiver**

12 W rms/ch into 8 ohms (40-20,000 Hz) at 0.8% THD; IM dist. 0.8% into 8 ohms at rated output (0.35% at 5 W); FM sensitivity 2.5  $\mu$ V; S/N 65 dB; capture ratio 4.0 dB; stereo separation 35 dB at 1000 Hz; features signal-strength meter; flywheel-assisted tuning; hum and noise—80 dB; phono hum and noise—70 dB; provides output for two sets of speakers; tape monitor; wide-range bass and treble controls; balance control; mode switch; comes with case; 5 $\frac{1}{4}$ " H  $\times$  17 $\frac{1}{2}$ " W  $\times$  13 $\frac{1}{4}$ " D ..... \$200.00

## SONAB

**R4000-3 FM Stereo Receiver**

40 W/ch rms into 8 ohms over 20-30,000 Hz with 0.25% THD; frequency response 15-30,000 Hz  $\pm 1.5$  dB; 0.1% IM dist.; hum and noise—75 dB; bass and treble tone controls; balance control; high-cut filter; loudness switch; has tape monitoring and electronic and fuse overload protection; tuner section: sensitivity 2.9  $\mu$ V (IHF); frequency response 30-15,000 Hz  $\pm 1.5$  dB; 0.25% dist. at 1 kHz; AM suppression 55 dB; capture ratio 1 dB; channel



separation 36 dB (1 kHz); tuning meter; 4.5" H  $\times$  19" W  $\times$  10" D ..... \$600.00

**R3000 FM Stereo Receiver**

30 W/ch rms into 8 ohms over 20-20,000 Hz with 0.25% THD; frequency response 30-25,000 Hz  $\pm 1$  dB; IM dist. 0.1%; hum and noise—75 dB; bass and tone balance control; treble filter; loudness control connected to volume control; has tape monitoring and electronic and fuse overload protection; tuner section: sensitivity 3  $\mu$ V (IHF); frequency response 30-15,000 Hz  $\pm 1.5$  dB; 0.25% dist. at 1 kHz; AM suppression 50 dB; capture ratio 1 dB; channel separation 36 dB (1 kHz); tuning meter; 9.7" H  $\times$  17" W  $\times$  14" D ..... \$465.00

## SONY

**STR-6800SD AM-FM Stereo Receiver**

80 W rms/ch into 8 ohms (20-20,000 Hz) at 0.15% THD; MOSFET r-f front-end; FET mixer circuit and buffered local oscillator; two stages of "uni-phase" i-f filters for high phase linearity i-f signal transfer; PLL IC stereo multiplex stage; built-in Dolby noise-reduction system; complementary Darlington coupled power output stage ..... \$600.00

**STR-5800SD.** Same as STR-6800SD except 55 W rms/ch at 0.2% THD ..... \$500.00

**STR-4800SD.** Same as STR-5800SD except 35 W rms/ch at 0.2% THD; FET r-f amplifier stage plus uni-phase filters ..... \$400.00

## SOUNDCRAFTSMEN

**3000B AM-FM Stereo Receiver**

25 W rms/ch into 8 ohms (20-20,000 Hz) at 0.5% THD; IM 0.1% at rated output; frequency response 10-75,000 Hz  $\pm 3$  dB; input sensitivity: mag. phono 2.4 mV/60 k, aux and tape monitor 140 mV/40 k; hum and noise—65 dB (phono),—80 dB (aux.); FM section: sensitivity 1.9  $\mu$ V; S/N 67 dB; capture ratio 2.0 dB; THD 0.2%; spurious response rejection 70 dB; stereo separation 35 dB; SCA suppression 70 dB; de-emphasis 75  $\mu$ sec ..... \$329.50

**2000B AM-FM Stereo Receiver**

18 W rms/ch into 8 ohms (50-20,000 Hz) at 0.8% THD; IM 0.2% at rated output; frequency response 20-60,000 Hz  $\pm 3$  dB; input sensitivity: mag. phono 2.4 mV/45 k, ceramic phono 140 mV/100 k, aux. and tape monitor 120 mV/40 k; hum and noise—65 dB (phono),—80 dB (aux.); FM section: sensitivity 2.5  $\mu$ V; S/N 65 dB; capture ratio 3 dB; THD 0.2%; spurious response rejection 70 dB; stereo separation 35 dB; SCA suppression 60 dB; de-emphasis 75  $\mu$ sec ..... \$259.50

## SUPERSCOPE

**R-1270 AM-FM Stereo Receiver**

35 W/ch continuous power into 8 ohms (40-20,000 Hz) at 1% THD; illuminated signal-strength/tuning meter; Quadruphase circuitry for simulated 4-channel sound from standard stereo sources with addition of two speakers; straight-line balance control with center detent; detented bass and treble controls; magnetic phono input; pushbutton speaker terminals ..... \$299.95

**R-1240.** Similar to R-1270 except 20 W/ch ..... \$239.95

**R-1220.** Similar to R-1270 except 10 W/ch ..... \$179.95

## TANDBERG

**TR-2075 Mk II AM-FM Stereo Receiver**

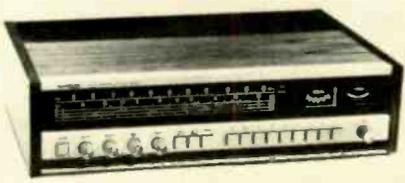
75 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz.); THD 0.05%; frequency response 6-80,000 Hz  $\pm 1.5$  dB; features finger tip switching; FM sensitivity for 50 dB quieting, 14.8 dBf (3  $\mu$ V) mono; IHF usable sensitivity 9.8 dBf (1.7  $\mu$ V) mono; distortion on FM 0.3% stereo; selectivity dB; capture ratio 0.9 dB; stereo separation 40 dB; AM suppression 70 dB; image rejection 100



dB; i-f rejection 100 dB; S/N 75 dB stereo . . . \$1099.00  
**TR-2055.** Same as TR-2075 except 55 W/ch; dist. 0.15% . . . \$749.00

**TR-2040 FM Stereo Receiver**

40 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz); THD 0.1%; frequency response 8-50,000 Hz, ±1.5 dB; features preset tuning for five FM stations; high and low filters, loudness switch, dual tuning meters, two tape monitor circuits, two phono inputs; newly designed circuit automatically reduces background noise during weak signal conditions; FM sensitivity for 50 dB quieting, 16.2 dBf (3.5 μV); usable sensitivity 11.2 dBf (2 μV); distortion on FM stereo 0.5%; capture ratio 1.5 dB; stereo separation 40 dB; AM suppression 65 dB; image rejection 70 dB; S/N 75 dB stereo . . . \$529.00  
**TR 2025.** Similar to 2040, but 27 W/ch at 0.15%



THD; one pair phono inputs . . . \$429.00  
**TR2025MB.** Same, but with addition of 5 AM bands, including AM broadcast, 3 shortwave bands (91-30, 30-15, and 15-10 meters) and LW; includes CB (27 MHz) coverage on 15-10 meter band . . . \$599.00

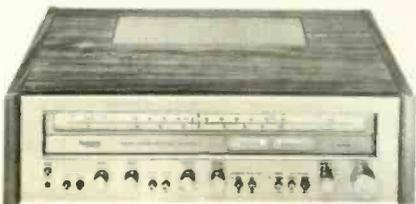
**TECHNICS BY PANASONIC**

**SA-5770 AM-FM Stereo Receiver**

165 W rms/ch into 8 ohms (20-20,000 Hz) at 0.08% THD; IM dist. 0.1%; FM usable sensitivity (IHF) 1.8 μV (10.3 dBf); FM THD 0.1% (mono), 0.15% (stereo); capture ratio 1.0 dB; features two phono inputs with impedance selection, detented volume attenuator, variable-turnover click-stop tone controls, steep-slope high and low filters, two tape monitors, multiple protection circuits, main/remote speaker facilities, center-channel and signal-strength meters, phase-locked loop in FM stereo; 7 1/8" H x 23 7/32" W x 19 1/32" D . . . \$799.95

**SA-5570 AM-FM Stereo Receiver**

85 W rms/ch into 8 ohms (20-20,000 Hz) at 0.1% THD; 90 W rms/ch into 4 ohms; IM dist. 0.1%; FM usable sensitivity (IHF) 1.8 μV (10.3 dBf); FM THD 0.15% (mono), 0.25% (stereo); capture ratio 1.5 dB; features 41-position click-stop volume control, multiple circuit/speaker protection, click-stop tone controls, high-cut and low-cut filters, loudness switch, two tape monitors, main/remote speaker facilities, center-channel and signal-strength meters, phase-locked loop in FM stereo; 6 3/32" H x 21 1/4" W x 16 17/32" D . . . \$499.95  
**SA-5470.** Same as SA-5570 except 65 W rms/



ch into 8 ohms; 72 W rms/ch into 4 ohms; no FM hi-blend switch . . . \$399.95

1978 EDITION

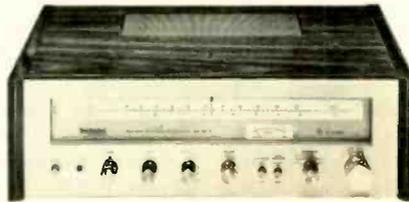
**SA-5370 AM-FM Stereo Receiver**

48 W rms/ch into 8 ohms (20-20,000 Hz) at 0.1% THD; 56 W rms/ch into 4 ohms; IM dist. 0.1%; FM usable sensitivity (IHF) 1.9 μV (10.8 dBf); FM THD 0.15% (mono), 0.3% (stereo); capture ratio 1.5 dB; features phase-locked loop in FM stereo, click-stop volume and tone controls, multiple circuit/speaker protection, center-channel and signal-strength meters, FM muting switch; 5 2/32" H x 19 3/32" W x 13" D . . . \$329.95

**SA-5270.** Similar to SA-5370, but without low-cut and high-cut filters; 35 W/ch at 0.3% THD; IM distortion 0.3%; 5 1/32" H x 18 1/32" W x 11 5/8" D . . . \$279.95

**SA-5170.** Similar to SA-5270, but single tape monitor, 25 W/ch at 0.5% THD; IM distortion 0.5%; capture ratio 1.0 dB; single tuning meter only; . . . \$229.95

**SA-5070.** Similar to SA-5170, but without FM muting switch; 15 W/ch (40-20,000 Hz) at 0.8%



THD; IM 0.8%; FM usable sensitivity 2.0 μV (11.2 dBf); capture ratio 1.5 dB; 5 1/32" H x 18 1/32" W x 10 1/4" D . . . \$199.95

**TOSHIBA**

**SA-620 AM-FM Stereo Receiver**

50 W rms/ch into 8 ohms (20-20,000 Hz) at 0.4% THD; frequency response 20-15,000 Hz; S/N 70 dB phono, 90 dB aux.; FM sensitivity 1.8 μV; THD 0.4% stereo; capture ratio 1 dB; selectivity 65 dB; FM muting; loudness control; high and low filters; Dolby circuit; two phono, aux. and two tape inputs; 6 7/8" H x 20 7/8" W x 17 1/8" D . . . \$399.95

**SA-520.** Same as SA-620 except 35 W rms/ch. . . \$349.95

**SA-420 AM-FM Stereo Receiver**

20 W rms/ch into 8 ohms (20-20,000 Hz) at 0.4% THD; frequency response 20-15,000 Hz; S/N 70 dB phono, 90 dB aux.; FM sensitivity 1.9 μV; THD 0.4% stereo; capture ratio 1 dB; selectivity 60 dB; FM muting; loudness control; high and low filters; phono, aux., and two tape inputs; 6 1/2" H x 19 7/8" W x 17 1/8" D . . . \$249.95

**SA-320.** Similar to SA-420 except 14 W rms/ch at 0.8% THD; high filter only; one tape input. . . \$199.95

**SA-220C.** Similar to SA-320 except 7 W rms/ch (40-20,000 Hz); FM sensitivity 2.3 μV; capture ratio 3 dB; loudness control; mic mixing with level control; mic input . . . \$179.95

**YAMAHA**

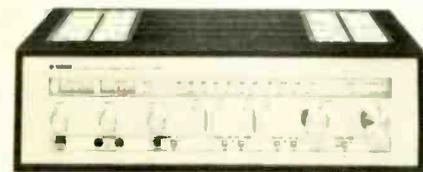
**CR-2020 AM-FM Stereo Receiver**

100 W/ch continuous power into 8 ohms with both channels driven (20-20,000 Hz.); THD 0.05%; IM 0.05%; frequency response 10-100,000 Hz ±2.5 dB; FM sensitivity for 50 dB quieting, 15.3 dBf (3.2 μV) mono, 37.2 dBf (40 μV) stereo; IHF usable sensitivity 10.3 dBf (1.8 μV) mono, distortion 0.08-0.15% mono, 0.4-0.2% stereo; selectivity 80 dB; capture ratio 1.0 dB; stereo separation 35-50 dB; AM suppression 65 dB; image rejection 85 dB; i-f rejection 90 dB; SCA rejection 60 dB; S/N 77 dB mono, 73 dB stereo. AM usable sensitivity 300 μV/m; selectivity 30 dB; S/N 50 dB; THD 0.4%; image rejection 55 dB; i-f rejection 40 dB; 6 9/16" H x 21 1/4" W x 16 3/16" D . . . \$700.00

**CR-1020.** Similar to CR-2020, but 70 W/ch . . . \$540.00

**CR-820.** Similar, but 50 W/ch; frequency response 20-20,000 Hz ±0.5 dB; distortion on FM 0.1-0.2% (mono), 0.15-0.3% (stereo); selectivity 75 dB; stereo separation 30-40 dB; 6 7/16" H x 20" W x 15 9/16" D . . . \$440.00

**CR-620.** Similar to CR-820, but 35 W/ch; FM stereo sensitivity for 50 dB quieting 38 dBf



(43.5 μV); distortion on FM 0.15-0.3% mono, 0.25-0.4% stereo; selectivity 80 dB; AM suppression 56 dB; image rejection 50 dB; i-f rejection 75 dB; SCA rejection 50 dB; AM usable sensitivity 316 μV/m; selectivity 25 dB; THD 0.6%; image rejection 50 dB . . . \$330.00

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ARSTON *Studio*

# Introducing an evolutionary idea. The New Empire 698 Turntable

Great ideas never change radically.

Instead, they are constantly being refined to become more relevant with time.

So it has been with Empire turntables. Our latest model, 698, is no exception. Basically, it's still the uncomplicated, belt-driven turntable we've been making for 15 years. A classic.

What we're introducing is improved performance.

The lower mass tone arm, electronic cueing, quieting circuitry and automatic arm lift are all very new.

The rest is history.

## **The Tonearm**

The new 698 arm moves effortlessly on 32 jeweled, sapphire bearings. Vertical and horizontal bearing friction is a mere 0.001 gram, 4 times less than it would be on conventional steel bearings. It is impervious to drag. Only the calibrated anti-skating and tracking force you select control its movement.

The new aluminum tubular arm, dramatically reduced in mass, responds instantly to the slightest variation of a record's movement. Even the abrupt changes of a warped disc are quickly absorbed.

## **The Motor**

A self-cooling, hysteresis synchronous motor drives the platter with

enough torque to reach full speed in one third of a revolution. It contributes to the almost immeasurable 0.04% average wow and flutter value in our specifications. More important, it's built to last.

## **The Drive Belt**

Every turntable is approved only when zero error is achieved in its speed accuracy. To prevent any variations of speed we grind each belt to within one ten thousandth of an inch thickness.

## **The Platter**

Every two piece, 7 lb., 3 inch thick, die cast aluminum platter is dynamically balanced. Once in motion, it acts as a massive flywheel to assure specified wow and flutter value even with the voltage varied from 105 to 127 volts AC.

## **The Main Bearing**

The stainless steel shaft extending from the platter is aged, by alternate exposures to extreme high and low temperatures preventing it from ever warping. The tip is

then precision ground and polished before lapping it into two oilite, self-lubricating bearings, reducing friction and reducing rumble to one of the lowest figures ever measured in a professional turntable: -68 dB CBS ARII.

## **The Controls**

Electronic cueing has been added to the 698 to raise and lower the tone arm at your slightest touch. Simple plug-in integrated circuitry raises the tone arm automatically when power is turned off.

A see-through anti skating adjustment provides the necessary force for the horizontal plane. It is micrometer calibrated to eliminate channel imbalance and unnecessary record wear.

Stylus force is dialed using a see-through calibrated clock mainspring more accurate than any commercially available stylus pressure gauge.

A new silicon photocell sensor has been added to automatically lift the arm at the end of a record.

New quieting circuitry has also been added. Now, even with the amplifier volume turned up, you can switch the 698 on or off without a "pop" sound to blow out your woofers.

At Empire we make only one model turntable, the 698. With proper maintenance and care the chances are very good it will be the only one you'll ever need.

# EMPIRE



*The Empire 698 Turntable*

Suggested retail price \$400.00

For more information write:  
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Garden City, New York, 11530.

# 4

# TURNTABLES

## ACOUSTIC RESEARCH

### AR-XB Single-Play/Manual

Two-speed (33 and 45 rpm) manual turntable; features permanent-magnet synchronous motor, belt drive, 4-lb platter, viscous-damped cueing, and removable cartridge shell; comes complete with base, dust cover, and tonearm; wow and flutter 0.03%; rumble -70 dB (DIN "B"); walnut-grained vinyl finish. . . . \$145.00  
**XBI.** Same, for 220-240 V, 50-Hz a.c. power . . . \$150.00

## ADC PROFESSIONAL PRODUCTS

### "Accutrac" 4000 Computerized

Two-speed (33 and 45 rpm) single-play automatic direct-drive turntable with electronic



track selection, remote control, and computerized memory bank; front-panel and remote push-buttons for track selection (any sequence), repeat, cue, and reject; dual pitch controls with lighted strobe; 13 track-selector buttons plus 24-selection memory bank for programmed repeats; comes with S-shaped balanced tonearm, ADC LMA-1 electro-optical magnetic cartridge, base, dust cover, remote receiver and transmitter; 6" H x 18 1/2" W x 17 3/8" D (inc. dust cover) . . . \$594.95

### "Accutrac + 6" 3500 Turntable

Multi-play, belt-drive version of above. Plays up to 6 records in sequence, lowering instead of dropping them for play; raises all records back to starting position after play. "J"-shaped arm. 6 3/4" H x 17 1/2" W x 16 1/8" D (inc. dust cover). With ADS LMA-3 electro-optical magnetic cartridge, base, dust cover . . . \$299.95  
**3500R.** As above, with remote control of all record transport and selection systems . . . \$349.95  
**3500RVC.** As above, but with remote control of volume . . . \$399.95

## ARISTON

### RD-11S Manual Turntable

Two-speed (33 and 45 rpm) manual turntable with belt drive and brushless d.c. servomotor; speed adjustment  $\pm 4\%$ ; wow and flutter 0.04%; rumble -72 dB, weighted; tonearm board and turntable suspended from top plate to minimize feedback; LED speed and mode indications; illuminated strobe; levelling bubble . . . \$279.95  
 With SME tonearm . . . \$444.95

**RD11E.** Similar to RD-11 except with low-mass S-shaped arm; optical-beam shut-off . . . \$329.95  
 Pre-drilled tonearm plates . . . \$10.00  
 Blank tonearm plates . . . \$7.50

## BANG & OLUFSEN

### Beogram 4002 4-Ch Automatic

Two-speed (33 and 45 rpm, electronic selection), belt-driven single-play turntable with tangential-tracking tonearm; slow-speed, 16-pole synchronous motor controlled by electronic circuit; wow and flutter  $\pm 0.025\%$ ; rumble -65 dB; patented electro-pneumatic damping system lowers tonearm at precise, controlled speed. Turntable comes with MMC6000 cartridge which will reproduce stereo, four-channel matrix, and CD-4 records. Fine-speed adjustment greater than  $\pm 3\%$ . Pendulum and leaf-spring suspension has resonance of 4.5 Hz; wow and flutter  $\pm 0.025\%$ ; rumble -65 dB (DIN "B"); 4" H x 19 1/4" W x 15" D . . . \$695.00

### Beogram 2400 Automatic Turntable

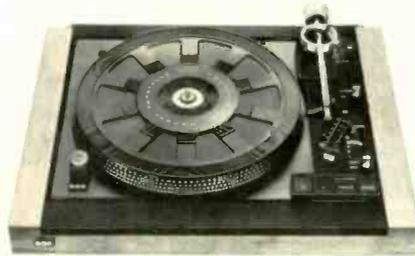
Two-speed (33 and 45 rpm) automatic single-play turntable; single master control for all operations; automatic arm lift and shutoff; belt-driven with Eddy brake regulator; tachometer-controlled, d.c. motor. Speed adjustment  $\pm 3\%$ ; speed deviation 0.1%; wow and flutter less than  $\pm 0.035\%$ ; rumble (DIN weighted) 62 dB; tracking error 0.126°/cm (0.32°/in.); comes equipped with magnesium alloy tonearm and MMC4000 stereo cartridge, hinged dust cover (records can be played with cover closed), rosewood veneer base (oak, teak or white lacquer finishes available on special order); 3 1/4" H x 17 1/2" W x 13" D . . . \$325.00

**Beogram 1902.** Similar, but with MMC-3000 cartridge . . . \$280.00

## B-I-C

### 1000 Electronic Changer

Record-changing turntable with belt drive; two motors; 24-pole, 300 rpm, synchronous drive



turntable, second motor controls cue and change cycle; PC board controls cue and cycle operations; electronic touch buttons initiate all actions; LED readouts; machined strobe markings on platter; strobe light with built-in speed control; optional remote control duplicates all functions; low-mass-cartridge skeletal head shell; plug-in record support post; electronic speed control; tonearm system with CD-4

position in its anti-skating control . . . \$289.95

### 981 Changer

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



fundamental vibration frequency 5 Hz; solid-state electronic frequency generator module adjusts speed; adjustable for  $\pm 3\%$  pitch variation; includes machined strobe platter and lamp to monitor speed; 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 g 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; gimbaled tonearm with needle bearings; 15" tracking adjustment for stack of records, 12" cast single-piece platter, die-cast isolated tonearm counterweight; 10-spoke turntable mat . . . \$209.95  
**960.** Same except without electronic speed control and variable pitch feature . . . \$169.95  
 Solid oiled-walnut base, matte black molded base, or contemporary wood base with front-hinged storage compartment, hinged dust cover or low-profile dust cover for use with record-support posts unplugged (960, 980, and 1000 models) available extra.

### 940 Changer

24-pole synchronous motor; belt drive; multiple-play capability; die-cast 12" turntable; programmer and cycle button; tonearm system with gimbaled pivot ring; damped up and down cueing; anti-skating adjustment . . . \$119.95

### 920 Changer

Belt-driven system; 24-pole synchronous motor; tonearm with offset weight that sets stylus force after arm is zero-balanced; damped cueing up and down; programmed play in which six records can be repeated in any combination; 10 1/2" platter . . . \$84.95

## BSR McDONALD

### Quanta 550 Automatic Multiple-Play

Two-speed (33 and 45 rpm), automatic multi-

# 4 TURNTABLES

ple-play turntable; belt-driven by 24-pole, 300-rpm synchronous a.c. motor with electronic speed changing; speed adjustment  $\pm 3\%$ ; illuminated stroboscope; dynamically balanced, aluminum, channeled tonearm with slide-in headshell, calibrated 1-4 g tracking force adjustment; viscous-damped cueing tonearm automatically locks on arm rest after play; "Autoglide" umbrella spindle interchangeable with single-play stub spindle; includes ADC QLM-34 magnetic cartridge, base and dust-cover; wow and flutter 0.06% wrms; rumble -65 dB (DIN "B" weighting) ..... \$149.95

**Quanta 450.** Similar to 550, but with mechanical speed change, no speed adjustment or stroboscope; tonearm counterweight preset at factory, tracking-force adjustment by calibrated scale-beam weight; wow and flutter 0.08% wrms; rumble -62 dB (DIN "B") .... \$109.95

## 2260AG Total Turntable

Three-speed (33, 45, and 78 rpm) record changer with six-record umbrella spindle and interchangeable single-play spindle; four-pole, high-torque induction motor; spring-balanced tonearm with automatic lock, anti-skate control and stylus force adjustment; cue/pause control; supplied complete with ADC QLM-30 Mk III magnetic cartridge, set up and ready to play; includes base with compartment for spare spindle, hinged dust cover ..... \$69.95

**SA150.** Similar, but single-play automatic, with "S"-type, counterbalanced tonearm; gimbal arm suspension; bidirectional viscous-damped cueing; three-speed; includes ADC magnetic cartridge, base, dustcover ..... \$69.95

**6500CX Changer.** Similar to 2260G, but with BSR ceramic cartridge, stabilizer-arm changing mechanism; two-pole induction motor; no anti-skating ..... \$59.95

**SA-100 Manual.** Similar to SA-150, but with ceramic cartridge, two-pole motor .... \$59.95

**48000X.** Similar to 6500CX, but more compact design ..... \$49.95

**2000AX.** Minichanger; extremely compact; with BSR ceramic cartridge ..... \$39.95

**MA50.** Manual, single-play, with ceramic cartridge ..... \$39.95

## CONNOISSEUR

### BD103 Transcription Unit

Three-speed (33, 45, and 78 rpm), belt-drive turntable; low-voltage d.c. servo-controlled motor with external power supply to eliminate hum fields; electronic speed adjustment; illuminated stroboscope; comes with base and dust cover;  $5\frac{1}{4}"$  H  $\times$   $18"$  W  $\times$   $15"$  D ... \$199.95

**BD103/A.** Same except with Connoisseur tonearm; magnetically stabilized unipivot bearings; additional counter-weights provided for cartridges of varying weights; magnetic anti-skating; plug-in headshell ..... \$249.95

### BD2/Mark IV Single-Play/Automatic

Integrated turntable with SAU2 arm and pick-up assembly. Has push-button speed control; hydraulic lift and lowering of tonearm plus automatic lift-off at end of record; anti-vibration springs; lightweight cartridge shell with self-cleaning contacts. Two-speed (33 and 45



rpm); 60-Hz synchronous constant speed 450 rpm; belt drive. Rumble -65 dB (DIN); hum -80 dB; wow and flutter 0.1%. Has  $10\frac{1}{4}"$  aluminum platter.  $5\frac{1}{2}"$  H  $\times$   $18"$  W  $\times$   $15"$  D (including dust cover). Comes with arm, base, dust cover but without cartridge ..... \$149.95

**HS.** Head shell for SAU2 tonearm ..... \$6.50

## DENON

### DP-6700 Quartz-Controlled Direct-Drive

Two-speed (33 and 45 rpm) direct-drive turntable with quartz-crystal phase-locked speed control; a.c. motor regulated by pulse-width modulation; stroboscope illumination derived from quartz oscillator; supplied with stabilizer weight to prevent acoustic feedback pickup from record; Denon DA-307 tonearm with one-point suspension; dynamic damping of arm/cartridge resonance; magnetic anti-skating; magnesium headshell; vernier tracking-force adjustment; oil-damped cueing; speed electronically adjustable ( $\pm 6\%$ ); wow and flutter less than 0.015% wrms; rumble better than -77 dB; starting time to full speed less than 1.2 sec; tonearm effective length  $9\frac{3}{8}"$ ; tracking error 2.5" max.;  $7\frac{3}{8}"$  H  $\times$   $20\frac{1}{16}"$  W  $\times$   $16\frac{1}{16}"$  D ... \$915.00

**DP-6000.** Above table only, less arm, base, and cover ..... \$680.00

### DP-3500 Manual Single-Play

Two-speed (33 and 45 rpm) single-play manual turntable with direct drive by a.c. servomotor; magnetic speed detection system; speed adjustable  $\pm 3\%$ , with stroboscope; laminated base finished with genuine Japanese "sen" veneer or black walnut; wow and flutter less than 0.015% wrms; rumble below -75 dB (DIN "B" weighting); touch-controlled speed-change switch; replaceable tonearm board ... \$525.00

**DP-1700.** Similar, but with Denon Tonearm, simpler construction, and more compact cabinet; starting time less than 1.8 seconds;  $6\frac{1}{16}"$  H  $\times$   $20\frac{1}{16}"$  W  $\times$   $16\frac{1}{16}"$  D ..... \$370.00

**DP-1500.** Same as DP-1700, less arm; detachable, replaceable arm boards; accepts tonearms with maximum overall length of 13" or less, effective length  $9\frac{3}{8}"$  or less ..... \$325.00

**DP-790.** Similar to DP-1700; electronic speed change and adjustment; click-stop normal speed setting, no stroboscope; wow and flutter less than 0.018% wrms;  $6\frac{1}{16}"$  H  $\times$   $19\frac{1}{16}"$  W  $\times$   $16"$  D ..... \$298.00

## DUAL

All Dual turntables feature straight-line tubular tonearms mounted in true four-point gimbal suspensions; dynamically balanced tonearm does not require critical leveling of chassis; precision-machined die-cast platters; tracking to  $\frac{1}{4}$  g; vernier-adjust damped counterbalance; direct-dial setting of stylus force; anti-skating calibrated for conical, elliptical, and CD-4 styli; adjustable pitch control for both speeds (33 $\frac{1}{3}$  and 45 rpm); cueing system damped in both directions; quick-release cartridge holder with stylus overhang adjustment; low-capacitance tonearm leads compatible with all CD-4 cartridges.

### Fully Automatic Turntables

Additional features of Dual fully automatic turntables include vario-belt drive system; automatic and manual operation in both single- and multiple-play modes; interchangeable rotating single-play spindle; elevator-action multiple-play spindle holds up to six records; records may be removed from platter without removing spindle.

**1245.** 12" platter; illuminated strobe; continuous repeat switch; factory assembled on base with dustcover;  $5\frac{1}{3}"$  H  $\times$   $16\frac{1}{2}"$  W  $\times$   $14\frac{3}{4}"$  D ... \$230.00

**1241.** Similar to 1245 but without illuminated strobe and continuous repeat switch. \$200.00

**1237.** Compact version of 1241;  $10\frac{1}{8}"$  platter; chassis 5" above and  $2\frac{3}{4}"$  below mounting

board  $\times$   $12\frac{1}{8}"$  W  $\times$   $10\frac{3}{4}"$  D ..... \$135.00

Base and dustcover ..... \$30.00

## Single-Play Belt-Drive Turntables

**510.** Semi-automatic tonearm; mechanical sensor indicates when tonearm is precisely



over 7" and 12" lead-in grooves; illuminated strobe; tonearm lifts at end of play and motor shuts off; factory assembled on base with dustcover ..... \$210.00

**502.** Similar to 510 but without mechanical sensor or illuminated strobe ..... \$160.00

Base and dustcover ..... \$30.00

## Direct-Drive Turntables

**721.** All-electronic direct-drive brushless d.c. motor with regulated power supply; overlapping coil design provides gapless rotating magnetic field; two Hall-effect generators for electronic self-regulating speed monitoring; 10% pitch control for each speed; 12" one-piece dynamically balanced die-cast 9.7-lb platter; gimbal-mounted  $8\frac{3}{4}"$  tonearm with 8-mm height range; variable cue control height and descent speed; continuous automatic repeat; counterbalance incorporates two anti-resonance filters; stylus pressure 0-3 g; anti-skating; damped cueing; rumble -72 dB; wow and flutter 0.03%; with base and dustcover;  $5\frac{1}{8}"$  H  $\times$   $16\frac{1}{2}"$  W  $\times$   $14\frac{1}{4}"$  D ..... \$400.00

**704.** Similar to 721 but has semi-automatic tonearm; without variable cue descent speed; mechanical sensor as in 510; tonearm lifts at end of play and motor shuts off; factory assembled on base with dustcover ..... \$310.00

**604.** Similar to 704 but without tonearm height control; fully automatic tonearm return and motor shut-off at end of play; factory assembled on base with dustcover ..... \$250.00

## ELAC

### 870 Automatic Turntable

Belt-drive automatic turntable; stroboscope speed monitor; tubular arm with anti-skating; viscous-damped cueing ..... \$219.95

### PC 830 Automatic Multiple

Two-speed (33 and 45 rpm), belt-driven multiple/single-play automatic turntable; additional idler assist brings platter up to speed quickly, disengages when arm touches record; automatic belt release de-tensions drive belt when turntable is off; speed adjustable  $\pm 3\%$ , with stroboscopic speed monitor; low-mass tubular arm with anti-skating, slide-in cartridge head, and viscous-damped cueing; wow and flutter (DIN) 0.08%; rumble better than -64 dB (DIN weighted), -44 dB (DIN unweighted); tonearm effective length 8.08"; tracking error less than  $\pm 1.4"$ ; comes with base and dustcover;  $6\frac{7}{8}"$  H  $\times$   $17\frac{1}{8}"$  W  $\times$   $13\frac{3}{4}"$  D ..... \$189.95

## EMPIRE

### 698 Manual Turntable

Two-speed (33 and 45 rpm); speed accuracy 0.25% (90 to 130 V); rumble 68 dB below 3.54 cm/sec at 1000 Hz; average wow and flutter (weighted) 0.04%; hysteresis synchronous motor; startup time  $\frac{1}{3}$  revolution; aluminum tonearm mounted on 32 jeweled sapphire bearings; vertical and horizontal bearing friction 0.001 g; 12" aluminum platter; belt drive; tracking force

# You're looking at the world's best-designed tonearm.

This is a Dual tonearm. It can make a big difference in the way your records sound. And how long they last.

The four-point gyroscopic gimbal is widely acknowledged to be the finest suspension system for a tonearm. It pivots the tonearm precisely where the vertical and horizontal axes intersect. The arm remains perfectly balanced in all planes of movement.

Further, the straight-line tubular design achieves the shortest distance between pivot and stylus. That's basic geometry. Curving the tonearm adds mass, decreases rigidity and makes the arm prone to lateral imbalance.

The vernier counter-balance permits you to balance the tonearm with micrometer-like precision. Tracking force is applied so that the stylus remains perpendicular to the record, even if the chassis is not level.

All this serves to establish and maintain the correct cartridge-to-groove relationship. So the stylus can trace the rapidly changing undulations of the groove walls freely, precisely and with the lowest practical force. In short, flawless tracking.

Despite the advantages of the gimbal-mounted tonearm, you won't find many around. But now, you will find one on every Dual turntable. Even our lowest-priced model, the new, fully automatic 1237.\*

It's one more example of Dual's total commitment to engineering excellence.



Dual

For the life of your records

United Audio, 120 So. Columbus Ave., Mt. Vernon, NY 10556

CIRCLE NO. 10 ON READER SERVICE CARD

\*Less than \$135. Other Duals to \$400. Actual resale prices are determined individually by and at the sole discretion of authorized Dual dealers.

## 4

## TURNTABLES



range 0-4 g ( $\frac{1}{2}$  g per div.); cartridge weight handling range 4-10 g; low-capacitance cable 70 pF, standard-capacitance cable 180 pF (both including arm);  $8\frac{3}{16}$ " H  $\times$   $17\frac{1}{2}$ " W  $\times$   $15\frac{1}{8}$ " D ..... \$400.00

## FISHER

## MT 6225 Automatic Single-Play

Two-speed (33 and 45 rpm) turntable with direct-drive linear motor (no windings or electrical connections in turntable platter); manual start and stop, auto stop and reject; strobe light,  $\pm 3\%$  speed adjust; S-shaped, balanced arm with removable cartridge shell; viscous-damped cueing; wow and flutter 0.03% wrms; speed variation within  $\pm 0.5\%$ ; rumble -70 dB; tonearm effective length 222 mm; max. tracking error  $\pm 1.5^\circ$ ; with base and dustcover; 6" H  $\times$   $17\frac{3}{4}$ " W  $\times$   $14\frac{1}{4}$ " D ..... \$249.95

## MT 6210

Two-speed, belt-drive single-play turntable; 4-pole a.c. synchronous motor; tonearm with anti-skating, viscous cueing, detachable head shell; wow and flutter 0.08% wrms; rumble -58 dB; speed variation within  $\pm 1\%$ ; max. tracking error  $\pm 1.5^\circ$ ; comes with base and dustcover;  $6\frac{1}{8}$ " H  $\times$   $17\frac{3}{4}$ " W  $\times$   $14\frac{1}{4}$ " D ... \$129.95  
 MT 6220. Similar to 6210, but with d.c. servomotor; speed adjustable  $\pm 3\%$ ; strobe; wow and flutter 0.5% wrms; rumble -60 dB; max tracking error  $\pm 1.5^\circ$ ; speed variation within  $\pm 0.8\%$ ; comes with base and dustcover; 6" H  $\times$   $17\frac{3}{4}$ " W  $\times$   $14\frac{1}{4}$ " D ..... \$149.95

## FONS

## International MKI

Three speed (33, 45, and 78 rpm) single-play turntable; total variable range 29-100 rpm; full electronic control features closed-loop, negative-feedback, tachometer-controlled d.c. motor to eliminate speed variation due to line voltage/frequency changes; 12" high-mass platter; main bearing is hyper-concentric (tolerance  $\pm 0.00003$ ); rumble, wow and flutter -80 dB, 0.02%; base incorporates anti-feedback phase-cancellation suspension system; comes with rosewood base and hinged smoke Plexiglas dustcover and SME detachable shell tonearm; 6" H  $\times$   $17\frac{1}{2}$ " W  $\times$   $13\frac{1}{2}$ " D .. \$414.00  
 Same unit but without arm ..... \$299.95

## GALE

## GT 2101 Single-Play/Automatic

Electronic, d.c., brushless, direct-drive motor with continuously variable speeds from 10 to 99 rpm; lock-on control for 33 $\frac{1}{3}$  rpm, with 10 ppm accuracy; speed referenced to 1.048 MHz quartz crystal with optical servo-control monitoring 600 times per revolution; logic system makes instantaneous corrections; features constant digital readout of all speeds on separate control unit; motor, platter, and shaft rotate on magnetic field maintained on non-degenerating rare-earth material; self-regulat-

ing suspension system virtually immune to shock in any direction; chassis and turntable of 13-mm Plexiglas and anti-magnetic stainless steel; available with special adaptor plates for tonearms; less tonearm ..... \$1985.00

## GARRARD

## GT 55 Multiple-Play Automatic

Two-speed (33 and 45 rpm) automatic turntable with "zero-tracking-error" pantograph type tonearm, d.c. servomotor, belt drive; tonearm shell pivots as the arm moves across the record, to keep the stylus tangent to the groove; belt-driven from d.c. servomotor with electronic speed control; pitch control with stroboscope; magnetic anti-skating; viscous-damped cueing; two-point record support in multiple-play mode; wow and flutter 0.05%; rumble -66 dB (DIN "B"); includes base and dust cover .. \$259.95

## DD 75 Semi-Automatic/Manual

Two-speed (33 and 45 rpm), direct-drive turntable with electronic speed regulation and pitch control, automatic arm return and shut-off at end of play; stroboscope; jeweled arm bearings; photoelectric arm return trip; viscous-damped cueing. Wow and flutter 0.03%; rumble -70 dB (DIN "B"). With base and cover ..... \$209.95

## GT-35 Multiple-Play Automatic

Two-speed (33 and 45 rpm), belt-driven multiple-play automatic turntable; d.c. servomotor with electronic speed regulation and pitch control, stroboscope; independent pitch control for each speed; ultra-low-mass "S"-type tonearm with detachable headshell; cueing; anti-skating; repeat play if desired; wow and flutter 0.06%; rumble -68 dB (DIN "B"); with base and cover ..... \$199.95

## GT-25 Multiple-Play Automatic

Similar to GT-35, but with Garrard Synchro-Lab motor, no pitch control or stroboscope; wow



and flutter 0.08%; rumble -65 dB (DIN "B"); with base and cover ..... \$159.95

## GT-15 Multiple-Play Automatic

Belt-driven by Synchro-Lab motor; cue control; anti-skating; arm mass 10 g; supplied with Shure M93E cartridge; wow and flutter 0.12%; rumble -60 dB (DIN "B"); with base and cover ..... \$124.95

## GT-10 Multiple-Play Automatic

Similar to GT15; 7-g tonearm with Pickering V15/ATE-4 cartridge; four-pole, high-torque motor; belt drive; damped cueing; anti-skating; wow and flutter 0.15%; rumble -55 dB, (DIN "B"); with base and cover ..... \$94.95

## HARMAN/KARDON

## Rabco ST-6 Straight-Line Tracking

Two-speed (33 and 45 rpm); synchronous a.c. motor with precision ground belt; tracking error 0 degrees; skating force 0; comes with Rabco straight-line-tracking arm; effective tonearm mass 6 g; wow and flutter 0.04% (NAB wrms), 0.09% (DIN B); hum -70 dB (DIN 45544); speed constancy  $\pm 0.3\%$ ; overall size  $6\frac{3}{4}$ " H  $\times$   $16\frac{1}{2}$ " W  $\times$   $16\frac{1}{4}$ " D (inc. dust cover) ... \$350.00

## Rabco ST-72 Straight-Line Tracking

Two speed (33 and 45 rpm, adjustable  $\pm 5.5\%$ )

brushless d.c. (Hall Effect) motor with precision-ground belt; adjustable feet and bubble level; pneumatically damped cueing; tracking error, skating force, vertical friction, lateral friction all 0- rumble (DIN B) -68 dB; wow and flutter (NAB weighted) 0.04%, (DIN B) 0.09%; hum -76 dB; speed constancy  $\pm 0.3\%$ ; viscous-damped cueing control; tonearm mass 6 g; comes with straight-line tracking arm; dustcover.  $6\frac{3}{4}$ " H  $\times$   $16\frac{1}{2}$ " W  $\times$   $16\frac{1}{4}$ " D ... \$460.00

## HITACHI

## PS48 Semi-Automatic Direct-Drive

Two-speed (33 and 45 rpm), direct-drive brushless d.c. servomotor; automatic tonearm lift and return; electronic speed switching and individual pitch control ( $\pm 2.5\%$ ) for each speed; stroboscope; direct-readout stylus-force gauge; static-balanced "S"-type tonearm with standard, interchangeable headshell; anti-skating; oil-damped cueing; wow and flutter 0.025% wrms; rumble -74 dB (DIN "B" weighting); tonearm effective length  $8\frac{3}{4}$ "; tracking error  $+2^\circ$ ,  $-1^\circ 40'$ ; stylus force range 0-3 g; cartridge weight range 4-10 g; walnut-grain vinyl base; detachable smoke plastic dustcover with full stop hinge;  $6\frac{1}{2}$ " H  $\times$   $18\frac{3}{4}$ " W  $\times$   $14\frac{1}{2}$ " D ... \$239.95  
 PS/58. Similar to PS48, but fully automatic ... \$299.95

## HT 350 Semi-Automatic Direct-Drive

Two-speed (33 and 45 rpm), direct-drive brushless d.c. servomotor; automatic tonearm lift and return; electronic speed switching and pitch control ( $\pm 2\%$ ); stroboscope; static-balanced "S"-type arm with direct-readout stylus-force gauge; viscous-damped cueing; anti-skating; plug-in headshell; wow and flutter 0.04% wrms; rumble -70 dB (DIN "B"); tonearm specifications same as PS48; with base and hinged dustcover,  $5\frac{1}{4}$ " H  $\times$   $18\frac{3}{4}$ " W  $\times$   $14\frac{3}{8}$ " D ..... \$149.95

## HT 320 Belt-Drive Semi-Automatic

Similar to HT 350, but belt-driven from synchronous motor, no speed adjust or strobe; wow and flutter 0.06% wrms; rumble -65 dB; tonearm effective length  $8\frac{7}{8}$ "; tracking error  $2^\circ$ ; with base and dustcover;  $5\frac{1}{4}$ " H  $\times$   $18\frac{3}{4}$ " W  $\times$   $14\frac{1}{2}$ " D ..... \$119.95

## INFINITY

## Black Widow Air-Table

Two-speed (33 and 45 rpm), single-play manual turntable with air-suspended, belt-driven turntable; turntable platter floats on a cushion of air provided by a small, silent pump mounted in a compact, separate enclosure; belt-driven by servomotor with electronic speed change and pitch control ( $\pm 4\%$ ); stroboscope; Infinity "Black Widow" tonearm with 3-g effective mass; oil-damped cueing; vertical knife-edge bearings; anti-skating; arm and platter mounted on separate, sprung sub-chassis; wow and flutter better than 0.025% rms; rumble below -70 dB (DIN "B"); start-up time approximately one revolution ..... \$450.00

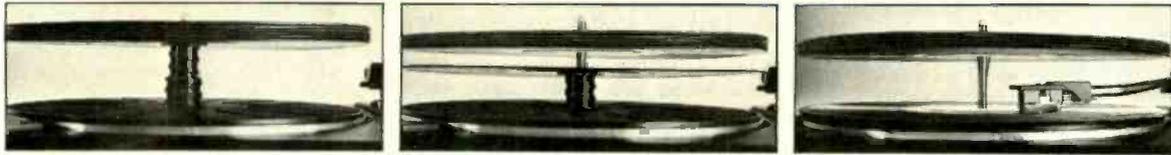
## JVC

## QL-10 Quartz-Locked Manual

Two-speed (33 and 45 rpm) direct-drive turntable with speed controlled by quartz-locked, dual servo system; servocontrol system operates for both speed increase and decrease; digital speed indicator; pitch adjustable  $\pm 6$  Hz from 440-Hz standard "A," in 1-Hz increments; powered by coreless d.c. servomotor; electronic brake; touch-control buttons; run/hold control for counter; includes UA-7045, gimbal-support arm; statically balanced arm; oil-damped cueing; CL-P1 turntable base with "resonance-free" seven-layer cabinet with interchangeable tonearm boards, heavy acrylic dustcover; wow and flutter less than 0.02% wrms, less than 0.04% DIN; signal to noise 75 dB (DIN "B"); start up times less than 0.6 sec,  $60^\circ$  of rotation;

# No more "plop."

The Accutrac+6 doesn't drop records. Instead, it lowers them onto the platter.



When you play 6 records, normally they "plop" onto the platter.

Ouch!

But the new Accutrac® +6 is computerized to protect your records: no more "plop!" Instead, it lowers the records onto the platter, v-e-r-y g-e-n-t-l-y.

Ahhh.

Its Accuglide™ spiral spindle defies gravity.

Touch the computerized control key, and a platform spirals up through the platter to locate-and-lower each record. No record drop. No record damage.

But the computerized controls of the Accutrac+6 make it more than the ultimate in record safety. It's also the ultimate in convenience.

Because with the new Accutrac+6, what comes down must come up. Just touch the "raise record" key, and it lifts all 6 records back up to the starting position. Ready for your next command.

Which brings us to the fact that the Accutrac+6 is also the ultimate in record control.

With its computerized programming keys you can command the Accutrac+6 to play the tracks on each record in any order you like. As often as you like. Even skip the tracks you don't like.

And you never have to touch the tonearm to do it, because the Accutrac+6 is engineered with a computerized "hands-off" tonearm.

In fact, once you close the dust cover you never have to touch the records or tonearm again to hear your programmed selections.

With Accutrac+6 model 3500R, you can control everything from across the room with a full-system remote control transmitter and receiver. There's even remote volume control on model 3500RVC.

No other 6 record system gives you the record safety, convenience and control of the new Accutrac+6. But the truly incredible feature of the new Accutrac+6 is its low price. From under \$300\* for model 3500.

So forget everything you know about 6 record systems. And remember to see the new Accutrac+6. It defies gravity, and your imagination.

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\*Price shown in this ad is approximate. Selling price is determined by the individual dealer.



ADC Accutrac®+6  
A BSR Company

# 4

## TURNTABLES

speed overshoot less than 2%; speed deviation less than 0.002%; drift 0.00004%/hr; stopping time less than 1 sec; tonearm effective length 9 $\frac{5}{8}$ "; tracking error 1°48' max; tracking force range 0-3 g in 0.1-g steps; arm height adjustable 40-60 mm; 7 $\frac{1}{8}$ " H x 20 $\frac{1}{8}$ " W x 16 $\frac{1}{8}$ " D ..... \$1200.00  
**QL-8.** Similar, but with oscillator-driven stroboscope instead of digital frequency readout; d.c. servomotor; start-up time less than 1 sec to full speed; wow and flutter less than 0.025% wrms; signal-to-noise 73 dB (DIN "B"); 7 $\frac{1}{4}$ " H ..... \$800.00  
**QL-7.** Similar, but single quartz-lock servo system; no pitch control; attains full speed in 1.4 sec; 6 $\frac{3}{8}$ " H x 18 $\frac{3}{4}$ " W x 15 $\frac{3}{4}$ " D ..... \$300.00

### JL-F50 Automatic Direct-Drive

Two-speed (33 and 45 rpm), direct-drive, single-play turntable with manual or automatic lead-in, return and power shut-off, automatic repeat (up to six plays or continuous); electronic speed switching and adjustment ( $\pm 2.5\%$ ); stroboscope; most-used controls accessible when dust-cover is closed; "S"-type arm with gimbal suspension; interchangeable cartridge shell; low-capacitance output cables; two-way oil-damped cueing; calibrated anti-skating and tracking force; wow and flutter less than 0.03% wrms; signal-to-noise ratio 70 dB (DIN "B"); effective tonearm length 8.67"; tracking error  $\pm 3'35''$ ,  $-0'43''$ ; tracking force range 0-3 g; 5 $\frac{1}{16}$ " H x 18 $\frac{1}{8}$ " W x 14 $\frac{1}{8}$ " D ..... \$250.00  
**JL-A40.** Semi-automatic version; automatic return and shut-off only; controls under dust-cover; 5 $\frac{1}{16}$ " H x 18 $\frac{1}{8}$ " W x 14 $\frac{1}{2}$ " D .. \$180.00  
**JL-F30.** Similar to A40, but fully automatic and belt-driven; synchronous a.c. motor; no pitch control or stroboscope; wow and flutter less than 0.06% wrms; S/N ratio more than 67 dB (DIN "B"); 5 $\frac{1}{8}$ " H x 18 $\frac{1}{8}$ " W x 14 $\frac{1}{2}$ " D ..... \$140.00  
**JL-A20.** Semi-automatic version of F30; S/N ratio 63 dB (DIN "B") ..... \$100.00

## KENWOOD

### KD-500 Single-Play/Automatic

Two-speed (33 and 45 rpm); direct-drive d.c. servomotor with frequency generator control; anti-resonance concrete base; strobe check for precise speed adjustment; wow and flutter 0.03% wrms; acrylic dust cover with flush-back hinge, friction clutches; comes without tonearm ..... \$225.00  
**KD-550.** Same as KD-500 but with tonearm ..... \$275.00

### KD-3055 Single-Play/Automatic

Two-speed (33 and 45 rpm); 4-pole synchronous belt-drive motor; automatic operation including lead-in of stylus, auto cueing, and repeat play; anti-resonance concrete base; precision drive system; statically balance "S"-shaped tonearm; anti-skate adjustment; pause control; rumble -65 dB; wow and flutter 0.06% wrms ..... \$190.00  
**KD-2055.** Similar to KD-3055 but auto return only ..... \$150.00

### KD-1033 Single-Play/Manual

Two-speed (33 and 45 rpm); 4-pole synchronous motor; belt-drive; 12" platter; statically balance "S"-shaped tonearm; anti-skate adjustment; wow and flutter 0.06% wrms ..... \$90.00

## LAFAYETTE

### T-6000 Single-Play/Automatic

Two-speed (33 and 45 rpm); 72-pole a.c. fre-

quency generator motor; wow and flutter 0.03%; rumble -65 dB; speed adjustment  $\pm 4\%$ ; direct-drive; vertical needle bearing; calibrated balance stylus force adj.; anti-skating adjustment; stylus force range 1-3 g; dual electronic servo; speed regulation independent of power-line frequency; cue/pause control; interchangeable head shell; illuminating strobe; low-capacitance (CD-4) wiring; comes with base and dust cover; 7" H x 19 $\frac{3}{8}$ " W x 16 $\frac{1}{4}$ " D ..... \$229.95

### T-4000 Single-Play/Automatic

Two-speed (33 and 45 rpm); d.c. servomotor; wow and flutter 0.08%; rumble -45 dB; speed adjust.  $\pm 2.5\%$ ; calibrated balance stylus force adj.; anti-skating adjustment; stylus force range 1.5-3 g; auto return and shutoff; detachable shell; illuminated strobe; low-capacitance cables; semi-automatic cueing; comes with base and dust cover; 6 $\frac{1}{4}$ " H x 18 $\frac{1}{2}$ " W x 14 $\frac{1}{4}$ " D ..... \$179.95

**T-2000.** Similar to T-4000 except wow and flutter 0.1%; rumble -40 dB (DIN B); hysteresis synchronous motor; speed adj.  $\pm 1.3\%$ ; 6" H x 17 $\frac{1}{4}$ " W x 13 $\frac{3}{8}$ " D ..... \$129.95

## LENCO

### L833 DD Direct-Drive Semi-Automatic

Two-speed (33 and 45 rpm) manual turntable with contact-less auto-stop and tonearm lift; speed adjustable  $\pm 4\%$ ; stroboscopic speed monitor; direct drive by brushless d.c. motor; anti-skating; viscous-damped cue control; wow and flutter  $\pm 0.06\%$  DIN, 0.035% wrms; rumble -70 dB (DIN "B" weighting), -50 dB (DIN "A" unweighted); tonearm effective length 8 $\frac{1}{16}$ "; dimensions with base and dustcover 5 $\frac{1}{16}$ " H x 18 $\frac{1}{8}$ " W x 14 $\frac{3}{8}$ " D ..... \$299.95  
**L-830 DD.** Same as L-833, but without auto-stop ..... \$239.95

### L-236 Automatic Single-Play Turntable

Two-speed (33 and 45 rpm) belt-drive single-play turntable with automatic tonearm positioning, automatic stop and arm return at end of record; synchronous 16-pole motor; anti-skating; cueing viscous damped in both directions; includes base and dust cover; wow and flutter  $\pm 0.08\%$ ; rumble -62 dB (DIN weighted), -45 dB unweighted ..... \$179.95  
**L-133.** Semi-automatic version of above; manual tonearm positioning; automatic stop and arm return at end of record ..... \$129.95

## LUX

### P-121 Single-Play Manual

Direct-drive unit, less arm; two-speed (33 and 45 rpm); vernier controls for fine-tuning speed over  $\pm 4\%$  range; illuminated strobe markings; rumble -70 dB; wow and flutter 0.03% wrms; will accommodate most tonearms; comes with two tonearm mounting plates (one pre-cut for Shure/SME arm), base, hinged removable dust cover ..... \$495.00

## MARANTZ

### 6300 Single-Play/Automatic

Two-speed (33 and 45 rpm); direct-drive d.c. servomotor; wow and flutter 0.04% wrms; speed control range  $\pm 3\%$ ; rumble (RRLL wtd.) -55 dB; (DIN wtd.) -60 dB; has opto-coupled automatic lift and shutoff mechanism; cue control; acoustic-feedback design; comes with "S" shaped tonearm, strobe, base and dustcover; 7 $\frac{1}{32}$ " H x 17 $\frac{1}{8}$ " W x 14 $\frac{3}{16}$ " D ..... \$269.95  
**6320.** Same as 6300 but without arm and automatic circuitry ..... \$229.95

### 6200 Single-Play/Automatic

Two-speed (33 and 45 rpm); belt-driven a.c. servo drive system; wow and flutter 0.06% wrms; rumble -60 dB (DIN); speed control range  $\pm 3\%$ ; electronic speed control with strobe; total automatic operation; cue control;

comes with "S" shaped tonearm, base and dustcover ..... \$199.95

### 6100 Single-Play/Manual

Two-speed (33 and 45 rpm); belt-driven a.c. synchronous motor; wow and flutter 0.08% wrms; rumble -60 dB (DIN); features automatic arm return; cue control; comes with "S" shaped tonearm, base and dustcover ..... \$129.95

## MICRO SEIKI

### DDX-1000 Single-Play/Automatic

Direct-drive, servo-controlled motor; will accept three tonearms because of special casting



containing three separate modular pods; separate layers of cork and rubber for turntable mat; two-layer absorber system consisting of cushion rubber and insulator balls with built-in springs; turntable controls and power supply in separate unit for speed select, stop, power, and fine-speed adjustment; without tonearm or cartridge ..... \$650.00  
**MA-505.** Manual arm for DDX-1000 .. \$150.00

### DD-40 Single-Play/Manual

Direct-drive; floating suspension system with tonearm and turntable assembly mounted on specially designed subchassis; cue control; all-wood base ..... \$450.00  
**DD-30.** Similar to DD-40 except with auto return arm ..... \$350.00  
**DD-20.** Similar to DD-30 with manual arm and cue control ..... \$200.00

### MB-15 Single-Play/Semi-Automatic

Direct-drive; automatic lift and cueing ..... \$150.00  
**MB-10.** Same as MB-15 except manual arm lift. .... \$100.00

## MIIDA

### T3115 Single-Play/Manual

Two-speed (33 and 45 rpm) direct-drive turntable; direct-coupled servomotor; speed selector; fine-speed control; built-in strobe pattern; static-balanced S-shaped tonearm; anti-skating device; oil-damped arm lifter; cartridge weight 4.5-10.5 g (cartridge not included); adjustable stylus pressure 0-5 g; low-capacitance wiring; wow and flutter 0.03% wrms; shock-absorbing base; 6 $\frac{1}{2}$ " H x 19 $\frac{1}{8}$ " W x 15 $\frac{1}{8}$ " D ..... \$199.95

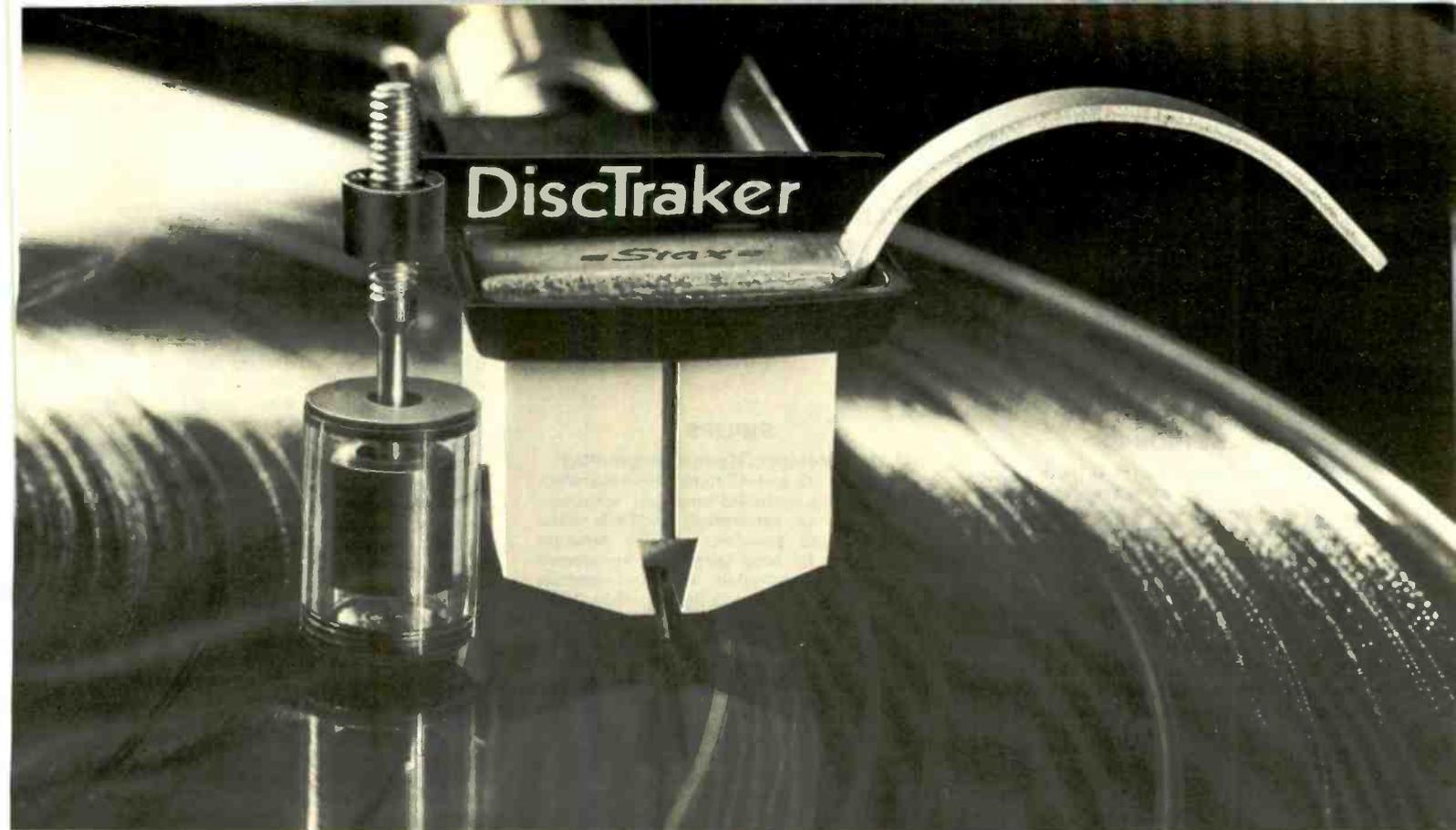
### T-3112 Single-Play/Manual

Two-speed (33 and 45 rpm) belt-drive turntable; 4-pole synchronous motor; lever speed selector; wow and flutter 0.06% wrms; rumble -55 dB; static balanced S-shaped tonearm with direct readout stylus pressure system; moving-magnet cartridge; output voltage 3 mV (at 1 kHz, 50 m/ms); channel balance 2.5 dB at 1 kHz; channel separation 20 dB; oil-damped tonearm lifter; auto-cut, auto-return tonearm mechanism; cartridge weight 5.5 g; 7" H x 18 $\frac{3}{8}$ " W x 14 $\frac{1}{2}$ " D ..... \$129.95

## MITSUBISHI

### DP-EC1 Automatic Turntable

Fully automatic two-speed (33 $\frac{1}{3}$  and 45 rpm) turntable features photo-optical, electronic setting of disk size and speed with full safety de-



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DiscTraker is a revolutionary pneumatic damping device that provides a critical protective cushion so badly needed with state-of-the-art tonearms and cartridges.

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- allows badly warped records to be played with fidelity and without record wear or stylus damage.
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# 4 TURNTABLES

vices and manual override; 12-pole FG d.c. servomotor direct drive; wow and flutter 0.025% wrms; 12.25" 4-lb die-cast aluminum platter; S/N 65 dB (IEC-B); S-type universal static balance tonearm accepts cartridges from 8 to 16 g (with headshell), 12-20 g (with headshell and subweight); speed indicated by LED-lighted stroboscope;  $\pm 3\%$  speed adjustment;  $5\frac{7}{8}"$  H  $\times$   $18\frac{3}{4}"$  W  $\times$   $14\frac{3}{8}"$  D ..... \$590.00

## NETRONICS

### 350F Three-Speed Direct-Drive Kit

Three-speed (33, 45, and 78 rpm), single-play, direct-drive turntable in kit form; two-stage decoupled base for freedom from acoustic feedback; digital servo pitch-lock circuit; pitch control with  $\pm 5\%$  variation; percentage pitch meter for direct readout of turntable speed; wow and flutter 0.04% weighted, 0.02% unweighted; rumble -60 dB (RIAA/RRLL); base available blank or pre-drilled for Shure/SME, Audio-Technica AT-1005II or Grace 707 tonearms; approximate assembly time  $2\frac{1}{2}$  hr ... \$130.00  
**350D.** Two-speed (33 and 45 rpm); no servo pitch-lock circuit or meter; approximate assembly time under 1 hr ..... \$100.00

## OASIS

### Fluid-Drive Turntable

One-speed (33 $\frac{1}{3}$  rpm), single-play turntable without arm; a.c. synchronous motor connected via belt drive to turbine beneath platter; platter floats on fluid, for mechanical isolation, high-mass flywheel effect, and damping of drivetrain pulsations; low-resonance damped suspension system; universal tone arm mount; one-inch thick sound-absorbing record mat; comes with built-in levelling feet, less arm ... \$599.95

## OPTONICA

### RP-3636 Mark II Direct-Drive Manual

Two-speed (33 and 45 rpm) direct-drive turntable with a.c. servomotor; granite composite motor board to resist acoustic feedback; audio-isolated legs; statically-balanced "S"-type tonearm with plug-in headshell, oil-damped cueing; anti-skating; micrometer-style counterweight calibration; rosewood grained base; illuminated stroboscope; speed adjustment  $\pm 4\%$ ; wow and flutter less than 0.03% wrms; rumble less than -70 dB (DIN "B" weighting); tonearm effective length 9.6"; min. tracking force 1 g;  $7.4"$  H  $\times$   $19.8"$  W  $\times$   $16.3"$  D ... \$299.95

### RP-1414 Mark II Semi-Auto/Manual

Two-speed (33 and 45 rpm); belt-driven by a.c. synchronous motor; "S"-type tonearm with micrometer-style counterweight calibration; anti-skating; damped cueing; wow and flutter 0.08% wrms; rumble -60 dB (DIN "B" weighting); tonearm effective length 8.4";  $6.3"$  H  $\times$   $17.3"$  W  $\times$   $13.8"$  D ..... \$139.95

## PANASONIC

### RD-3600 Single-Play/Automatic

Single-play, two-speed (33 and 45 rpm) belt-drive unit; features d.c. motor with servo control; 12" die-cast platter; wow and flutter 0.06% (wrms), rumble -65 dB; comes with static-balanced S-shaped tubular tonearm, base, detachable dustcover; direct-reading tracking-force adjustment (0-4 g); anti-skating control; stylus-pressure adjustment; viscous-damped cueing control; Audio Technica AT-12E cartridge.  $5\frac{7}{8}"$  H  $\times$   $16\frac{7}{8}"$  W  $\times$   $13\frac{3}{4}"$  D ... \$149.95

### RD-3100 Record Changer/Manual

Three-speed (33, 45, and 78 rpm) unit with 4-pole induction motor; comes with low-mass tubular tonearm, base, detachable dustcover; anti-skating adjustment; viscous-damped cueing control; stylus-pressure adjustment and gauge; Pickering V-15/AT2-NP cartridge.  $7\frac{7}{8}"$  H  $\times$   $17\frac{1}{8}"$  W  $\times$   $14\frac{1}{4}"$  D ..... \$99.95

### RD-7506 Record Changer

Three-speed (33, 45 and 78 rpm); cueing lever; stylus pressure adjustment; ceramic cartridge and diamond stylus; base and hinged, detachable dustcover ..... \$59.95

## PHILIPS

### GA222 Automatic/Manual Single-Play

Two-speed (33 and 45 rpm), fully-automated, electronically controlled turntable; belt-driven by 72-pole d.c. servomotor; electronic speed selection and adjustment ( $\pm 3\%$ ); separate adjustment for each speed; viscous-damped cueing; touch-activated; electronic controls anti-skating; wow and flutter less than 0.2%; rumble less than -62 dB (DIN "B" weighting); arm effective length  $8\frac{1}{2}"$ ; effective moving mass ca. 21 g; tracking error less than  $0^\circ 9'$  / cm ( $0^\circ 23'$  / in); comes with base and dustcover;  $5\frac{3}{4}"$  H  $\times$   $15\frac{3}{8}"$  W  $\times$   $12\frac{3}{4}"$  D ..... \$249.95

### GA406 Auto/Manual Multi-Play

Two-speed (33 and 45 rpm) multiple-play turntable; holds up to five records, automatically selects record diameter and speed for each; both speeds independently adjustable  $\pm 3\%$ ; belt-driven by d.c. servomotor, speeds changed and regulated electronically; independent d.c. servomotor controls changing mechanism and arm movements; viscous-damped cue control; anti-skating; counterbalanced arm adjustable for 0-4 g stylus force; wow and flutter less than 0.1%; rumble below -60 dB (DIN "B" weighting); speed drift less than 0.2%; tracking error less than  $0^\circ 23'$  / in; comes with dustcover and base;  $5\frac{3}{4}"$  H  $\times$   $16\frac{3}{8}"$  W  $\times$   $13\frac{1}{2}"$  D ..... \$199.95

### GA 312 Single-Play Manual

Two-speed (33 and 45 rpm) belt-driven turntable with electronic speed control (each speed individually adjustable  $\pm 3\%$ ); lighted electronic touch-button switches; automatic tone-arm lift at end of record; tubular arm with elastically decoupled counterweight; anti-skating; wow and flutter 0.1%; rumble below -62 dB (DIN "B" weighting); comes with dustcover and base;  $6\frac{1}{4}"$  H  $\times$   $15\frac{1}{2}"$  W  $\times$   $13\frac{1}{4}"$  D ... \$179.95

**GA437.** Similar to GA 312 but with synchronous, 24-pole low-speed a.c. motor, no speed adjust; direct-reading stylus force gauge built into tonearm rest; combination power/cue control raises arm when power is switched off; wow and flutter less than 0.12%; rumble less than -60 dB (DIN "B" weighting); comes with dustcover and base;  $6\frac{1}{2}"$  H  $\times$   $16\frac{1}{2}"$  W  $\times$   $14"$  D ..... \$119.95

## PIONEER

### PLC-590 Quartz-Controlled Turntable

Two-speed (33 and 45 rpm) direct-drive system, less arm; Hall-effect motor with quartz-PLL speed control; quartz-control defeatable for  $\pm 6\%$  speed adjustment; wow and flutter 0.025% wrms max. rumble -75 dB (DIN B); full speed within  $\frac{1}{2}$  rotation;  $12\frac{1}{2}"$  aluminum alloy die-cast platter; pitch indicator meter; electronic quick stop; interchangeable tonearm installation panel (available pre-drilled for Pioneer PA-1000 and SME 3009/S II arms);  $7\frac{7}{32}"$  H  $\times$   $19\frac{7}{32}"$  W  $\times$   $15\frac{1}{32}"$  D ..... \$550.00

### PL-570 Auto/Manual Direct-Drive

Two-speed (33 and 45 rpm) single-play turntable with quartz-PLL-controlled Hall-effect

motor driving platter; separate motor for arm motion; auto start, stop and repeat; non-contact velocity detector for arm auto-return; speed adjustment range  $\pm 6\%$  (with quartz lock off); strobe driven by oscillator; wow and flutter 0.025% wrms max; rumble -70 dB (DIN B); full speed within  $\frac{2}{3}$  rotation; static-balanced S-shaped arm; usable cartridge weights 4-13.5 g; anti-skating; lateral balancer; arm height adjustment; cueing; plug-in headshell;  $7\frac{7}{8}"$  H  $\times$   $19\frac{7}{32}"$  W  $\times$   $15\frac{1}{32}"$  D ..... \$400.00

### PL-550 Single-Play Manual

Two-speed (33 and 45 rpm), direct-drive with quartz PLL speed-controlling system; Hall-effect motor; speed adjustment  $\pm 6\%$ ; wow and flutter 0.025% wrms max.; rumble -70 dB (DIN B); full speed within  $\frac{2}{3}$  rotation;  $12\frac{3}{4}"$  aluminum alloy die-cast platter; static-balanced S-shaped tubular tonearm; usable cartridge weights 4-14.5 g; anti-skating; lateral balancer; direct-reading counterweight stylus pressure adjust; viscous-damped cueing; strobe; plug-in headshell;  $7\frac{7}{32}"$  H  $\times$   $19\frac{7}{32}"$  W  $\times$   $15\frac{1}{32}"$  D ..... \$350.00

### PL-530 Single-Play/Automatic

Two-speed (33 and 45 rpm), two-motor direct-drive system; brushless d.c. servomotor for platter, gear motor (for automatic functions); speed control range  $\pm 2\%$ ; wow and flutter 0.03% wrms max.; S/N 70 dB (DIN B); 13" aluminum alloy die-cast platter; static-balanced S-shaped pipe tonearm; usable cartridge weight 4 to 14.5 g; anti-skating; viscous-damped cueing device; stylus pressure direct-readout counterweight; lateral balancer; strobe-lighting (strobe on platter rim); plug-in headshell.  $6\frac{1}{16}"$  H  $\times$   $18\frac{3}{32}"$  W  $\times$   $15\frac{1}{32}"$  D ... \$250.00

### PL-510A Single-Play/Manual

Two speed (33 and 45 rpm), direct-drive system; brushless d.c. servomotor; speed control range  $\pm 2\%$ ; wow and flutter 0.03% wrms max.; S/N 60 dB (DIN B); 12" aluminum alloy die-cast platter; static-balanced S-shaped pipe tonearm; usable cartridge weight 4 to 10 g; anti-skating; viscous-damped cueing device; lateral balancer; strobe-lighting (strobe on platter rim); plug-in headshell.  $6\frac{1}{4}"$  H  $\times$   $17\frac{1}{8}"$  W  $\times$   $14\frac{1}{4}"$  D ..... \$200.00

### PL-117D Single-Play/Manual

Two-speed (33 and 45 rpm), belt-drive system; 4-pole synchronous motor; wow and flutter 0.07% wrms max.; S/N 50 dB (JIS); 12" aluminum alloy die-cast platter; static-balanced S-shaped pipe tonearm; usable cartridge weight 4 to 10 g; anti-skating; viscous/damped cueing device; lateral balancer; plug-in headshell.  $6\frac{1}{4}"$  H  $\times$   $17\frac{1}{8}"$  W  $\times$   $14\frac{1}{4}"$  D ..... \$175.00  
**PL-115D.** Similar to PL-117D except has only auto-return ..... \$125.00  
**PL-112D.** Similar to PL-117D except without automatic features ..... \$100.00

## REALISTIC

### LAB-400 Manual/Changer

Two-speed (33 $\frac{1}{3}$  and 45 rpm) manual/changer combination; direct drive with fully automatic tonearm operation; damped cue/pause; calibrated anti-skating;  $8\frac{1}{16}"$  tonearm tracks down to 0.5 g; low-capacitance pick-up leads; supplied with magnetic cartridge with elliptical stylus and hinged dust cover; wow and flutter 0.03% wrms; rumble -63 dB (DIN B); walnut veneer base ..... \$199.95

### LAB-60 Manual/Changer

Two-speed (33 $\frac{1}{3}$  and 45 rpm) manual/changer combination; 11" die-cast platter; counterweight and direct-reading tracking; three-scale anti-skating; removable cartridge shell; supplied with tonearm, base, and Shure cartridge; wow and flutter 0.1% wrms; rumble -62 dB (DIN B); pitch adjustment range  $\pm 2.5\%$ ;  $5\frac{3}{4}"$  H  $\times$   $17\frac{1}{16}"$  W  $\times$   $13\frac{1}{2}"$  D ..... \$179.95

### LAB-300 Single-Play Manual

Two-speed (33 1/3 and 45 rpm) manual player; four-pole synchronous motor; wow and flutter 0.1%; rumble -60 dB (DIN B); 11 1/4" cast platter; S-shaped tonearm; isolated from vibration; cartridge has elliptical stylus; tracking force adjustable over 0-4 g; walnut-grained vinyl veneer base; 7 1/4" H x 17 1/8" W x 14" D . . . . . \$159.95

### LAB-200 Changer

Two-speed (33 1/3 and 45 rpm) changer; belt drive; electronic speed control; bidirectional viscous damped cueing; tonearm tracks at 1-4 g; wow and flutter 0.06% wrms; rumble -65 dB (DIN B); pitch adjustment (±3%); with magnetic cartridge with elliptical stylus and hinged dust cover; 6 1/2" H x 17 1/4" W x 14 1/8" D . . . . . \$119.95

### LAB-110 Single-Play Manual

Three-speed (33 1/3, 45, and 78 rpm) single-play manual; fully automatic tonearm start, return, and shutoff; damped cue/pause; four-pole induction motor; adjustable tracking; supplied with magnetic cartridge with diamond stylus and dust cover; simulated walnut base; 5 3/4" H x 15 1/8" W x 14 3/8" D . . . . . \$69.95

## REGA

### Planar 2

Single play manual turntable; glass platter with natural felt mat; three-point suspension; diamond-lapped bearing; 24-pole synchronous motor runs at half power for reduced noise and vibration; has Rega arm with magnetic bias; comes with dust cover; 6" H x 17 1/2" W x 14" D . . . . . \$225.00

Without arm . . . . . \$180.00

**Planar 3.** Further refinement of Planar design; each unit personally checked by the designer; with Rega arm . . . . . \$315.00  
Without arm . . . . . \$140.00

## ROTEL

### RP-3000 Manual Direct Drive

Two-speed (33 and 45 rpm) turntable with direct-drive a.c. servomotor; speed control ±5%; wow and flutter less than 0.05% wrms; S/N 60 dB; static-balanced S-shaped tonearm with plug-in headshell; spirit level for correct leveling; anti-skating; stroboscope; includes base and dustcover . . . . . \$220.00

### RP-2500 Semi-Automatic Belt Drive

Two-speed (33 and 45 rpm) turntable with auto return and shutoff; belt-driven by d.c. servomotor; speed control ±5%; wow and flutter less than 0.05% wrms; S/N 58 dB; static-balanced "S"-type tonearm with plug-in headshell and anti-skating; stroboscope . . . . . \$180.00

### RP-5300 Direct-Drive Manual Turntable

Two-speed (33 and 45 rpm) turntable with direct-drive brushless d.c. servomotor; speed control ±5%; stroboscope; wow and flutter less than 0.04% wrms; S/N 60 dB; arm similar to above, with oil-damped cueing . . . . . \$160.00

### RP-1100Q Semi-Automatic Turntable

Two-speed (33 and 45 rpm) turntable with auto return and shutoff; belt-driven by hysteresis-synchronous motor; wow and flutter less than 0.2% wrms; S/N greater than 45 dB; arm as above, with oil-damped cueing . . . . . \$130.00

**RP-2300.** Similar to above; wow and flutter less than 0.08% wrms; S/N greater than 50 dB . . . . . \$130.00

## SANSUI

### SR929 Single-Play Manual

Two-speed, quartz-servo direct-drive turntable; 20-pole, 30-slot d.c. brushless motor; quartz crystal-controlled direct spindle drive; concrete

resin base; oscillator-driven stroboscope; speed indicators; wow and flutter 0.028%; rumble -74 dB (DIN B); speed deviation 0.002%; fine-speed adj. ±3.5% (quartz-servo off); statically balanced S-shaped tonearm; min. tracking force setting 0.5 g; acceptable cartridge weight 2-11 g; anti-skating; universal headshell; dust cover with free stop hinges; 6 7/8" H x 19 1/8" W x 15" D . . . . . \$430.00

### SR-838 PLL Quartz-Servo Direct Drive

Two-speed (33 and 45), direct-drive manual turntable; quartz-oscillator PLL servo-control system; all controls up front for convenience; oil-damped cueing; "S"-type arm with gold-plated headshell connector contacts; stroboscope; pitch control; quartz-lock defeat; wow and flutter 0.025%; speed deviation less than 0.002%; rumble below -72 dB; with base and removable, hinged dustcover; 6 5/8" H x 19 1/8" W x 15 5/8" D . . . . . \$390.00

### SR-737 PLL Automatic Single-Play

Two-speed (33 and 45 rpm), direct-drive automatic single-play turntable with phase-lock loop (PLL) servo-control; separate speed adjustments for each speed; electronic brake; motor, arm and cabinet separately suspended



to reduce feedback; gold plated connector contacts for universal headshell; stroboscope; automatic repeat (one to five plays or continuous as desired); anti-skating "S"-type arm; three-position record-size selector; wow and flutter 0.03%; rumble better than -70 dB; with base and removable, hinged dustcover; 6 1/8" H x 18 1/8" W x 14 1/8" D . . . . . \$320.00  
**SR-535.** Similar to SR-737, but non-PLL electronic speed control; wow and flutter less than 0.038%; rumble better than -67 dB . . . \$250.00  
**SR-333.** Similar to SR-535, but manual operation only; wow and flutter 0.035% . . . \$190.00  
**SR-232.** Similar to SR-333, but with automatic tonearm return; belt-driven by synchronous motor; no speed adjustment or stroboscope; wow and flutter 0.07%; rumble -58 dB; 5 1/8" H x 16 1/8" W x 14" D . . . . . \$130.00

### SR-222 Single-Play Manual

Two-speed belt-driven turntable; four-pole synchronous motor; wow and flutter 0.07% wrms; rumble -60 dB; "S"-type tonearm; min. tracking force 0.8 g; cartridge weight 4-10 g; 5 1/2" H x 17 3/8" W x 14 3/8" D . . . . . \$115.00

## SANYO

### TP825 Manual/Automatic

Two-speed (33 and 45 rpm) single-play turntable with automatic start and arm return at record end; direct-drive, brushless d.c. servomotor with electronic speed change; independent pitch control (±3.5%) for each speed; stroboscope; push-button controls; "S"-type tonearm with standard interchangeable headshell; lateral balance adjustment; calibrated anti-skating; cueing viscous-damped in both directions; overhang adjustment; wow and flutter 0.04% wrms; rumble -65 dB (DIN "B" weighting); minimum tracking force 0.5 g; tracking error 1.5°; arm effective length 8 1/2"; with base and hinged dustcover; 10 1/2" H x

18 1/2" W x 17 1/2" D . . . . . \$179.95

### TP1020 Manual/Semi-Automatic

Similar to TP825, but with auto return only, no auto start; speed adjustable ±3.0%; direct-drive; no lateral balance adjustment; cueing damped down only; has stylus inspection mirror; wow and flutter 0.05% wrms; rumble -60 dB (DIN "B"); min. tracking force 1 g; arm effective length 8 3/8"; with base and hinged dustcover; 9 3/4" H x 17 1/4" W x 15" D . . . \$129.95  
**TP727.** Similar to TP1020, but with belt drive; minimum tracking pressure 1.5 g; tonearm effective length 8 3/4"; no stylus mirror; with base and dustcover; 5 1/8" H x 17 3/8" W x 14 1/8" D . . . . . \$109.95  
**TP626.** Similar to TP727, but with four-pole synchronous motor, no pitch control or stroboscope; wow and flutter 0.08% wrms; rumble -55 dB (DIN "B"); tracking error +3°, -1°; tonearm effective length 8 1/2"; with base and dustcover, 6 7/8" H x 15" W x 14 3/8" D . . . . . \$90.00

## SCOTT

### PS-87 Direct-Drive Automatic/Manual

Two-speed (33 and 45 rpm) single-play turntable with auto return, reject, return and shut-off; direct-drive servomotor with electronic speed change and pitch control; stroboscope; "S"-type arm with anti-skating; wow and flutter 0.03% wrms; rumble -65 dB . . . . . \$229.95

**PS-67.** Similar to PS-87; but with auto return, reject and shut-off only; viscous-damped cueing; rumble -60 dB . . . . . \$199.95

**PS-57.** Similar to PS-87, but belt-driven from servomotor; repeat control; wow and flutter less than 0.04% wrms; rumble -60 dB . . . \$169.95

**PS-47.** Similar to PS-57, but with auto return, reject and shut-off only; rumble -55 dB . . . . . \$139.95

**PS-17.** Similar to PS-47, but with auto return and shut-off only; no speed control or stroboscope . . . . . \$109.95

## SETTON

### TS-11 Auto-Return Single-Play

Two-speed (33 and 45 rpm) belt-drive turntable with automatic return; all controls on front panel, accessible even when dust cover is closed; sliding dust cover permits mounting in cramped quarters; speed-indicator lights; "S"-type arm with anti-skating, detachable head shell; viscous-damped cueing with front-panel control; light illuminates record for easier cueing; wow and flutter 0.08%; stylus pressure 0.5-2.5 g; 5 7/8" H x 19 1/8" W x 14 3/8" D . . . . . \$179.95

## SONAB

### 67S Belt-Drive Turntable

Two-speed (33 1/3 and 45 rpm) belt-drive turntable; 24-pole sync motor; wow and flutter 0.08% wtd. peak; rumble -60 dB; 12" dia., 2.6-lb turntable; tonearm has needle and ball bearings and is statically balanced, adjustable anti-skating; adjustable for tracking forces from 0.5 g; cartridge weight 4-12 g; signal cable capacitance 100 pF max.; manual, oil-damped cueing device; 6" H x 17" W x 14" D . . . . . \$198.00

## LINN SONDEK

### LPI2 Single-Play/Manual

Single-speed (33 rpm) manual turntable; belt-drive; rumble -60 dB unweighted (10 cm/sec, 1000 Hz signal); wow and flutter 0.04% rms; features oil-bath bearing assembly that runs in zero-wear configuration; 9-lb platter machined to within 0.001"; kiln-dried Afrosmosia base; hinged dust cover; comes with base and cover but less arm . . . . . \$450.00

# 4 TURNTABLES

## SONY

### PS-3750 Single-Play/Manual

Direct-drive system with brushless and slotless d.c. servo-controlled motor; built-in strobe; resonance-reducing undercoating on platter; air-damped record mat ..... \$230.00

**PS-3300.** Similar to PS-2750 except automatic tonearm return with reject button; S-shaped tonearm with viscous-damped cueing; anti-skating; lateral balanced weight .... \$200.00

## STANTON

### 8004 "Gyropoise" Single-Play/Manual

Two-speed (33 and 45 rpm  $\pm 0.3\%$ ) turntable; 24-pole synchronous high-torque motor with belt drive; viscous-damped cueing control; wow and flutter 0.017% (DIN 45507 weighted); rumble -60 dB (DIN 45539 weighted); stylus force range 0-4 g; tracking error  $\pm 1.7$  degrees max.; adjustable anti-skate with separate scales for all types of styli. Comes with dustcover, walnut base, cartridge, low-capacity tonearm, extension cord cables. 7" H x 14 $\frac{3}{4}$ " W x 13" D.

**8004-IV.** With TT780 four-channel discrete cartridge; frequency response 10-50,000 Hz; channel separation 35 dB; output 0.6 mV/cm/sec  $\pm 2$  dB; 2 g tracking; Quadrahedral stylus. .... \$224.95

**8004-II.** With TT681 stereo cartridge; frequency response 10-22,000 Hz; channel separation 35 dB; output 0.7 mV/cm/sec  $\pm 2$  dB; 1 g tracking; 0.2 x 0.7 mil elliptical stylus. .... \$199.95

**8004-IIA.** With TT680EE stereo cartridge; frequency response 20-20,000 Hz; channel separation 35 dB; output 0.82 mV/cm/sec  $\pm 2$  dB;  $\frac{3}{4}$ -1 $\frac{1}{4}$  g tracking; 0.3 x 0.7-mil elliptical stylus ..... \$179.95

**8004-IIB.** With TT600EE stereo cartridge; frequency response 20-20,000 Hz; channel separation 35 dB; output 1.0 mV/cm/sec  $\pm 2$  dB; 1-2 g tracking; 0.3 x 0.7-mil elliptical stylus. .... \$172.50

## TECHNICS BY PANASONIC

### SL-1000 Mark II Manual Quartz

Three-speed (33, 45, and 78 rpm) direct-drive single-play turntable with quartz-controlled



servomotor and stroboscope lamp; power supply in separate housing for reduced hum; EPA-100 tonearm with dynamic damping to lower Q of arm-cartridge resonance, adjustable to match compliance of cartridge used; gimbal suspension with ruby bearings; nitrogen-hardened titanium arm shaft; helical tracking-force and arm-height adjusting devices; anti-skating; low-capacitance cables; vibration-resistant obsidian base; speed accuracy within  $\pm 0.036$  over 30-minute period; wow and flutter 0.025% wrms; rumble -50 dB unweighted, -70 dB weighted; full speed within 0.25 sec; remote stop/start. .... \$1300.00

### SP-10 Mk II Single-Play Manual

Three-speed (33, 45, and 78 rpm) turntable with phase-lock quartz-crystal speed control of low-speed, direct-drive d.c. brushless motor; build-up time to precise speed within 25 degree rotation (0.25 sec) at 33 $\frac{1}{3}$  rpm; stop time (mag-

netic brake) within 30 degree rotation (0.3 sec); long-term speed stability  $\pm 0.002\%$  (within  $\pm 36$  ms over 30-min period, less than  $\frac{3}{4}$  sec in 10 hr); wow and flutter 0.025% wrms; rumble -70 dB; solenoid controls (including remote); 3 $\frac{1}{8}$ " H x 14.5" W x 14.5" D ..... \$699.95

### SL-1300 Mk II Quartz-Locked Automatic

Two-speed (33 and 45 rpm) single-play turntable with quartz-lock speed control active on normal-speed and pitch-control modes; touch-control buttons adjust speed  $\pm 9.9\%$  in 0.1% increments, monitored by digital readout; IC logic and noncontact optical sensor system control automatic start, lead-in, stop and auto-return; record may be repeated from two to six times or continuously; output muting linked to cueing lever; all controls accessible with cover closed; arm height adjustable; low-capacitance cables; speed accurate within 0.002%; full speed attained in 0.7 sec ( $\frac{1}{4}$  turn); electronic braking; wow and flutter 0.025% wrms; rumble -73dB or less (DIN "B") ..... \$399.95

**SL-1400 Mk 2.** Similar to SL-1300 Mk 2, but with manual start, manual and automatic shut-off and arm return at end of record; single play ..... \$369.95

**SL-1500 Mk 2.** Similar to SL-1300 Mk 2, but with completely manual control of arm ..... \$349.95

### SL-1100A Single-Play Manual

Features direct-drive, slow-speed brushless d.c. motor with electronic speed control regulation without belts, idlers, or pulleys. Two speeds (33 and 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 and flutter 0.03% wrms; rumble -70 dB (DIN "B"); build-up time within  $\frac{1}{2}$  rotation; tonearm is static-balanced low-mass tubular with 9 $\frac{1}{2}$ " 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. Dustcover included ..... \$369.95

**SL-110A.** Similar to SL-1100A but without arm; blank removable mounting panel may be cut for arm selected ..... \$299.95

### SL-1200 Single-Play Manual

Similar to SL-1100A except has 13" diecast aluminum platter weighing 3.86 lbs and a 8 $\frac{1}{2}$ " tonearm; hinged, removable plexiglass dustcover ..... \$279.95

**SL-120.** Similar to SL-1200 but without arm. Includes two mounting platforms: one precut for SME tonearm, other blank to be cut for other arms ..... \$229.95

### SL-1600 Direct-Drive Manual/Automatic

Two-speed, (33 and 45 rpm), direct-drive, servo-controlled table with manual control plus automatic start, return, shut-off and memo-repeat; pitch controllable separately (10%) for each speed; electronic speed change and pitch control; double-isolated suspension system; strobe lamp; anti-skating; oil-damped cueing; wow and flutter 0.025% wrms.; rumble -73 dB weighted, -50 dB unweighted; full speed within  $\frac{1}{3}$  revolution; arm effective length 9 $\frac{1}{16}$ "; effective mass 11 g (with 6-g cartridge); tracking error within  $\pm 3^\circ$  at edge,  $\pm 1^\circ$  at inner groove; tracking force range 0-3 g; cartridge weight range 5-11 g; with base and dustcover; 4 $\frac{1}{2}$ " H x 7 $\frac{3}{4}$ " W x 14 $\frac{1}{8}$ " D ..... \$279.95

**SL-1700.** Similar to SL-1600, but with manual start, automatic and manual stop and return, no auto repeat ..... \$229.95

**SL-1800.** Similar to SL-1600, but manual arm control only ..... \$179.95

### SL-1900 Automatic/Manual Single-Play

Two-speed (33 and 45 rpm), direct-drive turntable with manual and automatic start, return and stop; memo repeat up to six times or indef-

initely; servomotor speed control with electronic speed change and pitch control (10% adjustment range); wow and flutter 0.03% wrms,  $\pm 0.042\%$  weighted zero-to-peak; rumble -73 dB (DIN "B" weighting), -50 dB unweighted; tonearm effective length 9 $\frac{1}{16}$ "; effective mass 23 g with 6-g cartridge; tracking error within  $1^\circ$  at inner groove, within  $3^\circ$  at edge; tracking force adjustable 0-3 g, direct-reading; cartridge weight range 5-10 g; with base and dust cover; 5 $\frac{3}{8}$ " H x 16 $\frac{1}{16}$ " W x 13 $\frac{1}{8}$ " D ..... \$179.95

### SL-1000 Single-Play Direct Drive

Similar to SL-1900, but manual control of arm motions; wow and flutter 0.045% wrms,  $\pm 9.965\%$  weighted zero-to-peak; rumble -70 dB (DIN "B" weighted), -47 dB unweighted; tonearm effective length 8 $\frac{2}{32}$ "; with base and dust cover ..... \$149.95

### SL-23 Single-Play

Two-speed (33 and 45 rpm), belt-driven turntable with servomotor speed control, electronic speed change and pitch control (6%), automatic tonearm return and shut-off; stroboscope; "S"-type arm with direct-reading stylus force adjustment; anti-skating; viscous-damped cueing; low-capacitance phono cables; wow and flutter 0.05% wrms,  $\pm 0.08\%$  weighted zero-to-peak; rumble -65 dB (DIN "B" weighting), -55 dB (IEC "B"), -40 dB unweighted; tonearm effective length 8 $\frac{2}{32}$ "; tracking error within  $0.2^\circ$  at inner groove, within  $3^\circ$  at edge; stylus pressure range 0-4 g; cartridge weight range 3-8.5 g; with base and dustcover; 5 $\frac{1}{16}$ " H x 16 $\frac{7}{8}$ " W x 13 $\frac{1}{16}$ " D ..... \$129.95

**SL-20.** Same as SL-23, but manual control only ..... \$99.95

### SL-1350 Automatic Changer

Two-speed (33 and 45 rpm) direct-drive turntable with automatic and manual control, usable as single-play turntable or changer; automatic functions include start, stop, return, shut-off, and changing of up to six recordings, plus repeat of last record; may also be set to play only part of record stack; direct-drive by brushless d.c. motor with electronic speed change and individual pitch control (10% range) for each speed; "S"-type, static-balanced arm with direct-reading tracking force adjustment (0-3 g), anti-skating, oil-damped cueing; wow and flutter 0.04% wrms,  $\pm 0.055\%$  weighted zero-to-peak; rumble -70 dB (DIN "B" weighting), -45 dB unweighted; tonearm effective length 9 $\frac{1}{16}$ "; tracking error  $1^\circ$  at inner groove,  $3^\circ$  at edge; with base and dustcover; 7 $\frac{7}{8}$ " H x 17 $\frac{3}{4}$ " W x 14 $\frac{3}{8}$ " D ..... \$349.95

### SL-1650 Direct Drive Changer

Features similar to SL-1350; wow and flutter 0.03% wrms,  $\pm 0.042\%$  weighted zero-to-peak; rumble -70 dB (DIN "B" weighting), -50 dB unweighted; tonearm effective length 9 $\frac{1}{16}$ "; with base and dust-cover; 6 $\frac{7}{8}$ " H x 17 $\frac{3}{4}$ " W x 14 $\frac{3}{8}$ " D ..... \$299.95

### SL-1950 Direct Drive Changer

Similar to SL-1650; Memo-Gram repeat programmable for infinite repeat as well as one to six plays; with base and dustcover; 6 $\frac{13}{16}$ " H x 16 $\frac{1}{16}$ " W x 13 $\frac{7}{8}$ " D ..... \$199.95

## THORENS

All Thorens turntables are belt-driven, single-play units powered by 16-pole, two-phase synchronous motors with slip clutch for instantaneous start; tonearms have interchangeable shafts instead of headshells for lower effective mass; gimbal suspension, anti-skating; 9" tonearm effective length; tracking error less than 0.18°/cm (0.46°/in).

### TD-126 II-C Manual/Semi-Automatic

Three-speed (33, 45, and 78 rpm) turntable

# Remember the plug-in-shell?

## Thorens Isotrack Series Turntables proudly introduce the Plug-In Arm.

Thorens introduces an exciting new tonearm design to complement its highly sophisticated, new manual turntable series. Thorens has eliminated the headshell and its collar connection by incorporating the headshell and tonearm rod in a straight tubular design only 7.5 grams in effective tonearm mass. This reduction in mass (up to 50% that of other tonearms) reduces the inertial forces that affect stylus pressure. Tracking is improved, distortion lowered and stylus and record life are extended. Thorens Isotrack tonearm assures optimum performance with the newest, light weight, high-compliance pick-up cartridges.

### The accent is on quality

—The high-speed stability and silent opera-

tion of the belt-driven 16-pole synchronous motor is a tribute to Thorens traditionally advanced engineering. The natural elasticity of the belt filters motor vibrations from reaching the platter, and therefore, the pick-up stylus. In more than twenty years of continuous development, and the manufacture of nearly one-million Thorens turntables, Thorens has brought its belt-drive design to a level of technical perfection not approached by *any other drive system known today.*

Thorens Isotrack turntables featuring the "mini-mass" tonearm—now at your Thorens Isotrack series Dealer, or for further details write:



ELPA MARKETING  
INDUSTRIES, INC.

East: Thorens Bldg.,  
New Hyde Park, N.Y. 11040  
West: 7301 East Evans Road,  
Scottsdale, Ariz. 85260



Pictured Above: Top Right—TD-126C • Lower Right—TD-145C  
Lower Left—TD-166C • Top Left—TD-160C

# 4 TURNTABLES

with electronic speed selection and pitch control ( $\pm 6\%$ ), stroboscope, automatic arm lift and return at end of record or power interruption; electronic velocity sensor actuates arm lift and return; wow and flutter less than 0.04%; rumble  $-70$  dB weighted,  $-50$  dB unweighted; frictionless, magnetic anti-skating; with base and dustcover;  $6\frac{1}{8}$ " H  $\times$   $19\frac{1}{8}$ " W  $\times$   $15\frac{1}{2}$ " D ..... \$625.00  
**TD-126.** Same as TD-126 II-C, but without arm



..... \$500.00

**TD-145 II-C Manual/Semi-Automatic**  
 Similar to TD-126 II-B, except two-speed (33 and 45 rpm), with mechanical speed change, no pitch control; wow and flutter less than 0.06%; rumble  $-65$  dB weighted,  $-45$  dB unweighted; with dust cover and base;  $6$ " H  $\times$   $17$ " W  $\times$   $14\frac{7}{16}$ " D ..... \$325.00  
**TD-160.** Similar to TD-145 II-C, except no auto-return or auto-stop ..... \$275.00  
**TD-166.** Similar to TD-160 II-C, except counter-weighted anti-skating ..... \$215.00

## TOSHIBA

**SR-F430 Single-Play Auto/Manual**  
 Direct-drive, servo-controlled a.c. motor; speed adjustment with illuminated strobo indication; static-balance "S"-type tone arm; anti-skating; push-button controls; wow and flutter 0.04% wrms; rumble  $-60$  dB; with base and dust cover;  $6\frac{3}{8}$ " H  $\times$   $17\frac{3}{8}$ " W  $\times$   $13\frac{9}{16}$ " D... \$229.95

**SR-255 Single-Play Manual**  
 Two-speed (33 and 45 rpm) direct-drive turntable with brushless multipole d.c. servomotor; electronic speed change and adjustment ( $\pm 2\%$ ) independent for each speed; "S"-type static-balanced tone arm; oil-damped cueing control; direct-reading stylus-force adjustment counterweight; stylus overhang gauge; illuminated strobe; anti-feedback motorboard; anti-skating; low-capacitance cables; wow and flutter 0.05% wrms; rumble  $-60$  dB; tonearm effective length  $8\frac{3}{4}$ "; 0-4 g stylus force range; 5.5-12 g cartridge weight range; interchangeable headshell; with base and dust-cover,  $6\frac{3}{8}$ " H  $\times$   $17\frac{3}{8}$ " W  $\times$   $14\frac{1}{16}$ " D ..... \$139.95

**SR-230 Semi-Automatic Single-Play**  
 Two-speed (33 and 45 rpm) turntable with manual start, auto return and shut-off, magnetic cartridge; a.c. synchronous motor; belt drive; "S"-type, static-balanced arm with anti-skating, interchangeable head shells; damped cueing; acoustic insulator feet; calibrated counterweight; wow and flutter 0.09% wrms; rumble  $-48$  dB; tonearm effective length  $8\frac{3}{8}$ "; stylus force range 0-4 g; cartridge: 30-20k Hz response; output 3 mV at 50 mm/sec, 1kHz; crosstalk better than  $-25$  dB; channel balance within 1 dB; compliance  $7 \times 10^6$  cm/dyne; stylus tip 0.6-mil diamond; 2.5 g recommended tracking force; with dustcover and base;  $5\frac{1}{4}$ " H  $\times$   $17\frac{3}{8}$ " W  $\times$   $14$ " D ..... \$114.95

## VISONIK

**DD-8200 Direct-Drive Semi-Automatic**  
 Two-speed (33 and 45 rpm), single-play turntable with automatic arm return and shut-off at end of record; direct-drive by 20 pole, 30-slot d.c. servomotor with electronic speed change and  $\pm 3.5\%$  pitch control; stroboscope and all controls on front panel, accessible with cover closed; "S"-type tonearm; cueing; anti-skating; wow and flutter 0.05% (DIN); rumble  $-70$  dB weighted,  $-45$  dB unweighted; tonearm effective length  $8\frac{1}{2}$ "; tracking error  $1^{\circ}28'3''$ ; tracking force 0-2.5 g;  $6\frac{1}{4}$ " H  $\times$   $18$ " W  $\times$   $13\frac{7}{8}$ " D ..... \$249.00

**BD-5200 Belt-Drive Semi-Automatic**  
 Two-speed (33 and 45 rpm), single-play turntable, with automatic shut-off at end of play; belt-driven by d.c. servomotor with electronic speed change and  $\pm 3\%$  pitch control; stroboscope; independent motor-arm suspension for feedback isolation; wow and flutter 0.07% (DIN), rumble  $-66$  dB weighted,  $-46$  dB unweighted; tonearm effective length  $8\frac{1}{2}$  inches; tracking force  $1^{\circ}20'$ ; adjustable anti-skating; tracking force adjustable 0-4 g;  $5\frac{1}{2}$ " H  $\times$   $18\frac{1}{8}$ " W  $\times$   $13\frac{1}{4}$ " D ..... \$188.00  
**BD-4200.** Similar to BD-5200, but with automatic start and repeat as well as auto return, synchronous motor without pitch control; wow and flutter 0.09% (DIN), rumble  $-64$  dB weighted,  $-44$  dB unweighted ..... \$172.00  
**BD-3200.** Similar to BD-4200, but auto return and shut-off only ..... \$157.00  
**BD-2200.** Similar to BD-4200, but manual only; wow and flutter 0.1% (DIN); rumble  $-62$  dB weighted,  $-42$  dB unweighted ..... \$119.00

## YAMAHA

**YP-800 Single-Play/Manual**  
 Two-speed (33 and 45 rpm, electronic switching), direct-drive turntable; brushless 12-pole d.c. servomotor; 12.2" cast turntable with cushioned mat;  $\pm 3\%$  speed control (each speed); wow and flutter 0.03% wrms; 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 dustcover ..... \$500.00  
**YP-800BL.** Same as YP-800 except black metal finish ..... \$550.00

**YP-D6 Semi-Automatic/Manual**  
 Two-speed (33 and 45 rpm) direct-drive manual turntable with automatic arm return and stop at end of record; brushless d.c. servomotor; S-type tonearm;  $\pm 3\%$  speed adjustment, with strobe; acoustic-insulator feet; wow and flutter less than 0.035%; rumble below  $-60$  dB (IEC "B" weighting); comes with dustcover and base;  $6\frac{1}{8}$ " H  $\times$   $18\frac{1}{2}$ " W  $\times$   $14\frac{1}{8}$ " D .... \$250.00

**YP-84 Auto/Manual Single-Play**  
 Two-speed (33 and 45 rpm), belt-drive single-play turntable with automatic lead-in, auto stop and shutoff, automatic arm return, automatic repeat if desired; belt-driven from 4-pole high-torque synchronous motor; S-shaped tonearm; adjustable anti-skating; direct-reading tracking force adjust; cueing control; braced wood cabinet with acoustic damper feet and detachable hinged dust cover; wow and flutter less than 0.07%; rumble below  $-62$  dB (DIN B);  $5\frac{1}{8}$ " H  $\times$   $17\frac{1}{2}$ " W  $\times$   $14\frac{1}{4}$ " D ..... \$170.00  
**YP-211.** Similar to YP-84 except with auto-return/reject and shut-off; wow and flutter 0.08% wrms; rumble  $-52$  dB; same dimensions ..... \$130.00

## ZENITH

**J9026W Record Changer**  
 Three-speed automatic changer (33, 45, and 78 rpm) with four-pole induction motor, low-mass tonearm, Shure magnetic cartridge; viscous-damped cue control; simulated grained-walnut finish base; dustcover;  $7$ " H  $\times$   $19\frac{1}{8}$ " W  $\times$   $13\frac{7}{8}$ " D ..... \$89.95

# Lenco turntables... manufactured with Swiss precision.



Now Swiss precision can be part of your stereo system. Phono turntables, belt driven and direct drive, manual and fully automatic, all with base and dust cover. Lenco turntables reflect the craftsmanship typical of the European master technician. For new systems or for upgrading present systems, step up with Lenco. Sensibly priced from \$129.95 to \$299.95.



Made in Switzerland.  
 The Crossbow is the Symbol of Swiss Quality Workmanship.

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CIRCLE NO. 58 ON READER SERVICE CARD

# Precision and elegance. The newest Quartz-Servo by Sansui.

Introducing the Sansui SR-838, a luxurious new direct-drive turntable that performs silently with rare and fine precision. Free from wow and flutter, the SR-838 complements the superior tonal quality and the exacting standards of today's most sophisticated component systems.

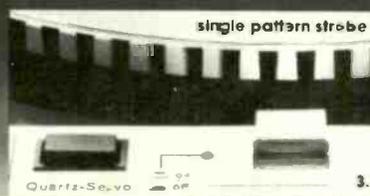
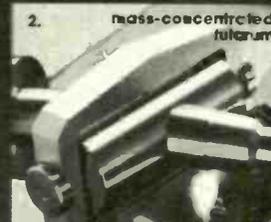
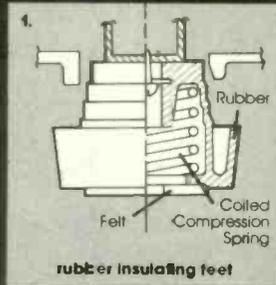
The SR-838 Quartz-Servo delivers reproduction so accurate it may astonish you. With motor speed locked to the precise control of a highly refined quartz crystal, wow and flutter is unusually low, less than 0.025%, and platter speed deviation less than 0.002%. Absolute stability of the single strobe pattern<sup>3</sup> always verifies this platter rotation accuracy.

Sansui engineers have a specially designed unique new tonearm for the SR-838. It features a Mass-Concentrated Fulcrum<sup>2</sup> design, with wide-set pivot points, to suppress unwanted front-back/left-right vibrations. Inside the tubular tonearm is a special resin<sup>4</sup> that prevents resonance. And the entire unit is firmly mounted on a zinc die-cast base for the most stable performance you can find.

The Sansui SR-838 offers all the performance advantages you'd expect from a superior turntable, plus more. Such as fine pitch control, an electronic brake for speed changes, a skating force canceller and an oil-damped cueing lever. And the newly designed rubber insulating feet<sup>1</sup> provide superior feedback isolation.

To top it all, the SR-838 is a feast for the eyes as well as the ears. All controls are positioned up front for easy access and operation. And the satiny piano lacquer finish glows with the elegance of simplicity.

See the SR-838, at less than \$390,\*\* including base and dust cover, at your nearest franchised Sansui dealer. Hear it, and you'll discover that advanced technology and precision design do indeed make a difference. All the difference in the world.



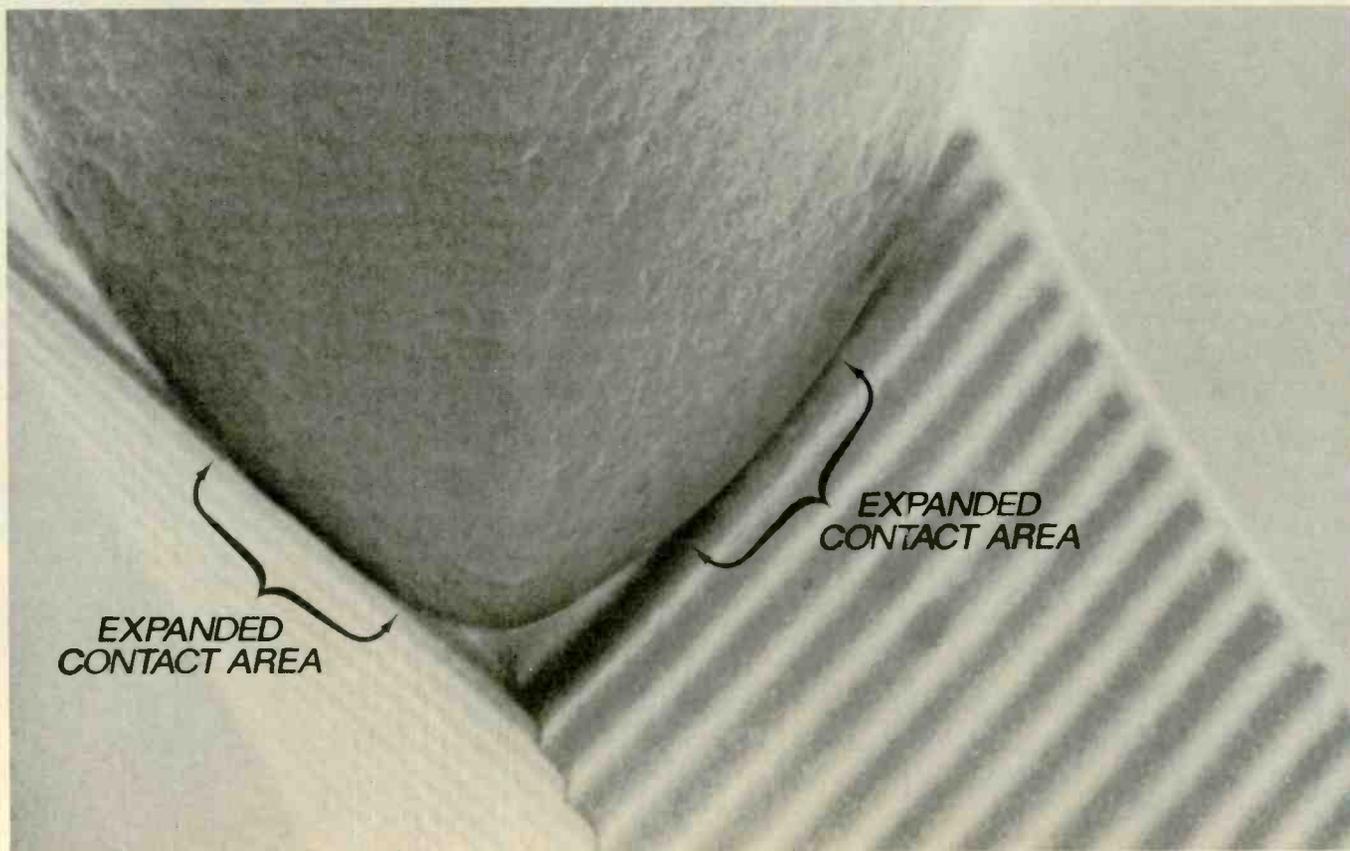
SANSUI ELECTRONICS CORP.  
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\*Patent pending. \*\*Approximate nationally advertised value. Actual retail prices at the option of individual dealers.

CIRCLE NO. 82 ON READER SERVICE CARD



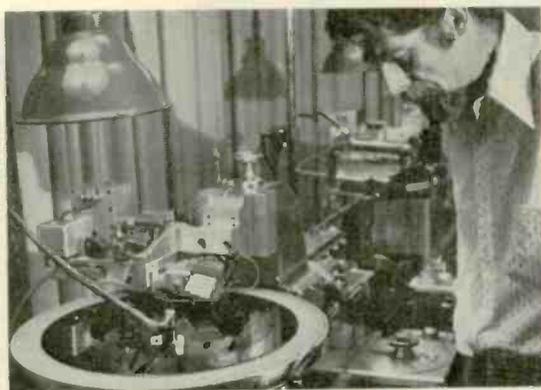
# Better stereo records are the result of better playback pick-ups



© Stanton Magnetics, Inc., 1977

Scanning Electron Beam Microscope photo of Stereohedron Stylus; 2000 times magnification. Brackets point out wider contact area.

## Enter the New Professional Calibration Standard, Stanton's 881S



Mike Reese of the famous Mastering Lab in Los Angeles says: "While maintaining the Calibration Standard, the 881S sets new levels for tracking and high frequency response. It's an audible improvement. We use the 881S exclusively for calibration and evaluation in our operation"

The recording engineer can only produce a product as good as his ability to analyze it. Such analysis is best accomplished through the use of a playback pick-up. Hence, better records are the result of better playback pick-up. Naturally, a calibrated pick-up is essential.

There is an additional dimension to Stanton's new Professional Calibration Standard cartridges. They are designed for maximum record protection. This requires a brand new tip shape, the Stereohedron®, which was developed for not only better sound characteristics but also the gentlest possible treatment of the record groove. This cartridge possesses a revolutionary new magnet made of an exotic rare earth compound which, because of its enormous power, is far smaller than ordinary magnets.

Stanton guarantees each 881S to meet the specifications within exacting limits. The most meaningful warranty possible, individual calibration test results, come packed with each unit.

Whether your usage involves recording, broadcasting or home entertainment, your choice should be the choice of the professionals... the STANTON 881S.



For further information write to Stanton Magnetics, Terminal Drive, Plainview, New York 11803

CIRCLE NO. 93 ON READER SERVICE CARD

STEREO DIRECTORY & BUYING GUIDE

# 5

# PHONO CARTRIDGES

## ADC

### ZLM Phono Cartridge

Frequency response 10-20,000 Hz  $\pm 1$  dB; channel separation 30 dB (1 kHz); tracking force 0.5-1.25 g; nude Alipitic tapered cantilever stylus assembly; supplied with stylus brush, screwdriver, signed frequency response curve, and all mounting hardware ..... \$135.00

**ZLM Select.** Same but frequency response 10-20,000 Hz  $\pm 0.5$  dB; channel separation 20 dB (1 kHz) ..... \$155.00

### XLM Mk III Phono Cartridge

Frequency response 10-20,000 Hz  $\pm 1$  dB; channel separation 28 dB (1 kHz); tracking force 0.75-1.5 g; nude 0.2 x 0.7 mil elliptical tapered cantilever stylus assembly; supplied with stylus brush, screwdriver, signed specifications card, and all mounting hardware ..... \$110.00

### QLM36 Mk III Phono Cartridge

Frequency response 15-22,000 Hz  $\pm 2$  dB; channel separation 26 dB (1 kHz); tracking force 0.75-1.5 g; Diasa (nude) 0.3 x 0.7 mil straight cantilever stylus assembly; supplied with screwdriver and all mounting hardware ..... \$79.95

### QLM34 Mk III Phono Cartridge

Frequency response 20-20,000 Hz  $\pm 2$  dB; channel separation 24 dB (1 kHz); tracking force 1-3 g; bushed 0.3 x 0.7 mil elliptical straight cantilever stylus assembly; supplied with all mounting hardware ..... \$64.95

### QLM32 Mk III Phono Cartridge

Frequency response 20-18,000 Hz  $\pm 2$  dB; channel separation 20 dB (1 kHz); tracking force 2-4 g; bushed 0.4 x 0.7 mil elliptical straight cantilever stylus assembly; supplied with all mounting hardware ..... \$49.95

### QLM30 Mk III Phono Cartridge

Frequency response 20-18,000 Hz  $\pm 3$  dB; channel separation 18 dB (1 kHz); tracking force 3-5 g; bushed 0.7 mil spherical straight cantilever stylus assembly; supplied with all mounting hardware ..... \$34.95

## AKG

### P8ES Phono Cartridge

Output voltage (5 mV/cm/sec) 3.75; frequency response 10-28,000 Hz; channel balance/separation  $\pm 1$  dB/30 dB at 1 kHz; optimum load imp. 47,000 ohms; optimum load capacitance 470 pF; tracking force 0.75-1.25 g; 0.2 x 0.7 mil elliptical diamond stylus; supplied with frequency response/crosstalk curve and screwdriver; weight 5.86 g ..... \$135.00

### P8E Phono Cartridge

Output voltage (5 mV/cm/sec) 4; frequency response 10-23,000 Hz; channel balance/separation  $\pm 1$  dB/30 dB at 1 kHz; optimum load imp. 47,000 ohms; optimum load capacitance 470

pF; tracking force 0.75-1.25 g; 0.2 x 0.7 mil elliptical diamond stylus; supplied with frequency response/crosstalk curve and screwdriver; weight 5.86 g ..... \$100.00

### P7E Phono Cartridge

Output voltage (5 mV/cm/sec) 4.5; frequency response 10-21,500 Hz; channel balance/separation  $\pm 2$  dB/25 dB at 1 kHz; optimum load imp. 47,000 ohms; optimum load capacitance 470 pF; tracking force 1.25-2.5 g; 0.3 x 0.7 mil elliptical diamond stylus; weight 5.86 g ..... \$70.00

### P6E Phono Cartridge

Output voltage (5 mV/cm/sec) 6.25; frequency response 20-20,000 Hz; channel balance/separation  $\pm 2$  dB/20 dB at 1 kHz; optimum load imp. 47,000 ohms; optimum load capacitance 470 pF; tracking force 1.5-3 g; 0.4 x 0.8 mil elliptical diamond stylus; weight 5.86 g ..... \$50.00

### P6R Phono Cartridge

Output voltage (5 mV/cm/sec) 6.25; frequency response 20-20,000 Hz; channel balance/separation  $\pm 2$  dB/15 dB at 1 kHz; optimum load imp. 47,000 ohms; optimum load capacitance 470 pF; tracking force 2-4 g; 0.7 mil spherical diamond stylus; weight 5.86 g ..... \$40.00

## AMERICAN AUDIOPORT

### Entre 1 Moving-Coil Cartridge

Low-mass (5.8 g), low-output (0.2 mV) moving-coil cartridge; utilizes lightweight cobalt magnet poles and silver alloy wire; compliance  $10 \times 10^{-6}$  cm/dyne; tracking force 1.5-2.1 g; 3-ohm imp.; diamond grain-aligned elliptical stylus; frequency response 10-50,000 Hz ... \$200.00

## AUDIO-TECHNICA

### AT20SLa Phono Cartridge

For one-, two-, and four-channel operation; output 2.7 mV at 5 cm/sec; frequency response 5-50,000 Hz; channel balance/separation  $\pm 0.75$  dB/30 dB at 1 kHz; tracking force 0.75-1.75 g; nude-mounted square-shank Shibata stylus; supplied with individual response curves for both channels; replacement stylus ATN20 (\$85.00) ..... \$175.00

### AT15Sa Phono Cartridge

For one-, two-, and four-channel operation; output 2.7 mV at 5 cm/sec; frequency response 5-45,000 Hz; channel balance/separation  $\pm 0.75$  dB/30 dB at 1 kHz; tracking force 0.75-1.75 g; nude-mounted square-shank Shibata stylus; supplied with frequency response curves for both channels; replacement stylus ATN15 (\$63.00) ..... \$125.00

### AT15XE Phono Cartridge

Stereo-only operation; output 2.7 mV at 5 cm/sec; frequency response 5-30,000 Hz; channel balance/separation  $\pm 0.75$  dB/28 dB at 1 kHz; tracking force 0.75-1.75 g; square-shank nude-

mounted 0.2 x 0.7 mil elliptical stylus; supplied with individual stereo response curves; replacement stylus ATN15XE (\$50.00) ..... \$100.00

### AT14Sa Phono Cartridge

For one-, two-, and four-channel operation; output 2.7 mV at 5 cm/sec; frequency response 5-45,000 Hz; channel balance/separation  $\pm 1$  dB/27 dB at 1 kHz; tracking force 0.75-1.75 g; square-shank nude-mounted Shibata stylus; replacement stylus ATN14 (\$42.00) .. \$85.00

### AT12Sa Phono Cartridge

For one-, two-, and four-channel operation; output 2.7 mV at 5 cm/sec; frequency response 15-45,000 Hz; channel balance/separation  $\pm 1$  dB/26 dB at 1 kHz; tracking force 0.75-1.75 g; Shibata stylus; replacement stylus ATN12S (\$38.00) ..... \$75.00

### AT13Ea Phono Cartridge

For stereo operation; output 4.2 mV at 5 cm/sec; frequency response 10-30,000 Hz; channel balance/separation  $\pm 1$  dB/25 dB at 1 kHz; tracking force 0.75-1.75 g; 0.2 x 0.7 mil square-shank diamond stylus; replacement stylus ATN13 (\$35.00) ..... \$65.00

### AT12XE Phono Cartridge

For stereo operation; output 4.2 mV at 5 cm/sec; frequency response 15-28,000 Hz; channel balance/separation  $\pm 1.5$  dB/23 dB at 1 kHz; tracking force 1-2 g; 0.4 x 0.7 mil bonded diamond mounted to thin-wall stylus tube; replacement stylus ATS12 (\$30.00) .... \$55.00

### AT11E Phono Cartridge

Output 4.8 mV at 5 cm/sec; frequency response 15-25,000 Hz; channel balance/separation  $\pm 1.5$  dB/21 dB at 1 kHz; tracking force 1.5-2.5 g; bonded 0.4 x 0.7 mil elliptical tip and thin-wall stylus tube; replacement stylus ATS11E (\$25.00) ..... \$45.00

### AT11 Phono Cartridge

Output 4.8 mV at 5 cm/sec; frequency response 15-22,000 Hz; channel balance/separation  $\pm 1.5$  dB/21 dB at 1 kHz; tracking force 1.5-2.5 g; spherical bonded tip; replacement stylus ATS11 (\$18.00) ..... \$35.00

### AT10 Phono Cartridge

Output 4.8 mV at 5 cm/sec; frequency response 20-20,000 Hz; channel balance/separation  $\pm 2$  dB/20 dB at 1 kHz; tracking force 2-3 g; spherical bonded tip; replacement stylus ATS10 (\$13.00) ..... \$25.00

## Compass Series

### ATX5E Phono Cartridge

Incorporates separate magnetic system for each stereo channel; output 5.3 mV at 5 cm/sec; frequency response 15-25,000 Hz; channel balance/separation  $\pm 1.5$  dB/23 dB at 1 kHz; tracking force 1-1.75 g; 0.3 x 0.7 mil nude-mounted elliptical diamond stylus; replacement stylus ATXN5; weight 7.2 g ..... \$75.00

# 5 PHONO CARTRIDGES

## ATX3E Phono Cartridge

Incorporates separate magnetic system for each stereo channel; output 5.3 mV at 5 cm/sec; frequency response 15-22,000 Hz; channel balance/separation  $\pm 1.5$  dB/23 dB at 1 kHz; tracking force 1-2 g;  $0.4 \times 0.7$  mil elliptical diamond stylus; replacement stylus ATXN3; weight 7.2 g ..... \$60.00

## ATX1 Phono Cartridge

Incorporates separate magnetic system for each stereo channel; output 5.3 mV at 5 cm/sec; frequency response 20-20,000 Hz; channel balance/separation  $\pm 1.5$  dB/21 dB at 1 kHz; tracking force 1.5-2.5 g; 0.6 mil spherical stylus; replacement stylus ATXN1; weight 7.2 g ..... \$35.00

## "The Professionals" Series

### ATP-3 Phono Cartridge

For stereo operation; output 5.3 mV at 5 cm/sec; frequency response 15-25,000 Hz; channel balance/separation  $\pm 1.5$  dB/23 dB at 1 kHz; load imp. 47,000 ohms; tracking force 2-3 g;  $0.3 \times 0.7$  mil nude elliptical diamond stylus; replacement stylus ATP-N3; weight 7.2 g ..... \$40.00

### ATP-2 Phono Cartridge

For stereo operation; output 5.3 mV at 5 cm/sec; frequency response 15-22,000 Hz; channel balance/separation  $\pm 1.5$  dB/23 dB at 1 kHz; load imp. 47,000 ohms; tracking force 3-5 g;  $0.4 \times 0.7$  mil elliptical diamond stylus; replacement stylus ATP-N2; weight 7.2 g ..... \$30.00

### ATP-1 Phono Cartridge

For stereo operation; output 5.3 mV at 5 cm/sec; frequency response 20-20,000 Hz; channel balance/separation  $\pm 1.5$  dB/21 dB at 1 kHz; load imp. 47,000 ohms; tracking force 3-5 g; 0.6 mil spherical diamond stylus; replacement stylus ATP-N1; weight 7.2 g ..... \$25.00

## AT-1005 II Tonearm

Features calibrated adjustments to permit exact selection of desired tracking force, anti-skating, with stylus overhang; perforated plug-in shell and 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 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 ..... \$160.00  
 AT-D. Plug-in shell ..... \$11.95

## BANG & OLUFSEN

### MMC Series Phono Cartridges

Completely sealed, miniaturized cartridge line; non-replaceable styli; can be used for playing CD-4 discs.

**MMC6000.** Output 0.6 mV/cm/sec; frequency response 20-15,000 Hz  $\pm 1.5$  dB, 15-45,000 Hz (Class A rating); channel separation 25 dB at 1000 Hz, 20 dB at 400-10,000 Hz; IM 1%; compliance  $30 \times 10^{-6}$  cm/dyne; effective tip mass 0.22 mg; load 100,000 ohms/100 pF; stylus pressure 1 g; radius of curvature CD-4 quadro; Pramanik diamond stylus ..... \$125.00

**MMC4000.** Similar to 6000 except frequency response 20-25,000 Hz  $\pm 1.5$  dB; stylus pressure 1 g; elliptical naked diamond stylus; effective tip mass 0.4 mg; load 47 kohm/200 pF ..... \$85.00

**MMC3000.** Similar to 6000 except frequency response 16-25,000 Hz  $\pm 3$  dB, 20-16,000 Hz  $\pm 2.5$  dB; channel separation 20 dB at 1000 Hz, 15 dB at 400-10,000 Hz; effective tip mass 0.5 mg; stylus pressure 1.2 g; spherical diamond stylus ..... \$50.00

### SP-12 Phono Cartridge

Moving-iron type; output 1 mV/cm/sec; frequency 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

## CONNOISSEUR

### SAU2 Pickup Arm

Utilizes gimbal-assembly suspension; anti-skating force adjustable via sliding weight; has hydraulic lift/lower device; two weights for adjustment of downward pressure (0-6 g); supplied with horizontally adjustable lightweight interchangeable plastic head shell and cable; mounts in  $1\frac{1}{16}$ " dia. hole; tracking centers  $7\frac{3}{16}$ ";  $2\frac{1}{4}$ " overhang; adjustable heights  $1\text{-}1\frac{1}{2}$ " (extension available for up to  $2\frac{1}{8}$ ");  $\frac{1}{2}$ " centers on head shell; has separate arm rest for platform mounting ..... \$69.95

## DECCA

### London International Tonearm

Incorporates inverted jeweled unipivot; optional lateral and vertical damping; magnetic anti-skating; magnetic floating action pickup arm assembly support; effective arm mass 9 g; effective arm friction 0.02 g lateral and vertical; offset angle 27°; tracking angle error 0° at 2.4", 1°40' max.; stylus overhang 0.625"; 0.25-3 g stylus pressure; height adjustment  $2\frac{1}{4}$ " max.,  $1\frac{1}{4}$ " min ..... \$139.50

## DYNAVECTOR

### 20B Moving-Coil Cartridge

Output 2 mV (1 kHz, 5 cm/sec); channel balance  $\pm 1.5$  dB; crosstalk -20 dB (1 kHz); frequency response 20-30,000 Hz  $\pm 2$  dB; beryllium cantilever; 6  $\mu$  Shibata stylus; 85-ohm d.c. resistance; tracking force  $1.5 \pm 0.3$  g; weight 9.5 g;  $\frac{1}{2}$ " mounting centers ..... \$219.00

**20A.** Similar to 20B but with aluminum cantilever; frequency response 10-30,000 Hz  $\pm 2$  dB ..... \$169.00

### DV-505 Tonearm

Bi-axis inertia-controlled dynamic balance-type tonearm; arm has two pivots; dynamic damping system to eliminate arm resonance; electromagnetic damping system; free-standing type mounting; overall length 335 mm; effective length 241 mm; height 72-94 mm; offset angle 21.5°; lateral tracking error 0-2.2°; overhang 15 mm; height adjustable over 38-70 mm; suitable cartridge weights 9-35 g; supplied with 1.2 m cable ..... \$575.00

## EMPIRE

### 2000Z Phono Cartridge

For matrix four-channel and stereo operation; output 3 mV/ch at 3.54 cm/sec; frequency re-

sponse 20-20,000 Hz  $\pm 1$  dB; channel balance/separation  $\pm 0.75$  dB (1 kHz)/20 dB (20-500 Hz); input load 47,000 ohms/ch; total capacitance 300 pF/ch; compliance  $30 \times 10^{-6}$  cm/dyne; tracking force 0.75-1.25 g;  $0.2 \times 0.7$  mil elliptical stylus ..... \$100.00

### 2000T Phono Cartridge

Incorporates laminated pole structure; output 3 mV at 3.54 cm/sec; frequency response 20-20,000 Hz  $\pm 1.5$  dB; channel balance/separation  $\pm 1$  dB (1 kHz)/18 dB (20-500 Hz); recommended load 47,000 ohms; total capacitance 300 pF; compliance  $30 \times 10^{-6}$  cm/dyne lateral and vertical; tracking force 0.75-1.25 g;  $0.2 \times 0.7$  mil diamond stylus ..... \$90.00

### 2000E/III Phono Cartridge

For matrix four-channel and stereo operation; output 4.5 mV/ch at 3.54 cm/sec; frequency response 20-20,000 Hz  $\pm 2$  dB; channel balance/separation  $\pm 1$  dB (1 kHz)/20 dB (20-500 Hz); input load 47,000 ohms/ch; total capacitance 400-500 pF/ch; compliance  $20 \times 10^{-6}$  cm/dyne; tracking force 0.75-1.5 g;  $0.2 \times 0.7$  mil elliptical stylus ..... \$70.00

### 2000E/II Phono Cartridge

For matrix four-channel and stereo operation; output 4.5 mV/ch at 3.54 cm/sec; frequency response 20-20,000 Hz  $\pm 2$  dB; channel balance/separation  $\pm 1.25$  dB (1 kHz)/20 dB (20-500 Hz); input load 47,000 ohms/ch; total capacitance 400-500 pF/ch; compliance  $18 \times 10^{-6}$  cm/dyne; tracking force 0.75-1.5 g;  $0.2 \times 0.7$  mil elliptical stylus ..... \$55.00

### 2000E/I Phono Cartridge

For matrix four-channel and stereo operation; output 7 mV/ch at 3.54 cm/sec; frequency response 20-20,000 Hz  $\pm 3$  dB; channel balance/separation  $\pm 1.5$  dB (1 kHz)/18 dB (20-500 Hz); input load 47,000 ohms/ch; total capacitance 400-500 pF/ch; compliance  $17 \times 10^{-6}$  cm/dyne; tracking force 1-2 g;  $0.2 \times 0.7$  mil elliptical stylus ..... \$45.00

### 2000E Phono Cartridge

For matrix four-channel and stereo operation; output 7 mV/ch at 3.54 cm/sec; frequency response 20-20,000 Hz  $\pm 3$  dB; channel balance/separation  $\pm 1.5$  dB (1 kHz)/18 dB (20-500 Hz); input load 47,000 ohms/ch; total capacitance 400-500 pF/ch; compliance  $16 \times 10^{-6}$  cm/dyne; tracking force 1.25-2.5 g;  $0.3 \times 0.7$  mil elliptical stylus ..... \$40.00

### 2000 Phono Cartridge

For matrix four-channel and stereo operation; output 7 mV/ch at 3.54 cm/sec; frequency response 20-20,000 Hz  $\pm 3$  dB; channel balance/separation  $\pm 1.5$  dB (1 kHz)/16 dB (20-500 Hz); input load 47,000 ohms/ch; total capacitance 400-500 pF/ch; compliance  $16 \times 10^{-6}$  cm/dyne; tracking force 1.5-3 g; 0.7 mil spherical stylus ..... \$30.00

## 4-CHANNEL

### 4000D/III Phono Cartridge

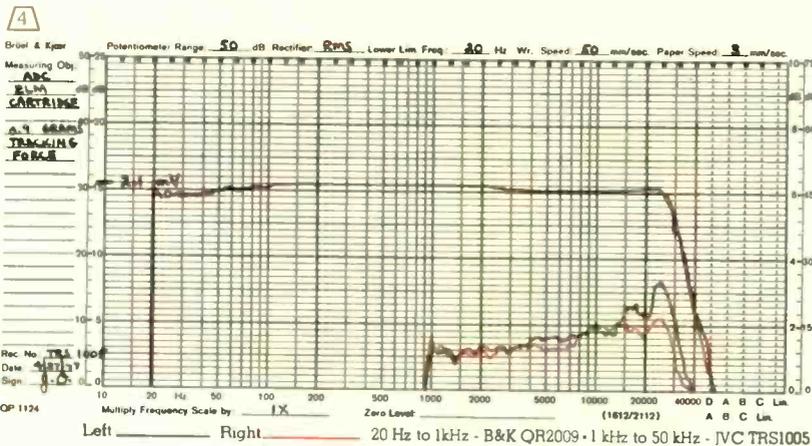
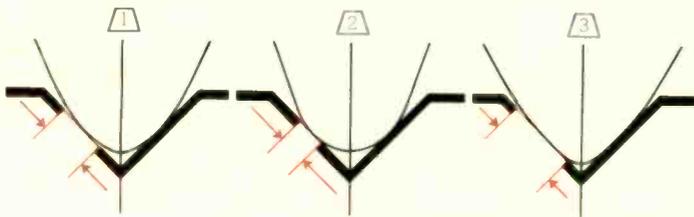
For discrete and matrix four-channel as well as stereo operation; output 3 mV/ch at 3.54 cm/sec; frequency response 10-50,000 Hz  $\pm 3$  dB; channel balance/separation  $\pm 1$  dB (1 kHz)/28 dB (15-1000 Hz); input load 100 ohms/ch; total capacitance under 100 pF/ch; compliance  $30 \times 10^{-6}$  cm/dyne; tracking force 0.75-1.25 g; 0.2 mil biradial stylus ..... \$150.00

### 4000D/II Phono Cartridge

For discrete and matrix four-channel as well as stereo operation; output 3 mV/ch at 3.54 cm/sec; frequency response 15-50,000 Hz  $\pm 3$  dB; channel balance/separation  $\pm 1$  dB (1 kHz)/26 dB (15-1000 Hz); input load 100,000 ohms/ch; total capacitance under 100 pF/ch; compliance  $30 \times 10^{-6}$  cm/dyne; tracking force 0.75-1.5 g;

**1976: ADC CLAIMS THE XLM MK II SHOWS "NO PERCEIVABLE WEAR OVER THE LIFE OF A RECORD." AND PROVES IT.**

**1977: ADC CLAIMS THE NEW ZLM WITH THE ALIPTIC™ STYLUS HAS EVEN LOWER WEAR AND BETTER PERFORMANCE. AND PROVES IT AGAIN.**



Introducing the ADC ZLM cartridge with the ALIPTIC <sup>1</sup> stylus. It's a revolutionary new cartridge design that has taken the state of the art a giant step closer to the state of perfection.

Because of last year's XLM MK II record wear test results, we confirmed our thinking on how to design the perfect stylus tip shape. It combines the better stereo reproduction of the elliptical <sup>2</sup> stylus shape with the longer, lower wearing, vertical bearing radius of the Shibata <sup>3</sup> shape. The result is our revolutionary new ALIPTIC stylus.

And that's only the beginning. The ALIPTIC shape is polished onto a tiny .004" x .008" rectangular nude diamond shank, which has reduced the tip mass of the XLM MK II by an incredible 50%. This tiny stone is mounted on our new, tapered cantilever, which reduces effective tip mass even further.

The XLM MK II tests also proved the importance of tip polish in reducing record wear. So the ZLM is polished with a new, more expensive, more effective patented polishing method.

The ADC XLM MK II has long been known for its uncolored, true sound reproduction. The ZLM goes even further. Sound reproduction is completely open and spatial. And individual instrument placement can now be identified with even greater ease.

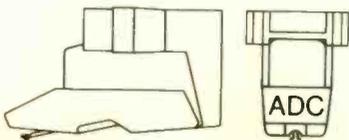
The ZLM tracks between 1/2 and 1 1/4 grams. Frequency response is ± 1dB to 20kHz and is flat to even higher frequencies; out to 26kHz ± 1 1/2dB.

As you can see, by reducing the tip mass even further, we've come closer to the ultimate in pure sound reproduction. To prove it, every ZLM comes with its own individual frequency response curve <sup>4</sup>, signed by the ADC technician who tested it.

This means that the ZLM cartridge will reach every sound lying dormant in your records, transmitting them faithfully through your hi-fi system without altering the sound or the health of your records.

Not only do we think the ZLM is one of the most exciting cartridge designs to come along in years, but we can prove it.

**Superior performance we can prove.**



ADC  
A BSR COMPANY

**CARTRIDGES**

CIRCLE NO. 1 ON READER SERVICE CARD

# AKG



The AKG  
K-240  
Cardan Sextett

**"Extra wide response...  
low distortion...  
reminiscent of the very  
best electrostatics!"**

Now you can take a giant step closer to reality by recreating the depth and dimension of the original performance with remarkable fidelity... before the sound enters your ear. Even the best phones around today put left channel sound through the left earpiece... right channel sound through the right earpiece. Good sound, yes... but certainly not the sound you'd expect from an expensive, top-line speaker system.

Now listen to the AKG K-240 Sextett. Hear the difference. **Six passive (slave) diaphragms surround a main driving transducer to reproduce in depth the sound of a live performance with a special quality that you've never heard from headphones.**



Len Feldman (Feldman Report, *Tape Deck Quarterly*) writes "...the AKG headphones tend to minimize exaggerated and unnatural stereo effects... a listening quality reminiscent of what we hear (with) the very best electrostatic headphones around. Considering cost, that's quite an accomplishment."

And they're light on your head, too. Ultra-soft pads assure virtually no wearer fatigue. Earcups are fitted to the AKG auto-adjust headband. For modest budgets listen to the AKG K-140.

At selected dealers everywhere.



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PHONO CARTRIDGES  
MICROPHONES

AKG ACOUSTICS

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CIRCLE NO. 5 ON READER SERVICE CARD

## 5

## PHONO CARTRIDGES

0.2 mil biradial stylus ..... \$125.00

### 4000D/I Phono Cartridge

For discrete and matrix four-channel as well as stereo operation; output 3 mV/ch at 3.54 cm/sec; frequency response 15-45,000 Hz  $\pm 3$  dB; channel balance/separation  $\pm 1.5$  dB (1 kHz)/24 dB (15-1000 Hz); input load 100,000 ohms/ch; total capacitance under 100 pF/ch; compliance  $30 \times 10^{-6}$  cm/dyne; tracking force 1-1.75 g; 0.2 mil biradial stylus ..... \$85.00

### EMT

#### XSD-15 Stereo Cartridge

Professional stereo studio cartridge; moving-coil transducer; integrated cartridge and shell (designed for use with SME, Sony, Grace, Audio-Technica, etc. tonearms); spherical diamond stylus; requires high-gain preamp or accessory transformers (BV-347)..... \$350.00  
Transformers (two required) ..... \$29.95 ea.

### 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 ft; 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; tracking capability 2-3 g; for use with record changers and tonearms which will not track 1 g.

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 g; for use in tonearms and changers with 2-g tracking capability.

FTE+1 Elliptical diamond stylus ..... \$13.00

FEC-1 Specially selected unit with elliptical diamond stylus ..... \$37.50

**Super Flux-Bridger.** Designed for use with highest quality equipment; tracking force  $\frac{3}{4}$ -2 g.

F3E+ Elliptical diamond stylus ..... \$49.50

F2+ Elliptical diamond stylus ..... \$60.00

F1+ Grado diamond stylus ..... \$75.00

G1+ Grado diamond stylus ..... \$150.00

### IMPEX

#### Hadcock GH228 Super Arm

Straight arm unipivot design; has detachable head shell; double-decoupled counterweight with two add-on sleeves; vernier tracking force adjustment; single-hole mounting; Uni-Lift raising and lowering device; overall length 11.4"; pivot to stylus point 9"; pivot to turntable spindle 8.38"; offset angle 23"; tracking error 1.5"; supplied with 4-ft low-capacitance cables, alignment protractor, nylon and steel mounting screws, arm lift/rest, and damping fluid ..... \$150.00

### INFINITY

#### Black Widow Tone Arm

Utilizes jointed-pipe damped-knife-edge-fulcrum system; accommodates cartridges weighing 4-8.5 g; stylus force adjustment  $\pm 2$  g per revolution of single-weight vernier; anti-skating fine spring adjustment, calibrated for coordination with stylus pressure; bearing sensitivity at stylus point 0.005 g (vertical, knife-edge bearing), 0.01 (lateral, fine miniature ball bearing); sliding base adjustment  $\pm 10$  mm (slidset and lock type); output cord capacitance 50 pF per 1.5 meter; effective mass of arm 3 g; oil-damped cueing device ..... \$200.00

### KMAL

#### M9BA Mk3 Laboratory Tonearm

Incorporates silicon fluid damped unipivot and mercury contacts; vertical and lateral pivot friction less than 0.004 g; interchangeable low-mass top arms enable convenient changing of cartridges; magnetic anti-skating; cueing; sliding base for overhang adjustment; rear overhang is  $2\frac{1}{2}$ " from pivot center; Standard Counterweight (H) for 4- to 7-g cartridges, Alternate Counterweight (H) for 7- to 8-g cartridges, Special Weight (S) for cartridges with high tracking forces; effective mass with Standard Counterweight is 6 g reflected at stylus tip and set to track at 1 g ..... \$149.95

### MAYWARE FORMULA 4 Mk II

#### PLS4/D Tonearm

For mono, stereo, or four-channel operation; effective length 224 mm, height adj. 45 mm, rear clearance required 65 mm; pivot friction 0.005 g at headshell; effective mass (as seen by stylus) 4.5 g nominal and variable; hardened steel needle pivot in concave jewel rondel surrounded by viscous silicone fluid; tracking force 0-3 g (adj.) by means of cursor sliding along calibrated aluminum tube; bias compensation adjustable to correspond with tracking force; hydraulic lift and cueing device; fundamental resonance varies according to stylus compliance; skeletal headshell (non-detachable) with 0.8 mm overhang adj. accepts all cartridges weighing 3-10 g with  $\frac{1}{2}$ " fixed centers; supplied with low capacitance coax cable, instruction manual, mounting template, alignment protractor, silicone fluid, hardware, and arm rest ..... \$149.50

### MICRO/ACOUSTICS

#### 530-mp Stereo Cartridge

Micro-Point diamond stylus, beryllium cantilever; frequency response 5-20,000 Hz  $\pm 1.25$  dB; channel separation 30 dB at 1 kHz, 15 dB at 10 kHz; output voltage 3.5 mV/ch at 5 cm/sec peak recorded velocity; load requirements 10,000-100,000 ohms; cable capacity 100-1500 pF; tracking force range 0.7-1.4 g; cartridge weight 4 g ..... \$200.00

#### 2002-e Stereo Cartridge

Response 5-20,000 Hz  $\pm 1.5$  dB; tracking force range 0.7-1.4 g; channel separation 30 dB at 1 kHz, 15 dB at 10 kHz; output voltage 3.5 mV/ch at 5 cm/sec peak recorded velocity; load 10,000-100,000 ohms; cartridge weight 4 g;  $0.0002 \times 0.0007$  elliptical diamond; cable capacitance 100-1500 pF ..... \$119.00

#### 282-e Stereo Cartridge

$0.002 \times 0.007$  elliptical diamond stylus; frequency response 5-20,000 Hz  $\pm 2$  dB; channel

STEREO DIRECTORY & BUYING GUIDE

separation 25 dB at 1 kHz, 15 dB at 10 kHz; output voltage 3.5 mV/ch at 5 cm/sec peak recorded velocity; load requirements 10,000-100,000 ohms; cable capacity 100-1500 pF; tracking force range 0.75-1.5 g; cartridge weight 5.2 g ..... \$89.00

**NAKAMICHI**

**MC-1000 Reference Pickup**

Moving-coil pickup with low-mass single-crystal beryllium cantilever assembly, direct-coupled one-point supported coil assembly, and Crystal Permalloy laminated core; output 0.2 mV (1 kHz, 5 cm/sec); frequency response 15-65,000 Hz; channel separation 27 dB at 1 kHz; imp. 3.5 ohms; compliance  $16 \times 10^{-6}$  cm/dyne; tracking force 1.5-2.1 g; features Shibata stylus; supplied with SME-type shell and individual test data ..... \$250.00

**MC-500.** Similar to MC-1000 but with duraluminum cantilever and without tonearm shell; output 0.9 mV (1 kHz, 5 cm/sec); frequency response 20-35,000 Hz; channel separation 25 dB at 1 kHz; imp. 20 ohms; compliance  $7 \times 10^{-6}$  cm/dyne; tracking force 1.9-2.5 g; features elliptical stylus ..... \$110.00

**MCB-100.** Moving-coil pickup booster with double-shielded, specially wound transformer; frequency response 10-65,000 Hz; load imp. 50,000 ohms; input imp. 2-20 ohms .. \$100.00

**ORTOFON**

**SL20Q Phono Cartridge**

Moving-coil pick-up cartridge; output 0.07 mV at 5 cm/sec (1 kHz); frequency response 20-20,000 Hz  $\pm 1$  dB; channel balance/separation  $\pm 2$  dB/25 dB (1 kHz); load imp. 47,000 ohms (stereo), 100,000 ohms (CD-4); tracking force 1.5-2 g; bi-elliptical diamond stylus; weight 7 g. .... \$165.00

**MC20 Phono Cartridge**

Moving-coil pick-up cartridge; output 0.07 mV at 5 cm/sec (1 kHz); frequency response 20-20,000 Hz  $\pm 1$  dB; channel balance/separation  $\pm 2$  dB/25 dB (1 kHz); load imp. 47,000 ohms; tracking force 1.5-2 g; fine-line diamond stylus; weight 7 g ..... \$140.00

**SL20E Phono Cartridge**

Moving-coil pick-up cartridge; output 0.07 mV at 5 cm/sec (1 kHz); frequency response 20-20,000 Hz  $\pm 1$  dB; channel balance/separation  $\pm 2$  dB/25 dB (1 kHz); load imp. 47,000 ohms; tracking force 1.5-2 g; elliptical diamond stylus; weight 7 g ..... \$120.00

**M20FL Super Phono Cartridge**

Magnetic phono cartridge; output 0.8 mV/cm/sec (1 kHz); frequency response 10-25,000 Hz; channel balance/separation (1 kHz)  $\pm 1.5$  dB/27 dB; load imp. 47,000 ohms; load capacitance 400 pF; tracking force 1.25-1.75 g .. \$100.00

**MCA-76 Pre-Preamplifier**

Boosts signal of moving-coil cartridges ..... \$200.00

**STM-72 Transformer**

Matching transformer for moving-coil cartridges ..... \$45.00

**PICKERING**

**XSV/3000 Phono Cartridge**

Output 5 mV at 5.5 cm/sec; frequency response 10-30,000 Hz; Stereohedron stylus tip; tracking force 0.75-1.5 g; channel separation 35 dB; features Dustamatic brush; replacement stylus D3000 ..... \$99.95

**XV-15/1200E Phono Cartridge**

Output 4.4 mV at 5.5 cm/sec; frequency response 10-30,000 Hz;  $0.2 \times 0.7$  mil elliptical stylus; tracking force 0.5-1.25 g; channel separation 35 dB; features Dustamatic brush; replacement stylus D1200 ..... \$79.95

**XV-15/750E Phono Cartridge**

# If your cartridge is more than three years old, don't replace your stylus!

Don't get us wrong. There is nothing worse than playing your records with a worn stylus. And no better way to restore your old unit to its original glory than a new diamond.

But frankly, there have been significant strides made recently in the phono cartridge field. And the new cartridges of today stand head and shoulders above even the finest of a few short years ago.

Here's the choice: Get fresh—but outdated—performance with a replacement stylus or enjoy all the benefits of modern cartridge research and development for just a few dollars more. You'll find that you can update your system for far less than you might imagine. It's probably the most dramatic single improvement you can make.

For instance, Audio-Technica offers Universal™ cartridges equipped with a genuine Shibata stylus and our uniquely effective Dual Magnet™ system beginning at just \$75.00 list. Or you can replace your present cartridge with a fresh new Audio-Technica cartridge with highly-polished elliptical tip for as little as \$45.00 list.



AT11E \$45.00    AT12Se \$75.00    AT13Ea \$65.00    AT15Sa \$125.00

Are these new models worth the difference? Absolutely. You'll be amazed at what you hear from today's generation of phono cartridges. Improved frequency response. Lower distortion. Better separation. Less record wear. Truly better sound.

A new Audio-Technica cartridge. Your best value in hi-fi.



# 5 PHONO CARTRIDGES

Output 4.4 mV at 5.5 cm/sec; frequency response 10-25,000 Hz; 0.3×0.7 mil elliptical stylus; tracking force 0.5-1.5 g; channel separation 35 dB; features Dustamatic brush; replacement stylus D750 ..... \$65.00

**XV-15/625E Phono Cartridge**  
Output 4.4 mV at 5.5 cm/sec; frequency response 10-25,000 Hz; 0.3×0.7 mil elliptical diamond stylus; tracking force 0.75-1.5 g; channel separation 35 dB; features Dustamatic brush; replacement stylus D625 ..... \$59.95

**XV-15/400E Phono Cartridge**  
Output 5.5 mV at 5.5 cm/sec; frequency response 10-25,000 Hz; 0.4×0.7 mil elliptical stylus; tracking force 1-1.5 g; channel separation 35 dB; features Dustamatic brush; replacement stylus D4000 ..... \$54.95

**XV-15/200E Phono Cartridge**  
Output 8 mV at 5.5 cm/sec; frequency response 10-25,000 Hz; 0.4×0.7 mil elliptical stylus; tracking force 2-4 g; channel separation 35 dB; features Dustamatic brush; replacement stylus D200 ..... \$49.95

**XV-15/350 Phono Cartridge**  
Output 6 mV at 5.5 cm/sec; frequency response 10-25,000 Hz; 0.7 mil spherical stylus; tracking force 1-3 g; channel separation 35 dB; features Dustamatic brush; replacement stylus D350 ..... \$39.95

**XV-15/140E Phono Cartridge**  
Output 8 mV at 5.5 cm/sec; frequency response 10-20,000 Hz; 0.5×0.7 mil elliptical stylus; tracking force 3-5 g; channel separation 35 dB;

features Dustamatic brush; replacement stylus D140 ..... \$34.95

**XV-15/150 Phono Cartridge**  
Output 8 mV at 5.5 cm/sec; frequency response 10-25,000 Hz; 0.7 mil spherical stylus; tracking force 2-4 g; channel separation 35 dB; features Dustamatic brush; replacement stylus D150 ..... \$34.95

**XV-15/100 Phono Cartridge**  
Output 8 mV at 5.5 cm/sec; frequency response 10-20,000 Hz; 0.7 mil spherical stylus; tracking force 3-7 g; channel separation 35 dB; features Dustamatic brush; replacement stylus D100 ..... \$29.95

**V-15 Micro IV AME Phono Cartridge**  
Output 5.5 mV at 5.5 cm/sec; frequency response 20-20,000 Hz; 0.4×0.7 mil elliptical stylus; tracking force 1-2 g; channel separation 30 dB; features Dustamatic brush; replacement stylus DIV-AME ..... \$49.95

**V-15 Micro IV ATE Phono Cartridge**  
Output 6.5 mV at 5.5 cm/sec; frequency response 20-18,000 Hz; 0.4×0.7 mil elliptical stylus; tracking force 2-4 g; channel separation 28-dB; features Dustamatic brush; replacement stylus DIV-ATE ..... \$39.95

**V-15 Micro IV AM Phono Cartridge**  
Output 6 mV at 5.5 cm/sec; frequency response 20-20,000 Hz; 0.7 mil spherical stylus; tracking force 1-3 g; channel separation 30 dB; features Dustamatic brush; replacement stylus DIV-AM ..... \$34.95

**V-15 Micro IV ACE Phono Cartridge**  
Output 8 mV at 5.5 cm/sec; frequency response 20-17,000 Hz; 0.5×0.7 mil elliptical stylus; tracking force 3-5 g; channel separation 26 dB; features Dustamatic brush; replacement stylus DIV-ACE ..... \$29.95

**V-15 Micro IV AT Phono Cartridge**  
Output 8 mV at 5.5 cm/sec; frequency response 20-18,000 Hz; 0.7 mil spherical stylus; tracking force 2-4 g; channel separation 28 dB; features Dustamatic brush; replacement stylus DIV-AT ..... \$29.95

**V-15 Micro IV AC Phono Cartridge**  
Output 8 mV at 5.5 cm/sec; frequency response 20-17,000 Hz; 0.7 mil spherical stylus; tracking force 3-7 g; channel separation 26 dB; features Dustamatic brush; replacement stylus DIV-AC ..... \$24.95

## 4-CHANNEL

**XUV/4500-Q Phono Cartridge**  
For stereo, four-channel matrix (SQ and QS), and discrete four-channel playback; output 3.4 mV at 5.5 cm/sec; frequency response 10-50,000 Hz; Quadrahedral stylus with Quadrahedron tip; tracking force 0.5-1.5 g; channel separation 35 dB at 1 kHz, 25 dB at 30 kHz; channel balance 1.5 dB; features Dustamatic brush ..... \$139.95

**UV-15/2400-Q Phono Cartridge**  
For discrete four-channel playback; output 3.3 mV; frequency response 10-50,000 Hz (100,000-ohm 100-pF load); Quadrahedral diamond stylus; tracking force 1.5-2.5 g; channel separation 35 dB; features Dustamatic brush ..... \$125.00

**UV-15/2000-Q**. Similar but frequency response 20-45,000 Hz; channel separation 30 dB ..... \$69.90

## PIONEER

**PA-1000 Tonearm**  
Static balance carbon fiber tonearm; has S-shaped universal pipe arm; total length 12<sup>29/32</sup>"; effective arm length 9<sup>11/32</sup>"; usable cartridge weight 4-15 g ..... \$100.00

## SATIN

**M-18E Phono Cartridge**  
Moving-coil phono cartridge with fixed-point pivot for the stylus cantilever mechanism; output 2.5 mV; frequency response 10-30,000 Hz; compliance 15×10<sup>-6</sup> cm/dyne; tracking force 0.5-1.5 g; 0.2×0.8 mil elliptical diamond stylus; user-replaceable stylus mounts in magnetic mounting ..... \$195.00

**M-117G Phono Cartridge**  
Moving-coil phono cartridge with fixed-point pivot; output 3 mV; frequency response 20-25,000 Hz; compliance 12×10<sup>-6</sup> cm/dyne; tracking force 0.5-1.5 g; 0.2×0.8 mil elliptical diamond stylus; user-replaceable stylus mounts in magnetic mounting ..... \$155.00

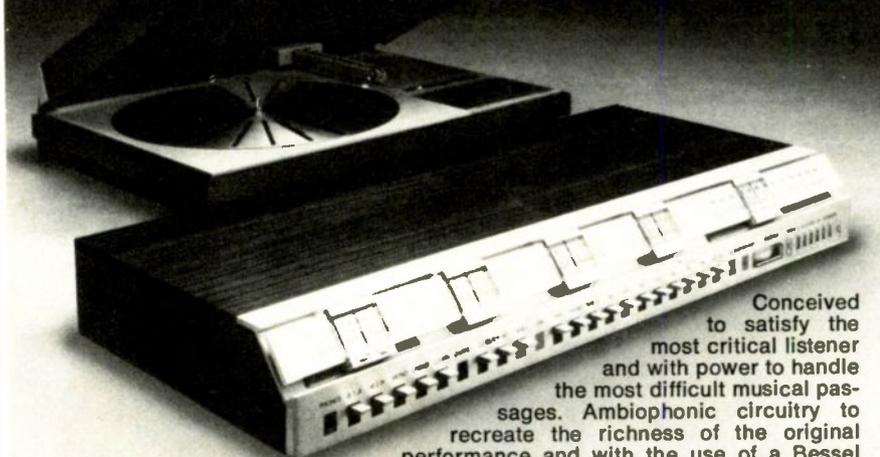
## 4-CHANNEL

**M-18BX Phono Cartridge**  
Moving-coil phono cartridge with fixed-pivot beryllium cantilever and magnetic fluid damping; for stereo and four-channel operation; output 2.5 mV; frequency response 10-40,000 Hz; compliance 20×10<sup>-6</sup> cm/dyne; tracking force 0.5-1.5 g; 0.1×2.5 mil Shibata diamond stylus; any phono input imp. over 30 ohms may be used; user-replaceable stylus mounts in magnetic mounting ..... \$325.00

**M-18X Phono Cartridge**  
Moving-coil phono cartridge with fixed-point pivot for the stylus cantilever mechanism; for stereo and four-channel operation; output 2.5 mV; frequency response 10-35,000 Hz; compliance 15×10<sup>-6</sup> cm/dyne; tracking force 0.5-1.5 g; 0.1×2.5 mil Shibata diamond stylus; user-replaceable stylus mounts in magnetic mounting ..... \$240.00

# BANG & OLUFSEN. BEOMASTER 4400.

## What makes it an alternative?



Conceived to satisfy the most critical listener and with power to handle the most difficult musical passages. Ambiophonic circuitry to recreate the richness of the original performance and with the use of a Bessel filter, the elimination of transient intermodulation distortion. All this combined with an ease of operation

that is more and more appreciated with use.

Your Bang & Olufsen dealer will show and demonstrate the Beomaster 4400 as a logical alternative. A dealer list and brochure are available by writing us. If you prefer, enclose one dollar and our full color product portfolio and dealer list will be sent by return 1st class mail.

Bang & Olufsen of America, Inc., Dept. 50, 515 Busse Rd., Elk Grove Village, IL 60007

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

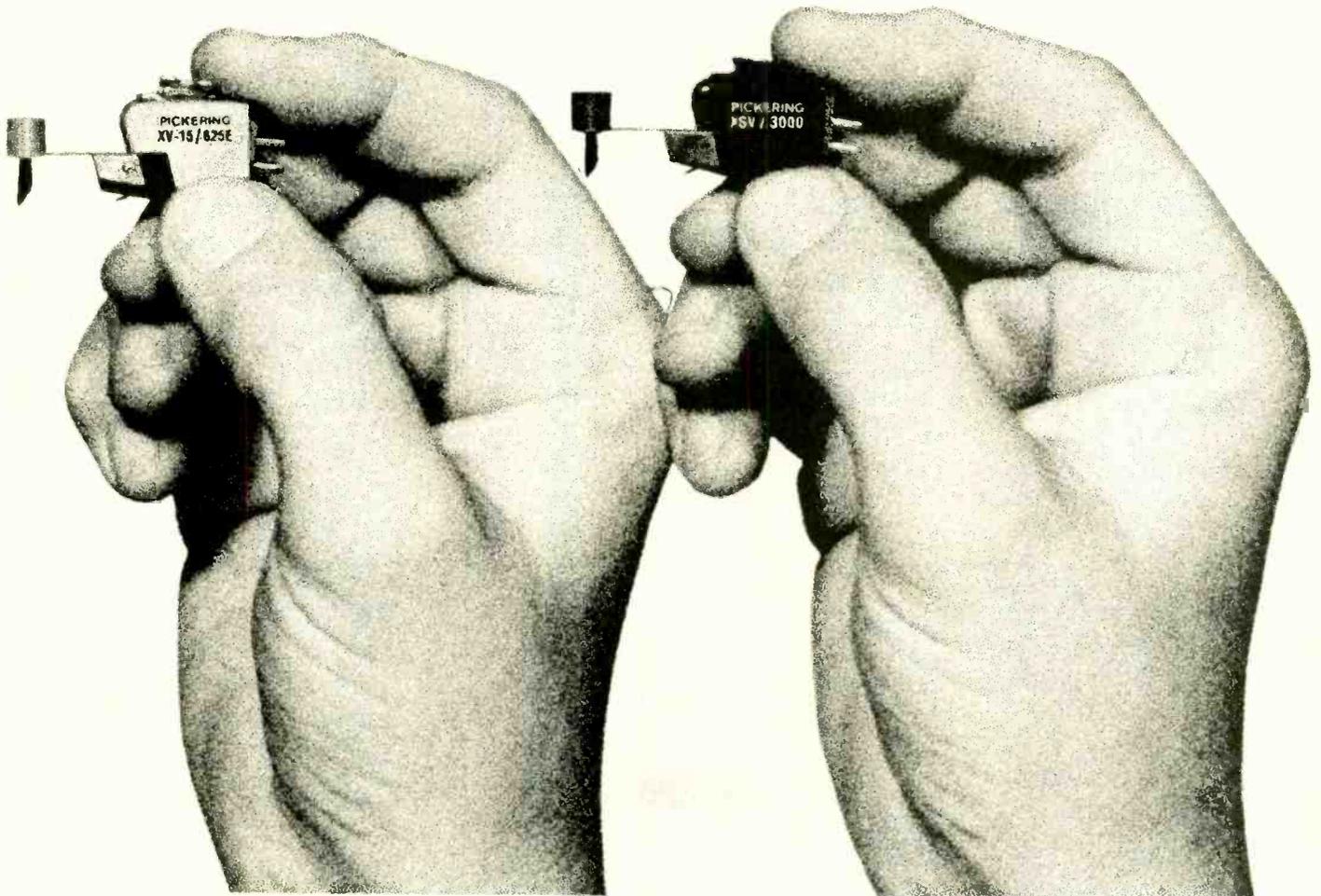
State: \_\_\_\_\_

Zip: \_\_\_\_\_

CIRCLE NO. 20 ON READER SERVICE CARD

STEREO DIRECTORY & BUYING GUIDE

# Two sources of perfection in stereo sound.



## Match one to your equipment

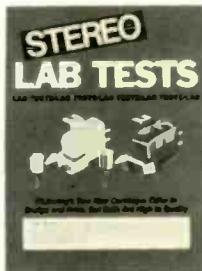
**"The right Pickering Cartridge for your equipment is the best Cartridge money can buy."**

We've been saying that for years; and tens of thousands of consumers have profited by applying this principle in assembling their playback systems.

If you have a fine manual turntable, the XSV/3000 is a perfect choice.

If you have a high quality automatic turntable, then installing an XV-15/625E in its tone arm is a perfect choice.

The summary advice of **Stereo's** Lab Test, in an unusual dual product review, we think brilliantly states our position: "The XV-15/625E offers performance per dollar; the XSV/3000, the higher absolute performance level." That makes both of these cartridges **best buys!**



### FREE!

Pickering's new XSV/3000 is a remarkable development. It possesses our trademarked Stereo-hedron Stylus Tip, designed to assure the least record wear and the longest stylus life achievable in these times with a stereo cartridge. Its frequency response is extraordinarily smooth and flat; its channel separation is exceptional; its transient response affords superb definition. It represents a whole new concept of excellence in stereo cartridges.

Read the whole evaluation report. Send for your free copy of the **Stereo** "Lab Test" reprint; write to Pickering & Co., Inc., 101 Sunnyside Blvd., Plainview, N.Y. 11803. Department SDB.



*"for those who can hear the difference"*

PICKERING & CO., INC., COPYRIGHT 1977

5

PHONO  
CARTRIDGES

## SHURE

## V-15 Type III Phono Cartridge

Moving-magnet type; output 3.5 mV at 5 cm/sec peak velocity (1 kHz); frequency response 10-25,000 Hz; channel separation 25 dB at 1 kHz; tracking force 0.75-1.25 g; 0.2 x 0.7 mil biradial elliptical stylus; replacement stylus VN35E ..... \$90.00

## M95ED Phono Cartridge

Output 4.7 mV/ch at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; channel balance/separation  $\pm 2$  dB/25 dB (1 kHz); tracking force 0.75-1.5 g; biradial elliptical stylus with nude diamond tip; replacement stylus N95ED ..... \$74.95  
**M95EJ.** Same except tracking force 1.5-3 g; replacement stylus N95EJ ..... \$59.95

## M75ED Type 2 Phono Cartridge

Output 5 mV/ch at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; tracking force 0.75-1.5 g; 0.2 x 0.7 mil biradial elliptical stylus; replacement stylus N75ED Type II ..... \$64.95

**M75G Type 2.** Same but with 0.6 mil spherical stylus; replacement stylus N75G Type 2 ..... \$48.45

## M91E Phono Cartridge

Moving-magnet type; output 5 mV at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; channel separation 25 dB (1 kHz); tracking force 0.75-1.5 g; 0.2 x 0.7 mil biradial elliptical stylus; replacement stylus N91E ..... \$59.95

**M91GD.** Same but with 0.6 mil spherical stylus; replacement stylus N91GD ..... \$54.95

## M93E Phono Cartridge

Moving-magnet type; output 6.2 mV at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; channel separation 25 dB (1 kHz); tracking force 1.5-3 g; 0.4 x 0.7 mil biradial elliptical stylus; replacement stylus N93E ..... \$49.95

## M70EJ Phono Cartridge

Output 6.2 mV/ch at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; tracking force 1.5-3 g; 0.4 x 0.7 mil biradial elliptical stylus ..... \$44.95

**M70B.** Same but with 0.6 mil spherical stylus; replacement stylus N70B ..... \$39.95

## M75B Type 2 Phono Cartridge

Output 5 mV/ch at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; tracking force 1.5-3 g; 0.6 mil spherical stylus; replacement stylus N75B ..... \$43.45

**M75EJ Type 2.** Same but with 0.4 x 0.7 mil biradial elliptical stylus ..... \$54.95

## M55E Phono Cartridge

Moving-magnet type; output 6.2 mV at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; tracking force 0.75-2 g; channel separation 22 dB (1 kHz); compliance  $15 \times 10^{-8}$  cm/dyne; 0.2 x 0.7 mil biradial elliptical stylus; replacement stylus N55E ..... \$39.95

## M44E Phono Cartridge

Moving-magnet type; output 9.5 mV at 5 cm/sec peak velocity (1 kHz); frequency response 20-20,000 Hz; tracking force 1.75-4 g; channel separation 20 dB (1 kHz); compliance  $15 \times 10^{-8}$  cm/dyne; 0.4 x 0.7 mil biradial elliptical stylus; replacement stylus N44E ..... \$34.95

## M3D Phono Cartridge

Moving-magnet type; output 5 mV at 5 cm/sec; frequency response 20-15,000 Hz; tracking force 3-6 g; 0.7 mil spherical stylus; replacement stylus N3D ..... \$22.95

## 4-CHANNEL

## M24H Four-Channel Cartridge

For discrete and matrix four-channel and stereo operation; output 3 mV/ch at 5 cm/sec peak velocity (1 kHz); frequency response 20-50,000 Hz; channel balance/separation  $\pm 2$  dB/22 dB (1 kHz); tracking force 1-1.5 g; hyperbolic tip linked to high-energy magnet via low-mass stylus assembly ..... \$84.95

## SME3009 Series II Tonearm

Incorporates non-detachable shell for reduced weight; low-friction pivots for vertical axis and knife-edges for horizontal axis; bed slides on bedplate for tracking adjustment with protractor; arm mass divided by elastic coupling; lever-operated hydraulically damped cueing control; tracking force 1-1.5 g; cartridge weight 4.9 g ..... \$162.00

**SME3009/S2.** Same with detachable shell ..... \$174.00

## SONUS

## Blue Label Phono Cartridge

Output 0.8 V  $\pm 2$  dB at 1 cm/sec (1 kHz); frequency response 5-20,000 Hz  $\pm 1.5$  dB; channel

INTRODUCING THE ADC  
LMF CARBON FIBRE TONEARMS.

WE CHOSE CARBON FIBRE BECAUSE OF ITS LOW MASS TO HIGH TENSILE STRENGTH RATIO.

WE FURTHER LOWERED THE MASS BY ABANDONING THE TRADITIONAL TUBULAR SHAPE AND ENGINEERING THE FULLY TAPERED PROFILE.

THE COMBINATION OF AN LMF TONEARM AND A FINE CARTRIDGE WILL NOT INTERACT WITH TYPICAL BUILDING RESONANT FREQUENCIES OR WITH TYPICAL RECORD WARP FREQUENCIES.

CUEING IS VISCOUS DAMPED IN BOTH DIRECTIONS AND TRACKING FORCES ARE CALIBRATED IN 1/10TH GRAM INCREMENTS. ANTI-SKATE

ADJUSTMENTS ARE VARIABLE TO 2 GRAMS.

THE LMF TONEARMS EACH COME WITH THREE COUNTERWEIGHTS TO ENABLE YOU TO ACHIEVE ZERO BALANCE WITH

MINIMUM TONEARM MASS, REGARDLESS OF THE WEIGHT OF YOUR FAVORITE CARTRIDGE, EVEN UP TO 11 GRAMS. LMF TONEARMS UTILIZE INSTRUMENT TYPE STAINLESS STEEL BALL BEARINGS, FACTORY ADJUSTED FOR MAXIMUM STABILITY AND LOW FRICTION ANGULAR CONTACT.

THE LMF-1 HAS AN INTEGRATED HEAD FOR LOWEST MASS.

THE LMF-2 HAS A REMOVABLE HEAD. THIS ALLOWS CHANGING OF PRE-MOUNTED CARTRIDGES IN SECONDS. BOTH TONEARMS PERMIT THE USE OF THE HIGHEST COMPLIANCE CARTRIDGES WITH LOWEST TRACKING FORCES.

ONLY BETTER AUDIO DEALERS CAN SHOW YOU THE ADC LMF TONEARMS. VISIT THEM OR WRITE TO US FOR MORE INFORMATION.



ADC TONEARMS

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CIRCLE NO. 105 ON READER SERVICE CARD



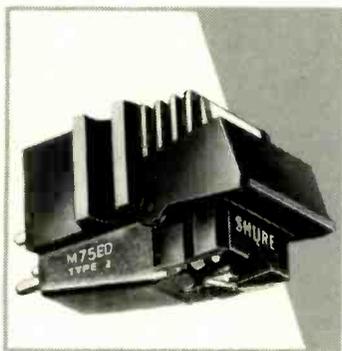
**V-15 Type III** . . . critics called the Type III the finest cartridge ever when it was introduced. The ultimate test, however, has been time. The V-15's engineering innovations, the uniform quality, and superb performance remain unsurpassed by any other cartridge on the market today. 3/4 to 1-1/4 gram tracking force.



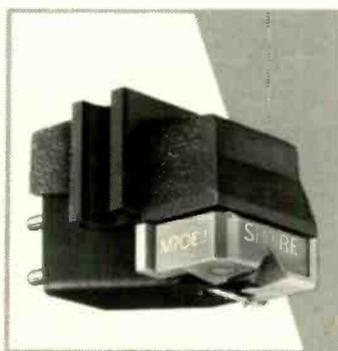
**M24H** . . . the cartridge that does not compromise stereo reproduction to add four-channel capability. Superb stereo trackability and quadraphonic carrier signal retrieval. New hyperbolic stylus tip, high energy magnet, and low-loss laminated electromagnetic structure. 1 to 1-1/2 gram tracking force.



**M95ED** . . . second only to the V-15 Type III in stereo reproduction. A thinner, uninterrupted pole piece minimizes magnetic losses. Its 20 to 20,000 Hz response remains essentially flat across the entire frequency range for excellent sound quality. 3/4 to 1-1/2 gram tracking force.



**M75ED Type 2** . . . excellent trackability at a lesser price. The M75ED Type 2 features a built-in snap-down stylus guard and a smooth 20 to 20,000 Hz frequency response. 3/4 to 1-1/2 gram tracking force.



**M70EJ** . . . the easiest way to upgrade your hi-fi stereo system without straining your budget. Basically flat response is comparable to other brand cartridges costing twice as much. 1-1/2 to 3 gram tracking force.



**M3D** . . . the original famous Shure Stereo Dynetic® Cartridge. The M3D provides extremely musical and transparent sound at a rock bottom price. 3 to 6 gram tracking force.

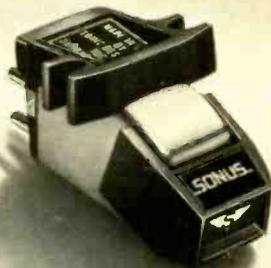
## The People's Choice-World-wide.

From Singapore to London to New York, Shure hi-fi pickup cartridges outsell every other brand — according to independent surveys. And for good reason: Shure cartridges, no matter where they're purchased, are guaranteed to meet the exacting published specifications that have made them the Critics' Choice in every price category.



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# FOR EVERY SYSTEM WORTH MORE THAN \$500



If you've invested \$500 or even \$5000 in your high fidelity system, read on. Because what we have to say can have a lot to do with the quality of sound you're hearing.

Unfortunately, one of the most overlooked components in a fine sound system is the cartridge. And all too often, it can be the one place where you skimped on quality. (Out of sight, out of mind, as they say).

We sincerely believe that an investment in a Sonus cartridge will truly surprise you with the way it improves the quality of your record reproduction. The analytical quality of the Sonus brings out the inner voices of complex musical passages clearly and cleanly. Listening fatigue disappears. And a Sonus introduces no extraneous coloration of its own.

But what we're talking about is said even better by Sonus owners. "Excellent clarity," "more fulfilling sound," "open, airy 3-D sound," "superb depth and definition," "clean, accurate and transparent sound," are typical of thousands of enthusiastic comments we have received from owners of Sonus cartridges.

Make sure your cartridge matches up to the rest of your system. Write us for further information and the name of the Sonus dealer nearest you.

Manufactured in the U.S.A. by:

SONIC RESEARCH, INC.,

27 Sugar Hollow Rd., Danbury, Conn. 06810

# SONUS

High Definition Phono Cartridges

CIRCLE NO. 88 ON READER SERVICE CARD

balance/separation  $\pm 2$  dB/30 dB (1 kHz); compliance  $50 \times 10^{-6}$  cm/dyne; tracking force 0.75-1.25 g; load imp./ch 47,000 ohms in parallel with 400 pF (250 pF for CD-4 records);  $3 \times 0.3$  mil Pathemax diamond stylus; weight 5.5 g . . . . . \$125.00

**Red Label.** Similar to Blue Label except frequency response 5-20,000  $+2/-1$  dB;  $0.3 \times 0.7$  mil elliptical diamond stylus . . . . . \$104.00

**Green Label.** Similar to Red Label except frequency response 5-20,000 Hz  $\pm 2$  dB; 0.6 mil spherical stylus . . . . . \$88.00

### Silver Label Phono Cartridges

Output 1 mV  $\pm 2$  dB at 1 cm/sec (1 kHz); frequency response 5-20,000 Hz  $+2/-1$  dB; channel balance/separation  $\pm 2$  dB/30 dB (1 kHz); compliance  $30 \times 10^{-6}$  cm/dyne; tracking force 0.75-1.5 g; weight 5.5 g.

**Model P.** Incorporates  $3 \times 0.3$  mil Pathemax diamond stylus; frequency response 20-45 kHz  $\pm 6$  dB for CD-4 records; 250 pF for CD-4 records . . . . . \$70.00

**Model E.** Incorporates  $7 \times 0.3$  mil elliptical stylus . . . . . \$60.00

## STANTON

### 881S Phono Cartridge

Output 0.9 mV/cm/sec; frequency response 10-25,000 Hz; channel balance/separation (1 kHz)  $\pm 1$  dB/35 dB; load imp. 47,000 ohms; load capacitance 275 pF (including arm leads, cables, and amp); tracking force 0.75-1.25 g; nude Stereohedron stylus; weight 5.7 g with self-supporting (1 g) brush; replacement stylus D81, D810 for mono LP's, D827 for 78's . . . . . \$150.00

### 681 Triple-E S Type

Output 0.7 mV/cm/sec  $\pm 2$  dB; frequency response 10-12,000 Hz  $\pm 0.5$  dB; channel balance/separation  $\pm 2$  dB/35 dB (1 kHz); load imp. 47,000 ohms; load capacitance 275 pF; tracking force 0.75-1.5 g;  $3 \times 2.8$  mil Stereohedron stylus; weight 6.3 g with self-supporting (1 g) brush; replacement stylus 6800EEE-S, D6810 for LP's, D6827 for 78's . . . . . \$115.00

### 680EL Disco Cartridge

Output 0.82 mV/cm/sec  $\pm 2$  dB; frequency response 20-18,000 Hz; channel balance/separation  $\pm 2$  dB/30 dB (1 kHz); load imp. 47,000 ohms; load capacitance 275 pF; tracking force 2-5 g;  $0.4 \times 0.7$  mil elliptical diamond stylus; weight 5.5 g; replacement stylus D6800EL . . . . . \$90.00

### 681 Triple-E Phono Cartridge

Output 0.7 mV/cm/sec  $\pm 2$  dB; frequency response 10-12,000 Hz  $\pm 1.5$  dB; channel balance/separation  $\pm 2$  dB/35 dB (1 kHz); load imp. 47,000 ohms; load capacitance 275 pF; tracking force 0.75-1.5 g;  $0.2 \times 0.7$  mil elliptical diamond stylus; weight 5.5 g with self-supporting (1 g) brush; replacement stylus D6800EEE, D6810 for LP's, D6827 for 78's . . . . . \$90.00

### 681A Phono Cartridge

Output 1 mV/cm/sec  $\pm 2$  dB; frequency response 10-10,000  $\pm 0.5$  dB; channel balance/separation  $\pm 2$  dB/35 dB (1 kHz); load imp. 47,000 ohms; load capacitance 275 pF; tracking force 1.5-3 g; 0.7 mil spherical stylus; weight 5.5 g with self-supporting (1 g) brush; replacement stylus D6807A, D6810 for LP's, D6827 for 78's . . . . . \$72.00

### 681EE Phono Cartridge

Output 0.82 mV/cm/sec  $\pm 2$  dB; frequency response 10-10,000 Hz  $\pm 2$  dB; channel balance/separation  $\pm 2$  dB/35 dB (1 kHz); load imp. 47,000 ohms; load capacitance 275 pF; tracking force 0.75-1.5 g;  $0.2 \times 0.7$  mil elliptical diamond stylus; weight 5.5 g with self-supporting (1 g) brush; replacement stylus D6800EE, D6810 for LP's, D6827 for 78's . . . . . \$72.00

### 681SE Phono Cartridge

Output 1 mV/cm/sec  $\pm 2$  dB; frequency response 10-10,000 Hz  $\pm 0.5$  dB; channel balance/separation  $\pm 2$  dB/35 dB (1 kHz); load imp. 47,000 ohms; load capacitance 275 pF; tracking force 2-4 g;  $0.4 \times 0.7$  mil elliptical stylus; weight 5.5 g with self-supporting (1 g) brush; replacement stylus D6800SE, D6810 for LP's, D6827 for 78's . . . . . \$72.00

### 680EE Phono Cartridge

Output 0.82 mV/cm/sec  $\pm 2$  dB; frequency response 20-20,000 Hz; channel balance/separation  $\pm 2$  dB/35 dB (1 kHz); load imp. 47,000 ohms; load capacitance 275 pF; tracking force 0.75-1.5 g;  $0.3 \times 0.7$  mil elliptical diamond stylus; weight 5.5 g with self-supporting (1 g) brush; replacement stylus D680 . . . . . \$62.50

### 600EE Phono Cartridge

Output 1 mV/cm/sec  $\pm 2$  dB; frequency response 20-20,000 Hz  $\pm 2.5$  dB; channel balance/separation  $\pm 2$  dB/35 dB (1 kHz); load imp. 47,000 ohms; load capacitance 275 pF; tracking force 1-2 g;  $0.3 \times 0.7$  mil elliptical diamond stylus; weight 5 g; replacement stylus D6003EE, D6010 for LP's, D6027 for 78's . . . . . \$55.00

**600E.** Similar but frequency response 20-20,000 Hz  $\pm 2$  dB;  $0.4 \times 0.7$  mil elliptical diamond stylus; tracking force 1.5-3 g; replacement stylus D6004E . . . . . \$50.00

**600A.** Similar but with 0.7 mil stylus; tracking force 2-4 g; replacement stylus D6071A . . . . . \$45.00

### 500EE Phono Cartridge

Output 1 mV/cm/sec  $\pm 2$  dB; frequency response 20-10,000 Hz  $\pm 1$  dB; channel balance/separation  $\pm 2$  dB/35 dB (1 kHz); load imp. 47,000 ohms; load capacitance 275 pF; tracking force 1-2 g;  $0.3 \times 0.7$  mil elliptical diamond stylus; weight 5 g; replacement stylus D5100EE, D5110 for LP's, D5127 for 78's . . . . . \$40.00

### 500AA Phono Cartridge

Output 1 mV/cm/sec  $\pm 2$  dB; frequency response 20-10,000 Hz  $\pm 1$  dB; channel balance/separation  $\pm 2$  dB/35 dB (1 kHz); load imp. 47,000 ohms; load capacitance 275 pF; tracking force 1-2.5 g; 0.5 mil spherical diamond stylus; weight 5 g; replacement stylus D5105AA, D5110 for LP's, D5127 for 78's . . . . . \$35.00

### 500E Phono Cartridge

Output 1 mV/cm/sec  $\pm 2$  dB; frequency response 20-10,000 Hz  $\pm 1$  dB; channel balance/separation  $\pm 2$  dB/35 dB (1 kHz); load imp. 47,000 ohms; load capacitance 275 pF; tracking force 2-5 g;  $0.4 \times 0.7$  mil elliptical diamond stylus; weight 5 g; replacement stylus D5100E, D5110 for LP's, D5127 for 78's . . . . . \$35.00

### 500A Phono Cartridge

Output 1 mV/cm/sec  $\pm 2$  dB; frequency response 20-10,000 Hz  $\pm 1$  dB; channel balance/separation  $\pm 2$  dB/35 dB (1 kHz); load imp. 47,000 ohms; load capacitance 275 pF; tracking force 2-5 g; 0.7 mil spherical diamond stylus; weight 5 g; replacement stylus D5107A, D5110 for LP's, D5127 for 78's . . . . . \$30.00

## 4-CHANNEL

### 780/4DQ Four-Channel Cartridge

Designed to play the new discrete four-channel records as well as a standard stereo disc or four-channel 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 and resistance (each channel) 350 mH, 750 ohms; features new "Quadrhedral" stylus . . . . . \$125.00

**780/Q.** Same except frequency response is 10-45,000 Hz . . . . . \$75.00

# THE SOURCE OF PERFECTION IN RECORD PROTECTION!



Why take a chance?  
Why accept counterfeits in place of Genuine Pickering Replacement Styli?

No other manufacturer is licensed to copy or duplicate the genuine Pickering product. Bogus styli made by others can't be very good because they were created by "reverse engineering" . . . meaning, of course, that attempts to copy the exacting dimensional tolerances can only approximate the original.

Here are some things to remember:

1. A Pickering cartridge is a precision instrument. A genuine Pickering replacement stylus assures a proper fit and perfect performance.

2. The attempts of others to duplicate the genuine product are by definition illegitimate and/or illegal, and probably won't work up to expectations.
3. The Dustomatic Brush, which cleans the record's grooves in advance of the stylus, is also covered by Patents issued only to Pickering.
4. Always look for the  on the stylus handle. It identifies the genuine Pickering replacement stylus.

Genuine Pickering Replacement Styli are covered by one or more of the following patents: Patent #3146319; 3297831; 3546399; 3572725.

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A GENUINE  **PICKERING** REPLACEMENT STYLUS

"for those who can hear the difference"



# A major advance in cassette deck design. The new Sansui SC-5100.

If you're looking for a cassette deck that combines the convenience of the traditional cassette deck with the tonal excellence of open reel, you needn't look any further. Because the Sansui SC-5100 gives you both. And more.

Here's why. Performance meets the standards of today's most advanced component systems. All musical signals are reproduced cleanly and without distortion because of the wide frequency response (20-17,000Hz, chromium), excellent signal-to-noise ratio (67dB, with Dolby\*), and unusually low wow and flutter (0.05%, WRMS).

The SC-5100 is ultra-convenient to use. Soleroid operation permits controls that easily respond to your lightest touch. And with the electronically-controlled tape transport you get automatic play and repeat. The illuminated memory counter is also automatic.

For added convenience the SC-5100, when used with a timer, will record off your tuner or receiver unattended. Or it will wake you gently in the morning with your favorite music.

The SC-5100 offers all the features you'd

expect in a superior cassette deck. Such as large VU meters, a peak level indicator, line input/mixing capability, and bias and equalization controls for every tape. We've also added something you didn't expect, Sansui's exclusive Tape Lead-In\*\*. Just touch the control and the tape advances past the leader to the first point suitable for recording. You need never miss a precious moment at the start of a recording again.

Direct-O-Matic loading is another Sansui exclusive. It makes loading and unloading a snap, gives you access to the tape well for instant insertion and easy cleaning of the heads, and lets you see the direction of the tape and how much is left.

Now you have it, cassette deck convenience with open reel performance. All for less than \$600†. Hear the new SC-5100 at your franchised Sansui dealer. We think you'll agree you've never heard anything like it.



Trademark of Dolby Laboratories, Inc.  
\*Patent pending.  
†Approximate nationally advertised value. Actual retail price set at the option of the individual dealers.

**A whole new world of musical pleasure.**



**SANSUI ELECTRONICS CORP.**

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SANSUI ELECTRIC CO., LTD., Tokyo, Japan

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CIRCLE NO. 81 ON READER SERVICE CARD

**Sansui**

# 6

# CASSETTE TAPE MACHINES

## ADVENT

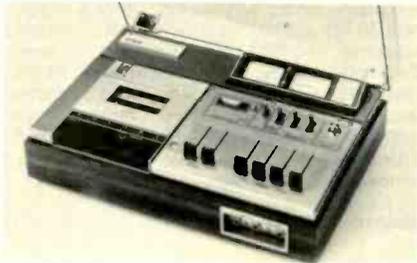
### 201A Cassette Deck

Stereo record/play Dolbyized cassette deck; Sendust alloy record/play head; wow and flutter 0.15% (IEEE/DIN weighted peak), 0.08% (JIS weighted); S/N (0-dB ref., Dolby on, A-weighted) 57 dB (standard tape), 60 dB (CrO<sub>2</sub> tape); 0.1% dist. (electronic); frequency response 28-15,000 Hz ±2 dB; input sensitivity 35 mV for 0 dB; input imp. 25,000 to 100,000 ohms; output 1 V at 2000 ohms from 0 dB tape level; fast-winding time 45 sec (C60 tape); automatic shutoff; high-performance headphone amp; 120-V a.c., 60 Hz, 25 W ..... \$399.95

## AIWA

### AD-1800 Cassette Deck

Stereo cassette deck with Dolby noise-reduction system and DNL; wow and flutter 0.05%;



S/N 65 dB (Dolby, DNL on, CrO<sub>2</sub> tape); frequency response 30-14,000 Hz (LH tape), 30-17,000 Hz (CrO<sub>2</sub> tape), 30-18,000 Hz (FeCr tape); fast-winding time 95 sec (C-60); cue and review control; oil-damped cassette ejection; built-in two-step peak level indicator ..... \$450.00

### AD-6550 Cassette Deck

Front-loading cassette deck with Dolby noise-reduction system and remaining tape time meter; 38-pulse FG servomotor; wow and flutter 0.05% wrms; S/N 65 dB (Dolby on, FeCr tape); frequency response 30-15,000 Hz ±3 dB (FeCr and CrO<sub>2</sub> tape), 30-13,000 Hz ±3 dB (LH tape); fast-winding time 90 sec (C-60); has Ferrite Guard head; bias fine adjuster and separate bias and equalization selectors; oil-damped cassette ejection; memory rewind; two VU meters and two-step peak indicator lamps; 5 1/8" H x 16 1/16" W x 13" D ..... \$450.00

### AD-1600 Cassette Deck

Stereo cassette deck with Dolby noise-reduction system; hysteresis synchronous motor; wow and flutter 0.07%; S/N 62 dB (Dolby on, FeCr tape); frequency response 30-14,000 Hz (LH tape), 30-17,000 Hz (CrO<sub>2</sub> and FeCr tape); fast-winding time 90 sec (C-60); interlocked Dolby-MPX filter switch; ferrite guard head; full automatic stop; LED tape-run indicator; cue and review; oil-damped cassette ejection; 120-V a.c., 60 Hz; 6" H x 16 1/16" W x 11 3/8" D ..... \$360.00

### AD-6300 Cassette Deck

Front-loading cassette deck with Dolby noise-

reduction system; d.c. servomotor; wow and flutter 0.09%; S/N 60 dB (Dolby on, FeCr tape); frequency response 30-14,000 Hz (LH tape), 30-16,000 Hz (CrO<sub>2</sub> and FeCr tapes); fast-winding time 85 sec (C-60); interlocked Dolby-MPX filter switch; three-step bias and equalization; oil-damped cassette ejection; peak level indicator signals +5 dB level; cue and review; full automatic stop; 6 3/16" H x 16 1/16" W x 11 1/16" D ..... \$250.00

**AD-6500.** Similar to AD-6300 but wow and flutter 0.07%; S/N 62 dB; ferrite guard head; frequency controlled servomotor; fast-winding time 95 sec (forward), 90 sec (rewind); 6 1/8" H x 17 3/4" W x 11 1/16" D ..... \$370.00

**SB-10E.** Side wood panels for AD-6300 and AD-6500 ..... \$17.50

### AD-1250 Cassette Deck

Slant-type housing cassette deck with Dolby noise-reduction system; Permalloy head; d.c. servomotor; wow and flutter 0.09%; S/N 60 dB (Dolby on, FeCr tape); frequency response 30-14,000 Hz (LH tape), 30-16,000 Hz (CrO<sub>2</sub> and FeCr tape); fast-winding time 85 sec (C-60); three-step bias and equalization; oil-damped cassette ejection system; cue and review; full automatic stop mechanism; input 50 mV at 100,000 ohms (line), 0.1 mV at 2700 ohms (DIN), 0.3 mV at 200-10,000 ohms (mike); output line and DIN 0.775 V at 50,000 ohms (0 VU), headphone 1 mV at 8 ohms; 5 1/8" H x 15 1/16" W x 10 7/8" D ..... \$230.00

### AF-3030 AM-FM Stereo/Cassette Deck

Combines AM-FM stereo receiver with front-load Dolbyized cassette deck; 13 W rms/ch at 8 ohms (20-20,000 Hz) at 0.3% THD; outputs: tape record, DIN, speaker 8 ohms, headphones 8 ohms; FM sensitivity 2.0 μV (IHF), frequency response 30-15,000 Hz; FM stereo dist. 0.7%; stereo separation 38 dB at 1000 Hz; antenna 300 ohms (balanced), 75 ohms (unbalanced); cassette deck wow and flutter 0.1% wrms; tape counter; built-in Dolby noise-reduction system; mechanical full-stop system; Permalloy head; d.c. servomotor; 6 3/4" H x 18 1/16" W x 12 1/16" D ..... \$380.00

## AKAI

### GXC-570D Stereo Cassette Deck

Vertical-style front-loading stereo cassette deck with Dolby; dual-process Dolby noise reduction; GX combination record/playback head



for tape/source monitoring plus one erase head; a.c. servo capstan motor plus two d.c. motors for fast-forward and rewind; closed-loop dual capstan drive system, Sensi-Touch; full-logic function controls; automatic playback repeat, pitch control for playback (±5%); meters switchable from VU to peak level; memory rewind; mic/line mixing; detent-type input/output controls; remote-control operation (with optional RC-18); electrically operated top control panel; damped cassette carriage; wow and flutter 0.06% wrms; S/N 62 dB (with Dolby above 5 kHz); frequency response 30-19,000 Hz (FeCr tape); dist. 1% (1000 Hz); 10" H x 17.3" W x 9" D ..... \$900.00

### GXC-760D Cassette Deck

Front-loading stereo cassette deck; one a.c. servo outer-rotor motor (capstan drive) and two d.c. motors (reel drive); wow and flutter 0.06% wrms; frequency response 30-15,000 Hz ±3 dB (low-noise tape), 30-16,000 Hz ±3 dB (CrO<sub>2</sub> tape), 30-19,000 Hz (FeCr tape); dist. 1% (0 VU, 1 kHz); S/N 51 dB (Dolby off, +5 VU); bias frequency 100 kHz; has GX recording head and GX play/erase head; fast-winding time 70 sec (C-60); output/imp. 0.775 V/20,000 ohms or more (line), 50 mV/8 ohms (headphones); input/imp. 0.3 mV/600 ohms (mike), 70 mV/100,000 ohms (line); tape selector switches for three kinds of tape; calibration tone switch; two VU meters with peak-check button; memory rewind; automatic stop; remote control jack; 5.6" H x 17.3" W x 12" D ..... \$675.00

**GXC-740D.** Similar to GXC-760D but wow and flutter 0.07% wrms; frequency response with FeCr tape 30-18,000 Hz ±3 dB; S/N 50 dB (Dolby off, +5 VU); a.c. servo outer-rotor motor; mike input 0.3 mV at 4700 ohms; without remote control jack; has peak-level LED indicator in lieu of peak check function ..... \$575.00

### GXC-730D Bidirectional Stereo Deck

Auto/manual reverse record and playback; GX head; Dolby noise reduction; ADR system; memory rewind; limiter; tape selector; auto-stop; locking pause; solenoid-assisted full-function change controls; illuminated direction indicators; VU meters; peak level indicator lamp; output level control; reverse selector switch for continuous play or shut-off; wow and flutter 0.08% wrms; S/N 50 dB at +3 VU; dist. 1.5% (1000 Hz 0 VU); Dolby improves up to 10 dB above 5000 Hz; 6.9" H x 17.3" W x 11.9" D ..... \$550.00

### GXC-710D Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system; four-pole hysteresis sync outer-rotor motor; one GX record/play head, one erase head; wow and flutter 0.08% wrms; frequency response 30-14,000 Hz ±3 dB (low-noise tape), 30-16,000 Hz ±3 dB (CrO<sub>2</sub> tape), 30-17,000 Hz ±3 dB (FeCr tape); dist. 1.5% (0 VU, 1 kHz); S/N 50 dB (Dolby off, +3 VU); bias frequency 60 kHz; fast-winding time 80 sec (C-60); output/imp. 0.775 V/20,000 ohms or more (line), 30 mV/8 ohms (headphones); input/imp. 0.3 mV/4700 ohms (mike),

# 6 CASSETTE TAPE MACHINES

70 mV/100,000 ohms (line); memory rewind; two VU meters; peak-level indicator; tape select switches for three kinds of tape; automatic stop; 5.6" H x 17.3" W x 12" D ..... \$465.00

## GXC-725D Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system; electronically controlled d.c. motor; GX record-play head and one erase head; wow and flutter 0.06% wrms; frequency response 35-16,000 Hz  $\pm 3$  dB (CrO<sub>2</sub> tape); dist. 1.2% (0 VU, 1 kHz); S/N 51 dB (Dolby off, +5 VU); two line out and one headphone jack; two mike and two line in jacks; four-position tape selector; peak level indicator; two VU meters; automatic stop; tape/source monitoring; multiplex filter; 6.5" H x 17.3" W x 11.2" D ..... \$425.00

## GXC-709D Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system; one GX record/play head and one erase head; wow and flutter 0.06% wrms; frequency response 35-15,000 Hz  $\pm 3$  dB (CrO<sub>2</sub> tape); dist. 1.5% (0 VU, 1 kHz); S/N 51 dB (Dolby off, +3 VU); two line out and one headphone jack; two mike and two line in jacks; electronically controlled d.c. motor; automatic stop; multiplex filter; mike/line mixing; memory rewind; two-peak-level indicators; two VU meters; 6.5" H x 17.3" W x 11.2" D ..... \$350.00

## CS-707D Front-Load Cassette Deck

Dolby noise reduction; memory rewind; limiter; peak level indicator; full-release auto-stop; tape selector switch; locking pause; full-function operating controls; multiplex filter switch; vertical headblock assembly; illuminated VU meters; mike/line mixing; output level control; electronically controlled d.c. motor; wow and flutter 0.08% wrms; S/N 50 dB at +3 VU; dist. 1.5% (1000 Hz 0 VU); walnut-grained vinyl cover; 6.4" H x 17.3" W x 12.0" D ..... \$275.00  
**CS-702D.** Same as 707D except does not have memory rewind, peak-level indicator, or mike/line mixing, 6.2" H x 15" W x 11.3" D ... \$200.00

## BIGSTON

### BSD-400 Stereo Cassette Deck

Dolbyized cassette deck; vertical slot loading; frequency response 30-15,000 Hz (chrome), 30-13,000 Hz (standard); THD 1.5%; wow and flutter 0.07% wrms, S/N 58 dB (with Dolby), 52 dB (without); fast forward/rewind 75 sec (C-60); features memory rewind with automatic playback, cue and review, separate bias and equalization for standard, chrome, ferrichrome tapes, tape counter, mechanical lock pause, a.c. bias and erase, twin VU meters, LED peak indicator, mike mixing, two mike inputs, 1/4-in stereo headphone jack ..... under \$250.00

### BSD-300 Stereo Cassette Deck

Dolbyized cassette deck; front-load; frequency response 40-13,000 Hz (chrome), 40-12,000 Hz (regular); THD 2%; wow and flutter 0.08% wrms; S/N 55 dB (with Dolby), 48 dB (without); fast forward/rewind 80 sec (C-60); features cue and review, mechanical lock pause, two VU meters, a.c. bias and erase, automatic rewind, tape counter, two-position tape selector, automatic shutoff, LED record light, automatic eject, 1/2-in stereo headphone jack; comes with two patchcords, C-30 tape; 5 1/2" H x 14 7/16" W x 10 11/16" D ..... under \$170.00

## CENTREX by PIONEER

### RK-888 AM-FM/Cassette Recorder

Portable combines AM-FM radio with cassette recorder/player; frequency response 50-10,000

Hz (standard tape), 50-12,000 Hz (chrome tape); wow and flutter 0.1% rms; auto/manual recording; cue and review; pause control; sleep feature; automatic shut-off; built-in condenser mike; selector switch for chrome/standard tape; meter for tuning signal, recording level, battery life; memory tape counter; mike mixing with source and microphone separate level control; line-in, line-out and monitor jack; separate bass, treble, loudness controls; headphone jack; two-way speaker with 6 1/2" woofer; audio output 2 W at 1 kHz, 0.5% THD; three-way power: a.c., battery, or car cigarette lighter; 9 3/8" H x 14 3/8" W x 4 1/4" D; weight 10 lb, 2 oz ..... \$199.95-\$239.95

## DUAL

### 939 Cassette Deck

Stereo cassette deck with auto reverse, continuous playback, and bidirectional recording;



variable Fade-Edit control permits fade out of recording errors during playback; Dolby noise reduction and FM decoding; continuous-pole sync motor with double capstan drive system; LED level indicators switchable from VU to peak; hard Permalloy heads; separate bias and equalization controls for FeCr, CrO<sub>2</sub>, and ferric-oxide tape; line and mike mixing; separate channel output and headphone level controls; selectable peak limiter; memory stop; frequency response 20-16,500 Hz  $\pm 3$  dB (to 17,000 Hz with CrO<sub>2</sub> tape); S/N 65 dB; wow and flutter 0.05%; speed variation 0.5%; viscous-damped cassette eject ..... \$550.00

### 919 Cassette Deck

Separate mic and line-level controls for mixing; output level controls for headphones and overall output; FM and standard Dolby circuitry; separate bias and equalization controls for ferric-oxide, chrome, and ferrichrome tapes; hard Permalloy heads; memory stop; illuminated tape motion indicators; ballistically damped VU meters; intermode switching without going through stop; viscous-damped cassette eject; frequency response 20-15,000 Hz  $\pm 1.5$  dB (to 17,000 Hz  $\pm 3$  dB with CrO<sub>2</sub> tape), wow and flutter 0.05% wrms; speed variation  $\pm 0.05\%$  ..... \$450.00

## FISHER

### CR5120 Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system; one d.c. Hall Element



servomotor and one d.c. governor motor; three ferrite heads; wow and flutter 0.04% wrms; S/N 64 dB (Dolby on); channel separation 40 dB; signal crosstalk -70 dB; frequency response 30-15,000 Hz  $\pm 3$  dB (normal tape), 30-18,000 Hz  $\pm 3$  dB (CrO<sub>2</sub> tape); THD at 0 VU 1.4%; tape speed variation  $\pm 0.8\%$ ; fast-winding time 84 sec; two VU meters and peak-indicating LED; input/imp. 0.2 mV/600 ohms (mike), 100 mV/100,000 ohms (aux., FM Dolby); output/imp.

1 V/5000 ohms (line), headphone jack; tape select switch for normal, CrO<sub>2</sub>, and FeCr tape; memory rewind; walnut-grain vinyl veneer finish; 6 3/8" H x 17 1/8" W x 12 1/2" D ..... \$399.95

### CR5115 Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system; one d.c. servomotor; three ferrite heads; wow and flutter 0.07% wrms; S/N 60 dB (Dolby on); channel separation 38 dB; signal crosstalk -70 dB; frequency response 30-14,000 Hz  $\pm 3$  dB (normal tape), 30-17,000 Hz  $\pm 3$  dB (CrO<sub>2</sub> tape); THD at 0 VU 1.5%; tape speed variation  $\pm 1\%$ ; fast-winding time 90 sec; two VU meters; input/imp. 0.2 mV/600 ohms (mike), 100 mV/100,000 ohms (aux., FM Dolby); output/imp. 1 V/5000 ohms (line), headphone jack; tape select switch for normal, CrO<sub>2</sub>, and FeCr tape; walnut-grain vinyl veneer finish; 6 3/8" H x 16 3/8" W x 11 3/4" D ... \$299.95

### CR5110 Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system; one d.c. governor motor; two ferrite, one mu-metal heads; wow and flutter 0.09% wrms; S/N 56 dB (Dolby on); channel separation 35 dB; signal crosstalk -68 dB; frequency response 40-12,000 Hz  $\pm 3$  dB (normal tape), 40-14,000 Hz  $\pm 3$  dB (CrO<sub>2</sub> tape); THD at 0 VU 1.8%; tape speed variation  $\pm 1.2\%$ ; fast-winding time 100 sec; two VU meters; input/imp. 0.2 V/600 ohms (mike), 100 mV/100,000 ohms (aux.); output/imp. 1 V/5000 ohms (line), headphone jack; tape select switch for normal, CrO<sub>2</sub>, and FeCr tape; walnut-grain vinyl veneer finish; 4 3/4" H x 13 3/4" W x 11" D ... \$249.95

### CD4020 Cassette Deck

Front-loading stereo cassette deck; one d.c. governor motor; two ferrite heads; wow and flutter 0.09% wrms; S/N 50 dB; channel separation 30 dB; signal crosstalk -65 dB; frequency response 40-11,000 Hz  $\pm 3$  dB (normal tape); THD at 0 VU 1.8%; tape speed variation  $\pm 1.2\%$ ; fast-winding time 100 sec; two VU meters; input/imp. 0.2 mV/600 ohms (mike), 100 mV/100,000 ohms (aux.); output/imp. 1 V/5000 ohms (line), headphone jack; walnut-grain vinyl veneer finish; 4 3/4" H x 13 3/4" W x 11" D ..... \$169.95

**CD4010.** Similar to CD4020 ..... \$149.95

## HARMAN/KARDON

### HK2000 Dolby Cassette Deck

Stereo cassette deck with built-in Dolby noise-reduction circuit; front-panel bias switch for standard, low-noise, and chromium-dioxide tapes; features memory relay, peak-reading VU meters, sliding controls for playback and record level, and mike/line mixing; response 30-17,000 Hz (CrO<sub>2</sub>); wow and flutter 0.07% (weighted); speed variation 1%; hard Permalloy head; peak-reading VU meters with LED overload indicator; 5 3/8" H x 15" W x 10 1/4" D ... \$399.95

## HEATH

### AD-1530 Cassette Deck Kit

Dolbyized stereo cassette deck kit; pre-assembled tape transport; wow and flutter 0.25% rms; hum and noise -58 dB (Dolby on); 0.2% dist. (electronic); frequency response 40-14,000 Hz (CrO<sub>2</sub> tape); fast-winding time 45 sec for C-60 tape; mic input 0.2-10 mV hi-Z; aux. input 0.05-10 V hi-Z; built-in test circuit to adjust Dolby system; bias and equalization adjustable for standard or CrO<sub>2</sub> tape; VU meters; walnut-stained veneer base; 120-V a.c., 60 Hz, 15 W; 5 1/2" H x 14" W x 9 1/2" D ..... \$279.95  
**ADA-1530-1.** Dust cover for AD-1530 ... \$6.95

## HITACHI

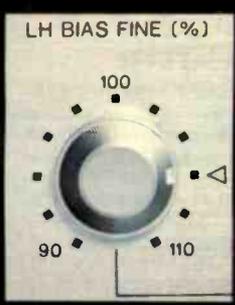
### D800 Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system; three-head design with unitized record/play head; phase-controlled



# 3 Minute Warning from AIWA

With the AD-6550's unique new Remaining Tape Time Meter you never have to worry about running out of tape in the middle of recording your favorite music. In the past you monitored your tape visually and hoped that the musical passage and tape would finish together. Now, this extremely easy to use indicator gives you plenty of warning. It shows you exactly how many minutes remain on the tape. So that when you record the "Minute Waltz" it won't end in 45 seconds.



### Bias Fine Adjustment

But there's a lot more to the AD-6550. AIWA has included a Bias Fine Adjustment knob that permits the fine tuning of frequency response to give optimum performance of any brand of LH tape on the market.

### Wow and Flutter: Below 0.05% (WRMS)

The AD-6550 cassette deck achieves an inaudible wow and flutter of below 0.05% (WRMS) thanks to a newly designed 38-pulse FG servo motor and AIWA's special Solid Stabilized Transport (SST) system. And because we use Dolby\* we also improve the S/N ratio to 65dB (Fe-Cr). So you can listen to the music instead of tape hiss. The AIWA AD-6550. Be forewarned.



\*Dolby is a Trademark of Dolby Laboratories, Inc.

# 6 CASSETTE TAPE MACHINES



d.c. servomotor drive; wow and flutter 0.05% wrms; S/N 63 dB (Dolby on), 55 dB (Dolby off); frequency response 20-20,000 Hz  $\pm 5$  dB (CrO<sub>2</sub> tape), 20-16,000 Hz  $\pm 5$  dB (Fe-CrO<sub>2</sub> tape), 20-15,000 Hz  $\pm 5$  dB (UD tape); crosstalk -35 dB (ch/ch), -60 dB (track/track); bias frequency 105 kHz; erasure ratio 65 dB min.; fast-winding time 90 sec (C60); input sensitivity 0.25 mV at 300-5000 ohms (mic), 50 mV at more than 100,000 ohms, 0.25 mV at 12,000 ohms (DIN); output level more than 0.5 V; load imp. more than 50,000 ohms (line and DIN), 8-2000 ohms (headphones); dist. less than 2% at 1 kHz (0 VU); tape-select switch; three-digit tape counter; two peak-reading/VU meters; pause control; supplied with UDC-60 cassette tape, patch cord, and cleaning kit; 120-V a.c., 60 Hz, 18 W; 5 $\frac{3}{16}$ " H x 17 $\frac{1}{8}$ " W x 11 $\frac{7}{8}$ " D ..... \$399.95

## D720 Cassette Deck

Stereo cassette deck with Dolby noise-reduction system; d.c. servomotor drive; two hard Permalloy SL heads; wow and flutter 0.07%; frequency response 30-15,000 Hz  $\pm 3$  dB (normal), 30-16,000 Hz  $\pm 3$  dB (chrome) S/N 53 dB (Dolby off), 60 dB (Dolby on), 63 dB (Dolby NL); memory rewind; separate three-position bias and equalization switches; power-assisted controls ..... \$259.95

## D410 Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system; two-head design with Permalloy record/play head; d.c. servomotor drive; wow and flutter 0.08%; S/N 60 dB (Dolby on), 52 dB (Dolby off); frequency response 30-13,000 Hz (normal tape), 30-16,000 Hz (CrO<sub>2</sub> tape); three-digit tape counter; full automatic stop; two VU meters; separate output control; tape-select switch; supplied with patch cord; 5 $\frac{1}{16}$ " H x 16 $\frac{3}{16}$ " W x 10" D ..... \$199.95

## D220 Cassette Deck

Stereo cassette deck with Dolby noise-reduction system; d.c. servomotor drive; two hard Permalloy SL heads; wow and flutter 0.09%; frequency response 30-12,500 Hz  $\pm 3$  dB (normal), 30-14,000 Hz  $\pm 3$  dB (chrome); S/N 53 dB (Dolby off), 58 dB (Dolby on); separate two-position bias and equalization controls .. \$159.95

## JVC

### LD-777 Stereo Elcaset Deck

Front-loading deck with three-head configuration (record, play, and erase); FG servomotor for capstan drive and d.c. control motor for reel drive; two-track monaural and four-track stereo compatibility; logic-control transport system for direct change of modes; automatic noise reduction system; built-in signal oscillator; bias adjust switch; twin VU meters; multipoint peak level indicators; input and output level control knobs; record and pause indicator lights; play/stop on/off memory ..... \$799.95

### KD-95 Stereo Cassette Deck

Front-loading deck with automatic noise reduction system; features two-motor, solenoid operation; three electromagnetic plungers for pause, brake and play; logic control transport system for direct change of modes; dual-ball cassette hold system; adjustable head azimuth, height and tilt; three bias and equalization posi-



tions; built-in 400 Hz signal oscillator; memory play and stop; mic/line mixing; removable cassette lid; dual-gap ferrite head for erase; output volume control; switchable five-LED peak level indicators; twin VU meters; recording equalizer switch; timer recording facility; full and automatic stop; illumination for easy tape checking; frequency response 20-17,000 Hz with normal tape, 20-18,000 Hz with chrome tape; S/N 56 dB (from peak level) without ANRS, improved 5 dB at 1 kHz and 10 dB above 5kHz with ANRS; wow and flutter 0.05% wrms; crosstalk -65 dB at 1 kHz; channel separation 35 dB at 1 kHz; power requirements 120 V, 60 Hz; 8 $\frac{3}{16}$ " H x 16 $\frac{1}{4}$ " W x 12 $\frac{3}{8}$ " D ..... \$499.95

### KD-75 Stereo Cassette Deck

Front-loading cassette with frequency-controlled d.c. servomotor; features automatic noise reduction system; dual-ball cassette hold system; full automatic and memory stop; separate switches for bias and equalization; switchable five-LED peak level indicators; mirrored VU meters; separate controls for mic/DIN and line inputs; dual-gap ferrite head for erase; output volume control; timer recording facility; recording equalizer switch; frequency response 20-17,000 Hz with normal tape, 20-18,000 with chrome tape; S/N 56 dB (from peak level) without ANRS, improved 5 dB at 1 kHz and 10 dB above 5 kHz with ANRS; wow and flutter 0.06% wrms; crosstalk -65 dB at 1 kHz; channel separation 35 dB at 1 kHz; power requirements 120 V, 60 Hz; 6 $\frac{3}{16}$ " H x 16 $\frac{1}{4}$ " W x 13 $\frac{1}{4}$ " D ..... \$379.95

### KD-2 Portable Cassette Deck

For home or portable applications; 12 hrs continuous recording on one set of "D" batteries or auto battery; stabilizer circuits for maintaining exact power; "Sen-Alloy" head; stereo/mono mode switch permits recording mono sound on both left and right channels simultaneously; electronic all-mode auto-stop mechanism; bias and equalization independently selectable; master recording level control with 20 detent stop positions; VU meter check light and battery checker switch; 4" monitor speaker; headphone jack; frequency response 25-18,000 Hz (45-16,000 Hz  $\pm 3$  dB) with chrome tape; S/N 54 dB at 1 kHz (from peak levels) without ANRS; crosstalk -65 dB at 1 kHz, channel separation 35 dB at 1 kHz; power requirements 120 V, 60 Hz a.c.; six "D" cells, 9 V d.c.; 3 $\frac{3}{4}$ " H x 10 $\frac{7}{8}$ " W x 11 $\frac{7}{8}$ " D; weight 8.8 lbs without batteries ..... \$299.95

### KD-35 Stereo Cassette Deck

Front-loading deck features Dolby noise reduction; "Sen-Alloy" head for record/play, double-gap ferrite head for erase; five-LED peak indicators; twin VU meters; mic-DIN and line input selector; two-position bias/equalizer selectors; full automatic stop; output volume control; timer recording facility; frequency response 20-15,000 Hz with normal tape, 20-16,000 Hz with chrome tape; S/N 56 dB (from peak level) without Dolby, improved 5 dB at 1 kHz and 10 dB above 5 kHz with Dolby; wow and flutter 0.09% wrms; crosstalk -65 dB at 1 kHz; channel separation 35 dB at 1 kHz; power requirements 120 V, 60 Hz; 5 $\frac{1}{16}$ " H x 15 $\frac{3}{8}$ " W x 12 $\frac{13}{16}$ " D ..... \$259.95

### CD-1770 Stereo Cassette Deck

Frequency response 20-18,000 Hz (30-16,000 Hz  $\pm 3$  dB) with chrome tape; S/N 52 dB at 1

kHz (from peak level) without ANRS; crosstalk -65 dB, channel separation 35 dB, HD 1.5% (chrome tape), 1.2% (normal tape) all at 1 kHz; wow and flutter 0.5% wrms; "Sen-Alloy" head for play/record, ferrite head for erase; frequency controlled d.c. servomotor; 4 $\frac{1}{16}$ " H x 16 $\frac{3}{4}$ " W x 10 $\frac{7}{8}$ " D ..... \$229.95

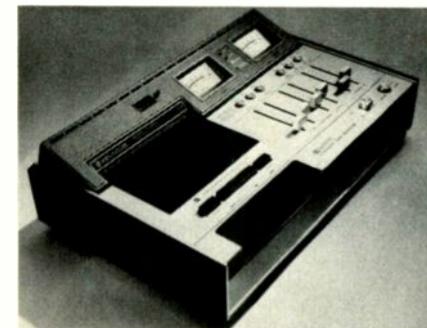
### KD-15 Stereo Cassette Deck

Front-loading; Dolby noise reduction; five-LED peak level indicators; timer recording facility; mic/line input selector switch; two-position bias and equalization switches; VU meters; reed-type full automatic stop; frequency response 20-15,000 Hz with normal tape, 20-16,000 Hz with chrome tape; S/N 56 dB (from peak level) without Dolby, improved 5 dB at 1 kHz and 10 dB above 5 kHz with Dolby; wow and flutter 0.1% wrms; crosstalk -65 dB at 1 kHz; channel separation 35 dB at 1 kHz; power requirements 120 V, 60 Hz; 6 $\frac{1}{4}$ " H x 15 $\frac{3}{8}$ " W x 10 $\frac{1}{4}$ " D ..... \$199.95

## KENWOOD

### KX-920 Cassette Deck

Stereo cassette deck with Dolby noise-reduction system; wow and flutter 0.08% wrms; fre-



quency response 20-16,000 Hz (CrO<sub>2</sub> tape); S/N 62 dB (Dolby on, CrO<sub>2</sub> tape); variable playback speed/pitch control; extra-large flywheel; high-torque d.c. servomotor; super-ferrite record/play head; mike/line mixing auto tape selector; two-step bias and equalization controls; LED peak indicator and VU peak meters; pause control; Dolby FM copy; separate output level controls; cue and review; memory rewind; 4 $\frac{7}{8}$ " H x 16" W x 10" D ..... \$325.00  
KX-720. Same as KX-920 but without mike/line mixing or pitch control ..... \$275.00

### KX-620 Cassette Deck

Front-loading stereo cassette deck with Dolby noise-reduction system; wow and flutter 0.09% wrms; frequency response 40-12,000 Hz (CrO<sub>2</sub> tape); S/N 61 dB (Dolby on, CrO<sub>2</sub> tape); high-torque d.c. servomotor; Permalloy record/play head; auto shut-off; pause control; two-step bias and three-step equalization controls; two VU meters; 5 $\frac{1}{2}$ " H x 17" W x 11 $\frac{3}{4}$ " D ..... \$220.00

## LAFAYETTE

### RK-D200 Dolbyized Cassette Deck

Front-loading play/record deck; electronically controlled d.c. motor; automatic shutoff in all modes; two VU meters plus LED peak-level indicators; memory rewind; copies FM Dolby broadcasts; independent bias and equalization controls; response 30-13,000 Hz; S/N 60 dB (with Dolby); channel separation 30 dB; input sensitivity: mic 0.25 mV, line 65 mV; wow and flutter 0.09%; fast-forward and rewind time 1.5 min; three-digit counter; stereo record and output level controls; headphone jack; 6 $\frac{7}{8}$ " H x 17 $\frac{3}{16}$ " W x 12" D ..... \$199.95

### RK-D100 Dolbyized Cassette Deck

Play/record deck; automatic shutoff in play and record modes; separate record/playback level meters; left/right channel record-level controls; switchable record bias; response 50-12,000

Hz; wow and flutter 0.25%; S/N 55 dB (with Dolby); channel separation 30 dB; d.c. motor; three-digit tape counter; headphone jack; 3/8" H x 14" W x 9 1/8" D ..... \$159.95

**RK-735 Record/Playback Deck**

Deck featuring a low-impedance stereo amplifier for stereo headphone listening; response 50-13,000 Hz; S/N 45 dB; channel separation 30 dB; input sensitivity: mike 1 mV; aux. 100 mV; wow and flutter 0.25% rms; has standard/chromium-dioxide level control; illuminated VU record-level meters; three-digit tape counter with reset button; front panel left- and right-channel mike and input jacks; six push-button tape functions including pause; walnut wood case, brushed aluminum front panel; 3 1/4" H x 12 7/8" W x 9 1/8" D ..... \$109.95

**RK-715 Record/Playback Deck**

Designed for recording from stereo consoles, phonos, and tape recorders; includes record and output-level controls; LED level indicator; cables; cannot be used with microphones; response 60-10,000 Hz; S/N 40 dB; 3 1/8" H x 5 5/8" W x 8 3/8" D ..... \$69.95

**LENCO**

**C-2003 Cassette Deck**

Stereo cassette deck with Dolby noise-reduction system; wow and flutter 0.07% wrms; frequency response 30-18,000 Hz  $\pm 3$  dB, 30-16,000 Hz  $\pm 3$  dB (with multiplex filter); dist. 1.5% (0 dB VU); S/N (DIN 45633) 56 dB (Dolby off), 65 dB (Dolby on); crosstalk -65 dB (opp. rec. direction), -40 dB (stereo rec.); fast-winding time 75 sec (C-60); inputs: 350  $\mu$ V at 1000 ohms (mike DIN), 8 mV at 22,000 ohms (DIN-plug input), 60 mV at 180,000 ohms (line); outputs: 0.75 V at 330 ohms (DIN and line), 6.7 mW at 8 ohms and 5.4 mW at 600 ohms (headphones); automatic tape selection switching for CrO<sub>2</sub> tape, manual for three others; switchable multiplex filter; mono switch; two peak level indicators;  $\pm 2.5\%$  speed regulation during playback; has ferrite erase and record heads and hard Permalloy play head; three-digit tape counter with "zero stop"; 85 mm H x 285 mm W x 460 mm D ..... \$699.50

**PAC 10 Auto Cassette Changer**

Automatic cassette changer; can play up to 10 cassettes in succession without interruption; output imp. 25 ohms; output 350 mV; change-over time 10 sec; has track 1, track 2, auto, and single play indicator lights; 495 mm x 252 mm x 210 mm ..... \$650.00

**MARANTZ**

**5420 Cassette Deck**

Stereo cassette deck with Dolby noise-reduction system; has two 3 1/2" VU meters and LED



peak indicators; active four-input mixer with pan pots, mike/line mixing, and master level control; three-position bias and equalization selector; ferrite heads; d.c. servomotor drive; 6 1/2" H x 17 1/2" W x 12 3/4" D ..... \$429.95  
**5400.** Same but without Dolby noise-reduction system ..... \$349.95

1978 EDITION

**5030 Cassette Deck**

Front-loading stereo cassette deck with Dolby noise-reduction system; three super hard Permalloy heads; tape/source monitoring capability; bias and equalization for standard, CrO<sub>2</sub>, and FeCr tapes; mike/line mixing with master level control; 3" VU meters and left and right channel peak level indicators; defeatable peak limiter; d.c. servo-controlled motor; tape counter with memory rewind; 5 3/4" H x 17 3/8" W x 11 1/2" D ..... \$419.95

**5025 Cassette Deck**

Front-loading stereo cassette deck with Dolby noise-reduction system; bias and equalization settings for standard, CrO<sub>2</sub>, and FeCr tapes; mike/line mixing with master level control; 3" VU meters and left and right peak indicators; defeatable peak limiter; d.c. servo-controlled motor; tape counter with memory rewind; 5 3/4" H x 17 3/8" W x 11 1/2" D ..... \$309.95

**5010 Cassette Deck**

Front-loading stereo cassette deck with Dolby noise-reduction system; bias and equalization settings for standard, CrO<sub>2</sub>, and FeCr tapes; 3" VU meters; super hard Permalloy head; defeatable peak limiter; tape counter; front-panel mike input and headphone jacks; 5 3/4" H x 17 3/8" W x 11 1/2" D ..... \$249.95

**MERITON**

**HD-450 Stereo Cassette Deck**

Incorporates Dolby noise-reduction system; independent tape bias and equalization controls; two ferrite heads; d.c. sync servomotor drive; auto stop mechanism; pause and cue and review functions; two VU meters; wow and flutter 0.13% wrms (record and playback); frequency response 30-13,000 Hz (LH tape), 30-16,000 Hz (CrO<sub>2</sub> and FeCr tapes); S/N 58 dB (Dolby on); input sensitivity/imp. 50 mV/10,000 ohms (line), 0.3 mV/600-10,000 ohms (mike); output level/imp. 775 mV/10,000 ohms (line), 0.7 mW/8 ohms (headphone); bias frequency 85 kHz; 4 1/8" H x 15 1/4" W x 10 1/4" D ..... \$199.95

**HD-520 Stereo Cassette Deck**

Incorporates Dolby noise-reduction system; three-position tape select switch; servo-controlled motor; "Hard Permalloy" head; auto stop mechanism; FM MPX filter; two VU meters; wow and flutter 0.19% wrms (record and playback); frequency response 30-10,000 Hz  $\pm 3$  dB (LH tape), 30-12,500  $\pm 3$  dB (CrO<sub>2</sub> and FeCr tapes); S/N 58.5 dB (Dolby on); input sensitivity/imp. 85 mV/10,000 ohms (line), 0.25 mV/200-1000 ohms (mike); output level/imp. 0.775 V/100,000 ohms (line), 0.05 mW/8 ohms (headphone); bias frequency 100 kHz; simulated walnut veneer finish; 3 1/2" H x 14" W x 9 5/8" D ..... \$169.95

**HD-500 Stereo Cassette Deck**

For use with CrO<sub>2</sub> or regular cassette tape; pause control; two VU meters; limiter switch; wow and flutter 0.3% wrms (record and playback); frequency response 30-12,000 Hz (LH tape), 30-15,000 Hz (CrO<sub>2</sub> tape); S/N 45 dB; input sensitivity/imp. 60 mV/560,000 ohms (line), 0.2 mV/220,000 ohms (mike); output level/imp. 775 mV/100,000 ohms (line), 20 mV/8 ohms (headphone); bias frequency 80 kHz; walnut-veneer finish; 3 1/2" H x 14" W x 9 5/8" D ..... \$109.95

**NAKAMICHI**

**1000 II Cassette Deck**

Stereo record/play cassette deck; three-head design with crystal Permalloy PB head; dual capstan closed-loop transport with d.c. servomotor drive; wow and flutter 0.05% wrms, 0.1% weighted peak; S/N 65 dB (400 Hz, 3% THD with Dolby and SX tape); THD under 1.5% (400 Hz, 0 dB); frequency response 35-20,000 Hz  $\pm 3$  dB (Dolby in); inputs 0.2 mV at 10,000 ohms (mike), 50 mV at 50,000 ohms (line); outputs 1 V max. (line, variable), 300 mW/ch max. at

8 ohms (headphone); Dolby noise-reduction system plus DNL; record head azimuth alignment beacon; full IC logic transport controls; auto shut-off; spill-proof system; memory and auto rewind; playback pitch control; two 50-dB range peak-reading meters; separate bias and equalization switches; left, right, and blend wide dynamic range mike inputs; phase-corrected low-noise electronics; 11 1/8" H x 20 1/16" W x 8 7/16" D ..... \$1450.00

**700 II Cassette Deck.** Same as 1000 II but without auto rewind or DNL; 10 1/16" H x 20 1/2" W x 5 5/8" D ..... \$970.00

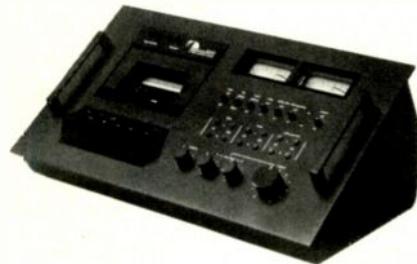
**Remote Control Box.** Electronic touch control (duplicates control system of 1000 II and 700 II cassette decks); controls all tape motion including record with 15 ft ..... \$50.00

**HC-1000.** Extra-heavy-duty carrying cabinet covered in leatherette; double-protected edges and corners; side-mounted folding metal carrying handles; front and rear covers for complete enclosure protection during transit; accommodates one 1000 or 1000II ..... \$300.00

**HC-700.** Similar to HC-1000 but for 700 or 700II; rear cover attached; metal hinged door for connection access ..... \$270.00

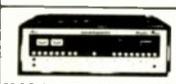
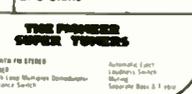
**600 Two-Head Cassette Console**

Stereo record/play deck; 1M suppressor cir-



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| <br><b>The SL-23 F.G. Servo Belt-Drive Turntable by Technics ...</b>                                                               | <br><b>MARANTZ MODEL 2325</b><br><small>125 watts rms per channel, with no more than 0.1% thd at 8 ohms</small> |
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6

## CASSETTE TAPE MACHINES

cuitry; user-accessible bias, record level, and IM suppressor calibration controls; separate bias and equalization switches; built-in 400-Hz test tone; Dolby noise reduction circuitry; MPX filter switch; master record-level control; tape counter with memory; 47-dB peak-level meters; d.c. servomotor drive and self-start for unattended recording; frequency response 40-18,000 Hz  $\pm 3$  dB; wow and flutter 0.08% wrms (0.12% weighted peak); S/N 65 dB (400 Hz, 3% THD with Dolby); THD 0.5%, 0 dB with IM suppressor; input 50,000 ohms, 60 mV; output 580 mV (400 Hz, 0 dB); 6 $\frac{3}{4}$ " H  $\times$  15 $\frac{3}{4}$ " W  $\times$  9 $\frac{1}{2}$ " D ..... \$530.00

**600B.** Same except in black matte finish ..... \$550.00

**WC-600.** Oiled walnut veneer cabinet supplied in easy-to-assemble kit form ..... \$45.00

### 500 Two-Head Cassette Deck

Stereo record/play cassette deck; response 40-17,000 Hz  $\pm 3$  dB; wow and flutter 0.08% wrms, 0.13% wtd. peak; S/N 63 dB (CrO<sub>2</sub> tape with Dolby); THD 1.5% at 1000 Hz, 0 dB; inputs: mike and 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 and memory rewind; three-point sound pickup for live recording; peak limiter; three-position tape selector; variable output level control; 4 $\frac{1}{2}$ " H  $\times$  15" W  $\times$  10" D ..... \$420.00

**550.** Similar to Model 500 except S/N 65 dB (SX tape with Dolby); outputs: line 580 mV; headphones 300 mW (1 kHz at 0 dB); three-way power supply (117-V a.c., 12-V battery, car jack); tape end alarm with preset timer; 3 $\frac{1}{2}$ " H  $\times$  12 $\frac{1}{4}$ " W  $\times$  13 $\frac{3}{4}$ " D; 11 $\frac{1}{4}$  lb without battery (battery life 15 hours continuous use) ..... \$540.00

### 350 Universal Cassette Deck

Stereo record/playback deck; operates from a.c. power pack (included), 12-V d.c. source in cars, boats, planes (mounting bracket included), or from built-in rechargeable battery (in optional carrying case); Dolby noise-reduction circuitry; tape selector; full automatic shutoff; three low-imp. mic inputs with mixing; d.c. servomotor drive; frequency response 40-15,000 Hz  $\pm 3$  dB; wow and flutter 0.08% wrms; S/N 58 dB (with Dolby); 3 $\frac{1}{2}$ " H  $\times$  7 $\frac{1}{2}$ " W  $\times$  9 $\frac{1}{2}$ " D; weight 7 lb ..... \$380.00

**Carrying Case.** Includes built-in 12-V lead-acid battery and recharging circuit; 12 hr charge for 6 hr continuous recording (with 350); 10 $\frac{1}{2}$ " H  $\times$  9 $\frac{1}{2}$ " W  $\times$  3 $\frac{3}{4}$ " D; weight 4.5 lb ..... \$100.00

### 250 Cassette Play-Only Deck

Designed for use with ADS subminiature bi-amplified speaker systems; Dolby noise reduction circuitry; selectable playback equalization; full auto shutoff; d.c. servomotor drive; volume, tone, and balance controls; includes bracket for underdash mounting and cable for interfacing with ADS system; playback response 40-17,000 Hz  $\pm 3$  dB; wow and flutter 0.08% wrms; S/N 62 dB (with Dolby); output 580 mV; 9 $\frac{1}{2}$ "  $\times$  7 $\frac{1}{2}$ "  $\times$  3 $\frac{1}{2}$ " ..... \$275.00  
Same but supplied with a.c. power pack ..... \$300.00

### DS-200 Digital Timer

Automatic timer function turns system on at preset time; sleep timer function plays for 59 min before shutdown; allows unattended recording of broadcasts with 1000, 700, and 600 cassette decks; self-repeating 24-hr basis; 2" H  $\times$  12 $\frac{1}{4}$ " W  $\times$  4 $\frac{1}{2}$ " D ..... \$145.00

## OPTONICA

### RT-3535 Mark II Cassette Deck

Stereo cassette deck with Dolby noise-reduction system; front-loading design; has voltage-generator control-type servomotor capstan drive and d.c. motor reel drive; Auto Program Locate Device (APLD) scans prerecorded tape and stops at desired program; has Permalloy, ferrite, and APLD sensing heads; frequency response 30-15,000 Hz  $\pm 3$  dB (normal tape), 30-16,000 Hz  $\pm 3$  dB (CrO<sub>2</sub> tape), 30-17,000 Hz  $\pm 3$  dB (FeCr tape); S/N 64 dB with Dolby; input sensitivity/imp. 0.2 mV/70 kohms (mike), 70 mV/50 kohms (aux.); output level/imp. 580 mV/50 kohms (line), 2 mW/8 ohms (headphone); wow and flutter 0.04% wrms; 5.8" H  $\times$  18.4" W  $\times$  13.9" D ..... \$429.95

### RT-2050 Mark II Cassette Deck

Stereo cassette deck with Dolby noise-reduction system; front-loading design; has voltage-



generator control-type servomotor capstan drive and d.c. motor reel drive; Auto Program Find System (APFS) facilitates program selection; two peak-level meters; electronic auto stop; has Permalloy, ferrite, and APFS sensing heads; frequency response 30-13,000 Hz  $\pm 3$  dB (normal tape), 30-15,000 Hz (CrO<sub>2</sub> and FeCr tapes); S/N 64 dB with Dolby; input sensitivity/imp. 0.2 mV/70 kohms (mike), 70 mV/50 kohms (aux.); output level/imp. 580 mV/50 kohms (line), 2 mW/8 ohms (headphone); wow and flutter 0.058% wrms; fast-winding time 100 sec (C-60); 5.8" H  $\times$  18.4" W  $\times$  13.9" D ... \$299.95

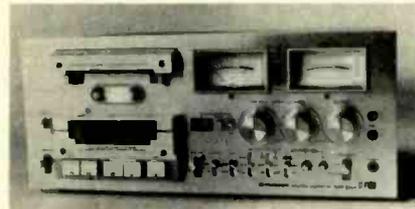
### RT-1515 Stereo Cassette Deck

Incorporates Dolby noise-reduction system; front-loading design; dual adjustable bias and equalization controls; input level controls; electronic auto stop; single Micro Crystal Ferrite head; frequency response 30-12,500 Hz  $\pm 3$  dB (normal tape), 30-14,000 Hz  $\pm 3$  dB (CrO<sub>2</sub> tape), 30-15,000 Hz  $\pm 3$  dB (FeCr tape); S/N 62 dB with Dolby; input sensitivity/imp. 0.2 mV/6.8 kohms (mike), 50 mV/50 kohms (aux.); output level/imp. 500 mV/50 kohms (line), 0.5 mW/8 ohms (headphone); has d.c. electronic governor motor; wow and flutter 0.085% wrms; fast-winding time 100 sec (C-60); 6.3" H  $\times$  16.3" W  $\times$  9.6" D ..... \$229.95

## PIONEER

### CT-F1000 Stereo Cassette Deck

Incorporates Dolby noise-reduction system; monitoring while recording capability; two-posi-



tion bias and three-position equalization controls; automatic "chrome" tape sensing and switching; memory stop and play; separate log amp for each VU meter (two); MPX filter; mike/line mixing and recording; tape-end warning and auto stop; has electronically controlled d.c. motor capstan drive and d.c. fast-winding motor; "Single-Crystal Ferrite Solid" record/play head and ferrite erase head; fast-winding time 65 sec (C-60); wow and flutter 0.06% wrms; frequency response 30-15,000 Hz  $\pm 3$  dB (standard tape), to 17,000 Hz with CrO<sub>2</sub> and FeCr tapes; S/N 64 dB with Dolby (chrome tape); two mike, two line, and DIN inputs; two

line, DIN, and headphone outputs; 7 $\frac{1}{8}$ " H  $\times$  16 $\frac{1}{32}$ " W  $\times$  14 $\frac{1}{4}$ " D ..... \$600.00

### CT-F9191 Dolbyized Cassette Deck

Front-loading cassette deck; ferrite record/playback and erase heads; electronically controlled d.c. motor plus d.c. torque motor for fast-forward and rewind drive; response 25-16,000 Hz (standard, LH tapes), 20-17,000 Hz (chromium-dioxide tapes); wow and flutter 0.07% wrms; S/N 63 dB (Dolby on), 53 dB (Dolby off); features Dolby on/off with indicator; MPX filter on/off; tape selector; mixing control for mic and line input; tape counter with rewind memory switch; recording limiter; wide-scale level meter; recording peak-level indicator; level memory marker for inputs and outputs; comes with stereo connecting cords, head cleaning kit, operating instructions; 7 $\frac{7}{8}$ " H  $\times$  17 $\frac{1}{8}$ " W  $\times$  12 $\frac{3}{8}$ " D ..... \$450.00

### CT-F8282 Dolbyized Cassette Deck

Front-loading 2-motor solenoid-operated cassette deck with Dolby noise-reduction circuit; peak-level indicator; ferri-chrome/chrome/standard bias and equalization; memory stop; fast wind, within 65 seconds for C-60; frequency response 20-16,000 Hz (standard tape), 20-17,000 Hz (chromium-dioxide tape), 20-17,000 Hz (ferri-chrome tape); wow and flutter 0.07% wrms max; S/N 53 dB (Dolby out), 63 dB (Dolby in); HD 1.5% max; sensitivity: line input 60 mV; mic 0.2 mV; line output 0.45 V; 7 $\frac{1}{32}$ " H  $\times$  17 $\frac{1}{4}$ " W  $\times$  13 $\frac{1}{32}$ " D ..... \$400.00

### CT-F7272 Dolbyized Cassette Deck

Front-loading cassette deck with Dolby noise-reduction system; automatic chrome detection; memory stop; fast wind, within 85 seconds for C-60; frequency response 30-14,000 Hz (standard tape), 30-17,000 Hz (chromium-dioxide tape), 30-16,000 Hz (ferri-chrome tape); wow and flutter  $\pm 0.2\%$  (DIN); S/N 52 dB (Dolby out), 62 dB (Dolby in); HD 1.7% max; sensitivity: line input 64 mV; mic 0.23 mV; line output 0.45 V; 6 $\frac{3}{32}$ " H  $\times$  15 $\frac{27}{32}$ " W  $\times$  13 $\frac{1}{2}$ " D ..... \$320.00

### CT-F6262 Dolbyized Cassette Deck

Front-loading cassette deck with exclusive vertical cassette holding mechanism so that tape movement and labels on all cassette tapes are visible during operation; flat belt drive and electronically controlled d.c. servomotor; hard Permalloy record/playback head, ferrite erase head; fast winding 85 sec (C-60); wow and flutter  $\pm 0.2\%$  (DIN), 0.08% wrms; frequency response 30-14,000 Hz (standard) 30-16,000 Hz (chrome and ferrichrome); S/N 52 dB (Dolby off), 62 dB (Dolby on); HD 1.7%; features Dolby on/off switch with indicator lamp, tape selector switch, tape compartment illumination; complete complement of inputs and outputs; 6 $\frac{3}{32}$ " H  $\times$  16 $\frac{1}{4}$ " W  $\times$  12 $\frac{1}{32}$ " D ..... \$270.00

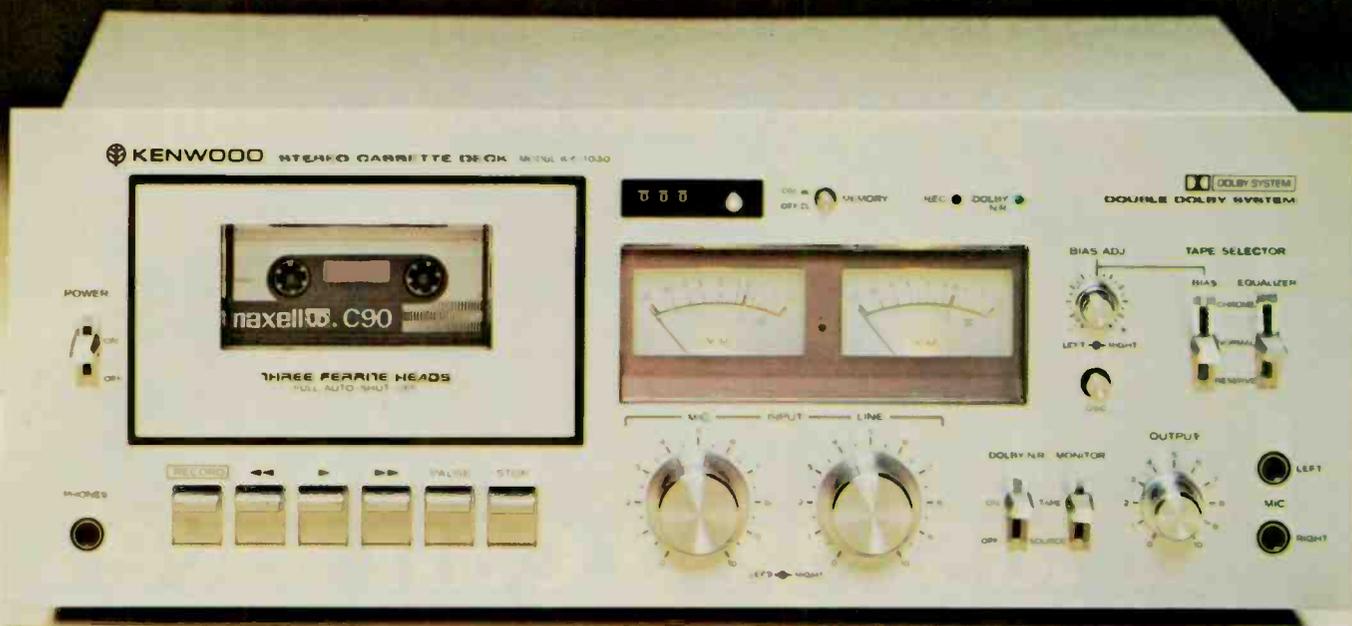
### CT-F4242 Stereo Cassette Deck

Incorporates Dolby noise-reduction system; front-loading design; three-step bias/equalization; full auto stop; electronically controlled d.c. motor; hard Permalloy solid record/play head and ferrite erase head; fast-winding time 85 sec (C-60); wow and flutter 0.08% wrms; frequency response 40-13,000 Hz  $\pm 3$  dB (standard tape), to 15,000 Hz with CrO<sub>2</sub> and FeCr tapes; has oil-damped compartment door; full complement of inputs/outputs; 5 $\frac{3}{32}$ " H  $\times$  15" W  $\times$  12 $\frac{1}{16}$ " D ..... \$225.00

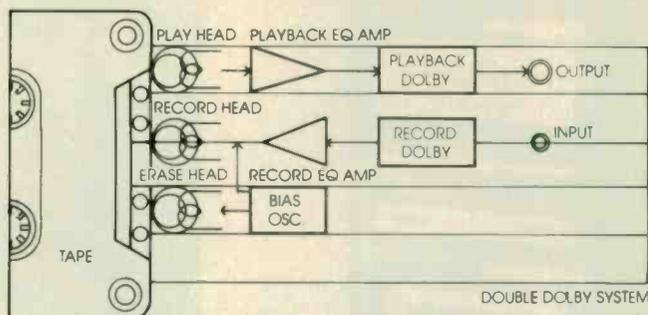
## REALISTIC

### SCT-11 Cassette Deck

Front-load cassette deck with Dolby noise-reduction system; Permalloy record/play head, ferrite erase head; electronically controlled d.c. motor; wow and flutter 0.12% wrms; S/N 58 dB (CrO<sub>2</sub> tape, Dolby on); THD 2% at 1 kHz (0 VU); frequency response 30-15,000 Hz (CrO<sub>2</sub> tape); bias/equalization switch for CrO<sub>2</sub> and standard tapes; illuminated VU meters; dual-concentric record level control knob; output level control; push levers for fast forward, rewind, pause;



# ALL THREE-HEAD CASSETTE DECKS LET YOU HEAR AS YOU RECORD. OURS LETS YOU RECORD PRECISELY WHAT YOU HEAR.



Three-Head Design with Double Dolby.\*

Not all three-head cassette decks are created equal. Some manufacturers have designed their decks with separate erase, record and playback heads primarily for convenience. So you can tape monitor as you record.

But our new KX-1030 uses separate heads primarily for performance. Each designed with the optimum gap to record or play back sound more accurately.

As a result, the KX-1030 has a frequency response of 35-18,000 Hz ( $\pm 3$  dB using CrO<sub>2</sub> tape.)

And to let you take full advantage of the separate record and playback heads, the KX-1030 has a Double Dolby\* system with separate circuits for the record amplifier and the playback preamplifier. That way, as you record

with Dolby, you can also tape monitor with Dolby, so you hear the sound precisely as it's being recorded.

The KX-1030 also has a Variable Bias Adjustment Control and a built-in oscillator, so you can adjust the exact bias for the type or brand of tape you use.

We also built in a number of other features like MIC/LINE mixing, memory rewind and a peak indicator.

But as good as all this sounds, wait until you hear the price. Because at \$375.00,\*\* no other comparably priced cassette deck can match the performance and features of our new KX-1030.

Of course the only way you're really going to appreciate the KX-1030 is to visit your Kenwood dealer. Once you do, you'll be convinced: Performance, convenience, and value set the KX-1030 apart from all the rest.

\*Dolby is the trademark of Dolby Laboratories, Inc.

\*\*Nationally advertised value. Actual prices are established by Kenwood dealers.



Variable Bias Adjust compensates for tape differences.



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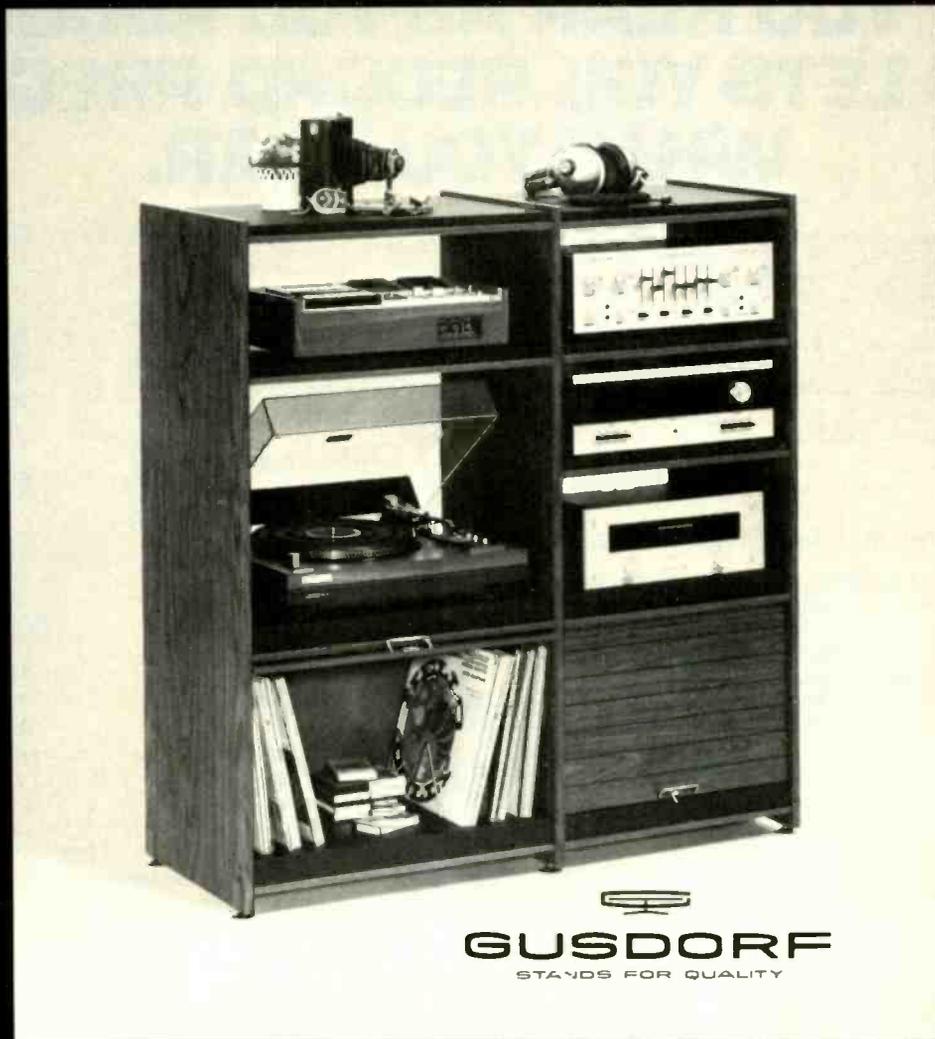
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full automatic stop; simulated walnut-finish metal case with brushed-aluminum front panel; 5 1/16" x 15 1/16" x 10 1/16" ..... \$229.95

#### SCT-9 Stereo Cassette Deck

Has Dolby noise-reduction system; memory rewind; standard/CrO<sub>2</sub> tape switch; auto stop at end of tape; two VU meters; wow and flutter 0.14%; frequency response 30-15,000 Hz ±3 dB (CrO<sub>2</sub>); S/N 54 dB (with Dolby, CrO<sub>2</sub> tape); input sensitivity 0.8 mV (mike), 100 mV (aux.); output imp. less than 10 kohms; output level adjustable to 0.775 V max.; bias 105 kHz; crosstalk -55 dB; walnut-grained vinyl veneer end panels; 4 3/16" H x 14 7/16" W x 9 1/16" D ..... \$199.95

#### SCT-14 Cassette Deck

Top-load cassette with Dolby noise-reduction system; Permalloy record/play head, ferrite erase head; electronically controlled d.c. motor; wow and flutter 0.15% wrms, S/N 59 dB (CrO<sub>2</sub> tape, Dolby on); THD 2% (0 VU); frequency response 40-13,000 Hz; bias select for standard and CrO<sub>2</sub> tapes; illuminated VU meters; calibrated Glide-Path level controls; automatic end-of-tape stop; push-push keys for record, rewind, fast forward, play, pause, and stop; digital tape counter; function indicator lights; mike, aux., and headphone jacks; scaled output level controls; simulated walnut-finish case with brushed-aluminum front panel; 3 3/8" x 11 3/8" x 9" ..... \$149.95

#### SCT-10 Stereo Cassette Deck

Pushbutton control of all functions including on/off, pause and rewind, stop/eject; hysteresis synchronous motor; response (with Super-tape) 20-10,000 Hz ±2 dB; wow and flutter 0.25% rms; S/N 48 dB; features dual lighted VU meters; left and right channel record-level controls; three-digit instant reset counter; stereo headphone jack; walnut-grained vinyl veneer end panels with brushed aluminum trim; 4 1/16" H x 14 7/16" W x 8 3/4" D ..... \$99.95

#### ROTEL

#### RD-20 Stereo Cassette Deck

Has Dolby noise-reduction system; Permalloy record/play head and ferrite erase head; electronic governor d.c. motor; wow and flutter 0.07% (play); frequency response 22-16,000 Hz +0/-3 dB (CrO<sub>2</sub> tape); S/N 60 dB with Dolby; three-digit tape counter, memory function; limiter switch; tape selection switches for normal, CrO<sub>2</sub>, and FeCr tapes; L/R slide controls for output level, record level, and mike level; headphone and two mike jacks ..... \$370.00

#### RD-30F Stereo Cassette Deck

Has Dolby noise-reduction system; ferrite record/play and erase heads; electronic governor d.c. motor; wow and flutter 0.07% (play); frequency response 20-17,000 Hz +0/-3 dB (CrO<sub>2</sub> tape); S/N 63 dB with Dolby; three-digit tape counter; headphone jack; three-position bias and equalization controls; L/R input and master output level controls; two VU meters; two mike inputs ..... \$360.00

#### RD-12F Stereo Cassette Deck

Front-loading deck with Dolby noise-reduction system; Permalloy record/play and ferrite erase heads; electronic governor d.c. motor; wow and flutter 0.09% (play); frequency response 30-16,000 Hz +0/-3 dB (CrO<sub>2</sub> tape); S/N 60 dB with Dolby; has 120-min real time counter; three-digit tape counter; memory function; headphone jack; limiter switch; three-position tape select switch; two mike inputs; dual ganged concentric L/R mike, record, and output level controls; two VU meters; wood-grained vinyl clad cabinet ..... \$340.00

#### RD-10F Stereo Cassette Deck

Has Dolby noise-reduction system; Permalloy record/play and ferrite erase heads; electronic governor d.c. motor; wow and flutter 0.08% (play); frequency response 30-14,000 Hz +0/-3

dB (CrO<sub>2</sub> tape); S/N 60 dB with Dolby; three-digit tape counter; headphone jack; two VU meters; two-position bias and equalization (70 and 120 μsec) switches; two mike inputs; dual ganged concentric record level controls (L/R) ..... \$230.00

#### ROYAL SOUND

#### RS-5800 Cassette Deck

Front-loading stereo cassette with Dolby noise-reduction system; Sen/Alloy record/play head,



ferrite erase head; servomotor capstan drive; wow and flutter 0.08% wrms; S/N 58 dB (with Dolby); frequency response 38-13,000 Hz ±2 dB (standard and low-noise tapes), 38-17,000 Hz ±2 dB (high-density and chrome tapes); fast-winding time 60 sec (C-60); inputs 0.27 mV/-69 dB at 600 ohms (mic), 60 mV/-22 dB at 10,000 ohms (line); outputs 0.775 V max. at 47,000 ohms (line), 100 mV at 8 ohms (headphones); eject, memory stop, auto play, auto repeat, timer record and play, three-way bias and equalization selection, mic and input level volume controls, two VU meters and peak-indicating lamp; 120-V, 60-Hz or 220-V, 50-Hz a.c.; 5 5/8" H x 18 5/8" W x 12 6/8" D ..... \$500.00

#### SANKYO

#### STD-2000 Cassette Deck

Automatic front-loading stereo cassette deck with Dolby noise-reduction system; super-hard Permalloy record/play head; electronically controlled d.c. motor; wow and flutter 0.2% (DIN), 0.07% (JIS wrms); S/N 47 dB at playback, 45 dB at record/playback (both with standard tape, Dolby off without filter); THD 1.5% (standard tape), 2.5% (CrO<sub>2</sub> tape); frequency response 30-14,000 Hz (normal tape), 30-17,000 Hz (CrO<sub>2</sub> and FeCr tape); crosstalk -35 dB interchannel, -55 dB intertrack; fast-winding time 90 sec (C-60); input 0.5 mV at 5000 ohms (DIN/mic), 50 mV at 50,000 ohms (DIN/line); output 580 mV ±1 dB at Dolby level (DIN/line), 10 mV at 8 or 150 ohms (headphone); total automatic shut-off; three-position bias and equalization switches; LED peak indicator; record, Dolby, and tape running indicators; mechanical pause; twin VU meters; three-digit memory tape counter; 5 1/2" H x 17" W x 11 3/4" D ..... \$299.95

**STD-1900.** Similar to STD-2000 but frequency response 30-13,000 Hz (normal tape), 30-16,000 Hz (CrO<sub>2</sub> and FeCr tape); without peak and mode indicators and memory ... \$249.95

**STD-1800.** Similar to STD-1900 but without automatic loading; wow and flutter 0.08% (JIS wrms); S/N 46 dB at playback and record/playback (standard tape, Dolby off without filter); THD 2.5% (standard tape), 3% (CrO<sub>2</sub> tape); frequency response 40-12,500 Hz (normal tape), 40-15,000 Hz (CrO<sub>2</sub> and FeCr tape); crosstalk -28 dB interchannel; output 400 mV (DIN), 900 mV (line), 1 mV (headphone); two-position bias and equalization switches; 5 7/8" H x 15 3/4" W x 9 3/4" D ..... \$179.95

**STD-1700.** Similar to STD-1700 but wow and flutter 0.22% (JIS wrms); frequency response 40-12,000 Hz (normal tape), 40-14,000 Hz (CrO<sub>2</sub> and FeCr tape); output 650 mV (line); 5 7/8" H x 14 1/4" W x 9 3/4" D ..... \$149.95

#### STD-1610 Cassette Deck

Stereo cassette deck with Dolby noise-reduction system; ferrite play/record head, Permalloy erase head; d.c. servomotor; wow and flutter 0.09% W rms; S/N 55 dB (CrO<sub>2</sub> tape, Dolby on); dist. less than 1.5%; frequency response 30-14,000 Hz; input 350 mV at 200,000 ohms (line), 0.15 mV at 600 ohms (mic); output 0.58

V at 10,000 ohms (line), 0.07 V at 80 ohms (headphones); record/play DIN jack; total automatic shut-off; automatic and manual bias controls; two VU meters; peak indicator; separate input and output controls; pause control; limiter switch; three-digit tape counter; dust cover; 120-V a.c., 60 Hz, 15 W; 3 1/2" H x 15" W x 10" D ..... \$179.95

#### STD-1510 Cassette Deck

Stereo cassette deck with Dolby noise-reduction system; ferrite play/record head, Permalloy erase head; d.c. motor; wow and flutter 0.12%; S/N 55 dB (CrO<sub>2</sub> tape, Dolby on); dist. less than 1.5%; frequency response 30-14,000 Hz; input 350 mV at 200,000 ohms (line), 0.15 mV at 600 ohms (mic); output 0.58 V at 10,000 ohms (line), 0.07 V at 80 ohms (headphones); record/play DIN jack; total automatic shut-off; automatic and manual bias controls; separate input and output controls; pause control; limiter switch; two VU meters; three-digit tape counter; 120-V a.c., 60 Hz, 15 W; 3 1/2" H x 15" W x 10" D ..... \$159.95

**STD-1510-MV.** Same but 110/220 V operation ..... \$169.95

#### STD-1410 Cassette Deck

Dolbyized cassette deck; Permalloy head; d.c. motor; wow and flutter 0.2%; S/N 55 dB (CrO<sub>2</sub> tape, Dolby NR on); dist. 1.5%; frequency response 40-14,000 Hz; input 350 mV at 200,000 ohms (line), 0.15 mV at 600 ohms (mic); output 0.58 V at 10,000 ohms (line), 8-ohm headphones, two VU meters; CrO<sub>2</sub> tape switch; three-digit index counter; pause control; total automatic shut-off; 120-V a.c., 60 Hz, 9 W; 3 1/2" H x 15" W x 10" D ..... \$129.95

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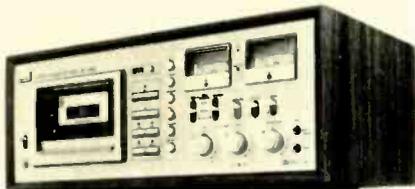
CIRCLE NO. 102 ON READER SERVICE CARD

# 6 CASSETTE TAPE MACHINES

## SANSUI

### SC-5100 Cassette Deck

"Direct-O-Matic" front-loading stereo cassette deck with Dolby noise-reduction system; ferrite



heads; FG servomotor capstan drive and d.c. winding; motor for takeup; wow and flutter 0.05%; frequency response 20-15,000 Hz (30-13,000 Hz  $\pm 3$  dB) with FeCr tape, 20-17,000 Hz (30-14,000 Hz  $\pm 3$  dB) with CrO<sub>2</sub> tape; S/N 57 dB before Dolby; features "Tape Lead-In"; for bypassing leader; separate bias and equalization switches for CrO<sub>2</sub>, normal, and FeCr tapes; mic/line mixing capability; peak level indicator; VU meters; built-in limiter circuitry; three-digit tape counter; automatic memory and repeat functions; 8 $\frac{3}{16}$ " H x 19 $\frac{1}{16}$ " W x 12 $\frac{1}{16}$ " D ..... \$600.00

### SC-3100 Cassette Deck

"Direct-O-Matic" front-loading stereo cassette deck with Dolby noise-reduction system; Permalloy record/play head, ferrite erase head; FG-equipped servomotor drive; wow and flutter 0.06%; frequency response 25-14,000 Hz (30-13,000 Hz  $\pm 3$  dB) with normal tape, 25-16,000 Hz (30-14,000 Hz  $\pm 3$  dB) with CrO<sub>2</sub> tape; S/N 57 dB before Dolby; features "Tape Lead-In"; separate bias and equalization switches for CrO<sub>2</sub>, normal, and FeCr tapes; automatic memory; mixing capability; VU meters; tape counter; 7 $\frac{1}{16}$ " H x 17 $\frac{1}{16}$ " W x 12 $\frac{1}{16}$ " D ... \$430.00

### SC-2100 Cassette Deck

"Direct-O-Matic" front-loading stereo cassette deck with Dolby noise-reduction system; wow and flutter 0.07%; frequency response 25-14,000 Hz (30-13,000 Hz  $\pm 3$  dB) with normal tape, 25-16,000 Hz (30-14,000 Hz  $\pm 3$  dB) with CrO<sub>2</sub> tape; S/N 56 dB before Dolby; features "Tape Lead-In"; three-position independent bias and equalization switches; VU meters; tape counter; 7 $\frac{1}{16}$ " H x 17 $\frac{1}{16}$ " W x 12 $\frac{1}{16}$ " D ..... \$340.00

### SC-1100 Cassette Deck

"Direct-O-Matic" front-loading stereo cassette deck with Dolby noise-reduction system; Permalloy record/play head, ferrite erase head; frequency response 25-13,000 Hz (30-12,000 Hz  $\pm 3$  dB) with normal tape, 25-16,000 Hz (30-13,000 Hz  $\pm 3$  dB) with CrO<sub>2</sub> tape; S/N 54 dB before Dolby; features "Tape Lead-In"; tape selector switch for CrO<sub>2</sub>, normal, and FeCr tapes; VU meters; three-digit tape counter; automatic shut-off at end of tape; 6 $\frac{1}{16}$ " H x 17 $\frac{3}{16}$ " W x 12 $\frac{1}{16}$ " D ..... \$230.00  
**SC-1110.** Similar, with rack-mounting adapters; 6 $\frac{3}{16}$ " H x 19" W x 12 $\frac{1}{16}$ " D ..... \$220.00

## SANYO

### RD8400 Cassette/8-Track Deck

Front-loading unit combines cassette record/play deck with 8-track cartridge record/play deck; permits recording either on cassette or 8-track and transferring from one to the other; cassette section frequency response 60-12,000 Hz; S/N 48 dB; wow and flutter 0.25% rms; speed accuracy  $\pm 2.5\%$ ; CrO<sub>2</sub> standard tape selector; tape counter; pause control; 8-track section frequency response 30-12,000 Hz; S/N 45 dB; wow and flutter 0.25% rms; lighted pro-

gram indicators; LED record and end-of-tape indicators; locking pause; two lighted VU meters; separate record-level controls; 6 $\frac{3}{4}$ " H x 21 $\frac{1}{2}$ " W x 9 $\frac{3}{4}$ " D ..... \$179.95

### RD5300 Dolbyized Cassette Deck

Front-loading stereo cassette recorder deck with built-in Dolby noise-reduction circuit; frequency response 30-16,000 Hz (CrO<sub>2</sub> tape) S/N 57 dB (Dolby out), 63 dB (Dolby in); wow and flutter 0.1% rms; separate input and output level controls; CrO<sub>2</sub> standard tape pushbutton equalization control and LED indicators; bias high/low control; limiter on/off control; two large VU meters; 6" H x 16 $\frac{1}{2}$ " W x 10 $\frac{1}{2}$ " D ..... \$179.00

### RD5055 Stereo Cassette Deck

Front-loading design with Dolby noise-reduction system; automatic stop function; two VU meters; independent bias and equalization selectors; frequency response 50-14,000 Hz (CrO<sub>2</sub> tape); S/N 58 dB with Dolby; wow and flutter 0.15% wrms; speed accuracy  $\pm 2.5\%$ ; 6" H x 16" W x 11" D ..... \$149.95

### RD4550 Stereo Cassette Deck

Front-loading design with Dolby noise-reduction system; normal/CrO<sub>2</sub> tape selector; two VU meters; locking pause control; frequency response 30-12,000 Hz; S/N 45 dB; wow and flutter 0.25% rms; 3 $\frac{1}{2}$ " H x 11 $\frac{1}{16}$ " W x 9" D ..... \$99.95

## SCOTT

### CD87 Stereo Cassette Deck

Front-loading cassette deck with Dolby noise-reduction system; has automatic cassette load-



ing with auto stop; tape running indicator and location memory; three-position Dolby switch with MPX filter; separate bias and equalization controls; rack mount panel; wow and flutter 0.065% wrms; frequency response 30-17,000 Hz  $\pm 3$  dB; S/N 66 dB with Dolby; speed accuracy  $\pm 1\%$  ..... \$349.95

### CD67 Stereo Cassette Deck

Front-loading cassette deck with Dolby noise-reduction system; two equalized VU meters; limiter and output level controls; independent bias and equalization controls; rack mount handles; wow and flutter 0.07% wrms; frequency response 20-15,000 Hz  $\pm 3$  dB; S/N 60 dB with Dolby; speed accuracy  $\pm 1\%$ ; fast-winding time 75 sec; channel separation 35 dB (1 kHz) ..... \$229.95

## SHARP

### RT1165 Stereo Cassette Deck

Incorporates Dolby noise-reduction system; has Auto Program Search System; two VU meters and peak-level indicator; individual mike and line level controls; bias and equalization switches for CrO<sub>2</sub>, FeCr, and normal tapes; Permalloy record/play head and ferrite erase head; wow and flutter 0.09% wrms; fast-winding time 100 sec (C-60); frequency response 30-12,500 Hz  $\pm 3$  dB (normal tape), 30-14,000 Hz  $\pm 3$  dB (CrO<sub>2</sub> and FeCr tapes); S/N 62 dB with Dolby; 6 $\frac{3}{16}$ " H x 16 $\frac{1}{16}$ " W x 9 $\frac{3}{16}$ " D ..... \$199.95

### RT1155 Stereo Cassette Deck

Incorporates Dolby noise-reduction system; has Auto Program Search System; two VU me-

ters and peak-level indicator; bias and equalization switches for CrO<sub>2</sub>, FeCr, and normal tapes; Permalloy record/play head and ferrite erase head; wow and flutter 0.1% wrms; fast-winding time 95 sec (C-60); frequency response 40-11,000 Hz  $\pm 3$  dB (normal tape), 40-13,000 Hz  $\pm 3$  dB (FeCr tape), 40-12,000 Hz  $\pm 3$  dB (CrO<sub>2</sub> tape); S/N 60 dB with Dolby; 6 $\frac{3}{16}$ " H x 16 $\frac{1}{16}$ " W x 9 $\frac{3}{16}$ " D ..... \$179.95

## SONAB

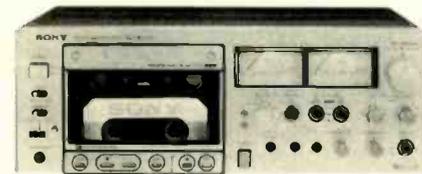
### C500 Cassette Deck

Stereo cassette deck with Dolby B noise-reduction system; has servo-controlled d.c. motor and single capstan; wow and flutter  $\pm 0.13\%$  wtd. peak; fast-winding time 100 sec (C-60); quasi peak-reading recording meters; three-digit tape counter with memory rewind; two Permalloy heads; tape selection switches for standard and CrO<sub>2</sub> tape; bias frequency 105 kHz; frequency response 30-15,000 Hz  $\pm 3$  dB (standard tape), 30-16,000 Hz  $\pm 3$  dB (CrO<sub>2</sub> tape); S/N 60 dB (Dolby on, CrO<sub>2</sub> tape); channel separation 35 dB; crosstalk  $-60$  dB; 4" H x 15" W x 10" D ..... \$399.00

## SONY from SUPERSCOPE

### EL-7 Elcaset Deck

Front-load stereo cassette component deck; Dolby noise-reduction system; ferrite-and-fer-



rite heads; d.c. servomotor for capstan drive, d.c. motors for reel drive; 3 $\frac{3}{4}$  ips tape speed; wow and flutter 0.04% wrms; S/N (Dolby off) 59 dB (SLH tape), 62 dB (FeCr tape), Dolby on improves S/N by 10 dB over 5 kHz; frequency response 25-20,000 Hz  $\pm 3$  dB (SLH tape), 25-22,000 Hz  $\pm 3$  dB (FeCr tape); fast-winding time 60 sec (LC-60); distortion 0.8% (FeCr tape); bias frequency 160 kHz; input 0.095 V at 100,000 ohms (line-three inputs),  $-68$  dB (lo-Z mike); output 0.775 V at 10,000 ohms (line), 8-ohm headphone; illuminated VU meters; "Symphase" recording capability; three-position equalization and bias selection; pause control; three-digit memory rewind tape counter; 120-V a.c., 60 Hz, 35 W; 6.75" H x 17" W x 12.625" D ..... \$899.95

**RM-30.** Full-function remote control for Sony Elcaset tape decks; record mute; color-coded feather-touch controls; deck function may be switched without depressing stop button; silent controls; 13-ft extension cord; standard camera tripod mount ..... \$59.95

### TC-177SD Cassette Deck

Stereo cassette deck with three ferrite heads; Dolby noise-reduction system; automatic total mechanism shut-off; frequency response 20-17,000 Hz (standard tape), 20-20,000 Hz (CrO<sub>2</sub> and FeCr tape); illuminated VU meters; peak-level indicator; 400-Hz calibration tone switch; push-button operation; 6 $\frac{1}{8}$ " H x 17 $\frac{1}{8}$ " W x 12 $\frac{1}{16}$ " D ..... \$829.95

### EL-5 Elcaset Deck

Front-load stereo cassette component deck; Dolby noise-reduction system; ferrite-and-ferrite heads; FG d.c. servomotor; 3 $\frac{3}{4}$  ips tape speed; wow and flutter 0.06% wrms; S/N (Dolby off) 59 dB (SLH tape), 62 dB (FeCr tape), Dolby on improves S/N by 10 dB over 5 kHz; frequency response 25-18,000 Hz  $\pm 3$  dB (SLH tape), 25-20,000 Hz  $\pm 3$  dB (FeCr tape); fast winding time 75 sec (C-60); distortion 0.8% (FeCr tape); bias frequency 160 kHz; input/output same as EL-7; illuminated VU meters; "Symphase" recording capability; three-posi-

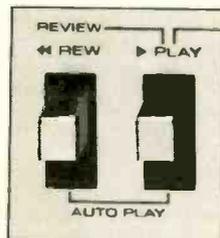
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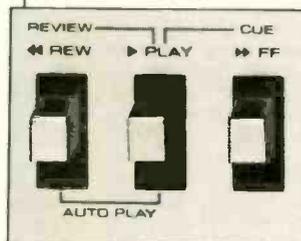
extra money. Before you buy any tape deck, get all the facts. They're right on this page.

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**Cue and Review.** Your fingers will do less walking on the keys. When you're looking for a certain portion of the tape, just push down to find the place. And lift your finger to start the tape playing.



**Timer Setting** for absent recording. Now you can record Janis Joplin at home while you're out listening to Mozart. Just use the PC-3060's timer setting switch with your own timer. Recording will begin automatically at the time you set. The Auto Stop mechanism will turn it off at the end.



**Dolby® Noise Reduction System and Dolby FM Selector Switch.** On the PC-3060, all you'll hear is the sound of the music. Because the Dolby® noise reduction system cuts hiss level by as much as 10dB—so much that it's virtually nonexistent. And a selector push button instantly gives you the best of Dolby FM broadcasts.

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Besides all the extras, the PC-3060 has all the ordinarys: Switched Bias/Equalization, Rotary Master REC Level Control, two recording level meters, an easy-to-operate vertical format, and low wow and flutter.

**6 CASSETTE TAPE MACHINES**

trol; three-digit memory tape counter; 120-V a.c., 60 Hz, 30 W ..... \$629.95

**TC-138SD Dolbyized Cassette Deck**

Stereo cassette deck with Dolby noise-reduction system; ferrite-and-ferrite head; FeCr equalization; built-in multiplex filter; three-pos. tape select switch; pushbutton operation; mic/line mixing; straight-line record level controls; record interlock; separate line-out volume control; stereo headphone monitor jack; two calibrated VU meters, peak limiter; peak level indicator; three-digit tape counter; automatic total mechanism shutoff; four function-indicator lamps; locking fast-forward and rewind; frequency response 20-15,000 Hz (standard), 30-15,000 Hz  $\pm 3$  dB (chrome and FeCr tape); induction motor drive; wow and flutter 0.07%; comes with two RK-72 patchcords, dust cover, FeCr-60 cassette; 5 $\frac{7}{16}$ " H x 16 $\frac{3}{16}$ " W x 11 $\frac{1}{16}$ " D ..... \$399.95

**TC-206SD Stereo Cassette Deck**

Front-load stereo cassette deck; Dolby noise-reduction system; ferrite-and-ferrite head; FeCr equalization; d.c. servo-controlled motor; "Symphase" recording capability; three-pos. tape select switch; three-pos. bias selector switch; push-button operation; mic/line mixing; record interlock; stereo headphone monitor jack; two calibrated VU meters, peak limiter; peak level indicator; three-digit tape counter with reset button; mic and aux. inputs; two a.c. outlets; Dolby indicator lamp frequency response 20-14,000 Hz  $\pm 15$  dB; 20-16,000 Hz  $\pm 15$  dB (FeCr), 30-15,000 Hz  $\pm 3$  dB (chrome); wow and flutter 0.08%; comes with two RK-74H patchcords; 6 $\frac{5}{16}$ " H x 17" W x 12 $\frac{1}{4}$ " D ..... \$369.95

**TC-136SD Stereo Cassette Deck**

Stereo cassette deck; Dolby noise-reduction system; ferrite-and-ferrite head; "Symphase" recording capability; built-in multiplex filter; three-pos. tape select switch; pushbutton operation; mic/line mixing; straight-line record level controls; record interlock; two illuminated VU meters; peak limiter; three-digit tape counter; automatic total mechanism shutoff; Dolby and record indicator; frequency response 30-12,000 Hz (standard), 40-15,000 Hz  $\pm 3$  dB (chrome and FeCr tapes); comes with two RK-74 patchcords, head cleaning tips, FeCr cassette; 5" H x 15 $\frac{1}{4}$ " W x 9 $\frac{1}{2}$ " D ..... \$299.95

**TC-186SD Stereo Cassette Deck**

Front-load stereo cassette deck; Dolby noise-reduction system; ferrite-and-ferrite head; "Symphase" recording capability; Dolby FM; Dolby calibration controls (FM); three-pos. tape select switch; three-pos. bias select switch; pushbutton operation; record interlock; stereo headphone monitor jack; two illuminated VU meters; peak limiter; three-digit tape counter; automatic total mechanism shutoff; frequency response 30-14,000 Hz  $\pm 15$  dB (standard), 40-15,000 Hz  $\pm 3$  dB (chrome and FeCr tapes); two mic and line inputs; two line and one stereo headphone outputs; comes with two RK-74 patchcords, wooden cabinet; 16 $\frac{1}{4}$ " H x 6 $\frac{1}{2}$ " W x 11 $\frac{5}{8}$ " D ..... \$299.95

**TC-135SD Stereo Cassette Deck**

Stereo cassette deck; Dolby noise-reduction system; ferrite-and-ferrite head; FeCr equalization; "Symphase" recording capability; d.c. servo-controlled motor; Dolby FM and calibration controls; multiplex filter; three-pos. tape select switch; automatic bias adj. for CrO<sub>2</sub> tape; two illuminated VU meters; pushbutton operation; peak limiter; three-digit tape counter with reset button; input selector for mic or line in-

put; record indicator pilot lamp; locking fast-forward and rewind; frequency response 30-13,000 Hz  $\pm 15$  dB (standard), 30-15,000 Hz  $\pm 15$  dB (FeCr), 50-14,000 Hz  $\pm 3$  dB (chrome); comes with two RK-74 patchcords; 4 $\frac{1}{4}$ " H x 15 $\frac{3}{8}$ " W x 9 $\frac{3}{4}$ " D ..... \$249.95

**TC-118SD Cassette Deck**

Stereo cassette deck with Dolby noise-reduction system; servo-control motor; wow and flutter 0.15% wrms; S/N (Dolby off) 50 dB; frequency response 40-10,000 Hz  $\pm 3$  dB (standard tape), 40-13,000 Hz (FeCr and CrO<sub>2</sub> tape); fast-winding time 90 sec (C-60); bias frequency 85 kHz; input 0.06 V at 100,000 ohms (line), -72 dB (I-Z mike); output 0.435 V at 10,000 ohms (line), 8-ohm headphones; three-position tape selector switch; illuminated VU meters; peak limiter; pause control; three-digit tape counter; automatic shutoff; 120-V a.c., 60 Hz, 7 W; 4.13" H x 14.25" W x 9.37" D ... \$209.95

**TC-117 Stereo Cassette Deck**

Stereo cassette deck; FeCr equalization; servo-controlled motor; tape select switch; pushbutton operation; straight-line record level controls; record interlock; two illuminated VU meters; pause control with interlock; three-digit tape counter, high filter switch; frequency response 40-10,000 Hz, 40-13,000 Hz (chrome and FeCr); comes with walnut base and two RK-74 patchcords; 4 $\frac{1}{8}$ " H x 14 $\frac{1}{4}$ " W x 9 $\frac{3}{8}$ " D ..... \$159.95

**SUPERSCOPE**

**CD-310 Cassette Deck**

Front-loading cassette deck with Dolby noise-reduction system; bias and equalization selection switches; pause control; tape counter; Permalloy head; peak limiter switch; VU meters ..... \$199.95

**CD-304 Cassette Deck**

Stereo cassette deck with Dolby noise-reduction system; auto stop; pause control; tape counter; Permalloy head; stan CrO<sub>2</sub> tape selector switch; peak limiter switch; VU meters ..... \$167.95

**CD-302A Cassette Deck**

Stereo cassette deck with Dolby noise-reduction system; two-head design; d.c. governor-controlled motor; wow and flutter 0.12% rms; S/N without Dolby 48 dB (low-noise tape) and 51 dB (CrO<sub>2</sub> tape), with Dolby 58 dB (low-noise tape) and 61 dB (CrO<sub>2</sub> tape); frequency response 30-15,000 Hz (standard tape), 30-18,000 Hz (CrO<sub>2</sub> tape); bias frequency 85 kHz; fast-winding time 75 sec (C-60); input 75 mV at 120,000 ohms (aux.), -70 dB (I-Z mike); output 0.775 V at 100,000 ohms (line), 8-ohm headphone; locking pause control; three-digit tape counter; VU meters; tape select switch; 120-V a.c., 50/60 Hz, 11 W; 3 $\frac{1}{4}$ " H x 12 $\frac{1}{2}$ " W x 8 $\frac{1}{8}$ " D ..... \$159.95

**CD-303 Cassette Deck**

Stereo cassette deck; auto stop; pause control; tape counter; Permalloy head; standard/CrO<sub>2</sub> tape selector switch; peak limiter switch; VU meters ..... \$134.95

**CD-301A Cassette Deck**

Same as CD-302A but without Dolby noise-reduction system; frequency response 40-10,000 Hz (standard tape), 40-14,000 Hz (CrO<sub>2</sub> tape); wow and flutter 0.2% wrms ... \$199.95

**TANDBERG**

**TCD-330 Cassette Deck**

Stereo record/play Dolbyized cassette deck; three heads (for tape/source monitoring during recording); three-motor, dual-capstan, closed-loop drive system, hysteresis synchronous record/play motor; wow and flutter 0.12% (wrms), 0.18% (DIN 45500); S/N (Dolby on, ref. 3% third harmonic dist.) 64 dB (DIN 45500, IEC A curve rms), 52 dB (DIN 45500, IEC lin-



ear); 0.3% dist. (electronic with 0-dB rec. level); frequency response 20-20,000 Hz (DIN 45500), 30-18,000 Hz  $\pm 3$  dB (FM/MPX filter off); channel separation 60 dB (side 1/2), 35 dB (track 1/track 2) at 1 kHz; input sensitivity 0.15-20 mV (mic), 0.08-10 V (line), 0.008-1 V (radio); input imp. automatically adjusts 100-800 ohms (mic), 470,000 ohms (line), 47,000 ohms (radio); output 775 mV unloaded, 5000-ohm imp. (radio), 1.5 V unloaded, 100-ohm imp. (line), 5 mW at 8 ohms (headphone); 230-V a.c., 50 Hz or 115-V a.c., 60 Hz, 40 W; 4 $\frac{1}{8}$ " H x 18 $\frac{1}{2}$ " W x 9 $\frac{1}{8}$ " D ..... \$999.00

**TCD 310 Mk II Cassette Deck**

Stereo record/play Dolbyized cassette deck; three-motor, dual-capstan, closed-loop drive system, synchronous record/play motor; wow and flutter 0.2% (DIN 45500 weighted peak); S/N (Dolby on, ref. 3% third harmonic dist., Tandberg Tape) 65 dB (DIN 45500, IEC A curve), 55 dB (DIN 45500, IEC linear rms); 0.3% dist. (electronic with 0-dB rec. level); frequency response 30-16,000 Hz (DIN 45500, MPX filter off); channel separation 60 dB (side 1/2), 35 dB (track 1/track 2) at 1 kHz; input sensitivity 0.15-0.20 mV (mic), 0.04-5 V (line), 0.008-1 V (radio); input imp. automatically adjusts 100-800 ohms (mic), 220,000 ohms (line), 47,000 ohms (radio); output 775 mV at 10,000 ohms (radio/line), 2 mW at 8 ohms (headphone); 240-V a.c., 50 Hz or 115-V a.c., 60 Hz, 34 W; 4 $\frac{1}{4}$ " H x 17" W x 9 $\frac{1}{4}$ " D ..... \$499.00

**TEAC**

**A-650 Stereo Cassette Deck**

Front-loading cassette deck; phase-locked-loop d.c. servo capstan motor, mechanically governed d.c. reel motor; two heads; wow and flutter 0.06% (NAB weighted); S/N 57 dB at 3% THD (without Dolby), 62 dB at 1 kHz and 67 dB at 5000 Hz (with Dolby); frequency response 30-16,000 Hz (chrome and FeCr tapes), 30-13,000 Hz (hi-energy tape); inputs: two line 60 mV/50 k; two mic 0.25 mV/-72 dB (600 ohms or more); outputs: two line 0.3 V/load imp. 50 k or more; one 8-ohm stereo headphone; two VU-type loudness meters; two LED peak-reading indicators; Dolby circuit has FM/copy and MPX functions so unit can decode any external Dolby-encoded source for monitoring while recording that source signal still encoded; individual input level controls; memory stop system; digital tape counter; independent three-position bias and equalization selectors; 7" H x 17 $\frac{1}{16}$ " W x 12 $\frac{1}{16}$ " D ..... \$600.00

**A-640 Cassette Deck**

Front-load stereo cassette deck with Dolby noise-reduction system; PLL servo-controlled motor capstan drive; wow and flutter 0.06%; frequency response 30-16,000 Hz (CrO<sub>2</sub> and FeCr tape); S/N 57 dB (Dolby off), improved by 10 dB above 5 kHz with Dolby in; recording and record/mute functions; memory counter with play feature; three-position independent bias and equalization switches; mic/line mixing; recording time function; peak-reading dB meters ..... \$550.00

**A-303 Cassette Deck**

Front-load stereo cassette deck with Dolby noise-reduction system; two-head design; wow and flutter 0.06%; frequency response 30-16,000 Hz (CrO<sub>2</sub> or FeCr tape); S/N 57 dB

(Dolby out), improved by 10 dB at 5 kHz with Dolby in; record/mute function; memory switch for easy search of recorded material; photo-transistor-controlled auto-stop; three-step independent bias and equalization switches; timer control permits automatic recording or playback ..... \$400.00

**A-400 Dolbyized Stereo Deck**

Features Dolby noise-reduction system; twin rotary lever transport-control system; separate bias/equalization switches; LED peak indicator; response 30-16,000 Hz (CrO<sub>2</sub> tape); S/N 60 dB (wtd. with Dolby); wow and flutter 0.08% ..... \$300.00

**A-420 Dolbyized Cassette Deck**

Vertical front-load deck; two heads; d.c.; servomotor; wow and flutter 0.07% wrms (NAB weighted); S/N 55 dB at 3% THD (without Dolby), 60 dB at 1 kHz and 65 dB at 5000 kHz (with Dolby); frequency response 30-16,000 Hz (chrome and FeCr tapes); two VU-type loudness meters; two LED peak-reading indicators; inputs: two line 60 mV/50 k; two mic 0.25 mV/-72 dB (600 ohms or more); outputs: two line 0.775 V/load imp. 50 k or more; one 8-ohm stereo headphones; digital tape counter; three-pos. bias and equalization selectors; switchable timer function; 6 1/8" H x 17 3/8" W x 11 1/2" D ..... \$350.00

**A-170 Dolbyized Cassette Deck**

Features Dolby noise-reduction system; separate bias and equalization switches; straight-line level controls; automatic shut-off; response 30-16,000 Hz (CrO<sub>2</sub> tape); wow and flutter 0.09% (wtd with Dolby) ..... \$200.00

**A-170S.** Same but with brushed aluminum control panel and meter bridge ..... \$250.00

**A-150.** Similar to A-170 except frequency response 30-15,000 Hz (chrome and FeCr tapes), 30-12,000 Hz (hi-energy tape); two VU-type loudness meters; one LED peak-reading indicator; dual concentric input-level controls; 6 3/8" H x 16 1/8" W x 11 7/8" D ..... \$250.00

**A-100 Stereo Cassette Deck**

Front-load deck; d.c. servomotor; two heads; wow and flutter 0.10% wrms (NAB weighted); S/N 50 dB at 3% THD (without Dolby), 55 dB at 1 kHz, 60 dB at 5 kHz (with Dolby); frequency response 30-14,000 Hz (chrome and FeCr tapes), 30-11,000 Hz (hi-energy); two VU-type loudness meters; 6 3/8" H x 16 1/8" W x 11 7/8" D ..... \$200.00

**A-105 Cassette Deck**

Stereo cassette deck with Dolby noise-reduction system; two permaflux heads; wow and flutter 0.09%; frequency response 30-15,000 Hz (CrO<sub>2</sub> tape); S/N 53 dB (Dolby out), improved by 10 dB at 5 kHz with Dolby in; two-step bias and equalization switches; separate left and right record level controls; mic/line input switch; pause control; three-digit tape counter; VU meters; 7 1/16" H x 17 3/16" W x 9 3/8" D ..... \$250.00

**A-103 Cassette Deck**

Front-load stereo cassette deck with Dolby noise-reduction system; two permaflux heads; wow and flutter 0.1%; frequency response 30-14,000 Hz (CrO<sub>2</sub> tape); S/N 50 dB (Dolby out), improved by 10 dB at 5 kHz with Dolby in; two-step bias and equalization switches; three-digit tape counter; two VU meters; separate left and right record level controls; mic/line input switch; 7 1/16" H x 17 3/16" W x 9 3/8" D .. \$230.00

**Esoteric Series**

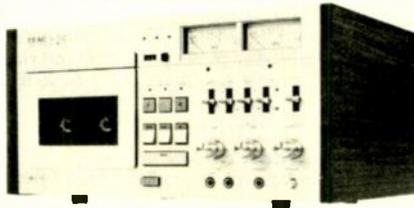
**860 Stereo Record/Reproducer**

Three-motor dual-capstan drive transport system; dbx II noise reduction system for 30 dB noise reduction over entire audio frequency spectrum; three heads; wow and flutter 0.04% wrms; frequency response 20-20,000 Hz (chrome and FeCr tapes); 20-18,000 Hz (hi-energy tape); S/N 60 dB at 3% THD (without

Dolby), 65 dB at 1 kHz and 70 dB at 5000 Hz (with Dolby), 80 dB (with dbx II); two VU-type loudness or peak-reading meters (selectable); four line and four mic inputs; test input for test tone generator; mic attenuation 0/20 dB (selectable on mixer panel); built-in 4-in/2-out mixer; three-pos. bias and equalization selectors; cue control; memory circuit; pitch control for ±4% speed adjustment; 14 3/8" H x 17 3/8" W x 9 1/2" D ..... \$1600.00

**AL-700 Elcaset Deck**

Stereo Elcaset deck with Dolby noise-reduction system; erase, record, and playback heads; FG



servo-controlled d.c. capstan motor, two coreless d.c. reel motors; wow and flutter 0.04% (NAB weighted). S/N: Type I, 59 dB; Type II, 62 dB; Type III, 62 dB (improved by 5 dB at 1 kHz, 10 dB over 5 kHz with Dolby). Frequency response 25-20,000 Hz (Type I), 25-22,000 Hz (Types II and III); inputs 0.25 mV (-72 dB) at 600 ohms or more (mic), 60 mV at 50,000 ohms (line); outputs 0.3 V at 50,000 ohms (line), 1 mW at 8 ohms (headphones); seven touch-button control; switchable noise-reduction system for Dolby or dbx; automatic adjustment of bias and equalization; automatic stop; record mute; memory stop/play function; optional accessories include RX-10 dbx unit and RC-90 remote controller; 117-V a.c., 60 Hz, 126 W; 10 1/16" H x 18 1/2" W x 13 3/8" D ..... \$1100.00

**PC-10 Portable A.C./D.C. Deck**

Features PLL d.c. servo direct-drive capstan motor and mechanically governed d.c. reel motor; two heads; wow and flutter 0.07% wrms (NAB weighted); frequency response 30-16,000 Hz (chrome and FeCr tapes), 30-13,000 Hz (hi-energy tape); S/N 58 dB at 3% THD (without Dolby), 63 dB at 1 kHz, 68 dB at 5000 Hz (with Dolby); two VU-type loudness meters and one peak-reading indicator; mic attenuation 0/15/30 dB (selectable); built-in monitor speaker with 300 mW amplifier; locking pause control; locking meter illumination button; battery check circuit; comes with PA-2 a.c. adapter, heavy-duty shoulder strap, input/output connecting cords; 117-V a.c., 60 Hz/9-V d.c. (six "C" cells); 3 1/2" H x 11 1/2" W x 9 1/8" D; 11 lb including batteries ..... \$500.00

**A-480 Stereo Cassette Deck**

Front-loading cassette deck with Dolby noise-reduction system; FG servo-controlled d.c.

motor; record mute function; MPX filter; memory stop; three-step bias and equalization selectors; mike/line mixing; auto stop; two VU meters and peak indicator; timer; output level control; wow and flutter 0.07% wrms; S/N 60 dB with Dolby (1 kHz); frequency response 30-16,000 Hz (CrO<sub>2</sub> and FeCr tapes), 30-13,000 Hz (high-energy tape); 7 1/8" H x 18 1/2" W x 11 1/2" D ..... \$400.00

**TECHNICS BY PANASONIC**

**RS-686DS Portable Cassette Deck**

Four-track stereo record/play portable cassette deck with Dolby noise-reduction system; HPF head for record/play, Super-Alloy head for monitoring, ferrite head for erase; wow and flutter 0.07% wrms; S/N 63 dB (above 5 kHz, Dolby in), 53 dB (Dolby out); frequency response 50-16,000 Hz (CrO<sub>2</sub> tape), 50-14,000 Hz (standard tape); fast-winding time 80 sec (C-60); input 0.25 mV at 400-10,000 ohms (mike), 60 mV at 100,000 ohms (line); output 0.42 V at 22,000 ohms, (line), 0.2 W (monitor speaker), 65 mV at 8-125 ohms (headphone), 65 mV at 8 ohms (earphone); bias and equalization selectors; left/right peak-check indicators; tape selector/monitor switch; mike attenuator; audio-stop and tape-end alert eye (silent); 9-V d.c. (battery, car or a.c. adapter); 3" H x 9" W x 7 1/2" D ..... \$599.95

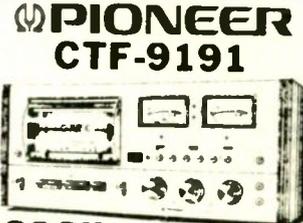
**RS-677US Cassette Recorder Deck**

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); 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 a mic level control for mixing; remote-control box included; vinyl-over-wood cabinet; guaranteed minimum specifications: record/play frequency response 30-15,000 Hz ±3 dB (chromium-dioxide tape); 30-17,000 Hz ±3 dB (standard tape); wow and flutter 0.07% wrms; S/N 52 dB (Dolby out), 65 dB (Dolby in); dist. 2.0% with regular tape; 5 3/8" H x 17 1/4" W x 13 1/4" D ..... \$499.95

**RP-905.** Recording timer adapter for use in conjunction with a timing on-off clock and solenoid-controlled Model RS-677US and RS-640US recorders; may be used to initiate recording or playback at pre-selected time; may also provide turn-off and restart (depending on clock capability) ..... \$69.95

**RS-671AUS Cassette Recorder Deck**

Front-loading design with front-panel controls; features Dolby circuit; two motors including electronic control for capstan driver; solenoid



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**CTF-9191**

**293<sup>00</sup>**  
STEREO CASSETTE DECK with  
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6

CASSETTE  
TAPE MACHINES

operation; hot-pressed ferrite head; meter peak-check switch; separate bias and equalization selectors; full auto-stop in any mode; mechanical pause; digital counter; memory rewind; output level control; mic/line inputs; guaranteed minimum specifications: response 30-17,000 Hz (chromium-dioxide tape), 30-15,000 Hz (standard tape); wow and flutter 0.075% wrms; S/N 52 dB (Dolby out, standard tape), 65 dB (Dolby in, CrO<sub>2</sub> tape); 5<sup>1</sup>/<sub>2</sub>" H x 17<sup>1</sup>/<sub>2</sub>" W x 13" D ..... \$399.95

**RS-640US Cassette Recorder Deck**

Horizontal design with Dolby circuit; standard and chromium-dioxide tape selection; hot-pressed ferrite heads; tape-end alert eye gives three-minute warning before tape runs out; peak-level meters with checking switch; memory rewind; separate mic/line level controls; response 30-16,000 Hz (chromium-dioxide tape), 30-14,000 Hz (standard tape); wow and flutter 0.08% wrms; S/N 51 dB (Dolby out, standard tape), 64 dB (Dolby in, CrO<sub>2</sub> tape); 5<sup>1</sup>/<sub>2</sub>" H x 17" W x 11<sup>1</sup>/<sub>2</sub>" D ..... \$349.95

**RS-625US Cassette Deck**

Incorporates Dolby noise-reduction system; has limited "Specification Guarantee"; two VU meters with peak check function; selector for normal/CrO<sub>2</sub> tapes; tape run indicator lamps; full automatic stop; separate input/output level controls; HPF record/play head and ferrite erase head; fast-winding time 100 sec (C-60); wow and flutter 0.1% JIS wrms; frequency response 40 (+3/-5 dB) to 12,000 (±3 dB) Hz (CrO<sub>2</sub>), to 11,000 Hz ±3 dB (normal); S/N 57 dB with Dolby (wtd.); speed accuracy ±2%; 5" H x 15<sup>1</sup>/<sub>2</sub>" W x 10<sup>1</sup>/<sub>2</sub>" D ..... \$299.95

**RS-646DS Portable Cassette Deck**

Four-track stereo record/play portable cassette deck with Dolby noise-reduction system; Super-Alloy record/play head, ferrite erase head; wow and flutter 0.1% wrms; S/N 65 dB (above 5 kHz, Dolby in), 55 dB (Dolby out); frequency response 50-14,000 Hz ±3 dB (standard and CrO<sub>2</sub> tape); fast-winding time 130 sec (C-60); input 0.25 mV at 400-10,000 ohms (mike), 60 mV at 47,000 ohms (line); output 0.42 V at 50,000 ohms (line), 0.8 W (monitor speaker), 65 mV at 8 ohms (headphone); bias and equalization selectors; 4-in PM dynamic speaker; mike attenuator; battery check meter; 120-V a.c., 50/60 Hz, 9 W or 12-V d.c. (battery or car adapter); 4<sup>1</sup>/<sub>2</sub>" H x 14<sup>1</sup>/<sub>2</sub>" W x 11" D ... \$299.95

**RS-630TUS Cassette Deck**

Four-track stereo record/play front-loading cassette deck with Dolby noise-reduction system; Super-Alloy head for record/play, ferrite head for erase; wow and flutter 0.09% wrms; S/N 63 dB (CrO<sub>2</sub> tape, above 5 kHz, Dolby in), 50 dB (normal tape, Dolby out); frequency response 30-16,000 Hz (CrO<sub>2</sub> tape), 30-14,000 Hz (standard tape); fast-winding time 90 sec (C-60); input 0.25 mV at 600-20,000 ohms (mike), 60 mV at 47,000 ohms (line); output 0.42 V (0 VU) at 50,000 ohms (line), 60 mV at 8 ohms (headphone); automatic play/record with timer stand-by mechanism; left/right dual-level input/output controls; bias and equalization settings for all major tapes; digital tape counter; pause control; 120-V a.c., 50/60 Hz; 5<sup>1</sup>/<sub>2</sub>" H x 17<sup>1</sup>/<sub>2</sub>" W x 12<sup>1</sup>/<sub>2</sub>" D ..... \$249.95

**RS-263AUS Cassette Recorder Deck**

Dolbyized stereo design with standard tape and chromium-dioxide selection; wow and flutter 0.2%; response 30-13,000 Hz (standard tape); 30-14,000 Hz (chromium-dioxide); S/N 45 dB (55 dB Dolby); has peak level check switch; separate output level adjustments mike and line inputs, automatic stop, memory rewind and

pause control; 5" H x 14" W x 9<sup>1</sup>/<sub>2</sub>" D ... \$179.95

**RS-615US Cassette Deck**

Four-track stereo record/play front-loading cassette deck with Dolby noise-reduction system; Super-Alloy head for record/play, ferrite head for erase; wow and flutter 0.1% wrms; S/N 63 dB (CrO<sub>2</sub> tape, Dolby in), 50 dB (standard tape, Dolby out); frequency response 30-15,000 Hz (CrO<sub>2</sub> tape), 30-14,000 Hz (standard tape); fast-winding time 90 sec (C-60); input 0.25 mV at 600-20,000 ohms (mike), 60 mV at 47,000 ohms (line); output 0.42 V at 50,000 ohms (line), 65 mV at 8 ohms (headphone); three-position tape selector; timer stand-by mechanism; pause control; level meters; 41-step L/R dual input control; auto stop; recording indicator lamp; tape counter; 120-V a.c., 50/60 Hz, 10 W; 5<sup>1</sup>/<sub>2</sub>" H x 16<sup>1</sup>/<sub>2</sub>" W x 12" D ..... \$199.95

**Professional Series****RS-7500US Elcaset Deck**

Three-head design with automatic tape selection; full-stop mechanism; memory rewind;



timer recording and play; tape monitoring; mike/line mixing; click and pop muting; two VU meters; separate output level control; wow and flutter 0.06% wrms; frequency response 25-20,000 Hz ±3 dB (tape type I), to 22,000 Hz (tape types II and III); S/N 63 dB (tape types II and III); 0.8% dist. with tape type III; output level/imp. 580 mV/22 kohms (line), 60 mV/8 ohms (headphone); input sensitivity/imp. 0.25 mV/400-20,000 ohms (mike), 60 mV/100 kohms (line); has FG servo-controlled d.c. motor; 10" H x 17<sup>1</sup>/<sub>2</sub>" W x 13<sup>1</sup>/<sub>2</sub>" D ..... \$649.95

**RS-9900US Stereo Cassette Deck**

Incorporates closed-loop, double-capstan, three-motor drive, separate amplifier unit, and Dolby noise-reduction system; memory play/rewind; pitch control; remaining tape time meter; calibration controls for Dolby play and record, bias, equalization; tape/source monitoring; mike attenuator; tape selection switch; 400- and 8-Hz test oscillators; MPX filter; amp unit; S/N 67 dB with Dolby; 55-dB dynamic range (mike amp recording capacity); tape transport: wow and flutter 0.04% wrms; frequency response 25-18,000 Hz ±3 dB (normal tape), to 20,000 Hz with CrO<sub>2</sub> tape; fast-winding time 70 sec (C-60); two HPF record/play heads and ferrite erase head; tape transport: 7<sup>1</sup>/<sub>2</sub>" H x 19" W x 14<sup>1</sup>/<sub>2</sub>" D; amp: 6<sup>1</sup>/<sub>2</sub>" H x 19" W x 14<sup>1</sup>/<sub>2</sub>" D ..... \$1500.00

**TOSHIBA****PC-6030 "Feather-Touch" Deck**

Dual-capstan system; PLL controlled d.c. servomotor for capstan, d.c. bridge servomotor for reel drive; "Feather-Touch" operation with IC logic and solenoid; has ferrite record/play and erase heads; frequency response 30-17,500 Hz; S/N 58 dB; features auto rewind; auto play; automatic counter; external timer ... \$750.00

**PC-5060 Dolbyized Cassette Deck**

Front-loading; electrically controlled servomotor; tape selector with independently switchable bias and equalization; chrome tape auto selector; editing switch; limiter switch; input selector switches; frequency response 40-15,000 Hz (chrome); S/N 58 dB (Dolby off); wow and flutter 0.08% wrms ..... \$319.95

**PC-4360 Cassette Deck**

Direct-loading cassette deck; d.c. servomotor; two hardened permalloy heads; Dolby noise reduction system; bias and equalization selectors; cue and review controls; timer setting function; frequency response 30-16,000 Hz (chrome tape); S/N 57 dB (chrome tape, Dolby off); wow and flutter 0.07% wrms .... \$249.95

**PC-4030 Dolbyized Cassette Deck**

Electrically controlled bridge servo d.c. motor; tape selector; chrome tape auto selector; auto-play; cue and review; input selector switch; fader control for recording; frequency response 40-15,000 Hz (chrome); S/N 57 dB (Dolby off); wow and flutter 0.09% wrms; dist. (standard tape) 2.0% ..... \$229.95

**PC-3060 Dolbyized Cassette Deck**

Front-loading deck; d.c. servo drive motor; two Permalloy heads; Dolby and FM Dolby circuitry; frequency response 40-12,000 Hz (standard tape); 40-15,000 Hz (chrome); S/N 50 dB (standard tape); wow and flutter 0.09% wrms; bias and equalization selector; tape counter; record/play timer switch; cue and review ... \$199.95

**UHER****CG-362 Cassette Deck**

Stereo record/play Dolbyized cassette deck; three-motor drive system; wow and flutter 0.15% wrms; S/N 68 dB (Dolby on, chrome tape); frequency response 20-18,000 Hz (MPX filter off); DNL; switchable MPX filter; automatic bias and equalization switch; three-position tape selector; RCA and DIN input-output connectors; digital IC logic controls; digital tape counter; auto-stop; tape-flow control; input mixing and three-position replay program selector; aux. output (0.5 W at 4 ohms) for driving motional feedback speakers .... \$945.00

**CR-210 Portable Cassette Recorder**

Four-track mono/stereo record/play cassette recorder; wow and flutter 0.12% wrms; S/N 58 dB (chrome tape); frequency response 20-16,000 Hz (chrome tape); built-in condenser microphone; self-contained power stage; internal monitor speakers; photoelectric tape-drive control; on/off ALC switch; automatic bias switching for CrO<sub>2</sub> tape; operates from 115-V a.c. or 12-V battery supply ..... \$645.00

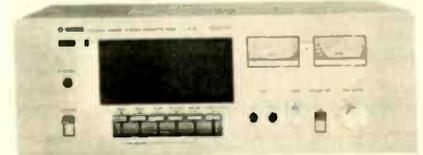
**YAMAHA****TC-800GL Dolbyized Cassette Deck**

Designed to operate from a.c. and 12-volt battery; Super Permalloy record/playback head; two meters (display from -40 dB to +6 dB); push-button tape selector switches bias, equalization, and record-level automatically; line and mike mixing circuit; memory rewind; variable pitch control ±3%; built-in headphone amplifier; fully automatic shut-off; wow and flutter 0.06% wrms; speed fluctuation 1.0%; fast-forward and rewind; response 30-13,000 Hz (standard), 30-15,000 Hz (chromium-dioxide); Dolby noise-reduction circuit ... \$390.00

**TC-800D.** Same as TC-800GL except a.c. operation only; meter display from -20 dB to +3 dB. .... \$310.00

**TC-511S Cassette Deck with Dolby**

Front-loading stereo play/record deck with Dolby noise-reduction circuit and Super Perm-



alloy record/playback head; two meters (display from -40 dB to +6 dB); precision line, mic and playback controls; wow and flutter 0.07% wrms; HD 1.5% (1000 Hz, 0 VU); response 30-13,000 Hz (standard tape), 30-15,000 Hz (CrO<sub>2</sub> and FeCr); S/N 50 dB (Dolby out) ... \$260.00

# Sometimes it just doesn't add up

What you want is better sound. But, the expense of replacing your whole system just isn't reasonable. MXR has a way to upgrade your sound significantly, without starting from scratch. MXR's Stereo Graphic Equalizer and Componder can give you the right sound at a cost that is much easier to take.

The MXR Componder can double the dynamic range of most open reel and cassette tape decks to allow professional results in home recording. The Componder increases the overall fidelity of your system while reducing noise. The softest sounds can be heard, while musical peaks can be reproduced without distortion.

The Componder compresses the dynamic range of the signal going onto the tape and expands it upon playback at a two to one ratio. The resulting increase in dynamic range allows your present system to produce the depth of sound that you want to have when you record.

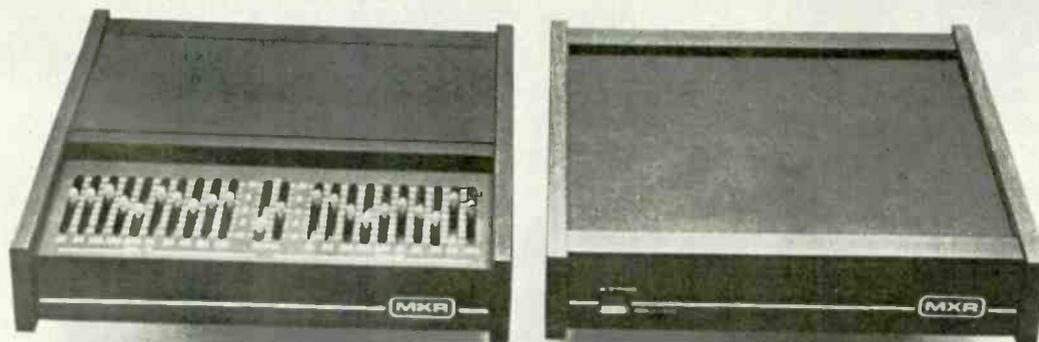
A natural companion, the MXR Stereo Graphic Equalizer is designed to provide precise

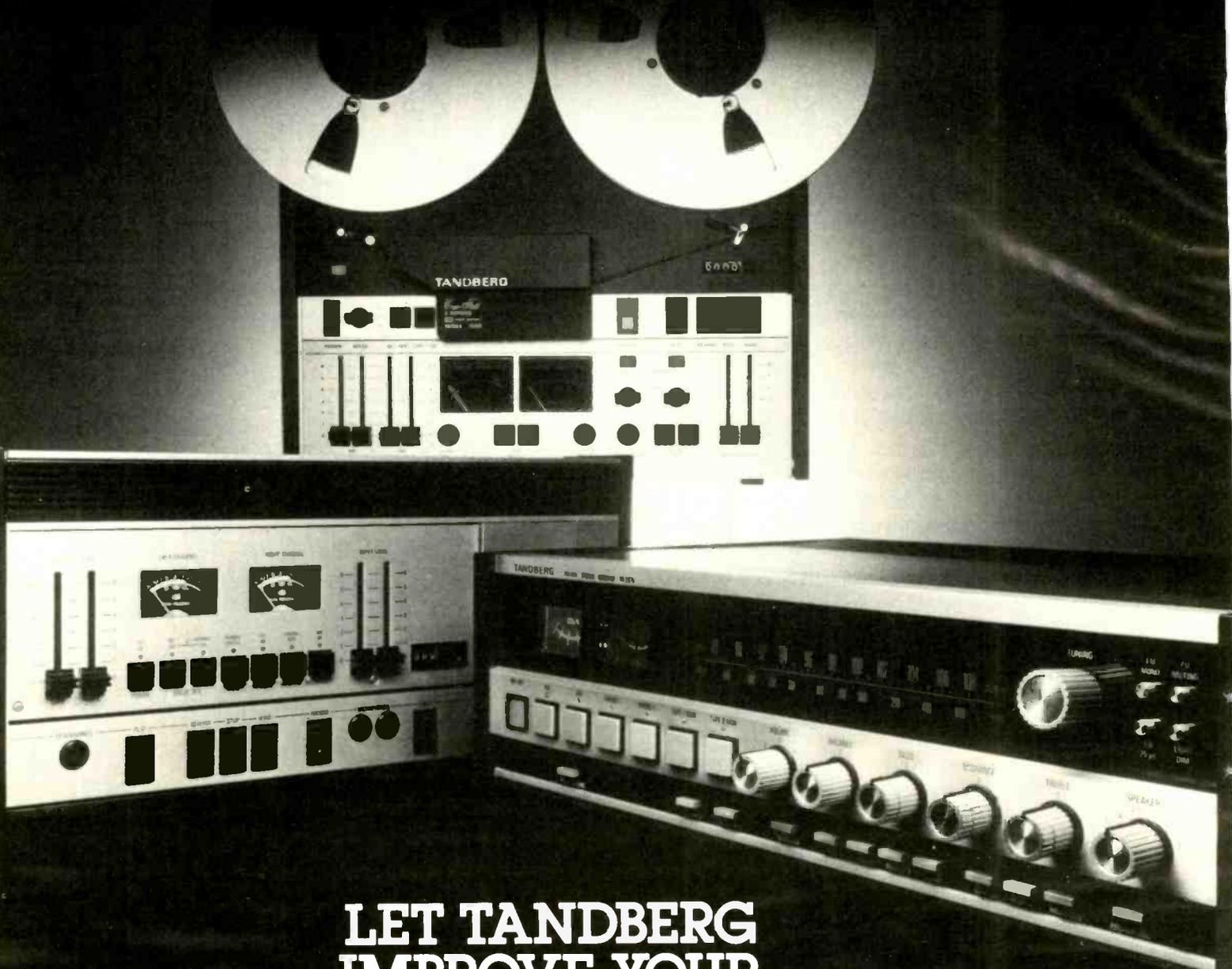
compensation for aural discrepancy that may be caused by room acoustics, speaker inadequacies or program source. The Stereo Graphic Equalizer allows you to tailor your sound to your own tastes. At the touch of a slide control, you can customize your playback to suit any number of variables. It can provide you with enough control over your present system to give you the sound that you want to hear.

The Componder, at \$129.95, and the Stereo Graphic Equalizer at \$199.95, with the equipment you already have, can add up to the sound that you want, at a reasonable price.

For more information see your nearest MXR dealer or direct inquiries to MXR Innovations, Inc. 277 N. Goodman St., Rochester, New York 14607 (716) 442-5320.

**MXR** Consumer Products Group





## LET TANDBERG IMPROVE YOUR HEARING.

Shown here are the new Tandberg TCD-330, "the world's most sophisticated cassette tape recorder," with three heads, three motors and dual Dolby<sup>®</sup> systems. The new 10XD, the world's first and only 10½" reel tape recorder that operates at 15 ips and combines Tandberg's unique Cross-Field recording tech-

nique with Dolby<sup>®</sup> B to completely eliminate audible tape hiss. And the new TR-2075, a compact receiver that combines a highly sensitive tuner and pre-amp with an extremely powerful amplifier—all on one chassis.

But you also ought to see—and listen to—the Tandberg 10X and 3500X open reel

tape decks, the new TCD-310 Mark II cassette deck and the new TR-2055, TR-2040, TR-2025 and TR-2025 Multi-Band receivers. From the top of the line down, you'll find that Tandberg brings a wide selection of products that offer consistent high quality at a broad range of prices.

For a complete demonstration of all the remarkable Tandberg instruments, see your Tandberg dealer. For a color catalog full of facts and figures, write to us. It's worth \$4.50—but we'll send you a copy absolutely free!

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CIRCLE NO. 99 ON READER SERVICE CARD

# 7

# OPEN-REEL TAPE MACHINES

## AKAI

### GX-650D Stereo Tape Deck

Three-speed (15, 7½, and 3¾ ips), four-track, two-channel stereo/mono system; will handle up to 10½" reels; features closed-loop double capstan mechanism; three motors with a.c. servo-controlled capstan drive; glass and crystal ferrite heads; response 30-30,000 Hz ±3 dB at 15 ips, 30-26,000 Hz ±3 dB at 7½ ips (both with LN-150 tape); dist. 0.4% at 15 and 7½ ips (1000 Hz, 0 VU); has line/mike mixing; sound-on-sound recording facilities; dual-monitoring system; remote control (with optional RC-17 accessory); automatic stop; pause lever switch; cue switch; individual line-output volume control; tape selector switch (low noise/wide range); four-digit tape index counter; two VU meters; two mike input jacks; stereo headphone jack; RCA-type line input and output jacks; record and pause indicator lamps; 20.6" H x 17.4" W x 10" D ..... \$1095.00

### GX-630D Stereo Tape Deck

Two-speed (7½ and 3¾ ips), four-track, two-channel stereo/mono system; will handle up to



10½" reels; features direct capstan-drive a.c. servomotor; three-motor tape transport; glass and crystal ferrite heads; response 30-25,000 Hz ±3 dB at 7½ ips (LN-150 tape); dist. 0.5% at 7½ ips (1000 Hz, 0 VU); has dual monitoring system; line/mike mixing; individual recording-mode selector buttons; automatic stop; line-output level control; pause lever switch; two VU meters; headphone output jack; two mike input jacks; recording indicator lamp; DIN connector; RCA-type line input and output jacks; 18.3" H x 17.4" W x 9.4" D ..... \$800.00

### GX-265D Stereo Tape Deck

Two-speed (7½ and 3¾ ips), four-track, two-channel stereo/mono system; will handle up to 7" reels; features automatic reverse record and playback; direct capstan-drive a.c. servomotor; three-motor transport; six-head function; dual monitoring system; glass and crystal ferrite heads; line/mike mixing; individual recording safety-lock buttons; pause lever switch; automatic stop; line-output volume control; 4-digit tape index counter; DIN connector; RCA-type

line input/output jacks; stereo headphone jack; two mike inputs; two VU meters; directional indicator lamps in recording and playback modes; 15.9" H x 17.4" W x 8.2" D ... \$675.00

**GX-2700.** Similar to GX-265 but with three heads (four-head function); peak-level indicator lamp; add-on recording; 15.9" H x 17.4" W x 8.3" D ..... \$675.00

### GX-230D Stereo Tape Deck

Two-speed (7½ and 3¾ ips), four-track, two-channel stereo system; will handle up to 7" reels; glass and crystal ferrite heads; features automatic and manual reverse playback; automatic stop; pause control; tape selector switch; output level control; expanded VU meters; dual monitoring; independent line/mike controls; sound mixing; 15.6" H x 17.3" W x 8.1" D ..... \$585.00

### 4000 DS Mk-II Stereo Tape Deck

Two-speed (3¾ and 7½ ips), four-track, two-channel stereo; wow and flutter 0.07% rms at 7½ ips; response 30-26,000 Hz ±3 dB at 7½ ips; THD 1.5%; S/N 50 dB; bias frequency 100 kHz; has separate record, play, and erase heads; line output 1.23 V; inputs: mike (0.8 mV) and line (60 mV); features selector switch for regular or low-noise tape; sound-on-sound; sound-with-sound; mixing; automatic shut-off; pause control; 12.4" H x 16" W x 7.7" D ..... \$350.00

**40000B.** Same as 4000DS but with Dolby built in ..... \$425.00

### 1722W Tape Recorder

Two-speed (3¾ and 7½ ips), four-track, two-channel stereo; wow and flutter 0.14% rms at 7½ ips; response 30-21,000 Hz ±3 dB at 7½ ips; THD 2%; S/N 50 dB; bias frequency 63 kHz; has one record/playback and one erase head; inputs: mike (0.5 mV) and line (150 mV); two built-in 5" x 7" speakers; features PA capability, automatic shut-off, equalizer preamp for direct phono input, selector switch for regular or low-noise tape; 14.1" H x 14" W x 9.8" D ..... \$400.00

## 4-CHANNEL

### GX-630DSS 4-Channel Tape Deck

Four-channel or stereo record and playback; features four GX glass and single crystal heads; A-B monitoring in either mode; two-speed (7½ and 3¾ ips); full-logic function controls; "Quadra-Sync" recording; mic/line mixing; left/right track selector; pitch control (±5%); tape select switch; line output control; auto-stop, pause control with lock; will handle up to 10½" reels ..... \$1095.00

### GX-270DSS 4-Channel Tape Deck

Four-track, four and two channel record/play deck; will handle 7" reels; a.c. servo direct-drive capstan motor plus two eddy current motors for fast-forward and rewind; four GX heads; three-head function; full logic solenoid functions controls; automatic stereo reverse playback; tape/source/monitoring; "Quadra-Sync" recording; pitch control for record/playback (±5%); line output control; mic/line mixing; auto stop; tape

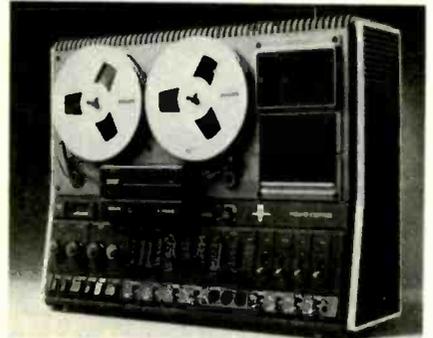
speed: 7½ and 3¾ ips; wow and flutter 0.07% rms (7½ ips); S/N 54 dB (measured via tape with peak recording level of +6 VU); frequency response 30-21,000 Hz ±3 dB; distortion 1% (1000 Hz, 0 VU); 18.3" H x 17.3" W x 7.5" D ...

..... \$950.00

## PHILIPS

### N4506 Tape Recorder

Three-motor, three-head, peramplified tape recorder; dynamic noise limiter; A-B monitor



switch; two peak-reading meters; direct switchable tape direction; input selection and level adjustment of phono, tuner, aux., and line; three speeds (7½, 3¾, 1⅞ ips); max. reel dia. 7"; frequency response 35-11,500 Hz (1⅞ ips), to 20,000 Hz (3¾ ips), to 26,000 Hz (7½ ips); S/N (without DNL) 60 dB (7½ and 3¾ ips), 58 dB (1⅞ ips); wow and flutter 0.05% (7½ ips), 0.07% (3¾ ips), 0.2% (1⅞ ips); fast-winding time 180 sec (1800 ft); channel separation 30 dB; track separation 60 dB; full complement of inputs/outputs; 17" H x 21¾" W x 8¼" D ..... \$649.95

### N4504 Tape Recorder

Three-motor, three-head tape recorder; two peak-reading meters; direct switchable tape direction; A-B monitor switch; dynamic noise limiter; three speeds (7½, 3¾, 1⅞ ips); max. reel dia. 7"; frequency response 35-11,500 Hz (1⅞ ips), to 20,000 Hz (3¾ ips), to 26,000 Hz (7½ ips); S/N (without DNL) 60 dB (7½ and 3¾ ips), 58 dB (1⅞ ips); wow and flutter (wrms) 0.05% (7½ ips), 0.07% (3¾ ips), 0.2% (1⅞ ips); fast-winding time 180 sec (1800 ft); channel separation 25 dB; track separation 60 dB; full complement of inputs/outputs; 16¾" H x 16¾" W x 7¼" D ..... \$449.95

## PIONEER

### RT-2022 Stereo Tape Deck

Two-speed (7½ and 15 ips), two-track, three-motor, three-head stereo deck; will handle up to 10½" reels; 4/8 pole hysteresis synchronous motor; two six-pole inner-rotor induction motors for reel drive; solenoid-operated direct-change function buttons; separate transport and amplifier units; plug-in head assembly; scrape filter; continuously variable tape bias, two-step tape equalizer and tape selector with

# 7 OPEN-REEL TAPE MACHINES

time-constant switch mechanism for use with all types of tape; wide-dynamic-range playback amplifier; independent recording amplifier for line and mike input/output; "synchronomonitor" mechanism for sound-on-sound, sound-with-sound; wow and flutter 0.04% wrms at 15 ips; 0.08% wrms at 7 1/2 ips; S/N 55 dB; THD 0.8% max. at 15 ips, 1.0% max. at 7 1/2 ips; response 30-28,000 Hz  $\pm 3$  dB at 15 ips, 40-20,000 Hz  $\pm 3$  dB at 7 1/2 ips; full complement of inputs and outputs; 21 3/4" H x 18 1/8" W x 10 1/16" D ..... \$1250.00

## RT-1050 Stereo Tape Deck

Two-track, two-speed (15 and 7 1/2 ips), three-motor, three-head stereo deck; has 4/8 pole,



two-speed hysteresis synchronous motor (capstan drive) and six-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 and flutter 0.04% wrms at 15 ips, 0.08% wrms at 7 1/2 ips; S/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; 17 7/8" H x 18 1/8" W x 9 3/8" D ..... \$700.00

## RT-1011L Stereo Tape Deck

Four-track, two-speed (7 1/2 and 3 3/4 ips), three-motor, three-head stereo deck; 4/8 pole hysteresis synchronous motor; two six-pole inner-rotor induction motors for reel drive; solenoid-operated direct-changeable function buttons; mechanically lockable function buttons for automatic recording facility; wow and flutter 0.08% wrms (7 1/2 ips), 0.1% (3 3/4 ips); frequency response 40-20,000 Hz  $\pm 3$  dB (7 1/2 ips), 40-12,000 Hz  $\pm 3$  dB (3 3/4 ips); S/N 55 dB; dist. 1%; crosstalk -50 dB; has full complement of inputs and outputs; will handle up to 10 1/2" reels; 16 7/8" H x 16 7/8" W x 8 7/8" D ..... \$600.00

## RT-707 Stereo Tape Deck

Auto-reverse playback stereo reel to reel tape deck; two speed (3 3/4 and 7 1/2 ips); speed accuracy  $\pm 0.5\%$ ; three-motor, four-head, four-track, two-channel design; handles 7" reels; FG servo a.c. direct drive motor for capstan drive; two six-pole inner-rotor induction motors for reel drive; solenoid operated, direct switchable function buttons and preset function buttons for timer record and play; wow and flutter 0.05% wrms (7 1/2 ips), 0.08% wrms (3 3/4 ips); S/N 58 dB; dist. 1% max. (7 1/2 ips); fast rewind 100 sec (7" reel); frequency response 30-24,000 Hz  $\pm 3$  dB (7 1/2 ips), 30-16,000 Hz  $\pm 3$  dB (3 3/4 ips); crosstalk -50 dB; channel separation 50 dB; pitch control  $\pm 6\%$  (playback only); auto and manual reverse play; auto repeat play; in-

dependent L/R recording mode selectors; two bias and two equalization tape selection; full complement of inputs/outputs; 9 1/16" H x 18 29/32" W x 14 1/32" D ..... \$575.00

## RT-701 Stereo Tape Deck

Two speed (3 3/4 and 7 1/2 ips) design; speed accuracy  $\pm 0.5\%$ ; three-motor, three-head design; FG servo a.c. direct drive motor for capstan drive; two six-pole inner-rotor induction motors for reel drive; solenoid operation; direct switchable function buttons and preset function buttons for timer record and play; Permalloy heads; 7" reel capacity; fast rewind 100 sec; wow and flutter 0.05% wrms (7 1/2 ips), 0.08% wrms (3 3/4 ips); S/N 58 dB; dist. 1% (7 1/2 ips); frequency response 30-24,000 Hz  $\pm 3$  dB (7 1/2 ips); 30-16,000 Hz  $\pm 3$  dB (3 3/4 ips); crosstalk -50 dB; channel separation 50 dB; pitch control  $\pm 6\%$  (playback only); line/mike mixing; two bias and two equalization tape selectors; full complement of inputs/outputs; 9 1/16" H x 18 29/32" W x 14 1/32" D ..... \$525.00

## 4-CHANNEL

## RT-2044 Four-Channel Tape Deck

Same as RT-2022 stereo deck except with two TAU-11 amplifier units; 37 1/16" H x 18 1/8" W x 10 1/16" D ..... \$1600.00

## RT-1020L Tape Deck

Three-motor, three-head stereo tape deck with four-channel reproduction capability; has 4/8 pole two-speed hysteresis synchronous motor (capstan drive) and two six-pole inner-rotor induction motor (reel drive); operates at 7 1/2 and 3 3/4 ips; wow and flutter less than 0.08% wrms at 7 1/2 ips, less than 0.1% wrms at 3 3/4 ips; S/N 55 dB; dist. less than 1%; response 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 to 1.5 V outputs: line 316 mV; DIN 316 mV; headphone 40 mV (4 to 16 ohms); features three-position bias selector, two-position equalizer selector, lockable pause lever, four-digit tape counter, independent left/right tape monitor switches, four-ch/two-ch playback mode selector, independent right/left recording mode selectors, four-ch front, rear monitor mode selector, independent mike and line recording level controls, output level controls; will accept up to 10 1/2" reels ..... \$650.00

## 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 record 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 and 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 ..... \$2049.00

## A77 MkIV 1102 Tape Deck

Two-speed (1 7/8/3 3/4, 3 3/4/7 1/2, or 7 1/2/15 ips),

two-track, three-motor, three-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 and flutter 0.08% peak at 7 1/2 ips; S/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 power amplifiers, a suitcase version with built-in speakers, metal cage for rack or custom mounting; 16 3/8" H x 14 3/4" W x 7 1/8" D ..... \$899.00

## Model A77 MkIV 1104. A four-track version of Model 1102; same options available... \$899.00

**A77 MkIV 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 70 dB (ASA A curve weighted) at 7 1/2 ips, two-track ..... \$1199.00

## B77 Stereo Tape Recorder

Two-speed (3 3/4 and 7 1/2 ips), two-track, three motor, three head deck; will handle 7" or 10" reels; electronically regulated servo controlled capstan; completely electronic logic control of all tape functions with no relays; frequency response 30-20,000 Hz  $\pm 2.5$  dB (7 1/2 ips); wow and flutter 0.08% peak (7 1/2 ips); S/N 66 dB (7 1/2 ips); 16 1/4" H x 18" W x 8" D .... \$995.00

## SONY from SUPERSCOPE

## TC-880-2 Open-Reel Deck

Two-speed (15, 7 1/2 ips) two-track (rec/play), four-track (play), stereo record/play deck; a.c. servomotor capstan drive, induction motor reel drive; wow and flutter 0.02% wrms (15 ips), 0.03% W rms (7 1/2 ips); S/N 59 dB (standard tape), 62 dB (SLH-180 tape), 65 dB (FeCr tape); frequency response 25-30,000 Hz  $\pm 2$  dB (15 ips), to 20,000 Hz (7 1/2 ips) with standard tape; 20-45,000 Hz  $\pm 2$  dB (15 ips), 25-25,000 Hz (7 1/2 ips) with SLH-180 tape; 20-47,000 Hz  $\pm 2$  dB (15 ips) with FeCr tape; fast-winding time 150 sec (2400 ft); bias frequency 160 kHz; input 0.06 V at 100,000 ohms (line), -72 dB (lo-Z mike); output 0.435 V at 10,000 ohms (line), 8-ohm headphone; 10 1/2-in max. reel size; four-head (ferrite-and-ferrite) design; "Symphase" recording capability; three-position equalization selection; two-position bias selection; VU meters (VU, peak, peak hold modes); four-digit tape counter; pause control; 120-V a.c., 60 Hz, 135 W; 20 3/8" H x 18 3/8" W x 10 1/2" D ..... \$2495.00

## TC-766-2 Open-Reel Deck

Two-speed (15, 7 1/2 ips) two-track (rec/play), four-track (play), stereo record/play deck; a.c. servomotor capstan drive; wow and flutter 0.018% wrms (15 ips), 0.04% wrms (7 1/2 ips); S/N 64 dB (FeCr tape); frequency response 30-22,000 Hz (15 ips), to 18,000 Hz (7 1/2 ips) with standard tape; 30-30,000 Hz (15 ips), to 25,000 Hz (7 1/2 ips) with SLH and FeCr tape; fast-winding time 150 sec (2400 ft, 10-in. reel); bias frequency 160 kHz; input 0.06 V at 100,000 ohms (line), -72 dB (lo-Z mike); output 0.435 V at 10,000 ohms (0.775 V when PB level is set to detented position), 8-ohm headphone; 10 1/2-in. max. reel size; four head (ferrite-and-ferrite) design; "Symphase" recording capability; three-position equalization and bias switches; illuminated VU meters; four-digit tape counter; pause control; 20 3/8" H x 17 1/2" W x 9 1/2" D ..... \$1079.00

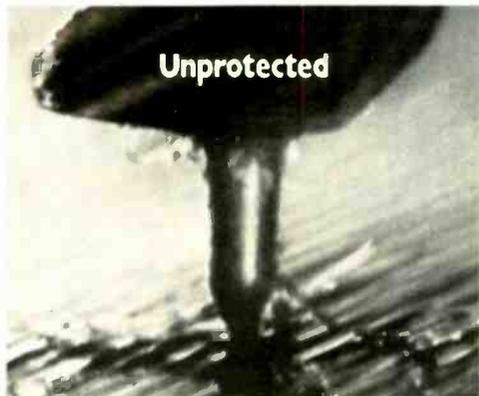
## TC-758 Stereo Tape Deck

Three-motor, automatic-reverse stereo tape deck; 7 1/2 and 3 3/4 ips speeds; will handle up to 10 1/2" reels; response 30-20,000 Hz  $\pm 3$  dB (standard tape), 30-25,000 Hz  $\pm 3$  dB (SLH-180 tape), both at 7 1/2 ips; features 4-digit counter; illuminated pause control with lock; illuminated VU meters; full complement of inputs and outputs; ferrite-and-ferrite heads; walnut base; 17 1/8" H x 17 3/4" W x 8 3/4" D ..... \$1029.95

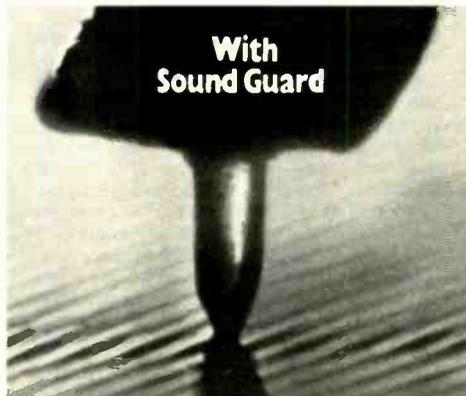
## TC-765 Open-Reel Deck

Two-speed (7 1/2, 3 3/4 ips) four-track stereo

# Before Sound Guard®, you only played a record in mint condition once.



Magnification shows the record vinyl wearing away.



Same magnification shows no record wear.

You can see how the picture has changed.

Independent tests\* show that records treated regularly with Sound Guard preservative keep the same full amplitude at all frequencies, the same absence of surface noise and harmonic distortion as records played just once in mint condition.

With its patented dry-lubricant film, Sound Guard

preservative maintains sound fidelity by reducing record wear. And with its built-in, permanent anti-static property, it resists dust accumulation.

## And now, two new Sound Guard products:

1. Sound Guard™ record cleaner, developed from extensive research into record cleaning problems and

methods, removes all common record contaminants—from dust particles to oily fingerprints.

And whether your records need a light cleaning to remove surface dust or a thorough cleaning to remove deep-seated contaminants, Sound Guard record cleaner does both.

2. Sound Guard™ Total Record Care System puts Sound Guard record preservative and Sound Guard record cleaner in one package—for the best possible total care for all of your records.

Available in audio and record outlets.

\*Tests available on request.



## Sound Guard® keeps your good sounds sounding good.



Sound Guard preservative—Sound Guard cleaner—Sound Guard Total Record Care System  
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CIRCLE NO. 19 ON READER SERVICE CARD

# 7 OPEN-REEL TAPE MACHINES

record/play deck; three-motor drive system, a.c. servo control motor; wow and flutter 0.08% (3 3/4 ips), 0.04% (7 1/2 ips); S/N 61 dB (FeCr tape); frequency response 30-18,000 Hz (7 1/2 ips) and 30-15,000 Hz (3 3/4 ips) with standard tape, 30-25,000 Hz (7 1/2 ips) and 30-18,000 Hz (3 3/4 ips) with SLH tape, 30-25,000 Hz (7 1/2 ips) and 30-18,000 Hz (3 3/4 ips) with FeCr tape; fast-winding time 150 sec (2400 ft, 10-in. reel); bias frequency 160 kHz; input 0.06 V at 100,000 ohms (line), -72 dB (lo-Z mike); output 0.435 V (0 VU) at 10,000 ohms (0.775 V max. when PB level is set to detented position), 8-ohm headphone; 10-in. max. reel size; three-head (ferrite-and-ferrite) design; "Symphase" recording capability; three-position bias and equalization selection; calibrated VU meters; pause control; four-digit tape counter; sound-on-sound; 110 W; 20 3/8" H x 17 1/2" W x 9 1/4" D ..... \$999.95

## TC-756-2 Open-Reel Deck

Two-speed (15, 7 1/2 ips) two-track stereo record/play deck; three-head (ferrite-and-ferrite) de-



sign; three-motor drive system, a.c. servomotor for capstan drive; wow and flutter 0.04% (15 ips), 0.06% (7 1/2 ips); S/N 56 dB (standard tape) 59 dB (SLH-180 tape); frequency response 30-22,000 Hz  $\pm 3$  dB (15 ips) and 30-15,000 Hz (7 1/2 ips) with standard tape, 30-30,000 Hz (15 ips) and 30-25,000 Hz (7 1/2 ips) with SLH-180 tape; fast-winding time 150 sec (2400 ft); bias frequency 160 kHz; input 0.06 V at 100,000 ohms (line), -72 dB (lo-Z mike); output 0.775 V at 10,000 ohms (line), 8-ohm headphone; 10 1/2-in. max. reel size; record equalization selection switch; calibrated VU meters; pause control; four-digit tape counter; "Symphase" recording capability; mechanical memory capability with timer; bias select switch; 120-V a.c., 60 Hz, 110 W; 17 3/4" H x 17 1/8" W x 8 3/4" D ..... \$899.95

## TC-645 Stereo Tape Deck

Three-motor, three-head stereo deck with ferrite-and-ferrite heads; 7 1/2 and 3 3/4 ips; will handle up to 7" reels; response 30-20,000 Hz  $\pm 3$  dB (standard tape), 30-25,000 Hz  $\pm 3$  dB (SLH-180 tape), both at 7 1/2 ips; features four-digit tape counter; illuminated VU meters; full complement of inputs and outputs; wow and flutter 0.07% at 7 1/2 ips, 0.11% at 3 3/4 ips; comes with two RK-74 stereo patchcords, 7" plastic reel; 14 3/8" H x 14 7/8" W x 8 7/8" D ..... \$499.95

## TC-270 Open-Reel Recorder

Three-speed (7 1/2, 3 3/4, 1 7/8 ips) four-track stereo/mono record/play open-reel recorder; wow and flutter 0.12% (7 1/2 ips); frequency response 30-18,000 Hz (7 1/2 ips); S/N 50 dB; input 0.06 V (aux.), -72 dB (lo-Z mike); output 0.43 V (0 VU); straight-line record and playback; VU meters; automatic end-of-tape shutoff; sound-on-sound; two lid speakers; supplied with carrying case; 10 1/2" H x 20 1/4" W x 15 1/2" D ..... \$449.95

## TC-377 Open-Reel Deck

Three-speed (7 1/2, 3 3/4, 1 7/8 ips) four-track stereo record/play deck; three-head design; one induction motor; wow and flutter 0.09% (7 1/2 ips); S/N 52 dB (standard tape), 55 dB (SLH-180 tape); frequency response 30-20,000 Hz  $\pm 3$  dB (7 1/2 ips); bias frequency 160 kHz; input 0.06 V (aux.), -72 dB (mike); output 0.775 V (line); VU meters; mike-line record level mixing controls; tape select switch for Sony standard or low-noise, high-output tape; pause control; automatic total mechanism shutoff; reversible base for vertical or horizontal operation; 8 3/8" H x 16 1/2" W x 15 1/2" D ..... \$419.95

## TC-105A Open-Reel Monaural Recorder

Three-speed (7 1/2, 3 3/4, 1 7/8 ips) four-track play/record monaural recorder; two-head design; one induction motor; wow and flutter 0.12% (7 1/2 ips), 0.15% (3 3/4 ips), 0.2% (1 7/8 ips); S/N 46 dB (standard tape); frequency response (standard tape) 40-18,000 Hz (7 1/2 ips), 40-13,000 Hz (3 3/4 ips), 50-6000 Hz (1 7/8 ips); fast-winding time 140 sec (1200 ft); 7-in. max. reel size; input 0.034 V at 100,000 ohms (aux.), -77 dB (lo-Z mike); output 5 W rms at 8 ohms (extension speaker), 3.5 V at 10,000 ohms (earphone/monitor); VU meter; built-in speaker; PA capability; pause control; three-digit tape counter; automatic shutoff; 117-V a.c., 60 Hz, 45 W; 13 3/8" H x 14 3/4" W x 7 1/4" D ..... \$329.95

## 4-CHANNEL

## TC-788-4 Quadradial Deck

Two-speed (15, 7 1/2 ips) four-track quadradial, stereo, mono open-reel deck; three-head design; a.c. servomotor capstan drive; wow and flutter 0.04% (15 ips), 0.06% (7 1/2 ips); S/N 53 dB (standard tape), 56 dB (SLH-180 tape); frequency response 20-30,000 Hz (15 ips), 30-22,000 Hz  $\pm 3$  dB (15 ips), 20-23,000 Hz (7 1/2 ips), 30-17,000 Hz  $\pm 3$  dB (7 1/2 ips) all with standard tape, 20-35,000 Hz (15 ips), 30-28,000 Hz  $\pm 3$  dB (15 ips), 20-28,000 Hz (7 1/2 ips), 30-23,000 Hz  $\pm 3$  dB (7 1/2 ips) all with SLH-180 tape; fast-winding time 150 sec (2400 ft); bias frequency 160 kHz; input 0.06 V at 100,000 ohms (line), -72 dB (lo-Z mike); output 0.775 V at 10,000 ohms (max. PB volume), 8-ohm headphones; 10 1/2-in. max. reel size; tape/source monitoring; record equalization selector switch; VU meters; pause control; four-digit tape counter; automatic total mechanism shutoff; "Syncro-Trak"; mechanical memory capability; four record mode switches and pan pots; 120-V a.c., 60 Hz, 120 W; 22" H x 17 3/8" W x 8 3/4" D ..... \$1450.00

## TC-388-4 Quadradial Deck

Two-speed (7 1/2, 3 3/4 ips) four-track quadradial, stereo, mono open-reel deck; three-head design; one induction motor; wow and flutter 0.09% wrms (7 1/2 ips), 0.12% wrms (3 3/4 ips); S/N 52 dB (standard tape), 55 dB (SLH-180 tape); frequency response 20-25,000 Hz (7 1/2 ips) and 30-17,000 Hz (3 3/4 ips) with standard tape, 20-30,000 Hz (7 1/2 ips), 20-25,000 Hz  $\pm 3$  dB (7 1/2 ips), 30-19,000 Hz (3 3/4 ips) with SLH-180 tape; fast-winding time 100 sec (1800 ft); bias frequency 160 kHz; input 0.06 V at 100,000 ohms (line), -72 dB (lo-Z mike); output 0.775 V at 10,000 ohms (line), 8-ohm headphone; 7-in. max. reel size; tape/source monitoring; record equalization selector switch; illuminated VU meters; pause control; four-digit tape counter; pan pot on/off switch; automatic total mechanism shutoff; vertical or horizontal operation; 120-V a.c., 60 Hz, 30 W; 19 3/4" H x 16 1/8" W x 8 7/8" D ..... \$679.95

## TC-277-4 Quadradial Deck

Three-speed (7 1/2, 3 3/4, 1 7/8 ips) four-channel open-reel deck; wow and flutter 0.12% (7 1/2 ips); S/N 52 dB; frequency response 50-16,000 Hz  $\pm 3$  dB (7 1/2 ips); two-head design; four inputs; four line outputs (one per channel); input sensitivity 0.06 V; 15 1/2" H x 15 3/4" W x 7 3/4" D ..... \$469.95

## TANDBERG

### 10XD Open-Reel Deck

Three-speed (15, 7 1/2, 3 3/4 ips), 4/2 track, stereo record/play Dolbyized open-reel deck; cross-



field heads; three-motor drive system; wow 0.04% at 15 ips (weighted); frequency response 30-25,000 Hz  $\pm 2$  dB, 25-27,000 Hz  $\pm 3$  dB, both at 15 ips; crosstalk attenuation 50 dB stereo at 1 kHz; peak-reading meters; microphone and line mixing capabilities; logic circuit with memory; supplied with 10 1/2-in. empty reel, NAB adapters, input-output connection cord; remote control, pitch control kit, and rack mounting kit available as optional extras; 45 cm H x 43.5 cm W x 18.5 cm D ..... \$1399.00

### Series 15 Open-Reel Recorder

Three-speed (7 1/2, 3 3/4, 1 7/8 ips), mono record/play open-reel recorder; wow 0.1% at 7 1/2 ips; frequency response 40-18,000 Hz  $\pm 2$  dB at 7 1/2 ips; S/N 55 dB at max. rec. level; 5 W/ch continuous, both channels driven; preamp output 0.75 V; low-Z mic; high- and low-level inputs; 6 3/4" H x 13 3/8" W x 11 7/8" D.

- 1541. Four-track ..... \$500.00
- 1541F. Same with foot remote control ..... \$600.00
- 1521. Two-track ..... \$500.00
- 1521F. Same with foot remote control ..... \$600.00

### 3500X Open-Reel Deck

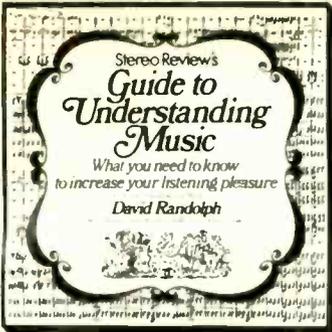
Three-speed (7 1/2, 3 3/4, 1 7/8 ips) stereo play/record open-reel deck; four heads; peak-reading meters; sound-on-sound and echo capabilities; A-B tests for recording; mixing for mono; photoelectric stop; front-panel headphone jack ..... \$599.00

## TEAC

### A-7300 Stereo Tape Deck

Two-speed (7 1/2, 3 3/4 ips), 1/2-track, two-channel deck; features direct-drive d.c. capstan/servo





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SRB

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# 7 OPEN-REEL TAPE MACHINES

control motor; two a.c. reel motors; built-in mixer to blend up to four 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; three-position bias/equalization switches; pitch control; cue facility; push-button transport control; logic circuitry; response 40-24,000 Hz; wow and flutter 0.05%, both at 7 1/2 ips; S/N 65 dB (wtd at 3% THD) ..... \$1400.00  
**A-7300-2T.** Same but 1/2-track with 15 and 7 1/2 ips speeds; edit button for spooling off unwanted tape ..... \$1450.00

## A-6300 Auto-Reverse Stereo Deck

Two-speed (7 1/2, 3 3/4 ips), 1/4-track, two-channel stereo with four heads (erase, record, playback, reverse playback), three motors; will handle 10 1/2" and 7" reels; features mike/line mixing, automatic repeat by memory counter, total remote-control capability; response 40-24,000 Hz; wow and flutter 0.06% both at 7 1/2 ips; S/N 65 dB (wtd at 3% THD) ..... \$1150.00

## A-6100 Stereo Tape Deck

Two-speed (15, 7 1/2 ips), two-track, two-channel stereo with four heads (erase, record, playback, four-track playback); three motors; will handle 10 1/2" and 7" reels; features cue button and flip-up head cover for easy editing; auto stop counter; mike attenuation control; LED peak level indicators; response 30-26,000 Hz at 15 ips; wow and flutter 0.04% at 15 ips; S/N 67 dB (wtd at 3% THD); 20 1/2" H x 17 3/8" W x 8 1/4" D ..... \$1100.00

## A-3300SX-2T 1/2-Track Tape Deck

Two-speed (15, 7 1/2 ips), 1/2-track, two-channel stereo or mono deck; one dual-speed hysteresis synchronous capstan motor; two eddy-current induction reel motors; three heads; will handle 7" and 10 1/2" reels; wow and flutter 0.04% (15 ips), 0.06% (7 1/2 ips) NAB weighted; S/N 60 dB; frequency response 30-26,000 Hz ±3 dB at 15 ips, 30-24,000 Hz ±3 dB at 7 1/2 ips; THD 1% at 1 kHz; independent left/right channel source/tape selectors; VU-type level meters; manual cue lever; separate bias and equalization selectors; 17 3/8" H x 17 3/8" W x 8 3/8" D .. \$850.00

## A-3300SX Stereo Tape Deck

Two-speed (7 1/2, 3 3/4 ips), 1/4-track, two-channel deck; will handle up to 10 1/2" 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 mic/line level controls; tape/source monitor switch; stereo headphone jacks; four-digit resettable tape counter; response 40-24,000 Hz at 7 1/2 ips; 40-16,000 Hz at 3 3/4 ips; wow and flutter 0.06% at 7 1/2 ips; S/N 65 dB (wtd at 3% THD); 17 3/8" H x 17 3/8" W x 8 3/8" D ..... \$800.00

## A-2300SD Dolbyized Stereo Deck

Two-speed (7 1/2, 3 3/4 ips) 1/4-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; Dolby noise-reduction circuitry and lights; three motors; response 40-24,000 Hz at 7 1/2 ips; wow and flutter 0.08% at 7 1/2 ips; S/N 74 dB (wtd, at 3% THD, with Dolby); 17 3/8" H x 15 7/8" W x 8 1/2" ..... \$750.00

## A-4300SX Auto-Reverse Stereo Deck

Two speed (7 1/2, 3 3/4 ips), 1/2-track, two-channel stereo deck; dual-speed hysteresis synchronous capstan motor; two eddy-current induction reel motors; four heads (erase, record,

forward play, and reverse play); will handle 7" and 5" reels; wow and flutter 0.06% at 7 1/2 ips; S/N 58 dB; frequency response 30-28,000 Hz; 40-24,000 Hz ±3 dB at 7 1/2 ips; THD 1% at 1 kHz; VU-type level averaging meters; automatic reverse; independent level controls for mic/line mixing; left/right channel record mode selectors for making mono recordings and adding sound-on-sound effects with external equipment; 17 3/8" H x 19 1/4" W x 8 1/2" D ..... \$750.00

## A-2300SX Stereo Tape Deck

Two-speed (7 1/2, 3 3/4 ips), 1/4-track, two-channel stereo deck; dual-speed hysteresis synchronous capstan motor; two eddy-current induction reel motors; three heads; will handle 7" reels; wow and flutter 0.08% wrms at 7 1/2 ips; S/N 58 dB; frequency response 40-24,000 Hz ±3 dB at 7 1/2 ips; THD 1% at 1 kHz; two-pos. bias and equalization selectors; independent dual-concentric input level controls for mic/line mixing; VU-type level averaging meters; 15 7/8" H x 17 3/8" W x 8 3/8" D ..... \$650.00

## 4-CHANNEL

## A-3340S 4-Channel Tape Deck

Multi-channel, three-motor, three-head stereo tape deck with 15 and 7 1/2 ips speeds; features "Simul-Sync" which allows recording four discrete but fully synchronized channels on each track of a four-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; unit includes separate bias level and EQ switches; cue control; total remote-control capability; four expanded-scale VU meters; 2-ch/4-ch play switch; front and rear stereo headphone jacks; pause control with indicator light; Quik-Lok reel holders; response 35-22,000 Hz at 15 ips; 35-20,000 Hz at 7 1/2 ips; wow and flutter 0.04% at 15 ips; 0.06% at 7 1/2 ips; S/N 65 dB (wtd at 3% THD); 20 1/2" H x 17 3/8" W x 8 3/8" D ..... \$1200.00

## A-2340SX Multichannel Tape Deck

Two-speed (7 1/2, 3 3/4 ips), four-track with "Simul-Sync"; one dual-speed hysteresis synchronous capstan motor; two eddy-current induction reel motors; three heads; will handle 7" and 5" reels; wow and flutter 0.08% at 7 1/2 ips; S/N 55 dB; frequency response 30-22,000 Hz at 7 1/2 ips; THD 1.0% at 1 kHz; independent source/tape output selector each channel; four VU-type level averaging meters; four independent record mode selectors; four front-panel mic inputs; two stereo headphone jacks; independent input level controls for mic/line mixing for each of four channels; record indicator lights for each channel; digital tape counter; 2-channel/4-channel playback selector; 17 3/8" H x 18 3/4" W x 8 3/4" D ..... \$950.00

## TECHNICS BY PANASONIC

## RS-1500US Open-Reel Deck

Three-speed (15, 7 1/2, 3 3/4 ips) two-track record/play, four-track play stereo open-reel deck; PLL controlled direct-drive servomotor capstan drive; wow and flutter 0.018% wrms (15 ips), 0.3% wrms (7 1/2 ips); S/N 60 dB; frequency response 30-30,000 Hz ±3 dB (15 ips), 30-25,000 Hz ±3 dB (7 1/2 ips); distortion 0.8%; fast-winding time 150 sec (2500 ft); channel separation 50 dB; input 0.25 mV at 400-20,000 ohms (mike), 60 mV at 150,000 ohms (line); output 420 mV at 22,000 ohms (line), 60 mV at 8 ohms (headphone); built-in stroboscope; full IC logic tape transport; three-way adjustment of bias and equalization; average-reading VU meters with switchable scale (+3 dB/+6 dB); real-time tape counter; edit dial; 10 1/2-in. max. reel size; 120-V a.c. or 24-V d.c.; 17 1/2" H x 18" W x 10 1/8" D ..... \$1500.00

## 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; four-digit tape counter; three speeds (7 1/2, 3 3/4, 1 7/8 ips); will handle up to 7" reels; four-track, two-channel stereo record and playback; universal power supply, 50-60 Hz; inputs: mike, line input, DIN; outputs: line-output, headphone, DIN; four-pole condenser motor; controls: tape selector, speed change, power switch, volume control, noise suppressions; response 20-25,000 Hz; wow and flutter 0.09% wrms; crosstalk -60 dB; channel separation 55 dB; S/N 56 dB; 12 1/2" H x 15 3/8" W x 7 3/8" D ..... \$309.95

## UHER

## SG-630 Logic Open-Reel Deck

Three-speed (7 1/2, 3 3/4, 1 7/8 ips) two- or four-track stereo record/play deck; Omega looping system eliminates pinch roller, drive couplings, springs, and function wheels, four-motor drive system includes two d.c. hub motors, an electronically regulated capstan drive, and a servomotor to form the Omega loop; wow and flutter 0.02%; S/N 67 dB (two-track at 7 1/2 ips); built-in strobe disc; speed control; peak-reading meter; built-in "Dia-Pilot" for recording signal impulses and automatic slide-projector control; switchable peak-level limiter; separate stereo headphone power with volume, bass, and treble controls; A/B monitoring; remote-control facilities; 10 1/2" reel, max. .... \$1385.00

## SG-560 Open-Reel Recorder

Four speed (7 1/2, 3 3/4, 1 7/8, 1 9/16 ips) two- or four-track stereo record/play recorder; wow and flutter 0.02%; S/N 68 dB (rms A curve at 7 1/2 ips); frequency response 20-22,000 Hz; reverberation and concert-hall effects; sound-on-sound; sound-with-sound; two integrated stereo input mixing facilities; built-in "Dia-Pilot" for recording signal impulses and automatic slide-projector control; electronic section (with tape drive system off) serves as stereo amplifier (10 W/ch continuous power output); 7-in. max. reel size; four-digit counter ..... \$1020.00

## 4200 Report IC Recorder

Four-speed (7 1/2, 3 3/4, 1 7/8, 1 9/16 ips) two-track stereo record/play recorder; wow and flutter 0.2% (DIN), 0.15% (rms); S/N 62 dB (rms A curve); frequency response 35-20,000 Hz (all at 7 1/2 ips); input 0.12-40 mV at 200 ohms (mic), 2.4-700 mV (radio), 0.045-20 V at 2 megohms (phono); three-digit counter; direct tape monitoring with earphones or speaker; electronic start and stop with remote switch, manual, or foot-switch operation; 5-in. max. reel size; 12-V d.c. powered portable ..... \$745.00  
**4400.** Same as 4200 but four-track; S/N 54 dB (DIN weighted), 62 dB (weighted rms A curve) ..... \$745.00  
**4000.** Same as 4200 but mono; S/N 64 dB (rms A curve) ..... \$585.00

## SG-520 Four-Speed Recorder

Four-speed (7 1/2, 3 3/4, 1 7/8, and 1 9/16 ips) recorder; interchangeable head assemblies for two- or four-track operation; remote capability for start/stop; can be sound-activated; end-of-tape stop; on/off automatic level control switch; bass and treble controls; four-digit index counter; frequency response 30-20,000 Hz, wow and flutter 0.02% wrms (both at 7 1/2 ips); 6 wrms/ch into 8 ohms (30-20,000 Hz) at 1% THD; S/N 65 dB (two-track at 7 1/2 ips); can be operated vertically or horizontally ..... \$650.00

## SG-510 Stereo Recorder

Four-track, two-speed (7 1/2 and 3 3/4 ips) recorder; will handle 7" reels; frequency response 40-20,000 Hz (7 1/2 ips); wow and flutter 0.08%; S/N 58 dB; built-in speakers; amplifier power 4 W/ch at 4 ohms; features peak-reading meters; automatic end-of-tape shut off ..... \$400.00

# 8

# 8-TRACK TAPE MACHINES

## AKAI

### CR-83D 8-Track Record/Play Deck

Features illuminated elapsed-time record indicator, locking pause, fast-forward, independent dual-record level controls, combination record/play and erase head, auto-stop, continuous playback selector switch; d.c. motor, illuminated record interlock, automatic a.c. on when cartridge is inserted; wow and flutter 0.15% rms; S/N 48 dB, frequency response 60-14,000 Hz  $\pm 3$  dB (low-noise tape); dist. 2% at 3 $\frac{3}{4}$  ips; 4.3" H x 16 $\frac{1}{2}$ " W x 9 $\frac{1}{2}$ " D ... \$250.00

## BSR McDONALD

### TD8SW2 8-Track Playback Deck

Stereo 8-track player; straight-line stepping cam tape-head mounting for intimate contact with tape; simulated walnut-grained cabinet; comes with connecting cables; 8 $\frac{1}{8}$ " H x 10 $\frac{1}{4}$ " W x 3 $\frac{7}{8}$ " D ... \$39.95

## CENTREX by PIONEER

### RH-65 8-Track Record/Play Deck

Record/playback deck with Dolby; frequency range 30-15,000 Hz; wow and flutter 0.15%; time counter; three-position function switch; two VU record level meters; fast-forward and pause controls; illuminated track indicator; automatic or manual track change; dual mike jacks; 4 $\frac{1}{2}$ " H x 14 $\frac{3}{4}$ " W x 10 $\frac{7}{8}$ " D ... \$274.95  
**RH-60.** Similar to RH-65 but frequency range 30-12,000 Hz; no Dolby circuitry; 4 $\frac{1}{2}$ " H x 14 $\frac{3}{4}$ " W x 10 $\frac{1}{2}$ " D ... \$219.95

## CHANNEL MASTER

### HD 6075 8-Track Deck

Stereo 8-track play/record deck; pushbutton auto stop, fast forward, pause, record, and manual track selection; automatic track changing; right and left record level controls; two illuminated record meters; auto stop, record, and track indicators; input for right and left mics and aux.; output for tape monitor stereo headphones. left and right aux.; supplied with patch cords and microphones; wood product construction cabinet with outer wood-grained vinyl veneer; 5" H x 15 $\frac{1}{4}$ " W x 10" D ... \$89.95

## FISHER

### ER140 8-Track Tape Deck

Incorporates Dolby noise-reduction system; wow and flutter 0.1% wrms; fast-winding time 3.3 min (45-min cartridge); auto or manual end of tape shutoff; frequency response 40-12,000 Hz (standard tape); S/N 58 dB with Dolby; crosstalk -55 dB; channel separation 45 dB (1 kHz); 5" H x 19 $\frac{3}{4}$ " W x 10 $\frac{1}{4}$ " D ... \$299.95

### ER8130 8-Track Tape Deck

Incorporates Dolby noise-reduction system; wow and flutter 0.15% wrms; fast-winding time 3.3 min (45-min cartridge); auto or manual end of tape shutoff; frequency response 35-11,000 Hz; S/N 52 dB with Dolby; crosstalk -55 dB; channel separation 40 dB (1 kHz); 5" H x 14 $\frac{3}{8}$ " W x 10" D ... \$249.95

### ER8120 8-Track Tape Deck

Wow and flutter 0.15% wrms; fast-winding time 3.3 min (45-min cartridge); auto or manual end of tape shutoff; frequency response 45-11,000 Hz; S/N 44 dB; crosstalk -55 dB; channel separation 40 dB (1 kHz) ... \$169.95

### ER8110 8-Track Tape Deck

Wow and flutter 0.15% wrms; fast-winding time 3.3 min (45-min cartridge); auto or manual end of tape shutoff; frequency response 35-11,000 Hz; S/N 44 dB; crosstalk -55 dB; channel separation 40 dB (1 kHz) ... \$129.95

## LAFAYETTE

### RK-899 8-Track Record/Play Deck

Selectable automatic stop for play/record modes; dual illuminated level meters; individual left/right mic input jacks; record-level controls on front panel; pause control; response 50-10,000 Hz; output level 0.5 V max; crosstalk and channel separation 40 dB; S/N 40 dB; wow and flutter 0.3%; input sensitivity: mic 0.8 mV, aux. 250 mV; walnut vinyl covered wood cabinet; 4 $\frac{1}{8}$ " H x 16 $\frac{1}{2}$ " W x 18 $\frac{1}{4}$ " D ... \$139.95

## MERITON

### HD-830 8-Track Play/Record Deck

Response 40-13,000 Hz; wow and flutter 0.15% wrms (playback), 0.25% wrms (record/playback); S/N 45 dB; features pause control switch; two illuminated VU meters; eject button; program selector switch; vertical-slide record level controls for left/right channels, automatic shut-off/continuous play switch; fast-forward; stereo headphone and mike jacks; walnut cabinet with brushed chrome face; 5 $\frac{7}{8}$ " H x 14 $\frac{1}{4}$ " W x 9 $\frac{3}{8}$ " D ... \$139.95

## REALISTIC

### TR-801 8-Track 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 and flutter 0.2%; front-panel mike input for live recording; walnut grained vinyl veneer case; 5 $\frac{1}{8}$ " H x 16 $\frac{1}{2}$ " W x 10 $\frac{1}{4}$ " D ... \$179.95

### TR-882 8-Track 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 and flutter 0.2%; front-panel mike input for live recording; walnut-finish wood-grain case; 3 $\frac{7}{8}$ " x 13 $\frac{1}{4}$ " x 8 $\frac{3}{8}$ " ... \$99.95

### TR-700 8-Track Record/Play Deck

Record/play deck with automatic stop; output-level adjust; front-panel mike input jacks; record-indicator light; program-change button; walnut-grained vinyl veneer cabinet; 4 $\frac{1}{2}$ " H x 8 $\frac{1}{2}$ " W x 1 $\frac{1}{4}$ " D ... \$79.95

## SANYO

### RD8020 8-Track Record/Play Deck

Frequency response 30-12,000 Hz; S/N 42 dB;

wow and flutter 0.3%; features automatic stop at program-start point; two calibrated VU meters; latching fast-forward control; latching pause control; restart button; lighted channel indicators ... \$99.95

## SHARP

### RT821 8-Track Tape Deck

Incorporates Auto Program Search System (APSS); auto or manual program changing; two VU meters; mechanical pause; digital time display tape counter; two mike and two line inputs; two line and headphone outputs; wow and flutter 0.25% wrms; frequency response 50-10,000 Hz; S/N 45 dB ... \$169.95

### RT820 8-Track Tape Deck

Automatic or manual program changing; two VU meters; mechanical pause; two mike and two line inputs; two line and headphone outputs; wow and flutter 0.25% wrms; frequency response 50-10,000 Hz; S/N 45 dB ... \$129.95

## SUPERSCOPE

### TDR-830 8-Track Deck

8-track record/play deck with Dolby noise-reduction system; pause/restart button; auto-stop selectors; LED program indicator; three-digit tape counter ... \$219.95  
**TDR-820.** Same without Dolby ... \$179.95

### TD-28 8-Track Player Deck

Frequency response 30-10,000 Hz; S/N 48 dB; built-in automatic tape program selector which plays all four programs; illuminated program indicators; program selector switch; fast-forward switch; repeat switch; walnut-grained vinyl veneer cabinet; 4 $\frac{7}{8}$ " H x 7 $\frac{1}{4}$ " W x 9 $\frac{3}{4}$ " D ... \$74.95

## 4-CHANNEL

### TD-48 8-Track Player Deck

Automatic four- and two-channel switching deck; frequency response 30-10,000 Hz; S/N 48 dB; illuminated four-channel indicator; built-in automatic program selector; illuminated program indicators; fast-forward, repeat, and program selector switches; walnut-grained vinyl veneer cabinet ... \$99.95

## TELEX

### 48-H 8-Track Changer

Four program modes for manual or automatic selection of twelve 8-track stereo cartridges for up to 16 hours of non-repetitive music; response 40-12,000 Hz; stereo power amp and preamp outputs ... \$319.95  
**48-D.** Same as 48-D but without power amplifier ... \$269.95

## ZENITH

### JR638W 8-Track Tape Deck

8-track play/record deck; one-button record capability; auto stop function; automatic level control; program indicator lights; supplied with two microphones with stands; simulated grained walnut cabinet ... \$79.95

# HOW TO PLAY A MUSICAL INSTRUMENT AT 55 MPH.

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# 9

# AUTO TAPE EQUIPMENT

## AUDIOVOX

### CAS-600 AM-FM Stereo/Cassette

In-dash unit combines AM-FM MPX radio and stereo cassette player with Dolby noise-reduction system; power output 10 W/ch; locking fast forward/rewind, bass, treble, mono/stereo, local/distant, and power booster on/off controls . . . \$289.95

### CAS-500 AM-FM Stereo/Cassette

In-dash unit combines AM-FM MPX radio and stereo cassette player with auto-reverse; power output 14 W rms; four-way stereo balance, mono/stereo, program select, local/distant, eject, and locking fast forward/rewind controls . . . \$269.95

### CAS-300 AM-FM Stereo/Cassette

In-dash unit combines AM-FM stereo radio and stereo cassette player; power output 5 W/ch; fast forward, rewind, local/distant, mono/stereo, and eject controls; 12 V negative ground; 2<sup>3</sup>/<sub>16</sub>" H x 7" W x 5<sup>1</sup>/<sub>2</sub>" D . . . \$169.95

### C-981 Cassette Player

Auto-reverse cassette player; volume, tone, balance, fast forward, and rewind controls; has tape direction indicators; power output 5 W/ch; accepts 4 or 8 ohm speakers; mounts under dash; 1<sup>3</sup>/<sub>4</sub>" H x 5<sup>1</sup>/<sub>2</sub>" W x 6<sup>3</sup>/<sub>4</sub>" D . . . \$139.95

### C-992 FM Stereo/Cassette

Under-dash unit combines FM stereo radio and cassette player; rewind, fast forward, and local/distant controls; power output 4 W/ch into 4 ohms; S/N 40 dB; wow and flutter 0.3%; 2" H x 6<sup>1</sup>/<sub>2</sub>" W x 6<sup>1</sup>/<sub>4</sub>" D . . . \$139.95

### C-993 FM Stereo/8-Track

Under-dash unit combines FM stereo radio and 8-track player; has slide volume-tone and balance controls; FM local/distant switch; power output 4 W/ch rms; 2" H x 6<sup>3</sup>/<sub>16</sub>" W x 6<sup>1</sup>/<sub>4</sub>" D . . . \$139.95

### AMP-1000 Stereo Power Amp

Amplifier mounts remotely; has control head with slide controls for volume, bass, treble, and mid-range; power output 22 W/ch; accepts 4 or 8 ohm speakers; 12 V d.c. . . . \$139.95

### TRYVOX-20 Auto Speaker System

Three-way, 6" x 9" auto speaker system with 20-oz ceramic magnet; has separate 3" mid-range and 2" tweeter; max. input 30 W; frequency response 60-15,000 Hz; 8-ohm imp. . . . \$79.95

### TRYVOX-25 Auto Speaker System

Three-way auto speaker system with 5<sup>1</sup>/<sub>4</sub>" woofer, 1<sup>1</sup>/<sub>2</sub>" mid-range, and 1" tweeter; 20-oz ceramic magnet; max. input 15 W; 8-ohm imp.; mesh grilles . . . \$69.95

### COID-69/20 Auto Speaker System

Coaxial 6" x 9" auto speaker system with 20-oz magnet; has separate 3" tweeter; max. input 20 W; frequency response 60-18,000 Hz; 8-ohm imp.; chrome accented padded vinyl grilles . . . \$49.95

### COID-57/20 Auto Speaker System

Coaxial 5" x 7" auto speaker system with 20-oz ceramic magnet; has separate 2" tweeter; max. input 20 W; frequency response 100-16,000 Hz; 8-ohm imp.; diffuser grilles . . . \$45.95

input 20 W; frequency response 100-16,000 Hz; 8-ohm imp.; diffuser grilles . . . \$45.95

## CHANNEL MASTER

### AC 6826 AM-FM/Cassette Player

Combines stereo cassette player and AM-FM stereo radio; fast forward, rewind, manual tape eject, volume, balance, tone, local/distance switch, and AM/FM selector switch; automatic tape eject at end of tape; FM stereo and tape indicator lights; automatic FM stereo switching; 12-V d.c. negative ground; 1<sup>7</sup>/<sub>16</sub>" H x 7" W x 5<sup>7</sup>/<sub>16</sub>" D . . . \$119.95

### AC 6825 Cassette Player

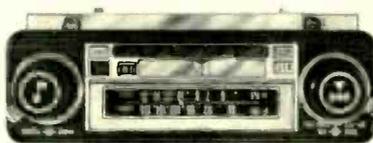
Compact cassette car player; fast forward, rewind, manual eject, manual selector, volume, balance, and tone; auto reverse; tape direction indicator light; supplied with mounting bracket, speaker/power connector cable, and mounting hardware; 12-V d.c. negative ground; 2" H x 4<sup>3</sup>/<sub>4</sub>" W x 7<sup>1</sup>/<sub>2</sub>" D . . . \$69.95

### AC 6821 Cassette Player

Compact stereo cassette car player; fast forward, manual eject, tone, volume, and balance; automatic stop; tape running indicator light; supplied with mounting bracket, speaker/power connector cable, and mounting hardware; 12-V d.c. negative ground; 1<sup>9</sup>/<sub>16</sub>" H x 4<sup>7</sup>/<sub>16</sub>" W x 6<sup>1</sup>/<sub>16</sub>" D . . . \$39.95

### AE 6811 AM-FM/8-Track Player

Combines 8-track player and AM-FM stereo radio; five pushbutton station selectors; on/off



volume, tone, balance, fader, manual cartridge eject, AM/FM switch, local/distant switch, and manual track selector; AM/FM, FM stereo, and tape indicators; automatic track changer; in-dash mounting; 12-V d.c. negative ground; 2<sup>3</sup>/<sub>4</sub>" H x 7" W x 5<sup>7</sup>/<sub>16</sub>" D . . . \$149.95

### AE 6810 AM-FM/8-Track Player

Combines 8-track player and AM-FM stereo radio; volume, balance, tone, AM/FM switch, radio on/off, local/distant switch, and manual track selector; track indicator lights; automatic track changer; in-dash mounting; 12-V d.c. negative ground; 2" H x 6<sup>7</sup>/<sub>16</sub>" W x 5<sup>3</sup>/<sub>4</sub>" D . . . \$99.95

### AE 6803 8-Track Player

Stereo 8-track car player; manual eject, repeat switch, volume, balance, tone, and manual track selector; track indicator lights; courtesy map lamp with switch; automatic track changer; supplied with mounting bracket, speaker/power connecting cable, and mounting hardware; 12-V d.c. negative ground; 2<sup>1</sup>/<sub>8</sub>" H x 6<sup>3</sup>/<sub>8</sub>" W x 6" D . . . \$59.95

### AE 6802 8-Track Player

Compact stereo 8-track car player; volume, tone, balance, and manual track selector; track indicator lights; automatic track changer; supplied with mounting bracket, speaker/power connecting cable, and mounting hardware; 12-V d.c. negative ground; 2<sup>1</sup>/<sub>8</sub>" H x 5<sup>5</sup>/<sub>8</sub>" W x 7<sup>1</sup>/<sub>4</sub>" D . . . \$34.95

### AE 6801 8-Track Player

Compact stereo 8-track car player; volume, tone, and manual track selector; power indicator light; automatic track changer; supplied with mounting bracket, speaker/power connecting cable, and mounting hardware; 12-V d.c. negative ground; 2<sup>1</sup>/<sub>8</sub>" H x 5<sup>1</sup>/<sub>16</sub>" W x 7<sup>1</sup>/<sub>4</sub>" D . . . \$27.95

## CRAIG

### T631 AM-FM/Cassette Player

In-dash stereo cassette player with AM-FM radio; digital channel display; preset tuning for five stations; separate balance and fader controls; automatic rewind at end of tape; stereo/mono pushbutton; fast forward and locking rewind; wow and flutter 0.3% rms; frequency response 40-10,000 Hz; stereo separation 35 dB; S/N 40 dB; audio output 4 W average continuous sine wave per channel . . . \$259.95

### 3520 FM/Cassette Player

Stereo cassette player with FM radio; automatic cassette ejection and power cut-off at end of program; fast forward and rewind; quick-release mounting bracket; wow and flutter 0.25% rms; frequency response 70-10,000 Hz; S/N 45 dB; channel separation 40 dB; crosstalk -45 dB; power output 12 W continuous sine wave per channel at THD 5%, 4-ohm load, both channels driven; 12-V d.c. negative ground, 4-A max. current drain . . . \$215.95

### T600 AM-FM/Cassette Player

AM-FM stereo radio with cassette player; auto-reverse; stereo/mono switch; manual eject; separate balance and fader controls; wow and flutter 0.2% rms; audio output 3.5 W average continuous sine wave per channel; frequency response 40-10,000 Hz; S/N 50 dB; crosstalk -40 dB; channel separation 35 dB; 12-V d.c. negative ground; supplied with customizer trim plate, gasket, hardware, and knobs; in-dash mounting; 2" H x 7<sup>1</sup>/<sub>16</sub>" W x 8<sup>1</sup>/<sub>2</sub>" D . . . \$199.95

### 3516A AM-FM/Cassette Player

Combines AM-FM stereo radio with cassette tape player; in-dash mounting; automatic cassette ejection at end of tape and when power to unit is stopped; locking fast forward; AM, FM, stereo, and tape indicator lights; fast-forward time 120 sec (C-60); wow and flutter 0.3%; audio output 4 W average continuous sine wave per channel; frequency response 40-10,000 Hz; crosstalk -35 dB; channel separation 35 dB; 12-V d.c. negative ground; supplied with trim plate, gasket, and mounting hardware; 2<sup>3</sup>/<sub>4</sub>" H x 7<sup>1</sup>/<sub>2</sub>" W x 6<sup>1</sup>/<sub>4</sub>" D . . . \$199.95



### 3514 AM-FM/Cassette Player

Combines AM-FM stereo radio with cassette player; automatic shut-off at end of tape; in-dash mounting; mono/stereo switching; illuminated tape/stereo indicators; momentary and locking fast forward; stereo matrix circuitry for four-channel effect; wow and flutter 0.3% rms; audio output 4 W continuous per channel; frequency response 70-10,000 Hz; S/N 40 dB; crosstalk -40 dB; channel separation 35 dB; 12-V d.c. negative ground; supplied with trim panel, gasket, and knobs; 2" H x 7" W x 5 1/4" D ..... \$189.95

### T281 FM/Cassette Player

Combines FM stereo radio and cassette tape player; fast forward and rewind; end-of-tape indicator light; stereo matrix circuitry for four-channel effect; wow and flutter 0.3% rms; audio output 12 W average continuous sine wave per channel; S/N 40 dB; stereo separation 30 dB; crosstalk -35 dB; 12-V d.c. negative ground; size (bracket with unit) 2 1/4" H x 8 1/2" W x 10 1/4" D ..... \$179.95

### T180 Cassette Player

Cassette tape player with auto-reverse; reversible quick-release slide-out bracket; illuminated direction signals; auto and manual program change; separate bass and treble controls; manual or automatic eject; locking fast forward; loudness pushbutton; wow and flutter 0.25% rms; frequency response 70-10,000 Hz; S/N 45 dB; stereo separation 30 dB; crosstalk -45 dB; audio output 12 W average continuous sine wave per channel (5% THD, 4-ohm load, both channels driven); 12-V d.c. negative ground; 3 7/16" H x 7" W x 8 1/2" D ..... \$169.95

### T601 AM-FM/Cassette Player

Combines AM-FM stereo radio with cassette tape player; automatic shut-off at end of cassette; locking fast forward and rewind; in-dash mounting; stereo matrix circuitry for four-channel effect, wow and flutter 0.3% rms; audio output 4 W average continuous per channel; frequency response 70-10,000 Hz; S/N 40 dB; crosstalk -40 dB; channel separation 35 dB; 12-V d.c. negative ground; supplied with customizer trim plate, gasket, knobs, and hardware; 1 5/16" H x 6 1/16" W x 5 1/16" D ..... \$164.95

### T680 AM-FM/Cassette Player

Combines AM-FM stereo radio and cassette tape player; locking fast forward and rewind; automatic eject when power is removed from unit; automatic eject at end of cassette; wow and flutter 0.3% rms; frequency response 40-10,000 Hz; stereo separation 35 dB; S/N 40 dB; audio output 12 W average continuous sine wave per channel ..... \$159.95

### T605 AM-FM/Cassette Player

Combines AM-FM stereo radio with cassette tape player; separate balance and fader controls; automatic rewind at end of tape; stereo/mono pushbutton; fast forward and rewind; wow and flutter 0.3%; frequency response 70-10,000 Hz; stereo separation 35 dB; S/N 40 dB; audio output 4 W average continuous sine wave per channel ..... \$149.95

### T200 FM/Cassette Player

Combines FM stereo radio and cassette tape player; locking fast forward and rewind; LED stereo and end-of-tape indicators; stereo matrix circuitry for four-channel effect; wow and flutter 0.3% rms; S/N 35 dB; stereo separation 35 dB; crosstalk -35 dB; audio output 4 W average continuous sine wave per channel; 12-V d.c. negative ground; supplied with quick-release bracket and mounting hardware; 2 7/16" H x 7 3/8" W x 7" D ..... \$144.95

### T602 AM-FM/Cassette Player

Combines AM-FM stereo radio with cassette tape player; automatic eject at end of tape; illuminated stereo and tape indicators; fast forward with muted sound; wow and flutter 0.3% rms; audio output 4 W continuous per channel; frequency response 70-10,000 Hz; S/N 40 dB; crosstalk -40 dB; stereo separation 35 dB; 12-V d.c. negative ground; 2" H x 7" W x 5 1/4" D ..... \$144.95

### 3519 Cassette Player

Stereo cassette player; automatic cassette ejection and power cut-off at end of program; illuminated Powerplay and tape running indicators; quick-release slide-out mount; wow and flutter 0.25% rms; frequency response 70-10,000 Hz; S/N 45 dB; channel separation 40 dB; crosstalk -45 dB; power output 12 W continuous sine wave per channel (5% THD, 4-ohm load, both channels driven); 12-V d.c. negative ground; 2 1/2" H x 6 1/2" W x 8 3/4" D ..... \$144.95

### T202 FM/Cassette Player

Combines FM stereo radio and cassette tape player; separate balance and fader controls; locking fast forward and rewind; slide-out mounting bracket; stereo matrix circuitry for four-channel effect; wow and flutter 0.2% rms; frequency response 40-10,000 Hz; stereo separation 35 dB; S/N 50 dB; audio output 4 W average continuous sine wave ..... \$139.95

### S681 AM-FM/8-Track Player

Combines AM-FM stereo radio, emergency and weather information channel, and 8-track tape player; automatic or manual program change; repeat pushbutton for continuous program play; in-dash mounting; cartridge program indicators; wow and flutter 0.3% rms; audio output 12 W continuous sine wave per channel; frequency response 40-10,000 Hz; stereo separation 30 dB; crosstalk -35 dB; S/N 40 dB; power source 12-V d.c. negative ground; supplied with customizer trim plate, gasket, mounting hardware, and knobs; 2 3/4" H x 7" W x 5 1/8" D (main unit) ..... \$239.95

### S280 FM/8-Track Player

Combines FM stereo radio with 8-track tape player; illuminated Powerplay and numbered program indicators; manual and automatic eject when power to unit is removed; separate balance and fader controls; manual and automatic program changing; stereo indicator light; loudness pushbutton; fast forward with muted sound; repeat pushbutton; separate bass and treble controls; wow and flutter 0.3% rms; S/N 40 dB; crosstalk -35 dB; frequency response 40-10,000 Hz; 12-V d.c. negative ground; supplied with reversible quick-release bracket and mounting hardware; 3 1/2" H x 9 1/4" W x 10 1/8" D ..... \$215.95

### S630 AM-FM/8-Track Player

Combines AM-FM stereo radio, emergency and weather information channel, and 8-track tape player; separate balance and fader controls; illuminated program indicators; automatic or manual program selection; repeat button; wow and flutter 0.3% rms; audio output 4 W average continuous sine wave per channel; frequency response 40-10,000 Hz; stereo separation 30 dB; crosstalk -35 dB; S/N 40 dB; 12-V d.c. negative ground, 2.5-A max. current drain; supplied with customizer trim plate, gasket, mounting hardware, and knobs; 2 3/4" H x 7" W x 5 1/8" D ..... \$199.95

### 3149 AM-FM/8-Track Player

Combines AM-FM stereo radio, emergency and weather information channel, and 8-track tape player; in-dash mounting; repeat and eject buttons; stereo matrix circuitry for four-channel effect; wow and flutter 0.3% rms; audio output 4 W continuous per channel; frequency response 70-10,000 Hz; crosstalk -40 dB; S/N 40 dB; 12-V d.c. negative ground, 2.5-A max. current drain; supplied with trim plate;

2.6" H x 7.5" W x 6.5" D ..... \$189.95

### 9429

6 in x 9 in oval speaker; flush mount; dual imp., 4 and 8 ohms; 30-oz magnet; 25 W music power rating; 1-in dia. voice coil; 16-ft detachable connecting leads; 6 in x 9 in oval cut-out size, 3 1/16 in deep; two per kit ..... \$54.95

### 9430

5 1/4-in surface-mount speaker with black naphthalene-covered wedge enclosure; 11-oz magnet; 4-ohm imp.; 25 W music power rating; 1-in dia. voice coil; 16 1/2-ft detachable connecting leads; enclosure size 5 1/8" H x 10 1/4" W x 8 1/16" D; two per kit ..... \$54.95

### 9432

6 in x 9 in coax flush-mount speaker with black custom grille; 10-oz magnet; 4-ohm imp.; 25 W music power rating; 1-in dia. voice coil; 16 1/2-ft detachable connecting leads; 6 in x 9 in oval cut-out size, 3 1/16 in deep; two per kit ..... \$59.95

### 9433

3 in x 5 in oval surface-mount speaker with black enclosure; 3.6-oz magnet; 8 W music power rating; 3/16-in dia. voice coil; 16-ft detachable connecting leads; enclosure size 3 3/16" H x 7 7/16" W x 5 5/8" D; two per kit ..... \$19.95

### R780

5 1/2-in super full range Trans-Rib acoustical driver; surface-mount enclosure in black molded, rib-braced plastic; frequency response 80-17,000 Hz ±6 dB; 50 W music power rating; 41-oz magnetic structure; 1.4-in dia. voice coil; 4-ohm imp.; 12-ft connecting leads; enclosure size 6 7/8" H x 11 3/8" W x 9" D; two per kit ..... \$99.95

### V140

6 in x 9 in speaker; moisture-resistant cones and dust-sealed voice coils; flush-mounts in standard 6 in x 9 in cut-out; 4-ohm imp.; two per kit ..... \$29.95

### V400

4-in round speaker; 25 W music power rating; moisture-resistant cones; 8-oz magnet; 8-ohm imp.; 4 3/8" H x 5 1/8" W x 1 1/2" D; two per kit ..... \$29.95

### V440

6 in x 9 in oval speaker; all-weather design; dual cone; 25 W music power rating; 10-oz magnet; 8-ohm imp.; fits standard 6 in x 9 in cut-outs; 6 5/8" H x 9 1/2" W x 7 1/8" D; two per kit ..... \$49.95

### V460

6 in x 9 in oval speaker; coaxially mounted 3-in tweeter; 25 W music power rating; 10-oz magnet; 8-ohm imp.; fits standard 6 in x 9 in cut-outs; 6 5/8" H x 9 1/2" W x 7 1/8" D; two per kit ..... \$64.95

### V461

6 in x 9 in oval speaker; coaxially mounted 3-in tweeter; 25 W music power rating; 20-oz magnet; 8-ohm imp.; fits standard 6 in x 9 in cut-outs; 6 5/8" H x 9 1/2" W x 7 1/8" D; two per kit ..... \$74.95

## JENSEN

All products are compatible with 4 and 8 ohm tape units; weather resistant; Flexair suspension; supplied with two speakers, custom grilles, wiring, hardware, and instructions.

### C9945 Triaxial System

6" x 9" three-way speaker system with 3" mid-range and 2" tweeter; max. input 30 W; frequency response 40-20,000 Hz; 3 1/16" deep ..... \$119.95

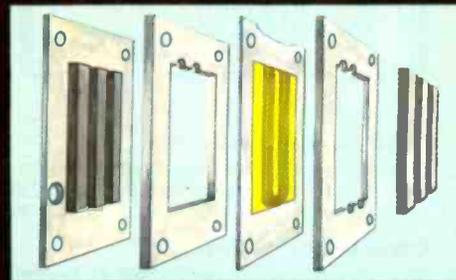
### C9740 Coaxial System

6" x 9" two-way speaker system with 3" tweeter; max. input 25 W; frequency response 40-18,000 Hz; 3 3/4" deep ..... \$73.95

Most car speakers that are advertised as "true high-fidelity for your car" sound about as convincing as a used-car salesman's pitch. More often than not, the music comes out sounding as if it were recorded in a closet full of winter clothes. The truth of the matter is that if a manufacturer wants to make car loudspeakers sound as good as the ones you hear in your home, he has to make car loudspeakers as good as the ones you hear in your home. Which means

no tricks. No short cuts. No nonsense. Which is why the new KLH Model 693 DMSC automotive stereo loudspeakers sound about as good as anything you've ever heard anywhere. Maybe better. Consider the components. We use Controlled Acoustic Compliance<sup>®</sup> Woofers with 30-ounce magnets for extended bass response. Hemispherical soft dome midrange drivers (found in only the most expensive speakers). And the most advanced driver found in any loudspeaker system — The Samarium Cobalt Tweeter (an ultra thin Kapton<sup>®</sup> diaphragm with "printed" voice coil suspended between the most powerful magnet material known to man — rare earth Samarium Cobalt!). The 693 DMSC can be driven nicely by the stereo electronics in most cars. (You won't believe the performance if you decide to add a quality power booster.) Now instead of hearing a muffled mess from the back of your car, you can look forward to hearing every nuance of the music — the timbre of the tympany, the bite of the brass, and the sweet, mellow

### The Samarium Cobalt Tweeter



sound of the strings. And when all is said and done, isn't that what high fidelity is all about?

For more information on KLH automotive loudspeakers (we also make two-way systems, additional three-way systems, and a totally new concept in automotive sound, The Headliner series), write to Donald Brandt, KLH Research & Development Corp., 30 Cross St., Cambridge, Mass. 02139.



**KLH** 30 Cross Street  
Cambridge, Mass. 02139

**You've never seen this name on an automotive loudspeaker because there's never been an automotive loudspeaker worthy of this name.**



**Until now.**  
CIRCLE NO. 53 ON READER SERVICE CARD

**9 AUTO TAPE EQUIPMENT**

**C9943 Coaxial System**

5" x 7" two-way speaker system with 2" tweeter; max. input 25 W; frequency response 50-15,000 Hz; 3 7/16" deep .....\$72.95

**C9852 Coaxial System**

5 1/4" two-way speaker system with 2" tweeter; max. input 25 W; frequency response 60-15,000 Hz; 2 1/16" deep .....\$71.95

**C9853 Coaxial System**

5 1/4" two-way speaker system with 2" tweeter; max. input 25 W; frequency response 60-15,000 Hz; 2 1/16" deep .....\$61.95

**C9851 Coaxial System**

4" two-way speaker system with 2" tweeter; max. input 20 W; frequency response 70-15,000 Hz; 1 3/4" D .....\$60.95

**C9729 Dual Cone System**

6" x 9" two-way speaker system with 2 5/8" whizzer; max. input 25 W; frequency response 40-14,000 Hz; 3 1/2" deep .....\$49.95

**C9940 Dual Cone System**

5" x 7" two-way speaker system with 2" whizzer; max. input 25 W; frequency response 50-12,000 Hz; 3" deep .....\$48.95

**C9862 Dual Cone System**

5 1/4" two-way speaker system with 2" whizzer; max. input 25 W; frequency response 60-12,000 Hz; 2 1/16" deep .....\$47.95

**C9728 Dual Cone System**

6" x 9" two-way speaker system with 2 5/8" whizzer; max. input 25 W; frequency response 40-14,000 Hz; 3 1/2" D .....\$42.95

**C9937 Dual Cone System**

5" x 7" two-way speaker system with 2" whizzer; max. input 25 W; frequency response 50-12,000 Hz; 2 1/2" deep .....\$41.95

**C9863 Dual Cone System**

5 1/4" two-way speaker system with 2" whizzer; max. input 25 W; frequency response 60-12,000 Hz; 2 1/16" deep .....\$40.95

**C9860 Dual Cone System**

4" two-way speaker system with 1 1/2" whizzer; max. input 20 W; frequency response 70-12,000 Hz; 1 3/4" deep .....\$39.95

**C9927 Coaxial System**

5 1/4" enclosed surface mount system with 2" tweeter; max. input 25 W; frequency response 50-15,000 Hz .....\$89.95

**C9926 Dual Cone System**

5 1/4" enclosed surface mount system with 2" whizzer; max. input 25W; frequency response 60-12,000 Hz .....\$58.95

**C9809 Dynamount**

5 1/4" enclosed surface mount system with 2" whizzer; max. input 25 W; frequency response 60-12,000 Hz .....\$56.95

**C9814 Unimount**

5" enclosed surface mount system; max. input 20 W; frequency response 90-10,000 Hz ....\$32.95

**KLH**

**693DMSC Auto Speaker System**

Three-way, wide-dispersion, 6" x 9" auto speaker system with Controlled Acoustic Compliance woofers with printed Kapton diaphragms and 30-oz samarium cobalt magnets; hemispherical soft-dome mid-range; frequency response 40-



30,000 Hz; 2 3/4" depth .....\$214.95

**KRIKET**

**Series 6000**

Compatible with 4 or 8 ohm systems; incorporate 10-oz ceramic magnets and 1" high temperature voice coils; convertible mounting capability; supplied with 18.5-ft. cable with quick-connect terminals, mounting instructions, and hardware.

**6049.** 5 1/4" dual cone speaker system; max. input 25 W rms; frequency response 60-15,000 Hz -5 dB; 90-dB SPL/W/m (400 Hz) .....\$34.95

**6509.** 5 1/4" coaxial speaker system; max. input 25 W rms; frequency response 60-20,000 Hz -5 dB; 91-dB SPL/W/m (400 Hz) .....\$39.95

**6069.** 6" x 9" dual cone speaker system; max. input 36 W rms; frequency response 50-15,000 Hz -5 dB; 93-dB SPL/W/m (400 Hz) .....\$44.95

**6079.** 6" x 9" coaxial speaker system; max. input 36 W rms; frequency response 50-18,000 Hz -5 dB; 93-dB SPL/W/m (400 Hz) .....\$49.95

**Klassic Series**

Each kit contains two speakers, two grilles, two 15-ft cables with quick-connect terminals, mounting instructions, and hardware; incorporate 10-oz ceramic magnets and 1" voice coils; 8-ohm imp.

**8231.** 5 1/4" dual cone design; max. input 12 W rms; frequency response 55-15,000 Hz .....\$44.95

**8232.** 5 1/4" coaxial design; max. input 12 W rms; frequency response 55-17,500 Hz .....\$64.95

**8531.** 5" dual cone design; max. input 10 W rms; frequency response 65-15,000 Hz .....\$44.95

**8931.** 6" x 9" dual cone design; max. input 18 W rms; frequency response 45-15,000 Hz .....\$49.95

**8932.** 6" x 9" coaxial design; max. input 18 W rms; frequency response 45-18,000 Hz .....\$69.95

**8971.** 6" x 9" dual cone design; max. input 30 W rms; frequency response 40-15,000 Hz; 20-oz ceramic magnet; 1 1/4" voice coil .....\$59.95

**8972.** 6" x 9" coaxial design; max. input 30 W rms; frequency response 40-18,000 Hz; 20-oz ceramic magnet; 1 1/4" voice coil .....\$79.95

**MATRECS**

All speaker systems are supplied with two speakers, grilles, wire, and hardware; all speakers are 4-8 ohm imp. with 1" dia. voice coils.

**MA-0069-20TP**

6" x 9" TRI-POWER speaker system with 3" mid-range and 1" tweeter; max. input 30 W peak; frequency response 40-20,000 Hz .....\$50.95

**MA-0069-020T.** Single speaker only .....\$21.95

**MA-0069-25CP**

6" x 9" BI-POWER speaker system with 3" tweeter; 1 1/2" dia. voice coil; max. input 35 W peak; frequency response 40-18,000 Hz .....\$48.95

**MA-0069-025C.** Single speaker only .....\$20.95

**MA-0069-20CP**

6" x 9" BI-POWER speaker system with 3" tweeter; max. input 25 W peak; frequency response 45-18,000 Hz .....\$39.95

**MA-0069-020C.** Single speaker only .....\$17.95

**MA-0069-10CP**

6" x 9" BI-POWER speaker system with 3" tweeter;

er; max. input 20 W peak; frequency response 50-18,000 Hz .....\$35.95

**MA-0525-20CP**

5 1/4" BI-POWER speaker system with 1 1/4" piezo tweeter; max. input 25 W peak; frequency response 50-20,000 Hz .....\$39.95

**MA-0525-020C.** Single speaker only .....\$17.95

**MA-0525-020P**

5 1/4" dual cone speaker system; max. input 25 W peak; frequency response 50-16,000 Hz .....\$26.95

**MA-0525-0020.** Single speaker only .....\$10.95

**MA-0069-020P**

6" x 9" dual cone speaker system; max. input 25 W peak; frequency response 40-16,000 Hz .....\$28.95

**MA-0069-0020.** Single speaker only .....\$11.95

**MA-0069-010P**

6" x 9" dual cone speaker system; max. input 20 W peak; frequency response 50-16,000 Hz .....\$23.95

**MA-0069-0010.** Single speaker only .....\$9.95

**MA-0525-010P**

5 1/4" dual cone speaker system; max. input 20 W peak; frequency response 55-15,000 Hz .....\$22.95

**MA-0069-0010.** Single speaker only .....\$9.95

**MA-0525-005P**

5 1/4" dual cone speaker system; max. input 16 W peak; frequency response 60-15,000 Hz .....\$19.95

**MA-0525-0005.** Single speaker only .....\$7.95

**MA-0069-10DV**

6" x 9" dual voice speaker system; max. input 20 W peak; frequency response 50-14,000 Hz; single speaker only .....\$10.95

**MA-0057-0010**

5" x 7" dual cone speaker system; max. input 15 W peak; frequency response 50-14,000 Hz; single speaker only .....\$8.95

**MA-0410-0010**

4" x 10" dual cone speaker system; max. input 15 W peak; frequency response 60-14,000 Hz; single speaker only .....\$9.95

**MOTOROLA**

**TC876AX AM-FM Radio/Cassette**

Combines AM-FM stereo radio with cassette player; designed to fit in-dash in domestic cars;



features fast-forward, automatic tape shut-off, manual eject control, fader control; "Pow-R-Boost" circuitry which changes audio response to boost sound level and improve "highs;" supplied without speakers .....\$229.95

**TC877AX.** Similar to TC876AX except designed for in-dash mounting in many imported cars; without speakers .....\$170.00

**NAKAMICHI**

**250 Cassette Play-Only Deck**

Designed for use with ADS subminiature bi-amplified speaker systems; Dolby noise-reduction circuitry; selectable playback equalization; full auto shutoff; d.c. servomotor drive; volume, tone, and balance controls; includes bracket for underdash mounting and cable for interfacing with ADS system; playback response 40-17,000 Hz ±3 dB; wow and flutter 0.08% wrms; S/N 62 dB (with Dolby); output 580 mV; 3 1/2" H x 7 1/2" W x 9 1/2" D .....\$275.00

With a.c. power pack .....\$300.00



## The best stereo system in the house isn't always in the house.

You *can* take it with you.

The kind of superior sound you're used to hearing at home is now available for your car.

With the Motorola® AutoSound System, the integrated component system designed specifically for cars.

Now you can buy a Motorola AutoSound System with the features, power and fidelity you thought you could only get at home.

Motorola offers a full line of in-dash and under-dash models.

With AM, FM, stereo, cassette, 8-track and CB.

POW·R·BOOSTER™ amplifiers that will deliver up to 40 watts RMS of total system power with total

harmonic distortion (THD) as low as 1% @ 1 KHZ at 30 watts. And frequency shaping controls for extended bass and treble response.

Plus coaxial and three-way POW·R·HANDLER™ speakers that are built to use that power. Specially designed not only for good looks, but also for acoustic quality. You get a rich, full sound you'd never expect to hear in your car.

You can buy a complete Motorola AutoSound System or upgrade your existing components with ours.

Whichever route you choose, stop by your Motorola dealer soon.

And pick up a great sound system for your home away from home.



# Motorola® AutoSound Systems

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**PIONEER ELECTRONICS**

**KP-8005 AM-FM Stereo/Cassette Unit**

In-dash AM-FM stereo receiver with cassette player; 8 W max. rms output power; FM usable sensitivity 1.1  $\mu$ V at 75 ohms (12 dBf); 50 dB quieting sensitivity 1.4  $\mu$ V at 75 ohms (14.3 dBf); alternate channel selectivity 74 dB; capture ratio 1.7 dB; five-station preset tuning; volume/tone/balance controls; FET RF amplifier; PLL for stereo separation; muting switch; tape frequency range 30-12,000 Hz; wow and flutter 0.25%; 2" H x 7 $\frac{1}{8}$ " W x 5 $\frac{1}{4}$ " D; nose dimensions 1 $\frac{3}{4}$ " H x 4 $\frac{1}{8}$ " W x 1 $\frac{1}{8}$ " D. . . . .

..... \$189.95-\$229.95

**KP-8000.** Same except designed to DIN standard to fit European cars; nose dimension 1 $\frac{1}{8}$ " H x 4 $\frac{1}{8}$ " W x  $\frac{3}{4}$ " D; shaft spacing 5 $\frac{1}{8}$ " . . . . .

..... \$189.95-\$229.95

**KP-5005.** Same as KP-8005 but with manual



tuning . . . . . \$169.95-\$199.95

**KP-4000 AM-FM Stereo/Cassette Unit**

In-dash AM-FM stereo receiver with cassette player; 8 W max. rms output power; frequency range 40-10,000 Hz; wow and flutter 0.3%; automatic stop and eject; rotary mode selector; local/distance switch; FM stereo indicator; tape play lights; 2" H x 7 $\frac{1}{8}$ " W x 6 $\frac{1}{4}$ " D; nose dimension 1 $\frac{3}{4}$ " H x 4 $\frac{1}{8}$ " W x 1 $\frac{3}{8}$ " D. . \$149.95-179.95

**TP-9006 AM-FM Stereo/8-Track**

In-dash AM-FM stereo receiver with 8-track player; 8 W max. rms output power; FM usable sensitivity 1.1  $\mu$ V at 75 ohms; 50 dB quieting sensitivity 1.4  $\mu$ V at 75 ohms; alternate channel selectivity 74 dB; capture ratio 1.7 dB; wow and flutter 0.25%; ten-station preset pushbutton tuning; 3 $\frac{1}{4}$ " H x 7 $\frac{1}{8}$ " W x 6 $\frac{3}{8}$ " D; nose size 3" H x 4 $\frac{3}{8}$ " W; designed primarily for GM cars . . . . .

..... \$199.95-\$239.95

**TP-9005.** Same except designed primarily for Ford cars . . . . . \$199.95-\$239.95

**TP-9004.** Same except designed primarily for Chrysler cars . . . . . \$199.95-\$239.95

**TP-7006 AM-FM Stereo/8-Track**

Combines AM-FM stereo receiver with 8-track player; 8 W max. rms output power; FM usable sensitivity 1.1  $\mu$ V at 75 ohms; 50 dB quieting sensitivity 1.4  $\mu$ V at 75 ohms; alternate channel selectivity 74 dB; capture ratio 1.7 dB; wow and flutter 0.25%; five-station preset tuning; automatic stereo/mono switching; local/distance switch; separate bass and treble controls; 3 $\frac{1}{4}$ " H x 7 $\frac{1}{8}$ " W x 6 $\frac{3}{8}$ " D; nose size 3" H x 4 $\frac{3}{8}$ " W; designed primarily for GM cars . . . . .

..... \$179.95-\$219.95

**TP-7005.** Same except designed primarily for Ford cars . . . . . \$179.95-\$219.95

**TP-7004.** Same except designed primarily for Chrysler cars . . . . . \$179.95-\$219.95

**TP-7000 AM-FM Stereo/8-Track**

In-dash AM-FM stereo receiver with 8-track player; 8 W max. rms output power; frequency range 40-10,000 Hz; wow and flutter 0.3%; pushbutton tuning; volume/balance/tone controls; lighted FM and stereo indicators; stereo/mono switch; 2" H x 7 $\frac{1}{8}$ " W x 6 $\frac{1}{4}$ " D . . . . .

..... \$159.95-\$189.95

**TP-6001.** Similar to TP-7000 except automatic and manual program change; nose dimension 1 $\frac{3}{4}$ " H x 4 $\frac{3}{8}$ " W x 1 $\frac{1}{4}$ " D. . . \$119.95-\$139.95

**KP-500 FM-Stereo/Cassette**

Under-dash FM stereo receiver with cassette player; PLL multiplex demodulator; automatic stereo/mono switching; local/distance switch; loudness and muting switches; separate bass and treble controls; 8 W max. rms output power; FM usable sensitivity 1.1  $\mu$ V; 50 dB quieting sensitivity 1.4  $\mu$ V; alternate channel selectivity 74 dB; capture ratio 1.7 dB; automatic eject; fast forward and rewind; wow and flutter 0.3%; brushed aluminum panel; 3" H x 7 $\frac{1}{8}$ " W x 7 $\frac{1}{2}$ " D . . . . . \$159.95-\$189.95

**KP-250.** Similar to KP-500 except separate balance/tone/volume control; stereo/mono switch; frequency range 40-10,000 Hz; 2" H x 6 $\frac{1}{8}$ " W x 6 $\frac{3}{4}$ " D . . . . . \$119.95-\$139.95

**KP-292 Under-Dash Cassette Player**

Cassette system with locking fast-forward and rewind; automatic replay after rewind; automatic eject; tone and balance controls; loudness switch; slide volume control; 8 W min. rms output power; frequency range 30-12,000 Hz; wow and flutter 0.3%; 2" H x 4 $\frac{3}{4}$ " W x 6 $\frac{1}{8}$ " D . . . . . \$89.95-\$109.95

**KP-212.** Similar to KP-292 except side load; on/off indicator light; frequency range 40-10,000 Hz; 2" H x 5 $\frac{1}{8}$ " W x 6 $\frac{1}{8}$ " D . . . . . \$69.95-\$84.95

**TP-900 FM Stereo/8-Track**

Under-dash FM stereo with 8-track; PLL multiplex demodulator; FET front end; local/distance switch; loudness switch; muting; separate bass, treble, balance controls; FM usable sensitivity 1.1  $\mu$ V; 50 dB quieting sensitivity 1.4  $\mu$ V; alternate channel selectivity 74 dB; capture ratio 1.7 dB; automatic stereo/mono switching; wow and flutter 0.25%; fast forward; program repeat; 3" H x 7 $\frac{1}{8}$ " W x 7 $\frac{1}{2}$ " D . . . . . \$149.95-\$179.95

**TP-200.** Similar to TP-900 but automatic/manual program change; frequency range 40-10,000 Hz; illuminated track indicator; 2 $\frac{1}{8}$ " H x 7 $\frac{1}{2}$ " W x 7 $\frac{3}{8}$ " D . . . . . \$99.95-\$119.95

**TP-727 8-Track Player**

Under-dash 8-track player; 8 W max. rms output power; frequency range 30-10,000 Hz; wow and flutter 0.25%; separate bass and treble controls; loudness switch; fast-forward; automatic/manual program change; repeat option; 2 $\frac{3}{8}$ " H x 6 $\frac{1}{2}$ " W x 6 $\frac{1}{4}$ " D . . . . . \$79.95-\$94.95

**TP-252.** Similar to TP-727 but frequency range 40-10,000 Hz; slide volume and tone controls; separate balance control; 2" H x 4 $\frac{3}{4}$ " W x 6 $\frac{1}{8}$ " D . . . . . \$49.95-\$59.95

**ROYAL SOUND**

**RS-2500 AM-FM/Cassette Player**

Combines AM-FM stereo radio and cassette tape player; tape section has 55-dB S/N ratio,



less than 2% dist., wow and flutter 0.2% wrms, channel separation 55 dB; frequency response 40-12,000 Hz; 16-W output power; 11- to 16-V d.c. negative ground; 50 mm H x 178 mm W x 158 mm D. . . . . \$275.00

**RS-2010 AM-FM/Cassette Player**

Combines AM-FM stereo radio and cassette tape player; tape section has 45-dB S/N ratio and less than 3% dist.; fast forward and manual eject controls; tape indicator light; frequency response 40-12,000 Hz; 6 W per channel into 4-8 ohms; 11- to 16-V d.c. negative ground, reverse polarity protected; 1.62" H x 6.8" W x 4.75" D . . . . . \$160.00

**RS-6040 Car Speaker System**

Ultra-compact two-way car speaker system; 4-in long-throw miniature woofer and 2 $\frac{3}{4}$ -in wide-dispersion dome-type tweeter; frequency response 50-22,000 Hz; crossover frequency 2.8 kHz; 4- to 8-ohm imp.; supplied with 9-ft connecting cable with DIN-type plug; black or satin aluminum finish; 6.8" H x 4.25" W x 4.33" D . . . . . \$200.00 pr.

**RS-805 Car Speaker System**

Flush-mount speakers; frequency response 50-13,000 Hz; max. input 30 W; 4- to 8-ohm imp.; 10-oz magnet; 6 $\frac{1}{2}$ -in speaker; includes water protection for flush in-door mounting; supplied with integral baffling, mounting hardware, and speaker cable; high-impact plastic case with black textured finish . . . . . \$64.00

**RS-705 Car Speaker System**

Two-way speaker system with 4-in woofer and in tweeter; frequency response 50-12,000 Hz; max. input 15 W; 4- to 8-ohm imp.; 5-oz magnet; includes water protection shield for in-door mounting; supplied with integral baffling, mounting hardware, and speaker cable; high-impact plastic case speaker baffle with black textured finish . . . . . \$52.00

**SONY from SUPERSCOPE**

**TC-30 Stereo Cassette Player**

Car stereo cassette player with automatic reverse; dual capstan tape drive; wow and flutter 0.25%; frequency response 50-10,000 Hz (standard tape); S/N 50 dB (standard tape); tape pilot directional lamp; individual tone, volume, and balance controls; locking fast-forward and rewind buttons; dual differential-balanced flywheels; supplied with spare fuse and mounting hardware; 12-V d.c. negative ground; 2 $\frac{1}{8}$ " H x 7 $\frac{1}{4}$ " W x 9 $\frac{3}{8}$ " D . . . \$189.95

**TC-26F FM/Stereo Cassette Player**

Car stereo FM radio and cassette player; wow and flutter 0.22%; frequency response 50-10,000 Hz (standard tape); S/N 50 dB (standard tape); mono/stereo FM; tape indicator; fast-forward and rewind buttons; tone, volume, and balance controls; supplied with spare fuse, mounting hardware, and antenna cord; 12-V d.c. negative ground; 2 $\frac{1}{2}$ " H x 8" W x 8 $\frac{3}{4}$ " D . . . . . \$159.95

**TC-24FA AM-FM/Stereo Cassette Player**

In-dash car cassette tape player with AM-FM stereo radio; wow and flutter 0.35% rms; frequency response 125-8000 Hz (standard tape); S/N 43 dB (standard tape); stereo balance, tone, and volume controls; automatic shut-off in forward tape mode; locking fast forward; tape travel indicator; mono/stereo switch; 1 $\frac{1}{8}$ " H x 6 $\frac{7}{8}$ " W x 5 $\frac{1}{8}$ " D (body), 1 $\frac{1}{16}$ " H x 3 $\frac{1}{16}$ " W x  $\frac{3}{4}$ " D (nose) . . . . . \$149.95

**SUPERSCOPE**

**CA-20 AM-FM/Cassette Player**

In-dash AM-FM radio with stereo cassette deck; auto-stop at end of tape; tape indicator light; pushbutton fast-forward and rewind; manual stop/eject; 1 $\frac{1}{8}$ " H x 7" W x 5 $\frac{3}{4}$ " D . . . \$159.95

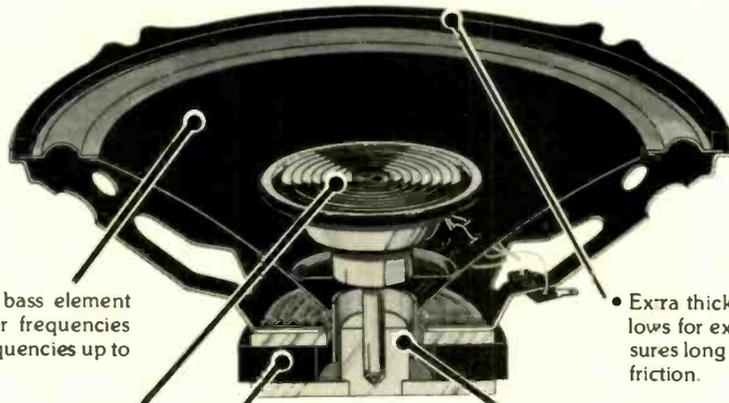
**CA-15 Cassette Player**

Under-dash cassette player; auto-reverse; locking fast-forward and rewind pushbuttons; manual tape direction switch; tape direction indicator lights; manual stop/eject pushbutton; straight-line tone, volume, and balance controls; 12-V negative ground; 2 $\frac{1}{2}$ " H x 6 $\frac{1}{8}$ " W x 6 $\frac{1}{8}$ " D . . . . . \$119.95

**CA-10 Cassette Player**

Under-dash cassette player; locking fast-forward; straight-line volume, tone, and balance controls; manual eject; 12-V negative ground; 2 $\frac{1}{8}$ " H x 5 $\frac{3}{4}$ " W x 6 $\frac{3}{8}$ " D . . . . . \$59.95

# who says you can't match the quality of your home stereo in your car, truck or van?



Model 8972

- 6" x 9" air suspension bass element delivers rich, deep lower frequencies and all the mid-range frequencies up to tweeter crossover.
- 3" center pole piece mounted treble element assures crisp, distortion-free high frequencies with superior sound dispersion, while eliminating bounce-back waves and unclear sound common to speakers with basket suspended tweeters.
- Exceptionally powerful precision-ground molded ferrite faultless single-unit construction 20 oz. magnet provides peak flux density and increased high efficiency.
- 1-1/4" high temperature voice coil features increased winding to provide substantially greater power handling capability while assuring continued reliable operation.
- Extra thickness in mounting gasket allows for extended cone excursions, assures long life, free of mounting surface friction.

## everybody except AFS - makers of the "Klassic"™ "perfect balance"™ car stereo speaker

You can drive 30 watts RMS through our 6" x 9" coaxial speaker, Model 8972, all day and it'll just keep cookin'. Our woofer captures all the low- and mid-range tones. Our highly sensitive tweeter mounts independent of a bulky superstructure known to shield wanted sound in speakers of the past. A full 20 oz. magnet (not two stacked 10's) and aluminum voice coil assure efficiency and superb sound definition from the smallest units to the large power

boosters so popular today.

Outstanding sound reproduction and rugged, long lasting performance are standard in all **KLASSIC™** speakers. Frequency response, power handling and efficiency are balance-blended in a unique new way. Because the art of speaker making is compromise. When you add to the bass, for example, you must compensate for loss in the high end. We have. Every component in every **KLASSIC™** speaker has been

exhaustively tested to work in harmony, each with the other. We call this concept **PERFECT BALANCE™** speaker construction.

The result is sheer, unadulterated, pure music reproduction. Like a home speaker system valued at hundreds of dollars. Put our **KLASSIC™** speakers — coaxial or dual cone — to the test. If you listen to a **KLASSIC™** speaker system, you'll buy it.



innovators in great autosound

**afs® Kriket**

Acoustic Fiber Sound Systems, Inc.  
Indianapolis, Indiana

© 1977

# B-I-C VENTURI proudly announces two new speakers, and no big changes.

Twice in the past four years, B-I-C innovations have significantly changed loudspeakers.

In 1973, B-I-C applied the venturi principle to speaker design (U.S. Patent #3,892,288) and introduced B-I-C VENTURI™ Speaker Systems.

That ushered in the high-efficiency era, with many long-time leaders quickly attempting to follow our lead.

In 1976, B-I-C perfected a series of monitor and control functions that equipped speakers to make the entire system perform better, and introduced the System Monitor Speaker.

That gave the loudspeaker a new role in the stereo system, and the user the ability to purify his system's output.

Today, the changes we have to announce are significant in a different sense.

The new Formula 6 and Formula 3 models (on optional bases below) represent no major innovations. But they complete a line of speakers that has already established fundamental new principles of speaker design and performance. Principles that will endure for years to come.

The Formula 6 Spec II brings the number of Monitor Series Speakers to three and fills a size

and system design position between the 5 and 7. And the new Formula 3 fills a similar slot between the 2 and 4.

Thus, whatever stage of upgrading a music system is in, there's a B-I-C VENTURI Formula to fill that need.

And there's a further significance, we think.

The astute audiophile is fully aware that, in the speaker business, technological exercises abound. And that many yield marginal improvements at very high cost.

At B-I-C, our approach is quite the opposite.

Rather than esoteric speaker designs for a few, our commitment is to fundamental speaker advancement for many. And that is why B-I-C VENTURI speakers remain way ahead without being way out.

For literature on all seven B-I-C VENTURI Formulas, write us at the address below.



## B-I-C VENTURI SPEAKER SYSTEMS

TOMORROW'S TECHNOLOGY TODAY

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CIRCLE NO. 18 ON READER SERVICE CARD

STEREO DIRECTORY & BUYING GUIDE

# 10

# SPEAKER SYSTEMS

## ACOUSTI-PHASE

### Phase III+ Speaker System

Three-way dynamic bass reflex speaker system with 12" woofer, 5" mid-range, and 1" Mylar dome tweeter; frequency response 32-20,000 Hz  $\pm 3$  dB; crossovers at 700 and 4500 Hz; imp. 4-8 ohms; max. input 100 W rms; min. input 10 W rms; high-frequency level control; circuit breaker; walnut enclosure; 25" H  $\times$  15" W  $\times$  14" D ..... \$289.95  
With solid wood butcher block cabinet ..... \$349.95

### Acousti-Phase Tower

Three-way dynamic bass reflex speaker system with 10" woofer, 3 1/2" mid-range, and 1" Mylar dome tweeter; frequency response 35-20,000 Hz  $\pm 3$  dB; crossovers at 1500 and 5000 Hz; imp 8 ohms; max. input 70 W rms; min. input 10 W rms; high-frequency and mid-range level controls; circuit breaker; walnut tower style cabinet; 33 1/2" H  $\times$  13 1/2" W  $\times$  12 1/2" D .... \$239.95

### Phase II Speaker System

Three-way dynamic bass reflex speaker system with 10" woofer, 5" mid-range, and 1" Mylar dome tweeter; frequency response 38-20,000 Hz  $\pm 3$  dB; crossovers at 1200 and 4500 Hz; imp. 4-8 ohms; max. input 70 W rms; min. input 10 W rms; high-frequency level control; circuit breaker; available in utility or walnut cabinet; 24 1/2" H  $\times$  14 1/2" W  $\times$  12 1/2" D ..... \$199.95

### Phase Monitor Speaker System

Two-way dynamic bass reflex speaker system with 12" woofer and 1" Mylar dome tweeter; frequency response 38-20,000 Hz  $\pm 3$  dB; crossover at 2000 Hz; imp. 4-8 ohms; max. input 70 W rms; min. input 10 W rms; high-frequency level control; circuit breaker; 25" H  $\times$  15" W  $\times$  14" D ..... \$159.00

### Phase I Speaker System

Two-way dynamic bass reflex speaker system with 8" woofer and 1" Mylar dome tweeter; frequency response 40-20,000 Hz  $\pm 4$  dB; crossover at 1600 Hz; imp. 4-8 ohms; max. input 50 W rms; min. input 5 W rms; high-frequency level control; circuit breaker; 21 1/2" H  $\times$  12 1/2" W  $\times$  10 7/8" D ..... \$119.95

### Microphase Speaker System

Two-way dynamic bass reflex speaker system with 6 1/2" woofer and 1" Mylar dome tweeter; frequency response 48-20,000 Hz  $\pm 4.5$  dB; crossover at 1600 Hz; imp. 4-8 ohms; max. input 30 W rms; min. input 5 W rms; 17 1/2" H  $\times$  10 1/2" W  $\times$  8" D ..... \$79.95

## ACOUSTIC RESEARCH

### AR10 $\pi$ Three-Way Speaker System

Three-way speaker system with 12" acoustic suspension woofer, 1 1/2" hemispherical dome mid-range, and 3/4" hemispherical dome tweeter; crossovers at 525 and 5000 Hz; 4-8 ohms nominal imp.; sensitivity 1 W for 86-dB SPL (on axis at 1 m); max. input 150 W/ch continuous; system low-frequency response -3 dB at 35 Hz; three three-position switches for woofer

environmental control and for mid-range and tweeter level control; oiled walnut veneer finish;



25" H  $\times$  13 1/16" W  $\times$  10 3/4" D ..... \$450.00

### AR11 Three-Way Speaker System

Three-way speaker system with 12" acoustic suspension woofer, 1 1/2" hemispherical dome mid-range, and 3/4" hemispherical dome tweeter; crossovers at 525 and 5000 Hz; 4 ohms nominal imp.; sensitivity 1 W for 86-dB SPL (on axis at 1 m); max. input 150 W/ch continuous; system low-frequency response -3 dB at 35 Hz; two three-position switches for mid-range and tweeter level control; oiled walnut veneer finish; 25" H  $\times$  13 1/16" W  $\times$  10 3/4" D .. \$350.00

### AR12 Three-Way Speaker System

Three-way speaker system with 10" acoustic suspension woofer, 2 1/2" cone mid-range, and 3/4" hemispherical dome tweeter; crossovers at 700 and 4000 Hz; 8 ohms nominal imp.; sensitivity 1 W for 86-dB SPL (on axis at 1 m); max. input 150 W/ch continuous; system low-frequency response -3 dB at 44 Hz; two three-position switches for mid-range and tweeter level control; oiled walnut veneer finish; 25" H  $\times$  13 1/16" W  $\times$  10 3/4" D ..... \$250.00

### AR14 Two-Way Speaker System

Two-way speaker system with 10" acoustic suspension woofer and 1" dome tweeter; crossover at 1300 Hz; 8 ohms nominal imp.; sensitivity 1 W for 86-dB SPL (on axis at 1 m); max. input 100 W/ch continuous; system low-frequency response -3 dB at 44 Hz; two-position switch for tweeter contour control; oiled walnut veneer finish; 25" H  $\times$  13 1/16" W  $\times$  10 3/4" D .. \$180.00

### AR15 Two-Way Speaker System

Two-way speaker system with 8" acoustic suspension woofer and 1" dome tweeter; crossover at 1700 Hz; 8 ohms nominal imp.; sensitivity 1 W for 86-dB SPL (on axis at 1 m); max. input 100 W/ch continuous; system low-frequency response -3 dB at 48 Hz; three-position switch for tweeter contour control; oiled walnut veneer finish; 21 1/2" H  $\times$  11 3/4" W  $\times$  7 3/4" D .... \$130.00

### AR17 Two-Way Speaker System

Two-way speaker system with 8" acoustic sus-

pension woofer and 1 1/4" ring radiator tweeter; crossover at 2000 Hz; 8 ohms nominal imp.; sensitivity 1 W for 86-dB SPL (on axis at 1 m); max. input 100 W/ch continuous; system low-frequency response -3 dB at 50 Hz; two-position switch for tweeter level control; oiled walnut veneer finish; 18 1/2" H  $\times$  10" W  $\times$  8 3/4" D ... \$95.00

### AR18 Two-Way Speaker System

Two-way speaker system with 8" acoustic suspension woofer and 1 1/4" ring radiator tweeter; crossover at 2000 Hz; 8 ohms nominal imp.; sensitivity 1 W for 86 dB (on axis at 1 m); max. input 100 W/ch continuous; system low-frequency response -3 dB at 62 Hz; two-position switch for tweeter level control; walnut-grain vinyl veneer finish 16 1/2" H  $\times$  9 3/8" W  $\times$  6 1/4" D ... \$65.00

## ACOUSTIQUE 3a

### Triphonic Integrated Speaker System

Integrated three-way acoustic pressure feedback system consisting of sub-bass and satellite units.

**Sub-Bass.** Coffee table sub-bass includes four 10" woofers; frequency response 20-120 Hz  $\pm 2$  dB; crossover adjustable over 60-120 Hz; high-imp. input; pink noise generator, microphone, and VU meter for efficiency adjustments; 150 W rms APF feedback amplifier; automatic switch-on; 14" H  $\times$  36" W  $\times$  36" D .... \$799.00

**Satellites.** Two-way PLD satellites with 5" woofer and Equiphaser flat ribbon tweeter; frequency response 80-40,000 Hz  $\pm 3$  dB; crossover at 5000 Hz; max. input 70 W rms; 8-ohm imp.; laminated back wave through very flat tunnel; time aligned; 10" H  $\times$  5" W  $\times$  4" D .... \$200.00

### Andante Master Control System

Three-way acoustic pressure feedback speaker system with 10" woofer, 2" dome mid-range, and 2 1/8"  $\times$  7/8" symmetrical ribbon tweeter; frequency response 25-40,000 Hz  $\pm 3$  dB; crossovers at 300 and 5000 Hz; sensitivity 1.4 W for 90-dB SPL at 400 Hz and 6 ft on-axis; 8-ohm imp.; max. input 60 W rms; 125 W built-in servo amplifier; distortion 0.7%; 18" H  $\times$  12" W  $\times$  8" D ... \$799.00

### Arbiso Monitor Speaker System

Three-way bass reflex speaker system with 15" woofer, 5.8" mid-range, and horn tweeter; frequency response 40-18,000 Hz  $\pm 3$  dB; crossovers at 300 and 5000 Hz; max. input 120 W rms; 8-ohm imp.; 27" H  $\times$  18" W  $\times$  15" D ..... \$539.00

### Andante Linear System

Three-way acoustic pressure feedback speaker system with 11" woofer, 2" dome mid-range, and 3/4" dome tweeter; frequency response 30-30,000 Hz  $\pm 3$  dB; crossovers at 300 and 4000 Hz; max. input 50 W rms; 8-ohm imp.; 120 W built-in servo amplifier; 18" H  $\times$  12" W  $\times$  8" D ... \$499.00

### Adagio $\infty$ Speaker System

Three-way infinite-acoustic-load speaker system with 11" woofer, 2" dome mid-range, and

# 10 SPEAKER SYSTEMS

$\frac{3}{4}$ " dome tweeter; frequency response 35-30,000 Hz  $\pm 3$  dB; crossovers at 400 and 4000 Hz; max. input 80 W rms; 8-ohm imp.; internal acoustic low-pass filter plus infinite transmission line; 31" H x 12" W x 12" D ..... \$399.00

## Apogee Monitor Speaker System

Three-way Peripheral Laminar Decompression speaker system with 11" woofer,  $\frac{1}{8}$ " dome mid-range, and  $\frac{3}{4}$ " dome tweeter; frequency response 45-30,000 Hz  $\pm 3$  dB; crossovers at 700 and 6000 Hz; max. input 70 W rms; 8-ohm imp.; laminated back wave through very flat tunnel; time aligned; 29" H x 13" W x 13" D ..... \$349.00

## Allegretto Speaker System

Three-way bass reflex speaker system with 10" woofer, 4" x 8" horn mid-range, and horn tweeter; frequency response 50-18,000 Hz  $\pm 3$  dB; crossovers at 2000 and 10,000 Hz; max. input 60 W rms; 8-ohm imp.; 25" H x 12" W x 10" D ..... \$289.00

## Apogee Speaker System

Two-way bass reflex speaker system with 10" woofer and  $\frac{3}{4}$ " dome tweeter; frequency response 50-30,000 Hz  $\pm 3$  dB; crossover at 3500 Hz; max. input 60 W rms; 8-ohm imp.; 25" H x 12" W x 10" D ..... \$199.00

## Alphase Speaker System

Two-way Peripheral Laminar Decompression speaker system with 8" woofer and  $\frac{3}{4}$ " dome tweeter; frequency response 55-30,000 Hz  $\pm 3$  dB; crossover at 5000 Hz; max. input 40 W rms; 8-ohm imp.; laminated back wave through very flat tunnel; time aligned; 20" H x 10" W x 12" D ..... \$149.00

## ADS

### 910 Studio Reference Speaker System

Three-way speaker system with two 10" high-compliance woofers in separate acoustic suspension chambers, 2" soft-dome mid-range, and 1" soft-dome tweeter; frequency response 28-20,000 Hz  $\pm 3$  dB; crossovers at 450 and 4000 Hz (12 dB/octave); efficiency 93-dB SPL/W/m; max. input 300 W rms; rated input 150 W rms; min. input 15 W rms; 4-ohm imp.; crossover is replaceable with optional tri-amplifier; round-cornered walnut cabinet with removable black grille and cast swivel stand; 33 $\frac{1}{2}$ " H x 11 $\frac{3}{4}$ " W x 15 $\frac{1}{4}$ " D ..... \$674.90

### 810 Speaker System

Three-way acoustic suspension speaker system with two 8" high-compliance woofers, 2" soft-dome mid-range, and 1" soft-dome tweeter; frequency response 35-20,000 Hz  $\pm 3$  dB; crossovers at 550 and 4000 Hz (12 dB/octave); efficiency 93-dB SPL/W/m; min. input 20 W; 4-ohm imp.; selected natural walnut finish with removable black grille; 25 $\frac{1}{2}$ " H x 14 $\frac{1}{8}$ " W x 11 $\frac{3}{4}$ " D ..... \$349.95

### 710 Speaker System

Three-way acoustic suspension speaker system with two 7" high-compliance woofers, 2" soft-dome mid-range, and 1" soft-dome tweeter; frequency response 40-20,000 Hz  $\pm 3$  dB; crossovers at 550 and 4000 Hz (12 dB/octave); efficiency 93-dB SPL/W/m; min. input 15 W rms; 4-ohm imp.; selected natural walnut finish with removable black grille; 21 $\frac{3}{8}$ " H x 12 $\frac{1}{4}$ " W x 10 $\frac{1}{2}$ " D ..... \$264.95

### 500 Speaker System

Two-way acoustic suspension speaker system with 8" high-compliance woofer and 1" soft-dome tweeter; frequency response 45-20,000

Hz  $\pm 3$  dB; crossover at 1500 Hz (12 dB/octave); efficiency 91-dB SPL/W/m; min. input 10 W rms; 4-ohm imp.; selected natural walnut finish with removable grille; 20" H x 11 $\frac{1}{2}$ " W x 9 $\frac{3}{4}$ " D ..... \$144.95

700. Similar to 500 but has two 7" high-compliance woofers; crossover at 2000 Hz (12 dB/octave); 21 $\frac{3}{8}$ " H x 12 $\frac{1}{4}$ " W x 10 $\frac{1}{2}$ " D ..... \$179.95

### 300 Miniature Speaker System

Two-way miniature acoustic suspension speaker system with 5 $\frac{1}{4}$ " high-compliance ultra-long



excursion woofer and 1" soft-dome tweeter; frequency response 68-20,000 Hz  $\pm 3$  dB; crossover at 2500 Hz (12 dB/octave); efficiency 90-dB SPL/W/m; rated input 50 W rms; min. input 10 W rms; 4-ohm imp.; brushed satin finish; aluminum enclosure (black or silver anodized) with aluminum grille; 8.67" H x 5.9" W x 5.7" D ..... \$140.00

### 200 Miniature Speaker System

Two-way miniature acoustic suspension speaker system with 4" high-compliance ultra-long excursion woofer and 1" soft-dome tweeter; frequency response 85-20,000 Hz  $\pm 3$  dB; crossover at 2500 Hz (12 dB/octave); efficiency 89-dB SPL/W/m; max. input 40 W rms; rated input 30 W rms; min. input 10 W rms; 4-ohm imp.; brushed aluminum enclosure (black or silver anodized) with anodized aluminum grille; 6 $\frac{3}{4}$ " H x 4 $\frac{1}{4}$ " W x 4 $\frac{1}{2}$ " D ..... \$105.00

### 400 Speaker System

Two-way acoustic suspension speaker system with 7" high-compliance long-excursion woofer and 1" soft-dome tweeter; frequency response 48-20,000 Hz  $\pm 3$  dB; crossover at 1500 Hz; efficiency 90-dB SPL/W/m; min. input 10 W rms; 4-ohm imp.; selected natural walnut finish with removable black grille; 17 $\frac{3}{4}$ " H x 10" W x 8 $\frac{1}{2}$ " D ..... \$104.95

## ADVENT

### Powered Advent Loudspeaker

Two-way acoustic suspension, bi-amplified powered speaker system; input sensitivity ad-



justable up to 0.3 V; input imp. 100,000 ohms; continuously variable equalization controls below 100 Hz ( $\pm 6$  dB at 30 Hz) and above 3000 Hz ( $\pm 4$  dB at 10,000 Hz); switchable subsonic filter; crossover frequency 1500 Hz; walnut veneer finish with walnut front molding and brown grille cloth; requires 120-V a.c., 450 W max.;

28 $\frac{3}{8}$ " H x 14 $\frac{1}{8}$ " W x 11 $\frac{3}{8}$ " D ..... \$499.95

### New Advent Loudspeaker

Sealed enclosure, two-way bookshelf system with 12" woofer and 2" impregnated-paper-cone tweeter; frequency response 20-15,000 Hz  $\pm 3$  dB; crossover at 1500 Hz; tweeter control; 8-ohm imp.; min. input 15 W rms; walnut enclosure; 25 $\frac{3}{8}$ " H x 14 $\frac{1}{4}$ " W x 11 $\frac{1}{2}$ " D ... \$149.00  
Same but vinyl enclosure ..... \$129.00

### Smaller Advent Speaker System

Sealed enclosure, two-way bookshelf system; frequency response 20-15,000 Hz  $\pm 5$  dB; 4-ohm imp.; min. input 15 W rms; vinyl-clad walnut enclosure; 11 $\frac{1}{2}$ " H x 20" W x 9 $\frac{1}{4}$ " D ..... \$94.00

### Advent/2 Speaker System

Sealed enclosure, two-way bookshelf system; 8-ohm imp.; min. input 10 W rms; vinyl-clad walnut enclosure; 19 $\frac{3}{8}$ " H x 11 $\frac{1}{4}$ " W x 7 $\frac{1}{2}$ " D ..... \$79.00  
Same with white enclosure ..... \$94.00

### Advent/3 Speaker System

Two-way acoustic-suspension system designed for smaller apartments; drivers and LCR network provide octave-to-octave tonal balance of more expensive Advent speakers; 8-ohm imp.; min. input 10 W rms; non-resonant particle board finished in walnut-grained vinyl; 15 $\frac{1}{4}$ " H x 9 $\frac{3}{8}$ " W x 6 $\frac{5}{8}$ " D ..... \$52.00

### 400 Miniature Speaker

Miniature acoustic-suspension speaker; 8-ohm imp.; min. input 4 W; white polystyrene cabinet with silver gray metal grille; 11" H x 6 $\frac{3}{8}$ " W x 6" D ..... \$35.00

## AKAI

### SW-177 Speaker System

Three-way closed enclosure speaker system with 15" woofer, 5 $\frac{1}{4}$ " mid-range, and two 1 $\frac{1}{4}$ " tweeters; frequency response 25-20,000 Hz; crossovers at 700 (6 dB/octave) and 5000 (12 dB/octave); 8-ohm imp.; rated input 40 W; max. input 100 W; sensitivity 94 dB/W/m; harmonic dist. 3%; high-range and mid-range level controls; walnut finish cabinet; 27.3" H x 17.3" W x 12.2" D ..... \$250.00

### SW-157 Speaker System

Three-way bass reflex speaker system with 12" woofer, 5" mid-range, and 1 $\frac{3}{4}$ " tweeter; frequency response 30-20,000 Hz; crossovers at 1200 (6 dB/octave) and 5000 Hz (12 dB/octave); 8-ohm imp.; rated input 30 W; max. input 60 W; sensitivity 92 dB/W/m; harmonic dist. 3%; high-range and mid-range level controls; walnut finish cabinet; 26.9" H x 15.7" W x 11.8" D ..... \$200.00

### SW-137 Speaker System

Three-way bass reflex speaker system with 10" woofer, 5" mid-range, and 1 $\frac{3}{4}$ " tweeter; frequency response 40-20,000 Hz; crossovers at 1200 (6 dB/octave) and 5000 Hz (12 dB/octave); 8-ohm imp.; rated input 20 W; max. input 40 W; sensitivity 92 dB/W/m; harmonic dist. 3%; mid-range level control; walnut finish cabinet; 23.3" H x 13.5" W x 11.8" D .... \$130.00

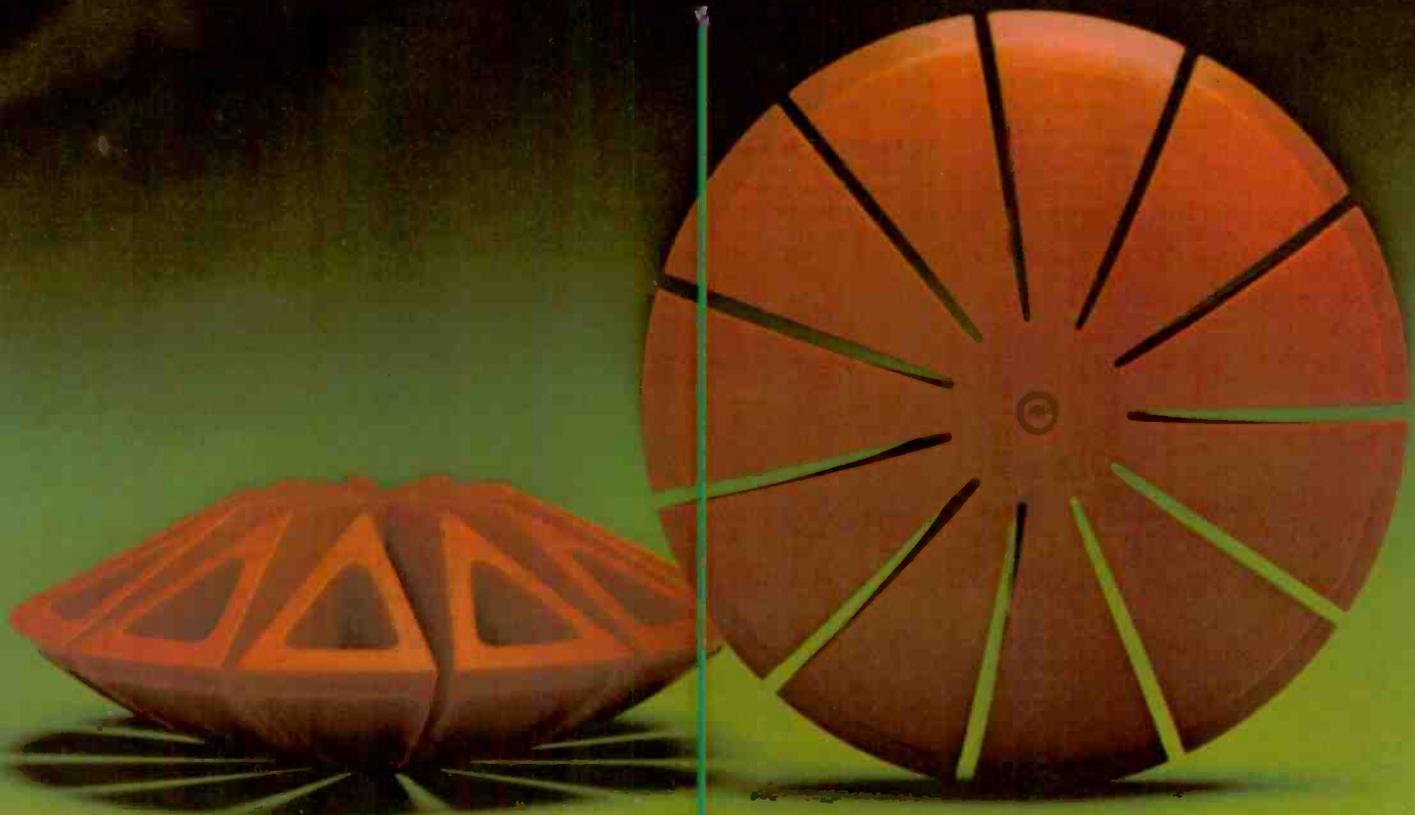
### SW-127 Speaker System

Two-way bass reflex speaker system with 8" woofer and 1 $\frac{3}{4}$ " tweeter; frequency response 40-20,000 Hz; crossover at 4000 Hz (6 dB/octave); 8-ohm imp.; rated input 15 W; max. input 30 W; sensitivity 92 dB/W/m; harmonic dist. 3%; walnut finish cabinet; 20.4" H x 12.2" W x 9" D ..... \$90.00

### S-82 Speaker System

Two-way speaker system with 8" woofer and 3" tweeter; frequency response 60-17,000  $\pm 5$  dB/dB SPL; crossover at 4000 Hz; 8-ohm imp.; rated input 15 W continuous; wood-grain vinyl finish cabinet with double-knit grille cloth; 19" H x 11" W x 6 $\frac{3}{4}$ " D ..... \$75.00 pr.

## THE ALTEC TANGERINE. IT GIVES YOU A NATURAL HIGH.



It may not look like much, but this simple, innocent-looking disk brings you closer to the fullest possible sound in the high frequencies. Called the "Tangerine™," it's a brand new patented radial phase plug. And we're the only one who has it.

We build it into our high-frequency compression drivers on our Model 15 and 19 speakers. That's why they sound more natural and as close to live sound as you can get.



Circumferential Phase Plug



Tangerine Radial Phase Plug

Until now, the old circumferential phase plugs put up obstacles to high frequencies. By forcing sound through evenly spaced slots, the plug developed its own undesirable acoustic characteristics. Because the distances between slots were even, certain high frequencies never made it through.

That's why we came up with a better idea. Instead of circumferential slots, we have radials. The prime number of the slots and the tapered distances between them provide a clear path to high frequencies. As a result, you

get super-high efficiency and greatly extended high-frequency response. A much wider band of clear and natural highs, unbroken by any artificial barrier.

After filling in the highs, we created a unique dividing network for our Models 15 and 19. It has a built-in dual-range equalizer so you can achieve variable equalization of mid and high frequencies. The combination of a dual-box design and tuned vent offers precise internal volume and enclosure tuning. The outcome is an unheard-of low frequency response: the best ratio of lower limit vs. sensitivity yet.

It's not surprising that all these improvements in sound technology were made by Altec Lansing. The name that's been the number one choice of professional recording studios and artists for over forty years.

For a full-line catalog and the name of your local Altec Lansing dealer, just write us. Altec Lansing International, 1515 S. Manchester Avenue, Anaheim, California 92803.



ALTEC LANSING. THE NUMBER ONE NAME  
IN PROFESSIONAL SPEAKERS IS COMING HOME.

# 10 SPEAKER SYSTEMS

## 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 350 and 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-ohm imp.; efficiency 0.7% when placed at floor-wall intersection; minimum amplifier power 30 W/ch for 100-dB SPL; acoustic power output 1/2 acoustic watt minimum over full frequency range, with 70-W input; system resonance 45 Hz nominal; sealed oiled walnut enclosure 40" H x 19" W x 10 3/4" D, internal volume 2550 cubic inches ..... \$390.00

**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 52 Hz nominal; sealed oiled walnut enclosure 36" H x 16" W x 9 3/8" D, internal volume 1775 cubic inches ..... \$325.00

**Model Three.** Sealed acoustic-suspension system with 10" woofer, 3 1/2" midrange, 1" tweeter; LC half-section crossover network; crossovers at 350 and 3750 Hz; min. amp. power 30 W/ch for 100-dB reverberant SPL; resonant freq. 45 Hz; designed for corner mounting; three-pos. control switch selects system acoustic power response; 3.5- to 4-ohm imp.; high-density particle board, walnut veneered, oil finished; 40" H x 15 1/2" W x 10" D (occupies 10 7/8" wall space min.) ..... \$275.00

### Model Four Speaker System

Two-way sealed acoustic-suspension system with 8" woofer and two 1" "Convex Diaphragm" tweeters; crossover at 2000 Hz; LC quarter-section network with three-pos. control switch to adjust response from nominally flat to "concert-hall" balance slope; 8-ohm imp.; amp power 30 W/ch for 100-dB SPL; acoustic power output: 0.5 acoustic watt (70 W peak input), 0.25 (35 W input); designed to be used against wall or hung on wall (hardware included); walnut-veneered high-density particle board, oiled finish; 11" H x 19 3/8" W x 10" D ..... \$185.00

## ALTEC

### 19 Two-Way Speaker System

Two-way floor-standing vented enclosure with 15" bass driver, "Radial Phase Plug" driver mounted on 811B sectoral horn; crossover at 1200 Hz; 8-ohm imp.; frequency response 30-20,000 Hz; operational power range 10 to 350 W; long-term broadband max. power 65 W; dispersion 105 degrees at -6 dB both vertical and horizontal; max. long-term acoustic output 120 dB at 65 W; hand-rubbed oiled-walnut or oak finish; acoustically transparent knit fabric grille mounted on removable frame; 39" H x 30" W x 21" D (including base and grille) .... \$659.00

### 17 Two-Way Speaker System

Two-way floor-standing vented enclosure with 15" bass driver with coaxially mounted sectoral horn and compression driver; crossover at 1500 Hz; 8-ohm imp.; frequency response 30-20,000 Hz; operational power range 100 to 350 W; long-term broadband max. power 65 W; long-term max. acoustic output 118-dB SPL at 65 W; dispersion 40 degrees (vertical) and 90 degrees (horizontal), both at -6 dB; hand-rubbed oiled oak finish; acoustically transparent knit fabric mounted on removable frame; 40" H x 26" W x 18" D ..... \$585.00

## "Voice of the Theatre" Systems

Features 15" bass driver plus compression driver mounted on 511B sectoral horn; crossover frequency 500 Hz; 8-ohm imp.; frequency response 45-20,000 Hz; long-term broadband max. power 50 W; operational power range 10 to 250 W; long-term max. acoustic output 118-dB SPL at 50 W; sensitivity 101-dB SPL; theatre gray finish; 52 1/2" H x 30" W x 24" D. Model A7-500-8 ..... \$589.00  
**A7-8.** Same as A7-500-8 except different compression driver; crossover at 800 Hz. . \$557.00

### 15 Two-Way Speaker System

Two-way floor-standing vented enclosure with 12" bass driver and "Radial Phase Plug" compression driver mounted to curved radial horn; crossover at 1700 Hz; 8-ohm imp.; frequency response 30-20,000 Hz; long-term broadband max. power 60 W; operational power range 12 to 250 W; long-term max. acoustic output 111-dB SPL at 60 W; hand-rubbed oiled walnut or oak finish, all sides and back; acoustically transparent foam mounted on removable panel; 27" H x 22" W x 15 1/2" D (with base and grille) .... \$429.00

### Stonehenge II Speaker System

Three-way floor-standing system with 12" bass driver, 5 1/2" cone mid-range, and 5" cone tweeter; crossovers at 500 and 5000 Hz; frequency response 35-20,000 Hz; dispersion: 130 degrees vertical and horizontal at -6 dB; max. power 50 W; operational power range 20 to 250 W; hand-rubbed oiled-oak cabinet; brown knit fabric grille on removable frame; 37 1/2" H x 16" W x 14 3/4" D ..... \$359.00

### Santana II Speaker System

Two-way floor-standing vented enclosure with 12" bass driver and 5" frame cone driver; crossover at 2500 Hz; 8-ohm imp.; frequency response 40-20,000 Hz; max. power 45 W; operational power range 12 to 150 W; long-term max. acoustic output 107.5-dB SPL at 45 W; hand-rubbed oiled walnut finish with composition slate top; acoustically transparent black knit fabric grille mounted on removable frame; 25 3/8" H x 19" W x 16" D ..... \$259.00

### Model Seven Bookshelf Speaker

Three-way system with 12" bass driver, 6 1/2" cone mid-range; and 4" cone tweeter; crossovers at 850 and 8000 Hz; response 45-20,000 Hz; max. power 50 W; operational power range 15 to 200 W; hand-rubbed oiled-walnut veneer cabinet; removable foam grille in choice of black, brown, blue, or burnt orange; 25" H x 16" W x 14 1/8" D ..... \$229.00

**Model Nine.** Similar to Model Seven but with 5" cone tweeter; crossovers at 800 and 7000 Hz; response 40-20,000 Hz; max. power 60 W; operational power range 12 to 250 W; hand-rubbed oiled-oak veneer cabinet; same grille choices; 26 1/2" H x 17 1/2" W x 15" D .. \$299.00

### Model One Bookshelf Speaker

Two-way system with 8" bass driver and 4" cone tweeter; crossover at 3000 Hz; response 50-20,000 Hz; max. power 30 W; operational power range 12 to 75 W; hand-rubbed oiled-oak veneer cabinet; brown knit fabric grille on removable frame; 21" H x 11 1/2" W x 10 3/8" D ..... \$99.00

**Model Three.** Similar to Model One but with 10" bass driver; 1500-Hz crossover; max. power 35 W; operational power range 10 to 100 W; black knit grille; 24" H x 12 1/2" W x 11 1/2" D ..... \$129.00

**Model Five.** Similar to Model Three except 12" bass driver and two 4" cone tweeters; response 45-20,000 Hz; max. power 45 W; operational power range 12 to 150 W; hand-rubbed oiled-walnut veneer cabinet; 25 1/2" H x 14 1/2" W x 12" D ..... \$179.00

## AMERICAN ACOUSTIC LABS

### Disco Monster Speaker System

Resonant-free, rigid-wall enclosure houses two

12" extended range speakers; frequency response 18-8000 Hz; 4-ohm nominal imp.; max. input 300 W program; black vinyl finish with chrome-plated metal corners and removable grille cover; 1/2" Switchcraft phone-jack connections; 50" H x 30" W x 25" D ..... \$600.00

### Studio 6 Speaker System

Three-way speaker system with four 10" woofers, 4" x 10" cast horn mid-range, and three 3" piezoelectric tweeters; frequency response 18-25,000 Hz; 8-ohm nominal imp.; crossovers at 800 and 7000 Hz; dispersion 180 degrees; min. input 20 W; max. input 200 W program; front-mounted mid-range and tweeter controls; fused for speaker protection; push-type terminal connections; walnut-grain vinyl finish; 38" H x 24" W x 15 1/4" D ..... \$429.00

### Disco Tower Speaker System

Three-way speaker system with two 15" woofers, die-cast horn mid-range, and four piezoelectric tweeters; frequency response 18-40,000 Hz; 8-ohm nominal imp.; crossovers at 800 and 7000 Hz; max. input 300 W rms; 1/2" female phone and binding post connections; vinyl-covered cabinet with heavy-duty metal corners; 46 3/4" H x 21" W x 16" D .... \$349.00

### Disco One Speaker System

Three-way speaker system with 15" woofer, die-cast horn mid-range, and four piezoelectric tweeters; frequency response 30-40,000 Hz; 8-ohm nominal imp.; crossovers at 800 and 7000 Hz; max. input 200 W rms; 1/2" female phone and binding post connections; 29" H x 21" W x 16" D ..... \$299.00

### Studio 4 Speaker System

Three-way speaker system with 15" woofer, 4" x 10" cast horn mid-range, and three 3" piezoelectric tweeters; frequency response 20-25,000 Hz; 8-ohm nominal imp.; crossovers at 800 and 7000 Hz; dispersion 180 degrees; front-mounted mid-range and tweeter controls; min. input 20 W; max. input 150 W program; fused for speaker protection; push-type terminal connections; walnut-grain vinyl finish; 31" H x 24" W x 15 1/4" D ..... \$299.00

### 2001 Four-Way Speaker System

Incorporates 10" woofer, 8" auxiliary bass driver, 4" phenolic ring mid-range, and 3" piezoelectric tweeter; frequency response 25-40,000 Hz; 8-ohm nominal imp.; crossovers at 600, 2000, and 5000 Hz; dispersion 180 degrees; min. input 10 W; max. input 80 W program; front-mounted contour control; push-type terminal connections; walnut-grain vinyl finish; 37" H x 13" W x 11" D ..... \$219.00

### Monster Tweeter Array

Incorporates 14 piezoelectric tweeters; frequency response 7000-40,000 Hz; max. input 300 W program; 11 1/4" H x 30 W x 11 3/4" D ..... \$200.00

### Studio 3 Speaker System

Three-way speaker system with 12" woofer, 4" x 10" cast horn mid-range, and 3" piezoelectric tweeter; frequency response 25-25,000 Hz; 8-ohm nominal imp.; crossovers at 1000 and 7000 Hz; dispersion 180 degrees; min. input 10 W; max. input 100 W program; front-mounted mid-range and tweeter controls; fused for speaker protection; push-type terminal connections; walnut-grain vinyl finish; 26" H x 15" W x 13" D ..... \$199.00

### Pro Tweeter Array

Incorporates eight piezoelectric tweeters; frequency response 7000-40,000 Hz; max. input 200 W; supplied with vinyl-covered carrying case with metal-reinforced corners; 11 1/4" H x 16 3/4" W x 11 3/4" D ..... \$149.00

### Studio 2 Speaker System

Three-way speaker system with 10" woofer, 2" cone-type phenolic ring mid-range, and 3" piezoelectric tweeter; frequency response 27-



# Thermo-Vapor Suspension

The Cerwin-Vega S1 is the most elegant and exotic shelf speaker currently available. The rare Yucatan rosewood<sup>1</sup> facade only hints at the marvels inside. A sophisticated sixth order Butterworth vent tuning, integrated with an active equalizer filter, increases the effective bass performance to surpass much larger enclosures. The wave of the future in quality shelf speakers surely will be such a system.

Even this is not good enough for the S1.

We have developed an elegantly simple improvement in bass enclosure technology; we call it Thermo-Vapor Suspension.<sup>2</sup> By filling the S1 cabinet with a soft, inert gas which is more

compressible than air, a lower system response and more controlled damping is achieved.

The drivers are precision aligned die-cast units having the highest magnetic motor drive efficiencies in the industry. The low crossover of 300 Hz to a 6" midrange driver assures low intermodulation at loud levels. A damped dhorm, high frequency unit (moving mass, .1 gram), operates at a low pressure density extending response to 20 kHz with vanishing coloration.

The S1 has impeccable technical credentials too numerous to detail here so write Cerwin-Vega for full performance specifications or see it, hear it, Feel it, at a selected dealer.



**Cerwin-Vega!**

Cerwin-Vega! 12250 Montague Street, Arleta, California 91331, 213/896-0777

In Canada: Cerwin-Vega Canada Ltd., 19 Malley Road, Scarborough, Ontario, 416/752-7530

CIRCLE NO. 25 ON READER SERVICE CARD

<sup>1</sup>Walnut is standard

<sup>2</sup>Patent Pending

# 10 SPEAKER SYSTEMS

25,000 Hz; 8-ohm nominal imp.; crossovers at 4000 and 7000 Hz; dispersion 180 degrees; min. input 10 W; max. input 50 W program; push-type terminal connections; fused for speaker protection; walnut-grain vinyl finish; 25" H x 13 1/2" W x 10 1/2" D ..... \$149.00

## Studio 1 Speaker System

Two-way speaker system with 8" woofer and 2" cone-type phenolic ring tweeter; frequency response 35-20,000 Hz; 8-ohm nominal imp.; crossover at 4000 Hz; dispersion 160 degrees; min. input 10 W; max. input 30 W program; push-type terminal connections; walnut-grain vinyl finish; fused for speaker protection; 22" H x 11" W x 10" D ..... \$89.00

## AUDIO ENGINEERING

### Evolution 1

Two-way acoustic suspension speaker system with 10" woofer and 1" hemispherical dome tweeter; frequency response 35-17,000 Hz +1.5/-2 dB; crossover at 1500 Hz; efficiency 88-dB SPL/W/m; max. input 150 W music power; min. input 15 W rms (into 4 ohms); imp. selectable, 4 or 8 ohms; tweeter level control; vinyl and genuine walnut finish with black or brown grille cloth; 25" H x 15 1/2" W x 9 1/2" D ..... \$156.00  
With walnut-grain vinyl finish ..... \$137.00

## AUDIO INTERNATIONAL

### CM15b Speaker System

Servo-feedback driver control three-way speaker system with 15" woofer, 6" mid-range, two phenolic-ring tweeters, and piezo super tweeter; frequency response 20-22,000 Hz ±2.5 dB; 4-ohm imp.; THD 2% at 100-dB SPL; 120-dB max. SPL; efficiency 94 dB/0.8 W/m (1 kHz); max. input 200 W music power; min. input 40 W; sensitivity 120°; crossovers (12 dB/octave) at 450, 5000, and 12,000 Hz; continuously variable tweeter and mid-range level controls, three-position room gain; dual enclosure cabinet of hand-rubbed walnut with black mica top; supplied with 25-ft connecting cable; 33" H x 17" W x 17" D ..... \$599.00

### CM15sw Speaker System

Servo-feedback driver control speaker system with 15" woofer; frequency response 20-450 Hz ±2.5 dB; 4-ohm imp.; THD 2% at 100-dB SPL; efficiency 94 dB/0.8 W/m (200 Hz); rated input 75 W; max. input 200 W music power; crossover at 450 Hz (12 dB/octave); three-position room gain control; hand-rubbed walnut cabinet with mica top; supplied with 25-ft connecting cable; 19" H x 17" W x 17" D ..... \$299.00

### CM10 Speaker System

Three-way speaker system with 10" woofer, 5" mid-range, and aluminum diaphragm tweeter; feedback or conventional hookup; frequency response 30-18,000 Hz ±2.5 dB (with feedback), 60-18,000 Hz ±2.5 dB (without feedback); 6-ohm imp.; THD 2% at 90-dB SPL; rated input 40 W; max. input 200 W music power; dispersion 120°; crossovers at 500 and 5000 Hz (12 dB/octave); hand-rubbed walnut cabinet; 13" H x 22" W x 12" D ..... \$199.00

## AUDIO PHASE

### FW154 Speaker System

Four-way tunable port bass reflex speaker system with 15" high-compliance woofer, 4" x 10" exponential mid-range horn, 3" x 7" exponential horn tweeter, and 4" UHF Phenolic spherical

dome tweeter; crossovers at 800, 2500, and 6500 Hz; frequency response 20-25,000 Hz; dispersion 180 degrees; variable mid-range presence control and variable treble brilliance control; 8-ohm imp.; fused against burnout; quick-connect pushbutton terminals; hand-rubbed oiled walnut finished wood with removable formed knit fabric grille; 28" H x 18" W x 16" D ..... \$389.50

### FW124 Speaker System

Four-way tunable port bass reflex speaker system with 12" high-compliance woofer, 10" exponential mid-range horn, 3" x 7" exponential horn tweeter, and 4" UHF phenolic ring spherical dome tweeter; crossovers at 800, 2500, and 6500 Hz; frequency response 20-25,000 Hz; dispersion 180 degrees; variable mid-range treble control and variable treble brilliance control; 8-ohm imp.; fused against burnout; quick-connect pushbutton terminals; hand-rubbed oiled walnut finished wood with removable formed knit fabric grille; 26" H x 15 1/2" W x 12" D ..... \$319.50

### SV123 Speaker System

Three-way ducted port bass reflex speaker system with 12" woofer and 4" x 10" mid-range horn coupled to a phenolic ring tweeter; crossovers at 800 and 1500 Hz; frequency response 30-19,000 Hz; dispersion 180 degrees; variable mid-range presence control and variable treble brilliance control; 8-ohm imp.; fused against burnout; quick-connect pushbutton terminals; walnut-grain vinyl finish with removable sculptured foam grille; 23 1/2" H x 15 1/2" W x 12" D ..... \$279.50

### LV123 Speaker System

Three-way ducted port bass reflex speaker system with 12" woofer and 5" pliable cone mid-range coupled to a phenolic ring tweeter; crossovers at 800 and 1500 Hz; frequency response 35-19,000 Hz; dispersion 160 degrees; 8-ohm imp.; fused against burnout; quick-connect pushbutton terminals; walnut-grain vinyl finish with removable sculptured foam grille; 23 1/2" H x 15 1/2" W x 12" D ..... \$169.50

## AUDIO RESEARCH

### T-1C Folding FloorScreen

Features Magneplanar driver; frequency response 40-18,000 Hz ±3 dB; sensitivity 10 W for 96-dB SPL at 6 ft; min. input 100 W; crossover frequency 1325 Hz; 8-ohm imp.; white or black fabric finish; 72" H x 48" W x 1" D ..... \$1395.00 pr.  
T-1D. Similar but frequency response 40-20,000 Hz ±3 dB; sensitivity 10 W for 93-dB SPL at 6 ft; 4-ohm imp. .... \$1395.00 pr.

## AUDIOANALYST

### Anthem Array Speaker System

Floor-standing speaker system with 10" sub-woofer, 10" woofer, 4 1/2" mid-range, 1" dome tweeter, and piezoelectric super tweeter; frequency response 28-20,000 Hz ±3 dB; max. input 90 W sine wave for 5 min. (400 Hz); min. input 20 W rms; sensitivity 10 W random noise for 92-dB SPL (at 6 ft); dispersion 180 degrees; separate fusing for mid-range and tweeter; sealed woofer chambers and acoustically transparent foam housing for mid-range and tweeters; removable grille; 44" H x 15" W x 15" D ..... \$599.00

### A-200X Four-Way Speaker System

Floor-standing speaker system with 12" high-compliance woofer, 5" mid-range (in separate subchamber), 2" tweeter, and two 1 1/2" wide-dispersion angle-mounted super tweeters; frequency response 38-20,000 Hz ±3 dB; max. input 100 W; dispersion 180 degrees; crossovers at 800, 2000, and 7500 Hz; 8-ohm imp.; mid-range and tweeter level controls; oiled walnut finish and black grille cloth; 27" H x 15" W x 12 3/4" D ..... \$299.00

### A-100X Three-Way Speaker System

Bookshelf speaker system with 10" high-compliance woofer, 2" cone mid-range, and 1 1/2" wide-dispersion tweeter; frequency response 40-20,000 Hz ±3 dB; max. input 100 W; dispersion 160 degrees; crossovers at 1500 and 7500 Hz; 8-ohm imp.; mid-range and tweeter level controls; walnut-grain vinyl finish with white grille cloth; 24 3/8" H x 13 3/4" W x 12" D ..... \$169.00

### A-100C Three-Way Speaker System

Bookshelf speaker system with 10" woofer, 2" mid-range, and 1 1/2" tweeter; frequency response 44-20,000 Hz ±3 dB; max. input 40 W sine wave for 5 min. (400 Hz); crossovers at 2200 and 8500 Hz; mid-range and tweeter level control; walnut-grain vinyl finish with removable white grille; 21" H x 12 1/2" W x 10 1/2" D ..... \$149.00

### A-76X Two-Way Speaker System

Acoustic suspension speaker system with 10" woofer and 2" cone tweeter; frequency response 44-18,000 Hz ±3 dB; max. input 100 W; min. input 10 W; crossover at 1800 Hz; 8-ohm imp.; sealed walnut-grain vinyl finish with removable white grille cloth; 21" H x 12 1/4" W x 11 1/8" D ..... \$129.00

### A-66 Two-Way Speaker System

Bookshelf speaker system with two 4 1/2" woofers and 2" tweeter; frequency response 55-18,000 Hz ±3 dB; dispersion 120 degrees; vented enclosure with walnut-grain vinyl finish and removable sculptured foam grille; 20" H x 9 7/8" W x 9" D ..... \$99.00

### PhaseMatrix M8 Speaker System

Four-way speaker system with 12" polymer cone woofer, 4 1/2" foam-damped mid-range, 1" tweeter, and 1/2" tweeter; frequency response 27-25,000 Hz ±3 dB; max. input 200 W; min. input 15 W; sensitivity 1 W for 88 dB (at 1 m); crossovers at 600, 2000, and 15,000 Hz; 8-ohm nominal imp.; front-mounted three-position mid-range and tweeter contour controls; walnut veneer, laquer finish with removable black grille; 27 1/2" H x 15 1/2" W x 11 3/4" D .. \$339.00

### PhaseMatrix M6 Speaker System

Three-way speaker system with 10" polymer cone woofer, 4 1/2" foam-damped mid-range, and 1" tweeter; frequency response 30-20,000 Hz ±3 dB; max. input 150 W; min. input 15 W; sensitivity 1 W for 88 dB (at 1 m); crossovers at 700 and 2000 Hz; 8-ohm nominal imp.; front-mounted mid-range and tweeter contour controls; walnut veneer, laquer finish with removable black grille; 24 3/8" H x 13 3/4" W x 11 3/4" D .. \$249.00

### PhaseMatrix M4 Speaker System

Two-way speaker system with 10" polymer cone woofer and 1" tweeter; frequency response 38-20,000 Hz ±4 dB; max. input 100 W; min. input 10 W; sensitivity 1 W for 90 dB (at 1 m); crossover at 2000 Hz; 8-ohm nominal imp.; walnut veneer, laquer finish with removable black grille; 21" H x 12 1/4" W x 10 1/2" D .... \$199.00

### PhaseMatrix M2 Speaker System

Two-way speaker system with 6 1/2" polymer cone woofer and 1" tweeter; frequency response 46-20,000 Hz ±4 dB; max. input 50 W; min. input 10 W; sensitivity 1 W for 92 dB (at 1 m); crossover at 3000 Hz; 4-ohm nominal imp.; walnut veneer, laquer finish with removable black grille; 16 1/2" H x 9 7/8" W x 9 1/4" D .. \$89.40

## AUDIONICS OF OREGON

### T-52 Speaker System

Three-way dynamic speaker system with 10" high-compliance woofer, 6" mid-range, and 1" cloth-dome tweeter; frequency response 32-24,000 Hz ±1.5 dB; crossovers at 280 and 2500 Hz; min. input 10 W rms; max. input 100 W instantaneous peak; 4-ohm nominal imp.; dispersion 100° vertical, 120° horizontal; high-



Infinity brings  
high technology  
to a new low.

Under \$150.



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Our new Q<sub>a</sub>™.

It was conceived with much of the same advanced technology and all of the commitment to excellence that gave birth to the Quantum Line Source.

Both have our EMIT electromagnetic induction tweeter™, driven by magnets of the most powerful magnetic material in the world: Samarium Cobalt.

With its extremely low mass, EMIT instantly and accurately follows input signals, combining exquisite detail of mid and high frequencies (to 32,000 Hz), sledgehammer power capability and dispersion to a degree never achieved by electrostatics or conventional drivers.

A special cone treatment and other advances in our low-mass, high-excursion Q-woofer™ delivers startlingly accurate bass as well as extraordinary midrange — the kind associated with 3 and 4-way systems.

Efficiency? You can drive Q<sub>a</sub> with as little as 15 watts/channel or as much as 150 — comfortably.

Now we're not saying that the modest price of the Q<sub>a</sub> buys you \$1200 worth of speaker. But we *are* suggesting that you'll be bowled over by the price/value comparison with QLS.

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# Credentials Like These Are Worth Reading



When you're buying speakers, you want to talk specs. And we don't blame you. In fact, we encourage it. Because when you invest your good money in a pair of speakers, you want more than just a pretty cabinet.

Consider the new Jensen Spectrums. These good sounds didn't just happen. They're the result of extensive engineering efforts and exhaustive testing. Testing that ranged from exacting measurements in laboratory "live" rooms and anechoic chambers to in-depth consumer surveys.

Examine our Spectrum Model 540. It's an excellent example of the superb specs you'll find throughout the Jensen Spectrum Series.

The Spectrum 540 is a 3-way, 4 element system that is so efficient it can be driven with as little as 10 watts continuous power. Its maximum power rating is 75 watts continuous.

The woofer is a 12" long-throw, high compliance design. Special acoustic suspension and infinite baffle enclosure give you extremely low distortion. And a high temperature voice coil affords high power handling. Magnet structure weight is a hefty 4½ lbs. with a Gap Flux Density of 10,000 Gauss.

Two 3½" cone midranges give excellent power handling and eliminate break-up in the critical midrange region. Tuned isolation chambers control response at the low end of the midrange spectrum. They also provide acoustical isolation in the cabinet between the midranges and the woofer. An edge damped rim suspension with specially treated molded cone offers sharp, clear, midrange reproduction.

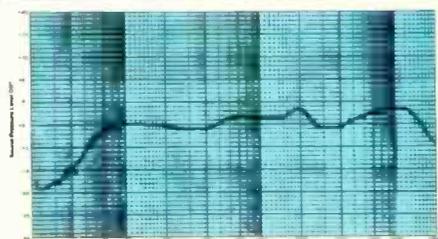
A 1½" Mylar® rear damped hemispherical dome tweeter offers a disper-

sion of 170°. Its large, lightweight voice coil gives high power handling, yet maintains a low mass for good high frequency reproduction.



Tweeter and midrange controls allow you to adjust your Spectrum System to room conditions and listening preferences; controls are front mounted for convenience, continuously variable, calibrated in db attenuation from a maximum, or flat, response.

## FREQUENCY RESPONSE



About as flat as you can get... and that's good. The Frequency Response Range is an admirable 25 to 25,000 Hz.

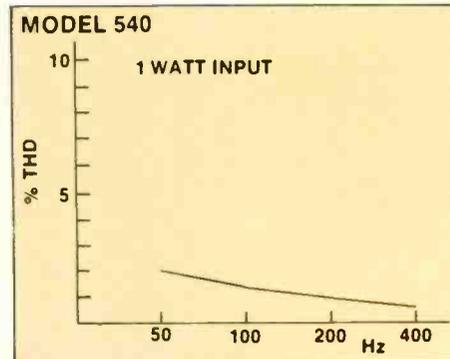
## TONE BURSTS



"Blurring" and "Overshoot" are reduced to a minimum in this acid test of transient response. The Spectrum 540 re-

produces each waveform accurately with low distortion.

## TOTAL HARMONIC DISTORTION



Distortion is kept to a minimum in Jensen Spectrum Speaker systems.

The cabinet is built with solid walnut front moldings and walnut veneer on wood composition panels. All walnut surfaces are hand rubbed for a rich luster and beauty. The baffle is finished in an attractive, durable black pebble grain.

In short, Jensen Spectrum speakers aren't designed to put out the most amount of bass or the most amount of treble. They're designed to put out the right amount. We consider them to be the best speakers we've produced in 50 years. Simply because when it comes to sound reproduction, they're extraordinarily accurate. And that's what specs are all about.

For further information and name of your nearest authorized Spectrum Dealer, write to: Jensen Sound Laboratories, Dept. SDBG, 4136 United Parkway, Schiller Park, Illinois 60176.

# JENSEN

## SOUND LABORATORIES

Division of Pemcor, Inc. Schiller Park, Illinois 60176

frequency and mid-range level controls; cabinet: rosewood- or teakwood-grain laminate on



high-density particle board with sculptured grille cloth; 48" H x 11 1/2" W x 15 1/2" D ..... \$365.00

### TL30C Speaker System

Two-way dynamic speaker system with 8" woofer and 2" cone tweeter; frequency response 39-20,000 Hz  $\pm 2.5$  dB; crossover at 3000 Hz; min. input 20 W rms; max. input 80 W instantaneous peak; 8-ohm imp.; dispersion 30° vertical, 120° horizontal; rosewood-grain laminate cabinet with sculptured black grille ..... \$239.00

### M32B Speaker System

Two-way dynamic speaker system with 8" woofer and two 2" cone tweeters; frequency response 42-20,000 Hz  $\pm 2.5$  dB; crossover at 3000 Hz; min. input 15 W rms; max. input 60 W instantaneous peak; 8-ohm imp.; dispersion 30° vertical, 100° horizontal; rosewood-grain laminate cabinet with sculptured black grille; 22" H x 14" W x 9 1/2" D ..... \$155.00

## AVID

### 105 Three-Way Speaker System

Floor-standing air-suspension system with 12" high-compliance woofer, basketless mid-range with 3" cone, 1" dome tweeter, and two side-firing 1 3/8" aux. tweeters; crossovers at 500, 4000, and 9000 Hz; max. input 200 W program; min. input 25 W; 8-ohm imp.; frequency response 30-18,000 Hz  $\pm 2.5$  dB; three-position mid-range and high-frequency level switches; fuse overload protection; hand-rubbed walnut veneer cabinet with brown grille cloth; full five-year warranty; 26 1/2" H x 20 1/2" W x 15" D ..... \$350.00

### 103 Three-Way Speaker System

Incorporates matched high-compliance 10" woofer, 4 1/2" air-suspension cone mid-range, and a 1" dome tweeter; crossovers at 500 and 3500 Hz; max. input 150 W; min. input 20 W; 8-ohm imp.; frequency response 35-18,000 Hz  $\pm 5$  dB; five-position mid-range and high-frequency level switch; fuse overload protection; supplied with 1 3/4" high floor stand; brown grille cloth, separately available in eight decorator colors; full five-year warranty; 25" H x 15" W x 9 5/8" D ..... \$185.00  
Same with walnut veneer cabinet ... \$205.00

### 102 Two-Way Speaker System

Two-way air-suspension speaker system with 10" high-compliance woofer and 1" dome tweeter; crossover at 2200 Hz; frequency response 35-18,000 Hz  $\pm 5$  dB; max. input 100 W; min. input 15 W; 8-ohm imp.; three-position high-frequency level switch; fuse overload protection; brown grille cloth, separately available in eight decorator colors; full five-year warranty; 25" H x 15" W x 9 5/8" D ..... \$145.00

### 101 Speaker System

Vented enclosure system with special 8" woofer, 1 3/4" tweeter, and two side-firing 2" tweeters; max. input 70 W; min input 15 W; 8-ohm imp.; frequency response 30-18,000 Hz  $\pm 3$  dB;

brown grille cloth; removable grille; full five-year warranty; 29" H x 12 7/8" W x 12 7/8" D ..... \$165.00

### 100 Two-Way Speaker System

Air-suspension system with 8" high-compliance woofer and 1 3/4" wide-dispersion tweeter; crossover at 2500 Hz; max. input 75 W; min. input 15 W; 8-ohm imp.; frequency response 40-18,000 Hz  $\pm 5$  dB; three-position high-frequency control; brown grille cloth, separately available in eight decorator colors; full five-year warranty; 21" H x 12 3/4" W x 8 1/2" D .. \$100.00

### 80 Two-Way Speaker System

Two-way air-suspension system with 8" high-compliance woofer and 1 3/4" wide-dispersion cone tweeter; crossover at 3000 Hz; max. input 60 W; min. input 8 W; 8-ohm imp.; frequency response 55-17,000 Hz  $\pm 3.5$  dB; brown grille cloth, separately available in eight decorator colors; full five-year warranty; 19 1/2" H x 12" W x 8 1/8" D ..... \$80.00

## B&W

### DM6 Speaker System

Three-way linear phase speaker system with 224-mm woofer, 131-mm mid-range, and 19-mm tweeter; frequency response 50-20,000 Hz  $\pm 3$  dB; crossovers at 500 and 5000 Hz; 8-ohm imp.; max. input 350 W rms; min. input 25 W rms; fused for overload protection; mid- and high-frequency level controls; satin white or veneers of teak or walnut finish with black nylon finished cast alloy stand; 36 3/8" H (including stand) x 16 1/8" W x 15" D .... \$599.00

### DM7 Speaker System

Three-unit speaker system; frequency response 30-20,000 Hz, 70-20,000 Hz  $\pm 2$  dB; 8-ohm imp.; max. input 200 W rms; min. input 50 W rms; fused for overload protection; multi-way contour control; sensitivity 10 V rms for 95-dB SPL at 1 m; polystyrene front baffle and grille; 35 1/8" H x 10 1/16" W x 14 7/16" D ..... \$499.00

### DM4 Speaker System

Three-way speaker system with 164-mm woofer/mid-range, 34-mm mid-range/tweeter, and 19-mm tweeter; frequency response 80-20,000 Hz  $\pm 5$  dB; 8-ohm imp.; max. input 30 W rms; min. input 10 W rms; sensitivity 4-8 W for 95-dB SPL at 1 m; fused for overload protection; satin white or veneers of walnut or teak finish; 21" H x 10" W x 10" D ..... \$249.00

### DM5 Speaker System

Two-way speaker system with 140-mm woofer/mid-range and 19-mm tweeter; frequency response 100-20,000 Hz  $\pm 5$  dB; 8-ohm imp.; crossover at 4000-5000 Hz; max. input 25 W rms; min. input 10 W rms; fused for overload protection; satin white or selected veneers of walnut or teak finish; 18" H x 9" W x 9 1/2" D ..... \$159.00

## BANG & OLUFSEN

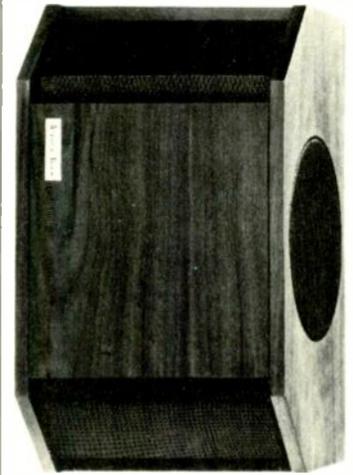
### Beovox Phase-Link M-100 System

Four-way bass reflex speaker system with 12" bass driver, 4" Phase-Link, filler driver, 2 1/2" dome mid-range, 1 1/2" dome tweeter, and 3/4" super dome tweeter; frequency response 25-20,000 Hz +4-8/-0 dB; harmonic dist. 1% max.; max. input 100 W rms, 150 W music power; 4- to 8-ohm imp.; 120° dispersion; 29 3/8" H x 15 3/8" W x 12" D ..... \$980.00 pr.

### Beovox Phase-Link M-70 System

Three-way pressure chamber speaker system with 10" bass driver, 5" Phase-Link, filler driver, 2 1/2" dome mid-range, and 1" dome tweeter; frequency response 27-20,000 Hz +4-8/-0 dB; harmonic dist. 1% max.; max. input 70 W rms, 120 W music power; 4- to 8-ohm imp.; 120° dispersion; 25 3/8" H x 13 7/8" W x 10 3/4" D ..... \$790.00 pr.

### Beovox Phase-Link S-60 System



# ALLISON: FOUR

## ALLISON ACOUSTICS 7 Tech Circle, Natick, Massachusetts 01760

Allison dealers are now demonstrating the ALLISON:FOUR, the first "bookshelf" loudspeaker system with Stabilized Radiation Loading\*. This unique design minimizes the large variations in middle-bass power output produced in conventional systems by reflected impedance from room boundaries. In uniformity of bass power delivered to a real listening room, the new model FOURs only peers are the larger and more expensive Allison three-way systems. The FOUR is a two-way system with a crossover frequency of 2,000 Hz. But its extreme low-frequency response is the same as that of the ALLISON:Two, and it is

\*Patents pending  
\*\*Higher in the South and West because of freight cost.

fully equivalent to other Allison systems in high-frequency range, smoothness, and omni-directional dispersion in the forward hemisphere. These factors give the ALLISON:FOUR great flexibility in room placement without performance compromise. It can be placed on a table or shelf, or hung on a wall using the wall-mounting hardware supplied with it. A stereo pair can be located on the same wall, on adjacent walls, or even on opposite walls away from the main listening area; there is no requirement that the systems face toward the area. The ALLISON:FOUR's price is \$175.00\*. Descriptive literature, complete specifications, a statement of Full Warranty, and a list of dealers are available on request.

# Introducing the Koss Theory of loudspeaker design and the three new Koss CM speaker systems that prove it.



© 1977 Koss Corp

Here for the first time is the culmination of a world-wide search for the ultimate in loudspeaker design within the limitations of today's technology and within affordable price restrictions. Indeed it represents a breakthrough in loudspeaker technology of such significance that it heralds the second major revolution in loudspeaker design.

By utilizing a complex series of audio engineering formulas and the precise knowledge of computer science, Koss engineers are now able to derive and produce the optimum system parameters for any loudspeaker. The incredible result of this engineering achievement is the new Koss CM

1010, 1020, and 1030 loudspeaker systems. Each represents the ultimate speaker system available in its price range. And each represents a listening experience you'll have to hear to believe.

Ask your Audio Dealer to let you hear this new, incredibly beautiful, Sound of Koss and to show you how the Koss Theory of loudspeaker design has created a whole new generation of loudspeakers. And if you'd like to have our full-color brochure telling all about the Koss Theory, write for it, c/o Fred Forbes. Once you've heard these revolutionary new loudspeakers, we think you'll agree: hearing is believing.

## **KOSS**<sup>®</sup> CM LOUDSPEAKER SYSTEMS **hearing is believing**<sup>™</sup>

**KOSS CORPORATION**, 4129 N. Port Washington Ave., Milwaukee, Wisconsin 53212  
Koss International/London, Dublin, Paris, Frankfurt • Amsterdam • Koss Limited/Ontario • Koss K.K./Tokyo  
CIRCLE NO. 56 ON READER SERVICE CARD

Three-way pressure chamber speaker system with 10" bass driver, 5" Phase-Link, filler driver, 2" dome mid-range, and 1" dome tweeter; frequency response 36-20,000 Hz +4-8/-0 dB; harmonic dist. 1% max.; max. input 60 W rms, 100 W music power; 4- to 8-ohm imp.; 120° dispersion; 23 1/8" H x 12 1/2" W x 9 1/4" D ..... \$480.00 pr.

**Beovox Phase-Link P-45 System**

Two-way pressure chamber speaker system with two 5" bass drivers, 3 1/2" Phase-Link, filler driver, and 1" dome tweeter; frequency response 40-20,000 Hz +4-8/-0 dB; harmonic dist. 1% max.; max. input 45 W rms, 75 W music power; 4- to 8-ohm imp.; 120° dispersion; 25 5/8" H x 13 3/8" W x 5 1/2" D ..... \$350.00 pr.

**Beovox Phase-Link S-45 System**

Two-way pressure chamber speaker system with 8" bass driver, 3 1/2" Phase-Link, filler driver, and 1" dome tweeter; frequency response 38-20,000 Hz +4-8/-0 dB; harmonic dist. 1.5% max.; max. input 45 W rms, 75 W music power; 4- to 8-ohm imp.; 120° dispersion; 18 3/4" H x 10 1/4" W x 7 3/4" D ..... \$280.00 pr.

**Beovox Phase-Link P-20 System**

Two-way pressure chamber speaker system with 6 1/2" bass driver and 1" dome tweeter; frequency response 49-20,000 Hz +4-8/-0 dB; harmonic dist. 2% max.; max. input 30 W rms, 50 W music power; 4- to 8-ohm imp.; 120° dispersion; 21 1/2" H x 11 1/2" W x 4 1/4" D ..... \$250.00 pr.

**Beovox Phase-Link S-30 System**

Two-way pressure chamber speaker system with 6 1/2" bass driver and 1" dome tweeter; frequency response 49-20,000 Hz +4-8/-0 dB; harmonic dist. 2% max.; max. input 30 W rms, 50 W music power; 4- to 8-ohm imp.; 120° dispersion; 15 1/4" H x 8 1/2" W x 6 3/4" D ..... \$200.00 pr.

**B.E.S.**

**d120w Speaker System**

Geostatic four-way speaker system with three dynamic and one piezoelectric drivers activating 1700 in<sup>2</sup> polymer diaphragm pulsating plane; frequency response 35-20,000 Hz; efficiency 14 W for 96-dB SPL at 2 m; max. input 110 W rms (8 hrs, 400 Hz); 4-ohm nominal imp.; recommended amplifier power 25-250 W rms; crossovers at 800, 4000, and 10,000 Hz; high-frequency and mid-range level controls; 52 1/2" H x 20" W x 3 3/4" D ..... \$599.00

**d60w Speaker System**

Geostatic three-way speaker system with two dynamic and one piezoelectric drivers activating 850 in<sup>2</sup> polymer diaphragm pulsating plane; frequency response 38-20,000 Hz; efficiency 12.5 W for 92-dB SPL at 2 m; max. input 60 W (8 hrs, 400 Hz); 8-ohm nominal imp.; recommended amplifier power 15-150 W rms; crossovers at 800 and 10,000 Hz; high-frequency and mid-range level controls; 28" H x 20" W x 3 3/4" D ..... \$299.00

**u60 Speaker System**

Geostatic two-way speaker system with two drivers activating 850 in<sup>2</sup> polymer diaphragm pulsating plane; frequency response 38-18,000 Hz; 8-ohm imp.; recommended amplifier power 15-100 W rms; crossover at 800 Hz; 25 5/8" H x 17 3/4" W x 3 3/4" D ..... \$199.00

**BEVERIDGE**

**Cylindrical Sound System 3**

Incorporates direct-coupled amplifier, full-range electrostatic transducer, lens, and enclosure; 6-ft vertical line source sound output aperture; SPL uniform over 180° at all frequencies; input 1 V at 47,000 ohms; frequency response 27-15,000 Hz ±2 dB; studio gray finish; 108" H x 36" W x 24" D ..... \$10,000 pr.

**Cylindrical Sound System 2SW**

Similar to model 3 but with two specially matched dynamic subwoofers; optimized electrostatic speakers for 70-15,000 Hz, dynamic subwoofers for 30-70 Hz; supplied with Beveridge Control Module with spectrum slope control, bass environmental control, and lateral stereo control; frequency response 30-15,000 Hz; subwoofer power supplied by electrostatic speaker's amplifiers; 26" H x 16 1/2" W x 22" D ..... \$5200.00 pr.

**Cylindrical Sound System 2**

Similar to model 3 but frequency response 40-



15,000 Hz ±2 dB; oiled walnut cabinet; 78" H x 24" W x 11" D (side), 16" D (center) ..... \$4000.00 pr.

**B-I-C VENTURI**

**System Monitor Series**

**Formula 7 Spec II**

Four-way speaker system with 12" heavy-duty

woofer, 8" upper bass/lower mid-range, heavy-duty dynamic compression driver on T-slot horn, and super piezoelectric driver T-slot horn; frequency response 20-30,000 Hz; 6-ohm nominal imp.; sensitivity 99-dB SPL at 1 W and 3 ft; max. input 125 W rms; dispersion 180° x 120°; features LED amplifier clipping indicator and adjustable level control to adjust clipping threshold with test record (supplied); resettable circuit breakers with overload indicator lights; automatic dynamic tonal balance compensation (manual available); level control for treble response; SPL metering system consisting of 11 LED's (with defeat switch and power supply); genuine walnut veneer cabinet with baffle front and dark brown zero-loss cloth grille on removable frame; 41" H x 16" W x 13 1/4" D ..... \$485.00

**Formula 6 Spec II.** Similar to Formula 7 Spec II but without SPL indicator system; has 5" lower mid-range cone coaxially mounted to heavy-duty 12" woofer; frequency response 25-30,000 Hz; 6-ohm nominal imp.; sensitivity 98-dB SPL at 1 W and 3 ft; genuine walnut veneer cabinet and baffle front with dark brown zero-loss cloth grille on removable frame; 27 7/8" H x 15 7/8" W x 15" D ..... \$329.00

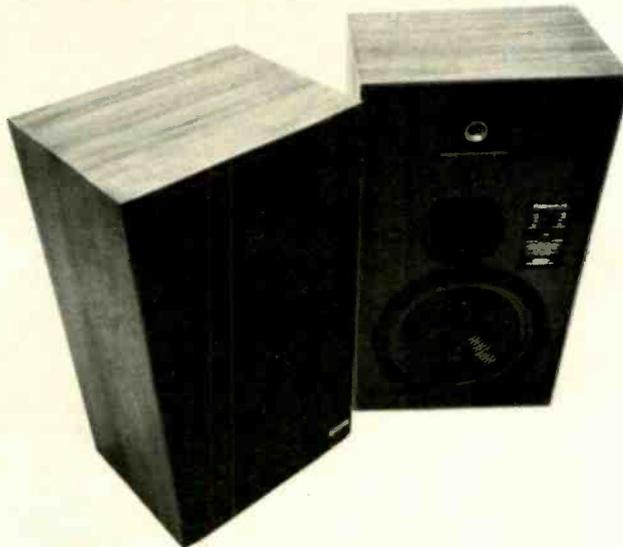
**Formula 5 Spec II.** Similar to Formula 6 Spec II but frequency response is 30-20,000 Hz; incorporates 10" woofer and T-slot horn as in Formula 6 Spec II; sensitivity 95-dB SPL at 1 W and 3 ft; 6-ohm nominal imp.; max. input 100 W; genuine walnut veneer cabinet and baffle front with dark brown zero-loss cloth grille on removable frame; 26" H x 14 1/4" W x 12 1/4" D ..... \$249.00

**Standard Series**

**Formula 4 Speaker System**

Three-way speaker system with 10" woofer,

**PINPOINT IMAGING.**



It allows you to place performers in three dimensional space with breathtaking accuracy, to the left, the right, even ahead of or behind where the speakers actually stand. Audioanalyst achieves such precision by means of our unique Phase Matrix™ (patent pending), a frequency selective, sonically absorptive device that surrounds the high frequency driver, preventing specified sound waves from being reflected off the speaker baffle in this critically important area and disturbing the radiation pattern of the primary waveforms. It virtually eliminates phase cancellation, the confusion in time relationships between various aspects of a musical performance that impedes the imaging characteristics of other speakers.

All four loudspeakers in Audioanalyst's Phase Matrix Group are covered by a limited six year warranty. For a descriptive brochure and the name of the dealer nearest you, please contact us at the address below.

**THE PHASE MATRIX GROUP** **Audioanalyst**

Audioanalyst, Inc., P.O. Box 262, Brookfield, Conn. 06804.  
In Canada contact Superior Electronics, Inc.

CIRCLE NO. 14 ON READER SERVICE CARD

# 10 SPEAKER SYSTEMS

**Biconex horn/compression driver mid-range, and dome super tweeter;** frequency response 30-20,000 Hz; max. input 100 W; 6-ohm nominal imp.; sensitivity 94-dB SPL at 1 W and 3 ft; continuously variable tonal balance control and automatic dynamic tonal balance with defeat switch; removable zero-loss reticulated brown foam grille; replaceable fuses for each individual driver; 25" H x 13 1/4" W x 13 1/4" D . . . . \$169.95

**Formula 3 Speaker System**  
Two-way speaker system with 10" long-throw woofer and Biconex horn/compression driver for mid and high frequencies; frequency response 35-18,500 Hz; 8-ohm nominal imp.; max. input 75 W; sensitivity 94-dB SPL at 1 W and 3 ft; treble level control; dispersion 120° x 120°; removable zero-loss reticulated brown foam grille; replaceable fuses for each individual driver; 21" H x 14" W x 12 5/8" D . . . \$139.95

**Formula 2 Speaker System**  
Three-way speaker system with heavy-duty 8" woofer, Biconex horn/compression driver mid-range, and dome super tweeter; frequency response 40-20,000 Hz; max. input 75 W rms; 6-ohm nominal imp.; dispersion 120° x 120°; sensitivity 92.5-dB SPL at 1 W and 3 ft; continuously variable tonal balance control and automatic dynamic tonal balance with defeat switch; removable zero-loss reticulated brown foam grille; replaceable fuses for each individual driver; 19 7/8" H x 11 7/8" W x 11 3/4" D . . . . \$125.00

**Formula 1 Speaker System**  
Two-way speaker system with high-excursion 8" woofer and Biconex horn/compression driver for mid and high frequencies; frequency response 45-17,500 Hz; 8-ohm nominal imp.; max. input 50 W; sensitivity 91-dB SPL at 1 W and 3 ft; dispersion 120° x 120°; treble level control; zero-loss reticulated brown foam grille; 16 1/2" H x 10 7/8" W x 10" D . . . . \$79.95

## BML

**Tracer 2001 Sound Odyssey**  
Three-way floor-standing planar column speaker system with 8" long-throw woofer, two 8" long-throw ABR's, and two horn-loaded solid state tweeters; frequency response 30-20,000 Hz +3/-0 dB; dual phase coupling of active drivers; max. input 200 W rms; min. input 40 W rms; ebony grille with oiled walnut rack (rosewood optional); 64" H x 24" W x 7" D . . \$519.95

**Tracer 104 Pedestal Monitor**  
Bi-polar floor-standing column speaker system with 9 1/2" woofer, two long-throw 7" APR's, 5" transmission line transducer, and solid state horn-loaded tweeter; min. input 20 W; efficiency 95 dB (1 m on-axis, 1 kHz); natural oiled walnut finish with double-knit grille in cocoa, ebony, or camel; smoked glass top optional; 39" H x 15" W x 13" D . . . . \$499.95

**Tracer 103 Reference Standard**  
Three-way bidirectional floor-standing speaker system with two 8" woofers, 4" transmission line mid-range, and solid state horn-loaded tweeter; frequency response 28-20,000 Hz ±3 dB; 5-dB mechanical mid-range attenuation; dynamic range of 112 dB over 10-octave bandwidth; current overload protection; natural oiled walnut cabinet with pedestal base; 24" H x 13 1/2" W x 12" D . . . . \$399.95

**Tracer 1001 Sound Window**  
Three-way floor-standing planar column speaker system with 8" woofer, 8" ABR, and horn-

loaded solid state tweeter; dual phase coupling of main drivers; frequency response 35-20,000 Hz +3/-5 dB; max. input 100 W rms; min. input 25 W rms; finished in black acrylic with natural oiled walnut sides and base with ebony grille; 33" H x 20" W x 5" D . . . . \$299.95

**Tracer 102 Mirage**  
Three-way floor-standing speaker system with 8" woofer, 8" ABR, and two horn-loaded solid state tweeters; transmission line and dual phase coupling; frequency response 38-22,000 Hz ±5 dB; current overload protection; natural oiled walnut cabinet with black riser base (walnut base optional); 26" H x 14 1/4" W x 9" D . . . . \$259.95

**Tracer II Speaker System**  
Three-way floor-standing/bookshelf speaker system with 8" woofer, 8" ABR, and two horn-loaded solid state tweeters; dual phase coupling; frequency response 38-22,000 Hz ±5 dB; linear imp. curve; fuse protected; cocoa double-knit grille cloth; 24 1/2" H x 14 1/4" W x 9" D . . . . \$239.95

**Tracer 1A Speaker System**  
Three-way bookshelf speaker system with 8" woofer, 8" ABR, and 3 1/2" horn-loaded VHF driver; dual phase coupling; frequency response 43-23,000 Hz +3/-5 dB; 5-ohm nominal imp.; max. input 1 kW rms; min. input 8 W rms; fuse protected; 22" H x 12" W x 10" D . . . \$179.95

**Tracer SK Speaker System**  
Three-way bookshelf speaker system with 8" woofer, 6 1/2" ABR, and 3 1/2" direct-radiating tweeter; dual phase coupling; frequency response 50-18,000 Hz ±5 dB; fuse protected; max. input 50 W rms; min input 5 W rms . . . \$119.95

## BOLIVAR

**Model 64 Speaker System**  
Three-way speaker system with 10" woofer, 5" mid-range, and 2" tweeter; crossovers at 800 and 3000 Hz; continuously variable mid-range and high-frequency level controls; vertical component placement; 6 dB more efficient than acoustic suspension speakers; Espresso finish of 100% shielded stain-resistant vinyl; 26 1/2" H x 14" W x 12 3/16" D . . . . \$150.00  
With Tennessee hickory finish . . . . \$165.00

**Model 18 Speaker System**  
Three-way speaker system with 8" woofer, 5" mid-range, and 2" tweeter; crossovers at 1100 and 3000 Hz; continuously variable mid-range and high-frequency level controls; vertical component placement; 3 dB more efficient than acoustic suspension speakers; Espresso finish of 100% shielded stain-resistant vinyl; 23" H x 12 1/2" W x 10 13/16" D . . . . \$114.00  
With Tennessee hickory finish . . . . \$126.00

## BOSE

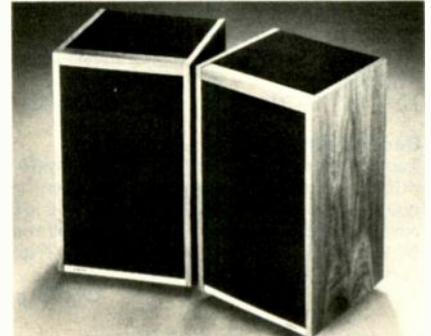
**901 Series III Speaker System**  
Direct/reflecting speaker system with Active



Equalizer; eight rear-facing and one front-fac-

ing matched full-range speakers; min. input 10 W; 8-ohm imp.; cabinet utilizes injection molded core with particle board external panels and walnut veneer finish; 12 5/8" H x 21" W x 13" D; Active Equalizer: continuously adjustable high-frequency contour slider with center detent provides shelving with range of ±3 dB above 4000 Hz; continuously adjustable mid-bass contour slider with center detent provides +3/-5 dB adjustment over band of 80-260 Hz; "Below 40" contour control has two positions for 8-dB decrease at 40 Hz; tape monitor switch; input imp. 60,000 ohms; min. load imp. 5000 ohms; noise (A-weighted) 85 dB below 1 V; 2 1/2" H x 11" W x 5" D . . . . \$765.00 pr.

**601 Speaker System**  
Direct/reflecting speaker system with two 8" woofers and four 3" tweeters; crossover at 2000 Hz; min. input 15 W; 8-ohm imp.; two-



position symmetry control; supplied in mirror-image pairs; walnut veneer laminated cabinet; 25 1/2" H x 15" W x 13" D . . . . \$279.00 ea.

**501 Speaker System**  
Direct/reflecting speaker system with 10" woofer and two 3 1/2" tweeters; crossover at 1500 Hz; min. input 15 W/ch rms; max. input 100 W/ch rms; 4-ohm imp.; walnut-grain vinyl finish cabinet; 24" H x 14 1/2" W x 14 1/2" D . . \$185.00

**301 Speaker System**  
Direct/reflecting speaker system with 8" woofer and 3" tweeter; woofer transition frequency 3000 Hz; tweeter transition frequency 1200 Hz; min. input 10 W/ch rms; max. input 60 W/ch rms; 8-ohm imp.; particle board cabinet with walnut-grain vinyl veneer finish; 10 1/2" H x 17" W x 9 1/2" D . . . . \$109.00

## BOZAK

**B-310B Concert Grand Contemporary**  
Incorporates four B-199B woofers, two B-209B mid-range speakers, and eight tweeters in vertical column for uniform dispersion; frequency response 28-20,000 Hz; 8-ohm imp.; max. input 150 W; min. input 60 W; matte walnut enclosure; 52" H x 36" W x 19" D . . . . \$1150.00  
**B410.** Same except Classic cabinet . . . . \$1200.00  
**B-410.** Same except Moorish styling . . . . \$1250.00

**Symphony No. 1 B-4000A Modern**  
Infinite-baffle, three-way floor-standing system incorporating two 12" woofers, 6 1/2" mid-range, and eight 2" tweeters in vertical column; frequency response 35-20,000 Hz; crossovers at 400 and 2500 Hz at 6 dB/octave; 8-ohm imp.; max. input 150 W program; walnut enclosure; 44 1/2" H x 26 1/2" W x 15 3/8" D . . . . \$669.50  
**B-4000A.** Same with Classic styling . . \$759.50  
**B-4000A.** Same with Moorish styling . . \$759.50  
**B-4005.** Same except low-boy enclosure; 27 3/4" H x 36" W x 20" D . . . . \$679.50  
**B-4005.** Same with Moorish styling . . \$795.00

**Monitor C C-407A Speaker System**  
Incorporates four 8" aluminum-cone bass/mid-range drivers and eight 2" tweeters mounted in sector-of-sphere configuration; frequency response 30-20,000 Hz; crossover at 2000 Hz at

"at their price, they are simply a steal"

The **AUDIO ADVISOR**

# AUDIOGRAM

VOLUME I, NUMBER 7

1976

*This is the full text of the review of the Polk 10's which appeared in the AUDIOGRAM, a discerning and independent audiophile journal which is entirely supported by its readers and accepts no manufacturers' advertisements. Subscriptions are available for \$15.00 per year.*

## POLK MODEL 10 LOUDSPEAKER

POLK AUDIO  
4900 Wetheredsville Rd.  
Baltimore, MD 21207  
\$199.95 - suggest retail

When we heard the Polk speakers at Summer CES we knew we had to test them. We were so impressed that we could not believe the prices. But first let us say that there are a few factors that might make us prejudiced in their favor. The Polk people use the Sendor as a reference. They like the sound of ARC tubes. They are the East coast distributors of the Formula 4 tone arm. We, at AUDIOGRAM, share so many likes with the folks at Polk that it is hard for us not to like their speakers. And the company is a local one that has made good - the pride of Baltimore and Washington.

Nonetheless, the sound coming forth from the Model 10 "monitors" is something really special. It is a sound that is open, well defined and very low in coloration. One does not generally expect such low coloration in a modestly priced box speaker, and certainly not anything like the definition exhibited by these speakers. How does Polk do it? We think it is mostly execution. They hear very well and they care.

The Model 10 uses a 1-inch soft dome tweeter, two 6 1/2-inch plasticized midrange drivers and one 10-inch sub-bass radiator (which is really a passive radiator). Polk calls the crossover between the bass and midrange drivers "fluid-coupling". It occurs at 60 Hz and provides fourth order Butterworth loading for the energizing cones.

We auditioned the speaker on the optional stand which Polk sells. The stand, or one like it, is highly recommended. It tilts the front of the speaker slightly back from the listener, providing better phasing between drivers and reducing undersirable floor-coupled resonant effects. We would say that the sound of most bookshelf speakers currently placed on the floor would certainly be improved by such a stand.

Inasmuch as Polk had indicated that they use the Sendor as a reference and inasmuch as we had one on hand, we compared the Model 10 to this speaker. In fact, we have compared many speakers to the Sendor and most of them have sounded extremely colored by comparison. (The only speaker systems that have been able to make the Sendor sound colored have been a well-tuned Fulton J and the Rogers LS3/5A's.) Although the Sendor did manage to make the Model 10 Sound a trifle nasal, we were amazed at the similarity of sound - and that's good!

But the Sendors cost upwards from \$700 a pair (if one can find them), will not handle much power and cannot reproduce the bass of the Polks. It really isn't fair to compare the Model 10 to a reference monitor. It should be compared with other modestly priced speakers. However, such a comparison is no fairer than the Sendor comparison. Other \$200 speakers simply do not come close to the standards set by the Model 10. In fact the Polks compare very favorably with the Magnepan and Dahlquist DQ 10's. Bass response of the Model 10 surpasses that of the DQ 10. Definition is almost on the par with the Magnepan (stereo imaging is better). Driver blending is excellent, the midrange is open and exceptionally clear, and there is much less hint of boxiness than that which is found in most box speakers.

If we had to fault the Model 10's, we would say that they are slightly bright and just a little fat in the low end. However, they are extremely neutral throughout most of their range. Only in comparison with some of the world's best speaker systems do they sound the least bit colored. They are a high definition speaker system deserving the very best associated electronics. And at their price, they are simply a steal.

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Dulles International Airport P.O. Box 17202  
Washington D.C. 20041

## THE POLK AUDIO MONITOR SERIES



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**NEW STATE OF THE ART COMPONENTS FROM POLK AUDIO SPECIAL PRODUCTS**  
Sound Cable, The First True High Definition Speaker Wire  
The Mayware Formula Four A The Best Sounding Universal Tonearm

# 10 SPEAKER SYSTEMS

6 dB/octave; 8-ohm imp.; max. input 150 W program; 40 1/4" H x 18 1/2" W x 15" D .. \$529.50

### Concerto VII B-501 Speaker System

Three-way floor-standing system with 12" high-compliance bass driver, 6 1/2" mid-range, and three tweeters mounted in arc array for improved dispersion; frequency response 40-20,000 Hz; crossovers at 800 and 2500 Hz at 6 dB/octave; 8-ohm imp.; max. input 60 W program; 30" H x 20 1/2" W x 16" D ..... \$379.50

### Concerto B-1401 Speaker System

Three-way compact speaker system with 12" high-compliance bass driver, 6 1/2" mid-range, and two 2" high-frequency drivers; frequency response 40-20,000 Hz; crossovers at 800 and 2600 Hz at 6 dB/octave; 8-ohm imp.; max. input 50 W program; 25 3/8" H x 18" W x 13 1/4" D ..... \$279.50

**B-402.** Same with fabric grille ..... \$279.50

### Celestovox B-1207 Speaker System

Floor-standing two-way speaker system; utilizes room sound-reflecting surfaces; high frequency roll-off control; 8-ohm imp.; max. input 70 W program; walnut veneer styling; 30" H x 15" W x 15" D ..... \$197.50

### Tempo B-1301 Speaker System

Floor-standing system with pedestal base or use as bookshelf system; incorporates 12" high-compliance bass driver, 4 1/2" mid-range, and 2" tweeter; frequency response 40-20,000 Hz; crossovers at 1200 and 3600 Hz at 6 dB/octave; 8-ohm imp.; max. input 50 W program; sculptured foam grille; 24 3/4" H x 14 1/2" W x 11 1/2" D ..... \$197.50

### Sonora B-1201 Speaker System

Two-way bookshelf system with 8" aluminum-cone bass/mid-range driver and 2" high-frequency unit; frequency response 45-20,000 Hz; crossover at 1800 Hz at 6 dB/octave; 8-ohm imp.; max. input 60 W program; sculptured foam grille; 20 1/4" H x 11 3/4" W x 10" D ..... \$104.50

### B-1000 Bard Outdoor Speaker

All-weather speaker system with B-800 wide-range driver with anodized-aluminum cone; 8-ohm imp.; uses jack and plug connector ..... \$104.50

**Two-Way Bard.** Same plus B-200Z tweeter ..... \$127.50

## BURHOE ACOUSTICS

### The Burhoe Blue

Two-way speaker system with 10" woofer and 1.5" and 1.1" tweeters; tuned port enclosure; crossovers to tweeters at 900 and 1800 Hz; three-control adjustment of tweeters; walnut veneer cabinet; 24 1/4" H x 14 1/4" W x 10 1/2" D .. \$250.00

### The Burhoe White

Two-way speaker system with woofer and "Felted-Dome" tweeter; tuned port enclosure; crossover at 1500 Hz; walnut veneer cabinet; 22" H x 13 3/4" W x 10" D ..... \$150.00

### The Burhoe Green

Two-way speaker system with 8" woofer and 1.5" "Felted-Dome" tweeter; tuned port enclosure; mid-range control switch; crossover at 1000 Hz; vinyl finish cabinet; 18 1/4" H x 11 3/8" W x 10" D ..... \$110.00

## CAMBRIDGE CYBERVOX

### TL200 Speaker System

Four-way transmission line speaker system with

woofer, mid-range driver in separate chamber, pressure driven dome medium-high frequency unit, and UHF unit; crossovers at 400, 3000, and 10,000 Hz; rated input 50 W continuous sine wave; max. input 90 W; 8-ohm nominal imp.; 41 1/2" H x 17 3/8" W x 13" D .... \$500.00

### TL100 Speaker System

Three-way transmission line speaker system; crossovers at 400 and 3000 Hz; rated input 40 W continuous sine wave; max. input 70 W; 8-ohm nominal imp.; 31 1/4" H x 13" W x 12 3/4" D .. \$400.00

## CELESTION

### Ditton 66 Studio Monitor

Three-way speaker system with 12" woofer, 12" ABR, 2 1/4" dome mid-range, and 3/4" dome tweeter; frequency response 18-40,000 Hz; crossovers at 500 and 5000 Hz; min. input 10 W; max. input 160 W; imp. 4-8 ohms; walnut or teak cabinet; 39" H x 15" W x 11" D .. \$499.50

### Ditton 25 Speaker System

Three-way speaker system with 12" woofer, 12" ABR, two 1 1/2" pressure mid-ranges, and 3/4" dome tweeter; frequency response 20-40,000 Hz; crossovers at 2000 and 9000 Hz; min. input 10 W; max. input 120 W; imp. 4-8 ohms; walnut or teak cabinet; 32" H x 14" W x 11" D ..... \$349.50

### Ditton 44 Speaker System

Three-way speaker system with 12" woofer, 6" cone mid-range, and 3/4" dome tweeter; frequency response 25-40,000 Hz; crossovers at 500 and 5000 Hz; min. input 10 W; max. input 100 W; walnut or teak cabinet; 30" H x 14.6" W x 9.8" D ..... \$289.50

### Ditton 33 Speaker System

Three-way speaker system with 10" woofer, 5" cone mid-range, and 1" dome tweeter; frequency response 40-25,000 Hz; crossovers at 500 and 2500 Hz; min. input 10 W; max. input 80 W; imp. 4-8 ohms; walnut or teak cabinet; 24" H x 14" W x 10 1/2" D ..... \$239.50

### UL6 Speaker System

Two-way speaker system with 6" woofer, 6" ABR passive radiator, and 1" dome tweeter; frequency response 35-28,000 Hz; crossover at 2500 Hz; min. input 20 W; max. input 80 W; walnut or teak cabinet; 11 1/2" H x 16" W x 8 3/4" D ..... \$179.50

### Ditton 15 Speaker System

Two-way speaker system with 8" woofer, 8" ABR passive radiator, and 1 1/2" pressure tweeter; frequency response 30-15,000 Hz; crossover at 2500 Hz; min. input 10 W; max. input 60 W; imp. 4-8 ohms; walnut or teak cabinet; 21" H x 9.4" W x 9" D ..... \$159.50

## CERWIN-VEGA

### S-2 Loud. Speaker.

Three-way speaker system with 15" woofer, 6" mid-range, and horn tweeter; frequency response 28-17,000 Hz ±3 dB; crossovers at 200 and 4000 Hz; efficiency 103 dB/W/m; max. input 250 W rms; features Thermo Vapor Suspension; 29 1/4" H x 18 1/4" W x 17 3/4" D ... \$600.00

### 15TR Tower

Three-way speaker system with 15" floor-facing woofer, 8" mid-range, and Dhorm tweeter; frequency response 30-20,000 Hz ±3 dB; crossovers at 150 and 3500 Hz; max. input 150 W continuous program; imp. 4-8 ohms; oiled walnut enclosure; 40" H x 16 1/2" W x 16 1/2" D ..... \$600.00

### 317 Hardrock

Four-way speaker system with 15" woofer, 6" mid-range, and horn tweeter; frequency response 30-17,000 Hz ±4 dB; crossovers at 300, 3500, and 12,000 Hz; efficiency 103 dB/W/m;

max. input 200 W rms; 29 1/4" H x 18 1/4" W x 17 3/4" D ..... \$400.00

### 12TR Tower

Three-way speaker system with floor-facing woofer, 8" mid-range, and Dhorm tweeter; frequency response 35-20,000 Hz ±3.5 dB; crossovers at 200 and 3500 Hz; max. input 100 W continuous program; imp. 4-8 ohms; oiled walnut cabinet with black grille; 40" H x 13 1/2" W x 13 1/2" D ..... \$350.00

### S-1 Loud. Speaker.

Three-way speaker system with 12" woofer, 6" mid-range, and Dhorm tweeter; frequency response 28-20,000 Hz ±4 dB; crossovers at 300 and 4000 Hz; efficiency 98 dB/W/m; max. input 200 W rms; features Thermo Vapor Suspension; 25" H x 14 1/2" W x 14" D ..... \$350.00

### 312 Hardrock

Three-way speaker system with 12" woofer, 6" mid-range, and horn tweeter; frequency response 35-17,000 Hz ±4 dB; crossovers at 300 and 3500 Hz; efficiency 100 dB/W/m; max. input 150 W rms; 26" H x 15 3/4" W x 15 3/4" D ..... \$300.00

### R-123 Receiver Saver

Three-way speaker system with 12" woofer, 6" mid-range, and Dhorm tweeter; frequency response 38-20,000 Hz ±4 dB; crossovers at 500 and 5000 Hz; efficiency 97 dB/W/m; max. input 50 W rms; 25" H x 14 1/2" W x 11 1/2" D ..... \$279.95

### 212 Hardrock

Two-way speaker system with 12" woofer and horn tweeter; frequency response 35-17,000 Hz ±4 dB; crossover at 2000 Hz; efficiency 100 dB/W/m; max. input 100 W rms; 26" H x 15 3/4" W x 15 3/4" D ..... \$250.00

### HED H-15 Speaker System

Two-way 15" speaker system; frequency response 38-20,000 Hz ±4 dB; max. input 100 W; 118-dB SPL at 3 ft at rated input; Durotex textured finish ..... \$199.95

### R-12 Receiver Saver

Two-way speaker system with 12" woofer and Dhorm tweeter; frequency response 38-20,000 Hz ±4 dB; crossover at 2000 Hz; efficiency 97 dB/W/m; max. input 50 W rms; 25" H x 14 1/2" W x 11 1/2" D ..... \$199.95

### R-10 Receiver Saver

Two-way speaker system with 10" woofer and 1" hard dome tweeter; frequency response 38-20,000 Hz ±4 dB; crossover at 1200 Hz; efficiency 92 dB/W/m; max. input 40 W rms; 24" H x 13" W x 11 1/2" D ..... \$159.95

### HED H-12 Speaker System

Two-way 12" speaker system; frequency response 38-20,000 Hz ±dB; max. input 50 W; 113-dB SPL at 3 ft at rated input; Durotex textured finish ..... \$119.95

**W-12.** Same but with walnut finish .. \$149.95

**H-10.** Similar but 10" system; max. input 40 W; 111-dB SPL at 3 ft at rated input; Durotex textured finish ..... \$99.95

**W-10.** Same but with walnut finish .. \$119.95

### HED V-10 Speaker System

Two-way speaker system with 10" woofer and dome-type tweeter; crossover at 2500 Hz; max. input 40 W rms; dispersion 120 degrees; walnut veneer cabinet; 25" H x 14" W x 10" D ..... \$109.95

**V-12.** Same but with 12" woofer; crossover at 2300 Hz; max. input 25 W rms; 25" H x 14 1/2" W x 12" D ..... \$149.95

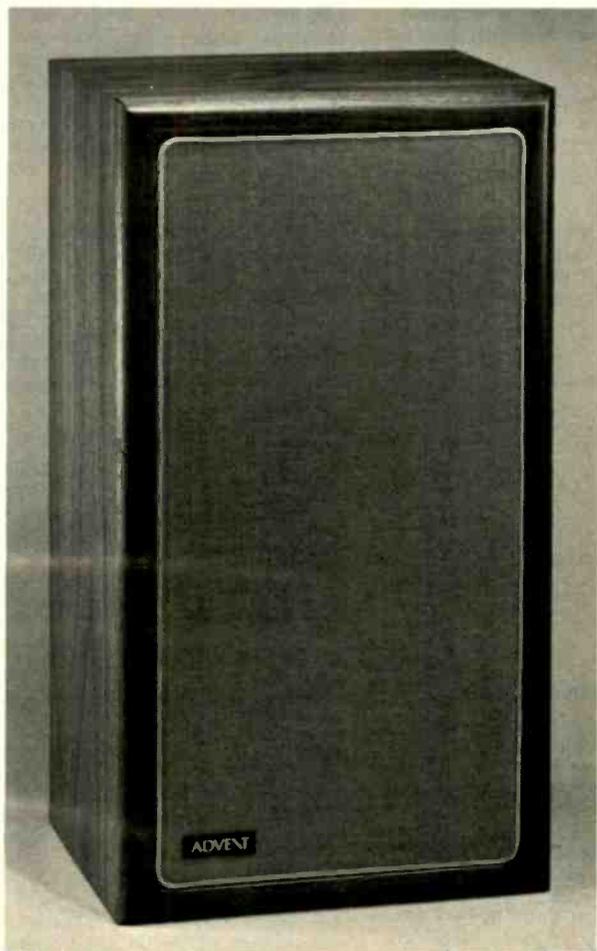
## CHANNEL MASTER

### HS 6777 Speaker System

Bass reflex speaker system with 8" woofer and 3" tweeter; max. input 20 W; wood-grained vinyl veneer finish with see-through speaker grille;

*A New Version of This Country's Most Popular  
And Most Imitated Speaker System.*

# The New Advent Loudspeaker.



Over the past few years, the Advent Loudspeaker has gone into more people's homes in the United States than any other speaker system. It has been imitated over and over, and has been used consistently as a standard of performance (even by salesmen and companies trying to sell other speakers).

The New Advent Loudspeaker sounds very much like the original. It should, since the sound-character of a really excellent speaker shouldn't need much alteration — and shouldn't be subject to change for the sake of change.

But the sound of the New Advent Loud-

speaker is perceptibly different at the high end of the frequency range. The change has been made possible, and worth making, by improvements in the high-frequency capabilities of tapes, broadcasts, and — most of all — records.

Thanks to the almost universal use by recording companies of the Dolby® system and other noise-reduction techniques, and to a new generation of record-cutting equipment which can put more undistorted output onto records in the 10,000 Hz region, there is more *recoverable, usable* high-frequency content in source material than ever before. There is more clean sound above the noise and distortion in the recording process.

The New Advent Loudspeaker is designed to reveal that sound.

Like the original Advent, the New Advent Loudspeaker is the best answer we know how to make to two fundamental questions:

- What is the highest level of performance that has real meaning for the great majority of truly critical, demanding listeners?
- How do you get that performance at a cost low enough to make it available to the widest number of people who would like it?

It may be hard to believe that a speaker that costs only \$129 to \$159\* (depending on cabinet finish and how far we have shipped it) can really fit the highest category of speaker performance. But it can and does.

For complete information on the New Advent Loudspeaker, and a list of Advent dealers, please send us the coupon.

Thank you.

To: Advent Corporation, 195 Albany Street,  
Cambridge, Massachusetts 02139  
Please send information on the New Advent  
Loudspeaker and a list of your dealers.

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

\*Suggested price, subject to change without notice.

**Advent Corporation, 195 Albany Street, Cambridge, Massachusetts 02139.**

# 10 SPEAKER SYSTEMS

23" H x 12" W x 10" D ..... \$89.95

## HS 6776 Speaker System

Bass reflex speaker system with 8" woofer and 3" tweeter; wood-grained vinyl veneer finish with sculptured foam grille; supplied with 8-ft cable; 23" H x 12" W x 7" D ..... \$59.95

## HS 6775 Speaker System

Bass reflex speaker system with 6 1/2" full-range speaker; wood-grained vinyl veneer finish with sculptured foam grille; supplied with 8-ft cable; 20" H x 11 3/4" W x 7" D ..... \$39.95

## CIZEK

### Model 1 Speaker System

Two-way speaker system with 10" acoustic suspension woofer and 1" hemispherical dome tweeter; frequency response 35-17,000 Hz  $\pm 1.5$ -2 dB; crossover at 1500 Hz; efficiency 88 dB/W/m; min. input 15 W; max. input 150 W music power; tweeter level and contour controls and Q adjustment switch; walnut enclosure with transparent foam grille; 25" H x 15 1/2" W x 9 1/2" D ..... \$198.00

**Model 2.** Similar but with 8" woofer; frequency response 35-17,000 Hz  $\pm 2$  dB; oak vinyl enclosure; 21" H x 13" W x 9 1/2" D ..... \$134.00

## CREATIVE

### Autograph 500 Speaker System

Four-way tuned port speaker system with two 10" woofers, 5" mid-range in isolated enclosure, 1" Mylar dome tweeter, and piezoelectric solid state super horn; frequency response 25-22,000 Hz; max. input 125 W continuous music; imp. 4-6 ohms; mid-range and tweeter level controls; resettable circuit breaker opens at 105 dB; 44" H x 14 3/4" W x 13 1/4" D .. \$400.00

### Autograph 200 Speaker System

Three-way tuned port speaker system with 12" woofer, 5" mid-range, and dispersion tweeter; frequency response 30-22,000 Hz; max. input 75 W continuous music; imp. 6-8 ohms; presence and brilliance controls; resettable circuit breaker; 23 3/4" H x 14 3/4" W x 12 1/4" D ..... \$250.00

### Autograph 99 Speaker System

Four-way floor-standing speaker system with 15" woofer, 5" mid-range, 3" upper mid-range, and 1" dome tweeter; frequency response 30-20,000 Hz; crossovers at 700, 3000, and 8000 Hz; max. input 55 W continuous; 8-ohm imp.; mid-range and brilliance trim controls; 25 1/2" H x 20 1/4" W x 17" D ..... \$249.95

### Autograph 100 Lab-Type Monitor

Three-way speaker system with 12" woofer, 5" mid-range, and 1" dome tweeter; frequency response 30-20,000 Hz; max. input 50 W continuous; crossovers at 700 and 3000 Hz; 8-ohm imp.; 23 3/4" H x 14 3/4" W x 14 3/4" D ... \$179.95

### Audio Series 612-4 Speaker System

Four-way speaker system with 12" woofer, 4" mid-range, 2" tweeter, and 3" phenolic ring super tweeter; frequency response 33-20,000 Hz; crossovers at 1500, 5000, and 10,000 Hz; min. input 5 W; circuit-breaker protected; 8-ohm imp.; 26" H x 15 3/4" W x 13" D .. \$175.00

### 921 Speaker System

Four-way speaker system with 12" woofer, 7" compression horn mid-range, and 3" and 2 1/2" tweeters; frequency response 30-20,000 Hz; crossovers at 2000, 4000, and 10,000 Hz; max. input 40 W continuous; lower mid-range and brilliance trim controls; 26" H x 15 3/4" W x 12 3/4" D ..... \$169.95

### Audio Series 612-3 Speaker System

Three-way speaker system with 12" woofer, 4" mid-range, and 2" tweeter; frequency response 35-20,000 Hz; crossovers at 1500 and 5000 Hz; 23 3/4" H x 14 3/4" W x 10 3/4" D ..... \$150.00

### 881 Speaker System

Three-way speaker system with 12" woofer, 6" mid-range, and 2 1/2" tweeter; frequency response 30-20,000 Hz; crossovers at 1000 and 4000 Hz; max. input 40 W continuous; 8-ohm imp.; 23 3/4" H x 14 3/4" W x 12 1/4" D ... \$149.95

### Audio Series 610-3 Speaker System

Three-way speaker system with 10" woofer, 4" mid-range, and 2" tweeter; frequency response 40-20,000 Hz; crossovers at 1500 and 4000 Hz ..... \$120.00

### 771 Speaker System

Three-way speaker system with 10" woofer, 4" mid-range, and 2 1/2" tweeter; frequency response 35-19,000 Hz; crossovers at 4000 and 8000 Hz; max. input 30 W continuous; 8-ohm imp.; 22" H x 12 3/4" W x 9 1/2" D ..... \$119.95

### Audio Series 608-3 Speaker System

Three-way speaker system with 8" woofer, 4" mid-range, and 2" tweeter; frequency response 45-18,000 Hz; crossovers at 2000 and 5000 Hz; 22" H x 12 3/4" W x 8 1/4" D ..... \$100.00

### Audio Series 628-2T Speaker System

Two-way speaker system with two 8" woofers and 3" tweeter; frequency response 35-20,000 Hz; crossover at 2000 Hz; 34" H x 15 3/4" W x 8 3/4" D ..... \$99.00

### 661 Speaker System

Two-way speaker system with 8" woofer and 2 1/2" tweeter; frequency response 40-18,000 Hz; crossover at 4000 Hz; max. input 25 W continuous; 8-ohm imp.; 18" H x 11" W x 9" D .... \$159.90 pr.

### 221 Speaker System

Two-way speaker system with 6" woofer and 3" tweeter; frequency response 45-18,000 Hz; crossover at 4000 Hz; max. input 20 W continuous; 8-ohm imp.; 15" H x 8" W x 7" D ..... \$99.90 pr.

## CROWN INTERNATIONAL

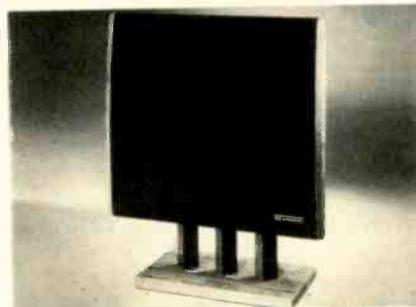
### ES-212 Electrostatic Speaker System

Two-enclosure electrostatic system; floor-standing with 12 electrostatic elements; two 10" dynamic woofers; 375 Hz crossover; 4 ohms nominal impedance; 75 W max. continuous sine-wave power or 600 W music power capacity; frequency response 22-30,000 Hz; features fast-acting solid-state protective circuit plus thermal breakers; satin-rubbed walnut finish with black decorator grille cloth; 42" H x 26" W x 16" D ..... \$600.00

## DAHLQUIST

### DQ-10 Speaker System

Five-way Phased Array moving-coil speaker system with 10" woofer in sealed air suspension



enclosure, 5" mid-bass driver, 2" soft-dome mid-range; 3/4" dome tweeter, and piezoelectric

ceramic super tweeter; frequency response 37-27,000 Hz; crossovers at 400, 1000, 6000, and 12,500 Hz; 8-ohm nominal imp.; max. input 200 W; min. input 60 W; features low-diffraction time-delay correction; continuously variable treble-slope control for boost or cut; solid walnut trim with black grille cloth; 31 1/2" H x 30 1/2" W x 9" D ..... \$395.00

### DQ-1 W Subwoofer

Incorporates 13" woofer in heavy cast frame mounted in walnut enclosure; recommended application is bi-amped systems but will perform with passive crossovers; typically adds an octave of low bass response to speaker systems; black grille cloth; 28" H x 18" W x 14" D ... \$275.00

## DESIGN ACOUSTICS

### D-8 Speaker System

Three-way acoustic suspension speaker system with two 10" woofers, 5" damped cone mid-range, dome tweeter, three cone tweeters, and piezoelectric speaker; power response 30-17,000 Hz  $\pm 2$  dB; crossovers at 600 and 1500 Hz; 8-ohm imp.; min. input 15 W; sensitivity 94.5-dB SPL/V/m; woofer, mid-range, and tweeter level controls; oiled walnut finish with black grille cloth; 44" H x 16 1/2" W x 12 3/4" D ... \$485.00

### D-12W/C Speaker System

Three-way vented speaker system with 10" woofer, 5" damped cone mid-range, and nine 2 1/2" cone tweeters; power response 30-15,000 Hz  $\pm 2$  dB; crossovers at 800 and 1600 Hz; 8-ohm imp.; min. input 25 W; sensitivity 91-dB SPL/V/m; woofer and tweeter level controls; oiled walnut finish with black grille cloth; do-decahedron-shaped; 39" x 22" ..... \$479.00

### D-6 Speaker System

Three-way vented acoustic suspension speaker system with 10" woofer, 5" damped cone mid-range, and five 2 1/2" cone tweeters; power response 30-15,000 Hz  $\pm 2$  dB; crossovers at 800 and 2000 Hz; 8-ohm imp.; min. input 20 W; sensitivity 92-dB SPL/V/m; woofer and tweeter level controls; oiled walnut finish with black/brown grille cloth; 24 1/2" H x 16 1/2" W x 13 3/4" D ..... \$318.00

### D-4 Speaker System

Three-way acoustic suspension speaker system with 10" woofer, 5" damped cone mid-range, and three 2 1/2" cone tweeters; power response 40-15,000 Hz  $\pm 3$  dB; crossovers at 800 and 2000 Hz; 8-ohm imp.; min. input 25 W; sensitivity 90.5-dB SPL/V/m; woofer and tweeter level controls; oiled walnut finish with brown grille cloth; 38" H x 17 1/2" W x 9 1/2" D ..... \$239.00

### D-2 Speaker System

Two-way vented acoustic suspension speaker system with 10" woofer and 1" dome tweeter; power response 40-18,000 Hz  $\pm 3.5$  dB; crossover at 1500 Hz; 8-ohm imp.; min. input 20 W; sensitivity 88-dB SPL/V/m; tweeter level control; oiled walnut finish with black grille cloth; 34" H x 12 1/2" W x 12 1/2" D ..... \$179.00

### D-1 Speaker System

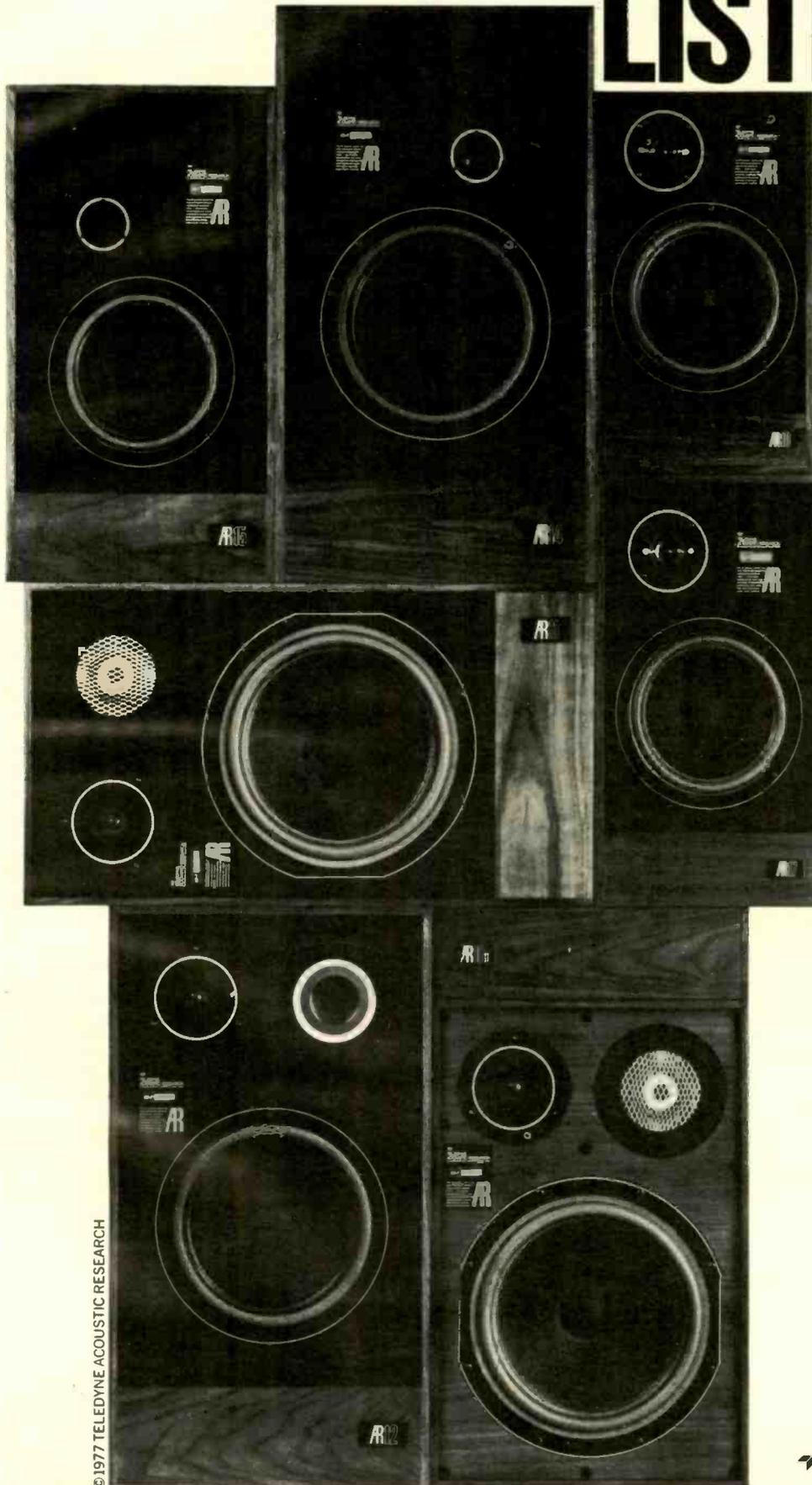
Two-way vented acoustic suspension speaker system with 8" woofer and 1 1/2" cone tweeter; power response 50-15,000 Hz  $\pm 3.5$  dB; crossover at 1500 Hz; 6-ohm imp.; min. input 15 W; sensitivity 87.5-dB SPL/V/m; aluminum or walnut finish with black grille cloth; 20 1/2" H x 11" W x 8" D ..... \$109.00

## DYNACO

### Model 7 Speaker System

Bass reflex ducted port three-way speaker system with 15" woofer, 5" mid-range, and two direct-radiating dome tweeters; frequency response 20-20,000 Hz; crossovers at 900 and 4500 Hz; max. input 150 W rms; min. input 10 W rms; mid-range and tweeter level controls;

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Call it accuracy.  
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"truth in listening," and when  
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# 10 SPEAKER SYSTEMS

five-way binding post connectors; oiled walnut veneer cabinet with removable foam grille and smoked-glass top; 29" H x 27 1/2" W x 18" D ..... \$509.00

## Model 80 Speaker System

Three-way speaker system with 13" woofer, 4 1/4" mid-range, and 1" tweeter; frequency re-



sponse 30-22,000 Hz; crossovers at 800 and 4000 Hz; power rating (DIN 45573) 100 W; music power 150 W; sensitivity 90 dB SPL/W/m; 8-ohm imp.; walnut veneer finish with brown knit fabric grille; 42 3/8" H x 15" W x 11 3/4" D ..... \$399.00

## Model 6 Speaker System

Bass reflex ducted port three-way speaker system with 12" woofer, 5" mid-range, and two direct-radiating dome tweeters; frequency response 20-20,000 Hz; crossovers at 900 and 4500 Hz; max. input 100 W rms; min. input 9 W rms; mid-range and tweeter level controls; five-way binding post connectors; oiled walnut veneer cabinet with removable foam grille; 27" H x 16" W x 15" D ..... \$304.00

## Model 60 Speaker System

Three-way speaker system with 10" woofer, 4 1/4" mid-range, and 1" tweeter; frequency response 32-22,000 Hz; crossovers at 1000 and 5000 Hz; power rating (DIN 45573) 60 W; music power 100 W; sensitivity 89-dB SPL/W/m; 8-ohm imp.; walnut veneer finish with brown knit fabric grille; 36" H x 13 1/4" W x 9 1/4" D ..... \$299.00

## A-50 Speaker System

Sealed, dual chamber aperiodic two-way floor-standing speaker system with two 10" woofers and 1 1/2" dome tweeter; crossover at 1000 Hz; max. input 50 W (DIN); 8-ohm imp.; five-position tweeter level control; dual spectrum damping; oiled walnut finish; 28" H x 21 1/2" W x 10" D ..... \$249.00

## Model 5 Speaker System

Bass reflex ducted port three-way speaker system with 10" woofer, 5" mid-range, and direct-radiating wide-dispersion dome tweeter; frequency response 30-20,000 Hz; crossovers at 900 and 4500 Hz; max. input 70 W rms; min. input 9 W rms; mid-range and tweeter level controls; five-way binding post connectors; oiled walnut veneer cabinet with removable foam grille; 25" H x 15" W x 12" D ..... \$224.00

## Model 3 Speaker System

Bass reflex ducted port two-way speaker system with 10" woofer and direct-radiating wide-dispersion dome tweeter; frequency response 35-20,000 Hz; crossover at 2000 Hz; max. input

55 W rms; min. input 7 W rms; tweeter level control; five-way binding post connectors; oiled walnut veneer cabinet with removable foam grille; 22 1/2" H x 13" W x 11 1/4" D ..... \$174.00

## A-40XL Speaker System

Sealed, dual chamber two-way bookshelf speaker system with 10" woofer and 1" soft-dome tweeter; crossover at 1200 Hz; max. input 50 W (DIN); min. input 15 W; 8-ohm imp.; three-position tweeter level control; oiled walnut veneer cabinet with beige linen grille; 22 1/2" H x 13 1/2" W x 10" D ..... \$169.00

## Model 2 Speaker System

Bass reflex ducted port two-way speaker system with 8" woofer and phenolic ring dome tweeter; frequency response 38-20,000 Hz; crossover at 2900 Hz; max. input 35 W rms; min. input 5 W rms; tweeter level control; five-way binding post connectors; oiled walnut veneer cabinet with removable foam grille; 20 1/2" H x 12" W x 9 1/2" D ..... \$134.00

## A-35 Speaker System

Sealed, dual chamber two-way bookshelf speaker system with 10" woofer and 1 1/2" soft-dome tweeter; crossover at 1200 Hz; 8-ohm imp.; max. input 30 W (DIN); aperiodic design; 22 1/2" H x 12 1/2" W x 10" D ..... \$129.00

## A-25XL Speaker System

Two-way bookshelf speaker system with woofer (ferrite magnet structure and aluminum voice coil) and 1" non-rigid hemispherical tweeter; crossover at 1500 Hz; max. input 50 W (DIN); min. input 15 W; aperiodic design utilizes highly damped vent with controlled acoustic resistance; oiled walnut cabinet with beige linen grille cloth; 11 1/2" H x 20" W x 10" D ..... \$119.00

## A-25 Speaker System

Two-way bookshelf speaker system with 10" woofer (critically damped port) and 1 1/2" soft-dome tweeter; crossover at 1500 Hz; 8-ohm imp.; max. input 35 W (DIN); min. input 15 W; aperiodic design; supplied with wall-mounting brackets; oiled walnut finish; 11 1/2" H x 20" W x 10" D ..... \$99.00

## D-20XL Speaker System

Two-way bookshelf speaker system with ported 8" woofer and 2" tweeter; crossover at 2000 Hz; 8-ohm imp.; black grille cloth ..... \$74.00

## ELECTRO-VOICE

### Interface:D

Incorporates 12" downward-firing woofer, 6 1/2" vented mid-range, and radial horn tweeter; sup-



plied with active equalizer; frequency response 23-20,000 Hz, 23-18,000 Hz  $\pm 3$  dB; min. input 1.5 W (for 90-dB SPL); max. input 500 W rms (for 115-dB SPL); 8-ohm nominal imp.; built-in tweeter protector; walnut veneer cabinet; 32" H x 21 3/4" W x 15 1/2" D ..... \$1500.00 pr.

## Sentry III Pro Speaker System

Three-way direct-radiator vented design with fourth-order Butterworth tuning; incorporates 15" woofer and mid-range/tweeter horn array; frequency response 40-18,000 Hz; crossovers at 600 and 3500 Hz; max. input 50 W; built-in tweeter protector; walnut cabinet; 34 1/2" H x 28 1/2" W x 20 1/2" D ..... \$726.00  
**SEQ.** Equalizer for Sentry III; extends response to 28 Hz ..... \$60.00

### Interface:C

Incorporates 10" woofer and radial horn tweeter; supplied with active equalizer; frequency response 25-20,000 Hz, 30-18,000 Hz  $\pm 3$  dB; min. input 2.8 W (for 90-dB SPL); max. input 200 W (for 110-dB SPL); 6-ohm nominal imp.; built-in tweeter protector; walnut veneer cabinet; 30" H x 21 1/2" W x 11 3/4" D... \$900.00 pr.

### Interface:B Series II

Incorporates 12" woofer, 8" mid-range/woofer, 2 1/2" front-mounted tweeter with acoustic lens, and 2 1/2" rear-mounted tweeter; supplied with active equalizer; frequency response 26-20,000 Hz, 30-18,000 Hz  $\pm 3$  dB; min. input 3.6 W (for 90-dB SPL); max. input 200 W (for 107-dB SPL); 8-ohm nominal imp.; built-in tweeter protector; walnut veneer cabinet; 23 3/4" H x 14 3/4" W x 8 1/4" D ..... \$675.00 pr.

### Interface:A Series II

Incorporates 12" woofer, 8" mid-range/woofer, 2 1/2" front-mounted tweeter with acoustic lens, and 2 1/2" rear-mounted tweeter; supplied with active equalizer; frequency response 29-20,000 Hz, 35-18,000 Hz  $\pm 3$  dB; min. input 3.6 W (for 90-dB SPL); max. input 200 W (for 107-dB SPL); 8-ohm nominal imp.; tweeter-protection circuit is optional; walnut veneer cabinet; 23 3/4" H x 14 3/4" W x 8 1/4" D ..... \$500.00 pr.

### Interface:3

Incorporates 12" woofer, 8" mid-range/woofer, and 2 1/2" tweeter; frequency response 34-20,000 Hz, 40-18,000 Hz  $\pm 4$  dB; min. input 3.6 W (for 90-dB SPL); max. input 200 W (for 107-dB SPL); 8-ohm nominal imp.; simulated walnut-grained vinyl finish; 26 3/4" H x 14 3/4" W x 12 1/2" D ..... \$170.00

### Interface:2

Incorporates 10" woofer, 8" mid-range/woofer, and 2 1/2" tweeter; frequency response 39-20,000 Hz, 47-18,000 Hz  $\pm 4$  dB; min. input 3.6 W (for 90-dB SPL); max. input 200 W (for 107-dB SPL); 8-ohm nominal imp.; simulated walnut-grained vinyl finish; 24 1/2" H x 13 3/4" W x 11 1/4" D ..... \$140.00

## Musicaster 1A All-Weather Speaker

Two-way speaker system with 12" wide-range driver and dual-cone driver assembly for high frequencies; frequency response 80-10,000 Hz; crossover at 4000 Hz; max. input 60 W peak; 8-ohm imp.; dispersion 120 degrees; glass-filled polyester enclosure; 21 1/2" H x 21 1/2" W x 8 1/2" D ..... \$120.00

**Musicaster IIA.** Same as 1A but with high-frequency driver and horn tweeter; frequency response 80-16,000 Hz; crossovers at 4000 and 5000 Hz ..... \$150.00

### Interface:1

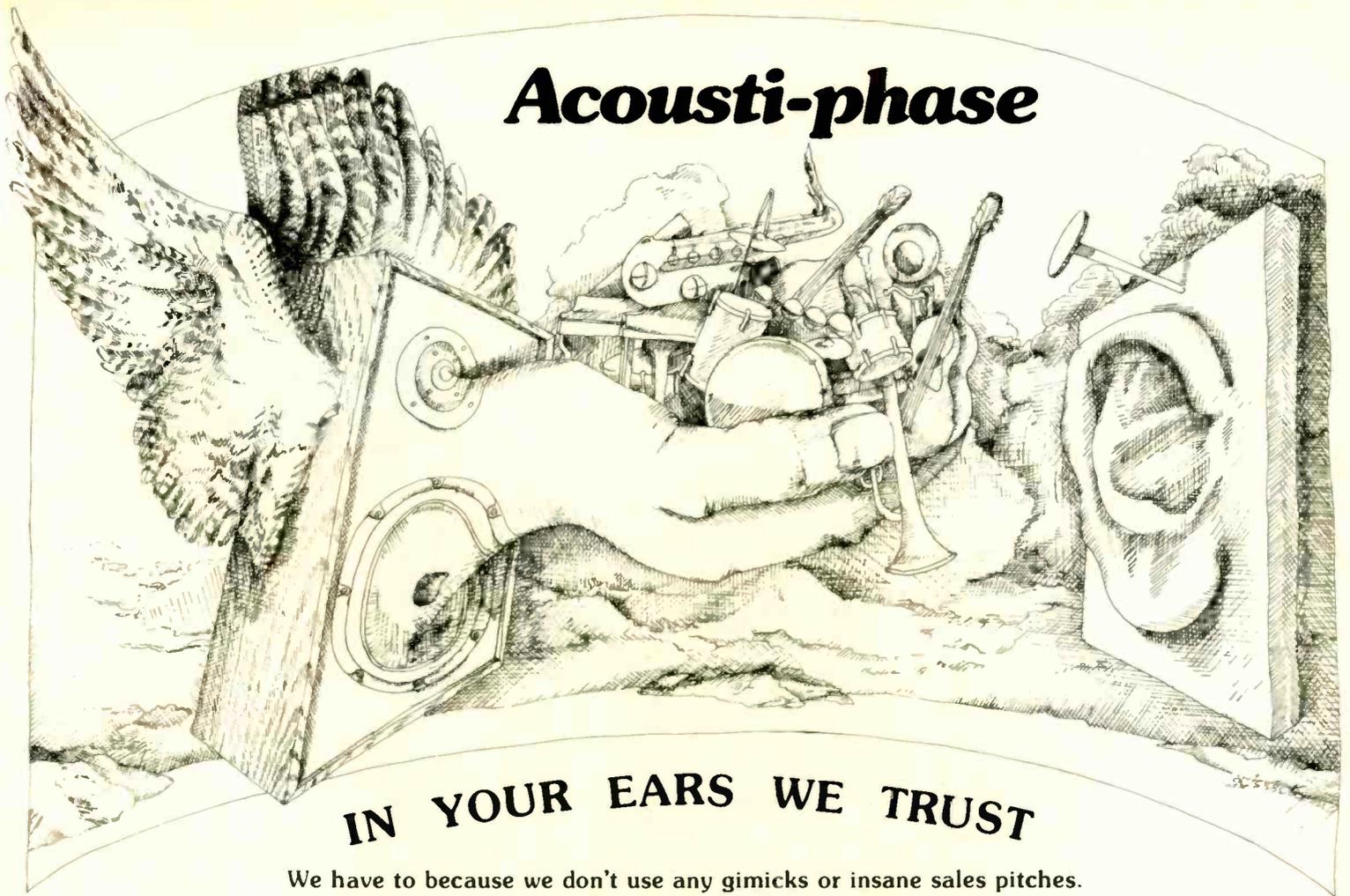
Incorporates 8" woofer and 2 1/2" tweeter; frequency response 44-20,000 Hz, 54-18,000 Hz  $\pm 4$  dB; min. input 3.6 W (for 90-dB SPL); max. input 200 W (for 107-dB SPL); 8-ohm nominal imp.; simulated walnut-grained vinyl finish; 21 1/4" H x 11 1/2" W x 10 1/2" D ..... \$100.00

## EPI

### 350 Speaker System

Multi-directional two-way speaker system with three 8" long-traverse woofers and three 1" air-spring tweeters; frequency response 36-20,000 Hz  $-3$  dB at 36 Hz; crossover at 1800 Hz; max. input 125 W; min. input 38 W; treble control switch; 36 1/2" H x 15 1/4" W x 13 1/4" D... \$400.00

# Acousti-phase



## IN YOUR EARS WE TRUST

We have to because we don't use any gimmicks or insane sales pitches. Our speakers have no radical new inventions that will be replaced by another radical new invention next month and another the next month and so on. We merely use the best components available and trust that your ears will hear the difference. Here are some examples. Our Microphase is the lowest priced speaker we know of utilizing a Mylar dome tweeter. Many companies that use a Mylar dome on their most expensive speakers wouldn't think of using it on their lower priced models, but we do. Our phase I has a sturdy  $\frac{3}{4}$  inch cabinet. Some of the most reputable manufacturers use about  $\frac{1}{2}$  inch construction in their comparably priced speakers. Our top of the line, phase 3 plus, is the only speaker we know of made from solid wood. In fact, at the largest hi-fi show in the Western Hemisphere, Acousti-phase won the award for outstanding design and engineering. We think the expense we go through, to construct a speaker, can be heard and we think *you* can hear it.

Acousti-phase P.O. Box 207 Proctorsville, Vermont (802) 226-7216

CIRCLE NO. 6 ON READER SERVICE CARD

# 10 SPEAKER SYSTEMS

## 250 Speaker System

Double-module two-way speaker system with two 8" woofers and two 1" air-spring tweeters; frequency response 38-20,000 Hz  $\pm 3$  dB; crossover at 1800 Hz; max. input 100 W; min. input 20 W; 4-ohm imp.; 25" H x 15" W x 15" D ..... \$250.00

## 200 Speaker System

Incorporates 8" woofer, 12" passive radiator, and 1" air-spring tweeter; frequency response 34-20,000 Hz; max. input 125 W; min. input 15 W; 8-ohm nominal imp.; oiled walnut finish with bronze trim and matte-black foam grille; 30 1/2" H x 17" W x 11" D ..... \$225.00

## 120 Speaker System

Two-way speaker system with 10" long-traverse woofer and 1" air-spring tweeter; frequency response 38-20,000 Hz  $\pm 5$  dB; crossover at 1800 Hz; max. input 80 W; min. input 25 W; 8-ohm nominal imp.; 25" H x 15" W x 12 1/2" D ..... \$140.00

## 101 Speaker System

Incorporates 8" long-traverse woofer and 1" air-spring tweeter; frequency response 46-20,000 Hz; max. input 75 W; min. input 12 W; 8-ohm nominal imp.; wood-grain vinyl finish with bronze trim and matte-black foam grille; 20 1/2" H x 12" W x 8 3/4" D ..... \$120.00

## 100 Speaker System

Two-way sealed bookshelf speaker system with 8" woofer and 1" tweeter; frequency response

45-18,000 Hz  $\pm 3$  dB; crossover at 1800 Hz; 8-ohm imp.; max. input 75 W rms; min. input 10 W rms ..... \$109.00

## 100V Speaker System

Two-way speaker system with 8" woofer and 1" air-spring tweeter; frequency response 45-18,000 Hz  $\pm 3$  dB; crossover at 1800 Hz; 8-ohm imp.; max. input 50 W; min. input 12 W; 21" H x 11" W x 9" D ..... \$99.00

## 70 Speaker System

Two-way speaker system with 6" woofer and 1" air-spring tweeter; frequency response 60-20,000 Hz  $\pm 5$  dB; crossover at 1800 Hz; 4-ohm imp.; max. input 80 W; min. input 10 W ..... \$70.00

## EPICURE

### 1000 Speaker System

Omnidirectional floor-standing tower speaker system with four 8" woofers and four 1" air-spring tweeters; frequency response 20-20,000 Hz  $\pm 3$  dB; 8-ohm imp.; max. input 250 W rms; min. input 60 W rms; transducers matched to within 1 dB efficiency; 75" H x 18" W x 18" D ..... \$1000.00

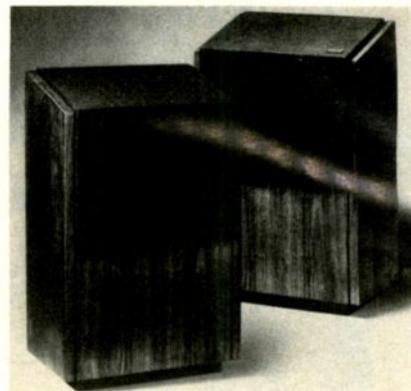
### 400+ Speaker System

Omnidirectional floor-standing tower speaker system with four 6" woofers and four 1" air-spring tweeters; frequency response 27-19,000 Hz  $\pm 3$  dB; crossover at 1800 Hz; 8-ohm imp.; max. input 200 W rms; min. input 25 W rms; three-position tweeter level control; transducers matched to within 1 dB efficiency; 38" H x 14" W x 14" D ..... \$400.00

### Twenty+ Speaker System

Two-way speaker system with two 8" woofers and two 1" air-spring tweeters; frequency response

35-20,000 Hz  $\pm 3$  dB; crossover at 1800 Hz; 8-ohm imp.; tweeter level control; hand-



rubbed walnut veneer finish with dark brown grille cloth (additional colors optional); 29" H x 18 1/2" W x 12" D ..... \$275.00

### 11 Speaker System

Two-way bookshelf speaker system with 6" controlled-excursion woofer and 1" air-spring tweeter; frequency response 38-20,000 Hz  $\pm 3$  dB; 8-ohm imp.; max. input 80 W rms; min. input 15 W rms; nearly hemispherical dispersion; 21 1/2" H x 13 1/2" W x 9 1/2" D ..... \$149.00

### 10 Speaker System

Two-way bookshelf speaker system with 8" woofer and 1" air-spring tweeter; frequency response 42-20,000 Hz  $\pm 3$  dB; crossover at 1800 Hz (12 dB/octave); 8-ohm imp.; max. input 70 W rms; min. input 20 W rms; nearly hemispherical dispersion; walnut finish cabinet; 22" H x

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More and more recording studios use 3A speakers all over the world, because no pleasing tone or exciting coloration is found in our speakers!

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You ought to know that no speaker has a wider frequency range than a MASTER CONTROL and that its performance may be approached by very few speakers (at any price) but surpassed by none, in such a small enclosure.

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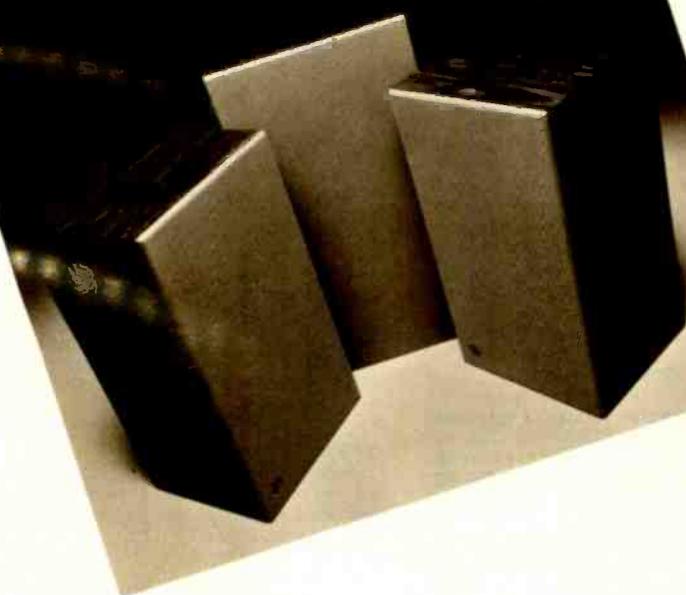
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CIRCLE NO. 8 ON READER SERVICE CARD

# NOW. GREAT FOR THE PRICE OF GOOD.



There are a lot of good loudspeakers around these days. Some are pretty good. Some are really good. But good isn't great. Introducing Bolivar Speaker Works. We make three bookshelf loudspeakers. Two 3-way systems. One 2-way. They're priced from \$90 to \$165. They're extremely efficient. (All three are twice as efficient as their top selling, \$150 competitor.)

The enclosures are the same kind used for expensive loudspeakers. The difference is we've finished them in a warm, earth tone vinyl. There's also a terrific looking Tennessee Hickory vinyl finish. It costs a little more, but we've left the choice up to you. We put our money in the sound. Come listen to Bolivar. Then listen to any other loudspeaker that costs about the same. You'll buy Bolivar.



## Bolivar Speaker Works

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CIRCLE NO. 21 ON READER SERVICE CARD

# 10 SPEAKER SYSTEMS

12" W x 9 7/8" D ..... \$129.00  
 Same with vinyl finish cabinet ..... \$119.00

## 5 Speaker System

Two-way bookshelf speaker system with 6" controlled-excursion woofer and 1" air-spring tweeter; frequency response 50-20,000 Hz  $\pm 3$  dB; crossover at 1800 Hz (12 dB/octave); 8-ohm imp.; max. input 70 W rms; min. input 20 W rms; nearly hemispherical dispersion; 15" H x 11" W x 7 7/8" D ..... \$80.00

## ESS

### amt Monitor Speaker System

Two-way speaker system with 12" Bextrene woofer, 12" passive radiator, and 21.5 in<sup>2</sup> Heil air motion transformer; frequency response 30-23,000 Hz  $\pm 3$  dB; crossover at 1000 Hz; max. input 375 W clean music power; 6-ohm nominal imp.; 120° horizontal dispersion; 30° vertical dispersion; sensitivity 87-dB SPL/W/m; presence/brilliance control; oiled walnut finish with black-brown grille; 39.25" H x 15.63" W x 15.88" D ..... \$566.00

### amt 1b Speaker System

Two-way speaker system with 12" Bextrene woofer, 12" passive radiator, and 21.5 in<sup>2</sup> Heil



air motion transformer; frequency response 35-23,000 Hz  $\pm 3$  dB; crossover at 1000 Hz; max. input 375 W clean music power; 6-ohm nominal imp.; 120° horizontal dispersion; 30° vertical dispersion; sensitivity 87-dB SPL/W/m; mid-range presence control; oiled walnut finish with black-brown grille; 35.25" H x 16.25" W x 16.25" D ..... \$450.00

### amt 1b Bookshelf Speaker System

Two-way bookshelf speaker system with 12" Bextrene woofer, 12" passive radiator, and 21.5 in<sup>2</sup> Heil air motion transformer; frequency response 40-23,000 Hz  $\pm 3$  dB; crossover at 1000 Hz; max. input 375 W clean music power; 6-ohm nominal imp.; 120° horizontal dispersion; 30° vertical dispersion; sensitivity 87-dB SPL/W/m; presence/brilliance control; oiled walnut finish with black-brown grille; 24" H x 14" W x 14" D ..... \$398.00

### amt 10b Speaker System

Two-way bookshelf speaker system with 10" Bextrene woofer, 12" passive radiator, and 20.25 in<sup>2</sup> Heil air motion transformer; frequency response 40-22,000 Hz  $\pm 3$  dB; crossover at

1400 Hz; max. input 275 W clean music power; 6-ohm nominal imp.; 120° horizontal dispersion; 30° vertical dispersion; sensitivity 87-dB SPL/W/m; presence/brilliance control; oiled walnut finish with sable brown grille; 24" H x 14" W x 14" D ..... \$316.00

### Tempest Series Model LS-4

Two-way speaker system with 10" woofer, 10" passive radiator, and 10.4 in<sup>2</sup> Heil air motion transformer; frequency response 35-24,000 Hz  $\pm 3$  dB; crossover at 2400 Hz; max. input 160 W clean power; 6-ohm nominal imp.; 120° horizontal dispersion; 40° vertical dispersion; sensitivity 96-dB SPL/W/3 ft; oak finish with dark brown grille; 35" H x 12 1/2" W x 12 1/8" D ..... \$319.00

### Tempest Series Model LS-5

Two-way bookshelf speaker system with 10" woofer, 10" passive radiator, and 10.4 in<sup>2</sup> Heil air motion transformer; frequency response 40-20,000 Hz  $\pm 3$  dB; crossover at 2400 Hz; max. input 140 W clean power; 6-ohm nominal imp.; 120° horizontal dispersion; 40° vertical dispersion; sensitivity 95-dB SPL/W/3 ft; oak finish with dark brown grille; 24 1/2" H x 14" W x 14" D ..... \$219.00

### Tempest Series Model LS-8

Two-way bookshelf speaker system with 8" woofer, 10" passive radiator, and 10.4 in<sup>2</sup> Heil air motion transformer; frequency response 50-30,000 Hz  $\pm 3$  dB; crossover at 2400 Hz; max. input 100 W clean power; 6-ohm nominal imp.; 120° horizontal dispersion; 40° vertical dispersion; sensitivity 94-dB SPL/W/3 ft; oak finish with dark brown grille; 22" H x 12 1/4" W x 10 7/8" D ..... \$168.00

### Performance Series Model 4

Two-way speaker system with 10" woofer, 10" passive radiator, and 10.4 in<sup>2</sup> Heil air motion transformer; frequency response 35-24,000 Hz  $\pm 3$  dB; crossover at 2400 Hz; max. input 160 W clean power; 6-ohm nominal imp.; 120° horizontal dispersion; 40° vertical dispersion; sensitivity 95-dB SPL/W/3 ft; walnut vinyl finish with dark brown grille; 35" H x 12 1/2" W x 12 1/8" D ..... \$289.00

### Performance Series Model 5

Two-way bookshelf speaker system with 10" woofer, 10" passive radiator, and 10.4 in<sup>2</sup> Heil air motion transformer; frequency response 40-20,000 Hz  $\pm 3$  dB; crossover at 2400 Hz; max. input 140 W clean power; 6-ohm nominal imp.; 120° horizontal dispersion; 40° vertical dispersion; sensitivity 95-dB SPL/W/3 ft; walnut vinyl finish with dark brown grille; 24 1/2" H x 14" W x 14" D ..... \$205.00

### Performance Series Model 8

Two-way bookshelf speaker system with 8" woofer, 10" passive radiator, and 10.4 in<sup>2</sup> Heil air motion transformer; frequency response 50-30,000 Hz  $\pm 3$  dB; crossover at 2400 Hz; max. input 100 W clean power; 6-ohm nominal imp.; 120° horizontal dispersion; 40° vertical dispersion; sensitivity 94-dB SPL/W/3 ft; walnut vinyl finish with dark brown grille; 22" H x 12 1/4" W x 10 7/8" D ..... \$149.00

### XP680 Speaker System

Three-way speaker system with 10" woofer, 5" mid-range, and 3" tweeter; frequency response 35-20,000 Hz; crossovers at 1000 and 5000 Hz; max. input 35 W rms; 22 3/4" H x 12 3/4" W x 10" D ..... \$159.95

### XP68A Speaker System

Three-way speaker system with 10" woofer, 5" mid-range, and 3" tweeter; frequency response 35-20,000 Hz; crossovers at 1000 and 5000 Hz; max. input 35 W rms; 22 3/4" H x 12 3/4" W x 10" D ..... \$149.95

### XP325 Speaker System

Three-way ported speaker system with 10" woofer, 5" mid-range, and 3" tweeter; frequency

response 65-18,000 Hz; max. input 35 W rms; 21 7/8" H x 13 3/8" W x 8 1/2" D ..... \$129.95

### XP62A Speaker System

Two-way speaker system with 10" woofer and 3" tweeter; frequency response 35-20,000 Hz; crossover at 1500 Hz; max. input 30 W rms; 22 3/4" H x 12 3/4" W x 10" D ..... \$119.95

### XP570 Speaker System

Two-way speaker system with 8" woofer and 2" tweeter; frequency response 38-18,000 Hz; crossover at 1500 Hz; max. input 20 W rms; 21" H x 12 1/4" W x 9" D ..... \$99.95

### XP57A Speaker System

Two-way speaker system with 8" woofer and 2" tweeter; frequency response 38-18,000 Hz; crossover at 1500 Hz; max. input 20 W rms; 21" H x 12 3/4" W x 9" D ..... \$89.95

### XP320 Speaker System

Two-way ported speaker system with 8" woofer and 3" tweeter; frequency response 70-15,000 Hz; max. input 25 W rms; 18 3/4" H x 11 1/4" W x 8 1/2" D ..... \$79.95

## FISHER

### XP950 Speaker System

Three-way speaker system with 15" woofer, two 5" mid-ranges, and 3" flare dome tweeter; frequency response 28-20,000 Hz; max. input 75 W rms; 28" H x 17 1/2" W x 12 7/8" D ..... \$259.95

### ST660 Speaker System

Three-way speaker system with 12" woofer, 12" passive bass radiator, 6 1/2" dome mid-range, 6" mid-range, and two 1" dome tweeters; max. input 125 W rms; mid-range/tweeter level controls; 29 1/4" H x 18 1/4" W x 12 7/8" D ..... \$249.95

### XP95A Speaker System

Incorporates 15" woofer, two 5" mid-ranges, and 3" flare dome tweeter; frequency response 28-20,000 Hz; max. input 75 W rms; 28" H x 17 1/2" W x 12 7/8" D ..... \$249.95

### ST640 Speaker System

Three-way speaker system with 10" woofer, 10" passive bass radiator, 6 1/2" dome mid-range, 5" mid-range, and two 2" flare dome tweeters; max. input 90 W rms; mid-range/tweeter level control; 26 1/2" H x 16 1/2" W x 12" D .. \$199.95

### XP85A Speaker System

Three-way speaker system with 12" woofer, two 5" mid-ranges, and 3" flare dome tweeter; frequency response 32-20,000 Hz; max. input 60 W rms; 25 1/4" H x 14 7/8" W x 12" D ... \$199.95

### XP750 Speaker System

Three-way speaker system with 12" woofer, 5" mid-range, and 3" tweeter; frequency response 32-20,000 Hz; crossovers at 1000 and 5000 Hz; max. input 50 W rms; 25 1/4" H x 14 7/8" W x 12" D ..... \$189.95

### XP75A Speaker System

Three-way speaker system with 12" woofer, 5" mid-range, and 3" tweeter; frequency response 32-20,000 Hz; crossovers at 1000 and 5000 Hz; max. input 50 W rms; 25 1/4" H x 14 7/8" W x 12" D ..... \$179.95

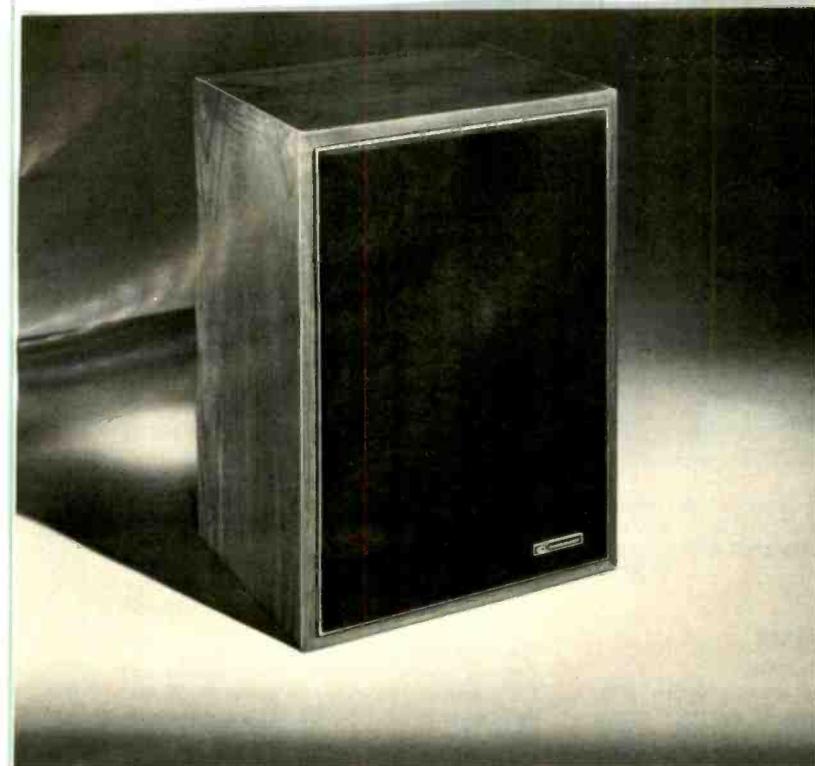
### XP330 Speaker System

Three-way ported speaker system with 12" woofer, 5" mid-range, and 3" tweeter; frequency response 60-18,000 Hz; max. input 50 W rms; 23 1/2" H x 14 3/8" W x 10 1/2" D ..... \$159.95

## FRAZIER

### Eleven System

Three-way speaker system with 15" and 12" woofers, four 4" mid-ranges, and two piezoelectric tweeters; crossovers at 400 and 4000 Hz; max. input 100 W rms continuous; 4-ohm imp.;



## The Dahlquist System For Bass Reinforcement

Many of today's state of the art loudspeakers owe their fine performance to the care the speaker designer took in matching and blending the transient characteristics of the drivers in the system as a whole. Often, he was forced to make some difficult decisions. For example, in determining the physical requirements for his woofer, he may have chosen between: 1) achieving very low bass response, at the sacrifice of upper bass definition, or; 2) sacrificing the extreme low response by using a lighter, faster-moving cone in order to achieve smooth continuity between bass and midrange frequencies. The last is, of course, the better choice—the smoothest possible transitions throughout the specified frequency range. This is a quality that critical listeners appreciate.

However delighted we may be with the overall performance of our favorite speakers—be they Dahlquist DQ-10's, Quads, Magnepans, ADS, etc.—we sometimes miss the very low bass detail we know must be in our recordings. The practical solution is a supplementary bass reproducer designed only for that purpose. In this way we can enjoy the benefits of both design approaches. The Dahlquist DQ-1W Low-Bass Module was engineered specifically for optimum performance at the lower recorded frequencies. Its operation is based on a critically damped air-suspension system since, correctly executed, this technique offers superior performance in transient behavior and distortion.

An external crossover is required for its operation. The DQ-MX1 passive crossover is the most economical method to use, and provides excellent results. For the no-holds-barred system, the DQ-LP1 electronic filter permits biamplified operation of bass modules either in stereo or mixed L + R modes. Visit your Dahlquist dealer, or write for literature about these fine products. They will add substantially to the quality of your sound.

# DAHLQUIST

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CIRCLE NO. 29 ON READER SERVICE CARD

# 10 SPEAKER SYSTEMS

stepped high-frequency and mid-range controls; oiled walnut veneer on fiberboard with black foam grille; 55" H x 30" W x 18" D ..... \$1200.00

## The Thing

Three-way speaker system with 12" and 10" woofers, exponential mid-range horn system, and stacked piezoelectric tweeters for columnar effect; crossovers at 800 and 4000 Hz; max. input 75 W rms; front-panel brilliance and presence controls; natural oak finish with black cloth formed grille; 50" H x 24" W x 18" D ..... \$895.00

## Seven System

Three-way speaker system with 12" woofer, two 4" full-range mid-ranges, and two piezoelectric tweeters stacked for columnar effect; crossovers at 500 and 4000 Hz; max. input 50 W rms continuous; 8-ohm imp.; front-panel variable mid-range and high-frequency compensators; oiled walnut veneer on fiberboard; 29" H x 18" W x 16" D ..... \$399.95

## Mark V System

Three-way speaker system with 12" woofer, two 4" mid-ranges, and piezoelectric tweeter; crossovers at 800 and 3000 Hz; 8-ohm imp.; max. input 30 W rms continuous; front-panel variable mid-range and high-frequency compensators; oiled walnut veneer on fiberboard with acoustically transparent, removable sculptured foam grille (available in brown, black, or burnt orange); 25 3/4" H x 14" W x 12" D ..... \$299.95

## Concerto System

Incorporates 10" woofer and high-frequency compression horn; max. input 30 W rms continuous; 8-ohm imp.; brilliance control on front panel; oiled walnut veneer on fiberboard with acoustically transparent, removable sculptured foam grille (available in brown, black, or burnt orange); 21 1/2" H x 16" W x 16" D ..... \$264.95

## Mark IV-A System

Two-way speaker system with 10" woofer and high-frequency compression horn; crossover at 2000 Hz; max. input 30 W rms continuous; 8-ohm imp.; front-panel variable high-frequency compensator; oiled walnut veneer on fiberboard with acoustically transparent, removable sculptured foam grille (available in brown, black, or burnt orange); 24" H x 14" W x 12" D ..... \$179.95

## Super Monte Carlo

Two-way speaker system with 8" IF driver and direct-coupled piezoelectric superhorn; crossover at 4000 Hz; max. input 20 W rms continuous; 8-ohm imp.; walnut veneer on fiberboard with brown fabric grille; 19" H x 10 1/2" W x 12" D ..... \$99.95

## Super Midget System

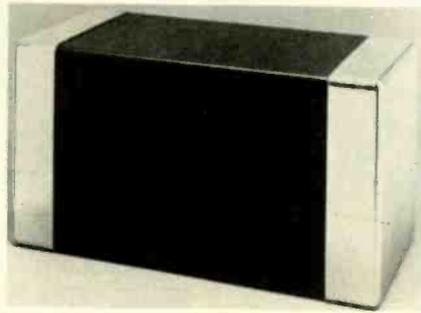
Bookshelf speaker system with 4" wide-excursion speaker; max. input 10 W rms continuous; 8-ohm imp.; oiled walnut veneer on fiberboard with brown fabric grille; 15 3/4" H x 6 3/4" W x 9 1/2" D ..... \$59.95

## GALE

### GS401 A Speaker System

Three-way speaker system with two 8" woofers mounted in damped sealed enclosure and acoustically coupled, 4" mid-range, and 3/4" dome tweeter; frequency response (in average room) 35-25,000 Hz  $\pm 5$  dB; crossovers at 475 and 5000 Hz; 4-8 ohms imp.; max. input 200 W; min. input 40 W; balance controls for mid-range and tweeter; built-in fusing; enclosure

is acoustically inert at high power levels and consists of three-layer high-density chipboard



with six internal struts; matte black and chrome finish; 13" H x 23 3/4" W x 10 3/4" D ..... \$450.00  
**GS401 C.** Same but in matched walnut veneer with brown grille cloth ..... \$450.00

## GENESIS

### Model III Speaker System

Four-way floor-standing speaker system with 10" mass loaded radiator, 8" woofer, 4" cone mid-range, and 1" inverted phenolic dome tweeter; crossovers at 45, 800, and 2500 Hz; max. input 100 W; min. input 20 W; 6-ohm nominal imp.; walnut veneer finish with black mounting bases; 37 1/2" H (less base) x 14 1/2" W x 12" D ..... \$299.00

### Model II Speaker System

Two-way bookshelf speaker system with 8" long-excursion woofer and 1" inverted dome tweeter; incorporates passive radiator; frequency response 28-18,000 Hz  $\pm 4$  dB (90-dB SPL); 8-ohm imp.; max. input 80 W; min. input 10 W; two-position tweeter level switch; brown grille; 26 1/2" H x 14 1/2" W x 11 1/2" D ..... \$155.00  
 With oak veneer finish ..... \$180.00

### Model I Speaker System

Two-way acoustic suspension bookshelf speaker system with 8" high-compliance woofer and 1" inverted dome tweeter; crossover at 1800 Hz; 8-ohm imp.; max. input 40 W; min. input 10 W; frequency response 40-18,000 Hz  $\pm 4$  dB (90-dB SPL); brown grille; 21" H x 12" W x 8 3/4" D ..... \$99.00  
 With oak veneer finish ..... \$115.00

## GLI

### Disco III+ Speaker System

Three-way speaker system with two 15" woofers, 2" horn mid-range, and seven 3 1/2" horn tweeters; 8-ohm nominal imp.; max. input 250 W rms; semi-gloss black finish; 49 1/2" H x 36" W x 28 3/4" D ..... \$847.50

### Disco II+ Speaker System

Two-unit speaker system consisting of bass unit and high-frequency array; incorporates two 15" woofers, eight 4 1/2" mid-ranges, and four 3 1/2" horn tweeters; 8-ohm nominal imp.; max. input 250 W rms; semi-gloss black finish; bass unit 37 1/2" H x 21 1/2" W x 22 1/2" D; high-frequency array 19 3/4" H x 21" W x 8" D ..... \$697.50

### Disco I+ Speaker System

Three-way speaker system with two 15" woofers, exponentially flared diffraction horn mid-range, and three 3 1/2" horn tweeters; 8-ohm nominal imp.; max. input 175 W rms; semi-gloss black finish; 37 1/2" H x 21 1/2" W x 22 1/2" D ..... \$547.50

### Monolith II Speaker System

Incorporates 15" woofer, 15" passive bass radiator, diffraction horn mid-range driver, and two ceramic super tweeters; frequency response 31-22,000 Hz  $\pm 4$  dB; 6-ohm nominal imp.; max. input 150 W rms; min. input 10 W

rms; sensitivity 96 dB/W/m; dispersion 94° horizontal, 74° vertical (1 kHz); black textured vinyl and walnut veneer finish with black anodized perforated screen grille; 36" H x 21" W x 12 1/2" D ..... \$437.50

## HAL

### Apollo Speaker System

Three-way speaker system with 12" woofer, 3 1/2" mid-range, and 1 1/2" tweeter; frequency response 30-20,000 Hz; crossovers at 1200 and 5000 Hz; 8-ohm imp.; max. input 70 W; min. input 10 W; has circuit breaker and tweeter level control; 24 1/2" H x 16" W x 12" D ..... \$199.95

### Gemini Speaker System

Two-way speaker system with 10" woofer and 1 1/2" tweeter; frequency response 35-20,000 Hz; crossover at 2000 Hz; 8-ohm imp.; max. input 50 W; min. input 8 W; has circuit breaker and tweeter level control; 24 1/2" H x 13 1/2" W x 10" D ..... \$139.95

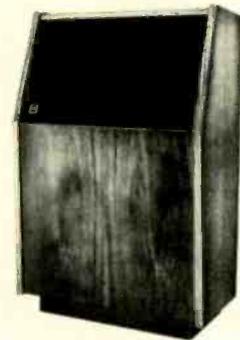
### Mercury Speaker System

Two-way speaker system with 8" woofer and 1 1/2" tweeter; frequency response 40-20,000 Hz; crossover at 2000 Hz; 8-ohm imp.; max. input 35 W; min. input 6 W; 23 1/2" H x 10 1/2" W x 8" D ..... \$99.95

## HEATH

### AS-1348 Three-Way Speaker System

Incorporates 15" slot-loaded woofer, two 4 1/2" mid-range speakers, and three 1" dome tweeters



ers arranged for best high-frequency dispersion; frequency response 28-20,000 Hz  $\pm 3$  dB; max. input 250 W; min. input 8 W; individually fused drivers; six-position attenuation controls; crossovers at 500 and 3000 Hz; 8-ohm imp.; walnut and oak veneer finish cabinet; 38" H x 24" W x 15" D.  
 Kit ..... \$269.95

### AS-48 Two-Way Speaker System

Features custom-designed JBL speakers, 14" woofer and 2" direct radiator; 8-ohm imp.; crossover at 2000 Hz (unaffected by three-position high-frequency control); damped reflex, tuned port cabinet of oak veneer furniture-grade hardwoods; max. input 50 W; frequency response 40-20,000 Hz; 14" H x 23 1/2" W x 12" D.  
 Kit ..... \$239.95

### AS-1373 Three-Way Speaker System

Acoustic-suspension speaker system; frequency response 40-20,000 Hz  $\pm 3$  dB, useful response 40-30,000 Hz; incorporates 10" woofer, 4 1/2" mid-range, and 1" dome tweeter; special design permits tweeter to be installed for vertical or horizontal placement of system; individually fused drivers; 8-ohm imp.; driving power 10-200 W; walnut-veneer cabinet with foam grille; 26" H x 14 1/2" W x 12 1/4" D.  
 Kit ..... \$149.95

### AS-103A Three-Way Speaker System

Sealed-enclosure, three-way bookshelf system

**Thermo-Vapor Suspension Systems!  
Mt. Fuji Spring Water Speaker Cones!!  
Hi-Polymer Nitro-Cellulose Strontium Ferrite Magnets!!!**

**We say: Bull.**



The above ingredients, as improbable and impossible as they sound, make up much of today's advertising by other speaker manufacturers.

We at AAL will not be guilty of insulting your intelligence with this kind of gobbledygook.

The simple fact is: a speaker must be heard to be appreciated. This is the true and final test. AAL Studio Speakers offer realism of sound in a handsomely designed cabinet. What more can we say. Just take your favorite record along to your nearest AAL dealer. Our Studio Line is waiting to be auditioned at better stores everywhere.



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STUDIO SERIES (left to right): Studio 4 shown with optional Add-Array; Studio 3; Studio 1; Studio 2; Studio 2001 Tower; Studio 6. Complete specifications listed in this issue. Write us for name of AAL dealer nearest you.

Remember, Acoustics is our middle name.  
CIRCLE NO. 13 ON READER SERVICE CARD

# 10 SPEAKER SYSTEMS

with AR drivers, 12" woofer, 1 1/2" mid-range, and dome type 3/4" tweeter; frequency response 30-20,000 Hz  $\pm$  5 dB; crossovers at 575 and 5000 Hz; mid-range and tweeter controls; 4-ohm imp.; driving power 25 W; 25" H x 14" W x 11 1/4" D.

Kit ..... \$139.95

## AS-1363 Three-Way Speaker System

Incorporates 10" woofer, 4 1/2" mid-range, and 1" dome tweeter; frequency response 45-18,000 Hz  $\pm$  3 dB; crossovers at 750 and 4000 Hz; max. input 130 W; min. input 5 W; 8-ohm imp.; two-position mid-range and tweeter switches; individually fused drivers; Mediterranean finish cabinet; 24 3/4" H x 14 1/4" W x 11 1/2" D.

Kit ..... \$119.95

## AS-1344 Column Speaker

Two woofer/tweeter modules mount on adjacent sides of column; frequency response 55-20,000 Hz  $\pm$  3 dB, useful response 35-22,000 Hz; incorporates two 6 1/2" woofers and two 1" dome tweeters; 4-ohm imp.; driving power 10-100 W; individually fused drivers; foam grille; 40" H x 11" W x 11" D.

Kit ..... \$129.95

## AS-1352 Two-Way Speaker System

Incorporates 10" acoustic-suspension woofer and 1 3/4" phenolic ring tweeter; frequency response 50-18,000 Hz  $\pm$  3 dB; max. input 50 W; min. input 10 W; 8-ohm imp.; tweeter level control; individually fused drivers; walnut-veneer cabinet; 24" H x 13 1/2" W x 11" D.

Kit ..... \$99.95

## AS-1342 Two-Way Speaker System

Incorporates 8" acoustic-suspension woofer and 2" x 6" tweeter with mounting option for vertical or horizontal placement; frequency response 60-14,000 Hz  $\pm$  3 dB; max. input 50 W; min. input 4 W; 8-ohm imp.; tweeter level control; individually fused drivers; walnut-vinyl-covered cabinet; 22 1/4" H x 12" W x 10 1/2" D.

Kit ..... \$79.95

## AS-1332 Two-Way Speaker System

Incorporates 8" acoustic-suspension woofer and 1 3/4" phenolic ring tweeter; frequency response 50-18,000 Hz  $\pm$  3 dB; max. input 50 W; min. input 10 W; 8-ohm imp.; tweeter level control; individually fused drivers; 19" H x 10 1/2" W x 8" D.

Kit ..... \$59.95

## AS-106 Two-Way Speaker System

Full-range speaker system; driving power 4-20 W; frequency response 70-16,000 Hz; sealed acoustic-suspension infinite-baffle cabinet with fiberglass sound-damping material; walnut veneer cabinet; 12" H x 7" W x 6" D.

Kit ..... \$26.95

## AS-1140 Speaker System

Efficient speaker system designed for use with Heathkit AT-1124, AC-1120, AC-1122, and AC-1118 or other equipment with 2-10 W/ch output; 8-ohm imp.; 4 1/2" driver; frequency response 70-16,000 Hz (10-10,000 Hz  $\pm$  5 dB); simulated walnut-grain vinyl-clad enclosure; 12" H x 7" W x 6" D.

Kit ..... \$37.95 pr.

## HEGEMAN

### HWS Subwoofer

Floor-standing closed-box baffle system with 12" woofer; frequency response 8-200 Hz; external crossover at 50-100 Hz; max. input 120 W integrated program material; 8-ohm imp.;

walnut wood finish; 40" H x 18" W x 16" D ..... \$600.00

## H-2V Speaker System

Two-way speaker system with 10" full-range high-compliance driver and 2" super tweeter; frequency response 25-25,000 Hz  $\pm$  2.5 dB; crossover at 3500 Hz; max. input 30 W rms continuous, 80 W integrated program material; 8-ohm imp.; walnut finish with foam grille ..... \$756.00 pr.

## H-1AW Speaker System

Two-way coaxially mounted speaker system with 8" full-range high-compliance driver and 2" dome super tweeter; frequency response 30-20,000 Hz  $\pm$  2.5 dB; crossover at 5000 Hz; max. input 25 W rms continuous (20 W recommended); 8-ohm imp.; walnut finish with black grille; 26" H x 11" W x 8 3/4" D ..... \$450.00 pr.

H-1AV. Same but with Corinthian walnut vinyl finish ..... \$390.00 pr.

## HB-120V Speaker System

Two-way speaker system with 12" woofer and two 2" cone tweeters; frequency response 40-40,000 Hz  $\pm$  2.5 dB; crossover at 2500 Hz; max. input 30 W rms continuous; 25" H x 14 1/4" W x 11 1/4" D ..... \$330.00 pr.

## HB-100V Speaker System

Two-way speaker system with 10" woofer and 2" cone tweeter; frequency response 50-40,000 Hz  $\pm$  2.5 dB; crossover at 3000 Hz; max. input 25 W rms continuous; 22 1/8" H x 12 1/8" W x 10 3/8" D ..... \$252.00 pr.

## HB-80V Speaker System

Two-way bookshelf speaker system with 8" woofer and 2" cone tweeter; frequency response 40-40,000 Hz  $\pm$  2.5 dB; crossover at 4500 Hz; max. input 20 W rms continuous; 8-ohm imp.; walnut vinyl finish with black or brown foam grille; 17 1/4" H x 11 1/2" W x 8" D ..... \$192.00 pr.

## HITACHI

### HS/330 Speaker System

Three-way air suspension speaker system with 10" woofer, 2 1/2" mid-range, and 1 1/2" tweeter; crossovers at 900 and 4000 Hz; 6-ohm nominal imp.; sensitivity 92-dB SPL/W/m; 22 1/2" H x 12 3/8" W x 12 3/8" D ..... \$229.95

### HS/335R Speaker System

Three-way air suspension speaker system with 10" woofer, 5" mid-range, and 1" dome tweeter; crossovers at 700 and 3000 Hz; 6-ohm nominal imp.; sensitivity 91-dB SPL/W/m; 21 3/8" H x 12 3/8" W x 12 3/8" D ..... \$169.95

### HS/323R Speaker System

Two-way air suspension speaker system with 10" woofer and 1" dome tweeter; crossover at 3000 Hz; 8-ohm nominal imp.; sensitivity 90-dB SPL/W/m; 21 3/8" H x 12 3/8" W x 11 3/4" D ..... \$139.95

## INFINITY

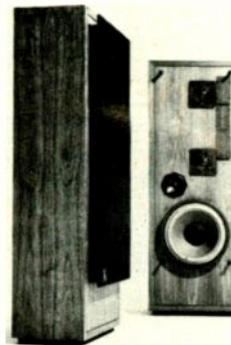
### Quantum Line Source

Four-way speaker system with 12" Infinity/Watkins dual-drive woofer (18-200 Hz), mid-bass coupler (200-600 Hz), six 1 1/2" dome mid-range drivers (600-4000 Hz), and eight electromagnetic induction tweeters (4-32 kHz); frequency response 18-32,000 Hz  $\pm$  2 dB; min. input 100 W/ch rms; max. input (tested) 500 W/ch rms; speaker may be bi-amped; 4-ohm imp.; horizontal dispersion 18-20,000 Hz  $\pm$  2 dB in 180° frontal hemisphere; contour controls for mid-bass, upper mid-range, and EMIT tweeters; rosewood or walnut finish cabinet; 66" H x 18" W x 15" D ..... \$1250.50

### Quantum 2 Speaker System

Four-way speaker system with 12" Infinity/Watkins dual-drive woofer, 4" mid-bass coupler

(transmission-line loaded), two 1 1/2" dome mid-range drivers, and three electromagnetic induction tweeters; frequency response 24-32,000



Hz  $\pm$  3 dB; crossovers at 200, 600, and 4000 Hz (variable crossover point for tweeters); min. input 45 W/ch rms; max. input 350 W/ch rms; 4-ohm imp.; horizontal dispersion -2 dB at  $\pm$  60°, 20 kHz; level controls for mid-bass coupler, mid-range, and tweeters; oiled walnut veneer finish; 49" H x 18" W x 13" D.. \$735.00

### Quantum 3 Speaker System

Four-way speaker system with 12" Infinity/Watkins dual-drive woofer, 4" mid-bass coupler (transmission-line loaded), 1 1/2" dome mid-range, and two electromagnetic induction tweeters; frequency response 28-32,000 Hz  $\pm$  3 dB; crossovers at 200, 600, and 4000 Hz; min. input 35 W/ch rms; max. input 250 W/ch rms; 4-ohm imp.; horizontal dispersion -2 dB at  $\pm$  60°, 20 kHz; level controls for mid-bass coupler, mid-range, and tweeters; oiled walnut veneer finish; 40" H x 18" W x 13" D.. \$510.00

### Quantum 4 Speaker System

Three-way speaker system with 12" Infinity/Watkins dual-drive woofer, 1 1/2" dome mid-range, and one electromagnetic induction tweeter; frequency response 35-32,000 Hz  $\pm$  3 dB; crossovers at 600 and 4000 Hz; min. input 30 W/ch rms; max. input 250 W/ch rms; 4-ohm imp.; horizontal dispersion -2 dB at  $\pm$  60°, 20 kHz; level controls for mid-range and tweeters; oiled walnut veneer finish; 36" H x 15" W x 12" D ..... \$405.00

### Infinity Column II

Three-way speaker system with two 10" woofers, 4 1/2" cone mid-range, and two piezo tweeters; frequency response 35-20,000 Hz  $\pm$  3.5 dB; crossovers at 750 and 5000 Hz (6 dB/octave); min. input 15 W rms; max. input 250 W rms; 8-ohm imp.; walnut veneer finish; 39 3/4" H x 14" W x 12 1/2" D ..... \$345.00

### Quantum 5 Speaker System

Three-way speaker system with 12" Infinity/Watkins woofer, 1 1/2" dome mid-range, and one electromagnetic induction tweeter; frequency response 38-32,000 Hz  $\pm$  3 dB; crossovers at 600 and 4000 Hz; min. input 30 W/ch rms; max. input 250 W/ch rms; 4-ohm imp.; horizontal dispersion -2 dB at  $\pm$  60°, 20 kHz; oiled walnut veneer finish; 26 1/2" H x 15" W x 12" D ..... \$335.00

### Quantum Jr. Speaker System

Three-way speaker system with 12" woofer, 1 1/2" dome mid-range, and one electromagnetic induction tweeter; frequency response 40-32,000 Hz  $\pm$  3 dB; crossovers at 600 and 4000 Hz; min. input 25 W/ch rms; max. input 200 W/ch rms; 4-ohm imp.; horizontal dispersion -2 dB at  $\pm$  60°, 20 kHz; oiled walnut veneer finish; 25" H x 14 1/2" W x 12" D ..... \$270.00

### Infinity 3000B Speaker System

Three-way speaker system with 12" woofer, 4 1/2" mid-range, and 2 1/2" tweeter; frequency response 35-20,000 Hz  $\pm$  4.5 dB; crossovers at 500 and 5000 Hz; min. input 10 W rms; max. input 125 W rms; 8-ohm imp.; 24 3/4" H x 14 1/2"

# AT LAST, EAST MEETS WEST.

Traditionally, the audiophile has had to choose between the East Coast Sound and the West Coast Sound, each with its own particular advantages and disadvantages:

The East Coast Sound is extremely accurate. The dispersion characteristics of East Coast speakers are, as a rule, excellent. Unfortunately, they usually need a lot of power to perform.

West Coast speakers are noted for their efficiency and volume. Unfortunately, accuracy isn't one of their strong suits.

## Introducing the EPI 200.

After years of research and development, the engineers at EPI have created a speaker that combines the best qualities of East and West.

With its 12-inch passive radiator, the EPI 200 has all the efficiency of the most popular West Coast speakers.

A 30-watt receiver powers it with ease.

With that power, the EPI 200 produces the kind of sound EPI is famous for: Linear Sound. A pure, rich, accurate sound from 20,000 Hz all the way down to 34 Hz.

And dispersion? In a word, the Model 200's dispersion characteristics are *superb*. Up to 15,000 Hz, the speaker's off-axis dispersion is down an average of only 3db — a performance even other East Coast speaker makers can only dream about.

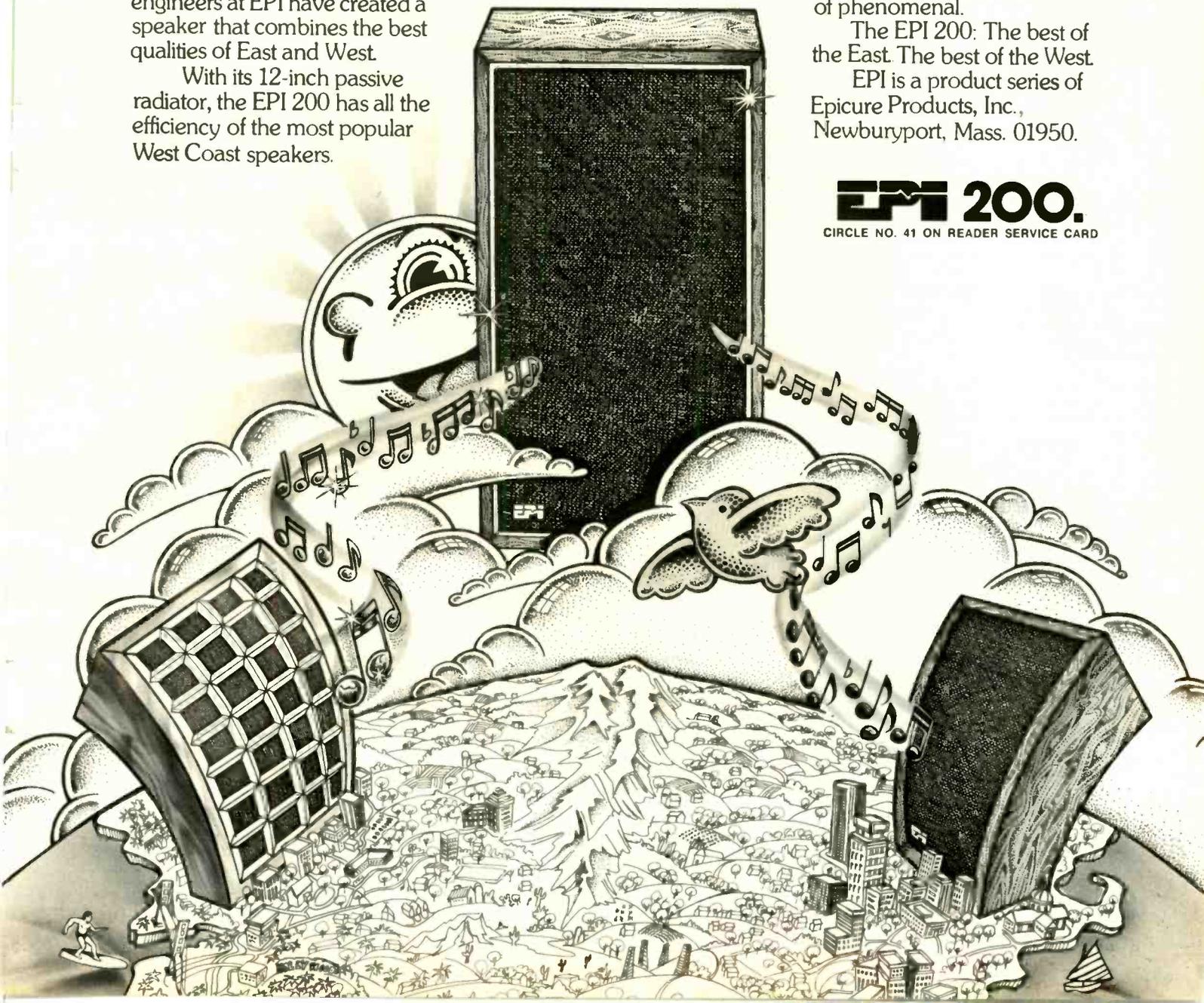
At \$400, the EPI 200 would be an exceptional value. But at under \$300, it is nothing short of phenomenal.

The EPI 200: The best of the East. The best of the West.

EPI is a product series of Epicure Products, Inc., Newburyport, Mass. 01950.

## EPI 200.

CIRCLE NO. 41 ON READER SERVICE CARD



# 10 SPEAKER SYSTEMS

W x 12" D ..... \$220.00

## Q<sub>b</sub> Speaker System

Three-way speaker system with 10" Q-woofer, 4" mid-range, and one electromagnetic induction tweeter; frequency response 42-32,000 Hz  $\pm 3$  dB; crossovers at 600 and 4000 Hz; min. input 15 W/ch rms; max. input 150 W/ch rms; 4-ohm imp.; horizontal dispersion -2 dB at  $\pm 60^\circ$ , 20 kHz; birch-grain vinyl on particle board; 25" H x 14 1/2" W x 12" D ..... \$186.00

## Q<sub>a</sub> Speaker System

Two-way speaker system with 25-cm woofer and one electromagnetic induction tweeter; frequency response 42-32,000 Hz  $\pm 3$  dB; crossover at 2.5 kHz; min. input 15 W/ch rms; max. input 150 W/ch rms; 4-ohm imp.; horizontal dispersion -2 dB at  $\pm 60^\circ$ , 20 kHz; birch-grain vinyl on particle board; 25" H x 14" W x 12" D ..... \$145.00

## INNOTECH

### D-24 Speaker System

Three-way constant width asymmetric transmission line speaker system with two 5" Bextrene woofers, 1 1/2" Mylar dome mid-range, and 3/4" cambric super dome tweeter; frequency response 25-25,000 Hz; crossovers at 3500 and 11,000 Hz; 5-ohm imp.; min. input 35 W; 36 1/2" H x 10 1/2" W x 15 3/8" D ..... \$375.00

**D-14.** Similar to D-24 but 26 1/2" H x 9 1/2" W x 15" D ..... \$250.00

## JBL

### Paragon Speaker System

Radial-reflection, dual three-way floor-standing speaker system with two 15" woofers, two mid-range compression drivers, and two UHF ring radiators; crossovers at 500 and 7000 Hz; max. input 150 W/ch rms; min. input 10 W/ch rms; 8-ohm imp.; dual mid-range and UHF level controls; special dispersion surface to recreate stereo image; oiled walnut finish; 36" H x 104" W x 24" D ..... \$3510.00

### L212 Speaker System

Four-way floor-standing speaker system consisting of three elements; two three-way speak-



er arrays with 8" woofer, 5" mid-range, and 1" hemispherical tweeter; self-powered 12" Ultrabass; crossovers at 70, 800, and 3000 Hz; max. input 200 W/ch rms; min. input 10 W/ch rms; 8-ohm imp.; mid-range and tweeter level controls behind grille; oiled walnut finish; Ultra-

bass has smoked glass top; black fabric grille; Ultrabass 19 1/8" H x 18 1/2" W x 18 1/2" D; wide-range systems 38 3/8" H x 17" W x 13" D ..... \$1740.00

### L300 Speaker System

Three-way, ducted port, floor-standing speaker system with 15" woofer, mid-range compression driver with horn/lens assembly, and 077 UHF slot radiator; crossovers at 800 and 8500 Hz (12 and 18 dB/octave); max. input 150 W rms; min. input 10 W rms; 8-ohm imp.; oiled walnut finish with smoked glass top and fabric grille (blue, black, brown, or camel); 32" H x 23" W x 22" D ..... \$960.00

### L200B Speaker System

Two-way, ducted port, floor-standing speaker system with 15" woofer and high-frequency compression driver with horn/lens assembly; crossover at 800 Hz; max. input 150 W/ch rms; min. input 10 W/ch rms; 8-ohm imp.; variable high-frequency level control; oiled walnut finish with foam grille (gray, black, blue, or burgundy); 33" H x 24" W x 21" D ..... \$753.00

### L65 Speaker System

Three-way, ducted port, floor-standing speaker system with 12" woofer, 5" mid-range, and 1.4" tweeter; crossovers at 1000 and 6500 Hz; max. input 150 W/ch rms; min. input 10 W/ch rms; 8-ohm imp.; mid-range and tweeter level controls behind grille; oiled walnut finish with smoked glass top and stretch fabric grille (blue, brown, or red); 24" H x 18" W x 13" D ..... \$462.00

### L166 Speaker System

Three-way, ducted port, bookshelf speaker system with 12" woofer, 5" mid-range, and 1" hemispherical tweeter; crossovers at 100 and 6000 Hz (12 dB/octave); max. input 150 W/ch rms; min. input 10 W/ch rms; 8-ohm imp.; mid-range and tweeter level controls with acoustically transparent APP grille; 14" H x 24" W x 13" D ..... \$399.00

### L110 Speaker System

Three-way, ducted port, bookshelf speaker system with 10" woofer, 5" mid-range, and 1" dome tweeter; crossovers at 800 and 4000 Hz; max. input 150 W/ch rms; min. input 10 W/ch rms; 8-ohm imp.; mid-range and tweeter level controls behind grille; oiled walnut finish with semi-transparent black fabric grille; 23 1/2" H x 14 1/4" W x 11 1/4" D ..... \$348.00

### L100 Speaker System

Three-way, ducted port, bookshelf speaker system with 12" woofer, 5" mid-range, and 1.4" tweeter; crossovers at 1500 and 6000 Hz; max. input 150 W/ch rms; min. input 10 W/ch rms; 8-ohm imp.; mid-range and tweeter level controls behind grille; oiled walnut finish with foam grille (orange, blue, or brown); 14" H x 24" W x 14" D ..... \$333.00

### L36 Speaker System

Three-way, ducted port, bookshelf speaker system with 10" low-frequency driver and 1.4" tweeter; crossovers at 1500 and 6000 Hz; max. input 100 W/ch rms; min. input 10 W/ch rms; 8-ohm imp.; mid-range and tweeter level controls behind grille; natural oak finish with stretch fabric grille (orange, blue, or brown); 14" H x 24" W x 14" D ..... \$225.00

### L40 Speaker System

Two-way, ducted port, bookshelf system with 10" woofer and 1" hemispherical tweeter; crossover at 1800 Hz; max. input 60 W/ch rms; min. input 10 W/ch rms; 8-ohm imp.; tweeter level control behind grille; oiled walnut finish with stretch fabric grille (brown, rust, or tan); 23" H x 15" W x 11 7/8" D ..... \$207.00

## JENNINGS RESEARCH

### Tour de Force Speaker System

Four-way speaker system with two 10" woofers,

5" mid-range, and 1" soft cloth dome tweeter; crossovers at 300, 1000, and 5000 Hz; max. input 200 W program; imp. 6 ohms; 140° dispersion; two mid-range L-pads, one high-frequency L-pad; oiled walnut finish with chocolate grille; 45.5" H x 14.75" W x 12.25" D ..... \$460.00

### Vector Five Speaker System

Four-way speaker system with 12" woofer, 12" passive radiator, 5" mid-range, and 1" soft cloth dome tweeter; crossovers at 300, 1000, and 3000 Hz; max. input 200 W program; imp. 6 ohms; 140° dispersion; two mid-range L-pads, one high-frequency L-pad; oiled walnut finish with cocoa brown grille; 31.5" H x 18" W x 15.75" D ..... \$440.00

### Contrara elan Speaker System

Four-way speaker system with two 8" woofers, 1.5" mid-range, and 1" soft cloth tweeter; crossovers at 300, 1000, and 5000 Hz; max. input 150 W; imp. 6 ohms; 140° dispersion; mid-range and high-frequency L-pads; oiled walnut finish with black grille; 33" H x 11.5" W x 11.5" D ..... \$380.00

### Vector 4 Speaker System

Three-way speaker system with 10" woofer, 10" passive radiator, 5" mid-range, and 1" soft cloth dome tweeter; crossovers at 300 and 3000 Hz; max. input 150 W program; imp. 6 ohms; 140° dispersion; mid-range and high-frequency L-pads; oiled walnut finish with chocolate or rust grille; 26" H x 14.75" W x 11.75" D .. \$300.00

### Vector Two Speaker System

Three-way speaker system with 10" woofer, 10" passive radiator, 5" mid-range, and 1" soft cloth tweeter; crossovers at 1000 and 5000 Hz; max. input 150 W; imp. 6 ohms; 140° dispersion; mid-range and high-frequency L-pads; oiled walnut finish with chocolate or rust grille; 26" H x 14.75" W x 11.75" D ..... \$260.00

### Contrara Pedestal Speaker System

Two-way speaker system with two 8" woofers and 1" soft cloth tweeter; crossover at 1750 Hz; max. input 100 W; imp. 6 ohms; 180° dispersion; oiled walnut finish with black grille; 33" H x 11.5" W x 11.5" D ..... \$250.00

### Vector One A Speaker System

Three-way speaker system with 8" woofer, 8" passive radiator, 1.5" soft dome mid-range, and 1" soft dome tweeter; crossovers at 1000 and 5000 Hz; max. input 100 W program; imp. 6 ohms; 140° dispersion; mid-range and high-frequency L-pads; oiled walnut finish with dark blue grille; 23" H x 14" W x 10.75" D .. \$230.00

### Vector Two B Speaker System

Two-way speaker system with 10" woofer, 10" passive radiator, and 1" soft cloth dome tweeter; crossover at 1750 Hz; max. input 100 W program; imp. 6 ohms; 140° dispersion; high-frequency level switch; oiled walnut finish with black grille; 24.75" H x 14.75" W x 11.56" D ... \$210.00

### Contrara Tower Speaker System

Two-way speaker system with 10" woofer and 1" soft cloth dome tweeter; crossover at 1750 Hz; max. input 100 W program; imp. 6 ohms; 140° dispersion; high-frequency level switch; oiled walnut finish with chocolate grille; 28.5" H x 11.5" W x 11.5" D ..... \$200.00

### Vector One Speaker System

Two-way speaker system with 8" woofer, 8" passive radiator, and 1" soft cloth dome tweeter; crossover at 1750 Hz; max. input 75 W program; imp. 6 ohms; 140° dispersion; high-frequency level switch; oiled walnut finish with cocoa brown or camel grille; 23" H x 14" W x 10.75" D ..... \$180.00

### Contrara Rectangle Speaker System

Two-way speaker system with 8" woofer and 1" soft cloth dome tweeter; crossover at 1750 Hz;

# WOW!

## and other comments by stereo critics about Ohm loudspeakers.

### Comments about the Ohm C2.

"Surely, all things considered, the design of the OHM C2 represents a fine achievement. With classical music its performance is adequate with something to spare. And with popular music — wow!"

*High Fidelity — Nov. 1976*

### Comments about the Ohm F.

"In our simulated live-vs-recorded test it rated A to A+. The sound began to warrant the use of such words as 'awesome'. The low bass, too, was extraordinarily clean and powerful. The Ohm F achieves state-of-the-art performance."

*Stereo Review/November 1973*

"The Ohm F's are in a class by themselves. The sound is most unusual inasmuch as it is complete, full, natural and transparent. The bass reproduction is clean and perfect."

*Hi-Fi Stereo  
(Published in Germany)  
October/1974*

"It may well be the finest speaker on the market and is certainly without a doubt among the top few."

*The Complete Buyer's Guide  
to Stereo/Hi-Fi Equipment/1977*

### Comments about the Ohm H.

"Ohm managed to get prodigious bass response out of a small box without sacrificing efficiency. The high end is handled by conventional drivers and is everything one might ask from a speaker. Dispersion is excellent and the overall sound quality is exemplary."

*The Complete Buyer's Guide  
to Stereo/Hi-Fi Equipment/1977*

### Comments about the Ohm D2.

"The OHM D2 is designed to provide the identical response as

the C2, sacrificing only the ultra-wide high frequency response of the latter."

*The Complete Buyer's Guide  
to Stereo/Hi-Fi Equipment/1977*

### Comments about the Ohm L.

"The upper mid-range and high frequencies were virtually perfect."

"In summary, the OHM L . . . is easily good enough to meet the sort of critical standards usually applied to much larger and considerably more expensive speaker systems."

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### Comments about the Ohm E.

"Let me assure you, it handles Chopin and pretty well anything else from accordion to zither with equal dexterity. For anyone looking for 'just an ordinary speaker' at a modest cost as Hi-Fi speakers go — this could be it."

*Canadian Stereo Guide/Winter  
1974*



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# 10 SPEAKER SYSTEMS

max. input 75 W program; imp. 6 ohms; 180° dispersion; oiled walnut finish with black grille; 14" H x 18" W x 10" D ..... \$135.00

## JENSEN

### LS-6 Speaker System

Incorporates 15" woofer, two 3 1/2" direct-radiating mid-ranges, and 1 1/2" Mylar dome tweeter; frequency response 20-25,000 Hz; max. input 90 W continuous; min. input 10 W continuous; tweeter and mid-range level controls; hand-rubbed walnut veneer finish; 30 3/4" H x 18 3/4" W x 16 1/4" D ..... \$289.95

### LS-5 Speaker System

Incorporates 12" woofer, two 3 1/2" direct-radiating mid-ranges, and 1 1/2" Mylar dome tweeter; frequency response 25-25,000 Hz; max. input 75 W continuous; min. input 10 W continuous; tweeter and mid-range level controls; 26" H x 15 3/4" W x 13 3/8" D ..... \$219.95

### LS-4 Speaker System

Incorporates 10" heavy duty woofer, 3 1/2" direct-radiating mid-range, and 2" direct-radiating tweeter; frequency response 27-22,000 Hz; max. input 60 W continuous; min. input 10 W continuous; tweeter level control; 24 1/2" H x 13 1/2" W x 12 1/8" D ..... \$169.95

### LS-3 Speaker System

Incorporates 10" woofer and 2" direct-radiating tweeter; frequency response 35-20,000 Hz; max. input 45 W continuous; min. input 10 W continuous; tweeter level control; 23" H x 12 7/8" W x 10 1/4" D ..... \$119.95

### LS-2 Speaker System

Incorporates 8" woofer and 2" direct-radiating tweeter; frequency response 35-20,000 Hz; max. input 40 W continuous; min. input 10 W continuous; 18 3/4" H x 11" W x 9 7/8" D . . . \$79.95

### Spectrum 550 System

Three-way speaker system with 15" Flexair woofer, two 3" cone mid-ranges in tuned isolation chambers, and 1 1/2" Sonodome tweeter; frequency response 20-25,000 Hz; crossovers at 1000 and 5000 Hz; dispersion 170 degrees; 8-ohm imp.; max. input 90 W; min. input 10 W; front-mounted mid-range and tweeter level controls; push-type binding posts; hardwood walnut molding and walnut veneers on wood products; with base 31" H x 19 1/2" W x 15 1/2" D . . . \$299.95

540. Similar but with 12" Flexair woofer; frequency response 25-25,000 Hz; max. input 75 W; 26 1/2" H x 16" W x 13 1/2" D ..... \$239.95

530. Similar but with 10" Flexair woofer, 3" cone mid-range, and 1 1/2" dome tweeter; frequency response 27-25,000 Hz; max. input 60 W; 24 1/2" H x 14" W x 12" D ..... \$189.95

520. Similar but two-way system with 10" Flexair woofer and 2" cone tweeter; crossover at 4000 Hz; frequency response 32-20,000 Hz; dispersion 160 degrees; max. input 45 W; front-mounted tweeter control; 22 1/2" H x 12 1/4" W x 10 3/4" D ..... \$129.95

## JVC

### SK-1000 Speaker System

Three-way bass reflex speaker system with 12" woofer, 5" mid-range, and 1" dome tweeter; frequency response 30-20,000 Hz; crossovers at 1000 and 8000 Hz; 8-ohm nominal imp.; max. input 150 W music; continuous input 75 W rms; sensitivity 93-dB SPL/W/m; mid-range and high-frequency level controls; walnut veneer cabinet or silver tone on wood finish; 25 1/2"

H x 15 3/4" W x 12 3/4" D ..... \$250.00

## KEF

### Cantata Speaker System

Three-way speaker system with crossovers at 250 and 3000 Hz; frequency response 35-20,000 Hz ±3 dB; max. input 150 W program; min. input 15 W; 8-ohm nominal imp.; sensitivity 8 W for 96 dB at 400 Hz and 1 m; walnut or teak finish with mokka brown grille cloth; 32.1" H x 15.4" W x 13.4" D ..... \$495.00

### Model 104aB Speaker System

Three-way speaker system with crossovers at 45 and 3000 Hz; frequency response 50-20,000 Hz ±3 dB; max. input 100 W program; min. input 15 W; 8-ohm nominal imp.; sensitivity 12.5 W for 96 dB at 400 Hz and 1 m; walnut or teak finish with black foam grille; 24.8" H x 13" W x 10.2" D ..... \$350.00  
104F. Stands for 104 aB ..... \$65.00 pr.

### Calinda Speaker System

Three-way speaker system with crossovers at 45 and 3000 Hz; frequency response 40-30,000 Hz ±3 dB; max. input 100 W program; min. input 15 W; 8-ohm nominal imp.; sensitivity 12.5 W for 96 dB at 400 Hz and 1 m; walnut or teak finish with mokka brown grille cloth; 27.5" H x 13.8" W x 11" D ..... \$295.00

### Model 103 Speaker System

Two-way speaker system with crossover at 3000 Hz; frequency response 50-20,000 Hz ±2 dB; max. input 100 W program; min. input 25 W; 8-ohm nominal imp.; sensitivity 25 W for 96 dB at 400 Hz and 1 m; walnut or teak finish with black foam grille cloth; 19.7" H x 13" W x 8.9" D ..... \$275.00

### Corelli Speaker System

Two-way speaker system with crossover at 3500 Hz; frequency response 50-30,000 Hz ±3 dB; max. input 50 W program; min. input 25 W; 8-ohm nominal imp.; sensitivity 19 W for 96 dB at 400 Hz and 1 m; walnut or teak finish with mokka brown grille cloth; 18.5" H x 11" W x 8.6" D ..... \$370.00 pr.

## KENWOOD

### Model 7 Speaker System

Four-way speaker system with 14" woofer, 4 1/8" mid-range, 1 1/2" tweeter, and 3/4" super tweeter; max. input 150 W; efficiency 94 dB; 8-ohm imp.; 0.5% dist.; dispersion 30° (0 dB), 60° (-3 dB); baffle board of beech lumber core laminated with crosswise and lengthwise oak veneer; 37" H x 18 1/2" W x 15" D ..... \$1250.00

### LS-408A Speaker System

Three-way speaker system with 12" woofer, 4 3/8" direct-radiating mid-range, and 1 3/4" tweeter; frequency response 48-20,000 Hz; max. input 160 W; min. input 50 W; mid-range and tweeter level controls on front baffle; walnut-veneered cabinet with particle board rear panel and snap-on grille; 25 3/4" H x 15" W x 12 1/2" D . . . \$250.00

LS-407A. Same as LS-408A but with 10" woofer; max. input 120 W; min. input 20 W ..... \$180.00

### LS-405A Speaker System

Two-way speaker system with 10" woofer and 1 3/4" tweeter; frequency response 58-20,000 Hz; max. input 100 W; min. input 10 W; similar to LS-408A in construction; 23 1/4" H x 12 3/4" W x 11" D ..... \$130.00

LS-403A. Similar to LS-405A but with 8" woofer; frequency response 65-20,000 Hz; max. input 80 W; min. input 10 W; 17 3/4" H x 11 3/4" W x 8 7/8" D ..... \$170.00 pr.

### LSK-200 Speaker System

Two-way air suspension speaker system with 8" woofer and 1 3/4" tweeter; frequency response 65-20,000 Hz; snap-on grille; 17 7/8" H x 11 7/8"

W x 8" D ..... \$120.00 pr.

## KING RESEARCH

### Frankmann Stereo Speaker System

Integrated three-way speaker system with eight 12" woofers, eight 8" treble drivers, and eight diffraction horn tweeters; bass drivers are mounted in a single enclosure; four 8" treble and one diffraction horn tweeter mounted in each of two satellite enclosures; frequency response 20-18,000 Hz ±4 dB; max. input 200 W rms; min. input 10 W rms; efficiency 98-dB SPL/W/m; 8-ohm imp.; crossovers at 200 and 4000 Hz; bass drivers are angularly mounted; fuse-protected; contemporary or classical style cabinets in walnut, oak, or birch wood; Early American, unstained walnut, or Mediterranean finishes; custom-built hutch to be placed on top of common bass unit available extra; bass unit 31" H x 52 1/4" W x 25 1/4" D; satellite 36" H x 10" W x 6 3/8" D ..... \$1795.00  
Unfinished birch without cabinet for custom installation ..... \$1295.00

### Mini-Frank Speaker System

Acoustic suspension three-way speaker system with four 12" woofers, two 8" treble drivers, and diffraction horn tweeter in each satellite unit; frequency response 30-18,000 Hz ±4 dB; efficiency 91-dB SPL/W/m; crossovers at 200 and 4000 Hz; 8-ohm imp.; max. input 100 W rms; min. input 10 W rms; fuse-protected; optional satellite attenuator available; bass unit 25 1/2" H x 30" W x 16" D; satellite 22" H x 9 1/2" W x 7" D ..... \$895.00

## KLEIN & HUMMEL

### 0 92 Studio Monitor Loudspeaker

Three-way speaker system (electronic crossovers) with built-in low- (120 W), mid- (60 W), and high-frequency (60 W) amplifiers; incorporates two 10" woofers, 5" mid-range, and 1" tweeter; frequency response 50-16,000 Hz ±1.5 dB (direct sound field), 100-2500 Hz ±1.5 dB and 2500-10,000 Hz declining at 3 dB/octave ±2 dB (diffuse sound field); dist. 0.5% (2nd and 3rd harmonics at 80-dB SPL, 2 m, above 100 Hz); amplifier section: input level for max. output 0 dB; input imp. 4700 ohms; requires 12 W (idle), 80 W (average), and 250 W (peak); 31.5" H x 17.3" W x 11.8" D ..... \$2690.00

### OY Monitor Speaker

Wall-mounted speaker system with two built-in 30 W rms continuous sine wave (into 4 ohms) amplifiers; incorporates woofer, cone-type mid-range, and horn-type tweeter; frequency response 40-16,000 Hz ±2 dB; crossover at 500 Hz, passive crossover for tweeter at 6000 Hz; low- and high-frequency equalizer circuits; level control; input imp. 4700 ohms (balanced and floating); walnut finish; 19" H x 12" W x 9" D . . . \$775.00

## KLH

### SCX-3A Three-Way Speaker System

Three-way speaker system with 12" Megaflex woofer, two 44-mm dome mid-ranges, 1" dome tweeter, and two DVR tweeters; frequency response 26-33,000 Hz ±2 dB; min. input 40 W/ch rms; max. input 200 W/ch rms; 8-ohm imp.; continuously variable high- and mid-frequency controls; oiled walnut cabinet with brown jersey grille cloth (removable grille); 38" H x 15" W x 13 1/2" D ..... \$500.00

### 355 Three-Way Speaker System

Three-way speaker system with 11" woofer, 1 3/4" dome mid-range, and 1" dome tweeter in a ported, Controlled Acoustic Compliance enclosure; min. input 20 W rms; max. input 120 W/ch rms; 8-ohm imp.; front-mounted infinitely variable controls; oiled walnut veneer cabinet with removable smoked glass top and grille; 35 1/2" H x 14" W x 12 3/4" D ..... \$395.00

### SCX-A Three-Way Speaker System

Three-way speaker system with 12" Megaflux woofer, 4 1/2" cone mid-range, 1" dome tweeter, and DVR tweeter; frequency response 30-30,000 Hz  $\pm 2.5$  dB; min. input 30 W/ch rms; max. input 200 W/ch rms; 8-ohm imp.; continuously variable high- and mid-frequency controls; oiled walnut cabinet with brown jersey grille cloth (removable grille); 34" H x 14" W x 12" D ..... \$335.00

### 345 Two-Way Speaker System

Two-way speaker system with 11" woofer and 1" dome tweeter in a ported, Controlled Acoustic Compliance enclosure; min. input 20 W rms max. input 70 W/ch rms; 8-ohm imp.; bottom-mounted infinitely variable controls; oiled walnut veneer cabinet with removable smoked glass top and grille; 29 1/2" H x 12" W x 11" D ..... \$295.00

### CT-38 Two-Way Speaker System

Two-way speaker system with two 8 1/2" woofers and two 2 1/2" tweeters; min. input 10 W rms; max. input 75 W/ch rms; 4-ohm imp.; hand oiled oak veneer accent panels, wrap-around cloth panels, and removable smoked glass top; 41" H x 11" W x 11" D ..... \$250.00

### 354 Three-Way Speaker System

Three-way acoustic suspension speaker system with 12" woofer, 4 1/2" mid-range, and 2 1/4" cone tweeter; frequency response 25-22,000 Hz; min. input 25 W/ch rms; max. input 175 W peak program; 8-ohm imp.; three-position mid-range and tweeter rotary switches; walnut veneer finish; removable front grille panel; 25" H x 14" W x 12 5/8" D ..... \$249.95

### 355 Two-Way Speaker System

Two-way speaker system with 10" woofer and 1" dome tweeter in a ported, Controlled Acoustic Compliance enclosure; min. input 15 W rms; max. input 60 W/ch rms; 8-ohm imp.; rear-mounted infinitely variable controls; oiled walnut veneer cabinet with removable grille and Plexiglas ends; 23" H x 12" W x 11" D ..... \$249.95

### Model 319 Speaker System

Three-way speaker system with 12" woofer, 5 1/2" mid-range, 1" hemispherical dome tweeter, and 2 1/2" ambience-modifying rear-firing tweeter; 8-ohm imp.; max. input 100 W rms; min. input 10 W rms; mid-range and tweeter level controls; removable front grille panel; 24 1/2" H x 14 1/2" W x 11 1/4" D ..... \$229.95

### CL-4 Three-Way Speaker System

Three-way speaker system with 10" Megaflux woofer, 4 1/2" cone mid-range, and 1" dome tweeter in a Controlled Acoustic Compliance enclosure; frequency response 30-22,000 Hz  $\pm 3$  dB; min. input 25 W/ch rms; max. input 200 W/ch rms; 8-ohm imp.; high-frequency and mid-range control switches; oiled walnut cabinet with brown jersey grille cloth; 26 1 3/16" H x 14 1/4" W x 12 1 3/16" D ..... \$225.00

### 364 Three-Way Speaker System

Three-way acoustic suspension speaker system with 12" woofer, 5" mid-range, and 2 1/4" cone tweeter; frequency response 30-22,000 Hz; max. input 150 W peak program; 8-ohm imp.; two-position mid-range and three-position tweeter rotary switches; walnut veneer finish; removable front grille panel; 24" H x 13" W x 12 5/8" D ..... \$199.95

### 325 Two-Way Speaker System

Two-way speaker system with 8" woofer and 1" dome tweeter in a ported, Controlled Acoustic Compliance enclosure; min. input 10 W rms; max. input 50 W/ch rms; 8-ohm imp.; oiled walnut veneer cabinet with removable grille and Plexiglas ends; 18" H x 10" W x 10" D ..... \$199.00

### 353 Three-Way Speaker System

1978 EDITION

Three-way acoustic suspension speaker system with 12" woofer, 4 1/2" mid-range, 2 1/4" cone tweeter; frequency response 25-22,000 Hz; min. input 25 W/ch rms; max. input 175 W peak program; 8-ohm imp.; three-position mid-range and tweeter rotary switches; wood-grained vinyl finish; removable front grille panel; 26" H x 14" W x 12 5/8" D ..... \$219.95

### 363 Three-Way Speaker System

Three-way acoustic suspension speaker system with 12" woofer, 5" mid-range, and 2 1/4" cone tweeter; frequency response 30-22,000 Hz; min. input 12 W/ch rms; max. input 150 W peak program; 8-ohm imp.; two-position mid-range and three-position tweeter rotary switches; wood-grained vinyl finish; removable front grille panel; 24" H x 13" W x 12 5/8" D ..... \$179.95

### 374 Three-Way Speaker System

Three-way acoustic suspension speaker system with 10" woofer, 3 7/8" mid-range, and 2 1/4" cone tweeter; frequency response 45-22,000 Hz; min. input 10 W/ch rms; max. input 125 W peak program; 8-ohm imp.; two-position toggle switch for presence control; walnut veneer finish; removable front grille panel; 24" H x 13" W x 9 5/8" D ..... \$179.95

### CL-3 Three-Way Speaker System

Three-way speaker system with 10" Megaflux woofer, 2 1/2" cone tweeter, and 2" cone tweeter in a Controlled Acoustic Compliance enclosure; frequency response 35-20,000 Hz  $\pm 3.5$  dB; min. input 20 W/ch rms; max. input 100 W/ch rms; 8-ohm imp.; high-frequency control switch; oiled walnut cabinet with brown jersey grille cloth; 25 5/8" H x 13 7/8" W x 11 1/16" D ..... \$160.00

### 373 Three-Way Speaker System

Three-way acoustic suspension speaker system with 10" woofer, 3 7/8" mid-range, and 2 1/4" cone tweeter; frequency response 45-22,000 Hz; min. input 10 W/ch rms; max. input 125 W peak

program; 8-ohm imp.; two-position toggle switch for presence control; wood-grained vinyl finish; removable front grille panel; 24" H x 13" W x 9 5/8" D ..... \$159.95

### CB-10 Two-Way Speaker System

Two-way speaker system with 10" Megaflux woofer and 2 1/2" cone tweeter in a Controlled Acoustic Compliance enclosure; frequency response 40-18,000 Hz  $\pm 4$  dB; min. input 10 W/ch rms; max. input 100 W/ch rms; 8-ohm imp.; high-frequency control switch; hand-rubbed oak veneer finish with vinyl baffle and back panel; 19 1/2" H x 14 3/4" W x 7 1/4" D ..... \$130.00

### 317 Two-Way Speaker System

Two-way acoustic suspension speaker system with 10" woofer and 2 1/4" cone tweeter; frequency response 45-18,000 Hz; min. input 10 W/ch rms; max. input 100 W peak program; 8-ohm imp.; three-position toggle switch for tweeter control; wood-grained vinyl finish; removable front grille panel; 23" H x 12" W x 9 3/4" D ..... \$129.95

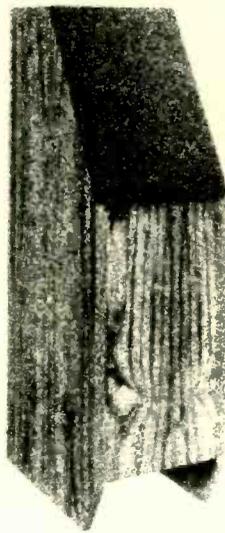
### CB-8 Two-Way Speaker System

Two-way speaker system with 8" Megaflux woofer and 2 1/2" cone tweeter in a Controlled Acoustic Compliance enclosure; frequency response 47-18,000 Hz  $\pm 4$  dB; min. input 8 W/ch rms; max. input 100 W/ch rms; 8-ohm imp.; high-frequency control switch; hand-rubbed oak veneer finish with vinyl baffle and back panel; 19 1/2" H x 11" W x 7 1/4" D ..... \$110.00

### 331 Two-Way Speaker System

Two-way speaker system with 8 1/4" woofer and 2 1/4" cone tweeter in a Controlled Acoustic Compliance enclosure; frequency response 50-18,000 Hz; min. input 8 W/ch rms; max. input 75 W peak program; 8-ohm imp.; wood-grained vinyl finish; removable front grille panel; 21" H x 12" W x 8 3/4" D ..... \$199.90 pr.

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# 10 SPEAKER SYSTEMS

## 300 Two-Way Speaker System

Two-way acoustic suspension speaker system with 8 $\frac{1}{2}$ " woofer and 2 $\frac{1}{2}$ " cone tweeter; frequency response 50-15,000 Hz; min. input 8 W/ch rms; max. input 50 W peak program; 8-ohm imp.; wood-grained vinyl finish; foam grille; 17 $\frac{1}{2}$ " H x 10 $\frac{1}{2}$ " W x 7 $\frac{1}{4}$ " D ..... \$150.00 pr.

## CB-6 Two-Way Speaker System

Two-way speaker system with 6" special woofer and 2 $\frac{1}{4}$ " cone tweeter in a Controlled Acoustic Compliance enclosure; frequency response 55-18,000 Hz  $\pm$ 4 dB; min. input 6 W/ch rms; max. input 50 W/ch rms; 8-ohm imp.; oak-grained vinyl finish; brown foam grille; 15 $\frac{1}{4}$ " H x 10 $\frac{1}{2}$ " W x 6 $\frac{1}{2}$ " D ..... \$140.00 pr.

## KLIPSCH

### Klipschorn Speaker System

Three-way speaker system with folded-type horn woofer with 15" driver and straight-axis horns for high frequencies; frequency response 35-17,000 Hz  $\pm$ 5 dB; crossovers at 400 and 6000 Hz; max. input 105 W program; 104-dB SPL at 4 ft with 1 W; 8-ohm nominal imp.; furniture finishes; 52" H x 31 $\frac{1}{4}$ " W x 28 $\frac{1}{2}$ " D ..... \$1094.00

### La Scala Speaker System

Three-way speaker system with folded-type horn woofer with 15" driver and straight-axis horns for high frequencies; frequency response 45-17,000 Hz  $\pm$ 5 dB; crossovers at 400 and 6000 Hz; max. input 105 W program; 104-dB SPL at 4 ft with 1 W; 8-ohm nominal imp.; theater black or unfinished plywood finish; 35 $\frac{1}{4}$ " H x 23 $\frac{1}{4}$ " W x 24 $\frac{1}{2}$ " D ..... \$570.00

### Belle Klipsch Speaker System

Three-way speaker system with folded-type horn woofer with 15" driver and straight-axis horns for high frequencies; frequency response 45-17,000 Hz  $\pm$ 5 dB; crossovers at 400 and 6000 Hz; max. input 105 W program; 104-dB SPL at 4 ft with 1 W; 8-ohm nominal imp.; walnut finish with choice of grille cloth; 35 $\frac{1}{8}$ " H x 30 $\frac{1}{8}$ " W x 18 $\frac{3}{4}$ " D ..... \$880.00

### Cornwall Speaker System

Three-way speaker system with direct-radiating ducted-port woofer with 15" driver and straight-axis horns for high frequencies; frequency response 38-17,000 Hz  $\pm$ 5 dB; crossovers at 600 and 6000 Hz; max. input 105 W program; 98.5-dB SPL at 4 ft with 1 W; 8-ohm nominal imp.; furniture finishes; 35 $\frac{1}{4}$ " H x 25 $\frac{1}{2}$ " W x 15 $\frac{1}{2}$ " D ..... \$554.00

### Heresy Speaker System

Three-way speaker system with direct-radiating 12" woofer and straight-axis horns for high frequencies; frequency response 50-17,000 Hz  $\pm$ 5 dB; crossovers at 700 and 6000 Hz; max. input 105 W program; 96-dB SPL at 4 ft with 1 W; 8-ohm nominal imp.; furniture finishes; 21 $\frac{3}{8}$ " H x 15 $\frac{1}{2}$ " W x 13 $\frac{1}{8}$ " D ..... \$313.00

## KOSS

### CM/1030 Speaker System

Incorporates 10" woofer, two 4 $\frac{1}{2}$ " mid-range drivers, 1" acoustically loaded dome treble tweeter, and 1" acoustically loaded dome tweeter; frequency response 26-20,000 Hz +0/-6 dB; max. input 200 W; min. input 15 W; 8-ohm imp.; 39" H x 16 $\frac{1}{2}$ " W x 14 $\frac{1}{2}$ " D ..... \$385.00

### CM/1020 Speaker System

Incorporates 10" woofer, 4 $\frac{1}{2}$ " mid-range driver, and 1" acoustically loaded dome tweeter; frequency response 28.5-19,000 Hz +0/-6 dB;

max. input 150 W; min. input 15 W; 8-ohm imp.; 33" H x 15 $\frac{1}{2}$ " W x 13 $\frac{3}{4}$ " D ..... \$285.00

### CM/1010 Speaker System

Incorporates 10" acoustic filter, 8" woofer, and 1" acoustically loaded dome tweeter; frequency response 31-18,500 Hz +0/-6 dB (mass in); max. input 100 W; min. input 15 W; 8-ohm imp.; 28" H x 15 $\frac{1}{2}$ " W x 11" D ..... \$185.00

## KUSTOM ACOUSTICS

### Titan Labyrinth

Four-way speaker system with two 12" woofers, two 5" mid-ranges, 1 $\frac{3}{4}$ " mid-tweeter, and 1" dome super tweeter; frequency response 24-22,000 Hz  $\pm$ 2.5 dB; crossovers at 550, 3500, and 9000 Hz (12 dB/octave); max. input 300 W rms; min. input 10 W rms; 4-ohm nominal imp.; sensitivity 94-dB SPL/W/m; mid-ranges and tweeters adjustable via four super-duty front-mounted T-pads; walnut veneer finish; 54" H x 30" W x 18" D ..... \$1295.00

### AE1 Titan

Four-way speaker system with four 12" woofers, two 5" mid-ranges, two 1 $\frac{3}{4}$ " mid-tweeters, and two 1" dome super tweeters; frequency response 28-22,000 Hz  $\pm$ 3 dB; crossovers at 550, 3500, and 9000 Hz (12 dB/octave); max. input 300 W rms; min. input 15 W rms; nominal imp. 2-8 ohms; sensitivity 99-dB SPL/W/m; mid-ranges and tweeters adjustable via three super-duty front-mounted T-pads; walnut veneer finish; 54" H x 30" W x 18" D ..... \$999.00

### TAS Challenger

Four-way speaker system with two 12" woofers, two 5" mid-ranges, 1 $\frac{3}{4}$ " mid-tweeter, and 1" dome super tweeter; frequency response 28-22,000 Hz  $\pm$ 3 dB; crossovers at 550, 3500, and 9000 Hz (6 dB/octave); max. input 250 W rms; min. input 10 W rms; nominal imp. 4-6 ohms; sensitivity 96-dB SPL/W/m; mid-ranges and tweeters adjustable via super-duty front-mounted T-pads; walnut veneer finish; 41" H x 23" W x 16" D ..... \$649.00

### Labyrinth

Four-way speaker system with 12" woofer, 5" mid-range, 1 $\frac{3}{4}$ " mid-tweeter, and 1" dome super tweeter; frequency response 19-22,000 Hz  $\pm$ 2.5 dB; crossovers at 750, 3500, and 9000 Hz (12 dB/octave); max. input 150 W rms; min. input 15 W rms; 8-ohm nominal imp.; sensitivity 91-dB SPL/W/m; mid-range and tweeter adjustable via super-duty front-mounted T-pads; walnut veneer finish; 51" H x 16" W x 16" D ..... \$599.00

### Tower Mark IV

Four-way speaker system with 12" woofer, 5" mid-range, 1 $\frac{3}{4}$ " mid-tweeter, and 1" dome super tweeter; frequency response 29-22,000 Hz  $\pm$ 3 dB; crossovers at 750, 3500, and 9000 Hz (12 dB/octave); max. input 250 W rms; min. input 15 W rms; 8-ohm nominal imp.; sensitivity 93-dB SPL/W/m; mid-range and tweeters adjustable via three super-duty front-mounted T-pads; walnut veneer finish; 40" H x 16" W x 13" D ..... \$449.00

### Regency

Three-way speaker system with 12" woofer, 5" mid-range, and 1" dome super tweeter; frequency response 30-22,000 Hz  $\pm$ 3 dB; crossovers at 550 and 3500 Hz (12 dB/octave); max. input 200 W rms; min. input 15 W rms; 8-ohm nominal imp.; sensitivity 92-dB SPL/W/m; mid-range and tweeter adjustable via super-duty front-mounted T-pads; walnut veneer finish; 26" H x 16" W x 13" D ..... \$289.00

### Signal

Three-way speaker system with 12" woofer, 1 $\frac{3}{4}$ " mid-tweeter, and 1" dome super tweeter; frequency response 34-22,000 Hz  $\pm$ 3 dB; crossovers at 950 and 5000 Hz (6 dB/octave); max. input 250 W rms; min. input 10 W rms; 8-ohm nominal imp.; sensitivity 95-dB SPL/

W/m; tweeters adjustable via super-duty front-mounted T-pads; walnut veneer finish; 26" H x 16" W x 13" D ..... \$179.00  
With finished bottom ..... \$199.00

## LAFAYETTE

### Criterion 3003 Speaker System

Two-way speaker system with 12" woofer and 7.65 in<sup>2</sup> "Corona Field" Heil air-motion transformer; frequency response 30-25,000 Hz; crossover at 2000 Hz; efficiency 91-dB SPL/W/m; max. input 180 W music power; 6-ohm nominal imp.; horizontal dispersion 120°; vertical dispersion 50°; brilliance level control ..... \$299.95

### Criterion 3002 Speaker System

Two-way speaker system with 10" woofer and 7.65 in<sup>2</sup> "Corona Field" Heil air-motion transformer; frequency response 35-25,000 Hz; crossover at 2000 Hz; efficiency 90-dB SPL/W/m; max. input 160 W music power; 6-ohm nominal imp.; horizontal dispersion 120°; vertical dispersion 50°; brilliance level control ..... \$229.95

### Criterion 3001 Speaker System

Two-way speaker system with 10" woofer and 7.65 in<sup>2</sup> "Corona Field" Heil air-motion transformer; frequency response 40-25,000 Hz; crossover at 2000 Hz; efficiency 89-dB SPL/W/m; max. input 150 W music power; 6-ohm nominal imp.; horizontal dispersion 120°; vertical dispersion 50°; brilliance level control ..... \$199.95

### Criterion 2002+ Speaker System

Three-way speaker system with 12" woofer, 2" x 6" exponential mid-range horn, and two phenolic ring tweeters; frequency response 20-20,000 Hz; crossovers at 2000 and 4000 Hz; 8-ohm imp.; max. input 90 W program; high-frequency and compensation/equalization controls; fuse-protected; walnut veneer finish with cafe brown polyester knit sculptured grille; 26" H x 16" W x 14" D ..... \$149.95

### Criterion 2001+ Speaker System

Three-way speaker system with 10" woofer, 2" x 6" exponential mid-range horn, and wide-dispersion phenolic ring tweeter; frequency response 30-20,000 Hz; crossovers at 2000 and 4000 Hz; 8-ohm imp.; max. input 70 W program; high-frequency and compensation/equalization controls; fuse protected; walnut vinyl-covered cabinet with cafe brown polyester knit sculptured grille; 25" H x 13 $\frac{1}{2}$ " W x 14" D ..... \$99.95

### Criterion 310 Speaker System

Three-way acoustic suspension speaker system with 10" woofer, 5" mid-range, and 3" tweeter; frequency response 30-22,000 Hz; 8-ohm imp.; max. input 50 W program; mid-range and tweeter level controls; walnut finished vinyl enclosure with brown removable formed front grille; 22 $\frac{3}{4}$ " H x 12 $\frac{3}{4}$ " W x 9 $\frac{7}{8}$ " D ..... \$79.95

### Criterion 38 Speaker System

Three-way acoustic suspension speaker system with 8" woofer, 3" mid-range, and 3" tweeter; frequency response 40-20,000 Hz; 8-ohm imp.; max. input 40 W program; crossovers at 3000 and 5000 Hz; walnut finished vinyl enclosure with brown removable formed front grille ..... \$49.95

### Criterion 28 Speaker System

Two-way acoustic suspension speaker system with 8" woofer and 3" tweeter; frequency response 45-20,000 Hz; crossover at 2500 Hz; 8-ohm imp.; max. input 30 W program; walnut finished vinyl enclosure with brown removable formed front grille; 18" H x 11 $\frac{1}{8}$ " W x 6 $\frac{1}{2}$ " D ..... \$39.95

### Criterion 26A Speaker System

Two-way acoustic suspension speaker system with 6" dual cone woofer and 2 $\frac{1}{4}$ " tweeter; fre-

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# 10 SPEAKER SYSTEMS

quency response 50-18,000 Hz; crossover at 7000 Hz; 8-ohm imp.; max. input 20 W program; walnut finished vinyl enclosure; 10" H x 16" W x 6" D ..... \$29.95

## LEAK

### 2075 Speaker System

Four-way speaker system with 15" woofer, lower and upper mid-range drivers, and dome tweeter; upper cabinet houses three speakers and has 360° dispersion; frequency response 35-28,000 Hz; crossovers at 450, 2000, and 5000 Hz; max. input 100 W (DIN); cabinet is of selected woods and hand-matched veneers ..... \$875.00

### 2060 Speaker System

Three-way acoustic suspension speaker system with 300-mm woofer, mid-range driver, and dome tweeter; frequency response 45-25,000 Hz ±4 dB; crossovers at 600 and 3500 Hz; 8-ohm imp.; max. input 50 W rms; min. input 20 W rms; teak- or walnut-veneer finish with black grille cloth and aluminum grille surround ..... \$325.00

**2030.** Similar to 2060 but bass reflex enclosure; frequency response 60-25,000 Hz ±4 dB; crossovers at 700 and 3500 Hz; max. input 35 W (DIN); teak- or walnut-veneer finishes ..... \$195.00

**2020.** Similar to 2060 but is two-way speaker system; frequency response 75-20,000 Hz ±4 dB; crossover at 3500 Hz; max. 25 W (DIN); teak- or walnut-veneer finishes ..... \$135.00

### 3080 Speaker System

Three-way speaker system with 250-mm woofer, 170-mm mid-range, and 19-mm dome tweeter; crossovers at 450 and 3500 Hz; max. input 80 W (DIN 45573); recommended amp power 12-90 W rms; sensitivity 85-dB SPL/W/m; 8-ohm imp.; 33 1/4" H x 13 1/2" W x 17 1/4" D ..... \$470.00

### 3050 Speaker System

Two-way speaker system with 170-mm woofer and 19-mm dome tweeter; crossover at 4000 Hz; max. input 50 W (DIN 45573); recommended amp power 12-60 W rms; sensitivity 85-dB SPL/W/m; 8-ohm imp.; 25 1/4" H x 11 1/4" W x 13 3/4" D ..... \$300.00

### 3030 Speaker System

Two-way speaker system with two 130-mm bass/mid-ranges and 19-mm dome tweeter; crossover at 4000 Hz; max. input 35 W (DIN 45573); recommended amp power 12-35 W rms; sensitivity 85-dB SPL/W/m; 8-ohm imp.; 20 1/2" H x 9 3/4" W x 11" D ..... \$200.00

### 3020 Speaker System

Two-way speaker system with 130-mm bass/mid-range and 19-mm dome tweeter; crossover at 3000 Hz; max. input 25 W (DIN 45573); recommended amp power 12-25 W rms; sensitivity 85 dB SPL/W/m; 8-ohm imp.; 17 1/4" H x 8 1/4" W x 10 1/2" D ..... \$150.00

## LENTEK

### Monitor Speaker

Four-way transmission-line speaker; frequency response 30-20,000 Hz; crossovers at 400, 3500, and 10,000 Hz; max. input 50 W; 8-ohm imp.; system resonance 30 Hz; teak finish over 19-mm chipboard with removable Declon grille; 42.25" H x 15.98" W x 15.48" D .. \$1150.00 pr.

## MAGITRAN

### DS-60 Sound Panel System

Features patented poly-planar multi-channel flat diaphragm reproducer; frequency response

40-20,000 Hz; max. input 60 W music power, 28 W continuous rms power; min. input 5 W; 4-8 ohms imp.; supplied with floor-standing and wall-mounting hardware; snap-on/snap-off grilles available in 13 decorative motifs; 29 3/8" H x 23 3/8" W x 2" D ..... \$99.95  
**DS-60P.** Additional grilles ..... \$23.95

## MAGNEPAN

### Magneplanar MG-III Speaker System

Two-way speaker system with 520 in<sup>2</sup> woofer and 85 in<sup>2</sup> tweeter; frequency response 45-16,000 Hz ±4 dB; min. input 30 W; crossover at 1600 Hz; 8-ohm imp.; solid oak finish with black or white grille cloth; 72" H x 24 1/2" W x 1 3/4" D ..... \$895.00 pr.

### Magneplanar MG-II Speaker System

Two-way speaker system with 449 in<sup>2</sup> woofer and 85 in<sup>2</sup> tweeter; frequency response 50-16,000 Hz ±4 dB; min. input 30 W; crossover at 2400 Hz; 6-ohm imp.; solid oak finish with black or white grille cloth; 72" H x 22" W x 1 3/4" D ..... \$695.00 pr.

### Magneplanar MG-I Speaker System

Two-way speaker system with 354 in<sup>2</sup> woofer and 67 in<sup>2</sup> tweeter; frequency response 50-16,000 Hz ±4 dB; min. input 30 W; crossover at 2400 Hz; 5-ohm imp.; solid oak finish with black or white grille cloth; 59 1/2" H x 22" W x 1 3/4" D ..... \$495.00 pr.

## MARANTZ

### Design Series

#### 940 Speaker System

Four-way floor-standing speaker system with 12" woofer, 5" mid-range, 1 1/2" wide-dispersion



dome tweeter, and 1" dome super tweeter; frequency response 30-22,000 Hz ±3 dB; max. input 150 W program; hand-rubbed oiled walnut finish cabinet with inlaid veneers; 45 3/4" H x 15" W x 12" D ..... \$399.95

#### 930 Speaker System

Four-way bookshelf speaker system with 12" woofer, 5" mid-range, 1 1/2" wide-dispersion dome tweeter, and 1" dome super tweeter; frequency response 33-22,000 Hz ±3 dB; max. input 150 W program; hand-rubbed oiled walnut finish cabinet with inlaid veneers; 28 1/4" H x 15" W x 12" D ..... \$339.95

#### 920 Speaker System

Three-way floor-standing speaker system with 12" woofer, 5" mid-range, and 1 1/2" wide-dispersion dome tweeter; frequency response 33-20,000 Hz ±3 dB; max. input 125 W program; hand-rubbed oiled walnut finish cabinet with inlaid veneers; 38 1/4" H x 15" W x 12" D ..... \$339.95

#### 900 Speaker System

Three-way speaker system with 10" woofer, 5" mid-range, and 1 1/2" wide-dispersion dome tweeter; frequency response 35-20,000 Hz ±3 dB; max. input 100 W program; hand-rubbed oiled walnut finish cabinet with inlaid veneers; 28 1/4" H x 15" W x 12" D ..... \$279.95

## Mk II Series

### 7MkII Speaker System

Three-way bookshelf speaker system with 12" woofer, 5" mid-range, and 1 3/4" tweeter; frequency response 35-20,000 Hz; max. input 100 W program; 25 1/2" H x 14 3/4" W x 11 1/2" D ..... \$159.95

### 6MkII Speaker System

Two-way bookshelf speaker system with 10" woofer and 1 3/4" tweeter; frequency response 35-20,000 Hz; max. input 75 W program; 25 1/2" H x 14 3/4" W x 11 1/2" D ..... \$119.95

### 5MkII Speaker System

Two-way bookshelf speaker system with 8" woofer and 1 3/4" tweeter; frequency response 40-20,000 Hz; max. input 40 W program; 23" H x 12" W x 9 1/2" D ..... \$99.95

### 4MkII Speaker System

Two-way bookshelf speaker system with 8" woofer and 1 3/4" tweeter; frequency response 40-18,000 Hz; max. input 40 W program; 19 1/8" H x 11 1/4" W x 8 1/4" D ..... \$69.95

## MARJEN

### Marjen III Speaker System

Incorporates two 8" woofers and eight 2" tweeters; frequency response 40-20,000 Hz ±3 dB; max. input 150 W rms; min. input 15 W rms; dispersion 90 degrees; 8-ohm imp.; three-way pushbutton high-frequency level control; spring-loaded terminal connectors; select solid and veneered pine finish with acoustically transparent knit or woven cloth grille in black or natural; 36" H x 12" W x 12" D ..... \$249.00

### Marjen II Speaker System

Incorporates 8" woofer and four 2" tweeters; frequency response 44-20,000 Hz ±3 dB; max. input 100 W rms; min. input 12 W rms; dispersion 130 degrees; 8-ohm imp.; three-way pushbutton high-frequency level control; spring-loaded terminal connectors; select solid and veneered pine finish with acoustically transparent knit or woven cloth grille in black or natural; 11" H x 19" W x 10 1/2" D ..... \$169.00

### Marjen I Speaker System

Incorporates 8" woofer and two 2" tweeters; frequency response 44-20,000 Hz ±3 dB; max. input 100 W rms; min. input 12 W rms; dispersion 90 degrees; 8-ohm imp.; three-way pushbutton high-frequency level control; spring-loaded terminal connectors; select solid and veneered pine finish with acoustically transparent knit or woven cloth grille in black or natural; 22" H x 10 1/2" W x 10 1/2" D ..... \$139.00

### Marjen RFS-1 Speaker System

Incorporates 8" woofer and 2" tweeter; frequency response 44-20,000 Hz ±3 dB; max. input 100 W rms; min. input 12 W rms; dispersion 90 degrees; 8-ohm imp.; spring-loaded terminal connectors; simulated pine laminate finish with acoustically transparent black foam grille; 21" H x 12" W x 9" D ..... \$100.00

## MARTIN

### 840 Sound Tower Column System

Three-way sealed enclosure columnar system with 8" woofers, two 4" mid-ranges, and four compression horn tweeters; frequency response 28-20,000 Hz; max. input 100 W dynamic; mid-range and tweeter level controls; walnut Formica finish ..... \$419.00

### Magnificat Speaker System

Three-way, floor-standing, sealed infinite baffle speaker system with two 12" woofers, 6" mid-range, and four compression horn tweeters; frequency response 28-20,000 Hz; max. input 80 W dynamic; 4-ohm imp.; mid-range and tweeter level controls; walnut Formica finish; 37 1/2" H x 18" W x 14 3/4" D ..... \$409.00

### Gamma 1500 Speaker System

Three-way floor-standing speaker system with

15" woofer, 5" curvilinear mid-range, and four compression horn tweeters; frequency response 28-20,000 Hz; crossovers at 350 and 5000 Hz (12 dB/octave); max. input 80 W; 8-ohm imp.; 28" H x 18" W x 14" D . . . . \$389.00

**Gamma 412 Speaker System**

Three-way, sealed infinite baffle speaker system with 12" woofer, 3 1/2" mid-range, and wide-dispersion 2 1/2" tweeter; frequency response 30-18,000 Hz; 8-ohm imp.; mid-range and tweeter level controls; walnut Formica finish; 14 1/2" H x 25 1/2" W x 12" D . . . . . \$249.00

**Super Spectrum Speaker System**

Three-way, sealed infinite baffle speaker system with two 8" woofers, 3 1/2" mid-range, and wide-dispersion 2 1/2" tweeter; frequency response 30-18,000 Hz; max. input 60 W dynamic; 4-ohm imp.; mid-range and tweeter level controls; walnut Formica finish; 12 1/2" H x 21 1/2" W x 10" D . . . . . \$219.00

**Gamma 310 Speaker System**

Three-way, sealed infinite baffle speaker system with 10" woofer, 3 1/2" mid-range, and wide-dispersion 2 1/2" tweeter; frequency response 35-18,000 Hz; max. input 50 W dynamic; 8-ohm imp.; mid-range and tweeter level controls; walnut Formica finish; 12 1/2" H x 21 1/2" W x 10" D . . . . . \$169.00

**Gamma 208 Speaker System**

Two-way sealed enclosure speaker system with 8" woofer and wide-dispersion 3" tweeter; 8-ohm imp.; tweeter level control; walnut Formica finish; 10 1/2" H x 18" W x 9 1/2" D . . . . . \$89.00

**MATRECS**

**Classic Series**

**MA-254 Speaker System**

Four-way speaker system with 15" woofer, 10" tuned slave, two 4 1/2" mid-ranges, 1 1/4" direct-radiating tweeter, and 3 1/4" square dual-horn piezoelectric tweeter; frequency response 25-24,000 Hz; max. input 65 W rms; min. input 20 W; 8-ohm imp.; push-terminal connections; authentic walnut cabinet with simulated slate top and soft-black sculptured foam grille (deep brown optional); 28" H x 28" W x 13" D . . . . \$254.95

**MA-224 Speaker System**

Three-way speaker system with 12" woofer, 4 1/2" mid-range, and two 3 1/4" square dual-horn piezoelectric tweeters; frequency response 30-24,000 Hz; max. input 50 W rms; min. input 10 W; 8-ohm imp.; push-terminal connections; authentic walnut cabinet with simulated slate top and soft-black sculptured foam grille (deep brown optional); 28" H x 19 1/2" W x 13" D . . . . . \$211.95

**MA-203 Speaker System**

Three-way speaker system with 10" woofer, 4 1/2" mid-range, and 2 1/2" broad-range tweeter; frequency response 30-22,000 Hz; max. input 40 W rms; min. input 5 W; 8-ohm imp.; push-terminal connections; authentic walnut cabinet with simulated slate top and soft-black sculptured foam grille (deep brown optional); 26" H x 15" W x 11" D . . . . . \$165.95

**Sensation Series**

**MA-123 Speaker System**

Three-way speaker system with 12" woofer, 4 1/2" mid-range, and 1 1/4" direct-radiating tweeter; frequency response 35-22,000 Hz; max. input 45 W rms; min. input 8 W; 8-ohm imp.; connections are screw terminals with RCA jacks; walnut-vinyl finish cabinet with brown knit grille cloth (beige, orange, and black optional); 24" H x 15" W x 10" D . . . . . \$89.95

**MA-102 Speaker System**

Two-way speaker system with 10" woofer and 2 1/4" broad-range tweeter; frequency response 35-22,000 Hz; max. input 35 W rms; min. input

5 W; 8-ohm imp.; connections are screw terminals with RCA jacks; walnut-vinyl finish cabinet with brown knit grille cloth (beige, orange, and black optional); 20" H x 12" W x 10" D . . \$65.95

**MA-82 Speaker System**

Two-way speaker system with 8" woofer and 3" broad-range tweeter; frequency response 35-22,000 Hz; max. input 25 W rms; min. input 2 W; 8-ohm imp.; connections are screw terminals with RCA jacks; walnut-vinyl finish cabinet with brown knit grille cloth (beige, orange, and black optional); 18 1/2" H x 11 1/4" W x 7 1/2" D . . . . . \$44.95

**MA-62 Speaker System**

Two-way speaker system with 6" woofer and 3" broad-range tweeter; frequency response 40-20,000 Hz; max. input 20 W rms; min. input 1 W; 8-ohm imp.; connections are screw terminals with RCA jacks; walnut-vinyl finish cabinet with brown grille cloth (beige, orange, and black optional); 17" H x 10" W x 6" D . . . . . \$36.95

**MESA**

**Mesa 120 Speaker System**

Four-way speaker system with 12" bass reciprocator, 8" woofer, 5" mid-range with mini-enclosure, and 3" Prismadome tweeter; frequency response 38-19,000 Hz ±3 dB; crossovers at 65, 600, and 4000 Hz; max. input 120 W rms; min. input 15 W rms; 11-position double VICOM control with ±5-dB range; 8-ohm imp.; built-in circuit breaker with automatic reset; bass reciprocator vented cabinet with walnut vinyl finish; 27 1/2" H x 16" W x 13" D . . . . . \$259.00

**Mesa 80 Speaker System**

Four-way speaker system with 10" bass reciprocator, 8" woofer, 5" mid-range and mini-enclosure, and 3" Prismadome tweeter; frequency



response 42-19,000 Hz ±3 dB; crossovers at 65, 600, and 4000 Hz; max. input 80 W rms; min. input 15 W rms; 8-ohm imp.; 11-position double VICOM control with ±5-dB range; built-in circuit breaker with automatic reset; bass reciprocator vented cabinet with walnut vinyl finish; 25 1/4" H x 14 1/4" W x 11 1/4" D . . \$209.00

**Mesa 60 Speaker System**

Three-way speaker system with 8" bass reciprocator, 6 1/2" woofer, and 3" Prismadome tweeter; frequency response 45-19,000 Hz ±3 dB; crossovers at 80 and 2500 Hz; max. input 60 W rms; min. input 15 W rms; 8-ohm imp.; 11-position VICOM control with ±5-dB range; built-in circuit breaker with automatic reset; bass reciprocator vented cabinet with walnut vinyl finish; 23" H x 12 1/2" W x 10 1/4" D . . . . \$159.00

**Mesa 40 Speaker System**

Three-way speaker system with 6 1/2" bass reciprocator, 6 1/2" woofer, and 3" Prismadome tweeter; frequency response 50-19,000 Hz ±3 dB; crossovers at 85 and 3000 Hz; max. input 40 W rms; min. input 15 W rms; 8-ohm imp.; 11-position VICOM control with ±5-dB range; built-in circuit breaker with automatic reset; bass reciprocator vented cabinet with walnut vinyl finish; 21" H x 11 1/2" W x 9 1/4" D . . . . \$109.00

# Where they're going to. We're coming from.

"The extraordinary ability of the human ear to perceive and analyze sound cannot yet be simulated by existing electronic measuring devices. Therefore, we must rely upon the ear's evaluation of our design efforts."

That's where we're coming from.

The enjoyment of music begins and ends with the ear. Naturally, we depend on our laboratory measurements for numerous points of information. But, in the final analysis, the judgement of the ear takes priority.

Combining this important principle with data collected from "environmental" measurements, we have put accuracy back in the listening room resulting in a marked advance in music appreciation.

Marjen RFS-1



**Psycho-Acoustic Research**

Marjen Company, Inc.

P.O. Box 251, South Kent, Ct. 06705

Designer's note: The speakers shown above have a suggested list price of under \$100.00 each. Though modestly priced, they well represent the acoustic and economic advantages of the psychoacoustic research done at Marjen.

CIRCLE NO. 61 ON READER SERVICE CARD

# 10 SPEAKER SYSTEMS

## METEOR

### Super Sound Panel

Three-way speaker system with six heavy duty bass units, four mid/high-range units, and horn tweeter; max. input 300 W rms, 600 W peak; two fuses and electronic tweeter protector; solid oak side panels with black grille cloth; 39" H x 51" W x 6 1/2" D ..... \$895.00

### The Heco D100 Speaker

Three-way sealed speaker system with 14" woofer, four 4 1/2" mid/high-range units, and 2 1/2" x 1 3/4" tweeter; rear-panel terminals for

bi-amplification of low and mid/high sections; max. input 80 W rms, 200 W music power; 4-ohm imp.; max. SPL 115 dB at 3 ft; crossovers at 800 and 2000 Hz; 31 1/2" H x 15 3/4" W ..... \$499.00

### Sound Panel

Incorporates six 12" woofers and one integral diffraction horn driver; max. input 150 W rms, 300 W peak music power; 110-dB SPL with 7.5 W input (1 m, 400 Hz); two-fuse protection (either switchable into circuit); yellow side panels with black cloth grille; 36" H x 48" W x 6" D ..... \$475.00

## MICRO/ACOUSTICS

### FRM-1A Speaker System

Two-way speaker system with 10" acoustic-suspension woofer and five 1 1/4" drivers mounted

in pentaxial array; dispersion 180 degrees horizontal and vertical at 10 kHz; frequency response 32-18,000 Hz ±4 dB; RC crossover at 1700 Hz; power requirement 18 W rms min., 70 W rms max.; 8-ohm imp.; high-frequency level control and dispersion control; walnut vinyl enclosure; choice of brown, black, blue, sandalwood, or orange grille cloth; 23 3/4" H x 15 3/4" W x 12 3/4" D ..... \$210.00

### FRM-2A Speaker System

Two-way speaker system with 10" acoustic-suspension woofer and three 1 1/4" tweeters mounted in triaxial array; dispersion 160 degrees; frequency response 40-16,000 Hz ±4 dB; RC crossover at 1750 Hz; power requirement 10 W rms min., 60 W rms max.; 8-ohm imp.; high-frequency level control; walnut vinyl enclosure; brown foam grille; 25 3/4" H x 15 3/4" W x 12 3/4" D ..... \$167.00

### FRM-3 Speaker System

Two-way speaker system with 8" woofer and one 1 1/2" tweeter pivoted on vari-axis dispersion assembly; dispersion 140 degrees; frequency response 45-15,000 Hz ±4 dB; LC crossover at 2500 Hz; power requirement 7 W rms min., 50 W rms max.; 8-ohm imp.; mechanical vari-axis control; walnut vinyl enclosure; brown foam grille; 13" H x 22" W x 9 1/2" D (packaged in matched pairs) ..... \$132.00 ea.

### Microstatic Speaker System

One-way miniature closed system with four tweeters; frequency response 3500-18,000 Hz ±2 dB; dispersion 180 degrees; has range selector and level control; 4- to 8-ohm imp.; max. input power 60 W rms; for use with low- and medium-efficiency systems to augment treble; walnut; 3 3/4" H x 9 1/8" W x 5 1/4" D .... \$127.00

## MICROTOWER

### MT3 Speaker System

Incorporates organ-pipe low-frequency driver, four 4 1/2" mid-ranges, and two linear air-spring tweeters; frequency response 35-18,000 Hz ±3 dB; max. input 80 W rms; min. input 30 W rms ..... \$199.95

### Bookshelf II Speaker System

Three-way bookshelf speaker system with organ-pipe low-frequency driver, two 4 1/2" long-excursion low/mid-range drivers, and 1" air-spring inverted dome tweeter; frequency response 40-20,000 Hz; crossovers at 200 and 1800 Hz; 8-ohm imp.; max. input 50 W rms; min. input 12 W rms; 24" H x 14" W x 10" D ... \$149.95

### MT2 Speaker System

Three-way speaker system with organ-pipe low-frequency driver, two 4 1/2" mid-ranges, and two 1" wide-dispersion tweeters mounted on all sides for uniform response; crossovers at 200 and 3000 Hz; 8-ohm imp.; max. input 70 W; min. input 15 W; tweeter level control; walnut finish cabinet; 34" H x 8 1/2" W x 8 1/2" D ..... \$129.95

### Microtower I-B

Floor-standing speaker system with organ-pipe low-frequency driver and two 4 1/2" long-excursion drivers; frequency response 45-15,000 Hz; 8-ohm imp.; max. input 50 W; min. input 5 W; wood-grain vinyl finish with full-length grille panels on front and back; 34" H x 8 1/2" W x 8 1/2" D ..... \$109.95

## MIIDA

### SP3151 Four-Way Speaker System

Four-way system with 12" woofer, 4 1/2" cone mid-range, and two 2 3/4" tweeters; frequency response 25-22,000 Hz ±5 dB; crossovers at 750-1800, 7500, and 12,000 Hz; 8-ohm imp.; power handling capability 65 W rms; wood-grained vinyl laminated on particle board; 27" H x 17" W x 10 3/4" D ..... \$359.90 pr. SP3141. Similar to SP3151 except three-way

# Now... Visual Sound Control!

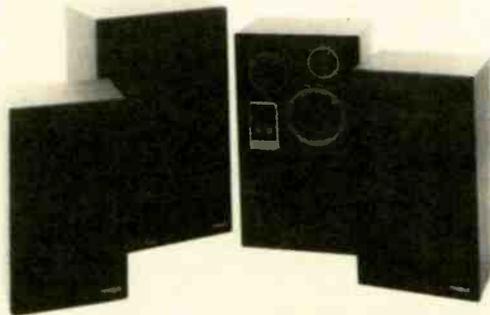
Mesa's VICOM (visual comparator) control lets you tailor the sound exactly the way you want it, through a full 10 db range, and lets you clearly see the adjustment you select at a glance — even from across the room.

Each VICOM control features a special 11-position detented switch permitting selection of 11 different intensities.

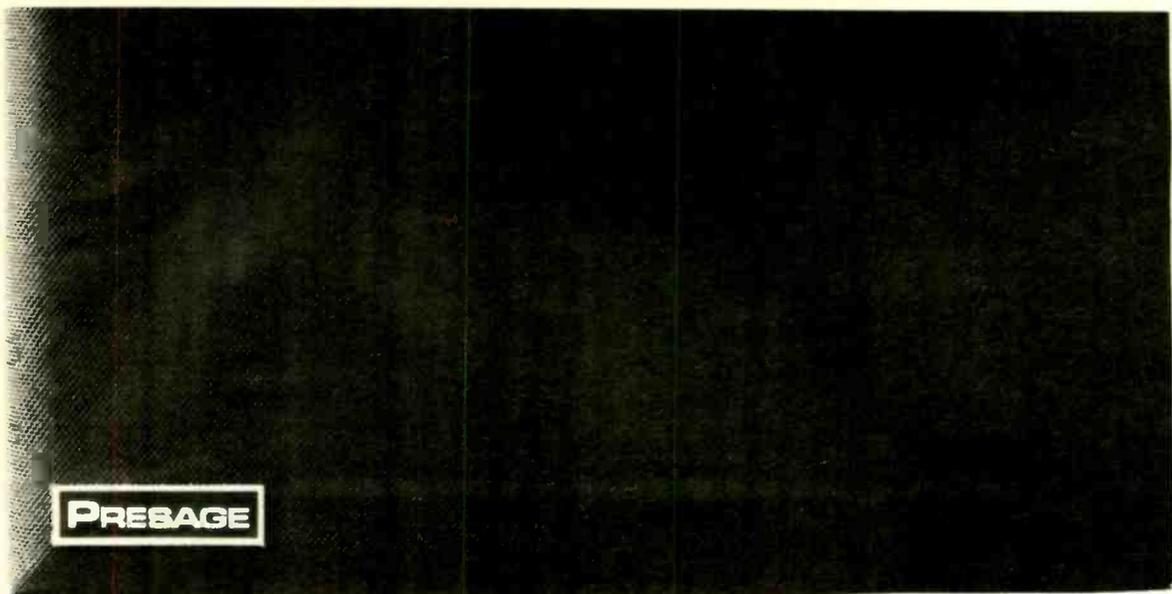
Mesa's Bass Reciprocator Speaker Systems combine the bass reflex (vented) and acoustic suspension design disciplines. Mesa incorporates the best features of both concepts—the high efficiency of bass reflex, and the low frequency response characteristics of acoustic suspension—and blends them into a compact, efficient speaker that provides the ultimate in super-deep, rich, bass.

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CIRCLE NO. 63 ON READER SERVICE CARD



# The Presage 5:

## Close your eyes and you'll know it's a lot bigger.

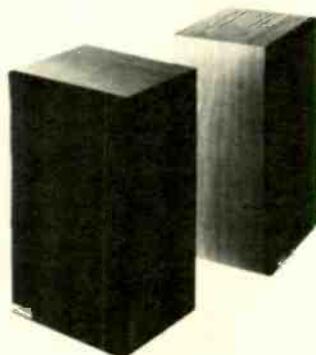
When it comes to sound, no speaker engineers think bigger than ours, but cabinet size is another matter. At Presage we design and build loudspeakers exclusively for home listening. And unlike the recording studio, homes are laid out to accommodate people, not emphasize a battery of sound reproduction equipment.

While the Presage 5 offers the performance of larger and far more costly speaker systems, its enclosure is restricted to under two cubic feet in volume. This makes it suitable for bookshelf mounting and allows it to remain unobtrusive, even in relatively small rooms where placement of floor-standing models would be impractical.

To match the sound quality of floor-standing speakers with so small an enclosure, we developed a passive radiating device called Piston Bass (patent pending). Listen to the Presage 5 perform, especially in the extremely low bass region where large cabinets are normally required for wide dynamic range and fine transient response. Lean back, close your eyes and you'll be convinced you're listening to a much larger, far more expensive loudspeaker system.

Presage. Our name rhymes with message. And we do have a lot to tell you about high fidelity loudspeakers.

Presage Corporation. Dumaine Avenue, Nashua, New Hampshire 03060. (603) 883-7828.



**PRESAGE**

**Listen.**

# 10 SPEAKER SYSTEMS

system with single 2 3/4" tweeter; crossovers at 750-1800, and 7500 Hz; frequency response 30-20,000 Hz; power handling capability 65 W rms; 24" H x 15" W x 10 3/4" D .... \$299.90 pr. **SP3131**. Similar to SP3141 except two-way system with 10" woofer and 2 3/4" tweeter; frequency response 40-18,000 Hz; crossover at 1800 Hz; power handling capability 20 W rms; 18 3/8" H x 11 1/2" W x 9 7/8" D ..... \$199.90 pr.

## MITSUBISHI

### DS-303 Four-Way Speaker System

Four-way acoustic air suspension speaker system with 12" cone woofer, 2 1/2" dome mid-range, 1" dome tweeter, and 3/8" dome super tweeter; frequency response 30-35,000 Hz; max. input 100 W peak; 6-ohm imp.; crossovers at 600, 5000, and 10,000 Hz; 24 1/2" H x 14 1/4" W x 13" D ..... \$580.00

### DS-50CS Three-Way Speaker System

Three-way bass reflex speaker system with 12" cone woofer, 5" cone mid-range, and 1" dome tweeter; frequency response 25-20,000 Hz; max. input 80 W peak; 6-ohm imp.; crossovers at 600 and 5000 Hz; 35 1/2" H x 16 3/4" W x 15 3/8" D ..... \$440.00

### DS-40CS Two-Way Speaker System

Two-way bass reflex speaker system with 12" cone woofer and 2" cone tweeter; frequency response 30-20,000 Hz; max. input 25 W rated, 80 W peak; 8-ohm imp.; tweeter level control; crossover at 1500 Hz; rosewood finish cabinet; 33" H x 15 1/2" W x 16" D ..... \$360.00

### DS-35B Three-Way Speaker System

Three-way hermetically sealed speaker system with 12" cone woofer, 4" cone mid-range, and 1" dome tweeter; frequency response 35-20,000 Hz; max. input 25 W rated, 80 W peak; 6-ohm imp.; crossovers at 800 and 5000 Hz; mid-range and tweeter level controls; walnut finish cabinet; 25 3/4" H x 14 3/8" W x 12 3/8" D ..... \$270.00

### DS-28B Three-Way Speaker System

Three-way hermetically sealed speaker system with 10" cone woofer, 4" cone mid-range, and 1 1/4" dome tweeter; frequency response 40-20,000 Hz; max. input 50 W peak; 8-ohm imp.; crossovers at 800 and 5000 Hz; 23 1/4" H x 13 3/8" W x 10 3/8" D ..... \$200.00

### DS-25B Two-Way Speaker System

Two-way hermetically sealed speaker system with 10" cone woofer and 2" cone tweeter; frequency response 45-20,000 Hz; max. input 20 W rated, 60 W peak; 6-ohm imp.; crossover at 1500 Hz; tweeter level control; walnut-grained vinyl finish 22 1/2" H x 12 3/8" W x 11 1/2" D ..... \$150.00

## MORDAUNT-SHORT

### Pageant Series 2

Two-way speaker system with 140-mm woofer/mid-range and 25-mm wide-dispersion synthetic dome tweeter; frequency response 65-20,000 Hz  $\pm$  3 dB; crossover at 3500 Hz; 8-ohm imp.; sensitivity 6.5 V rms (5.3 W) for 96 db at 1 m; max. input 20 V rms (50 W) program; recommended amp power 15-100 W/ch; mid-range and tweeter level controls; teak or walnut veneer finish (others optional) with deep brown woven fabric grille; 21" H x 13" W x 9" D ..... \$199.00

### Festival Series 2

Two-way speaker system with 140-mm woofer/mid-range and 25-mm wide-dispersion synthetic dome tweeter; frequency response 75-

20,000 Hz  $\pm$  3 dB; crossover at 3500 Hz; 8-ohm imp.; sensitivity 6.7 V rms (5.6 W) for 96 dB at 1 m; max. input 19 V rms (45 W) program; recommended amp power 10-90 W/ch; teak or walnut veneer finish with deep brown woven fabric grille; 17 7/8" H x 11" W x 7 1/4" D ..... \$139.00

### Carnival Series 2

Two-way speaker system with 140-mm woofer/mid-range and 68-mm paper cone tweeter; frequency response 85-17,000 Hz  $\pm$  3 dB; crossover at 3500 Hz; 8-ohm imp.; sensitivity 6.9 V rms (6 W) for 96 dB at 1 m; max. input 18 V rms (40 W) program; recommended amp power 10-80 W/ch; teak or walnut finish with deep brown woven fabric grille; 15 3/4" H x 9 1/2" W x 5 3/4" D ..... \$99.00

## NAKAMICHI

### Slimline Reference Monitor

Two-way phase-inverter bass reflex speaker system with 8" woofer and 1 1/2" tweeter; frequency response 50-16,000 Hz  $\pm$  5 dB; has mechanical crossover; sensitivity 94-dB SPL/W/m; max. input 60 W; 16-ohm imp.; walnut-finished cabinet; 36 3/4" H x 16 3/8" W x 12 3/4" D ..... \$400.00

## NORDMENDE

### 804 Three-Way Speaker System

Three-way system with two 8 1/2" woofers, 4 1/4" midrange, 1" dome tweeter; frequency response 30-20,000 Hz; sensitivity 3.5 W (96 dB/1 m); imp. 4-8 ohms; power handling capacity 90 W; walnut-veneer on wood; 25 1/2" H x 13 7/8" W x 8 3/4" D ..... \$199.00

### 803 Three-Way Speaker System

Three-way system with 8 1/2" woofer, 3 1/2" mid-range, 1 1/2" dome tweeter; frequency response 35-20,000 Hz; sensitivity 2.8 W (96 dB/1 m); imp. 4-8 ohms; power handling capacity 50 W; walnut-veneer on wood; 17 3/8" H x 11" W x 9" D ..... \$124.95

### 802 Two-Way Speaker System

Two-way system with 8 1/2" woofer and 1 1/2" dome tweeter; frequency response 40-20,000 Hz; sensitivity 2.5 W (96 dB/1 m); power handling capacity 35 W; imp. 4-8 ohms; walnut-veneer on wood; 17 3/8" H x 11" W x 6 3/4" D ..... \$99.95

## OHM ACOUSTICS

### Model F Speaker System

Floor-standing speaker system with 12" diameter Walsh radiator; frequency response 37-19,000 Hz  $\pm$  4 dB; max. input 150 W continuous; min. input 56 W rms continuous; 4/3.7-ohm imp.; oiled walnut cabinet; 44" H x 17 3/4" W x 17 3/4" D (tapers to 13" W x 13" D at top) ..... \$600.00

### Model H Speaker System

Floor-standing speaker system with 8" woofer, 2" mid-range, and 1" dome tweeter; frequency response 32-20,000 Hz  $\pm$  4 dB; min. input 32 W rms; imp. 20 to 8/6 ohms; continuously variable tweeter level control; 3/4" stock oiled walnut finish; 26" H x 15" W x 10 3/4" D ..... \$325.00

### Model C2 Speaker System

Three-way speaker system with 10" woofer, 2" tweeter, and 1" super tweeter; frequency response 37-20,000 Hz  $\pm$  4 dB; crossovers at 1700 and 5000 Hz; min. input 13 W rms; 8/6-ohm imp.; three-position tweeter level control switch; oiled walnut finish on 3/4" stock with black Formica back; 25" H x 14" W x 9 3/4" D ..... \$250.00

### Model D2 Speaker System

Two-way speaker system with 10" woofer and 2" tweeter; frequency response 37-19,000 Hz  $\pm$  4 dB; crossover at 1700 Hz; min. input 12 W rms; 8/6-ohm imp.; three-position tweeter level control switch; oiled walnut finish on 3/4" stock;

25" H x 14" W x 9 3/4" D ..... \$200.00

### Model L Speaker System

Three-way speaker system with 8" woofer, 2" low tweeter, and 2" high tweeter; frequency response 42-20,000 Hz  $\pm$  4 dB; crossovers at 1700 and 10,000 Hz; 8/4-ohm nominal imp.; three-step attenuator; 8 W rms for 100-dB SPL at 3 ft; oiled walnut finish on 3/4" stock; 20" H x 12" W x 10" D ..... \$150.00

### Model E Speaker System

Two-way speaker system with 8" woofer and 2" tweeter; crossover at 1700 Hz; frequency response 65-19,000 Hz  $\pm$  4 dB; min. input 29 W rms; continuously variable tweeter level control; walnut-grained vinyl finish on 3/8" stock; 21 1/2" H x 11 1/2" W x 7 1/4" D ..... \$100.00

## ONKYO

### Model 240 Speaker System

Three-way acoustic suspension speaker system with 15" woofer, 4" cone mid-range, and 1" titanium dome tweeter; frequency response 35-20,000 Hz; rated input 50 W; max. input 100 W; 8-ohm imp.; recommended amp power 20-100 W/ch; crossovers at 700 and 4500 Hz; mid-range and tweeter level controls; sensitivity 93 dB/W/m; rosewood-grained vinyl finish; 27" H x 16 1/2" W x 13" D ..... \$250.00

### Model 160 Speaker System

Two-way acoustic suspension speaker system with 12" woofer and 2 3/4" cone tweeter; frequency response 35-20,000 Hz; rated input 40 W; max. input 80 W; 8-ohm imp.; recommended amp power 15-80 W/ch; crossover at 2000 Hz; tweeter level control; sensitivity 91 dB/W/m; rosewood-grained vinyl finish; 22" H x 13 1/2" W x 12 1/2" D ..... \$165.00

## OPTONICA

### CP-5151 Speaker System

Three-way speaker system with 12" woofer, 2" dome mid-range, and ribbon tweeter; frequency response 40-50,000 Hz; max. input 90 W; min. input 20 W; 8-ohm imp.; mid-range and tweeter level controls; individual speaker terminals allow multi-amping; 29.5" H x 15.8" W x 13.4" D ..... \$399.95

### CP-2121 Speaker System

Two-way speaker system with 10" woofer, 10" passive radiator, and 3" tweeter; frequency response 40-20,000 Hz; max. input 35 W; min. input 10 W; 8-ohm imp.; 28.7" H x 14.5" W x 12.1" D ..... \$169.95

## PANASONIC

### SB-100 Speaker System

Two-way speaker system with 10" woofer, 10" passive radiator, and 3" tweeter; crossover at 3500 Hz; max. input 60 W; 8-ohm imp.; simulated wood cabinet ..... \$379.95 pr.

### SB-1600 Speaker System

Two-way speaker system with 10" woofer, 10" passive radiator, and 2 1/4" tweeter; crossover at 5000 Hz; max. input 40 W; 8-ohm imp.; simulated wood cabinet ..... \$199.95 pr.

### SB-1100 Speaker System

Two-way speaker system with 8" woofer, 8" passive radiator, and 2 1/4" tweeter; crossover at 5000 Hz; max. input 30 W; 8-ohm imp.; simulated wood cabinet ..... \$159.95 pr.

### SB-250R Speaker System

Two-way speaker system with 6 1/2" woofer, 6 1/2" passive radiator, and 2" tweeter; crossover at 8000 Hz; max. input 20 W; 8-ohm imp.; simulated wood cabinet ..... \$69.95 pr.

### SB-200R Speaker System

Incorporates 6 1/2" full-range speaker with whizzer cone and 6 1/2" passive radiator; max. input 12 W; 8-ohm imp.; simulated wood ..... \$59.95 pr.

## PHASE LINEAR

### Model III Speaker System

Four-way four-piece speaker system with two sub-bass drivers, four bass drivers, four mid-ranges, and 10 tweeters; frequency response 24-22,000 Hz  $\pm 3$  dB; max. input 350 W/ch rms; min. input 100 W/ch rms; 6-ohm nominal imp.; fuse protection; electronic motion control module; has bass, mid-range, and tweeter trim controls and spatial imaging control; input imp. 22,000 ohms; output imp. less than 600 ohms; max. output 8 V rms; noise 100  $\mu$ V; 0.1% dist.; 18 1/2" H x 22" W x 22" D (commode), 63" H x 24" W x 5" D (panels) ..... \$1299.95

## PHILIPS

### RH 545 Speaker System

Motional feedback speaker system with three built-in amplifiers; 12" woofer powered by 50-W amp (0.2% THD), 2" dome mid-range powered by 35-W amp (0.2% THD), and 1" dome tweeter powered by 15-W amp (0.2% THD); frequency response 20-20,000 Hz; 4-ohm imp.; crossovers at 500 and 3000 Hz; input sensitivity 1-23 V variable; 25 1/2" H x 17" W x 12 1/2" D. \$1199.95

### RH 544 Speaker System

Motional feedback speaker system with two built-in amplifiers; 8" woofer powered by 40-W amp (0.2% THD) and 2" dome mid-range and wide-dispersion tweeter powered by 20-W amp (0.2% THD); frequency response 35-20,000 Hz; 8-ohm imp.; crossovers at 500 and 4000 Hz; input sensitivity 1-20 V variable; 15 3/8" H x 11 1/4" W x 8 1/2" D ..... \$379.95

### AH477 Speaker System

Three-way speaker system with 12" woofer, 2" dome mid-range, and 1" dome tweeter; frequency response 32-20,000 Hz; 8-ohm imp.; crossovers at 1500 and 5500 Hz; max. input 80 W rms; recommended input 20 W/ch; mid-range and tweeter level controls; oiled walnut veneer finish with removable black grille; 27 1/8" H x 15 3/8" W x 14 1/32" D ..... \$299.95

### AH476 Speaker System

Three-way speaker system with 10" woofer, 2" dome mid-range, and 1" dome tweeter; frequency response 35-20,000 Hz; 8-ohm imp.; crossovers at 1500 and 5500 Hz; max. input 60 W rms; recommended input 20 W/ch; mid-range level control; oiled walnut finish with removable black grille; 26" H x 13 3/4" W x 11 3/32" D ..... \$199.95

### AH475 Speaker System

Two-way speaker system with 8" woofer and 1" dome tweeter; frequency response 40-20,000 Hz; 8-ohm imp.; crossover at 3500 Hz; max. input 40 W rms; recommended input 10 W/ch; walnut-grain vinyl finish with removable black grille; 23 3/4" H x 13 3/4" W x 11" D ..... \$109.95

## PIONEER

### HPM-200 Speaker System

Five-way acoustic suspension speaker system with two 10" woofers, 2 1/2" soft-dome mid-range, molecular film tweeter, and molecular film super tweeter; frequency response 25-25,000 Hz; crossovers at 100, 700, 2000, and 5000 Hz; 6-ohm nominal imp.; sensitivity 89 dB-SPL/W/m; max. input 200 W; 32" H x 29" W x 19" D ..... \$550.00

### HPM-150 Speaker System

Four-way bass reflex speaker system with 15 3/4" woofer, 4" cone mid-range, 1 3/4" cone tweeter, and omnidirectional horn-loaded high polymer film super tweeter; frequency response 25-40,000 Hz; crossovers at 750, 2600, and 8500 Hz; 6.3-ohm imp.; sensitivity 92.5 dB/W/m; nominal input 125 W; min. input 10 W; simulated grain finish; 38 2/32" H x 17 1/16" W x

17 1/16" D ..... \$500.00

### HPM-100 Speaker System

Four-way bass reflex speaker system with 12" woofer, 4" cone mid-range, 1 3/4" cone tweeter, and high polymer molecular film super tweeter; frequency response 30-25,000 Hz; crossovers at 1200, 4000, and 12,000 Hz; 8-ohm imp.; sensitivity 92.5 dB/W/m; max. input 100 W; 26 3/8" H x 15 3/8" W x 15 1/2" D ..... \$300.00

### HPM-60 Speaker System

Four-way bass reflex speaker system with 10" woofer, 4" cone mid-range, 1 3/4" cone tweeter, and high polymer molecular film super tweeter; frequency response 35-25,000 Hz; crossovers at 1200, 4000, and 12,000 Hz; 8-ohm imp.; sensitivity 92.5 dB/W/m; max. input 60 W; 24" H x 13 2/32" W x 12 3/8" D ..... \$225.00

### HPM-40 Speaker System

Three-way bass reflex speaker system with 10" woofer, 1 3/4" cone tweeter, and high polymer molecular film super tweeter; frequency response 35-25,000 Hz; 8-ohm imp.; sensitivity 91 dB/W/m; max. input 40 W; 22 1/16" H x 12 1/2" W x 12 1/2" D ..... \$150.00

### CS-63DX Speaker System

Sealed four-way floor-standing speaker system with 15" woofer, two 5" mid-range drivers, horn tweeter, and two super tweeters; frequency response 20-22,000 Hz; 8-ohm imp.; max. input 80 W dynamic; mid-range and tweeter controls; oiled walnut finish; 28 3/8" H x 18 7/8" W x 13 1/16" D ..... \$300.00

### CS-99A Speaker System

Sealed five-way floor-standing speaker system with 15" woofer, 4" mid-range, multi-cellular horn tweeter, and two 1/2" dome super tweeters; frequency response 25-22,000 Hz; 8-ohm imp.; sensitivity 97 dB/W/m; max. input 100 W; mid-range and tweeter controls; walnut finish; 24 1/16" H x 16 1/2" W x 11 1/32" D ..... \$250.00

### CS-700G Speaker System

Sealed three-way floor-standing speaker system with 12" woofer, 4 3/4" mid-range, and multi-cellular tweeter; frequency response 35-20,000 Hz; crossovers at 500 and 5000 Hz; 8-ohm imp.; max. input 60 W dynamic; sensitivity 95 dB/W/m; front-panel mid-range and tweeter controls; individual speaker connections for Pioneer's multi-amp system; walnut finish; 26" H x 15" W x 12 3/4" D ..... \$200.00

### CS-500G Speaker System

Sealed three-way bookshelf speaker system with 10" woofer, 5" mid-range, and 3" tweeter; frequency response 35-20,000 Hz; crossovers at 700 and 8000 Hz; 8-ohm imp.; max. input 50 W dynamic; tweeter control; walnut finish; 22 1/2" H x 12 3/4" W x 12 3/4" D ..... \$150.00

### CS-66G Speaker System

Sealed three-way bookshelf speaker system with 10" woofer, 6 1/2" mid-range, and 3" cone tweeter; frequency response 35-20,000 Hz; 8-ohm imp.; max. input 40 W dynamic; sensitivity 92.5 dB/W/m; tweeter control; 12 1/4" H x 22" W x 11 1/2" D ..... \$125.00

### Project 100A Speaker System

Three-way bass reflex speaker system with 10" woofer, 2" soft-dome mid-range, and 2" cone tweeter; frequency response 40-20,000 Hz; crossovers at 700 and 6000 Hz; sensitivity 91.5 dB/W/m; max. input 60 W; 23" H x 13" W x 10 1/2" D ..... \$125.00

### Project 60A Speaker System

Two-way bass reflex speaker system with 8" cone woofer and 1 3/4" cone tweeter; frequency response 50-20,000 Hz; crossover at 3000 Hz;

8-ohm imp.; max. input 20 W; 18 1/2" H x 10 3/4" W x 8 1/2" D ..... \$80.00

## POLK AUDIO

### Ten Speaker System

Three-way floor-standing speaker system with 10" sub-bass radiator, two 6 1/2" bass/mid-ranges, and 1" soft-dome tweeter; frequency response 32-20,500 Hz  $\pm 2$  dB; crossovers at 60 and 3000 Hz; 6-ohm imp.; max. input 100 W; min. input 10 W rms; walnut or rosewood wood-grained finish; 28" H x 16" W x 11 1/2" D ..... \$199.95

### 7A Speaker System

Three-way speaker system with 10" sub-bass radiator, 6 1/2" bass/mid-range, and 1" soft-dome tweeter; frequency response 36-20,500 Hz  $\pm 2$  dB; crossovers at 60 and 3000 Hz; 8-ohm imp.; max. input 50 W; min. input 10 W rms; walnut or rosewood wood-grained finish; 24" H x 14" W x 9 1/4" D ..... \$139.95  
Five. Similar to 7A but with 8" sub-bass radiator; 21 1/2" H x 10 1/2" W x 8 7/8" D ..... \$99.95

### Mini-Monitor Speaker System

Designed for limited space applications; 4 1/2" fluid-coupled woofer, 4 1/2" bass/mid-range, and 1" soft-dome tweeter; 6 1/2" H x 15" W x 5" D ..... \$79.95

## PRESAGE

### Model Four Speaker System

Three-way speaker system with 10" woofer, 4 1/2" mid-range, and 3 1/2" high-frequency driver unit with 1" dome radiator; crossovers at 470 and 3500 Hz; max. input 150 W continuous program; 8-ohm imp.; has mid-range and tweeter level controls; five-way binding post connectors; walnut veneer finish; 42" H x 15" W x 15 1/2" D ..... \$599.95

### Model Five Speaker System

Three-way speaker system with 10" "Piston Bass" passive radiator, 8" woofer, 4 1/2" mid-range, and 1" soft-dome tweeter; frequency response 30-20,000 Hz; crossovers at 470 and 3500 Hz; max. input 150 W rms; min. input 10 W rms; continuously variable mid-range and treble controls; five-way binding post connectors; oak veneer finish; 26" H x 15" W x 12 1/2" D ..... \$349.95

### Model Nine Speaker System

Two-way speaker system with 10" long-excursion woofer and 3 1/2" high-frequency unit with 1" soft-dome tweeter; frequency response 35-19,000 Hz  $\pm 3$  dB; crossover at 1450 Hz; 8-ohm imp.; max. input 100 W rms; min. input 25 W rms; has bass-boost switch and three-position tweeter control; natural oak or walnut finish; 25" H x 14" W x 11" D ..... \$199.95

### Model Fifteen Speaker System

Two-way speaker system with 8" woofer and 2" phenolic-ring tweeter; frequency response 60-19,000 Hz  $\pm 4$  dB; crossover at 1300 Hz; 8-ohm imp.; min. input 10 W rms; oak or walnut finish cabinet; 21 1/2" H x 11 1/2" W x 8 1/2" D ..... \$129.95  
Same with walnut-grained vinyl finish ..... \$109.95

## REALISTIC

### Mach One Speaker System

Three-way floor-standing speaker system with woofer, multi-cell mid-range horn, and high-compliance tweeter horn; frequency response 20-25,000 Hz; 8-ohm imp.; LC crossover network; genuine walnut veneer cabinet with acoustically transparent grille cloth; 28 3/8" H x 17 3/8" W x 12" D ..... \$199.95

### Optimus T-100 Tower

Tower speaker system with two 8" woofers and 3" tweeter; frequency response 55-18,000 Hz  $\pm 3$  dB; crossover at 3500 Hz; max. input 75 W peak program; treble adjustment control;

# 10 SPEAKER SYSTEMS

phono jack and screw terminal connections; oiled walnut veneer cabinet; 35 1/2" H x 13" W x 12 1/2" D ..... \$149.95

## Optimus-10 Speaker System

Sealed acoustic suspension speaker system with 8" woofer, 10" drone, and 3 1/4" dome tweeter; frequency response 42-20,000 Hz ±3 dB; max. input 75 W peak program; 8-ohm imp.; brilliance control; phono jack and screw terminal connections; walnut veneer enclosure with removable grille; 25" H x 15 3/8" W x 10 3/4" D ..... \$139.95

## Nova 7B Speaker System

Sealed two-way bookshelf speaker system with 10" woofer and two 3 1/2" tweeters; frequency response 20-20,000 Hz; max. input 60 W rms; 8-ohm imp.; oiled walnut finish; 12 1/2" H x 22 1/8" W x 11" D ..... \$119.95

## Optimus 5B Speaker System

Sealed two-way floor-standing speaker system with 12" woofer, two mid-range drivers, and 3" tweeter; frequency response 20-20,000 Hz; 8-ohm imp.; mid-range and tweeter controls; oiled walnut finish; 25" H x 14" W x 11 1/2" D ..... \$119.95

## Optimus-21 Speaker System

Sealed acoustic suspension speaker system with 10" woofer and two wide-range 3" tweeters with aluminum voice coils; max. input 70 W peak program; 8-ohm imp.; adjustable treble response; phono jack and screw terminal connections; oiled walnut veneer cabinet with removable grille; 22 1/4" H x 12 3/4" W x 11 1/4" D ..... \$99.95

## MC-1500 Speaker System

Two-way speaker system with 8" acoustic suspension woofer and 3" high-compliance tweeter; frequency response 40-20,000 Hz; 8-ohm imp.; phono jack and screw terminal connections; walnut veneer enclosure with removable waffle grille; 23 3/8" H x 13 3/4" W x 8 1/2" D ..... \$79.95

## RECTILINEAR

### 7a Four-Way Speaker System

Four-way speaker system with 12" woofer, 5" upper bass/mid-range driver, two 1 1/2" upper mid-range/tweeter domes, and two 1" super tweeter polycarbonate domes; frequency response 32-20,000 Hz ±2 dB; min. input 30 W rms; max. input 350 W rms; 6-ohm imp.; crossovers at 200, 1800, and 10,000 Hz; binding post connectors; walnut veneer finish; 35" H x 18" W x 12" D ..... \$449.00

### 5a Four-Way Speaker System

Four-way speaker system with 12" woofer, 5" upper bass/mid-range driver, 1 1/2" upper mid-range/tweeter Mylar dome, 1" super tweeter polycarbonate dome; frequency response 32-20,000 Hz ±2 dB; min. input 30 W rms; max. input 250 W rms; 6-ohm imp.; crossovers at 200, 1800, and 10,000 Hz; binding post connectors; walnut veneer finish; 25" H x 15" W x 14 1/2" D ..... \$349.00  
Base ..... \$69.00 pr.

### IIIb Four-Way Speaker System

Four-way tube-vented bass reflex speaker system with 12" woofer, 5" mid-range, two 2 1/2" tweeters, and two 2" tweeters; frequency response 32-18,500 Hz ±2 dB; min. input 30 W rms; max. input 100 W rms; 8-ohm imp.; crossovers at 400, 5000, and 11,000 Hz; binding post connectors; walnut veneer finish; 34 1/2" H x 16 1/4" W x 11 3/4" D ..... \$329.00

## 4 Three-Way Speaker System

Three-way acoustic suspension speaker system with 10" woofer, 1 1/4" cambric mid-range dome, 1" cambric super tweeter dome; frequency response 35-20,000 ±3 dB; min. input 25 W rms; max. input 150 W rms; 6-ohm imp.; crossovers at 2000 and 10,000 Hz; binding post connectors; walnut veneer finish; 23 1/2" H x 13" W x 12" D ..... \$219.00

## Mini-2 Two-Way Speaker System

Two-way acoustic suspension speaker system with 8" woofer and 3 1/2" shallow profile cone tweeter; frequency response 60-19,000 Hz ±4 dB; min. input 15 W rms; max. input 75 W rms; 8-ohm imp.; crossover at 1800 Hz; binding post connectors; 17 1/2" H x 10 1/2" W x 9" D ..... \$179.00 pr.

## RICHARD ALLAN

### RA828LP Three-Way Speaker System

Three-way speaker system incorporating two 8" Bextrene cone units and 3/4" dome tweeter; frequency response 30-20,000 Hz ±3 dB; crossovers at 250 and 3500 Hz; imp. 5-20 ohms; max. input 45 W rms; six-position (1-dB steps) bass/mid-range and treble controls; sensitivity 30 W pink noise for 96 dB at 1 meter (mid-range control in position 2); teak or walnut finish cabinet; 31" H x 15" W x 12" D ..... \$436.45

### Charisma Three-Way Speaker System

Three-way speaker system with 12" woofer, 8" mid-range, and 1" dome tweeter; frequency response 40-20,000 Hz ±3 dB; crossovers at 1.2 and 6 kHz; 8-ohm imp.; max. input 45 W peak program, 30 W rms, 10 W rms (tweeter); sensitivity 3 W pink noise for 96 dB at 1 meter; teak or walnut finish cabinet; 27" H x 15 1/2" W x 12" D ..... \$322.50

### RA82L Two-Way Speaker System

Two-way, high-power labyrinth speaker system with 8" woofer and 3/4" wide-dispersion dome tweeter; frequency response 40-20,000 Hz ±3 dB; crossover at 3500 Hz, 10-element crossover network with two filters and compensating network, high-pass 24 dB/octave, low-pass 18 dB/octave; imp. 5-20 ohms; max. input 70 W program, 45 W rms; six-position level control in 1-dB steps; teak or walnut finish cabinet; 28 1/2" H x 13 1/2" W x 11 1/2" D ..... \$279.50

### Maramba Two-Way Speaker System

Two-way speaker system with 8" bass/mid-range driver, 8" auxiliary bass radiator (parasitically driven by 8" bass/mid-range), and 1" dome tweeter; frequency response 80-20,000 Hz ±3 dB; crossovers at 6 kHz (electric) and 120 Hz (acoustic); 8-ohm imp.; max. input 30 W peak program, 20 W rms, 10 W rms (tweeter); sensitivity 5 W pink noise for 96 dB at 1 meter; teak or walnut finish cabinet; 23 1/2" H x 9 3/4" W x 8 3/8" D ..... \$182.75

### RA8 Two-Way Speaker System

Two-way speaker system with 8" Bextrene cone bass unit and 3/4" wide-dispersion dome tweeter; frequency response 90-20,000 Hz ±3 dB; crossover at 3500 Hz, high-pass 18 dB/octave, low-pass 12 dB/octave, utilizes modified Butterworth filters; imp. 8-22.5 ohms; max. input 30 W peak program, 20 W rms; sensitivity 10 W pink noise for 90 dB at 1 meter; teak or walnut finish cabinet ..... \$150.50

### Tango Two-Way Speaker System

Two-way speaker system with 8" bass/mid-range driver and 1" dome tweeter; frequency response 90-20,000 Hz ±3 dB; crossover at 6 kHz; 8-ohm imp.; max. input 30 W peak program, 20 W rms, 10 W rms (tweeter); sensitivity 5 W pink noise for 96 dB at 1 meter; teak or walnut finish cabinet ..... \$142.72

## RTR

### DR-1 Speaker System

Electrostatic speaker system; woofer system:

two 10" woofers; frequency response 28-375 Hz; power handling 125 W rms, 250 W peak; electrostatic system; 27-element circumaxial, variable area radiator; frequency response 375-40,000 Hz ±2 dB; direct-drive power amp; frequency response 375-30,000 Hz; drives electrostatic element, woofer system requires 75-150 W power amp; woofer system and electrostatic amp housed in one cabinet plus one electrostatic cabinet; hand-rubbed walnut veneer finish with black fabric grille; 49" H x 16 1/2" W x 16 1/2" D ..... \$1290.00

### ESR-6 Speaker System

Electrostatic speaker system; frequency response 1500-30,000 Hz; incorporates six HF-50 electrostatic radiators; crossover frequency 1500 Hz, 4 and 8 ohm outputs; 8-ohm nominal imp.; recommended amp power 15-60 W/ch rms; has continuously variable tweeter level control, resettable circuit breaker protection, surge voltage protection, and five-way binding post connectors; hand-rubbed walnut veneer finish; 14 1/2" H x 14 1/2" W x 12" D ..... \$219.95

### ESR-15 Speaker System

Electrostatic speaker system; frequency response 1200-30,000 Hz; incorporates 15 HF-50 electrostatic radiators; crossover frequency 1200 Hz, 4 and 8 ohm outputs; 8-ohm nominal imp.; recommended power 15-100 W/ch rms; has continuously variable tweeter level control, resettable circuit breaker protection, surge voltage protection, and five-way binding post connectors; hand-rubbed walnut veneer finish; 19 1/2" H x 16 1/2" W x 16 1/2" D ..... \$349.95

### EXP-8 Speaker System

Two-way speaker system with 8" woofer and 3 1/4" tweeter; frequency response 40-20,000 Hz; crossover at 2000 Hz; 8-ohm nominal imp.; recommended amp power 20-60 W rms; has continuously variable tweeter level control, resettable circuit breaker protection, and five-way binding post connectors; hand-rubbed walnut veneer finish ..... \$79.95

### EXP-12 Speaker System

Two-way speaker system with 12" woofer and 3 1/4" tweeter; frequency response 32-20,000 Hz; crossover at 2000 Hz; 8-ohm nominal imp.; recommended amp power 20-80 W rms; has continuously variable tweeter level control, resettable circuit breaker protection, and five-way binding post connectors; hand-rubbed walnut veneer finish ..... \$149.95

### EXP-12M Speaker System

Three-way speaker system with 12" woofer, 5" mid-range, and 3 1/4" tweeter; frequency response 32-20,000 Hz; crossovers at 1500 and 6600 Hz; 8-ohm nominal imp.; recommended amp power 15-80 W rms; has continuously variable mid-range and tweeter level controls, resettable circuit breaker protection, and five-way binding post connectors; walnut veneer finish with walnut front inlays and brown fabric doubleknit grille ..... \$214.95

### HPR-12 Magnum Speaker System

Three-way speaker system with 12" woofer, 12" passive radiator, 5" mid-range, two 2 1/2" tweeters, and 3" super tweeter; frequency response 30-25,000 Hz; 8-ohm nominal imp.; recommended amp power 15-100 W continuous; has continuously variable mid-range and tweeter level controls, resettable circuit breaker protection, and five-way binding post connectors; hand-rubbed walnut veneer finish; 36" H x 14 1/2" W x 13" D ..... \$334.95

### 100D Speaker System

Three-way speaker system with 12" woofer, 1 1/2" dome mid-range, and solid state super tweeter; frequency response 30-35,000 Hz; crossovers at 1250 and 10,000 Hz; 6-ohm nominal imp.; recommended amp power 25-80 W rms; has continuously variable mid-range and tweeter level controls, resettable circuit breaker protection, and five-way binding post con-

nectors; walnut veneer finish with walnut corners and black doubleknit grille; 26 1/2" H x 15" W x 14" D ..... \$279.95

**300D Speaker System**

Three-way speaker system with 10" woofer, 1 1/2" dome mid-range, and solid state super tweeter; frequency response 28-35,000 Hz; crossovers at 1250 and 10,000 Hz; 4-ohm nominal imp.; recommended amp power 25-100 W rms; has continuously variable mid-range and tweeter level controls, resettable circuit breaker protection, and five-way binding post connectors; Corinthian column design with walnut veneer finish and black doubleknit grille; 42" H x 14 1/2" W x 12 1/2" D ..... \$319.95

**600 D Speaker System**

Three-way speaker system with 12" woofer, 1 1/2" dome mid-range, and solid state super tweeter; frequency response 27-35,000 Hz; crossovers at 950 and 10,000 Hz; 4-ohm nominal imp.; recommended amp power 25-120 W rms; has continuously variable mid-range and tweeter level controls, resettable circuit breaker protection, and five-way binding post connectors; Corinthian column design with walnut veneer finish and black doubleknit grille; 48" H x 16 1/2" W x 16 1/2" D ..... \$449.95

**SANSUI**

**SP-L900 Speaker System**

Two-way speaker system with two 15" woofers (with staggered frequency responses) and multiport rear-driven horn tweeter; crossover at 1000 Hz; rotatable acoustic lens covers 120° area; max. input 500 W; sensitivity 93 dB/W/m; 8-ohm imp.; may be bi-amped via separate terminals; solid walnut corner insets and walnut veneer finish with removable grille; four casters; 51 3/8" H x 23 3/8" W x 22 1/8" D ..... \$1000.00

**SP-L800 Speaker System**

Two-way speaker system with two 12" woofers (with staggered frequency responses) and 2 3/4" rear-driven horn tweeter; crossover at 1500 Hz; rotatable acoustic lens covers 120° area; max. input 300 W; sensitivity 95 dB/W/m; 8-ohm imp.; may be bi-amped via separate terminals; solid walnut corner insets and walnut veneer finish with removable grille; four casters; 38" H x 18 1/8" W x 15 1/8" D ..... \$800.00

**SP-L700 Speaker System**

Two-way speaker system with two 10" woofers (with staggered frequency responses) and multiport rear-driven horn tweeter; crossover at 2000 Hz; rotatable acoustic lens covers 120° area; max. input 200 W; sensitivity 93 dB/W/m; 8-ohm imp.; may be bi-amped via separate terminals; solid walnut corner insets and walnut veneer finish with removable grille; four casters; 35 1/8" H x 16 3/8" W x 14 1/8" D . \$600.00

**SP-X9000 Speaker System**

Four-way speaker system with 16" woofer, 8" mid-range, two 6" x 2" horn tweeters, and two 1 3/4" Mylar horn super tweeters; crossovers at 1000, 6000, and 10,000 Hz; sensitivity 100 dB/W/m; 8-ohm imp.; max. input 220 W; has three-step level control; simulated walnut grain enclosure with Kumiko grille; 26 3/8" H x 17 1/8" W x 11 1/8" D ..... \$350.00

**SP-X8000 Speaker System**

Four-way speaker system with 16" woofer, two 5" mid-ranges, 6" x 2" horn tweeter, and two 1 3/4" Mylar horn super tweeters; crossovers at 1000, 6000, and 10,000 Hz; sensitivity 98 dB/W/m; max. input 160 W; 8-ohm imp.; simulated walnut grain enclosure with Kumiko grille; 26 3/8" H x 17 1/8" W x 11 1/8" D ..... \$300.00

**SP-7500X Speaker System**

Four-way speaker system with 16" woofer, 8" mid-range, 6 1/8" x 2" tweeter, and two 2" cone super tweeters; frequency response 25-22,000 Hz; crossovers at 1000, 6000, and 10,000 Hz;

max. input 130 W (peak); three-position level control; walnut-grained finish with hand-carved grille; 26 1/8" H x 17 1/2" W x 11 1/8" D . \$290.00  
**SP-5500X.** Similar to SP-7500X but has 15" woofer, two 5 1/8" cone mid-ranges, 6 1/8" x 2" tweeter, and 2 1/8" super tweeter; frequency response 25-20,000 Hz; max. input 120 W (peak) ..... \$250.00  
**SP-2500X.** Similar to SP-5500X but has 12" woofer and two 2 1/8" horn-type tweeters; frequency response 30-20,000 Hz; crossovers at 1200 and 5000 Hz; max. input 100 W (peak); 24 1/8" H x 15 1/8" W x 11 1/8" D ..... \$200.00

**LM330 Speaker System**

Linear-motion speaker system with 10" cone woofer and 2 3/8" cone tweeter; frequency response 31-20,000 Hz; crossover at 2000 Hz; max. input 60 W (peak); walnut-grained wood

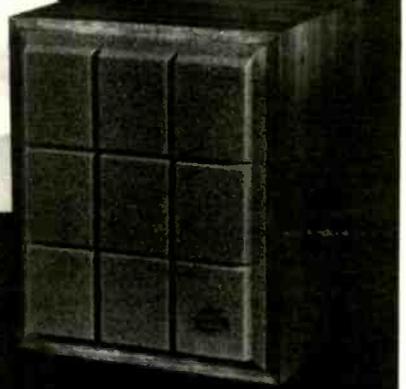
cabinet with removable textured grille cloth; 28" H x 12 1/4" W x 12" D ..... \$200.00  
**LM220.** Similar to LM330 but has 8 1/8" cone woofer; frequency response 32-20,000 Hz; max. input 45 W (peak); 24 7/8" H x 11" W x 9 7/8" D ..... \$170.00  
**LM110.** Similar to LM220 but has 6 1/2" cone woofer; sensitivity response 38-20,000 Hz; max. input 35 W (peak); 21 1/8" H x 9 1/8" W x 7 1/8" D ..... \$250.00 pr.

**SAS**

**Spectrum III Speaker System**

Four-way speaker system with 15" woofer in bass reflex cabinet, 5" mid-range, 1 3/4" direct-radiating tweeter, and piezoelectric horn super tweeter; sensitivity 98-dB SPL/W/m (4000 Hz); continuously variable tweeter/super tweeter control; self-resetting thermal circuit breaker;

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genuine walnut veneer finish; 26 $\frac{1}{8}$ " H x 18" W x 14 $\frac{1}{4}$ " D ..... \$385.00

**Spectrum II Speaker System**

Three-way speaker system with 12" woofer, 5" mid-range, 1 $\frac{1}{4}$ " direct-radiating tweeter, and 3" piezoelectric super horn; sensitivity 98-dB SPL/W/m (400 Hz); crossovers at 575 and 5000 Hz; continuously variable treble control; self-resetting thermal circuit breaker; genuine walnut veneer finish; 25 $\frac{1}{4}$ " H x 15" W x 12 $\frac{1}{4}$ " D .. \$250.00

**Spectrum I Speaker System**

Three-way tuned port speaker system with 10" woofer, 5" mid-range, and 1 $\frac{1}{4}$ " tweeter; crossovers at 1800 and 5000 Hz; sensitivity 97.5-dB SPL/W/m (400 Hz); self-resetting thermal circuit breaker; walnut-grained vinyl finish; 24" H x 14" W x 11 $\frac{1}{4}$ " D ..... \$175.00

**Mini Spectrum**

Two-way speaker system with 8" woofer and 1 $\frac{3}{4}$ " tweeter; crossover at 4000 Hz; sensitivity 97-dB SPL/W/m (400 Hz); self-resetting thermal circuit breaker; walnut-grained vinyl finish ..... \$119.00

**Dynamo Speaker System**

Acoustic suspension miniature speaker system with 5" woofer and 1" dome tweeter; crossover at 3200 Hz; min. input 8 W; 4-ohm imp.; self-resetting thermal circuit breaker; black vinyl cabinet with black grille cloth; swivel mounting bracket optional (\$18.00 pr.); 9" H x 6" W x 4 $\frac{7}{8}$ " D ..... \$99.00

**Micro Spectrum Speaker System**

Two-way bass reflex speaker system with 6 $\frac{1}{2}$ " woofer and 1 $\frac{1}{4}$ " tweeter; sensitivity 96.5-dB SPL/W/m (400 Hz); self-resetting thermal circuit breaker; walnut-grained vinyl finish; 18" H x 12" W x 8" D ..... \$89.00

**SCOTT**

**Pro-100 Speaker System**

Three-way air suspension speaker system with 15" high-compliance woofer, two 4 $\frac{1}{2}$ " cone mid-ranges, and two 1" dome tweeters; frequency response 35-20,000 Hz  $\pm$ 4 dB; crossovers at 700 and 3500 Hz; 4-ohm imp.; max. input 300 W rms; min. input 20 W; three-position mid-range and tweeter level controls; walnut veneer on walnut cabinet with removable dark brown mesh grille; 29 $\frac{1}{4}$ " H x 19" W x 14 $\frac{1}{2}$ " D ..... \$399.95

**Pro-70 Speaker System**

Three-way air suspension speaker system with 12" high-compliance woofer, 4 $\frac{1}{2}$ " cone mid-range, and two 1" dome tweeters; frequency response 35-20,000 Hz  $\pm$ 4 dB; crossovers at 800 and 4000 Hz; 6-8 ohm imp.; max. input 150 W rms; min. input 15 W; three-position mid-range and tweeter level controls; walnut veneer on wood cabinet with removable dark brown mesh grille; 27 $\frac{1}{4}$ " H x 16 $\frac{1}{4}$ " W x 12 $\frac{1}{2}$ " D .. \$299.95

**S-197 Speaker System**

Bookshelf two-way speaker system with 15" high-compliance woofer, 4 $\frac{1}{2}$ " cone mid-range, and 1" dome tweeter; frequency response 40-20,000 Hz  $\pm$ 4 dB; crossovers at 750 and 3500 Hz; 6-8 ohm imp.; max. input 120 W rms; min. input 15 W; three-position mid-range and tweeter level controls; walnut-vinyl finish with removable brown knit grille; 27 $\frac{1}{2}$ " H x 16 $\frac{1}{8}$ " W x 13 $\frac{1}{4}$ " D ..... \$199.95

**S-196 Speaker System**

Three-way air suspension speaker system with 12" high-compliance woofer, 4 $\frac{1}{2}$ " cone mid-

range, and 1" dome tweeter; frequency response 40-20,000 Hz  $\pm$ 4 dB; crossovers at 800 and 4000 Hz; 6-8 ohm imp.; max. input 100 W rms; min. input 15 W; three-position woofer/mid-range and tweeter controls; walnut-vinyl finish with removable brown knit grille; 23" H x 12 $\frac{1}{2}$ " W x 10 $\frac{1}{2}$ " D ..... \$139.95

**S-186 Speaker System**

Three-way air suspension speaker system with 10" high-compliance woofer, 4 $\frac{1}{2}$ " cone mid-range, and 1" dome tweeter; frequency response 40-20,000 Hz  $\pm$ 4 dB; crossovers at 800 and 4000 Hz; 6-8 ohm imp.; max. input 80 W rms; min. input 10 W; three-position woofer/mid-range and tweeter controls; walnut-vinyl finish with removable brown knit grille; 23" H x 12 $\frac{1}{2}$ " W x 10 $\frac{1}{2}$ " D ..... \$139.95

**S-177 Speaker System**

Three-way air suspension speaker system with 8" high-compliance woofer, 5" cone mid-range, and 1 $\frac{1}{4}$ " cone tweeter; frequency response 45-18,000 Hz  $\pm$ 4 dB; crossovers at 1200 and 3500 Hz; 6-8 ohm imp.; max. input 65 W rms; min. input 7 W; walnut-vinyl finish with removable brown knit grille; 19" H x 11" W x 9 $\frac{1}{8}$ " D ..... \$109.95

**S-176 Speaker System**

Two-way bass reflex, tuned port speaker system with 8" high-compliance woofer and 1 $\frac{1}{4}$ " cone tweeter; frequency response 60-18,000 Hz  $\pm$ 4 dB; crossover at 3500 Hz; 6-8 ohm imp.; max. input 50 W rms; min. input 5 W; walnut-vinyl finish with removable brown knit grille; 18" H x 10 $\frac{1}{2}$ " W x 8 $\frac{1}{2}$ " D ..... \$79.95

**SHARP**

**The Tower I Speaker System**

Two-way speaker system with two 8" woofers and 3" tweeter; has Tri-Bass Accelerator to increase efficiency and low-end response; frequency response 30-20,000 Hz; crossover at 5000 Hz; 8-ohm imp.; simulated wood grain vinyl finish; 31 $\frac{1}{8}$ " H x 11 $\frac{7}{8}$ " W x 11 $\frac{7}{8}$ " D ..... \$149.95 pr.

**SP 4000 Speaker System**

Two-way speaker system with 8" woofer and 3" wide-band tweeter; has Tri-Bass Accelerator to increase efficiency and low-end response; frequency response 35-20,000 Hz; crossover at 5000 Hz; 8-ohm imp.; simulated wood grain vinyl finish; 24 $\frac{7}{8}$ " H x 15" W x 9 $\frac{1}{2}$ " D ..... \$89.95 pr.

**SP 3000 Speaker System**

Two-way speaker system with 8" woofer and 3" wide-band tweeter; has Tri-Bass Accelerator to increase efficiency and low-end response; frequency response 40-20,000 Hz; crossover at 5000 Hz; 8-ohm imp.; simulated wood grain vinyl finish; 24 $\frac{7}{8}$ " H x 15" W x 9 $\frac{1}{2}$ " D ..... \$89.95 pr.

**SONAB**

**OA2212 Speaker System**

Three-way bass reflex speaker system with psycho-acoustically optimized positioning of two bass drivers, two mid-range drivers, and 12 3.5-cm tweeters; frequency response 30-15,000 Hz  $\pm$ 3 dB; crossovers at 450 and 2000 Hz; max. input 200 W rms (undistorted); requires 8 W input for 0.022 W acoustic output (DIN); 8-ohm imp.; three-way treble control and two-way mid-range and upper-bass controls; shipped in matched pairs (one left-hand and one right-hand speaker); walnut, rosewood, and black laquer finish; supplied with 5-m cable with Cannon connector; 30" H x 12" W x 21" D ..... \$840.00 ea.

**OA116 Speaker System**

Three-way bass reflex speaker system with psycho-acoustically optimized positioning of bass driver, mid-range driver, and six 3.5-cm

tweeters; frequency response 28-15,000 Hz  $\pm$ 3 dB; crossovers at 400 and 1800 Hz; max. input 100 W rms (undistorted); requires 8W input for 0.022 W acoustic output (DIN); 8-ohm imp.; supplied as matched pair (one left-hand and one right-hand speaker); walnut, rosewood, and black laquer finish; supplied with 5-m cable with Cannon connector; 26 $\frac{1}{4}$ " H x 10 $\frac{1}{2}$ " W x 18" D ..... \$520.00 ea.

**OA14 Speaker System**

Bass reflex speaker system with bass/mid-range driver and four 3.5-cm tweeters; frequency response 29-15,000 Hz  $\pm$ 3 dB; max. input 80 W rms (undistorted); requires 8 W input for 0.022 W acoustic output (DIN); 8-ohm imp.; supplied as matched pair (one left-hand and one right-hand speaker); walnut, rosewood, and black laquer finish; supplied with 5-m lead with DIN plug; 22" H x 9" W x 17" D .. \$315.00 ea.

**OA12 Speaker System**

Bass reflex speaker system with bass/mid-range driver and two 3.5-cm tweeters; frequency response 42-15,000 Hz  $\pm$ 3 dB; max. input 70 W rms (undistorted); requires 8 W input for 0.022 W acoustic output (DIN); 8-ohm imp.; supplied as matched pair (one left-hand and one right-hand speaker); walnut, rosewood, and black laquer finish; supplied with 5-m lead with DIN plug; 18" H x 8" W x 13" D ... \$240.00 ea.

**OD11 Speaker System**

Bass reflex speaker system with bass/mid-range driver and 3.5-cm tweeter; frequency response 52-15,000 Hz  $\pm$ 4 dB; max. input 60 W rms (undistorted); requires 8 W input for 0.022 W acoustic output (DIN); 8-ohm imp.; supplied as matched pair (one left-hand and one right-hand speaker); walnut, rosewood, and black laquer finish; supplied with 5-m lead with DIN plug; 10" H x 10" W x 10" D ..... \$180.00 ea.

**SOUNDCRAFTSMEN**

**Reflectrostatic SC-12ES System**

Hybrid dynamic-electrostatic acoustic-suspension design with 12" woofer, 5" midrange, and 144 in<sup>2</sup> electrostatic radiators; frequency response 30-20,000 Hz  $\pm$ 3 dB; crossovers at 600-960 Hz variable and 1000 Hz; controls: low-frequency rolloff, mid-range level, Reflectrostatic level, ultrasonic limiter; imp. 8 ohms; min. input 20 W; max. input 200 W; oiled-walnut veneer and solids cabinet; removable brown foam grille; 28" H x 18" W x 14" D; solid in matched pairs only ..... \$399.50 ea.

**Lancer SC-9T Three-Way System**

Dynamic acoustic-suspension system with 10" woofer, 5" midrange, and two 1" dome tweeters; frequency response 20-20,000 Hz; crossovers at 500 and 4500 Hz; min. input 10 W; max. input 100 W; imp. 8 ohms; mid-range and high-frequency controls; multi-radiational tower design; oiled-walnut veneer and solids cabinet; removable black double-knit fabric grille; 38" H x 12" W x 12" D ..... \$229.50  
**SC-7.** Similar to SC-9 except 12" woofer, 5" mid-range, one 1" dome tweeter; frequency response 20-20,000 Hz  $\pm$ 5 dB; removable brown foam grille; 25 $\frac{1}{2}$ " H x 15" W x 11 $\frac{1}{4}$ " D ..... \$229.50

**Lancer SC-4 Three-Way System**

Dynamic acoustic-suspension system with 12" woofer, 5" midrange, and 2 $\frac{1}{4}$ " tweeter; frequency response 20-20,000 Hz; crossovers at 750 and 6000 Hz; min. input 10 W; max. input 50 W; imp. 8 ohms; mid-range and high-frequency controls; oiled-walnut veneers and solids cabinet; removable brown foam grille; 23 $\frac{1}{2}$ " H x 15" W x 12 $\frac{1}{2}$ " D ..... \$169.50  
**SC-10A.** Similar to SC-4 except two-way system with 10" woofer and 2 $\frac{1}{4}$ " tweeter; crossover at 2500 Hz; high-frequency control; 20 $\frac{1}{4}$ " H x 12 $\frac{1}{2}$ " W x 10" D ..... \$119.50

**Lancer 9535-2 Two-Way System**

Dynamic bass-reflex design with 12" woofer and

2 1/4" tweeter; frequency response 30-20,000 Hz; crossover at 3000 Hz; imp. 8 ohms; min. input 5 W; max. input 35 W; oiled-walnut veneer cabinet with brown/white grille cloth; 25" H x 14 1/4" W x 11 1/4" D ..... \$99.50  
**9534X.** Similar to 9535-2 except 8" woofer, 3" tweeter; min. input 5 W; max. input 30 W; frequency response 40-18,000 Hz; 23 1/2" H x 11 1/4" W x 11 1/4" D ..... \$69.50  
**9711.** Similar to 9535-2 except 8" full-range driver; min. input 3 W; max. input 20 W; frequency response 45-15,000 Hz; 20 1/4" H x 10" W x 9 1/2" D ..... \$54.50

**SP**

**Model Ten Speaker System**

Two-way speaker system with 10" woofer and 1" dome tweeter; frequency response 35-20,000 Hz ±3 dB; 8-ohm imp.; max. input 75 W rms continuous; crossover at 2000 Hz; tuned, ported enclosure finished with walnut-grain laminate finish and removable grille; spring-clip terminals; 26 1/2" H x 15" W x 13 1/2" D ..... \$149.00

**Model Eight Speaker System**

Two-way speaker system with 8" woofer and 1" dome tweeter; frequency response 40-20,000 Hz ±3 dB; 8-ohm imp.; max. input 75 W rms continuous; crossover at 2000 Hz; tuned, ported enclosure with walnut-grain laminate finish and removable grille; spring-clip terminals; 25" H x 14" W x 10" D ..... \$119.00

**Model Seven Speaker System**

Two-way speaker system with 8" woofer and 1" soft-dome tweeter; frequency response 40-20,000 Hz ±3 dB; 8-ohm imp.; max. input 50 W rms continuous; crossover at 2000 Hz; air-tight acoustic suspension enclosure with walnut-grain laminate finish with removable grille; spring-clip terminals ..... \$99.00

**Model Six Speaker System**

Two-way speaker system with 6" woofer and 2" paper-cone tweeter; frequency response 55-18,000 Hz ±3 dB; 8-ohm imp.; max. input 35 W rms continuous; crossover at 2000 Hz; tuned, ported enclosure with walnut-grain laminate finish with removable grille; spring-clip terminals; 16" H x 10" W x 7 1/2" D ..... \$59.00

**SPEAKERKIT**

**Lambda Seven Speaker System**

Three-way acoustic suspension speaker system with 15" woofer, two 2" soft-dome mid-ranges, and four 1" soft-dome tweeters; frequency response 28-20,000 Hz; crossovers at 700 and 3600 Hz; max. input 160 W; min. input 20 W; 8-ohm imp.; supplied with drivers, crossover, assembled and finished veneered cabinet, acoustic dampening filler, and foam grille; floor-standing system. Kit ..... \$260.00

**Lambda Six Speaker System**

Three-way acoustic suspension speaker system with 12" woofer, two 2" soft-dome tweeters, and four 1" soft-dome tweeters; frequency response 30-20,000 Hz; crossovers at 700 and 3600 Hz; max. input 140 W; min. input 20 W; 8-ohm imp.; supplied with drivers, crossover, assembled and finished veneered cabinet, acoustic dampening filler, and foam grille; floor-standing system. Kit ..... \$235.00

**Lambda Five Speaker System**

Three-way acoustic suspension speaker system with 12" woofer, 2" soft-dome tweeter, and 1" soft-dome tweeter; frequency response 32-20,000 Hz; crossovers at 600 and 4000 Hz; max. input 120 W; min. input 15 W; 8-ohm imp.; supplied with drivers, crossover, assembled and finished veneered cabinet, acoustic dampening filler, and foam grille; floor-standing system. Kit ..... \$145.00

**Lambda Four Speaker System**

Three-way acoustic suspension speaker system

with 10" woofer, 2" soft-dome tweeter, and 1" soft-dome tweeter; frequency response 35-20,000 Hz; crossovers at 600 and 4000 Hz; max. input 100 W; min. input 15 W; 8-ohm imp.; supplied with drivers, crossover, assembled and finished veneered cabinet, acoustic dampening filler, and foam grille; designed for shelf mounting. Kit ..... \$130.00

**Lambda Three Speaker System**

Two-way acoustic suspension speaker system with 10" woofer and 1" soft-dome tweeter; frequency response 40-20,000 Hz; crossover at 2400 Hz; max. input 100 W; min. input 10 W; 8-ohm imp.; supplied with drivers, crossover, assembled and finished veneered cabinet, acoustic dampening filler, and foam grille; designed for shelf mounting. Kit ..... \$100.00

**Lambda Eight Speaker System**

Three-way acoustic suspension speaker system with 2" dome mid-range and 1" dome tweeter; designed for use with Dynaquad adaptor; frequency response 600-20,000 Hz; crossovers at 600 and 4000 Hz; max. input 120 W; min. input 15 W; 8-ohm imp.; supplied with drivers, crossover, assembled and finished veneered cabinet, acoustic dampening filler, and foam grille; designed for wall mounting. Kit ..... \$90.00

**Lambda Two Speaker System**

Two-way acoustic suspension speaker system with 8" woofer and 1" soft-dome tweeter; frequency response 45-20,000 Hz; crossover at 2400 Hz; max. input 80 W; min. input 10 W; 8-ohm imp.; supplied with drivers, crossover, assembled and finished veneered cabinet, acoustic dampening filler, and foam grille; designed for shelf mounting. Kit ..... \$85.00

**SPEAKERLAB**

**SK Three-Way Speaker System**

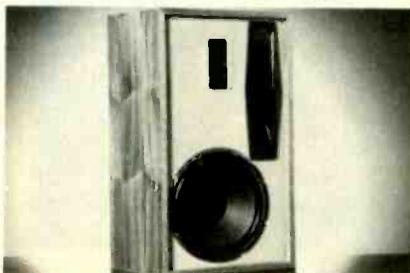
Three-way horn-loaded speaker system with 15" woofer, 17" x 6" (mouth) horn mid-range, and 4 1/2" x 1 3/4" (mouth) horn tweeter; min. input 10 W; 4-ohm imp.; crossovers at 350 and 5000 Hz; mid-range and tweeter level controls; oiled-walnut finish with brown grille cloth; 50 1/2" H x 32 1/2" W x 28" D ..... \$632.00  
 Plywood preassembled-bass-unit kit version ..... \$431.00

**S7 Three-Way Speaker System**

Three-way acoustic suspension speaker system with 10" and 12" woofers (driven in parallel), 14" x 3 1/8" (mouth) horn mid-range, and 4 1/2" x 1 3/4" (mouth) horn tweeter; min. input 15 W; 4-ohm imp.; crossovers at 700 and 5000 Hz; mid-range and tweeter level controls; oiled-walnut finish with brown grille cloth; 28" H x 18" W x 15 1/8" D ..... \$389.00  
 Kit ..... \$279.00

**S6 Three-Way Speaker System**

Three-way acoustic suspension speaker system with 12" woofer, 14" x 3 1/8" (mouth) horn mid-range, and 4 1/2" x 1 3/4" (mouth) horn tweeter; min. input 15 W; 8-ohm imp.; crossovers at 700 and 5000 Hz; mid-range and tweeter level controls; oiled-walnut finish with brown grille cloth; 28" H x 16 1/4" W x 11 7/8" D ..... \$289.00



Kit ..... \$215.00

**S4 Three-Way Speaker System**

Three-way acoustic suspension speaker system with 12" woofer, 5" cone mid-range, and 4 1/2" x 1 3/4" (mouth) horn tweeter; min. input 15 W; 8-ohm imp.; crossovers at 700 and 6500 Hz; mid-range and tweeter level controls; oiled-walnut finish with brown grille cloth; 28" H x 16 1/4" W x 11 7/8" D ..... \$249.00  
 Kit ..... \$180.00  
**S3.** Same as S4 except 3/4" dome tweeter ..... \$219.00  
 Kit ..... \$149.00

**S2 Two-Way Speaker System**

Two-way acoustic suspension speaker system with 10" woofer and 1 1/2" dome tweeter; min. input 7 W; 4-ohm imp.; crossover at 1000 Hz; tweeter level control; oiled-walnut finish with brown grille cloth; 23 3/8" H x 15 1/4" W x 11 7/8" D ..... \$249.00  
 Kit ..... \$89.00

**S1 Two-Way Speaker System**

Two-way acoustic suspension speaker system with 8" woofer and 1 1/2" dome tweeter; min. input 5 W; 8-ohm imp.; crossover at 2500 Hz; tweeter level control; oiled-walnut finish with brown grille cloth; 18 3/4" H x 11 3/4" W x 9 1/2" D ..... \$94.00  
 Kit ..... \$64.00

**NEED MORE INFORMATION?**

Write direct to the manufacturer or distributor. A list of names and addresses starts on page 8.

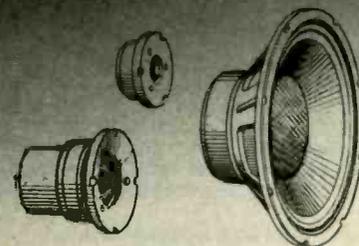
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# 10 SPEAKER SYSTEMS

## SUPERSCOPE

### S-312A Speaker System

Three-way air suspension speaker system with 12" woofer, 4 1/2" mid-range, and 3" tweeter; frequency response 30-20,000 Hz; crossovers at 2000 and 6000 Hz; max. input 50 W program; 8-ohm imp.; walnut-grained vinyl veneer cabinetry with sculptured foam grille; supplied with 10-ft speaker cable; 26" H x 15" W x 10 1/4" D . . . \$119.95

### S-310A Speaker System

Three-way speaker system with 10" woofer, 4 1/4" mid-range, and 3" tweeter; frequency response 50-18,000 Hz; crossovers at 2000 and 6000 Hz; max. input 35 W program; 8-ohm imp.; walnut-grained vinyl veneer cabinetry with sculptured foam grille; supplied with 10-ft speaker cable; 24 1/8" H x 13" W x 10 1/4" D . . . \$79.95

### S-308A Speaker System

Two-way speaker system with 8" full-range driver and 2" tweeter; frequency response 60-18,000 Hz; crossover at 5000 Hz; max. input 30 W program; 8-ohm imp.; walnut-grained vinyl veneer cabinetry with sculptured foam grille; supplied with 10-ft speaker cable; 23" H x 12 1/2" W x 8 1/4" D . . . \$99.95 pr.

## SYNERGISTICS

### S-72A Four-Way Speaker System

Four-way acoustic suspension speaker system with two 10" high-compliance woofers, two 4 1/2" mid-range drivers, three 2 1/2" extended-range tweeters, and one piezoelectric super tweeter; usable audio range 26-24,000 Hz; min. input 6 W rms; max. input 200 W rms; 4-ohm imp.; crossovers at 1000, 7500, and 12,500 Hz; mid-range and tweeter level controls; 40" H x 30" W x 12 1/2" D . . . \$600.00

### S-62A Tower Speaker System

Four-way acoustic suspension speaker system with 12" high-compliance woofer, 4 1/2" mid-range driver, three 2 1/2" extended-range tweeters, and one super tweeter; usable audio range 26-24,000 Hz; min. input 8 W rms; max. input 150 W rms; 8-ohm imp.; crossovers at 100, 7500, and 12,500 Hz; mid-range and tweeter level controls; 33" H x 16 1/2" W x 12 1/2" D . . . \$400.00

### S-51A Four-Way Speaker System

Four-way acoustic suspension speaker system with 12" high-compliance woofer, 4 1/2" mid-range driver, 2 1/2" extended-range tweeter, and one piezoelectric super tweeter; usable audio range 30-20,000 Hz; min. input 8 W rms; max. input 150 W rms; 8-ohm imp.; crossovers at 1000, 7500, and 12,500 Hz; mid-range and tweeter level controls; 25 1/2" H x 14 1/2" W x 11 1/2" D . . . \$300.00

### S-52A Tower Speaker System

Two-way speaker system with two 8" high-compliance woofers and four extended-range tweeters; usable audio range 28-20,000 Hz; min. input 6 W rms; max. input 150 W rms; 4-ohm imp.; crossover at 3200 Hz; tweeter level control; 30" H x 13 1/2" W x 13 1/2" D . . \$300.00

### S-42A Three-Way Speaker System

Three-way acoustic suspension speaker system with 10" high-compliance woofer, 4 1/2" mid-range driver, and 2 1/2" extended-range tweeter; usable audio range 28-20,000 Hz; min. input 10 W rms; max. input 100 W rms; 8-ohm imp.; crossovers at 1500 and 7500 Hz; mid-range and tweeter level controls; 25 1/2" H x 14 1/4" W x 11 1/2" D . . . \$225.00

### S-32A Two-Way Speaker System

Two-way acoustic suspension speaker system with 10" high-compliance woofer and 2 1/2" extended-range tweeter; usable audio range 28-20,000 Hz; min. input 10 W rms; max. input 80 W rms; 8-ohm imp.; crossover at 2500 Hz; tweeter level control; 25 1/2" H x 14 1/4" W x 11 1/2" D . . . \$165.00

### S-22A Two-Way Speaker System

Two-way acoustic suspension speaker system with 8" high-compliance woofer and 2 1/2" extended-range tweeter; usable audio range 33-20,000 Hz; min. input 6 W rms; max. input 60 W rms; 8-ohm imp.; crossover at 3200 Hz; tweeter level control; 23" H x 12" W x 9 1/2" D . . \$130.00  
**S-12A.** Similar to S-22A but without tweeter level control; usable audio range 38-20,000 Hz; 17 3/4" H x 9 3/4" W x 8 1/2" D . . . \$100.00

## TANNOY

### Arden Speaker System

Incorporates 15" direct-radiating woofer integrated with high-frequency compression driver and crossover network; max. input 85 W; sensitivity 91 dB at 1 m with 1 W input; 8-ohm imp.; walnut, teak, or ash finish with brown, blue, or sand grille cloth; 39" H x 26" W x 14 1/2" D . . . \$555.00

### Berkeley Speaker System

Incorporates 15" direct-radiating woofer integrated with high-frequency compression driver and crossover network; max. input 85 W; sensitivity 91 dB at 1 m with 1 W input; 8-ohm imp.; walnut, teak, or ash finish with brown, blue, or sand grille cloth; 33" H x 21" W x 12" D . . . \$480.00

### Cheviot Speaker System

Incorporates 12" direct-radiating woofer integrated with high-frequency compression driver and crossover network; max. input 60 W; sensitivity 89 dB at 1 m with 1 W input; 8-ohm imp.; walnut, teak, or ash finish with brown, blue, or sand grille cloth; 33" H x 17 1/2" W x 10 1/4" D . . . \$345.00

### Devon Speaker System

Incorporates 12" direct-radiating woofer integrated with high-frequency compression driver and crossover network; max. input 60 W; sensitivity 89 dB at 1 m with 1 W input; 8-ohm imp.; walnut, teak, or ash finish with brown, blue, or sand grille cloth; 23" H x 15 3/4" W x 10 1/4" D . . . \$315.00

### Eaton Speaker System

Incorporates 10" direct-radiating woofer integrated with high-frequency driver and crossover network; max. input 50 W; sensitivity 87.5 dB at 1 m with 1 W input; 8-ohm imp.; walnut, teak, or ash finish with brown, blue, or sand grille cloth; 20 3/4" H x 13 3/4" W x 9 3/4" D . . . \$285.00

## TECHNICS BY PANASONIC

### SB-7000A Speaker System

Linear phase three-way bass reflex speaker system with 13 3/4" cone woofer, 4 3/4" cone mid-

range, and 1 1/4" dome tweeter; frequency response 37-22,000 Hz; crossovers at 700 and 6000 Hz; 6-ohm imp.; instantaneous max. input 150 W; sensitivity 90.5-dB SPL/W/m; mid-range and high-frequency level controls; 33 1/4" H x 18 7/8" W x 16 1/8" D . . . \$399.95

### SB-6000A Speaker System

Linear phase two-way bass reflex speaker system with 12" cone woofer and 1 1/4" dome tweeter; frequency response 39-22,000 Hz; crossover at 1800 Hz; 6-ohm imp.; instantaneous max. input 100 W; sensitivity 91-dB SPL/W/m; 33 3/16" H x 16 3/4" W x 13 3/8" D . . . \$299.95

### SB-5000A Speaker System

Linear phase two-way bass reflex speaker system with 10" cone woofer and 2 3/8" cone tweeter; frequency response 40-20,000 Hz; crossover at 1500 Hz; 8-ohm imp.; instantaneous max. input 75 W; sensitivity 92-dB SPL/W/m; 28 1/4" H x 13 3/4" W x 12 1/16" D . . . \$159.95

### P-99 Bookshelf Speaker System

Three-way speaker system with 10" acoustic suspension woofer, 5" cone mid-range, and 2 1/2" cone tweeter; frequency response 50-20,000 Hz; crossovers at 3000 and 8000 Hz; min. input 5 W; max. input 40 W for 5 min (400 Hz); sensitivity 97-dB SPL at 8 ft with 10 W input; 8-ohm imp.; closed box enclosure with walnut-grain vinyl finish and removable brown grille cloth; 22 1/2" H x 13" W x 9 1/2" D . . . \$259.95 pr.

### P-88 Bookshelf Speaker System

Two-way speaker system with 8" acoustic suspension woofer and 2 1/2" tweeter; frequency response 55-18,000 Hz; crossover at 5000 Hz; min. input 5 W; max. input 30 W for 5 min (400 Hz); sensitivity 98-dB SPL at 8 ft with 10 W input; 8-ohm imp.; closed box enclosure with walnut-grain vinyl finish and removable brown grille cloth . . . \$149.95 pr.

## ULTRALINEAR

### ST550 Speaker System

Three-way speaker system with 12" woofer, 2" dome mid-range, and 1" wide-dispersion Mylar dome tweeter; frequency response 27-22,000 Hz; crossovers at 700 and 4300 Hz; max. input 100 W rms; min. input 20 W rms; 8-ohm nominal imp.; circuit breaker protected; simulated walnut Melamine finish . . . \$379.95  
 With walnut or oak veneer finish . . . \$419.95

### ST525 Speaker System

Three-way speaker system with 10" woofer, 2" dome mid-range, and 1" wide-dispersion Mylar dome tweeter; frequency response 30-22,000 Hz; crossovers at 700 and 4300 Hz; max. input 75 W rms; min. input 20 W rms; 8-ohm nominal imp.; simulated walnut Melamine finish; 27 3/4" H x 14" W x 12 3/8" D . . . \$289.95  
 With walnut or oak veneer finish . . . \$329.95

### 460 Speaker System

Three-way speaker system with 10" woofer, 10" passive radiator, 1" inverted dome mid-range, and 2 1/2" tweeter; frequency response 27-21,000 Hz; crossovers at 1750 and 4000 Hz; max. input 100 W rms; min. input 50 W rms; 8-ohm nominal imp.; mid-range level control; walnut or oak veneer finish with smoked glass top; 43 1/2" H x 14" W x 14" D . . . \$249.95

### 260 Speaker System

Four-way speaker system with 15" woofer, 6" mid-range in separate sealed enclosure, 1" inverted dome tweeter, and 1" UHF dome tweeter; frequency response 25-22,000 Hz; crossovers at 800, 2600, and 6000 Hz; max. input 75 W rms; min. input 15 W rms; 8-ohms nominal imp.; mid-range level control; circuit breaker protected; simulated walnut Melamine finish; 31 1/4" H x 18" W x 16 3/8" D . . . \$249.95  
 With walnut or oak veneer finish . . . \$299.95

### 225 Speaker System

Three-way bookshelf speaker system with 12"



woofer, 6" mid-range in separate sealed enclosure, and 1" inverted dome tweeter; frequency response 28-22,000 Hz; crossovers at 500 and 5000 Hz; max. input 60 W rms; min. input 10 W rms; 8-ohm nominal imp.; mid-range level control; circuit breaker protected; simulated walnut Melamine finish; 24 $\frac{3}{8}$ " H x 14 $\frac{1}{2}$ " W x 12" D ..... \$159.95  
With walnut or oak veneer finish .... \$189.95

**200B Speaker System**

Three-way speaker system with 12" woofer, 5" self-enclosed mid-range, and 2 $\frac{1}{2}$ " tweeter; frequency response 28-21,000 Hz; crossovers at 1500 and 4000 Hz; max. input 50 W; min. input 10 W; 8-ohm nominal imp.; mid-range level control; circuit breaker protected; simulated walnut Melamine finish; 24 $\frac{3}{8}$ " H x 14 $\frac{1}{2}$ " W x 12" D ..... \$129.95  
With walnut or oak veneer finish .... \$159.95

**100C Speaker System**

Three-way speaker system with 12" woofer, 4 $\frac{1}{2}$ " mid-range, and 2 $\frac{1}{2}$ " tweeter; frequency response 31-18,000 Hz; crossovers at 1500 and 4000 Hz; max. input 40 W rms; min. input 5 W rms; 8-ohm nominal imp.; mid-range level control; circuit breaker protected; simulated walnut Melamine finish; 24 $\frac{3}{8}$ " H x 14 $\frac{1}{2}$ " W x 12" D ..... \$99.95  
With walnut or oak veneer finish .... \$129.95

**77 Speaker System**

Three-way speaker system with 10" woofer, 5" mid-range, and 2 $\frac{1}{2}$ " tweeter; frequency response 32-18,000 Hz; crossovers at 1800 and 4000 Hz; max. input 40 W rms; min. input 8 W rms; 8-ohm nominal imp.; mid-range level control; circuit breaker protected; simulated walnut Melamine finish; 23 $\frac{1}{8}$ " H x 11 $\frac{3}{4}$ " W x 9 $\frac{1}{4}$ " D ..... \$89.95  
With walnut or oak veneer finish .... \$119.95

**66 Speaker System**

Three-way speaker system with 8" woofer, 4 $\frac{1}{2}$ " mid-range, and 2 $\frac{1}{2}$ " tweeter; frequency response 38-18,000 Hz; max. input 30 W rms; min. input 5 W rms; 8-ohm nominal imp.; circuit breaker protected; simulated walnut Melamine finish ..... \$69.95

**25 Speaker System**

Two-way speaker system with 8" woofer and 3" wide-dispersion radiator; frequency response 50-17,000 Hz; crossover at 4500 Hz; max. input 25 W rms; min. input 2 W rms; 8-ohm nominal imp.; circuit breaker protected; simulated walnut Melamine finish ..... \$49.95

**UTAH**

**HS10C Speaker System**

Three-way speaker system with 15" woofer, horn mid-range, and two 1 $\frac{3}{4}$ " tweeters; frequency response 25-20,000 Hz; crossovers at 800 and 3500 Hz; 8-ohm imp.; max. input 80 W rms; mid-range and tweeter level controls; walnut-veneer enclosure; 27" H x 20 $\frac{1}{2}$ " W x 14" D ..... \$299.95

**HS4C.** Similar to HS10C but with 12" woofer and one 1 $\frac{3}{4}$ " tweeter; frequency response 30-20,000 Hz; max. input 60 W rms; 25 $\frac{3}{4}$ " H x 20 $\frac{1}{2}$ " W x 14" D ..... \$229.95

**HS2C.** Similar to HS4C but with 5" tweeter; frequency response 40-20,000 Hz; crossovers at 2000 and 5000 Hz; tweeter level control; max. input 40 W rms ..... \$169.95

**DX120A Speaker System**

Three-way speaker system with 12" woofer, 3 $\frac{1}{2}$ " x 8" compression horn mid-range, and two 3" cone tweeters; frequency response 25-20,000 Hz; crossovers at 2500 and 5000 Hz; 8-ohm imp.; max. input 60 W rms; min. input 10 W rms; mid-range and tweeter level controls; walnut-vinyl finish with black or cafe brown knit grille; 25 $\frac{3}{8}$ " H x 15 $\frac{1}{4}$ " W x 11 $\frac{1}{4}$ " D .. \$179.95

**DX100A Speaker System**

Three-way speaker system with 10" woofer, 5"

mid-range, and 3" tweeter; frequency response 40-20,000 Hz; crossovers at 1500 and 4000 Hz; max. input 45 W rms; min. input 10 W rms; tweeter level control; walnut-vinyl finish with black or cafe brown knit grille; 24 $\frac{1}{2}$ " H x 14" W x 10" D ..... \$149.95

**VIDEOTON**

**D-258-A Speaker System**

Four-way speaker system with 10" woofer, 4 $\frac{1}{8}$ " cone mid-range, 1 $\frac{1}{2}$ " dome mid-range, and 1" dome tweeter; frequency response 30-20,000 Hz; crossovers at 600, 2000, and 7000 Hz; max. input 60 W rms continuous; imp. 6-8 ohms; mid-range and tweeter level controls under removable front grille; oiled walnut finish; 27 $\frac{3}{16}$ " H x 15 $\frac{3}{16}$ " W x 11" D .... \$229.95

**D-402-A Supermax**

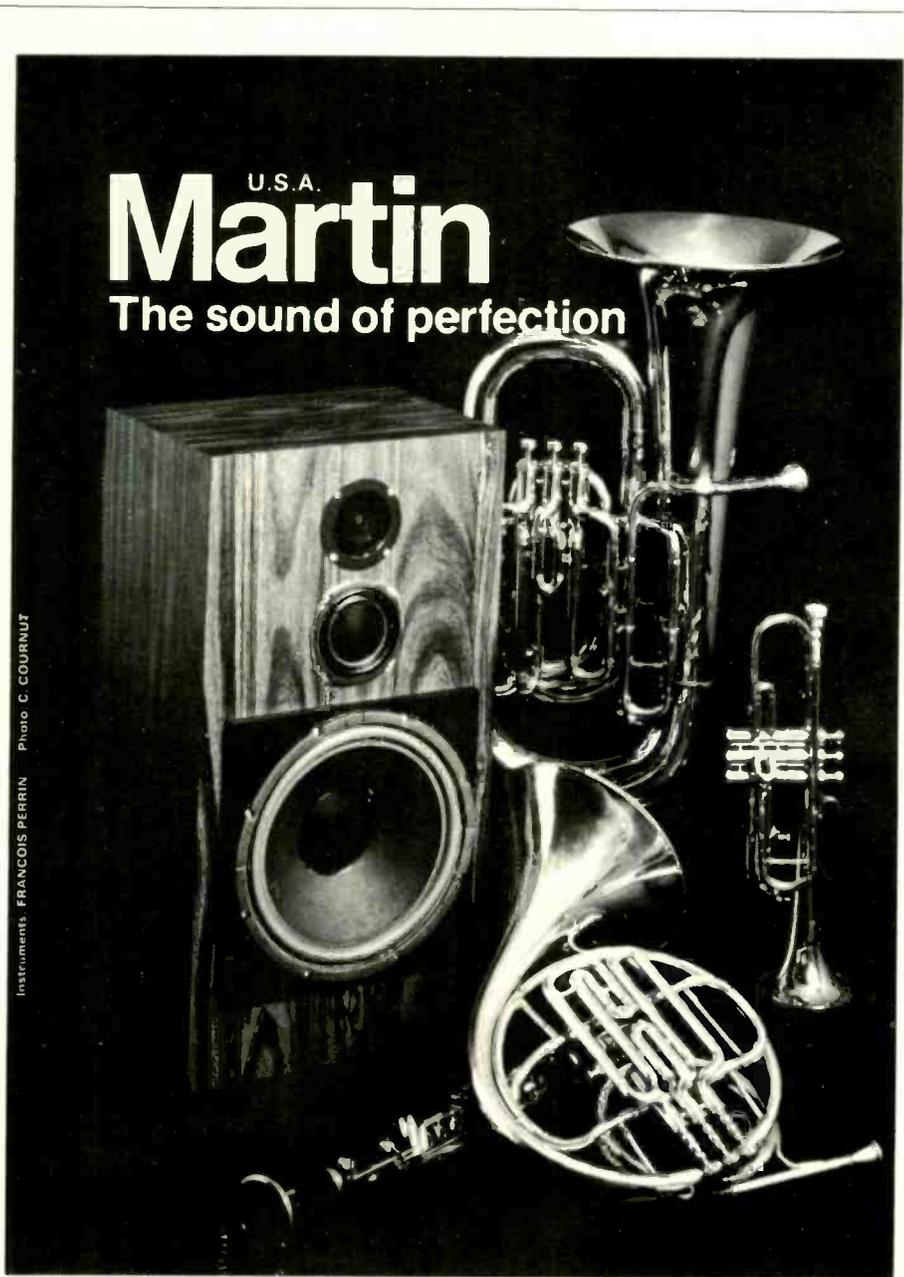
Two-way speaker system with two 8" woofers, two 3 $\frac{1}{8}$ " cone tweeters, and two 1" dome tweeters; frequency response 35-20,000 Hz; crossover at 3500 Hz; max. input 50 W rms continuous; imp. 6-8 ohms; oiled walnut finish; 27 $\frac{3}{16}$ " H x 15 $\frac{3}{16}$ " W x 11" D ..... \$199.95

**D-257-A Speaker System**

Three-way speaker system with 10" woofer, 4 $\frac{1}{8}$ " mid-range, and 1" dome tweeter; frequency response 40-20,000 Hz; crossovers at 1000 and 4000 Hz; max. input 25 W rms continuous; imp. 6-8 ohms; oiled walnut finish; 23 $\frac{3}{8}$ " H x 11 $\frac{1}{8}$ " W x 11 $\frac{3}{16}$ " D ..... \$149.95

**D-255-A Speaker System**

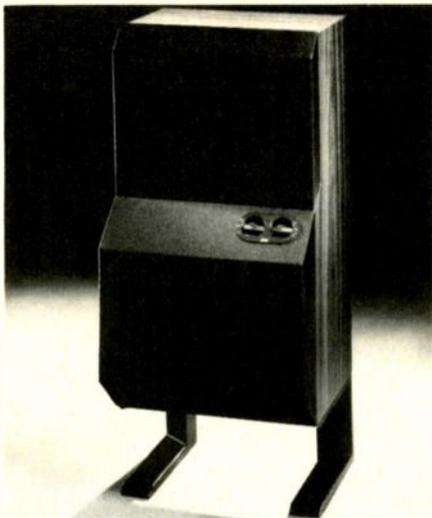
Two-way speaker system with 10" woofer and 1"



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## 10 SPEAKER SYSTEMS

dome tweeter; frequency response 40-20,000 Hz; crossover at 4500 Hz; max. input 25 W rms continuous; imp. 6-8 ohms; oiled walnut finish; 23 $\frac{3}{8}$ " H x 11 $\frac{1}{16}$ " W x 11 $\frac{1}{16}$ " D . . . . \$129.95

### DP-202-A Saphir I

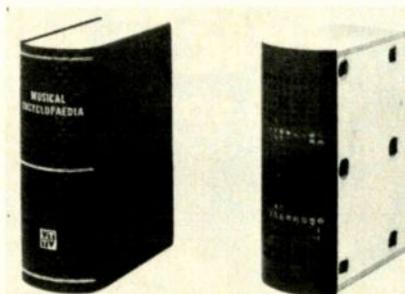
Two-way speaker system with 8" woofer and 3 $\frac{1}{16}$ " tweeter; frequency response 45-20,000 Hz; crossover at 3500 Hz; max. input 15 W rms continuous; imp. 6-8 ohms; oiled walnut finish; 15 $\frac{1}{16}$ " H x 10" W x 8 $\frac{3}{8}$ " D . . . . . \$79.95

### D-132-A Minimax

Compact two-way speaker system with 5 $\frac{1}{16}$ " woofer and 3 $\frac{1}{16}$ " tweeter; frequency response 50-20,000 Hz; crossover at 3500 Hz; max. input 15 W rms continuous; imp. 6-8 ohms; oiled walnut finish; 11" H x 7 $\frac{7}{8}$ " W x 6 $\frac{1}{16}$ " D . . . . . \$59.95

### D-93 Hi-Fi Encyclopedia

Ultra-compact two-way speaker system with two 3 $\frac{1}{16}$ " woofers and 2 $\frac{1}{16}$ " tweeter; frequency



response 60-20,000 Hz; crossover at 7000 Hz; max. input 15 W rms continuous; 8-ohm imp.; enclosure resembles bound encyclopedia volume; chocolate brown or ebony; 11 $\frac{7}{16}$ " H x 4 $\frac{1}{2}$ " W x 8 $\frac{5}{8}$ " D . . . . . \$49.95

## VISONIK

### D-100 Speaker System

Compact three-way speaker system with 7 $\frac{7}{8}$ " woofer, 1 $\frac{1}{2}$ " dome mid-range, and  $\frac{3}{4}$ " dome tweeter; frequency response 26-25,000 Hz; crossovers at 700 and 5000 Hz; recommended amp power 25-100 W/ch; imp. 4-8 ohms; 14 $\frac{1}{4}$ " H x 8 $\frac{7}{16}$ " W x 8 $\frac{7}{16}$ " D . . . . . \$259.00

### D-80 Speaker System

Compact three-way speaker system with 6 $\frac{3}{4}$ " woofer, 1 $\frac{1}{2}$ " dome mid-range, and  $\frac{3}{4}$ " dome tweeter; frequency response 28-25,000 Hz; crossovers at 700 and 4600 Hz; recommended amp power 25-80 W; imp. 4-8 ohms; 12 $\frac{7}{8}$ " H x 7 $\frac{7}{8}$ " W x 7 $\frac{7}{8}$ " D . . . . . \$219.00

### D-60 Speaker System

Compact two-way speaker system with 5 $\frac{1}{8}$ " woofer and 1" dome tweeter; frequency response 35-25,000 Hz; crossover at 1600 Hz; recommended amp power 18-60 W; imp. 4-8 ohms; 9 $\frac{1}{8}$ " H x 5 $\frac{3}{4}$ " W x 5 $\frac{3}{4}$ " D . . . . . \$149.00

### D-50 Speaker System

Compact two-way speaker system with 3 $\frac{3}{4}$ " woofer and  $\frac{3}{4}$ " dome tweeter; frequency response 48-25,000 Hz; crossover at 1800 Hz; recommended amp power 12-50 W; imp. 4-8 ohms; 6 $\frac{3}{4}$ " H x 4 $\frac{1}{8}$ " W x 4 $\frac{1}{4}$ " D . . . . . \$109.00

### D-302 Speaker System

Compact two-way speaker system with 3 $\frac{3}{4}$ " woofer and 2" cone tweeter; frequency response 55-22,000 Hz; crossover at 1800 Hz; recommended amp power 8-30 W; imp. 4-8 ohms; 6 $\frac{3}{4}$ " H x 4 $\frac{1}{8}$ " W x 4 $\frac{1}{4}$ " D . . . . . \$78.00  
**D-302 MO.** Bracket-mount version of D-302 . . . . . \$98.00

## WHARFEDALE

### Alredale SP Mk II

Four-way speaker system with 250-mm woofer, 170-mm lower mid-range, 100-mm upper mid-range, and isodynamic treble driver; frequency response 27-26,000 Hz  $\pm$ 3 dB; crossovers at 800, 1800, and 4200 Hz; 6-ohm imp.; sensitivity 86-dB SPL/W/m; max. input 100 W continuous, 200 W peak . . . . . \$500.00

### E70 Speaker System

Three-way speaker system with 250-mm woofer, two 100-mm mid-ranges, and 25-mm compression drive horn loaded treble unit; frequency response 50-18,000 Hz  $\pm$ 3 dB; crossovers at 800 and 7000 Hz; 8-ohm imp.; sensitivity 94-dB SPL/W/m; recommended amp power 3-120 W/ch rms; upper and lower contour controls; natural walnut veneer cabinet with semi-opaque grille cloth; 32" H x 13 $\frac{1}{2}$ " W x 14" D . . . . . \$420.00

### Dovedale SP Mk II

Three-way speaker system with two 170-mm woofers, 100-mm mid-range, and isodynamic treble driver; frequency response 35-26,000 Hz  $\pm$ 3 dB; crossovers at 800 and 5000 Hz; 6-ohm imp.; sensitivity 88-dB SPL/W/m; max. input 60 W continuous, 120 W peak . . \$310.00

### E50 Speaker System

Three-way speaker system with 250-mm woofer, 100-mm mid-range, and 25-mm compression drive horn loaded treble unit; frequency response 55-18,000 Hz  $\pm$ 3 dB; crossovers at 800 and 7000 Hz; 8-ohm imp.; sensitivity 94-dB SPL/W/m; recommended amp power 3-80 W/ch rms; upper and lower contour controls; natural walnut veneer cabinet with semi-opaque grille cloth . . . . . \$335.00

### Teesdale SP Mk II

Three-way speaker system with 200-mm woofer, 100-mm mid-range, and isodynamic treble driver; frequency response 40-26,000 Hz  $\pm$ 3 dB; crossovers at 800 and 5000 Hz; 6-ohm imp.; sensitivity 87-dB SPL/W/m; max. input 40 W continuous, 80 W peak . . . . . \$250.00

## YAMAHA

### NS-1000 Speaker System

Three-way speaker system with 11.8" woofer, 3.46" mid-range, and 1.18" tweeter; drivers are vapor-deposition beryllium-dome type; frequency response 40-20,000 Hz; crossovers at 500 and 6000 Hz; 8-ohm imp.; max. input 100 W; 90-dB SPL/W/m; mid-range and tweeter level controls; ebony enclosure with polyurethane finish; sold in mirror-image pairs only; 28" H x 15 $\frac{1}{2}$ " W x 14 $\frac{1}{2}$ " D . . . . . \$1350.00 pr.  
**NS-1000 M.** Same as NS-1000 but with semi-gloss black finish and detachable black grille; 26 $\frac{1}{2}$ " H x 14 $\frac{3}{4}$ " W x 12 $\frac{3}{4}$ " D . . . . . \$980.00 pr.

### NS-690II Speaker System

Three-way speaker system with 12" woofer, 3" mid-range, and 1 $\frac{1}{4}$ " tweeter; frequency response 35-20,000 Hz; crossovers at 800 and 6000 Hz; 8-ohm imp.; max. input 60 W; mid-range and tweeter level controls; may be multi-amped via separate driver terminals; walnut finish; 24 $\frac{3}{4}$ " H x 13 $\frac{3}{4}$ " W x 11 $\frac{1}{2}$ " D . . . . . \$560.00 pr.

### NS-500 Speaker System

Two-way speaker system with 10" woofer and 1 $\frac{1}{2}$ " beryllium dome tweeter; frequency response 40-20,000 Hz; crossover at 1800 Hz; 8-ohm imp.; max. input 60 W; black finish with removable grille . . . . . \$500.00 pr.

### NS-670 Speaker System

Three-way speaker system with 10" woofer, 2 $\frac{1}{2}$ " mid-range, and 1 $\frac{1}{4}$ " tweeter; frequency response 40-20,000 Hz; crossovers at 800 and 6000 Hz; 8-ohm imp.; max. input 50 W; mid-range and tweeter level controls; walnut finish; 22 $\frac{3}{4}$ " H x 12 $\frac{3}{8}$ " W x 10 $\frac{3}{8}$ " D . . . . . \$460.00 pr.

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# COMPACT SYSTEMS

## AIWA

### AF-5080A Stereo Compact

Combines record player, cassette recorder/player, and AM-FM receiver; amp section: continuous power output 22 W/ch min. rms at 8 ohms over 40-20,000 Hz with 1% THD; FM tuner section: sensitivity 13.2 dBf (2.5  $\mu$ V); dist. 0.4% (mono), 0.7% (stereo); stereo separation 38 dB (1 kHz); AM tuner section: sensitivity 300  $\mu$ V/m; cassette deck section: allows direct automatic recording from turntable to deck; features Dolby noise-reduction system; wow and flutter 0.1% wrms; frequency response 30-12,000 Hz (normal tape), 30-16,000 Hz (CrO<sub>2</sub> and FeCr tape); S/N 58 dB (Dolby on, FeCr tape); record player section: belt drive with automatic arm return; wow and flutter 0.1% wrms; S/N 45 dB; Shure M-91ED cartridge; 120-V a.c., 60 Hz, 75 W; 8 $\frac{1}{16}$ " H x 23 $\frac{1}{4}$ " W x 16 $\frac{1}{16}$ " D ..... \$570.00

### AF-3030 Receiver/Cassette Deck

Combines AM-FM receiver and record/play cassette deck; amp section: continuous power output 13 W/ch min. rms at 8 ohms over 40-20,000 Hz with 1% THD; FM tuner section: sensitivity 13.2 dBf (2.5  $\mu$ V); dist. 0.4% (mono), 0.7% (stereo); stereo separation 38 dB (1 kHz); AM tuner section: sensitivity 300  $\mu$ V/m; cassette deck section: features Dolby noise-reduction system; wow and flutter 0.1% wrms; frequency response 30-12,000 Hz (normal tape), 30-16,000 Hz (CrO<sub>2</sub> and FeCr tape); S/N 58 dB (Dolby on, FeCr tape); 120-V a.c., 60 Hz, 55 W; 6 $\frac{3}{4}$ " H x 18 $\frac{1}{16}$ " W x 12 $\frac{1}{16}$ " D ..... \$380.00

## CENTREX by PIONEER

### RH-626 AM-FM Stereo/8-Track

System combines 8-track record/playback, AM-FM stereo receiver, and two-way acoustic-suspension speaker systems; min. rms output power 4 W/ch; frequency range 90-20,000 Hz at 2% THD; wow and flutter 0.25%; twin VU meters; time/tape counter; auto/stop switch for one or four programs or endless playing; separate bass, treble, and volume controls; loudness switch; control center 4 $\frac{1}{2}$ " H x 18 $\frac{1}{2}$ " W x 11 $\frac{3}{4}$ " D; speakers 22 $\frac{1}{2}$ " H x 13" W x 8" D ..... \$289.95-\$339.95

**RH-6611.** Similar to RH-626 except includes BSR record changer, magnetic cartridge with diamond stylus; control unit 9 $\frac{7}{8}$ " H x 18 $\frac{1}{2}$ " W x 15" D ..... \$349.95-\$414.95

### TH-323 AM-FM Stereo/8-Track

Combines 8-track playback, AM-FM stereo receiver, and two full-range speaker systems; min. rms output power 4 W/ch; 80-20,000 Hz at 2% THD; wow and flutter 0.25%; stereo signal indicator; separate bass and treble controls; balance control; headphone and record output jacks; control center 4 $\frac{3}{4}$ " H x 18 $\frac{3}{4}$ " W x 11" D; speakers 22 $\frac{1}{2}$ " H x 13" W x 8" D ..... \$169.95-\$199.95

**TH-3311.** Similar to TH-323 except includes BSR record changer with interchangeable automatic and manual center spindles; calibrated and adjustable anti-skate mechanism; calibrated stylus pressure gauge; control center

10 $\frac{1}{2}$ " H x 18 $\frac{3}{4}$ " W x 15" D .. \$239.95-\$279.95

### RH-7744 AM-FM/8-Track/Phono

Combines AM-FM stereo receiver, 8-track record/playback, and 3-way speaker system; 12 W rms min/ch into 8 ohms from 40-30,000 Hz at 0.8% THD; FM usable sensitivity 1.9  $\mu$ V; FM muting; flywheel tuning; center tuning meter; stereo/mono switch; loudness contour; click-stop bass and treble; A + B selector; headphone jack; 11-in, 3-speed automatic changer; moving magnet cartridge; diamond stylus; 45 rpm adapter; sleep feature; damped cue lever; tape deck has twin VU meters, dual mike jacks, aux. input, resettable time counter and program indicator, function switch for selecting one or four programs or endless playing; 10-in 3-way speaker system; speakers 13" H x 22 $\frac{1}{2}$ " W x 10 $\frac{1}{2}$ " D; control center 10" H x 20" W x 15" D ..... \$449.95-\$534.95

### KH-767 AM-FM Stereo/Cassette

Combines AM-FM stereo receiver, cassette record/playback, and 3-way speaker system; 12 W rms min/ch into 8 ohms from 40-30,000 Hz at 0.8% THD; FM usable sensitivity 1.9  $\mu$ V; FM muting; flywheel tuning; center tuning meter; stereo/mono switch; loudness contour; click-stop bass and treble; A + B speaker selector; headphone jack; tape deck has twin VU meters; chromium dioxide tape switch, dual mike jacks, aux. input, resettable time counter; 10-in 3-way speaker system in walnut cabinets; speakers 13" H x 22 $\frac{1}{2}$ " W x 10 $\frac{1}{2}$ " D; control center 5 $\frac{7}{8}$ " H x 20" W x 15" D ..... \$369.95-\$439.95

**KH-7766.** Same as KH-767 except with 11-in, 3-speed automatic changer, moving magnet



cartridge, diamond stylus, 45 rpm adapter, sleep feature, damped cue lever; control unit 10" H x 20" W x 15" D ..... \$449.95-\$534.95

### KH-505 Compact Music System

Incorporates AM-FM stereo, cassette player/recorder, and two speakers; continuous power output 4 W/ch rms into 8 ohms over 70-20,000 Hz with 2% THD; crosstalk -50 dB; S/N 40 dB; has mike, line, and phono inputs; tape player: wow and flutter 0.25% wrms; fast-winding time 95 sec (C-60); tuner: sensitivity 2.5  $\mu$ V FM (IHF), 300  $\mu$ V/m AM (with bar antenna, IHF); speakers: infinite baffle bookshelf system with 8" woofer and 2 $\frac{1}{8}$ " tweeter; 8-ohm imp.; speakers 22 $\frac{1}{2}$ " H x 13" W x 8" D ..... \$309.95-\$364.95

### AH-711 Compact Music System

Incorporates AM-FM stereo, record changer, and two speakers; continuous power output 12 W/ch rms into 8 ohms over 40-30,000 Hz with 0.8% THD; frequency response 30-15,000 Hz  $\pm$ 1 dB; FM tuner: sensitivity 2.5  $\mu$ V; stereo separation 35 dB (1 kHz); capture ratio 2.5 dB; S/N 55 dB; AM tuner: sensitivity 160  $\mu$ V/m (with bar antenna); changer: plays 12, 10, and 7" records; 33 $\frac{1}{3}$ , 45, and 78 rpm speeds; stacks eight records; supplied with magnetic cartridge; speakers: three-way bookshelf speakers with 10" woofer, 4" mid-range, and 3" tweeter; 8-ohm imp.; frequency response 45-20,000 Hz; control center 10" H x 18 $\frac{1}{2}$ " W x 15" D; speakers: 22 $\frac{1}{2}$ " H x 13" W x 10 $\frac{1}{4}$ " D ..... \$299.95-\$354.95

## CHANNEL MASTER

### HP 6896 AM-FM/Phono/8-Track

Combines AM-FM receiver, record changer, speaker system, and 8-track recorder/player; pushbutton tape function selectors for fast forward, repeat, auto stop (end of all, end of one), pause, and record; automatic track changing; manual track selector; left and right record level controls; track, recording, and pause indicator lights; separate volume, balance, bass, and treble controls; jacks for left and right mics, stereo headphones, A and B speaker systems, aux. in, record out, and FM antenna; unit size 10" H x 23 $\frac{3}{16}$ " W x 14 $\frac{3}{16}$ " D, speaker size 23" H x 12" W x 10" D ..... \$339.95

### HR 6895 Compact Music System

Incorporates AM-FM stereo, 8-track recorder/player, and two speakers; continuous power output 7 W/ch rms into 8 ohms over 100-20,000 Hz with 1% THD; has separate volume, balance, and 10-position detent treble and bass controls; FM muting switch; loudness control; high and low cut filters; automatic FM stereo switching; tape deck has auto and manual track selection and L/R record level controls; speakers: bass reflex ported system with 8" woofer and 3" tweeter; receiver: 4" H x 23 $\frac{3}{16}$ " W x 14 $\frac{3}{16}$ " D; speakers: 23" H x 12" W x 10" D ..... \$279.95

### HP 6857 AM-FM/Phono/Cassette

Combines AM-FM receiver, full size record changer, speaker system, and cassette recorder/player; piano key tape selectors for fast



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forward, rewind, play, record, stop/eject, and pause; three-digit tape counter with reset button; separate volume, balance, bass, and treble controls; "4-D" sound switch; aux. and left and right recording mic input jacks; tape record, stereo headphones, right, left, and "4-D" speaker output jacks; unit size 10" H x 21 1/4" W x 15 1/2" D, speaker size 23" H x 12" W x 7" D . . . . . \$239.95

### HP 6861 AM-FM/Phono/8-Track

Combines AM-FM receiver, record changer, speaker system, and 8-track player; "4-D" sound capability; volume, balance, treble, and bass controls; automatic track changing; manual track selector; aux. input jack; output jacks for tape record, stereo headphone, left, right, and "4-D" speakers; unit size 9 1/2" H x 19 1/4" W x 15 1/4" D, speaker size 23" H x 12" W x 7" D . . . . . \$189.95

### HR 6873 AM-FM/8-Track

Combines AM-FM receiver, speaker system, and 8-track recorder/player; "4-D" sound capability; pushbutton tape function selectors for fast forward, pause, repeat, and record; volume, balance, bass, and treble controls; automatic track changing; manual track selector; input jacks for aux., phono (ceramic), right and left recording mics; output jacks for tape record, stereo headphones, right, left, and "4-D" speakers; unit size 5 1/4" H x 19 3/4" W x 11 1/2" D, speaker size 20" H x 11 3/4" W x 7" D . . . \$149.95

### HE 6852 AM-FM/8-Track

Combines AM-FM receiver, speaker system, and 8-track player; "4-D" sound capability; volume, balance, treble, and bass controls; automatic track changing; manual track selector; input jacks for aux. and phono (ceramic); output jacks for tape record, stereo headphones, right, left, and "4-D" speakers; unit size 5 1/4" H x 19 3/4" W x 11 1/2" D, speaker size 20" H x 11 3/4" W x 7" D . . . . . \$119.95

## HITACHI

### SDP/9600 Compact Music System

Combines record/play stereo cassette deck, AM-FM stereo receiver, BSR record changer with ADC magnetic cartridge, and two three-way speakers (8" woofer, 8" passive radiator, and 3" tweeter); two recording VU meters; five function LED indicators; pause control; three-digit tape counter . . . . . \$299.95

### SDP/9500 Compact Music System

Incorporates AM-FM stereo receiver, BSR automatic turntable, 8-track recorder/player, and speaker system; continuous power output 7.5 W into 8 ohms over 70-17,000 Hz with 3% THD; 8-track: has repeat function and automatic stop; manual and auto track changing; fast forward and pause controls; two VU meters and receiver signal strength meter; "sleep" shutoff switch; speaker system is three-way with 8" woofer, 8" passive radiator, and 3" tweeter; turntable incorporates ADC magnetic cartridge with diamond stylus; 10 1/2" H x 24" W x 16" D . . . . . \$299.95

### SdT/8700H Compact Music System

Combines record/play stereo cassette deck, AM-FM stereo receiver, BSR C-123R2 record changer and ceramic cartridge with diamond/sapphire stylus, and two three-way bass reflex speakers (8" woofer, 2" tweeter); aux. frequency response 40-18,000 Hz; left and right channel VU meters and record controls; pause control; digital tape counter; automatic stop; supplied with dust cover, microphone, and 45 rpm spindle; speaker size 23" H x 13" W x 8" D; unit size (with dust cover) 8 3/4" H x 23 3/8" W x 15 3/8" D . . . . . \$249.95

..... \$249.95

### SDP/8500H Compact Music System

Combines 8-track record/play deck, AM-FM stereo receiver, BSR C-123R2 record changer and ceramic cartridge with diamond/sapphire stylus, and two three-way bass reflex speakers (8" woofer, 2" tweeter); aux. frequency response 40-18,000 Hz, two VU meters; record, program, and auto-stop indicators; pause, fast forward, repeat, and manual and automatic program selection functions; supplied with dust cover, microphone, and 45 rpm spindle; speaker size 23" H x 13" W x 8" D; unit size (with dust cover) 8 3/4" H x 23 3/8" W x 15 3/8" D . . . . . \$249.95

### SdT/8600H Compact Music System

Combines record/play stereo cassette deck, AM-FM stereo receiver, BSR C-129R2 record changer and ceramic cartridge with diamond/sapphire stylus, and two two-way bass reflex speakers (8" woofer with whizzer cone); aux. frequency response 50-15,000 Hz; pause control; digital tape counter; automatic stop; supplied with dust cover and 45 rpm spindle; speaker size 20 3/4" H x 12" W x 7 1/4" D; unit size (with dust cover) 8 3/4" H x 22 1/2" W x 15 3/4" D . . . . . \$199.95

### SDP/8400H Compact Music System

Combines 8-track record/play deck, AM-FM stereo receiver, BSR C-129R2 record changer and ceramic cartridge with diamond/sapphire stylus, and two two-way bass reflex speakers (8" woofer with whizzer cone); aux. frequency response 50-15,000 Hz; record, auto-stop, and program indicators; pause control; supplied with dust cover and 45 rpm spindle; speaker size 20 3/4" H x 12" W x 7 1/4" D; unit size (with dust cover) 8 3/4" H x 22 1/2" W x 15 3/4" D . . . . . \$199.95

### SDP/8300H Compact Music System

Combines 8-track play deck, AM-FM stereo receiver, BSR C-129R2 record changer and ceramic cartridge with diamond/sapphire stylus, and two two-way bass reflex speakers (8" woofer with whizzer cone); aux. frequency response 50-15,000 Hz; program indicator and selector; automatic/manual program selection; supplied with dust cover; speaker size 20 3/4" H x 12" W x 7 1/4" D; unit size (with dust cover) 8 3/4" H x 22 1/2" W x 15 3/4" D . . . . . \$179.95

### SDP/8200H Compact Music System

Combines 8-track play deck, AM-FM stereo receiver, BSR C-129R2 record changer and ceramic cartridge with sapphire stylus, and two two-way bass reflex speakers (6 1/2" woofer with whizzer cone); program indicator and selector; automatic/manual program selection; supplied with dust cover; speaker size 18" H x 11" W x 6 1/2" D; unit size (with dust cover) 8 3/16" H x 18 9/16" W x 15 3/4" D . . . . . \$149.95

## JULIETTE

### C958-172 Home Entertainment System

Combines stereo 8-track and cassette tape players and recorders, FM/AM/FM receiver, turntable, air suspension speaker system and microphones; records directly on cassette and 8-track simultaneously; includes automatic recording level control; speaker control for 2-channel or quad effect; automatic and manual 8-track program changer (lamps indicate program recording and automatic stop); pause control for 8-track tape; recording safety interlock; a.c. bias recording and erasing systems; full keyboard cassette controls include record, fast forward, stop, rewind, play, eject; entertainment system 10 1/4" H x 21 1/2" W x 16 1/2" D; speakers 23 1/4" H x 12" W x 9" D . . . . . \$359.00

### C652-182 Home Entertainment System

Includes stereo 8-track recorder/player, FM/AM/FM receiver, turntable, 6-way air suspension speaker system, and microphones; records direct from receiver, phono, microphones or other source; has automatic and manual tape program changer; separate recording volume

controls; twin lighted recording VU meters; pushbutton controls for record, fast forward, auto stop, repeat and pause; a.c. bias record and erase system; comes with two microphones and stands; entertainment system 10 1/4" H x 21" W x 18 3/4" D; speakers 26 1/2" H x 14" W x 9" D . . . . . \$349.99

### C-956-172 Home Entertainment System

Combines front-loading cassette recording system, FM/AM/FM stereo receiver, phonograph, air suspension speaker system and microphones; features automatic recording level control; digital tape counter with reset button; keyboard controls for record, play, rewind, pause, fast forward, stop and eject; a.c. bias record and erase system; entertainment system 10" H x 21 1/2" W x 16" D; speakers 23 1/4" H x 12" W x 9" D . . . . . \$299.99

### C954-92 Home Entertainment System

Combines stereo cassette recorder/player; AM-FM stereo receiver, automatic record player, two air-suspension speaker systems, and two dynamic microphones; pushbutton selects regular 2-channel stereo or 4-speaker "quad" effect; full complement of controls; control center 9 3/4" H x 20 1/2" W x 16 1/4" D; speakers 19" H x 11" W x 6 1/2" D . . . . . \$259.99

**C650-92.** Similar to C954-92 except has built-in 8-track cartridge recorder/player; control center 10" H x 19 3/4" W x 16" D; speakers 19" H x 11" W x 6 1/2" D . . . . . \$259.99

**C440-92.** Similar to the C954-92 except 8-track cartridge player . . . . . \$219.99

## MERITON

### HF-2509/SP-3000 Compact

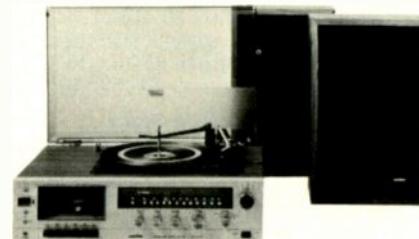
Incorporates AM-FM stereo receiver, BSR automatic/manual turntable, 8-track recorder, and speaker system; power output 12 W/ch rms into 8 ohms over 30-20,000 Hz with 2% THD; has bass and treble tone controls; tuner sensitivity 2.2  $\mu$ V FM, 250  $\mu$ V/m AM; S/N 60 dB FM, 40 dB AM; tape recorder: wow and flutter 0.25% wrms; frequency response 40-13,000 Hz; speakers: two-way speaker system with 8" woofer and 2 1/4" tweeter; 8-ohm imp.; control center 9 13/16" H x 22 3/16" W x 16 7/8" D; speakers 22 3/4" H x 13" W x 9" D . . . . . \$359.95

### HF-2105/SP-3000 Compact

Incorporates AM-FM stereo receiver, BSR automatic/manual turntable, cassette recorder, and speaker system; power output 6 W/ch rms into 8 ohms over 60-12,000 Hz with 2% THD; has bass and treble tone controls; tuner sensitivity 4  $\mu$ V FM, 400  $\mu$ V/m AM; S/N 60 dB FM, 40 dB AM; tape recorder: wow and flutter 0.25% wrms; frequency response 60-10,000 Hz; speakers: two-way tuned port speaker system with 8" woofer and 2 1/4" tweeter; 8-ohm imp.; control center 10 13/32" H x 21 3/8" W x 16 1/2" D; speakers 22 3/4" H x 13" W x 9" D . . . . . \$329.95

### HF-1405/SP-2000 Compact

Incorporates AM-FM stereo receiver, BSR automatic/manual turntable, cassette recorder, and



speaker system; power output 3 W/ch rms into 8 ohms over 140-8500 Hz with 5% THD; has bass and treble tone controls; tuner sensitivity 4  $\mu$ V FM, 400  $\mu$ V/m AM; S/N 60 dB FM, 40 dB AM; tape recorder: wow and flutter 0.25% wrms; frequency response 60-10,000 Hz; speakers: two-way air suspension system with 6 1/2" woofer and 2 1/4" tweeter; 8-ohm imp.; con-

trol center 10<sup>1</sup>/<sub>2</sub>" H x 21<sup>1</sup>/<sub>2</sub>" W x 16<sup>1</sup>/<sub>2</sub>" D; speakers 18<sup>1</sup>/<sub>2</sub>" H x 11<sup>1</sup>/<sub>2</sub>" W x 7" D... \$259.95

**HF-1900/SP-2000 Compact**

Incorporates AM-FM stereo receiver, BSR automatic turntable, and speaker system; power output 6 W/ch rms into 8 ohms over 40-20,000 Hz with 2% THD; has bass and treble tone controls; tuner sensitivity 2.2 μV FM, 250 μV/m AM; speakers: two-way system with 6<sup>1</sup>/<sub>2</sub>" woofer and 2<sup>1</sup>/<sub>2</sub>" tweeter; 8-ohm imp.; control center 9<sup>1</sup>/<sub>2</sub>" H x 16<sup>1</sup>/<sub>2</sub>" W x 17" D; speakers 18<sup>1</sup>/<sub>2</sub>" H x 11<sup>1</sup>/<sub>2</sub>" W x 7" D ..... \$219.95

**NORDMENDE**

**CPR 612 Compact Music System**

Combines AM-FM stereo multiplex receiver, stereo cassette deck, BSR record changer, and two speakers; slide controls for bass, treble, volume, and balance; cassette deck has digital counter and auto stop; records from receiver, record, or via mikes; jacks for tape in/out and remote control mike; control center 8<sup>3</sup>/<sub>4</sub>" H x 25" W x 14<sup>3</sup>/<sub>4</sub>" D; speakers 10<sup>3</sup>/<sub>4</sub>" H x 19<sup>1</sup>/<sub>8</sub>" W x 6<sup>3</sup>/<sub>8</sub>" D ..... \$249.95

**OPTONICA**

**SG-400 Stereo Component System**

Incorporates AM-FM, LW, and SW receiver, semi-automatic belt-drive turntable, and cas-



sette deck with Dolby noise-reduction system; FM tuner: sensitivity 2 μV; S/N 57 dB; capture ratio 1.5 dB; i-f response -80 dB; image response -50 dB; stereo separation 40 dB; AM tuner: sensitivity 250 μV/m; i-f response -50 dB; image response -46 dB; LW band: 150-370 kHz; sensitivity 200 μV/m; SW band: 5.95-18 MHz; sensitivity 63 μV/m; power output 15 W/ch rms into 4 ohms over 60-20,000 Hz with 1% THD; turntable: 33<sup>1</sup>/<sub>3</sub> and 45 rpm speeds; wow and flutter 0.15%; cassette deck: frequency response 30-15,000 Hz (CrO<sub>2</sub> tape); S/N 46 dB; wow and flutter 0.2%; fast-winding time 90 sec (C-60); channel separation 20 dB; 7.1" H x 29.6" W x 13.9" D ..... \$499.95

**PANASONIC**

**SE-2650 Compact Music System**

Incorporates AM-FM stereo receiver, cassette recorder/player, record changer, and speaker system; has two level meters for recording; automatic record level control; speakers have 6<sup>1</sup>/<sub>2</sub>" woofer, 6<sup>1</sup>/<sub>2</sub>" passive radiator, and 2<sup>1</sup>/<sub>2</sub>" tweeter ..... \$349.95  
**SE-2680.** Same but with 8-track recorder/player in place of cassette; has auto stop in record mode ..... \$349.95  
**SE-2600.** Same but has no tape facilities ..... \$279.95

**SE-1260 Compact Music System**

FM/AM/FM stereo radio with built-in cassette player/recorder and automatic record changer; two Panasonic "Thrusters" SB-200 speakers; front-loading cassette with damped eject mechanism; automatic recording level control (ALC); auto-stop in play and record modes; pause control; deluxe 11" automatic record changer with automatic shut-off; ceramic cartridge with diamond stylus; anti-skating adjustment and cueing lever; stereo eye, fixed AFC



on FM; phase locked loop (PLL) in FM stereo; tuning meter; separate bass and treble controls; 41-detent volume control; simulated wood cabinet ..... \$279.95

**SE-3170 Compact Music System**

FM/AM/FM stereo radio with built-in stereo 8-track player/recorder and automatic record changer; two Panasonic "Thrusters" SB-200 speakers; automatic level control (ALC) for 8-track recording; auto-stop in fast forward and record modes; pause control; 11" automatic record changer with ceramic cartridge and diamond stylus; cueing control; stereo eye, fixed AFC on FM; phase locked loop (PLL) in FM stereo; separate bass and treble controls; direct coupled (ITL-OTL-OCL) circuitry; simulated wood cabinet ..... \$249.95

**SE-1160 Compact Music System**

FM/AM/FM stereo radio with built-in cassette player/recorder and automatic record changer; two Panasonic "Thrusters" SB-180 speakers; front-loading cassette system with automatic recording level control (ALC); auto-stop in play and record modes; three-digit tape counter; 11" automatic record changer with ceramic cartridge and diamond stylus; cueing control; stereo eye, fixed AFC on FM; phase locked loop (PLL) in FM stereo; separate bass and treble controls; simulated wood cabinet ... \$229.95

**RE-8127 Compact Music System**

FM/AM/FM Stereo Radio with built-in Stereo 8-track player/recorder; two Panasonic "Thrusters" SB-200 speakers; direct coupled (ITL-OTL-OCL) circuitry for improved bass and mid-range response; FET tuned r-f tuner with IC and ceramic filter; illuminated linear scale slide-rule tuning; stereo-eye; fixed AFC on FM; separate bass, treble, and volume controls; tuning/level meter; automatic recording level control; auto-stop in record mode; locking fast forward; simulated wood cabinet .... \$199.95

**SE-3160 Compact Music System**

FM/AM/FM stereo radio with built-in stereo 8-track player and automatic record changer; two Panasonic "Thrusters" SB-180 speakers; stereo 8-track player with program selector and lighted program indicator; 11" automatic record changer with ceramic cartridge and diamond stylus; cueing control; LED stereo eye, fixed AFC on FM; phase locked loop (PLL) in FM stereo; separate bass and treble controls; simulated wood cabinet ..... \$199.95

**SE-7410 Compact Music System**

FM/AM/FM stereo radio with built-in automatic record changer; two Panasonic "Thrusters" SB-180 speakers; 11" automatic record changer; ceramic cartridge with diamond stylus; cueing control; LED stereo eye, AFC switch for FM; phase locked loop (PLL) in FM stereo; separate bass and treble controls; direct coupled (ITL-OTL) circuitry; hinged, detachable dust cover; simulated wood cabinet ..... \$179.95

**SE-8147 Compact Music System**

FM/AM/FM stereo radio with built-in stereo 8-

track player; two Panasonic "Thrusters" SB-180 speakers; 8-track tape player with program selector and lighted program indicator; LED stereo eye, fixed AFC on FM; phase locked loop (PLL) in FM stereo; separate bass and treble controls; direct coupled (ITL-OTL) circuitry; phono (ceramic cartridge) may be added on; simulated wood cabinet ..... \$149.95

**SANYO**

**DXT5252A Compact Music System**

Incorporates AM-FM stereo receiver, 8-track and cassette decks, three-speed (33<sup>1</sup>/<sub>3</sub>, 45, 78 rpm) automatic record changer, and two SX-160B speakers; power output 7.5 W/ch rms into 8 ohms over 50-20,000 Hz with 5% THD; tape-to-tape transfer capability and off-the-air recording; record changer has manual cueing and anti-skating controls, stylus force gauge, and diamond stylus; speakers are two-way acoustic suspension systems with 8" dual-cone driver and 3" tweeter; control center 10<sup>1</sup>/<sub>2</sub>" H x 21" W x 19<sup>1</sup>/<sub>2</sub>" D; speakers 21<sup>1</sup>/<sub>2</sub>" H x 13<sup>1</sup>/<sub>2</sub>" W x 10<sup>1</sup>/<sub>2</sub>" D ..... \$349.95

**DXT5240 Compact Music System**

Incorporates AM-FM stereo receiver, 8-track player and cassette record/play decks, three-speed (33<sup>1</sup>/<sub>3</sub>, 45, 78 rpm) automatic record changer, and two SX-160B speakers; power output 5 W/ch rms into 8 ohms over 100-20,000 Hz with 10% dist.; cassette deck has off-the-air recording capability; record changer has manual cueing and anti-skating controls, stylus force gauge, and ceramic cartridge with diamond stylus; speakers are two-way acoustic suspension systems with 8" dual-cone driver and 3" tweeter; control center 10<sup>1</sup>/<sub>2</sub>" H x 21" W x 19<sup>1</sup>/<sub>2</sub>" D; speakers 21<sup>1</sup>/<sub>2</sub>" H x 13<sup>1</sup>/<sub>2</sub>" W x 10<sup>1</sup>/<sub>2</sub>" D ..... \$299.95

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# 11 COMPACT SYSTEMS

## GXT4545 Compact Music System

Incorporates AM-FM stereo receiver, cassette deck, automatic record changer, and two SX-830 speakers; power output 7 W/ch rms into 8 ohms over 50-20,000 Hz with 1% THD; cassette deck features auto stop system; three-speed (33 $\frac{1}{3}$ , 45, 78 rpm) record changer has manual cueing control, stylus force gauge, and magnetic cartridge with diamond stylus; two-way speaker systems have 8" woofers and 2 $\frac{1}{2}$ " tweeters; control center 9 $\frac{1}{2}$ " H x 23" W x 15" D; speakers 24" H x 12 $\frac{1}{2}$ " W x 9" D . . . . \$279.95  
**DXT5404.** Similar to GXT4545 but with 8-track deck . . . . . \$269.95

## GXT4512 Compact Music System

Incorporates AM-FM multiplex receiver, cassette tape deck, three-speed (33 $\frac{1}{3}$ , 45, 78 rpm) record changer, and two SX-98 speakers; power output 5 W/ch rms into 8 ohms over 1-20 kHz with 10% dist.; cassette deck has off-the-air recording capability; record changer has manual cueing control, tracking force gauge, and ceramic cartridge with diamond stylus; speakers have 8" dual-cone full-range driver; control center 9 $\frac{1}{2}$ " H x 20" W x 14" D; speakers 19 $\frac{1}{2}$ " H x 12" W x 8" D . . . . . \$249.95  
**GXT4848.** Similar to GXT4512 but with 8-track



deck . . . . . \$249.95

## DXT5204 Compact Music System

Incorporates AM-FM stereo receiver, 8-track record/play deck, three-speed (33 $\frac{1}{3}$ , 45, 78 rpm) automatic record changer, and two SX-600 speakers; power output 3 W/ch into 8 ohms over 100-20,000 Hz with 10% dist.; tape deck can record from any source; record changer has tracking force gauge, anti-skating device, and ceramic cartridge; speakers are acoustic suspension design with 6" dual-cone drivers; control center 9" H x 19" W x 14 $\frac{1}{2}$ " D; speakers 21" H x 11" W x 7" D . . . . . \$199.95  
**JXT4404.** Similar to DXT5204 but with cassette deck in place of 8-track . . . . . \$199.95  
**DXT5004.** Similar to DXT5204 but 8-track deck is player only . . . . . \$169.95  
**GXT4503.** Similar to DXT5204 . . . . . \$169.95

## SHARP

### SG220 Compact Music System

Incorporates AM-FM stereo receiver, front-loading cassette, built-in automatic record changer, and Tower 1, SP4000, or SP3000 Sharp Tri-Bass Accelerator speakers; has auto program search system; two VU meters; ALC; center detent bass, treble, and balance controls; tuning meter; switchable loudness control; cue/review; price with Tower 1 speakers . . . . . \$399.95  
**SC210.** Similar but without built-in record changer . . . . . \$349.95

### SG181 Compact Music System

Incorporates AM-FM stereo receiver, front-

loading cassette deck, built-in automatic record changer, and Tower 1, SP4000, or SP3000 Sharp Tri-Bass Accelerator speakers; has auto program search system; tape pause control; individual volume, balance, bass, and treble controls; cue/review; two VU meters; ALC; auto shutoff in record mode; price with Tower 1 speakers . . . . . \$329.95  
**SC180.** Similar but without built-in record changer . . . . . \$289.95

### SG151 Compact Music System

Incorporates AM-FM stereo receiver, 8-track record/play deck, built-in automatic record changer, and Tower 1, SP4000, or SP3000 Sharp Tri-Bass Accelerator speakers; has Auto Program Search System; individual volume, balance, bass, and treble controls; ALC; price with Tower 1 speakers . . . . . \$319.95  
**SR150.** Similar but without built-in record changer . . . . . \$279.95

### SG143 Compact Music System

Incorporates AM-FM stereo receiver, cassette deck, built-in automatic record changer, and two speakers; has Auto Program Search System; noise suppression circuitry for taping; slider controls for bass, treble, volume, and balance; two VU meters; mechanical pause; four-channel speaker matrix circuit . . . . . \$249.95  
**SG141.** Similar but without cassette deck or VU meters but with 8-track record/play deck . . . . . \$249.95

## SUPERSCOPE

All Superscope compact music systems incorporate the following features: signal strength tuning meters; BSR automatic record changer with cue/pause control, anti-skate control, and diamond stylus; separate volume, bass, treble, and balance controls; two two-way speakers (SMS-820 and SMS-540 feature three-way speakers); walnut-grained vinyl veneer cabinets with choice of white gold or black anodized faceplate.

**SMS-540.** With built-in front-loading cassette recorder/player with automatic record level control and record interlock; module 9 $\frac{1}{16}$ " H x 19 $\frac{7}{8}$ " W x 16 $\frac{1}{8}$ " D; speakers 23" H x 12 $\frac{1}{2}$ " W x 8 $\frac{7}{16}$ " D . . . . . \$299.95-\$349.95  
**SMS-820.** With 8-track recorder/player with auto and manual program selector; automatic record level control; record interlock; mike input jacks; fast forward control; module 9 $\frac{1}{16}$ " H x 19 $\frac{7}{8}$ " W x 16 $\frac{1}{8}$ " D; speakers 23" H x 12 $\frac{1}{2}$ " W x 8 $\frac{7}{16}$ " D . . . . . \$299.95-\$349.95  
**SMS-800.** With 8-track player with auto and manual program selector; module 9 $\frac{1}{16}$ " H x 16 $\frac{1}{8}$ " W x 15 $\frac{1}{8}$ " D; speakers 21" H x 12" W x 7" D . . . . . \$229.95-\$269.95  
**SMS-500.** Basic unit; module 9 $\frac{1}{16}$ " H x 16 $\frac{1}{8}$ " W x 15 $\frac{1}{8}$ " D; speakers 21" H x 12" W x 7" D . . . . . \$194.95-\$224.95

## TELEX

### TXC 1201 AM-FM Stereo/8-Track

Combines an AM-FM stereo receiver, an 8-track tape player, with pair of speakers; receiver has FM stereo light, AFC blackout dial with slide-rule indicator; selector switch for phono, tape, aux., multiplex, FM and AM; frequency response 20-20,000 Hz; dist. 2% at rated output; manual track selection for tape player; slide controls for loudness, balance, bass, and treble; each speaker contains 8" duocone; 18" H x 10" W x 6 $\frac{1}{4}$ " D; control center 4 $\frac{1}{4}$ " H x 22 $\frac{1}{8}$ " W x 11 $\frac{1}{2}$ " D . . . . . \$189.95  
**TXC 1200.** Similar to TXC 1201 except includes automatic record changer; tinted hinged dust cover; 8-track storage compartment; 4 $\frac{1}{4}$ " H x 22 $\frac{1}{8}$ " W x 14 $\frac{1}{16}$ " D . . . . . \$239.95  
**TXC R1200.** Same as TXC 1200 but with 8-track recorder/player . . . . . \$264.95

## WEBCOR

### 111 AM-FM Stereo/8-Track/Cassette

Combines AM-FM stereo receiver with single

receptacle which accepts both 8-track and cassette tapes; 5 W/ch output; comes with two speakers; wood-grain case with silver front . . . . . \$159.95

**112.** Same as 111 except includes built-in turntable and dustcover . . . . . \$199.95

### 121 AM-FM Stereo/8-Track

Combines AM-FM stereo receiver with built-in 8-track record/play deck; features AFC, 1.5 W/ch output; two mike plugs, PA recording facilities; wood-grain cabinet with silver front and two built-in speakers . . . . . \$139.95  
**122.** Same as 121 except includes turntable and dustcover . . . . . \$189.95

## ZENITH

### JR596W Compact Music System

Incorporates modular AM-FM stereo receiver with phonograph and built-in 8-track player/recorder; receiver has tuning meter, loudness and balance slide controls, AFC on FM, FM muting, high and low filters, separate bass and treble slide controls; stereo record changer has four-pole induction motor and viscous-damped cueing; supplied with Shure magnetic cartridge with 0.6 mil diamond stylus; with two J3000W speakers; 10" H x 26" W x 18 $\frac{1}{4}$ " D . . . . . \$529.95  
 With J2000W speakers . . . . . \$499.95  
**J596W.** Same but with 8-track player; two J3000W speakers . . . . . \$469.95  
 With J2000 speakers . . . . . \$439.95

### JR591W Compact Music System

Incorporates modular AM-FM stereo receiver, phonograph, and cassette recorder/player; receiver has tuning meter, loudness and balance slide controls, high and low filters, AFC on FM, separate bass and treble slide controls; record changer has four-pole induction motor and viscous-damped cueing; supplied with Shure magnetic cartridge with 0.6 mil diamond stylus; with two J3000W speakers; 10 $\frac{1}{4}$ " H x 25 $\frac{1}{4}$ " W x 14 $\frac{7}{8}$ " D . . . . . \$429.95  
 With J2000W speakers . . . . . \$399.95  
 With J1000W speakers . . . . . \$369.95  
**JR590W.** Same as JR591W but with 8-track recorder/player . . . . . \$429.95  
 With J2000W speakers . . . . . \$399.95  
 With J1000W speakers . . . . . \$369.95  
**J590W.** Same as JR591W but with 8-track player only . . . . . \$369.95  
 With J2000W speakers . . . . . \$339.95  
 With J1000W speakers . . . . . \$309.95

### JR588W Compact Music System

Incorporates AM-FM stereo receiver, phonograph, and cassette recorder/player; receiver has separate bass, treble, loudness, and balance controls; high filter; record changer supplied with 0.7 mil diamond/3 mil sapphire styli; with two J3000W speakers; 10 $\frac{1}{4}$ " H x 19 $\frac{3}{8}$ " W x 16 $\frac{1}{8}$ " D . . . . . \$379.95  
 With J2000W speakers . . . . . \$349.95  
 With J1000W speakers . . . . . \$319.95  
**JR587W.** Same as JR588W but with 8-track recorder/player in place of cassette . . . . . \$359.95  
 With J2000W speakers . . . . . \$329.95  
 With J1000W speakers . . . . . \$299.95  
**J587W.** Same as JR588W but with 8-track player in place of cassette . . . . . \$319.95  
 With J2000W speakers . . . . . \$289.95  
 With J1000W speakers . . . . . \$259.95  
**J584W.** Same as JR588W but without high filter or tape facilities; 10 $\frac{1}{4}$ " H x 15 $\frac{1}{8}$ " W x 15 $\frac{1}{8}$ " D . . . . . \$259.95  
 With J2000W speakers . . . . . \$229.95  
 With J1000W speakers . . . . . \$199.95

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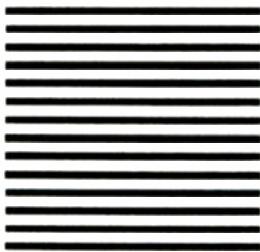


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# 12

# HEADPHONES & MICROPHONES

## AKG

### K-240 Free-Field Headphones

Free-field stereo headphones; dynamic moving-coil transducer and six passive radiators; frequency response 16-20,000 Hz; 600 ohms  $\pm 20\%$  imp. over 16-20,000 Hz; sensitivity 13  $\mu\text{bar/V}$  (96.5 dB SPL at 1 V) per channel; power requirements 1 mW (0.775 V) for 10  $\mu\text{bar}$  (94 dB SPL) per channel, 50 mW (5.5 V) for 72  $\mu\text{bar}$  (111 dB SPL) per channel; max. continuous power for 1% THD or less at 100 Hz 200 mW (11 V) for 143  $\mu\text{bar}$  (117 dB SPL) per channel; supplied with 3-m four-conductor cable and  $\frac{1}{4}$ -in phone plug; 295 g. . . . \$69.50

### K-140 Stereo Headphones

Stereo headphones with dynamic sound transducers; frequency response 20-20,000 Hz;



600 ohms  $\pm 20\%$  imp. over 20-20,000 Hz; sensitivity 15  $\mu\text{bar/V}$  (97.5 dB SPL); power requirements 0.75 mW (0.67 V) for 10  $\mu\text{bar}$  (94 dB SPL), 50 mW (5.5 V) for 80  $\mu\text{bar}$  (112 dB SPL); max. continuous power for 1% THD or less at 100 Hz 240 mW (12 V) for 119 dB SPL per system; supplied with 3-m four-conductor cable and  $\frac{1}{4}$ -in phone plug; 175 g. . . . \$34.50

## AUDIO-TECHNICA

### AT-706 Headphones

Electret condenser headphones; frequency response 10-22,000 Hz  $\pm 2$  dB; sensitivity 98-dB SPL at 1 kHz (0 dB = 0.0002  $\mu\text{bar/V}$ ); max. output 114 dB; imp. 4-16 ohms; includes impedance-matching adapter with headphone/speaker switching; 6-ft cord; adapter size  $3\frac{1}{4}$ " H x  $3\frac{3}{8}$ " W x  $8\frac{1}{2}$ " D; headset weight (less cord) 9 oz. . . . \$129.95

### AT-705 Headphones

Electret condenser headphones; frequency response 20-22,000 Hz  $\pm 3$  dB; sensitivity 98-dB SPL at 1 kHz; max. output 110 dB; imp. 4-16 ohms; includes impedance-matching adapter with headphone/speaker switching; 6-ft cord; adapter size  $1\frac{3}{4}$ " H x 3" W x  $3\frac{3}{8}$ " D. . . . \$89.95

### AT-703 Headphones

Dynamic headphones; frequency response 20-20,000 Hz; sensitivity 94-dB SPL at 1 kHz; imp. 4-16 ohms; coiled cord; 10.5 oz. . . . \$69.95

### AT-702 Headphones

Dynamic headphones; frequency response 25-

20,000 Hz; sensitivity 97-dB SPL at 1 kHz; imp. 4-16 ohms; coiled cord; 10.5 oz. . . . \$49.95

### AT-701 Headphones

Dynamic headphones; frequency response 30-20,000 Hz; sensitivity 97-dB SPL at 1 kHz; imp. 4-16 ohms; coiled cord; 10.5 oz. . . . \$39.95

## AUDIOTEX

### Professional Stereo Headphones

Frequency response 30-20,000 Hz; imp. 8-16 ohms; padded earpieces with adjustable padded headband; comes with 10-ft coiled cord, black vinyl carrying case. 30-5207 . . . \$59.95

### Deluxe Stereo Headphones

Frequency response 20-25,000 Hz; imp. 8 ohms; adjustable padded headband; padded earpieces; matches amps with output from 4 to 16 ohms; comes with 10-ft coiled cord, black vinyl carrying case. 30-5203 . . . \$49.95

### Marquis Stereo Headphones

Open-air, lightweight design; response 20-20,000 Hz; 8 ohms imp. matches all amplifier 4-16 ohm outputs; 6-ft cord and plug; cushioned earpieces and adjustable padded headband. 30-5205 . . . \$39.95

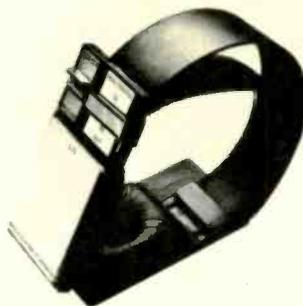
### Headphone Remote Control

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

## BANG & OLUFSEN

### U-70 Headphones

Orthodynamic stereo headphones; frequency response 16-20,000 Hz; sensitivity 8 mW for



94-dB SPL; continuous load 2 W; dist. 1% max.; 140-ohm imp.; 10-ft straight cord with three-conductor phone jack; 10.6 oz. . . . \$85.00

## BURWEN RESEARCH

### PMB 8 Orthodynamic Headphones

Around-the-ear style with leatherette foam ear cushions; max. SPL 112 dB (1 kHz); 150-ohm imp.; max. input 2 W; sensitivity 130 mW for 100-dB SPL (1 kHz); 0.3% THD at 100-dB SPL

(1 kHz); frequency response 15-26,000 Hz; has 10-ft cord; 12 oz. . . . \$99.95

### PMB 6 Orthodynamic Headphones

On-the-ear style with leatherette foam ear cushions; max. SPL 121 dB (1 kHz); 140-ohm imp.; max. input 2 W; sensitivity 7 mW for 100-dB SPL (1 kHz); 0.3% THD at 100-dB SPL (1 kHz); frequency response 16-23,000 Hz; has 10-ft cord; 9 oz. . . . \$79.95

### PMB 4 Dynamic Headphones

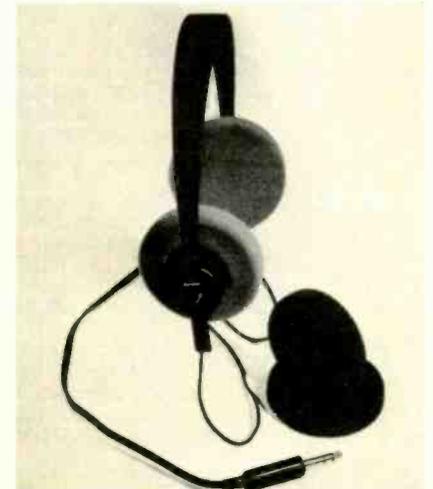
Around-the-ear style with leatherette foam ear cushions; max. SPL 114 dB (1 kHz); 400-ohm imp.; max. input 0.1 W; sensitivity 4 mW for 100-dB SPL (1 kHz); 0.3% THD at 100-dB SPL (1 kHz); frequency response 20-20,000 Hz; has 10-ft cord; 7.5 oz. . . . \$69.95

### PMB 40 Dynamic Headphones

On-the-ear style with reticulated foam ear cushions; max. SPL 128 dB (1 kHz); 400-ohm imp.; max. input 0.1 W; sensitivity 0.2 mW for 100-dB SPL (1 kHz); 0.3% THD at 100-dB SPL (1 kHz); frequency response 20-20,000 Hz; has 10-ft cord; 7.5 oz. . . . \$59.95

### PMB 20 Dynamic Headphones

On-the-ear style with reticulated foam ear cushions; max. SPL 118 dB (1 kHz); 400-ohm imp.;



max. input 0.1 W; sensitivity 2 mW for 100-dB SPL (1 kHz); 0.3% THD at 100-dB SPL (1 kHz); frequency response 20-20,000 Hz; has 10-ft cord; 3.9 oz. . . . \$39.95

## ERCONA

### D-42 Headphones

Dynamic stereo/mono headphones; supplied with detachable, washable soft rubber ear cushions; frequency response 30-20,000 Hz; output imp.  $2 \times 200$  ohms (stereo), 100 or 400 ohms (mono); power/voltage at normal listening 0.3 mW/0.25 V; 100-dB SPL with 0.3 mW input; 5 mW max. power with 2% dist.; supplied with 6-ft unterminated  $2 \times 2$  cable; 9.5 oz. . . . \$40.00

# 12 HEADPHONES

## RDF-224 Dynamic Headphones

Dynamic stereo/mono headphones; removable soft-foam-padded vinyl ear cushions; supplied with 8-ft coiled cable and three-conductor phone plug; frequency response 20-18,000 Hz; output imp. 8 ohms  $\pm$ 20% (1 kHz); output level 100 dB (1 kHz); max. input 100 mW; 12 oz . . . . . \$24.95

## ESS

### Mark 1 Stereo Headphones

Full-range Heil air-motion transformer headphones; frequency response 20-50,000 Hz;



dist. 0.3% at 1 kHz, 90-dB SPL; sensitivity 35 dB SPL for 1 mV input; imp. 32 ohms; max. input 14,000 mV; square-wave risetime 15  $\mu$ sec at 5000 Hz; comes with 14-foot coiled cord; 14 oz . . . . . \$97.00

## HAMMOND INDUSTRIES

### Beyer/Dynamic

#### DT-48 Dynamic Headphones

Moving-coil type dynamic headphones; frequency response 16-20,000 Hz  $\pm$ 2 dB; supplied with 10-ft cord . . . . . \$140.00

DT-48-K. Same but with plug-in coiled cable . . . . . \$145.00

#### DT-480 Dynamic Headphones

Moving-coil type dynamic headphones; frequency response 20-18,000 Hz; sensitivity 1 mW at 400 Hz for 115 dB (re  $2 \times 10^{-4}$   $\mu$ bar); 25-200 ohms imp.; 1 W max. input per phone . . . . . \$99.95

#### DT-202 Dynamic Headphones

Moving-coil type dynamic headphones; frequency response 20-20,000 Hz; sensitivity 1 mW for 100 dB; 400-ohm imp.; max. input 100 mW (for 120-dB SPL) . . . . . \$79.95

#### DT-100 Dynamic Headphones

Moving-coil type dynamic headphones; frequency response 30-18,000 Hz; sensitivity 1 mW at 400 Hz for 110 dB (re  $2 \times 10^{-4}$   $\mu$ bar); 5-100-400-2000 ohms imp.; max. input 1 W per phone . . . . . \$69.95

#### DT-220 Dynamic Headphones

Closed-ear dynamic headphones; frequency response 20-20,000 Hz; sensitivity 1 mW for 100 dB; 600-ohm imp.; max. input 42 mW (for 116-dB SPL); 260 g (without cable) . . . \$59.95  
DT-440. Similar to DT-220 but open high-velocity type . . . . . \$55.00

#### DT-96-A Dynamic Headphones

Moving-coil type dynamic headphones; frequency response 30-17,000 Hz; sensitivity 1

mW at 400 Hz for 110 dB (re  $2 \times 10^{-4}$   $\mu$ bar); 50-200 ohms imp.; max. input 100 mW per phone; 5-ft cord; 8 oz . . . . . \$54.95

### DT-302 Lightweight Headphones

Connects directly to high- or low-impedance outputs; frequency response 20-20,000 Hz;



rated power 7 mW (2.1 V) for 600 ohms; sponge ear cushions; stereo phone jack plug; 2.3 oz (without cord) . . . . . \$27.95

## 4-CHANNEL

### DT-204 4-Channel Headphones

Frequency response 20-20,000 Hz; imp. 4  $\times$  200 ohms (4 channel), 2  $\times$  100 ohms (stereo); independent volume controls for each front channel; 4-channel/stereo slide switch; 10-ft detachable cable with two plugs . . . . \$120.00

## INFINITY

### ES-1 Stereo Headphone System

System consists of one headphone set and walnut-enclosed adapter housing power supply and matching transformers; front-panel output accommodates two headsets; frequency response 20-25,000 Hz  $\pm$ 2 dB; THD 0.3% at 100 dB SPL; sensitivity: 98 dB SPL (2 V at 1000 Hz); max. output 118 dB SPL at 1000 Hz; max. input 50 W at 100 Hz; imp. 4-16 ohms; phones operate in push-pull mode; Polyurethin diaphragms; adjustable headband; 98-in headphone cord; adapter size 3" H  $\times$  5 1/4" W  $\times$  7 1/4" D . . \$275.00

## JENSEN

### 230 Stereo Headphones

Frequency response 15-22,000 Hz; 0.8% HD at 1 kHz, 100-dB SPL; max. input power 50 mW; imp. 4-600 ohms; ambient noise isolation 40 dB at 1 kHz; patented dual cavity; liquid-filled ear cushions; volume control for each earphone; 14-ft coiled cord with strain relief; chrome-plated headband; 19 oz without cord . . \$59.95  
220. Similar to 230 except frequency response 18-20,000 Hz; 0.9% HD; weight 18 oz . . . . \$49.95

### 210 Stereo Headphones

Frequency response 20-18,000 Hz; 0.9% HD at 1 kHz, 100-dB SPL; max. input power 50 mW; imp. 4-600 ohms; ambient noise isolation 18 dB at 1 kHz; foam-filled ear cushions; polypropylene headband, 14-ft coiled cord . . \$29.95

## JVC

### HM-200E Headphone/Microphone

Designed for binaural recording and monitoring; matched electret condenser mike with simulated auricle in each earpiece; mikes powered by AA cells contained in earpieces; three-way headphone level selector; mike tone selector; supplied with dummy head for off-the-operator recording; mikes: sensitivity -67 dB  $\pm$ 2 dB; output imp. 600 ohms; S/N 45 dB; frequency

response 50-10,000 Hz  $\pm$ 10 dB; headphone: 8-ohm imp.; 96-dB sensitivity; frequency response 50-10,000 Hz; 2-m cord with two phone-type mike plugs and stereo-type headphone plug; mike stand screw sockets (3/16", 3/8", 3/4", PF 1/2", 3/4"); 1.32 lb . . . . . \$80.00

## KOSS

### "Auditor" ESP/10 Stereo Phones

Electrostatic design with energizer; headset bandpass response 10-22,000 Hz  $\pm$ 2 dB; sensitivity for 100-dB SPL: 1.9 V rms at 1 kHz into E/10 energizer, 2.0 V rms pink noise; THD at 1 kHz and 100 dB SPL 0.5%; radiating surface area of electrostatic element 25 cm<sup>2</sup>/ch; semi-vented design; black with silver accents; energizer bandpass response 3 dB down at 15 Hz and 24 kHz; hum and noise 75 dB below sensitivity reference level (100 dB SPL); phase response at 20 Hz +30 degrees, at 15 kHz -30 degrees; input imp. 3 ohms min. at 20 Hz and 20 kHz, 180 ohms max. at 800 Hz; min. recommended amp power 35 W/ch; overload voltage (for relay cut-out) 5.3 V rms pink noise into energizer; semi-peak-reading VU meters; LED overload indicators; automatic overload detector; wood-grain trim . . . . . \$300.00  
ESP/9B. Similar to ESP/10 except frequency range 15-15,000 Hz  $\pm$ 5 dB; sensitivity for 100-dB SPL 6.15 V rms at 1 kHz; energizer connects directly to low-Z speaker terminals; Pneumalite ear cushions; adjustable stainless-steel headband; self-adjusting yokes; 2-m cord; weight 19.3 oz (less cord) . . . . . \$175.00

### Technician/VFR Headphones

Stereo headphones with variable-frequency-response controls; slide-type controls at base of each earcup permit fine tuning the shape of the response curve; frequency response 10-22,000 Hz; THD 0.3% at 1 kHz (100-dB SPL); features Pneumalite ear cushions to exclude outside sounds; wide vinyl headband with self-adjusting yoke; black and chrome; equipped with boom microphone mount for professional applications; 4-conductor coiled cord; 16.8 oz (less cord) . . . . . \$75.00

### Phase/2 Stereophones

Frequency response 10-22,000 Hz; will operate from outputs of 3.2 to 600 ohms; dist. 1% at 100-dB SPL; will handle 5 V rms continuous with provision for 14-dB SPL transient peaks; Pneumalite 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; extendible stainless steel headband with self-adjusting pivoting yokes . . . . \$75.00

### PRO/4AA Dynamic Headphones

Frequency response 10-22,000 Hz; sensitivity 0.4% at 100-dB SPL; 3.2 to 600 ohms impedance; 10-ft coiled cord; 20.5 oz; Pneumalite ear cushions for noise isolation . . . . \$65.00

### HV/1A Stereophones

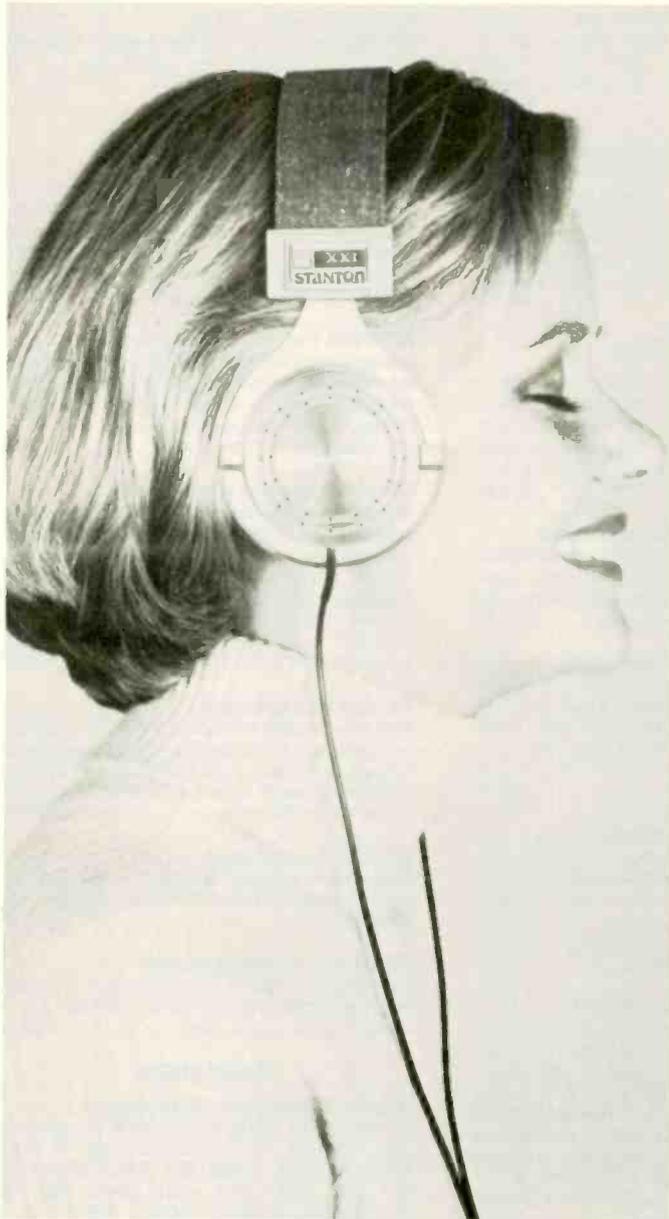
Features low-mass Decilite driver elements for coverage 15-30,000 Hz; will operate from outputs of 3.2 to 600-ohms; dist. 0.5% at 100-dB SPL; will handle 5 V rms continuous with provision for 14-dB SPL transient peaks; acoustical sponge ear cushions; extendible headband with self-adjusting, pivoting yokes and soft padded vinyl cover; 3-conductor coiled cord (10-ft extended); 10 oz . . . . . \$49.95  
HV/1LC. Same except volume/balance control per earcup; 10.8 oz . . . . . \$54.95

### K/145 Dynamic Stereophone

Features 1.5-in. polyester driver; frequency response 20-20,000 Hz; imp. 90 ohms at 1 kHz; level controls; Pneumalite ear cushions; padded simulated leather earcups, adjustable brushed stainless steel yokes and sidebars; 10-ft coiled Y cord; molded plug; sensitivity at 100-dB SPL 0.25 V rms sine wave at 1 kHz, 0.10 V rms pink noise; THD 0.5% at 1 kHz for 100-dB

# Stanton Stereo Wafers™

The livest sound, the highest fidelity  
...plus the livest look.



## Looks Just Great...

Hail to a totally new concept and technology in headphones. And hail to an Open Audio design that gives you the lightest weight comfort you've ever experienced with headphones that possess truly top quality sound.

These ultra thin headphones have been designed and engineered to meet important professional needs: extreme comfort over long listening periods, a particular wide frequency response, and a broad dynamic range. A major factor in the success of the design is the use of rare earth elements in the compound of the permanent magnets of each earpiece. Besides having superior magnetic properties, these magnets



## ...Any Way You Look At It!

are also of much smaller size, while still allowing Stanton to achieve an improved response over headphones incorporating conventional permanent magnets.

The soft foam cushioned headband is exceptionally comfortable and has a trendy brushed denim fabric covering. The earpiece yokes incorporate specially designed pivots which allow the earpieces to fit perfectly against the ear, whatever the shape of the head.

Write us for the specs — they're magnificent! And ask for a demonstration as soon as possible at your Stanton dealer.



Write today for further information to Stanton Magnetics, Inc., Terminal Drive, Plainview, N.Y. 11803.

CIRCLE NO. 94 ON READER SERVICE CARD

# 12 HEADPHONES

SPL; weight (less cord) 12.6 oz ..... \$45.00  
**K/135.** Similar to K/145 except response 10-18,000 Hz; 2.5-in. dynamic elements; imp. 100



ohms at 1 kHz; sensitivity at 100-dB SPL 0.09 V rms sine wave, 0.11 V rms pink noise; THD 1% at 1 kHz for 100-dB SPL; weight (less cord) 13.4 oz ..... \$35.00  
**K/125.** Similar to K/135 except response 10-16,000 Hz; sensitivity at 100-dB SPL 0.14 V rms sine wave, 0.13 V rms pink noise; weight (less cord) 12.8 oz ..... \$25.00

### "Easy Listener" Stereophones

Frequency response 20-20,000 Hz; 2" dynamic elements; imp. 161 ohms at 1 kHz; sensitivity 0.8 V rms sine wave at 1 kHz, 0.5 V rms pink noise (for 100-dB SPL); THD 0.5% at 1 kHz; 100-dB SPL; acoustical sponge ear cushions; extendible headband with self-adjusting yokes and soft denim cover; 3-conductor 10-ft coiled cord; weight (less cord) 10 oz ..... \$44.95

### HV/1 Dynamic Headphones

Has 2" dia. driver and 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; 10 oz; 10-ft. coiled cord ..... \$39.95

### KO/727B Dynamic Headphones

Frequency response 10-18,000 Hz; THD 1.0% at 100-dB SPL; 3.2 to 600 ohms impedance; 10-ft coiled cord; 16.5 oz; black ..... \$34.95

### K/6LC Dynamic Headphones

Frequency response 10-16,000 Hz; THD 1.0% at 100-dB SPL; 3.2 to 600 ohms impedance; 10-ft coiled cord; individual earphone volume controls; 17.9 oz; brown/beige ..... \$29.95  
**Model K/6.** Same except without volume controls ..... \$19.95

### K/7 Stereo Headphones

Lightweight dynamic stereo headphones; features shockproof, polypropylene construction; one-piece flexible headband; foam-filled vinyl ear cushions; will operate from outputs with source impedances of 3.2-600 ohms; response 20-16,000 Hz; sensitivity 0.39 V rms sine wave at 1 kHz (100-dB SPL); 4-conductor Y cord; 10.3 oz ..... \$15.95

### 4-CHANNEL

#### Phase/2 + 2 Quadraphone

Incorporates one Decilite driver element and one high-velocity dynamic element in each earcup; response 20-20,000 Hz; programmer permits 127 personal listening perspectives in 4-channel sound without adjusting amp controls; features comparator switch for normal 4-channel mode vs Phase/2+2 mode; soft

acoustical sponge ear cushions; vinyl-covered headband with pivoting self-adjusting yokes; 17.3 oz ..... \$145.00

### K/2 + 2 Four-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; impedance 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; 24.2 oz; Pneumalite ear cushions; comes with carrying case ..... \$90.00

### K/6LCQ Four-Channel Quadrafones

Can be used for either 2- or 4-channel operation; dual 1 1/2" dynamic drivers in each earpiece; 3.2-600-ohm imp; dist. 0.5% at 109-dB SPL; capacity 5 V continuous, 14 dB transient peaks; response 20-17,000 Hz; foam-filled vinyl ear cushions for average 18 dB ambient noise isolation; 21.6 oz ..... \$49.95

## LAFAYETTE

### RP-50 Criterion Polymer Headphones

Features high-sensitivity flat polymer transducers integrated with voice coils and high-energy magnet structures; earpieces are open-air, fully padded; response 20-20,000 Hz; imp. 4-16 ohms ..... \$59.95

### F-750 "Lighthouse II" Headphones

Lightweight design; nylon-type diaphragms; frequency response 18-22,000 Hz; max. input 100 mV; imp. 4-100 ohms; adjustable vinyl headband; 6 1/2-ft cable with plug ..... \$49.95

### F-700 Lightweight Headphones

Features ultra-thin diaphragm with rare-earth-magnet transducer; response 18-22,000 Hz; adjustable vinyl leatherette headband; foam-padded earcups; max. input 100 mW; imp. 4-150 ohms; 6 1/2-ft cord with 1/4" plug; 4.6 oz ..... \$34.95

### 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; 5-ft cord and plug ..... \$24.95

## 4-CHANNEL

### 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; 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; 9 1/2-ft cable, connectors ..... \$44.95

## 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; impedance 30 ohms; energizer has built-in headphone/speaker switching; facilities for additional set of phones; protective circuit for regulating extremely loud passages; overload protection; 14 oz ..... \$129.95

### SD-5 Dynamic Headphones

Response 30-15,000 Hz; THD 1% at 30 Hz, 0.18% at 1000 Hz, 0.25% at 10,000 Hz (all at 100 dB SPL); 8-ohms imp.; sensitivity: 0.15 V rms for 200 dB SPL; Mylar diaphragm dynamic transducers; soft ear cushions; 16 oz .. \$39.95

## MIIDA

### HX-140 Headphones

Electrostatic stereo headphones; frequency

response 20-25,000 Hz; SPL 96 dB/10 V rms; max. sound pressure 115 dB/400 Hz; dist. 0.5% at 200 Hz; power supply 6 W (400 Hz) continuous max. input; 35 W inst. max. input; response 10-30,000 Hz  $\pm$  2 dB; dist. 0.2% at 50 Hz, 0.02% at 1 kHz; comes with 6 1/2-ft cord; 9.17 oz (headphones) ..... \$129.95

### HX-130 Dynamic Headphones

Lightweight dynamic stereo headphones; imp. 8 ohms; frequency response 80-20,000 Hz; sensitivity: 90 dB (1 mW); max. input 300 mW; 8-ft cord; weight 11.2 oz ..... \$79.00

**HX-100.** Similar to HX-130 except frequency response 20-20,000 Hz; sensitivity: 112 dB; 8.2-ft cord; weight 10.25 oz ..... \$59.00

## MURA

### SP-205 Dynamic Headphones

Stereo headphones; Mylar cone elements; separate volume and tone controls on each earcup; stereo/mono switch; frequency response 30-20,000 Hz  $\pm$  5 dB; imp. 8 ohms; padded adjustable headband, cushioned earcups, 15-ft coiled cord with plug ..... \$62.50

### HB-1500 Polymer Headphones

Stereo headphones; high-polymer diaphragm transducers; sensitivity: 100 dB SPL/1 mW; frequency response 18-22,000 Hz; imp. 8 ohms; open-air design; max. input 0.1 W; 10-ft coiled cord with plug; 4 oz ..... \$59.95

### SP-504 Dynamic Headphones

Stereo headphones; 3" dynamic speakers; separate slide-type volume and tone controls; stereo/mono switch; frequency response 20-18,000 Hz; imp. 8 ohms; adjustable padded headband, 10-ft coiled cord with plug ..... \$29.50

**SP-502.** Similar to SP-504 but without tone controls; cushioned headband and earcups; response 30-18,000 Hz ..... \$19.95

### SP-503 Headphones

Has volume slide controls; mono/stereo switch; ear padding and adjustable padded headband; frequency response 30-18,000 Hz; 3" dynamic speaker in each earpiece; 8-ohm imp.; 10-ft coiled cord with plug ..... \$23.50

### SP-500 Headphones

Frequency response 35-15,000 Hz; 2 1/4" dynamic speaker in each oversize earpiece; 8-ft cord with plug ..... \$16.95

### SP-94 Stereo Headphones

Lightweight dynamic headphones; 2 1/4" speakers; frequency response 35-15,000 Hz; imp. 8 ohms; 8-ft cord with plug ..... \$9.95

## NAKAMICHI

### HP-100 Monitoring Headphones

Dynamic type designed primarily for monitoring; response 20-20,000 Hz; imp. 8 ohms  $\pm$  20% (1 kHz); output SPL 90 dB  $\pm$  3 dB per mW at 1 kHz; max. input power 500 mW (117-dB SPL); channel balance within 3 dB at 1 kHz; vinyl-covered, foam-padded earpieces; adjustable headband; 8-ft coiled cord with molded plug and strain relief; weight 14.3 oz ..... \$50.00

## NORDMENDE

### 225 Headphones

Stimline, lightweight design; incorporates ultra-thin polyester diaphragm; matching imp. 4-32 ohms; frequency response 20-20,000 Hz; with 6-ft cord; 250 g (with cord) ..... \$24.95

## PICKERING

### OA-7 Headphones

Lightweight open-audio design; REE used in permanent magnet compound; foam-cushioned headband; earpiece yokes incorporate pivoting system enabling snug fit; nominal input imp. 100 ohms; frequency response 20-22,000 Hz  $\pm$  5 dB; sensitivity 110-dB SPL at 0.2 V; max.



input 0.1 W rms; dist. 0.5% at 110-dB SPL; supplied with flat 10-ft cord; 6 oz . . . . \$69.95

**PH-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 oz . . . . . \$64.95

**OA-3 Headphones**

Lightweight, open-audio design, 15 ohms  $\pm 10\%$  at 1000 Hz; max. power input 0.2 W rms/ch; response 20-20,000 Hz; dist. 0.5% 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; 7.5 oz (without cord) . . . . . \$39.95

**PIONEER**

**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 . . . . . \$80.00

**Monitor 10 Stereo Headphones**

Dynamic type covering a frequency range of 20-20,000 Hz, with 2 1/4" free-edged polyester-film cone speaker in each earpiece; sensitivity 100 dB/mW; max. input power 700 mW/ch; comes with 16-ft, 5-in. coiled cord; 23 oz . . . . . \$70.00

**SE-505 Headphones**

Two-way stereo dynamic design with a woofer and tweeter in each phone; 8-ohms each channel; response 20-20,000 Hz; sensitivity 108 dB/0.3 V; features both tone and volume controls on each phone; maximum input 500 mW each phone; 16-ft, 5-in. coiled cord . . . . . \$60.00

**SE-500 Stereo Headphones**

Incorporates high-polymer film diaphragm; frequency range 20-20,000 Hz; sensitivity 100 dB/3V; max. input power 30 V/ch; resistant to temperature/humidity changes; plugs directly into headphone jack of any amplifier or receiver . . . . . \$50.00

**SE-4 Hear-Through Headphones**

Features super-thin polyester film dome drivers; frequency range 20-20,000 Hz; hear-through earpads; imp. 250 ohms; sensitivity 96 dB/mW (1000 Hz); max. input power 200 mW/ch; comes with 9-ft, 5-in. Y-type cord; weight 7 3/8 oz without cord, 9 1/8 oz with . . . . . \$50.00

**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; 16-ft, 5-in. coiled cord . . . . . \$45.00

**SE-305 Stereo Headphones**

Dynamic type covering a frequency range of



**Before  
you buy  
stereo  
headphones,  
get  
some  
good  
advice.**

**Theirs:**

Julian S. Martin  
HI-FI STEREO BUYERS' GUIDE, March-April, 1976

*"Superb from every viewpoint. An outstanding achievement in headphone design. One of the most comfortable."*

The Len Feldman Lab Report  
TAPE DECK QUARTERLY, Winter, 1975

*"Response of these phones extends uniformly from 20 Hz to over 22,000 Hz with no more than  $\pm 2$ dB variation over this entire range...this is nothing short of incredible."*

New Equipment Reports  
HIGH FIDELITY, January, 1976

*"The sound quality the AT-706 presents [to you] is exceptional: very wide range and smooth...Within this excellent operating range the sound is exceedingly clean and open...an extremely fine stereo headset."*

If you asked the critics they'd tell you to listen critically to a variety of products before you buy. We agree. Because the more carefully you listen, the more you'll be impressed by the sound of Audio-Technica.

**AT-706**

Electret Condenser  
Stereo Headset \$129.95  
Our finest Personal Transducer



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Available in Canada from Superior Electronics, Inc.

12

## HEADPHONES

AKG



The AKG P8E with Transversal Suspension®

**A major advance in phono cartridge design. Cartridges that add a third dimension for superb stereo listening. Depth.**

AKG has created a new line of cartridges that go beyond left and right channel separation. Now, a third dimension has been added... depth, in which the relative placement of instruments from front to back can be recognized.

With Transversal Suspension, these new cartridges recreate orchestral sound precisely as you would hear it during a live performance... and with a special fidelity you must hear to believe.

In conventional stylus assemblies, the stylus pivot point tends to shift, particularly when tracking higher frequencies. The result is reduced separation... unstable stereo "imaging."

The unique AKG-patented Transversal Suspension allows the stylus to move freely, yet suppresses torsional and axial forces so that pivot point shift is virtually eliminated. The full sound spectrum is reproduced precisely... without the effects caused by (1) mechanical resonances or (2) intermodulation.

There's much more to the story behind the superb performance of the new AKG cartridges. So take your ears to your dealers, listen critically... and compare. You're sure to be favorably impressed. There's a wide range of models to meet your particular needs.

At selected dealers everywhere.



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PHONO CARTRIDGES  
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AKG ACOUSTICS

PHILIPS AUDIO VIDEO SYSTEMS CORP.

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(201) 529-3800

CIRCLE NO. 4 ON READER SERVICE CARD

20-20,000 Hz; 8-ohm 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 oz ..... \$35.00

#### 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 oz ..... \$25.00

#### REALISTIC

##### Pro-1 Stereo Headphones

Air-filled ear cushions; Mylar diaphragm speakers; remote volume and balance controls on earcups; frequency response 10-24,000 Hz; has 10-ft coiled cord and standard 1/4" plug; 4-16 ohm imp.; 19 oz ..... \$49.95

##### LV-10 Headphones

Features electroacoustical design with 2-in. dynamic elements; frequency response 20-20,000 Hz; dist. 0.5%; acoustical sponge earpieces and soft vinyl-covered headband with self-adjusting yokes; 4- to 16-ohm impedance; 10-ft coiled cord and plug ..... \$39.95

##### Nova-Pro Headphones

Stereo dynamic design; volume controls on each earcup; frequency response 20-20,000 Hz; 8-ohm impedance; 10-ft coiled cord ..... \$34.95

##### Custom-Pro Headphones

Dynamic-type headphones; frequency response 20-20,000 Hz; 4- to 16-ohm impedance; bass port ..... \$24.95

##### Nova-15 Headphones

Dynamic-type headphones; ported open-back earcups; frequency response 20-20,000 Hz; 4- to 16-ohm impedance; 10-ft cord; 7 oz ..... \$21.95

##### Nova-30 Headphones

3 1/2-in speakers for wide response; frequency response 30-18,000 Hz; separate controls on



each earcup; soft cushion earcups; padded adjustable headband; 4- to 16-ohm impedance; supplied with 10-ft coiled cord and 1/4-in plug ..... \$19.95

##### Nova-14 Headphones

Has Glide-Path volume/balance controls; frequency response 50-15,000 Hz; cushioned aluminum earcups with 2" speakers; adjustable padded headband; has 7-ft cord and 1/4" plug; 4-16 ohm imp. .... \$14.95

#### Nova-10 Headphones

Has cushioned earpads with 2" speakers; adjustable vinyl headband; frequency response 50-15,000 Hz; has cord and 1/4" plug; 4-16 ohm imp. .... \$10.95

#### RECOTON

##### ST31 Stereo Headphones

Frequency response 50-19,000 Hz; 3-in. speakers; separate volume control with stereo/mono switch; imp. 8 ohms; foam-filled headband and ear cushions; 10-ft coiled cord ..... \$36.95

##### ST26 Stereo Headphones

Frequency response 20-21,000 Hz; 2 1/4-in. Mylar speakers; foam ear cushions; adjustable padded headband; separate slide volume controls; stereo/mono switch; imp. 8 ohms; 10-ft coiled cord ..... \$31.95

##### ST18 Stereo Headphones

Frequency response 25-18,000 Hz; 2 1/4-in. dynamic speakers; foam-padded adjustable headband and ear cushions; separate volume controls; imp. 8 ohms; 8-ft coiled cord ..... \$20.95

#### ROYAL SOUND

##### HP-60 Stereo Headphones

Expanded frequency response through 20,000 Hz; 100 g; 10-ft coiled cord; 1/4-in thick at earcups ..... \$75.00

#### SANSUI

##### SS100 Stereo Headphones

Omni-dynamic driver full-range speaker in each earpiece; matching amp imp. 4-100 ohms, 600 ohms nominal; frequency response 20-20,000 Hz; HD 0.3% at 94 dB SPL; max. input power 250 mW; sensitivity 94 dB/mW (at 200 Hz); 6.5-ft cord; weight 13.2 oz .. \$90.00

##### SS-50 Stereo Headphones

Two-way, 4-speaker dynamic phones; 3" cone-type woofer and 1 1/2" dome tweeter in each earpiece; imp. 8 ohms; frequency response 20-20,000 Hz; max. power input 500 mW peak; sensitivity 106 dB at 200 Hz; LC crossover network 6 dB/octave; crossover frequency 1000 Hz; separate click-stop tone controls for left and right headphones; separate volume controls; 9.8-ft coiled cord, Y-shaped-extension cord; 28.2 oz ..... \$64.00

**SS-22.** Similar to SS-50 except 3 3/4" woofer and 2" cone-type tweeter in each earpiece; sensitivity 105 dB; 8-ft coiled cord, 6 1/2-ft extension cord; 27.4 oz ..... \$40.00

##### SH-15 Stereo Headphones

Non-isolating headphones with 3/4" full-range dome speakers; matches amplifier impedances 4-32 ohms; nominal imp. 25 ohms; frequency response 20-20,000 Hz; max. input power 65 mW; sensitivity 97 dB at 1000 Hz; acoustical foam urethane earpads; washable earpads; adjustable headband; 9.8-ft cord; weight 9.2 oz (headphones only) ..... \$60.00

**SH-5.** Same as SH-15 but lightweight version; 6.6-ft cord; weight 8.6 oz (headphones only) .. \$30.00

##### SS-80 Headphones

Two-way thin film headphones; has 50-μ-thick polyester diaphragms (2 3/8" wide); sensitivity 112 dB/mW; 200-ohm imp.; separate volume and tone controls for each channel; frequency response 20-20,000 Hz; adjustable stainless steel headband; 18 oz ..... \$60.00

##### SS-60 Headphones

Has 50-μ-thick polyester diaphragms (2 3/8" wide); max. input 500 mW; separate volume controls for each channel; frequency response 20-20,000 Hz; 8-ohm imp.; 16 oz .... \$45.00

##### SS-10 Stereo Headphones

Mechanical 2-way speaker in each earpiece; max. input 500 mW; imp. 8 ohms; SPL 110 dB;

frequency response 20-20,000 Hz; separate volume controls; 9.8-ft coiled cord, Y-shaped extension cord (6.5 ft); 22 oz ..... \$40.00

**SS-40 Headphones**

Thin polyester 2<sup>3</sup>/<sub>8</sub>" wide dynamic drivers; frequency response 20-20,000 Hz; 8-ohm imp.; 16 oz ..... \$35.00

**SS-30 Headphones**

Thin polyester 2" wide dynamic cones; frequency response 20-20,000 Hz; max. input 500 mW; 8-ohm imp.; 16 oz ..... \$25.00

**SS-2 Stereo Headphones**

Dynamic stereo phones; imp. 8 ohms; frequency response 20-18,000 Hz; dist. 1% at 1 mW input; input power 1 mW; max. rated power input 500 mW; 6-ft cord; 12.6 oz ..... \$20.00

**4-CHANNEL**

**QH-44 4-/2-Channel Headphones**

Features four 3/4" high-velocity speakers (one front/one back each housing); matches 4-25 ohm amplifier impedances; 25 ohms nominal imp.; frequency response range 20-20,000 Hz; maximum input power 100 mW; sensitivity 98 dB at 1000 Hz; acoustical foam urethane ear-pads; adjustable headband; 8.2-ft cord; weight 15.2 oz (headphones only) ..... \$70.00

**SENNHEISER**

**HD424 Headphones**

Deluxe "open aire" design dynamic headphones; frequency response 15-20,000 Hz; sensitivity 17.7  $\mu$ bar/V; 1 mW (1.41 V) per channel for SPL of 102 dB; dist. 1% at 22 V, 1 kHz; 2000-ohm imp. per channel; removable head and ear cushions; 10-ft cable; 6.5 oz (without cable) ..... \$84.95

**HD414 Headphones**

"Open aire" design dynamic headphones; frequency response 20-20,000 Hz; sensitivity 17.7  $\mu$ bar/V; 1 mW (1.41 V) per channel for SPL of 102 dB; dist. 1% at 22 V, 1 kHz; 2000-ohm imp. per channel; 10-ft cable; 5 oz (without cable) ..... \$52.96

**HD400 Headphones**

"Open aire" design dynamic headphones; frequency response 20-18,000 Hz; sensitivity 1 mW for SPL of 88 dB; 600-ohm imp. per channel; 10-ft cable; 3 oz (without cable) ..... \$32.95

**HD44 Headphones**

"Open aire" design dynamic headphones; under-the-chin configuration; frequency response 52-10,000 Hz; 600-ohm imp. per channel; 10-ft cable; 1.2 oz (without cable) ..... \$31.95

**STANTON**

**Stereo/Wafers XXI Headphones**

Ultra-lightweight professional-standard head-



phone; frequency response 20-22,000 Hz  $\pm$ 4 dB; sensitivity 2 V for 100 dB; max. power input 0.1 W rms; dist. 0.5% at 200-dB SPL; 100-ohm imp. at 1 kHz; brushed blue denim finish; supplied with 10-ft flat cord with heavy-duty plug; 5.9 oz ..... \$70.00

**Dynaphase Sixty Headphones**

Dynamic two-way headphone; woofer and tweeter with individual LC crossover; frequency response 40-11,000 Hz  $\pm$ 3 dB; sensitivity 1 mW for 100-dB SPL at 1 kHz; dist. 1% at 115-dB SPL; 8-ohm imp.; max. power input 0.5 W rms per phone; blue and black; 10-ft coiled cord; 28 oz ..... \$64.95

**Dynaphase Forty Headphones**

Dynamic headphone; frequency response 60-10,000 Hz  $\pm$ 3 dB; dist. 1% at 115-dB SPL; 8-ohm imp. at 1 kHz; max. power input 0.5 W rms per phone; blue-black and chrome finish; 10-ft cord; 21 oz ..... \$44.95

**STAX**

**SRX-III Earspeakers**

Electrostatic push-pull type; response 20-27,000 Hz  $\pm$ 1 dB; SPL 95 dB at 100 V rms in-



put; 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; 4<sup>3</sup>/<sub>4</sub>" H x 2<sup>7</sup>/<sub>8</sub>" W x 8" D .... \$230.00

**SR-5 Earspeakers**

Electrostatic push-pull type; response 30-25,000 Hz  $\pm$ 1 dB; SPL 95 dB at 50 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 ..... \$130.00

**SR-44 Earspeakers**

Electret condenser system combines SR-40 headphones with SRD-4 adapter; features wide-latitude in headband adjustment; requires a.c. power source ..... \$85.00

**SRA-12S Headphone Preamp/Amp**

Input sensitivity; phono 2.0 mV, tuner, tape, aux. 250 mV; phono overload 100 mV; hum and noise: phono 58 dB, tuner, aux. 80 dB; frequency response 10-60,000 Hz  $\pm$ 1.5 dB; THD 0.05%; DIN output jacks; preamp can be used separately; designed specifically for use with Stax Earspeakers ..... \$500.00

**SUPEREX**

**PEP-81 Electrostatic System**

Consists of PEP-81 headphones and CC-81 control console; headphone frequency response 15-18,000 Hz  $\pm$ 2 dB; 10-22,000 Hz  $\pm$ 5 dB; dist. 0.2%; impedance-matched to CC-81 for 4-16 ohms; isolation-type headphones with fully adjustable vinyl-covered headband and foam cushions and 15-ft coiled cord; control console has level controls for both channels (20-dB range), speaker/phone rocker, on/off switch; can accommodate two sets of head-

# THE WORLD'S MOST IMITATED HEAD- PHONES.

When we introduced our Open-Aire<sup>®</sup> headphones, we created something of an audio revolution. Because our patented\* transducers surprised engineers and audiophiles alike... setting new standards for wide, smooth response. Superior transient capabilities. Sheer comfort. And freedom from listening fatigue.

Recording studios, broadcast stations and film crews — no strangers to our professional Sennheiser headphones — quickly adopted Sennheiser headphones for monitoring. Research laboratories purchased them for psychoacoustic testing. NASA used them for critical applications aboard Skylab. And audio critics were unusually generous with praise.

After trying to duplicate our performance with alternative systems, a number of major manufacturers are using Sennheiser technology under license. But two things keep us ahead: Experience. And the electroacoustic research that's earned us a leadership position in microphones, headphones and other professional equipment.

But don't take our word for it. Visit your dealer and try the originals for yourself.

\*U.S. Pat. No. 3,586,794



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**You'll think it's the best electrostatic you ever heard.**

## But it's dynamic! The SM-700 Studio Master

We designed the Studio Master to compete head-on with electrostatic headphones. And many who've auditioned it say we've succeeded.

An entirely new driver is fine-tuned with a special duct in the magnet-assembly and a critically-sized by-pass vent between the voice coil and the diaphragm. A newly-developed cushion seals the ear closely, to form a finite acoustic chamber with the transducer.

The results are astonishing! Frequency response is 10 Hz to 20 kHz at  $\pm 3$  dB. Distortion is 0.25 percent. And the dynamic range and transient response are extraordinary. All without the inconveniences of the electrostatic types.

Listen to the SM-700 Studio Master for yourself and see if you don't agree it's the best "electrostatic" you ever heard. Just remember—it's dynamic! And its price, only \$65.

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In Canada, Paco Electronics Ltd., Montreal  
CIRCLE NO. 97 ON READER SERVICE CARD

## 12 HEADPHONES



phones; requires 5 W per channel min. drive; console size 11" x 3 1/4" x 6 1/2" ..... \$150.00

### PEP-79E Electrostatic System

Consists of PEP-74 headphones and CC-79E control console; headphone frequency response 15-18,000 Hz  $\pm 2$  dB, 10-22,000 Hz  $\pm 5$  dB; negligible dist.; impedance-matched to CC-79E for 4-16 ohms; trans-air lightweight headphones with fully adjustable vinyl-covered headband and foam cushions and 15-ft coiled cord; control console is designed for use with main amp level controls, has self-protecting circuits; console size 2 1/2" H x 7" W x 4" D ..... \$90.00

### SM-700 Studio Master

Dynamic headphones; frequency response 10-20,000 Hz  $\pm 3$  dB; 35-ohm imp.; 0.25% dist. at 110-dB SPL (400 Hz); sensitivity 10 mW (0.6 V) for 110-dB SPL at 400 Hz; 2 3/4" Mylar diaphragm; padded, fully adjustable steel and aluminum headband; foam-filled vinyl ear cushions; supplied with 15-ft retractable cable with clothing clip and molded stereo plug; 10 oz (without cable) ..... \$65.00

### Pro B VI Headphones

Incorporates separate woofer/tweeter assembly in each earcup; replaceable ear cushions and completely adjustable headband; available in cordovan brown or transparent; frequency response 15-22,000 Hz; 4-16 ohm imp.; 10-ft coiled cord with molded stereo plug ... \$60.00

### Classic CL-1 Headphones

Lightweight, isolating-type headphones; frequency response 10-20,000 Hz; 35-ohm imp.; 0.3% dist. at 110-dB SPL (400 Hz); sensitivity 10 mW (0.6 V) for 110-dB SPL at 400 Hz; padded fully adjustable steel and aluminum headband with foam-filled vinyl cushions; 15-ft (extended) retractable cable with clothing clip and molded stereo plug; 10.6 oz (without cable) ..... \$55.00

### TRL-99 Headphones

Translinear design with 2 1/4" Mylar drivers; frequency response 15-20,000 Hz  $\pm 4$  dB; 35-ohm imp.; 0.4% dist. at 110-dB SPL at 400 Hz; sensitivity 6 mW for 100-dB SPL; max. input 5 V; padded, fully adjustable aluminum and steel headband; soft fabric faced, foam filled ear cushions; 15-ft retractable cable with clothing clip, molded plug, and strain relief; 10 oz (without cable) ..... \$50.00

### TRL-3 Trans-Linear Headphones

Open design headphones; frequency response 40-20,000 Hz  $\pm 5$  dB, 5-dB bass boost between 70 and 200 Hz; 80-ohm imp.; 0.6% dist. at 110 dB (400 Hz); sensitivity 6 mW for 100-dB SPL; max. input 5 V; padded, fully adjustable aluminum and steel headband; urethane foam, snap-

on cushions; 15-ft (extended) retractable cable with clothing clip, molded plug, and strain relief; 8.5 oz (without cable) ..... \$40.00

### TRL-77 Trans-Linear Headphones

Open design headphones; frequency response 45-20,000 Hz; 80-ohm imp.; max. input 5 V; adjustable, continuous padded stainless steel headband and open foam; snap-on cushions; 7-ft Y cord with molded plug and strain relief; 11.5 oz (without cable) ..... \$30.00

### TRL-66 Headphones

Incorporates 66-mm dynamic transducers; frequency response 40-15,000 Hz; 8-ohm imp.; 7-ft Y cord with molded stereo plug; has high impact unbreakable plastic, padded headband; foam-filled vinyl ear cushions; 9 oz (without cable) ..... \$19.95

### 930 Headphones

Stereo headphones with moving-coil dynamic element; frequency response 40-14,500 Hz; fully adjustable steel headband with black vinyl cushions ..... \$19.95

## 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

## 4-CHANNEL

### EAH-420 4-Channel Headphones

Dynamic type using six drivers; each earpiece has center-mounted 3-in. woofer with two isolated front-back 1 1/4-in. tweeters; high efficiency; independent tone and 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 oz ..... \$79.95

## TOSHIBA

### HR-910 Headphones

Self-powered high-voltage electret condenser headphones; has 2" dia. metal-coated polyester diaphragms; frequency response 20-35,000 Hz; 104-dB SPL with 100 V rms input; has switched input imp. selection (1000, 8 ohms, speaker direct); supplied with connecting cords and carrying case; 17 oz ..... \$129.95

### HR-810 Headphones

Self-powered high-voltage electret condenser headphones; has 2" dia. metal-coated polyester diaphragms; frequency response 20-30,000 Hz; 104-dB SPL with 100 V rms input; switched input imp. selection (1000, 300, 8 ohms); 8.5 oz ..... \$74.95

### HR-710 Headphones

Self-powered high-voltage electret condenser headphones; has 2" dia. metal-coated polyester diaphragms; frequency response 20-20,000 Hz; 104-dB SPL with 100 V rms input; switched input imp. selection (1000, 300, 8 ohms); 5.5 oz ..... \$44.95

## UHER

### Featherweight Stereo Headphones

Lightweight (2.2 oz) stereo headphones with 8-ft coiled cord; frequency response 20-20,000 Hz; 200-ohm imp. (1 kHz); has lightweight adjustable headband and yellow foam-cushioned earpieces.

**W674.** With two-pin plug for Uher open-reel

decks ..... \$50.00  
**W675.** With five-pin plug for Uher cassette recorders ..... \$50.00  
**W676.** With phone plug for amplifiers .. \$50.00

## YAMAHA

### HP-1 Stereo Headphones

Lightweight "Orthodynamic" design featuring sintered ferrite disc magnets with combination voice-coil diaphragm between; frequency response 20-20,000 Hz; output 96 dB/mW SPL; 3 W rated input; max. input 10 W; HD 0.3% at 90 dB SPL, 3.0% at 120 dB SPL; impedance 150 ohms; soft leather strap distributes weight over entire head; 7-ft, 10.5-in. straight cord; weight 0.64 lb with cord ..... \$65.00  
**HP-2.** Same except output 93 dB/mW SPL; weight 0.51 lb ..... \$45.00

## ZENITH

### 839-34 2/4-Channel Headphones

Dynamic headphones; 2- or 4-ch compatible; 8-ohm imp.; max. input power 300 mW; frequency response 20-19,500 Hz; sensitivity 104 dB  $\pm$  3 dB/mW at 200 Hz; two rotary volume controls; 2-ch/4-ch selector switch; 10-ft coiled cord; 17 oz ..... \$61.95

### 839-44 2/4-Channel Headphones

Dynamic headphones; 2- or 4-ch compatible; 8-ohm imp.; max. input power 250 mW; frequency response 20-19,000 Hz; sensitivity 104 dB  $\pm$  3 dB/mW at 200 Hz; two rotary controls serve as volume controls on 2-ch material, balance controls on 4-ch material- 2-ch/4-ch selector switch; 10-ft coiled cord; 16 oz ... \$48.95



## AKG

### D-120E Cardioid Microphone

Cardioid dynamic microphone; frequency response 50-17,000 Hz  $\pm$  3 dB; sensitivity -54 dB ASA; 200-ohm imp.; built-in windscreen; supplied with snap-in stand adapter and XLR connector; chrome finish ..... \$56.00

### D-140E Cardioid Microphone

Cardioid dynamic microphone; frequency response 30-17,000  $\pm$  2.5 dB; sensitivity -51 dB; 200-ohm imp.; less than 1% dist. up to 128 dB; wire mesh windscreen; -10 dB bass attenuation switch; supplied with SA-25 stand adapter and XLR-3 connector; 1 1/4 in. dia., 6 in. long; 6.2 oz ..... \$150.00

### D-109E Cardioid Microphone

Cardioid dynamic microphone; frequency response 40-15,000 Hz  $\pm$  3 dB; sensitivity -53 dB ASA; 200-ohm imp.; supplied with slip-in stand attachment, dust filter or windscreen, and XLR connector ..... \$65.00

### D-200E Cardioid Microphone

Cardioid dynamic microphone; frequency response 30-15,000 Hz  $\pm$  3 dB; sensitivity -55 dB ASA; 200-ohm imp.; supplied with slip-in stand attachment, dust filter or windscreen, and XLR connector; matte gray finish .. \$90.00

### D-1000E Cardioid Microphone

Cardioid dynamic microphone; frequency response 40-16,000 Hz  $\pm$  3 dB; sensitivity -53 dB ASA; 200-ohm imp.; supplied with slip-in stand attachment, pop or blast filter, and XLR connector; chrome finish ..... \$75.00

### D-2000E Super Cardioid Microphone

Super cardioid dynamic microphone; frequency response 35-17,000 Hz  $\pm$  3 dB; sensitivity -52 dB ASA; 200-ohm imp.; adjustable bass response; immune to handling noise; supplied

with slip-in stand attachment and XLR connector; chrome finish ..... \$110.00

## 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 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** ..... \$55.00  
**CE-10** ..... \$85.00  
**CE-501E.** For cardioid operation; consists of CE-1 capsule, SE-5E powering module, SA-11/1 stand adapter W-3 windscreen ..... \$120.00  
**CE-502E.** For omnidirectional operation; consists of CE-2 capsule, SE-5E powering module, SA-11/1 stand adapter, W-3 windscreen ..... \$120.00  
**CE-505E.** For cardioid operation; consists of integral suspension and windscreen, CE-5 capsule, SE-5E powering module, and SA-11/1 stand adapter ..... \$124.00  
**CE-510E.** For lavalier operation; consists of CE-10 lavalier element and SE-5E powering module ..... \$145.00

## AUDIO-TECHNICA

### AT813 Cardioid Microphone

Incorporates electret condenser permanently polarized element; frequency response 20-



20,000 Hz; sensitivity -53 dB; 600-ohm nominal imp.; max. input SPL 122 dB; S/N 50 dB (1 kHz, 1  $\mu$ bar); battery powered; supplied with 16.5-ft cable with Cannon XLR-3 connector, snap-on stand clamp, carrying case, and battery ..... \$80.00

### AT812 Cardioid Microphone

Incorporates moving-coil dynamic element; frequency response 50-18,000 Hz; sensitivity -60 dB; 600-ohm nominal imp.; supplied with 16.5-ft cable with Cannon XLR-3 connector, snap-on stand clamp, and carrying case ..... \$75.00

### AT811 Cardioid Microphone

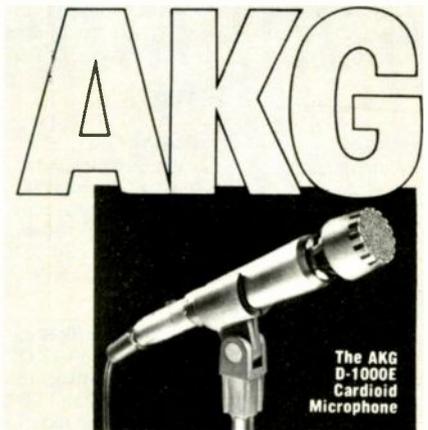
Incorporates electret condenser permanently polarized element; frequency response 50-20,000 Hz; sensitivity -54 dB; 600-ohm nominal imp.; max input SPL 130 dB; S/N 50 dB (1 kHz, 1  $\mu$ bar); battery powered; supplied with 16.5-ft cable with Cannon XLR-3 connector, snap-on stand clamp, carrying case, and battery ..... \$75.00

### AT802 Omnidirectional Microphone

Incorporates moving-coil dynamic element; frequency response 50-16,000 Hz; sensitivity -54.4 dB; 600-ohm nominal imp.; supplied with 16.5-ft cable with Cannon XLR-3 connector, snap-on stand clamp, and carrying case ..... \$50.00

### AT801 Omnidirectional Microphone

Incorporates electret condenser permanently



**Top performers depend on AKG microphones. They know the sound they get is the sound they want.**

Professional performers will tell you that a microphone is like a musical instrument... a valuable tool that must respond predictably to your demands. They'll tell you, too, to select your microphone with the same care that you'd use in selecting a musical instrument.

Many professional people prefer AKG microphones... and for many reasons. Take our D-1000E cardioid, for instance. Its built-in flexibility allows a variety of options for a more "personal" sound in recording and live performance situations. The D-1000E's Bass-Medium-Sharp equalization switch says that the sound you get is the sound you want... even in acoustically poor environments.

Or consider the D-120E cardioid, a rugged, high-quality microphone that's designed for the roughest, toughest handling you can give it. It's ideal for rock and contemporary music, recording and "live."

Your AKG dealer can show you a wide variety of AKG microphones, each designed to your personal taste and particular budget. Visit him today... and pick up your copy of AKG's informative *Guide to Microphone Selection and Application*. It's free for the asking!

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# 12 MICROPHONES

polarized element; frequency response 40-18,000 Hz; sensitivity -48 dB; 600-ohm nominal imp.; max. input SPL 122 dB; S/N 50 dB (1 kHz, 1 $\mu$ bar); battery powered; supplied with 16.5-ft cable with Cannon X R-3 connector, snap-on stand clamp, carrying case. . . \$50.00

## AUDIOTEX

### Electret Condenser Microphone

Unidirectional pattern to minimize pickup from rear and sides; on-off slide switch; frequency response 50-13,000 Hz; imp. 600 ohms; sensitivity -69 dB (1 kHz); comes with 20-ft cable, desk stand, black vinyl storage case. 30-2316 . . . . . \$74.96

### 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 windscreen. 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 . . . . . \$37.50

### 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 . . . . . \$37.50

### 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 windscreen for outdoor use; dual (hi/lo) impedance. 30-2312 . . . . . \$31.25

### Tie Tack Lapel Microphone

For PA and voice taping; frequency response 40-16,000 Hz; imp. 1000 ohms; sensitivity -65 dB  $\pm$  3 dB; comes with 13-ft cord with mini-plug, tie-tack holder, mercury battery. 30-2318 . . . . . \$29.95

### 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 . . . . . \$7.30  
**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

### 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 . . . . . \$27.95

### Microphone Boom

Fits all standard mike floor stands; has adjustable counterweight; movable clamp and hinge design for any desired position; standard 3/8-27 thread; 31" long. 30-2370 . . . . . \$21.50

### 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 3/8-27 thread to fit all standard mikes. 30-2360 . . . . . \$19.95

### Folding Microphone Stand

Folds and unfolds in seconds; weight 3 1/2

pounds; chrome-plated tubing extends to 60"; folded size 33"; legs have rubber tips to prevent skidding and scratching. 30-2362 . . . . . \$21.00

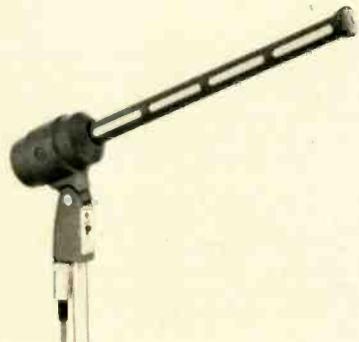
## ELECTRO-VOICE

### 1776 Cardioid Microphone

Single-D cardioid electret condenser microphone; frequency response 60-18,000 Hz; -50 dB output; low impedance; on/off switch; A3M-type mic connector and 15-ft cable with matching connector; supplied with stand adapter; nonreflective gray finish . . . . . \$100.80  
**1776P.** Same but with 25-ft cable with two professional connectors . . . . . \$106.80

### 644 Cardiline Microphone

Cardiline very directional dynamic microphone; flat response 40-12,000 Hz; -53 dB output;



switchable high and low impedance; on/off switch; MC4F-type mic connector and 15-ft cable with matching connector; gray finish . . . . . \$134.10

### 672 Cardioid Microphone

Single-D cardioid dynamic microphone; shaped response 60-14,000 Hz; -61 dB output (hi-Z), -60 dB output (lo-Z); switchable high and low impedance; on/off switch; A3M-type mic connector and 15-ft cable with matching connector; supplied with integral windscreen/pop filter; satin chrome finish . . . . . \$84.60

### 661 Super Cardioid Microphone

Continuously Variable-D super cardioid dynamic microphone; shaped response 90-13,000 Hz; -56 dB output; switchable high and low impedance; A3M-type mic connector and 15-ft cable with matching connector . . . . . \$81.30  
**661A.** Same but gray finish . . . . . \$81.30  
**661P.** Same as 661 but with 25-ft cable with two professional connectors . . . . . \$84.30

### 664 Cardioid Microphone

Variable-D cardioid dynamic microphone; shaped response 60-15,000 Hz; -58 dB output; switchable high and low impedance; on/off switch; MC4F-type mic connector and 15-ft cable with matching connector; satin chrome finish . . . . . \$81.30

### 670A Cardioid Microphone

Single-D cardioid dynamic microphone; shaped response 60-14,000 Hz; -61 dB output (hi-Z), -60 dB output (lo-Z); switchable high and low impedance; on/off switch; A3M-type mic connector and 15-ft cable with matching connector; supplied with stand clamp; gray finish . . . . . \$81.00  
**670AP.** Same but with 25-ft cable with two professional connectors . . . . . \$84.00

### 636 Omnidirectional Microphone

Omnidirectional dynamic microphone; flat response 60-13,000 Hz; -58 dB output; switchable high and low impedance; on/off switch; MC4F-type mic connector and 15-ft cable with matching connector; satin chrome finish . . . . . \$78.30

### 660 Super Cardioid Microphone

Continuously Variable-D super cardioid micro-

phone; shaped response 90-13,000 Hz; -56 dB output; switchable high and low impedance; A3M-type mic connector and 15-ft cable with matching connector; supplied with stand clamp; satin chrome finish . . . . . \$78.30  
**660A.** Same with gray finish . . . . . \$78.30  
**660P.** Same as 660 but with 25-ft cable with two professional connectors . . . . . \$81.30  
**660SP.** Same as 660 but with switch in connector and phone plug cable . . . . . \$91.80

### 671 Cardioid Microphone

Single-D cardioid dynamic microphone; shaped response 60-14,000 Hz; -61 dB output (hi-Z), -60 dB output (lo-Z); switchable high and low impedance; on/off switch; A3M-type mic connector and 15-ft cable with matching connector; supplied with stand clamp and integral windscreen/pop filter; satin chrome . . . \$76.50  
**671P.** Same but with 25-ft cable with two professional connectors . . . . . \$79.50

### 647A Omnidirectional Microphone

Omnidirectional dynamic microphone; shaped response 60-12,000 Hz; -60 dB output; high- and low-impedance models available; integral cable; supplied with lavalier neckcord, belt clip, and stand clamp; gray finish . . . . . \$69.60

### 630 Omnidirectional Microphone

Omnidirectional dynamic microphone; flat response 60-11,000 Hz; -55 dB output; switchable high and low impedance; on/off switch; MC4F-type mic connector and 15-ft cable with matching connector; satin chrome finish . . . . . \$64.80

### 627C Cardioid Microphone

Single-D cardioid dynamic microphone; shaped response 60-13,000 Hz; -58 dB output; switchable high and low impedance; on/off switch; A3M-type mic connector and 15-ft cable with matching connector; supplied with stand clamp; satin chrome finish . . . . . \$58.50  
**627CP.** Same but with 25-ft cable with two professional connectors . . . . . \$61.50

### 631B Omnidirectional Microphone

Omnidirectional dynamic microphone; frequency response 80-13,000 Hz; -56 dB output; switchable high and low impedance; on/off switch; A3M-type mic connector and 15-ft cable with matching connector; satin chrome finish . . . . . \$55.50  
**631BP.** Same but with 25-ft cable with two professional connectors . . . . . \$58.50

### 607 Noise-Cancelling Microphone

Noise-cancelling dynamic microphone; shaped response 200-4000 Hz; -54 dB output; cancels sound more than 1/4 in. from face; high- and low-impedance models available; MC1M-type (lo-Z) or MC2M-type (hi-Z) mic connector and 15-ft cable with matching connector; gray finish . . . . . \$52.50

### 626A Cardioid Microphone

Single-D cardioid dynamic microphone; shaped response 70-12,000 Hz; -56 dB output; switchable high and low impedance; on/off switch; integral cable; supplied with stand clamp; non-reflective fawn beige finish . . . . . \$46.50  
**626AP.** Same but with 25-ft cable with two professional connectors . . . . . \$49.50

### 624 Omnidirectional Microphone

Omnidirectional dynamic microphone; shaped response 100-7000 Hz; -56 dB output (hi-Z), -58 dB output (lo-Z); high- and low-impedance models available; integral cable; supplied with lavalier neckcord; gray finish . . . . . \$42.60

### 634ASRL Omnidirectional Microphone

Omnidirectional dynamic microphone; shaped response 70-10,000 Hz; -57 dB output; low impedance; on/off switch with relay contacts; integral cable; supplied with windscreen; gray and chrome finish . . . . . \$39.60

### 634A Omnidirectional Microphone

Omnidirectional dynamic microphone; shaped

response 70-10,000 Hz; -57 dB output; high- and low-impedance models available; integral cable; gray finish ..... \$33.60

## ERCONA

### DC-21 Cardioid Microphone

Cardioid condenser microphone; SYMSI 48 powering; frequency response 30-20,000 Hz  $\pm 3$  dB; sensitivity -44 dB/Pa (over 200 ohms at 1 V); output 6.3 mV/Pa (over 200 ohms at 1 V); noise 25 dB (re  $2 \times 10^{-5}$  Pa, A wtd.); 122-dB dynamic range; output imp. 200 ohms; operating voltage +48 +6/-8; current consumption 0.8 mA; satin chrome finish; supplied with stand adaptor and 33-ft cable ..... \$180.00

**DC-20.** Similar but omnidirectional design; sensitivity -46 dB/Pa; output 5 mV/Pa; noise 26 dB; 124-dB dynamic range ..... \$170.00

## HAMMOND INDUSTRIES

### Beyer/Dynamic

#### M-160 Double-Ribbon Microphone

Super-cardioid dynamic type; response 40-18,000 Hz  $\pm 2.5$  dB; sensitivity -152 dBm (EIA); 200-ohm impedance; low sensitivity at 120 degrees to axis; suitable for stereo recording; Cannon XLR termination ..... \$230.00

#### 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 ..... \$222.50

#### M-201 Moving-Coil Microphone

Super-cardioid dynamic type; response 40-18,000 Hz; sensitivity -149 dBm (EIA); 200-ohm imp.;  $6'' \times 1\frac{1}{2}''$ ; Cannon XLR termination; comes with clamp and presentation case ..... \$165.00

#### M-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 ..... \$159.95

#### 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-ohm imp.; suitable for speech, music, or vocals;  $1\frac{3}{4}''$  mesh head  $\times 6''$  long; Cannon XLR termination ..... \$127.50  
**M-260SM.** Same as M-260 except with "on-off" and bass-cut switch ..... \$132.50

#### 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 2 V); low handling noise;  $4\frac{1}{2}'' \times \frac{7}{8}''$ ; Cannon XLR termination ..... \$127.50

#### 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 ..... \$102.50

**M-69-SM.** Same as M-69 but with "on-off" and bass-cut switch ..... \$107.50

#### "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 coils; Cannon XLR termination ..... \$85.00  
**"Soundstar" X1HL.** Same as X1N except with

high/low imp. switch ..... \$100.00

#### 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 ..... \$79.95

**M-818-M.** Pair of M81 directional microphones, similar to M-810-N except with fixed nonde-



tachable cables; comes with clamps in presentation case ..... \$102.50

#### 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 ..... \$49.95

## HELPINSTILL

#### Model 65 Guitar Sensor

Acoustic guitar sensor; hybrid design combines advantages of conventional magnetic pickup and guitar body transducer; mounts on guitar body by means of pressure-sensitive adhesive strip; control box clips on performer's belt and has a volume control and standard phone jack output ..... \$79.50  
 Extra sensor ..... \$49.50

**Model 66.** Similar to Model 65 but without control box; low impedance; connects directly to sound system via Cannon XLR-3 type male connector; designed specifically for concert stage applications ..... \$59.50

## LAFAYETTE

#### Tie-Tac Lavalier Mike

Ultra-miniature omnidirectional mike;  $\frac{1}{8}''$  dia.  $\times \frac{3}{4}''$  long; switchable high/250-ohm imp.; response 20-15,000 Hz; 55 dB output; has FET/IC power supply with professional XLR connector; battery operated; comes with 15-ft cable; mike weighs  $\frac{1}{2}$  oz, power supply 3 oz ..... \$49.95

#### MU-101 Dynamic Microphone

Unidirectional pickup; output -56 dB; response 200-10,000 Hz; user selects high or low impedance; hand-held with Switchcraft connector to body; "on/off" switch; shock-mounted transducer and Mylar diaphragm for rugged use; use for speech, rock vocals, and tape recording; cable end free; die-cast case; non-glare finish ..... \$34.95

**MO-102.** Same as MU-101 except response 50-13,000 Hz; -58 dB output; for use where feedback or background noise is not a problem. .... \$39.95

#### 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 windscreen, 20-ft shielded cable, standard  $\frac{1}{4}''$  phone plug, metal tripod-type desk stand, floor-stand adapter, and battery are in-

cluded ..... \$34.95

#### 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  $\times 1''$  dia. .... \$24.50

#### Deluxe Ball Dynamic Microphone

General-purpose, omnidirectional, dual-impedance (50,000 and 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, 20-ft cable, phone plug, 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 ..... \$24.95

#### ML-1 Lavalier Condenser Mike

Response 50-15,000 Hz; -80 dB output; tie-clasp holder; noise-reducing cable to FET preamp and power supply; 600-ohm output imp.;  $1\frac{1}{2}'' \times \frac{7}{8}''$  dia; comes with "AA" battery, shielded cable, phone plug ..... \$19.50

## MARLBORO

#### M400 Cardioid Microphone

Cardioid condenser microphone; electret element; built-in FET preamp and  $1\frac{1}{2}$ -V battery; frequency response 40-18,000 Hz  $\pm 3$  dB; sensitivity 51 dB  $\pm 3$  dB; high impedance; 20-ft detachable cable with heavy duty Cannon-type connector ..... \$49.00

#### M300 Cardioid Microphone

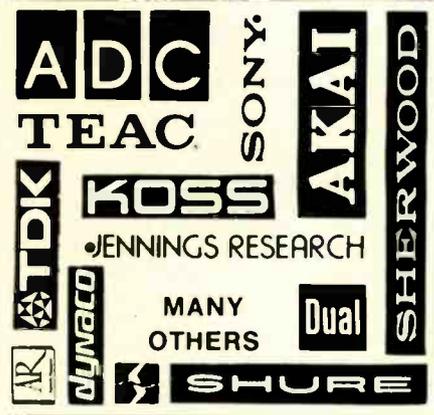
Cardioid dynamic microphone; frequency response 60-15,000 Hz  $\pm 3$  dB; sensitivity 58 dB  $\pm 3$  dB; high impedance; 20-ft detachable cable

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## M200 Cardioid Microphone

Cardioid dynamic microphone; frequency response 60-13,000 Hz  $\pm 3$  dB; sensitivity 61 dB  $\pm 3$  dB (high impedance), 80 dB  $\pm 3$  dB (low impedance); 10-ft heavy duty detachable cable. .... \$29.00

## M50 Dynamic microphone

Dynamic microphone; frequency response 60-13,000 Hz  $\pm 3$  dB; sensitivity 61 dB;  $\pm 3$  dB; high impedance; 10-ft heavy duty cable. .... \$20.00

## M30 Dynamic Microphone

Dynamic microphone; frequency response 70-12,000 Hz  $\pm 3$  dB; sensitivity 56 dB; high impedance; 10-ft heavy duty cable. .... \$14.00

## MERITON

### CNM-75 Condenser Microphone

Unidirectional electret unit; frequency range 50-15,000 Hz; has built-in bass roll-off switch to attenuate low-end response during close miking; sensitivity -73 dB  $\pm 3$  dB; imp. 600 ohms; FET circuitry; comes with stand adapter, 16-ft, 5-in cable,  $\frac{1}{4}$ " dia. plug;  $\frac{7}{8}$ " dia.  $\times 6\frac{1}{16}$ " H ..... \$99.95

### CNM-70 Condenser Microphone

Omnidirectional electret unit; frequency range 40-20,000 Hz with tone separation; FET circuitry; sensitivity -73 dB  $\pm 3$  dB (0 dB = 1 V/ $\mu$ bar at 1 kHz); imp. 600 ohms; comes with stand adapter, 16-ft, 5-in. cable,  $\frac{1}{4}$ " dia. plug;  $1\frac{1}{32}$ " dia.  $\times 6\frac{3}{32}$ " H ..... \$79.95

### DNM-40 Dynamic Microphone

Unidirectional dynamic unit; features three windscreens; dual-impedance matching; flat response, film diaphragm; standard connectors for studio or home recorders; built-in on-off switch; comes with holder for stand use, 16-ft, 5-in. cord,  $\frac{1}{4}$ " dia. plug;  $1\frac{1}{16}$ " dia.  $\times 6\frac{1}{16}$ " H ..... \$39.95

### DNM-25 Dynamic Microphone

Unidirectional dynamic unit; response 150-10,000 Hz; sensitivity -78 dB  $\pm 3$  dB; imp. 250 ohms (unbalanced); built-in on-off switch; comes with table stand with mini plug;  $1\frac{1}{8}$ " dia.  $\times 6\frac{3}{8}$ " H ..... \$14.95

### DNM-20 Dynamic Microphone

Omnidirectional dynamic unit; features polyester film diaphragm; built-in on-off switch; response 70-12,000 Hz; imp. 250 ohms (unbalanced) comes with table stand;  $1\frac{1}{32}$ " dia  $\times 5\frac{1}{4}$ " H ..... \$19.95

### DNM-10 Dynamic Microphone

Omnidirectional replacement unit for use with cassette recorders; response 100-10,000 Hz; imp. 250 ohms (unbalanced); comes with table stand, windscreen, mini plug; 1" dia.  $\times 4\frac{1}{16}$ " H ..... \$9.95

## MURA

### DX-30V Cardioid Microphone

Electret condenser microphone; battery powered; output imp. 600 and 50,000 ohms; frequency response 20-18,000 Hz; sensitivity -48 dB (high imp.), -62 dB (low imp.); on/off mike switch; supplied with 20-ft cable with  $\frac{1}{4}$ " phone plug, battery, microphone holder, and styrofoam case with sleeve ..... \$69.95

### DX-20V Cardioid Microphone

Slimline design; imp. 600 and 50,000 ohms; frequency response 60-15,000 Hz; sensitivity

-56 dB (high imp.), -74 dB (low imp.); on/off mike switch; supplied with 20-ft cable with  $\frac{1}{4}$ " phone plug, microphone holder, and styrofoam case with sleeve ..... \$49.95

### DX-129 Cardioid Microphone

Ball-type cardioid dynamic mike; dual imp. 600/50 k; on-off switch; sensitivity -58 dB at 1000 Hz; frequency response 40-14,000 Hz; built-in pop and blast filters; comes with stand adapter, 20-ft cable; black satin and chrome finish. .... \$41.95

### DX-285 Electret Condenser Mike

Omnidirectional pattern; for general recording and vocal work; frequency response 50-13,500 Hz  $\pm 3$  dB; imp. 600 ohms; sensitivity -71 dB at 1000 Hz (0 dB 1 V/1  $\mu$ bar); removable wind-screen; comes with 1.5-V battery, 20-ft cable with  $\frac{1}{4}$ " phone plug, desk stand ..... \$39.95

### DX-247 Dynamic Microphone

Omnidirectional pattern; for vocals and recording; dual imp. 600/50 k (sw. on mike); sensitivity -57 dB at 1000 Hz; frequency response 50-14,000 Hz; removable windscreen; on/off switch; comes with 20-ft cable with  $\frac{1}{4}$ " phono plug; black satin/chrome finish ..... \$39.95

### EX-279 Lapel Microphone

Electret condenser lapel microphone; has clothing clip; omnidirectional pattern; frequency response 30-16,000 Hz; 600-ohm imp.; supplied with 10-ft cable with mini-plug and battery ..... \$29.95

## NAKAMICHI

### CM-1000 Condenser Microphone

Features interchangeable capsules; resistant to extremes of temperature and humidity; comes with battery power supply, CP-101 unidirectional capsule, windscreen, connecting cables with XLR connectors, case, 10-dB and 20-dB attenuators, proximity effect compensator; response 20-20,000 Hz  $\pm 2.5$  dB; impedance 600 ohms balanced; sensitivity -67 dB  $\pm 1.5$  dB; max. SPL at 3% dist. 139 dB; dynamic range 115 dB; S/N 50 dB (weighted). .. \$290.00  
**CP-102.** Optional super-omni capsule. \$100.00

### DM-1000 Dynamic Microphone

Dynamic moving-coil mike designed especially for vocals; special low-mass diaphragm and voice coil for extended high-end response; triple metal screen filter eliminates pops, blasts, and wind noise; cardioid directivity pattern; double-casing and foam suspension reduces sensitivity to vibration; immune to hum and mag. fields; frequency response 30-20,000 Hz  $\pm 3.5$  dB; sensitivity -76 dB at 1 kHz (0 dB = 1 V/ $\mu$  bar); imp. 250 ohms; Cannon-type XLR-3 connector; anodized matte black finish; 10.4 oz ..... \$200.00

### CM-700 Microphone

Studio electret condenser microphone; 16-mm dia. element; low-noise FET preamp built into mike housing; powered by 6-V battery; 15-dB attenuator pad; has interchangeable cardioid and omnidirectional capsules; frequency response 20-20,000 Hz  $\pm 3$  dB; 600-ohm imp.; sensitivity -65 dB  $\pm 2$  dB; 130-dB SPL max. at 3% dist., 145 dB with pad; dynamic range 121 dB; S/N 49 dB wtd. .... \$150.00

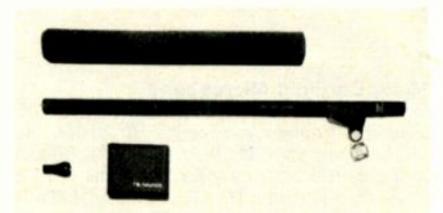
### CM-50 Miniature Microphone

Miniature electret microphone (0.5" dia.  $\times 1.375$ " long); incorporates low-noise FET preamp; powered by 6-V battery; supplied with tie clasp holder and foam windscreen; frequency response 20-18,000 Hz  $\pm 3.5$  dB; 250-ohm imp.; sensitivity -75 dB  $\pm 2.5$  dB; S/N 48 dB; 125-dB SPL max. at 3% dist.; dynamic range 100 dB .. \$110.00

### CM-300 Electret Condenser Microphone

Studio-type system featuring interchangeable capsules; basic set comes with CP-1 cardioid

and CP-2 omnidirectional capsules; wind-screen; 15-ft cable; XLR connector; battery; stand adapter; optional capsules: CP-3 small-



diameter super-omnidirectional; CP-4 super-directional (shotgun); built-in 10 dB attenuating pad; "lo-cut" proximity effect compensator; response 30-18,000 Hz (CP-1), 20-15,000 Hz (CP-2), 20-18,000 Hz (CP-3), 30-20,000 Hz (CP-4), all at  $\pm 3.5$  dB; imp. 200 ohms balanced; sensitivity; -76 dB  $\pm 2.5$  dB (CP-1, CP-2, CP-4), -74 dB  $\pm 2.5$  dB (CP-3); max. SPL at 3% dist.: 138 dB (CP-1, CP-2), 136 dB (CP-3), 118 dB (CP-4); dynamic range: 114 dB (CP-1, CP-2), 107 dB (CP-3), 94 dB (CP-4) ..... \$110.00  
**CP-3.** Optional ..... \$30.00  
**CP-4.** Optional ..... \$50.00  
**CM-300  $\times$  3 Tri-Microphone.** Three CM-300 microphone sets combined in one package; designed for use in the company's tri-microphone recording system; comes with special carrying case with space for headphones, cables, acces-



series ..... \$300.00  
**CM-100.** Similar to CM-300 but powered by 1.5-V battery; 118-dB SPL max. at 3% dist.; dynamic range 94 dB ..... \$70.00

### DM-500 Dynamic Microphone

Moving-coil transducer microphone; has built-in windscreen; super cardioid polar pattern; frequency response 50-15,000 Hz  $\pm 5$  dB; 250-ohm imp.; sensitivity -73 dB  $\pm 2.5$  dB .. \$70.00

## NEUMANN

### fet-80 Condenser Microphones

A line of studio microphones that comes 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.

**KM-83.** Omnidirectional ..... \$260.00  
**KM-84.** Cardioid ..... \$260.00  
**KM-85.** Cardioid, with low-frequency roll-off ..... \$260.00  
**KM-86.** Three-pattern, switchable ... \$735.00  
**N-80.** 117-V a.c. portable power supply for powering one or two fet-80 microphones. .... \$50.00

## PIONEER

### CM-1 Electret Microphone

High molecular diaphragm electret condenser element; selectable omni- or unidirectional pattern; response 40-20,000 Hz (uni), 20-20,000 Hz (omni); output impedance 600 ohms unbalanced; sensitivity -69 dB (uni), -74 dB (omni) (both 0 dB = 1 V/ $\mu$  bar); 126 dB maximum SPL; 1.5-V "AA" cell power supply; 1.42" dia.  $\times 8.37$ " long; weight 10.56 oz; comes with 18-ft cable ..... \$100.00

### CM-2S Electret Microphone

Dual-element electret condenser unit; hyper-cardioid pattern; response 20-20,000 Hz; output impedance 1000 ohms; sensitivity -68 dB at 1 kHz (0 dB = 1 V/ $\mu$ bar); maximum SPL 126 dB; S/N 46 dB; 1.5-V "AA" cell power supply; 6.06" H x 4.33" W; weight 11.2 oz; 21-ft cable; pair comes mounted on desk stand ..... \$60.00

### REALISTIC

#### Highball Dynamic Microphone

Dynamic cardioid microphone; frequency response 80-13,000 Hz; switchable impedance, 50-250 and 50,000 ohms; on/off switch; ball screen pop filter; Cannon-type connector; 15-ft cable with plug ..... \$49.95

#### "All-Pro" Cardioid Microphone

Cardioid microphone; frequency response 30-15,000 Hz; 600-ohm impedance; supplied with 10-ft cord, 1/4-in. plug, desk stand adapter, mike stand adapter, and "AA" battery ..... \$29.95

#### Dual Pattern Stereo Microphone

Features switchable wide and normal pickup patterns; two internal electret/condenser capsules; frequency response 30-15,000 Hz; sensitivity -72 dB  $\pm$  3 dB; 600-ohm impedance; 2000-hour battery ..... \$29.95

#### Super Cardioid Dynamic Microphone

Cardioid dynamic microphone; frequency response 80-12,000 Hz; switchable impedance, 600 and 50,000 ohms; on/off switch; output levels -77 dB (low), -60 dB (high); supplied with cable, slip-on stand adapter ..... \$24.95

#### Omnidirectional "On-Stage" Mike

Omnidirectional microphone; frequency response 30-15,000 Hz; 600-ohm impedance; supplied with windscreen, stand adapter, 10-ft cord, 1/4-in. plug, and battery ..... \$24.95

#### Featherweight Condenser Microphone

Electret condenser-type featherweight omnidirectional microphone; frequency response 20-13,000 Hz; ultra-slim design, 7/16-in. dia.; supplied with windscreen, 9-ft cable, 1/4-in. plug, battery, and stand; 2.8 oz ..... \$15.95

### RECOTON

#### MM740 Dynamic Microphone

Cardioid pattern; selection switch to shape response characteristics; 600 ohms; sensitivity 71 dB; frequency response 50-15,000 Hz; brushed gold finish; comes with 18-ft cord with plug and desk stand ..... \$59.95

#### MM730 Dynamic Microphone

Features boom and feedback suppression; 600 ohms; sensitivity 69 dB; frequency response 50-15,000 Hz; brushed gold finish; comes with 18-ft cord with plug and desk stand ..... \$49.95

#### MM720 "Echo" Microphone

Features reverb volume control for special effects; unidirectional; 600 ohms; sensitivity 74 dB; frequency response 20-10,000 Hz; reverb time 1.5 sec at 1 kHz; 15-ft cord .. \$44.95

#### MM220 Dual-Impedance Microphone

Dynamic type; 500 ohm/50,000 ohm imp.; pop-proof wire mesh grille; frequency response 100-10,000 Hz; sensitivity 58 dB at 50,000, 74 dB at 600 ohms; comes with 20-ft cable, 3/8 x 27 adapter ..... \$25.95

### REVOX

#### 3500 Dynamic Microphone

Dynamic unidirectional moving-coil type; cardioid pattern; response 40-18,000 Hz; impedance 600 ohms; comes with windscreen, clamp, table stand, and case; Cannon XLR connector; each unit supplied with own frequency-response curve ..... \$130.00

### SENNHEISER

#### MD441 Dynamic Microphone

Super cardioid dynamic microphone; frequency response 40-20,000 Hz; sensitivity 0.2 mV/ $\mu$ bar  $\pm$  3 dB; brilliance switch for nominal 5-dB boost at 5 kHz; five-position bass attenuator; front-to-back ratio 20 dB, -3 dB; supplied with cable and quick-release mount for floor stand or MZT-441 table stand; takes MZW441 windscreen; 1.3" H x 1.4" W x 9.6" L ..... \$275.00

#### MD-211U Dynamic Microphone

Omnidirectional dynamic microphone; frequency response 40-20,000 Hz; sensitivity -58 dBm (0.13 mV/ $\mu$ bar)  $\pm$  2.5 dB; supplied with Cannon XLR connector and cable; 1" dia. x 4 3/4" L ..... \$214.50

#### MD421U Dynamic Microphone

Cardioid dynamic microphone; 200-ohm imp.; frequency response 30-17,000 Hz  $\pm$  5 dB; sensitivity 0.2 mV/ $\mu$ bar  $\pm$  3 dB at 1 kHz; EIA rating -145.8 dB; output level -53 dBm (1 mW/10 dynes/cm<sup>2</sup>); front-to-back ratio 18 dB, -2 dB; variable bass attenuator; supplied with XLR connector and cable ..... \$193.00

#### MD416 Dynamic Microphone

Cardioid dynamic microphone; designed for close miking; frequency response 50-15,000 Hz; sensitivity 0.13 mV/ $\mu$ bar  $\pm$  3 dB; 200-ohm imp.; built-in isolation system to eliminate handling noise; built-in pop filter, outdoor pop filter; supplied with Cannon XLR connector, threaded stand mount with quick-release clip, and cable ..... \$180.50

#### MD21N Dynamic Microphone

Omnidirectional dynamic microphone; 200-ohm imp.; frequency response 50-15,000 Hz  $\pm$  3 dB; sensitivity 0.2 mV/ $\mu$ bar at 1 kHz; EIA rating -145.8 dB; output level -53 dBm (1 mW/10 dynes/cm<sup>2</sup>); balanced output; supplied with small DIN connector; 4 3/4" x 1 7/8" x 1 7/8"; 10 oz ..... \$126.00

#### Electret Condenser Mic System

One common powering module in balanced version (K2U) or unbalanced version (K1) serves three different compact heads: ME20 omnidirectional head, response 50-15,000 Hz, sensitivity 49 dBm, S/N 64 dBm min.; ME40 super-cardioid head, response 50-15,000 Hz, sensitivity 49 dBm, S/N 64 dBm min.; ME80 shotgun head, response 50-15,000 Hz, sensitivity 45 dB, S/N 70 dB min.

K2U. Powering module ..... \$79.00  
K1. Powering module ..... \$71.50  
ME20. Omnidirectional head ..... \$55.00  
ME40. Super-cardioid head ..... \$78.00  
ME80. Shotgun head ..... \$108.00

### 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 ..... \$138.00

#### 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 ..... \$122.40

#### 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 ..... \$96.00

#### 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 ..... \$85.20  
Model 565SD. Same as Model 565 except has "on-off" switch ..... \$89.40  
Model 566. Similar to Model 565 except with shock mount ..... \$130.20

#### 516EQ Dynamic Equalizer Microphone

Unidirectional type designed for tape recording; complete equalization and response-shaping control; four switches (on mike handle) provide up to 16 different combinations of special effects, ranging from eliminating nasal and sibilant sounds to emphasizing various instruments; frequency response 50-15,000 Hz; imp. 150 ohms for connection to mike inputs rated at 25 to 3000 ohms; comes with foam windscreen, swivel adapter, cable, mini-plug adapter cable, and carrying case ..... \$84.00

#### 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 ..... \$75.00

Model 545S. Similar to Model 545 but has cable connection through hinge and "on-off" switch in upright ..... \$80.40  
Model 545SD. Same as Model 545 but has "on-off" switch on microphone barrel .. \$80.40  
Model 545L. Similar to Model 545 but has lavalier cord and clip ..... \$63.00

#### 55S "Unidyne II" Microphone

Sensitivity -148 dB (EIA); response 50-15,000 Hz; user selects high or low impedance; car-

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# 12 MICROPHONES

dioid pattern; hinge mount to stand; use for speech and music; supplied with Amphenol-type MC3M connector and 15-ft cable. \$76.80  
**Model 55SW.** Same as Model 55S except has built-in "on-off" switch ..... \$78.60

## 578 "Omnidyne" Microphone

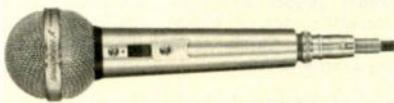
Sensitivity -154 dB (EIA); response 50-15,000 Hz; user selects high or low impedance; omnidirectional pattern; hand-held; use for speech and music; has "on-off" switch, a 15-foot cable, and connector; supplied with chrome finish ..... \$72.00  
**Model 578S.** Similar to Model 578 except has swivel assembly ..... \$80.40

## 579SB "Vocal Sphere" Microphone

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 ..... \$61.20

## 585SA "Unisphere A" Microphone

Sensitivity -151 dB (EIA); response 50-13,000 Hz; user specifies high or low impedance; car-



dioid 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 ..... \$55.65  
**Model 585SAV.** Similar to Model 585SA but has volume control on microphone barrel ..... \$66.60

## 589S "Unidyne C" Microphone

Unidirectional dynamic type; response 90-13,000 Hz; 150 ohm imp. to match any input from 20-200 ohms, also high impedance; built-in "on-off" switch with lockplate; internal rubber vibration-isolator shockmount; 15-ft two-conductor shielded with 3-pin female connector on mike end; zinc die-casting housing with silver-metallic finish, stainless steel grille; 7" x 1 1/4"; weight 12 oz less cable ..... \$61.20

## 588SA "Unisphere B" Microphone

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 ..... \$52.05

## 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 ..... \$36.30  
**Model 515SB.** Same as Model 515SA except low impedance ..... \$36.30

## SONY from SUPERSCOPE

### ECM-54P Condenser Microphone

Cardioid condenser microphone; three-position on/off switch plus bass roll-off switch; supplied with mike stand adapter, windscreen, vinyl case, and 20-ft cadmium-bronze two-conductor shielded cable; for use with internal bat-

teries or phantom power supply ..... \$169.95

### ECM-50 Tie Tack/Lapel Microphone

Tie-tack/lapel omnidirectional Condenser microphone ..... \$159.95

### ECM-280 Condenser Microphone

Cardioid condenser microphone; bass roll-off switch; removable windscreen; unidirectional; supplied with "AA" battery, mike stand adapter, cable, and carrying case ..... \$99.95

### ECM-990 Condenser Microphone

Variable direction axis one-point stereo condenser microphone; combines two condenser microphones in one; four-position directivity control; bass roll-off switch; supplied with swivel-mount stand adapter, vinyl case, and 10-ft cable ..... \$99.95

### F-115A Dynamic Microphone

Heavy-duty omnidirectional dynamic microphone; double windscreen; supplied with 20-ft cable, mike holder, vinyl carrying case. \$99.95

### ECM-270 Condenser Microphone

Low-impedance unidirectional microphone; sensitivity -57 dB; frequency response 40-16,000 Hz; for live musical performance recording; lightweight for hand-held applications; supplied with accessory windscreen, microphone holder, and cable ..... \$69.95

### ECM-170A Condenser Microphone

Low-impedance omnidirectional microphone; sensitivity -56 dB; frequency response 20-16,000 Hz; for live recording of large ensembles; voice/music switch for adjusting frequency response; supplied with accessory windscreen, microphone holder, and two-conductor shielded cable ..... \$59.95

### ECM-99 Condenser Microphone

Single-point stereo microphone, dual lo-Z cardioid; sensitivity -53 dB (0 dB = 1 V/10  $\mu$ bar); frequency response 50-12,000 Hz; hand-held with "slip in" stand attachment; for music and tape recording; supplied with dust filter or windscreen, 10-ft cable, mini (2) connector, one-point stereo pickup; battery operation; nickel satin finish ..... \$49.95  
**ECM-99A.** Same with twin phone plugs. \$49.95

### ECM-250A Condenser Microphone

Low-impedance cardioid-pattern microphone; for all types of recording; built-in windscreen; supplied with battery, microphone holder, cable, and carrying case ..... \$49.95

### ECM-220A Condenser Microphone

Dual-impedance unidirectional microphone; 200/10,000 ohm imp.; for live music recording; sensitivity -57/-41 dB; frequency response 50-12,000 Hz; on/off switch; impedance switch; built-in windscreen; supplied with battery, microphone holder, and cable ..... \$39.95

### ECM-16 Tie Clasp/Lapel Microphone

Low-impedance omnidirectional microphone; lavalier type for speech and tape recording; sensitivity -57.8 dB (0 dB = 1 V/10  $\mu$ bar); frequency response 50-13,000 Hz; supplied with mini connector and 6-ft cable; battery operation; 7/16" dia. x 1 1/16" long ..... \$29.95

## SUPERSCOPE

### EC-9P

Professional cardioid condenser microphone; low-cut filter; standard Cannon XLR-12C output; internal battery operation or 10 dB pad; on/off switch; optional phantom powering ..... \$99.95

### EC-15P

Professional electret condenser miniature tie-clasp microphone; standard Cannon XLR3-12C output; internal battery operation or optional phantom powering; IC FET electronics ..... \$79.95

### EC-7

Cardioid condenser microphone; FET electronics; internal battery operation; low-cut filter; on/off switch ..... \$49.95

### EC-5

Cardioid condenser microphone; FET electronics; internal battery operation; desk stand ..... \$39.95

### EC-12B

Electret condenser tie-clasp microphone with attachable telescopic rod for hand-held or podium use; FET electronics; internal battery operation ..... \$39.95

## TEAC

### ME-120 Microphone

Electret microphone; cardioid or omnidirectional; two-position response switch, 40-18,000 Hz (cardioid), 30-16,000 Hz (omnidirectional); supplied with stand attachment, two windscreens, and 15-ft cable ..... \$120.00

**ME-80.** Same except response 50-16,000 Hz ..... \$80.00

**ME-50.** Same except cardioid; unbalanced or balanced 10,000 or 200-ohms; response 50-14,000 Hz ..... \$50.00

### 109-A Mike Input Transformer

Matches low-impedance makes to high-impedance inputs; will terminate low-impedance balanced signal to allow interfacing with most consumer tape recorders and mixes... \$19.50

## 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

**RP-3550E.** Similar to RP-3830E except fixed windscreen; Switchcraft cable connector ..... \$79.95

## TURNER

### TC20H Dynamic Microphone

Dynamic multi-port cardioid microphone; 40,000-ohm imp.; output level: open circuit voltage 53 dB (0 dB = 1 V/ $\mu$ bar), power level 55 dB (0 dB = 1 mW/10  $\mu$ bar), EIA sensitivity 149 dB; frequency response 50-15,000 Hz; discrimination 22 dB over frequency range at 180 degrees, -6 dB at 90 degrees; supplied with detachable 20-ft, two-conductor, shielded cable, Switchcraft three-pin A3F mic connector, 1/4-in shielded phone plug terminal connector, and case; 1 1/2" head dia., 3/4" handle dia., 6" length; 7 oz (without cable)... \$140.00

**TC20L.** Same but 150-ohm imp.; standard three-pin A3M male terminal connector ..... \$140.00

**TC12H.** Same as TC20H but with on/off switch; gold satin baked enamel finish ..... \$135.00

**TC12L.** Same as TC20L but with gold satin baked enamel finish ..... \$130.00

### 966HVC Dynamic Microphone

Dynamic cardioid microphone; volume control; four-stage blast filter; 40,000-ohm imp.; output level 55 dB; frequency response 50-15,000 Hz; discrimination 20-25 dB over frequency range; supplied with detachable 20-ft, one-conductor, shielded cable, three-pin A3F mic connector, standard 1/4-in. phone plug terminal connector, and case; 2" head dia., 6" length; 12 oz (without cable) ..... \$115.00

**966H.** Same but with on/off switch in place of volume control ..... \$105.00

**966L.** Similar to 966H but output level 57 dB;

150-ohm imp.; 20-ft detachable, two-conductor, shielded cable and three-pin A3M terminal connector ..... \$105.00

**556H Dynamic Microphone**

Dynamic cardioid microphone; on/off switch; 40,000-ohm imp.; output level 55 dB; frequency response 50-15,000 Hz; discrimination 20-25 dB over frequency range; supplied with 20-ft detachable, one-conductor, shielded cable; three-pin A3F mic connector, standard 1/4-in. phone plug terminal connector, and case; 1 7/32" dia., 6 1/16" length; 12 oz (without cable) ..... \$115.00

**556L.** Same but 150-ohm imp.; output level 57 dB; detachable 20-ft, two-conductor, shielded cable, three-pin A3M terminal connector ..... \$110.00

**666H Dynamic Microphone**

Dynamic cardioid microphone; on/off switch; 100,000-ohm imp.; output level 55 dB; frequency response 50-15,000 Hz; discrimination 20-25 dB over frequency range; supplied with 20-ft detachable, one-conductor, shielded cable, three-pin A3F mic connector, standard 1/4-in. phone plug terminal connector, and case; 1 7/8" head dia., 6" length; 14 oz (without cable) ..... \$100.00

**666L.** Same but 150-ohm imp.; output level 57 dB; detachable 20-ft two-conductor, shielded cable, three-pin A3M terminal connector ..... \$100.00

**266H Dynamic Microphone**

Dynamic cardioid microphone; on/off switch; 40,000-ohm imp.; output level 58 dB; frequen-

cy response 50-15,000 Hz; discrimination 20 dB over frequency range; supplied with detachable 20-ft, one-conductor, shielded cable, three-pin A3F mic connector, standard 1/4-in. phone plug terminal connector, and case; 1 1/4" head dia., 6" length; 8 oz (without cable) ..... \$95.00

**266L.** Same but 150-ohm imp.; output level 57 dB; detachable 20-ft two-conductor, shielded cable, three-pin A3M terminal connector ..... \$95.00

**766HVC Dynamic Microphone**

Dynamic cardioid microphone; volume control; 40,000-ohm imp., output level 55 dB; frequency response 50-15,000 Hz; discrimination 20-25 dB over frequency range; supplied with de-

tachable 20-ft, one-conductor, shielded cable, MC1F screw-on type mic connector, standard 1/4-in. phone plug terminal connector, and case; 2" head dia., 6" length; 12 oz (without cable) ... \$100.00

**766H.** Same but with on/off switch in place of volume control ..... \$85.00

**366H Dynamic Microphone**

Dynamic cardioid microphone; on/off switch; 40,000-ohm imp.; output level 58 dB; frequency response 50-15,000 Hz; supplied with removable 20-ft, one-conductor, shielded cable, MC1F screw-on type mic connector, standard 1/4-in. phone plug terminal connector, and case; 1 1/4" head dia., 5" length; 7 oz (without cable) ..... \$75.00

**NOTICE TO READERS**

We consider it a valuable service to our readers to continue, as we have in previous editions of this guide, to print the price set by the manufacturer or distributor for each item described as available at presstime. However, almost all manufacturers and distributors provide that prices are subject to change without notice.

We would like to call our readers' attention to the fact that during recent years the Federal Trade Commission of the U.S. Government has conducted investigations of the practices of certain industries, in fixing and advertising list prices. It is the position of the Federal Trade Commission that it is deceptive to the public, and against the law, for list prices of any product to be specified or advertised in a trade area, if the majority of sales of that product in that trade area are made at less than the list prices.

It is obvious that our publication cannot quote the sales price applicable to each trading area in the United States. Accordingly, prices are listed as furnished to us by the manufacturer or distributor. It may be possible to purchase some items in your trading area at a price that differs from the price that is reported in this edition. The Publisher



**The Most Spectacular Sound Exhibition of STEREO FIDELITY Ever Available on Disc and Cassette**

This record (and cassette) is the result of 2 years of intensive research in the sound libraries of Deutsche Grammophon Gesellschaft, Connoisseur Society, Westminster Recording Company and Cambridge Records, Inc. The Editors of Stereo Review have selected and edited those excerpts that best demonstrate each of the many aspects of the stereo reproduction of music. The record and cassette offer you a greater variety of sound than has ever before been included on a single disc or tape. It is a series of independent demonstrations, each designed to show off one or more aspects of musical sound and its reproduction. Entirely music, the record and cassette have both been edited to provide self-sufficient capsule presentations of an enormous variety of music arranged in a contrasting and pleasing order. It includes all the basic musical and acoustical sounds that you hear when you listen to records and tapes, isolated and pointed up to give you a basis for future critical listening.

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- Sounds of Oriental Instruments
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**13 SUPERB SELECTIONS**

- STRAUSS:** Festive Prelude, Op. 61 (excerpt) DGG.
- DEBUSSY:** Feux d'artifice (excerpt) Connoisseur Society.
- BETHOVEN:** Wellington's Victory (Battle Symphony) (excerpt from the first movement) Westminster Records.
- MASSAINO:** Canzona XXXV à 16 (complete) DGG Archive.
- CORRETTE:** Concerto Comique Op. 8, No. 6, "Le Plaisir des Dames" (third movement) Connoisseur Society.
- KHAN:** Raga Chandranandan (excerpt) Connoisseur Society.
- RODRIGO:** Concert-Serenade for Harp and Orchestra (excerpt from the first movement) DGG.
- MANITAS DE PLATA:** Gypsy Rhumba (complete) Conn. Soc.
- MARCELLO:** (arr. King): Psalm XVII "The Heavens are Telling" (complete) Connoisseur Society.
- PRÆTORIUS:** Terpsichore: La Bourrée XXXII (complete) DGG Archive.
- BERG:** Wozzeck (excerpt from Act III) DGG.
- BARTOK:** Sonata for two pianos and Percussion (excerpt from the first movement) Cambridge Records.
- BEETHOVEN:** Wellington's Victory (Battle Victory) (excerpt from the last movement) Westminster.



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# 13

## SIGNAL PROCESSORS

### Equalizers, Expanders, Noise-Reduction, etc.

#### ACCUPHASE

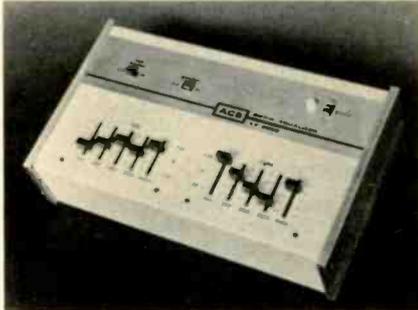
##### F-5 Frequency Dividing Network

Electronic frequency dividing network for stereo multi-amp systems; uses plug-in crossover frequency PC boards for changes in crossover points; sixteen crossover boards available (100, 180, 250, 350, 500, 650, 800, 1200, 1800, 2500, 4000, 5000, 6500, 8000, 10,000, and 12,500 Hz); each board has two symmetrical configurations for left and right channel operation; selector for 12 or 18 dB/octave cutoff attenuation at crossover freq.; mid- and hi-output level controls; pilot light; standard 19-in. rack mount front panel available (F-5A); 3 1/2" H x 17 1/2" W x 13 3/4" D ..... \$650.00

#### ACE AUDIO

##### AE-2002 Audio Equalizer

Complete tone-control system; can be used with company's preamps or other equipment;



rated output 2 V to 10,000-ohm load; gain unity  $\pm 0.5$  dB; IM and HD 0.05%; freq. range  $\pm 12$  dB; bass (50 Hz and below), 250 Hz, 1000 Hz, 3500 Hz, treble (10,000 Hz and above); freq. response 5-100,000 Hz  $\pm 1$  dB; hum and noise 80 dB below 2 V output; inputs: main, tape monitor; outputs: main, tape out; switches: power; defeat; tape monitor; unswitched convenience outlet; American walnut end caps . . . \$143.50  
Kit version with manual ..... \$94.75  
Construction manual ..... \$2.25

#### ADC

##### Sound Shaper One

Frequency equalizer with left and right channel slide controls for  $\pm 12$  dB equalization at five control frequencies (60, 240, 1000, 3500, and 10,000 Hz); harmonic and IM dist. at 2 V output 0.02%; hum and noise -80 dB (1 V, inputs shorted); 10 V rms min. output into 10 kohm load; input imp. 75 kohms; has two main and two tape monitor inputs, two main and two tape outputs; 5 1/8" H x 10 1/2" W x 6 1/2" D ..... \$99.95

#### ALTEC

##### 729A "Acousta-Voicette" Equalizer

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 ..... \$972.00

#### AUDIONICS

##### High-Definition Tate SQ Decoder

High-performance SQ quadraphonic decoder using Tate directional-enhancement system; separation over 40 dB under static measurement conditions; full controls for input/output and balance ..... \$300.00

#### AUDIO/PULSE

##### Model One Digital Time-Delay System

Adds ambience by creating multiple time delays; delayed signals are normally fed to auxiliary rear-channel amplifiers and speakers (not included), but may be mixed with normal stereo signal to some extent; creates spatial ambience from stereo or monophonic musical material; produces four initial delays, combined multiply to produce reverberant decay; initial delay times from 8 to 94 msec; reverberation decay time 0.2-1.2 sec variable; echo density interval between delays 20 msec max.; noise level better than 75 dB (typically 80 dB direct), better than 65 dB (typically 68 dB) delayed (A wtd.); THD less than 0.05% direct, better than 1% (typically 0.4%) delayed; has LED input-level readout, level match, and decay time selectors, built-in tape monitor; 4 1/2" H x 14 1/2" W x 10" D ..... \$650.00

#### AUDIO RESEARCH

##### EC-5 Electronic Crossover

Two-way crossover; 6 or 18 dB/octave slope; individual level control for each channel; crossover frequency selection by changing circuit cards; high input impedance, low output impedance ..... \$595.00

#### BOZAK

##### 900 Celeste

Continuously variable (20-50 msec) stereo time delay; features output level, direct to delayed signal blend, high frequency feed and remix; frequency response 20-7500 Hz; S/N (unweighted) 65 dB; output 0.7 V nominal; 2 1/2" H x 17 1/2" W x 8 3/4" D ..... \$495.00

#### BURWEN

##### DNF 1201A Dynamic Noise Filter

Processes any two-channel or matrix encoded material from turntable, tape deck, cassette deck, receiver or tuner; pushbutton controls select proper noise reduction; sensitivity control with LED readouts; frequency response (minimum bandwidth) -3 dB at 500 Hz, -10 dB at 1 kHz, -20 dB at 2.5 kHz; (maximum bandwidth)  $\pm 0.5$  dB max. 10 Hz to 20 kHz, -3 dB at 30 kHz, -25 dB at 100 kHz; attenuation rate 9 dB/octave; noise reduction levels up to

30 dB above 5 kHz, 14 dB above 400 Hz; HD 0.2% max.; 0.0 dB gain at 1 kHz adjustable to 10 dB; internal noise 100  $\mu$ V rms 20 Hz to 20 kHz; has 8 phono jacks and tape deck connectors; 2 7/8" H x 17 1/2" W x 8 3/4" D .. \$379.00

##### TNE 7000 Transient Noise Eliminator

Removes clicks and pops from phonograph records; blanking duration 100-600 millionths of a second; blanking period is filled by transition voltage; dynamic range 100 dB; max. input 6 V rms undistorted, 45 kohms; max. output 7 V rms before clipping, 1 ohm, d.c. coupled; 0.1% THD; 0.05% IM dist. (60 Hz, 7 kHz, 4:1); noise 50  $\mu$ V rms; has tape monitor, threshold, and sensitivity controls; 105-125 or 210-250 V a.c.; 3 1/2" H x 19" W x 8 3/4" D ..... \$289.00

#### CERWIN-VEGA

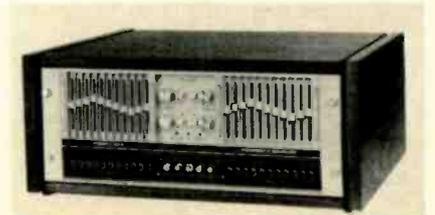
##### GE-2 Stereo Graphic Equalizer

Covers 13 frequency bands (from 31.5 Hz to 16,000 Hz)  $\pm 12$  dB; response 20-20,000 Hz  $\pm 1$  dB with equalizer controls at center detent; rated output 2 V rms (2000 ohms or greater load imp.); control accuracy with 1 dB of calibrations; hum and noise 0.05% at rated output; inputs: two each source and tape input, line; tape output (phono jack); half-octave control below middle C, octave control above; 5 1/4" H x 19" W (rack mount) x 7 1/4" D (inc. knobs) ..... \$550.00

#### CROWN

##### EQ-2 Equalizer

Stereo equalizer with 11 bands per channel provides full equalization over 20-20,000 Hz



with  $\pm 15$  dB boost or cut per band; each half-octave constant bandwidth filter has control for  $\pm 0.5$  octave adjustment of center frequency, otherwise nominally set on octave centers; has bass and treble tone controls; inputs provide unity or 10-dB gain (switchable); clip level indicators; automatic muting at turn-on; 7" H x 19" W x 14 1/2" D ..... \$995.00  
Cabinet ..... \$65.00

##### 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)  $\pm 0.1$  dB; 2-58,000 Hz (IHF load) typically  $\pm 0.2$  dB; 18-38,000 Hz (600 ohm load)  $\pm 0.5$  dB; gain 15.5 dB max. from balanced/unbalanced input; hum and 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; 3 1/2" H x 19" W x 5 1/4" D ..... \$299.00

## DAHLQUIST

### DQ-LPI Variable Low Pass Filter

Low-pass electronic crossover for bi-amp bass speaker applications, including external low bass reproducers; each channel continuously variable from 40-400 Hz; low-pass cutoff slope at 18 dB/octave; controls adjustable from flat to 5 dB boost at 20 Hz; outputs: choice or combination of mixed center-channel and stereo bass; separate level controls for system balance and up to 15 dB gain; satin-brushed panel with wood end blocks; 2 1/8" H x 12 3/4" W x 5 1/4" D ..... \$300.00

## DB SYSTEMS

### DB-3 Active Crossover

Designed for bi- and tri-amplified speaker systems; asymptotic slope 12 dB/octave; fixed crossover frequencies (to be specified on order); available as two- or three-way crossover (for common bass channel, designation is 1 1/2- or 2 1/2-way, respectively); individual channel gains screwdriver adjustable; THD 0.0008% 20-20,000 Hz; noise -100 dB (shorted input); frequency response of summed output within 1 dB 5-50,000 Hz.

1 1/2-way crossover ..... \$200.00  
2-way crossover ..... \$200.00  
2 1/2-way crossover ..... \$220.00  
3-way crossover ..... \$220.00  
DB-2. Power supply ..... \$78.00

### DB-5 Tone Control

Provides ±15 dB bass and treble gain; nominal break frequencies 1.5, 3.5, and 7.5 kHz (treble), 50, 150, and 400 Hz (bass); control functions: stereo and reverse, mono and mono left/right, stereo blend and reverse, tone in/out, and low frequency boost; THD 0.0008% over 20-20,000 Hz (for input/output less than 3 V); noise -91 dB (ref. 1 V, A weighted); frequency response 10-20,000 Hz ±0.25 dB (tone out), 20-20,000 Hz ±0.5 dB (tone in); channel balance ±0.2 dB (tone controls out); max. output 8 V at 10,000 ohms; inputs: direct (100,000 ohms), attenuated (274,000 ohms, 11 dB); outputs (two each in parallel): left, right, left minus right, left plus right (inverted, three); output imp. 220 ohms; 8.5" x 3.2" x 7" ..... \$375.00

dbx

### 3BX Dynamic Range Expander

Three-band dynamic range expander; expansion control adjustable from none to 1.5 times; yellow and red LED's comprising graphic display light when compression and expansion, respectively (-20 to +12 dB range); transition level control centers signal on graphic display; has source/tape and pre/post switches; dynamic range 110 dB; input noise 90 dB below 1 V (A wtd.); 0.1% harmonic and 0.15% IM dist.; connector for remote control box; 3 3/4" H x 17 1/4" W x 10 1/4" D ..... \$650.00

### 128 Range Enhancer/NR System

Combines dynamic range enhancer and tape noise reduction system; effective noise reduction 30 dB for tape recorders with 45-dB S/N, 40 dB for dbx encoded disks; compression continuously adjustable to infinity; expansion continuously adjustable from 1 to 2; max. output 7 V rms at 1 kHz into 5000 ohms; input noise -90 dB (ref. 1 V); has quad coupler jack; 3 3/4" H x 11" W x 10 1/4" D ..... \$450.00

### 118 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; has peak limiting/unlimiting above user-selected threshold; LED indicator light ..... \$219.00

## 120 Series Noise Reduction Systems

Provides 30 dB noise reduction and 10 dB additional headroom when recording with open-reel, cartridge, or cassette recorders; eliminates tape hiss and noise in live recording; prevents additional noise build-up in tape duplicating or recording off-the-air; also decodes dbx encoded discs.

Model 122. Two-channel switchable record or play ..... \$275.00

Model 124. Four-channel switchable record or play ..... \$399.00

## 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 ..... \$600.00

Model 152. Two-channel switchable record or play ..... \$475.00

Model 154. Four-channel switchable record or play (may also be used as two-channel simultaneous record and play) ..... \$750.00

## DCE

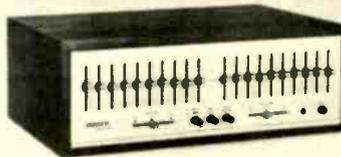
### 30 Third-Octave-Band Equalizer

Active program equalizer with switchable inflection points for variable Q ..... \$975.00  
Genuine walnut-veneer cabinet ..... \$50.00

## DYNACO

### SE-10 Stereo Octave Equalizer

Provides 12 dB boost or cut at octave intervals from 30-15,000 Hz; 10 separate slider adjust-



ments for each channel; separate level adjust. each channel from -12 dB to +6 dB; response 10-35,000 Hz ±1 dB; 600 ohm outputs standard; distortion at 2 V output; THD 0.04%, IM 0.02%; S/N 85 dB below rated output; IC-regulated power supplies; 4 1/4" H x 13 1/2" W x 11" D.

Kit ..... \$249.00  
Assembled ..... \$349.00

## HAMMOND INDUSTRIES

### Klark-Teknik

#### DN22 Equalizer

Eleven-band stereo graphic equalizer; separate high- and low-pass filters for each channel; harmonic dist. less than 0.05%; frequency response 20-20,000 Hz; S/N 90 dB; up to 6-dB gain ..... \$749.00  
DN22. Balanced ..... \$899.00

#### DN27 Equalizer

One-third octave graphic equalizer; harmonic



dist. less than 0.05%; frequency response 20-20,000 Hz; S/N 90 dB; 27 controls centered on ISO frequencies; up to 6-dB gain ... \$695.00  
DN27. Balanced ..... \$770.00

## HEATHKIT

### AD-1304 Active Audio Processor

Provides up to 7 dB of dynamic range expansion and up to 10 dB of apparent noise reduction; single-ended noise reduction, requires no prior encoding of source material; expansion and sensitivity controls; tape monitor, high filter, expander and noise-reducer switches. Kit ..... \$199.95

## 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" H x 7 1/2" W x 10" D ..... \$129.95

### SEA-7070 Graphic Equalizer

10-band octave S.E.A. graphic equalizer; has 10 center frequencies with two sets of 10 controls per channel; controls for 1/2 octave above and below center frequency; 11-position tone control for each channel; incorporates two recording outputs, tape dubbing circuit, defeat function, three-position input attenuator; two sets of output terminals, one with output level control; S/N (IHF A) 106 dB with 2 V output; 6 5/8" H x 16 1/16" W x 13 1/16" D ..... \$699.95

## LUX

### 5G12 Stereo Graphic Equalizer

Provides 10 dB boost or cut in each of 12 octave-wide bands centered over 14-28,000 Hz; three-position range switch sets all sliders for

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# 13 SIGNAL PROCESSORS

boost/cut of 10 dB  $\pm$  2 dB and has bypass function; broad/sharp response selectable for each octave band; output 1 V, 5 V max.; crosstalk -70 dB; noise 0.018 mV; S/N (IHF A) 115 dB; 4" H x 17.7" W x 16" D..... \$645.00

### A-2003 Electronic Crossover

For use in bi- and tri-amplification systems; purchaser selects any two crossover frequencies between 125 Hz and 8 kHz and unit is customized; plug-in modules available for other crossovers; frequency shift switch trims each crossover point  $\pm$  1/8 of an octave in 1/8 octave increments; selectable 6 and 12 dB/octave slopes and adjustable signal levels for each driver; center-channel switch and output on rear panel..... \$425.00

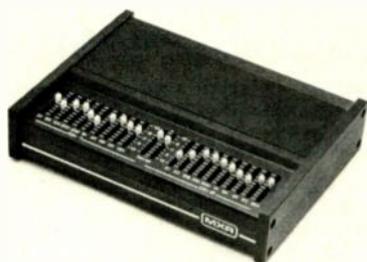
### MXR

#### Dynamic Processor

Incorporates wide-band linear expander and impulse suppression circuit; 100-dB dynamic range; equivalent input noise -89 dBV; expand ratio 1:1 to 1:1.5; expand level range adjustable for unity gain from -16 dBV to +8 dBV; 0.5% THD and IM dist.; LED indicates circuit action of impulse suppressor..... \$199.95

#### Stereo Graphic Equalizer

Dynamic range 110 dB; control range  $\pm$  12 dB; gain: unity  $\pm$  1 dB (controls centered); max. output level: +15 dBm (600 ohms), +22 dBm (unloaded); input imp. 47k; equiv. input noise -95 dBm; frequency response 20-20,000 Hz  $\pm$  1 dB at 0 dBm; THD 0.05% at 0 dBm (20-20,000 Hz); IM 0.05% at 0 dBm (60/7000 Hz 4:1); center frequencies (per channel) 31, 62, 125, 250, 500, 1000, 2000, 4000, 8000, and 16,000 Hz;



eight rear-panel phono jacks: two inputs, two low-imp. outputs, two tape-record outputs, two tape-monitor inputs; two switches control tape monitor function and equalizer bypass..... \$199.95

#### Compunder

Can be used with open-reel and cassette decks; dynamic range 100 dB; max. signal level +12 dBV (compress in, expand out); output imp. will drive 600 ohms or higher; equiv. input noise -88 dBV (20-20,000 Hz); input imp. 100 k; compress/expand ratio 2:1; tracking accuracy  $\pm$  1 dB per 20 dB; frequency response 30-20,000 Hz  $\pm$  1 dB at 0 dBV, 3 dB down at 20 Hz and 40 kHz; THD 0.15% (200 Hz-20 kHz, 0.75% at 0 dBV (50-200 Hz); IM 0.75% at 0 dBV (60 Hz/7 kHz, 4:1); level match range +6 dB to infinity; compatible with dbx encoded material; bypass switch for cutting unit out of system; black anodized aluminum housing with

### ALWAYS.....

Carry a copy of the Guide when shopping for audio components. It can save you time and money!

walnut side panels..... \$129.95

### PHASE LINEAR

#### 1000 Noise Reduction System

Combines features of dynamic-range-recovery system with an autocorrelation noise-reduction



system, reduces noise and improves dynamics without pre-encoding; works in the tape monitor of a receiver or preamp; provides 10 dB noise reduction; 7.5 dB of increased dynamic range; adjustable dynamic low filter for reducing rumble and hum; total distortion less than 0.25%; input impedance 70,000 ohms; input level 2 V rms max. output voltage 8 V rms, better than 3 V rms into 2000 ohms; frequency response 20-20,000 Hz  $\pm$  1 dB; peak unlimiter 0.5 dB $\mu$ s for +6 dB peak unlimit operation; nominal amplitude attack threshold 0.2 V peak at input to peak unlimiter; downward expander begins at -35 dB; ultimate limit is -41 dB; unlimiter window is 35 dB wide; upper and lower thresholds simultaneously variable by front-panel unlimit threshold control; high-frequency noise reduction begins at 2 kHz and is 3 dB, reaching 10 dB from 4 kHz to 20 kHz; low-frequency noise reduction begins at 200 Hz, ultimately reaching 20 dB at 20 Hz; passive subsonic filter rejection of -35 dB at 5 Hz; weighted overall noise reduction is -10 dB from 20 to 20,000 Hz; 5" H x 9 1/2" W x 11 1/2" D..... \$349.00  
Walnut cabinet..... \$29.95

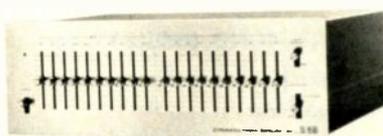
### PIONEER

#### D-23 Multi-Amp Electronic Crossover

Four-band electronic crossover with 11 crossover points per band, at 1/3-octave intervals; independent selection of high-cut and low-cut frequencies for each crossover point; crossover slopes selectable at 18 dB, 12 dB, or 6 dB per octave or flat, independently selectable for each filter; individual, stepped level controls for each driver, with memory markers; total range of filter frequencies 63-16k Hz; impedance 50 kohms input, 4 kohms (max.) output; THD (20-20k Hz) 0.005% for 1 V output, 0.1% for 10 V; frequency response 10-100,000 Hz, +0/-1 dB; S/N 100 dB (1 V out); 5 7/8" H x 16 1/8" W x 13 7/8" D..... \$600.00

#### SG-9500 Audio Frequency Equalizer

Stereo graphic octave equalizer for tone control with ten elements: 32, 64, 125, 250, 500,



1000, 2000, 4000, 8000, 16,000 Hz; level control range  $\pm$  10 dB; frequency response 5-70,000 Hz +0/-1 dB; S/N 90 dB; input impedance 200,000 ohms; output impedance 600 ohms; THD 0.04% at 1 V (20-20,000 Hz); max. output 6 V..... \$300.00

#### RH-1 Dynamic Range Expander

Dynamic processor provides improvements in dynamic range to enhance realism in reproduced music and noise reduction to eliminate unwanted tape and record noise; automatic operation; max. output 6.5 V; THD 0.1% at 1 V;

dynamic expansion 6, 8, 10, 12, 14 dB; impulse response: attack time 0.5 msec; release time 80 msec; input impedance 70,000 ohms; output impedance 300 ohms; constant loss -3 dB; residual noise 65  $\mu$ V; S/N 100 dB (1 kHz, dynamic expansion 14 dB); twin meters; 5 1/2" H x 13 3/32" W x 12 1/32" D..... \$175.00

#### 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); 5 1/4" H x 15 3/4" W x 10 3/4" D.. \$250.00

#### SF-850 Electronic Crossover

Provides ten crossover points (125, 250, 500, 700, 1000-low/mid; 1000, 2000, 4000, 6000, and 8000-mid/high); three-position slope selection (6 dB, 12 dB, 18 dB/octave); three channels (low, mid, high); input imp. 100,000 ohms (1 kHz), output imp. 1000 ohms; HD 0.3%; insertion loss -2 dB; S/N 85 dB; independent level controls for low, mid, high; 15 1/2" H x 13 3/4" W x 21 7/8" D..... \$200.00

#### RG-1 Dynamic Processor

Combines dynamic range expander and noise reduction system; 0.1% THD at 1 kHz with 14-dB dynamic expansion (1 V output); dynamic expansion 6, 8, 10, 12, and 14 dB; impulse response: 0.5 msec attack time; 80 msec release time; 70 kohm input imp. (1 kHz); 300 ohm output imp. (1 kHz); constant loss -3 dB; residual noise 65  $\mu$ V; S/N 100 dB (1 kHz, 14-dB dynamic expansion)..... \$175.00

#### 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 65 dB at 330 mV output; universal power supply..... \$150.00

### POLYFUSION

#### QP-1 Sound-A-Round

Quadraphonic panner; permits control of sound shift speed, direction, and channel levels; joystick balance control; four LED quadrant level indicators; dynamic range 80 dB; S/N 70 dB; frequency response 10-50,000 Hz  $\pm$  1 dB; THD less than 0.5%; max. input level 16 V p-p; input imp. 100,000 ohms; output level 0-100% of input; output imp. 600 ohms; speed range 0.05-6 Hz; depth range 0-120%; control input imp. 100,000 ohms; control input level 0 to +5 d.c.; 95-135 V a.c., 60 Hz, 130 W max.; 4.5" H x 10" W x 8.5" D..... \$299.95  
FP-1. Foot pedal control voltage source. \$49.95

### QUINTESSENCE

#### Equalizer

Five frequencies of equalization corresponding closely to RIAA recording curve equalization points; unity gain (all controls flat); input imp. 20,000 ohms; output imp. 140 ohms; S/N 95 dB (unweighted); dist. 0.05% (controls flat), 10% (controls at extremes); slew rate 2.5 V/msec; equalization  $\pm$  12 dB at: 120 Hz (shelving), 400 Hz (resonant), 1.2 kHz (resonant), 4 kHz (resonant), 12 kHz (shelving) .. \$550.00

### RG DYNAMICS

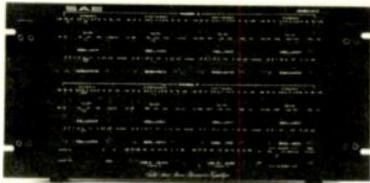
#### RG Pro-16 Dynamic Processors

Provide up to 16 dB dynamic expansion; continuously variable expansion (4-16 dB); 10-element stereo LED display shows expansion ratios in 4-dB steps for each channel as well as noise reduction; two-position slope switch; 0.1% IM max.; 0.08% THD (1 V, 1 kHz); attack time 600  $\mu$ sec; hum and noise -80 dB (1 V); designed for

insertion in tape monitor or accessory loop; includes replacement tape monitor function.  
**RG Pro-16W.** Dynamic processor with silver extruded panel, black finish case with hand-rubbed solid walnut end plates; 3 1/2" H x 18" W x 12" D ..... \$275.00  
**RG Pro-16B.** Dynamic processor with black extruded panel, black finish case, standard 19" rack mounting; 3 1/2" H x 19" W x 12" D ..... \$275.00

**SAE**

**2800 Parametric Equalizer**  
 Four-band dual-channel parametric equalizer with adjustable bandwidth (0.3-3.6 octaves)



and center frequency in each control group; has peak overload and tape equalization facilities plus level match controls; THD and IM dist. 0.02%; S/N 100 dB; frequency response 20-20,000 Hz ±0.25 dB; 8 3/4" H x 19" W x 3 1/2" D .. \$550.00  
 Optional cabinet ..... \$40.00

**1800 Parametric Equalizer**  
 Two-band dual-channel parametric equalizer with adjustable bandwidth (0.3-3.6 octaves) and center frequency in each control group; has peak overload and tape equalization facilities plus level match controls; THD and IM dist. 0.02%; S/N 100 dB; frequency response 20-20,000 Hz ±0.25 dB; 5 1/4" H x 19" W x 3 1/2" D .. \$300.00  
 Optional cabinet ..... \$35.00

**4000 Electronic Crossover**  
 Two-band crossover with independent high-low balance controls for each channel; independent high-pass and low-pass controls; THD and IM dist. 0.02%; S/N 100 dB; frequency response 20-20,000 Hz ±0.25 dB; insertion loss 1 dB; 75 kohm input imp.; 600-ohm output imp.; rack mountable; 3 1/2" H x 19" W x 3 1/2" D .. \$200.00

**5000 Impulse NR System**  
 Impulse noise reduction system for reducing clicks and pops (impulse noise) on phonograph



records; THD and IM dist. 0.1%; S/N 90 dB; insertion loss 1 dB; 3" H x 10 3/4" W x 9 1/4" D ... \$200.00

**SANSUI**

**QSD-1 Four-Ch Decoder/Synthesizer**  
 Features three separate QS "Vario-Matrix" decoders; 20 dB separation between adjacent channels, 30 dB across diagonally opposite channels; QS synthesizer for deriving four-channel sound from stereo records, tapes, and FM stereo signals; frequency response 20-30,000 Hz; dist. 0.1% (1000 Hz); 3 1/2" H x 19" W (rack mount) x 12" D ..... \$350.00

**QSD-2 Vario-Matrix Decoder**  
 Decoder/synthesizer adapter; permits any four-channel receiver/amplifier to be used for Type-A QS decoding of QS-encoded sources, including FM broadcasts; master volume control for all four channels; source/playback jacks; func-

tion control; two-ch, QS synthesizer-hall, QS synthesizer-surround, QS, SQ; frequency response 20-30,000 Hz; dist. 0.1% at 1000 Hz; separation 20 dB (adj. channels), 30 dB (diagonal channels); 4 3/4" H x 5" W x 11 7/8" D ..... \$140.00

**RA-500 Reverberation Amplifier**  
 Continuously adjustable reverb time with visual indication; can handle two tape recorders simultaneously; adds echo effects during recording or playback; frequency response 20-30,000 Hz ±2 dB (at reverb time min.), 20-30,000 Hz ±10 dB (reverb max.); S/N 65 dB at 300-mV output; reverb time 1.9-3.2 sec (at 1000 Hz); input/output jacks; tape recording A and B, tape playback A and B; load imp. 100,000 ohms; simulated walnut-grain enclosure; 6 3/8" H x 11 7/8" W x 10 7/16" D. \$150.00

**SONY from SUPERSCOPE**

**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 ..... \$129.95

**SOUND CONCEPTS**

**SD-50R Audio Delay System**  
 Dual-channel audio delay system; continuous delay variation from 5 to 100 msec; automatic HF roll-off proportional to delay time; continuous echo or reverb variation from 0 to 95% for decay time of 2 sec; bypass, stereo, and mono modes; HF attenuation control; delay 5-50 msec (±3 msec) stereo, 10-100 msec (±5 msec) mono; output imp. 6000 ohms nominal, 10,000 ohms peak; rear-channel output gain 6 dB; two-channel mix output imp. 300 ohms; S/N 85 dB min.; dist. 1%; 115-V a.c., 10 W; 3 1/2" H x 19" W x 7 1/4" D ..... \$629.00

**SOUNDCRAFTSMEN**

**TG2209-600 Equalizer**  
 Twin-graphic equalizer; four LED's for front-panel display for zero-gain input to output signal ratios; two separate 10-octave equalization panels; ±12 dB boost and cut each octave; separate equalized signal zero-gain controls for balancing input to output with +6, -12 dB range; front-panel controls for equalized or unequalized output, low and/or high shelving-zero-gain lights on or off; separate terminations for input and output of Section A and B; balanced 600-ohm op-amp input and output ..... \$550.00

**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-defect 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 10-100,000 Hz ±0.25 dB; THD and IM 0.05%; walnut grained cabinet; 7 1/4" H x 20" W x 11 1/4" D ... \$529.50

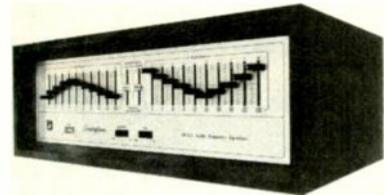
**SG2205-600 Equalizer**  
 Provides front-panel push-button control of line or tape equalization for conventional hi-fi systems or separate stereo outputs for multiple-system equalization; tape monitor circuit provides monitoring equalized program material during use; environmental test record for lis-

tening environment equalization; four LED's for front-panel display controlled by zero-gain level controls for input vs output level balancing; S/N 96 dB; THD 0.1% at 2 V, 0.05% at 1 V (typical); ±12 dB boost or cut each octave; 600 ohm output; black anodized aluminum panel 19" wide for rack mounting ..... \$370.00

**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 and cut; separate equalized signal zero-gain controls ..... \$369.50

**RP-2204 Tape Playback Equalizer**  
 Can be used for equalization of tape recordings; environmental test record included for listening environment equalization; designed to be connected to tape monitor circuit of any stereo receiver or preamp; has tape monitor inputs and outputs with front-panel pushbuttons; two separate 10-octave equalization panel with ±12 dB boost and cut for each octave; separate equalized-signal zero-gain controls for exact balancing of input-to-output levels within an 18 dB range; S/N 96 dB; THD 0.1% at 2 V; walnut vinyl case ..... \$329.50

**20-12A Audio Frequency Equalizer**  
 Stereo audio frequency equalizer; ±12 dB logarithmic slide controls; Spectrum Level controls



for input/output zero-gain balancing; 10 octaves per channel; supplied with multiband record which allows step-by-step home room equalization ..... \$299.50

**SOURCE**

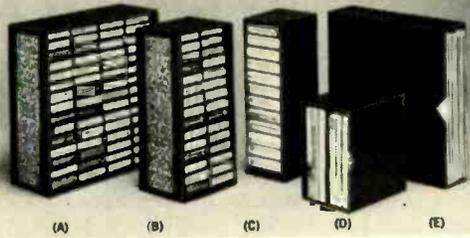
**Noise Suppressor**  
 Suppresses noise independently in three frequency bands; provides 20-dB quieting at 10 kHz and 17 dB at 4 kHz with no signal, 20 dB at 12 kHz and 14 dB at 4 kHz with 300-3000 Hz signal, 15 dB over 9-20 kHz with 300-7000 Hz signal; masking isolation 30 dB at 1 kHz for 3-7 kHz, 30 dB at 3 kHz for over 7 kHz; suppression range -60 to -20 dB; insertion gain/loss (-60 to -30 dB settings) 0 dB ±1 dB; dist. (-60 dB setting) less than 0.1% THD products below 20 kHz, less than 0.1% IM at 60 and 7000 Hz (4:1); internal noise (20-20,000 Hz) at least 20 dB below setting; input imp. 51,000 ohms; HF output imp. 100 ohms; min. recommended load resistance 22,000 ohms; ref. level (0 dB) 0.316 V rms ..... \$250.00

**Model M**  
 For use with Source Noise Suppressor; increases range of input signal levels for Noise Suppressor; three ref. levels, 100 mV, 316 mV, and 775 mV; independent level switches for two channels; 0 insertion gain/loss; 16-dB overload capacity; usable with 600-ohm resistive or transformer loads ..... \$50.00

**SPECTRO ACOUSTICS**

**210 Ten-Band Stereo Equalizer**  
 Provides 10 bands of equalization with ±15 dB

# A COMPLETE SET OF MATCHED STORAGE CASES



- (A) 60-unit cassette case. 13 1/2" high x 12 3/8" deep x 5 1/2" wide.
- (B) 30-unit cassette case. 13 1/2" high x 6 1/2" deep x 5 1/2" wide.
- (C) 12-unit cartridge case. 13 1/4" high x 6 1/2" deep x 4 1/4" wide.
- (D) 6-unit 7" reel case. 8" high x 7 1/2" deep x 5" wide. Holds reels in original boxes.
- (E) 20-unit 12" record case. 13 1/4" high x 12 1/2" deep x 3 1/2" wide. Holds records in original jackets.

Here's the ideal solution to the problem of keeping all your records and tapes stored neatly, safely, conveniently and attractively. A complete set of matched storage cases, designed by the editors of STEREO REVIEW magazine, for your records and all your tapes: cassette, cartridge and 7" reel. Now you can keep them side-by-side on your bookshelf or cabinet, easy to identify and readily available.

These cases are sturdily constructed and covered in a handsome leatherette. The outer case

is elegantly embossed in gold and comes in your choice of three popular decorator colors—black, brown and green—so that they lend themselves readily to the decor of any room.

STEREO REVIEW large capacity storage cases are just what you've been looking for—they're the ideal solution to keeping your records and tapes neatly stored for easy use.

CHARGE YOUR ORDER TO YOUR AMERICAN EXPRESS, BANKAMERICARD, MASTER CHARGE OR DINERS CLUB ACCOUNT.



ZIFF-DAVIS SERVICE DIVISION, DEPT. JJ,  
595 Broadway, New York, N.Y. 10012

Please send me the following Storage Cases:

- \_\_\_\_\_ 60-unit Cassette Cases @ \$17.95 each; 3 for \$49.95
- \_\_\_\_\_ 30-unit Cassette Cases @ \$12.95 each; 3 for \$34.95
- \_\_\_\_\_ 12-unit 8-Track Cartridge Cases @ \$9.50 each; 3 for \$24.95
- \_\_\_\_\_ 6-unit 7" Reel Cases @ \$6.95 each; 3 for \$18.50
- \_\_\_\_\_ 20-unit 12" Record Cases @ \$7.50 each; 3 for \$19.95

ABOVE PRICES INCLUDE ALL POSTAGE AND HANDLING CHARGES.

Outside U.S.A. add \$1 for each case ordered.

Check color for back of case (sides in black only):

- Brown
- Green
- Black

ENCLOSED IS \$ \_\_\_\_\_ SDBg8

- CHARGE:  BankAmericard  Master Charge
- American Express  Diners Club

Account # \_\_\_\_\_ Exp. Date \_\_\_\_\_

Master Charge Interbank # \_\_\_\_\_ (4 numbers over your name)

Signature \_\_\_\_\_

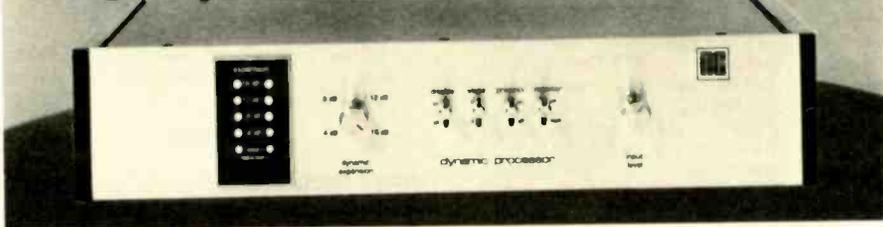
Print Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Residents of Calif., Col., Fla., Ill., Mich., Mo., N.Y. State, D.C. and Tex. add applicable sales tax.

## Expansion was always a good idea. The problem was making a good expander.



The problems were many. Pumping. Distortion. Dynamic instability.

So the solution took a while. 5 years to be exact.

But listen just once to the RG Pro-16 Dynamic Processor. You'll agree it was worth the wait.

You'll hear attack transients you never heard before. Fine peak detail you never knew existed. Dynamic contrasts that actually leap right out of your speakers.

All without the pumping or distortion that gave expansion a bad name.

Like most great ideas, the secret of the RG Pro-16 is simple. Simple, yet so unique it meant rethinking basic audio theory.

Once we did make the discovery, it required a whole new technology based on hidden information already encoded in even the most compressed recordings.

So we developed our own technology. And patented it.

The result? Some very chagrined competitors. And an expander that sounds every bit as good as the idea.

## The RG Pro-16 Dynamic Processor.

It's what expanders should have been all along.

CIRCLE NO. 78 ON READER SERVICE CARD

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SIGNAL PROCESSORS

boost or cut in each of the 10 audible octaves; uses gyrator synthesized inductors; features full line or tape equalization with lockout to prevent program destruction; unity gain controls for each channel or audible adjustments; distortion 0.1% of 1 V (20-20,000 Hz) with any combination of equalization adjustments, 0.05% of 1 V with equalizer bypassed or set flat; S/N 90 dB below 2 V rms; output impedance 600 ohms; dynamic range: noise floor is over 100 dB below full output; 6" H x 17" W x 7" D  
..... \$295.00  
210R. Rack mount version ..... \$295.00

### SWTP

#### EQ-1 Stereo Octave Equalizer

Has nine independent controls/channel; one-octave response per control; provides up to ±12 dB correction; controls for each channel operate independently; designed to be connected between preamp and amplifier or into tape monitor jack or preamp; frequency response 5-50,000 Hz ±1.0 dB; dist. 0.1%; all-metal enclosure with black vinyl-covered top; red-gold finished front panel; operates from 110-120 V, 50-60 Hz.  
Kit ..... \$99.50

### TECHNICS BY PANASONIC

#### SH-9090P Frequency Equalizer

Single-channel octave equalizer with 12 bands covering 10 to 32,000 Hz, 12-dB boost or attenuation at each frequency point; center frequency of each band variable by one octave in either direction; bandwidth ("Q") continuously variable for each band; equalizer in/out for comparisons; frequency response (at 0 dB levels) 20-20,000 Hz +0/-0.5 dB (balanced); 15-30,000 Hz +0/-0.5 dB (unbalanced); THD 0.05%; input imp. 100,000 ohms (balanced), 50,000 ohms (unbalanced); output impedance 20 ohms (balanced), 10 ohms (unbalanced); maximum output voltage +24 dBm (balanced), +20 dBm (unbalanced); master level control +6 dB; 6 3/16" H x 18 29/32" W x 14 3/4" D ..... \$999.95

#### SH-9010 Frequency Equalizer

Stereo universal frequency equalizer (Professional Series component); five center frequen-



cies per channel may be moved up or down 1.6 octaves; ±12 dB boost or cut; variable bandwidth of each band; equalizer in/out switch; two pairs of outputs; 0.02% THD; S/N (IHF A) 90 dB; 3 1/32" H x 19" W x 14 1/32" D . . . \$449.95

### WHITE INSTRUMENTS

#### Series 4000 Active Equalizers

Based on combination of LC tuned circuits and latest IC op-amps for high linearity and stability; equal Q in both cut and boost conditions; 27 channels on ISO one-third centers over 40-16,000 Hz; continuously variable controls for 10 dB boost or cut; variable low-end roll-off control, 20-160 Hz with 12 dB/octave slope; 20,000 ohm input imp.; 0 dBm recommended operating level; max. output before clipping +18 dBm; noise and hum -92 dBm; 0.2% dist. up to +18 dBm; dual independent outputs, each capable of driving 600-ohm or greater load; accessory socket allows insertion of low-

level crossover network for bi-amped systems; equalizers by-pass switch; 3 1/2" H x 17" W x 8 1/2" D.

4001. For sound reinforcement; transformer input with floating primary; barrier-type terminal strip for connections; supplied with rack-mounting end pieces and security panel . . . . .

..... \$635.00

4002. For music reproduction; phono jack type connectors; input level control; end pieces with rubber feet for table use . . . . . \$635.00

**4100 Stereo Equalizer**

Based on combination of LC tuned circuits and latest IC op-amps for high linearity and stability; each channel has 10 bands on ISO octave centers over 31.5-16,000 Hz; continuously variable controls for 10-dB boost or cut; equal Q in both boost and cut conditions; each channel has low-cut control for 12 dB/octave roll-off, 20-160 Hz; front-panel input-level attenuators and overload indicators for each channel; EQ In-Out and Power switches control both channels simultaneously; input imp. greater than 40,000 ohms; recommended operating level 0 dB; +18 dBm max. output before clipping; 100-ohm output imp.; output circuits capable of driving 600-ohm or greater loads; noise and hum -92 dBm; 0.1% dist. up to +18 dBm; accessory-socket allows insertion of low-level crossover network for bi-amped systems; 12 or 18 dB/octave crossover networks available for virtually any frequency; supplied with security cover; 115- or 230-V a.c., 50 to 60 Hz; 3 1/2" H x 18 1/2" W x 6 3/4" D . . . . . \$599.00

**NOTICE TO READERS**

We consider it a valuable service to our readers to continue, as we have in previous editions of this guide, to print the price set by the manufacturer or distributor for each item described as available at presstime. However, almost all manufacturers and distributors provide that prices are subject to change without notice.

We would like to call our readers' attention to the fact that during recent years the Federal Trade Commission of the U.S. Government has conducted investigations of the practices of certain industries, in fixing and advertising list prices. It is the position of the Federal Trade Commission that it is deceptive to the public, and against the law, for list prices of any product to be specified or advertised in a trade area, if the majority of sales of that product in that trade area are made at less than the list prices.

It is obvious that our publication cannot quote the sales price applicable to each trading area in the United States. Accordingly, prices are listed as furnished to us by the manufacturer or distributor. It may be possible to purchase some items in your trading area at a price that differs from the price that is reported in this edition. The Publisher



It's no wonder your records are flat. Before they're pressed, about half of the music's dynamic range has been squeezed out.

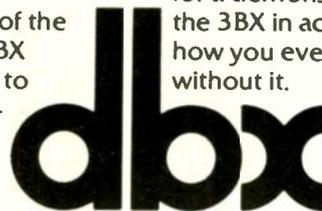
The vice is the recording process. Live music's dynamic range can be more than 100 dB, but the studio recorders have only 58 dB of useable dynamic range capacity. So the engineer has to compress the signal, making the loud sounds quieter and quiet ones louder. And that's where the live gets squeezed out of it. Your conventional discs offer less than 50 dB of dynamic range.

You can undo much of the damage. Just add a dbx 3BX Dynamic Range Expander to your system, and you'll restore most of the missing dynamic range in your

records, tapes and FM broadcasts. The 3BX unsqueezes all kinds of music, making everything sound richer, clearer and fuller than you've ever heard. And with dramatically less noise as well.

The 3BX works equally well with budget-priced equipment and state-of-the-art systems. You won't need an audio engineer's ears to hear the remarkable improvement in the quality of your recorded music.

But we suggest you hear it for yourself. Take your favorite record or tape to your dbx dealer and ask for a demonstration. Once you hear the 3BX in action, you'll wonder how you ever listened to music without it.



dbx, Incorporated  
71 Chapel Street  
Newton, Massachusetts  
02195  
617/964-3210

**3BX three band dynamic range expander**



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## ACCESSORIES

### ADC PROFESSIONAL PRODUCTS

#### SLM-100 Sound Level Meter

Designed to be used with its companion R-100 test record with bands of pink noise that correlate with controls on equalizer; SLM-100 measures signal strength from each band on test record then slide controls on equalizer are raised or lowered to bring all measured levels to same approximate value; comes with 20-ft interconnecting cable for use with 500 equalizer ..... \$59.95

### ADVENT

#### MPR-1 Microphone Preamp

For use with low-impedance balanced or unbalanced microphones; switchable gain for 40 or 60 dB; powered from Advent 201A cassette deck; 1" H x 2 3/4" W x 5 3/4" D ..... \$39.95

### AKAI

#### MM-62 Portable Mixer

Battery-operated, 6-input stereo mixer; logging indicators for all gain controls; automatic shut-off with cover closed; switchable 20-dB input attenuators on all channels; 4 channels switchable Mic/Mic-Att/Line; 2 channels switchable Mic/Mic-Att/Phono; four inputs (including phono) switchable to left, right or both output channels; pan-pots on remaining 2 channels; dual output meters with battery-check provision; master volume control; headphone output on control panel; operates approximately 40 hours on 8 "C" batteries (power consumption 0.4 W); input sensitivity 0.2 mV (Mic), 2.0 mV (Mic Att), 1.5 mV (RIAA phono), 40 mV (line); low input impedance on Mic inputs, 20 kohms line, 50 kohms phono; line outputs 10 kohms, headphones 8 ohms, 50 mV rated level; frequency response 20-20 kHz  $\pm 3$  dB on Mic inputs, 20-50 kHz  $\pm 1$  dB Line inputs; distortion less than 0.3%; S/N better than 55 dB (DIN "A") 8.1 lbs. including batteries; 3 1/8" H x 17 1/16" W x 9 1/16" D ..... \$200.00

### AKG

#### KM-195 Speaker Stand

Heavy-duty, folding speaker stand, center post with locking height adjustment in 6-in steps from 46 1/2"-72 1/2"; threaded flat mounting plate, 8" x 9 3/4"; collapsible, with folding legs; folds down to 60 1/4" L, 5 1/2" max. diameter ... \$90.00

#### KM-200 Microphone Floor Stand

Anti-shock floor stand with folding legs; unique suspension attenuates floor vibration; noiseless height adjustment, 40-72 1/2"; base diameter 22-in with legs extended; folded height 39 1/2-in ..... \$46.00

#### KM-250A Microphone floor stand

Three-section telescoping center pole, height adjustment 24"-56"; folds to 21-in length, 3 1/2-in max. diameter ..... \$29.00

#### KM-201A/2 Microphone Floor Stand

Similar to KM-250A, but two-section, adjusting 33"-61"; base diameter 28-in; collapsed height

33-in ..... \$25.00

#### KM-199 Microphone Floor Stand

Lightweight, collapsible; 14-in base diameter; height adjustable to 17-in, 29-in, 39-in, 48-in, 55 1/2-in; collapsed height 16 1/2-in .... \$18.00

#### KM-212 Microphone Boom Stand

Extra-heavy-duty collapsible stand with telescoping boom; height adjustment 57 1/2"-87 1/2"; boom length adjustable 36 1/2"-72"; with legs folded, 44-in long, maximum diameter 5 1/2-in .. \$99.00

#### KM-238 Microphone Adapter

Clamps to shaft of above microphone stands to hold second microphone ..... \$5.00

#### KM-211/1 Boom arm

Telescoping boom arm for KM-200, KM-201A/2, or KM-250A stands; boom extension 13 1/2"-24 1/2" ..... \$15.00

#### KM-237 Clamp Adapter

For microphone mounting on table tops, etc; padded "C" clamp with 3/8-in male microphone thread ..... \$4.50

**KM-216.** Microphone adapter, 3/8-in male to 3/8-in female ..... \$1.50

**KM-217.** Microphone adapter, 3/8-in female to 3/8-in male ..... \$1.50

**KM-235/1.** Stereo microphone bar; mounts two microphones on any of above microphone stands; variable spacing ..... \$5.00

**KM-160/1.** Ashtray, attaches to KM-200 series stands ..... \$3.00

**KM-221C.** Mounting flange with 3/8" male microphone thread ..... \$5.50

### APPOLLO

#### Appollo II Loudspeaker stand

Rolling speaker stand, for medium to large speakers; platform rails lined in slip-proof neoprene; 10" H x 10 1/4" W x 11 1/8" D ..... \$49.50 pr.

#### Sabre II Trolley Stand

For larger speakers; 10" H x 12" W x 12" D ..... \$65.00 pr.

#### Appollo Wall Bracket

For speakers up to 50 lb each, up to 12-in deep; rotating speaker platform with non-skid pads, screw-holes for permanent speaker mounting; supplied with wall plugs and screws ..... \$29.50 pr.

### AUDIONICS

#### Replacement Electronics for Revox A77

Plug-in replacement record and playback cards for Revox A77 tape deck; for lower distortion, 6-dB headroom increase, elimination of interactions between heads and electronics, improved high-frequency definition; includes instructions on modifying A77 meter circuitry to operate in playback mode.

**RVP.** Playback electronics ..... \$200.00

**RVR.** Record electronics ..... \$175.00  
Together ..... \$350.00

### AUDIOSOURCE

#### Stylift

Automatic tonearm lift for manual turntables; when arm tracks record leadout grooves, it touches and triggers Stylift, whose counterweight then raises arm from record; requires minimum 1 1/8-in height between tonearm and motorboard ..... \$19.95

### AUDIO-TECHNICA

#### AT6002 Disc Cleaner

Double-action cleaning system combines soft carbon-conductive brush and plush pad to loosen and remove groove dirt; small arm on weighted base may be placed on motorboard; may be used with most manual turntables or automatic when in manual mode; replacement pad and brush kit available ..... \$9.95  
**AT-602.** Replacement kit for AT-6002 .. \$1.95

#### AT6010 Record Cleaning Kit

Consists of dropper, anti-static cleaning fluid (applied from back for streak-free use), pad holder, cleaning edge, adhesive for mounting holder, fluid (AT608), and instructions .. \$5.95  
**AT6008.** Similar to AT6010 except cleaner rotates on moving record; comes with holder, cleaning brush, applicator, fluid (AT608) ..... \$9.95  
**AT608.** Anti-static record-cleaning fluid . \$1.95

#### AT610 Cable Set

Low-capacitance cables for connecting turntable and CD-4 demodulator or amplifier; 4-ft shielded cable with molded pair phono plugs each end; total capacitance 52 pF; only one set needed per turntable ..... \$6.95

#### AT607 Stylus Cleaner

Cleaning solution dissolves foreign material on stylus without harming known stylus adhesives or record surface; in bottle with stylus brush .. \$2.95

#### PDQ Record Cleaning System

Kit including AT6002 brush, AT6010 cleaner, AT607 stylus cleaner, AT608 solution ..... \$18.95

#### AT605 Audio Insulator System

Vibration-damping feet for use under speakers, turntables or both to prevent acoustic feedback; height individually adjustable; supplied in set of 4, with bubble level ..... \$24.95

#### AT6005 Pneumatic Tonearm Lift

Adapts to any tonearm, gently lifts stylus from any point on record; pneumatic action cushions motion; separate lift and control units allow control to be located where most convenient; for turntable platters 1 3/16" to 2" high, provides 3/64" lift; requires just two 3/16"-diameter holes; includes 20" control tube ..... \$29.95

#### AT6003 Tri-Capsule

Holds up to 3 spare cartridges in standard plug-

in shells (used in most European and Japanese tone arms); smoked-plastic domes ward off accidents and dust ..... \$9.95

### AUDIOTEX

The company carries a complete line of tape accessories for use with open-reel, cassette, and 8-track equipment.

- 30-126. Kleentape for open-reel recorder heads ..... \$2.45
- 30-129. Tape Care Kit, Jr. contains head cleaner, cotton swabs, and cleaning cloth ... \$2.00
- 30-630. "Blast-off" tape head cleaner, 3-oz aerosol can ..... \$1.95
- 30-128. Same except in 6-oz aerosol can ..... \$3.00
- 30-124-1. Recording head cleaner, 2-oz bottle ..... \$1.25
- 30-124-2. Recording head lubricant, 2-oz bottle ..... \$1.25
- 30-636. Tape player care kit contains cleaner and head lubricant, two 6" brushes, 10 plastic pouches to protect tape reels, cassettes, or cartridges ..... \$4.40

### BIB

#### Groov-Stat

Pencil-type static-neutralizing tool. #100A. .... \$19.95

#### Groov-Kleen

Self-tracking record-cleaning brush assembly, combining stiff tracking bristle, plus plush pad to pick up dust.

- #42. Overhanging arm type, with cleaning brush ..... \$6.95
- #200 S/P. Same, with two mounting bases to fit wider variety of turntables ..... \$4.95
- #45. Record-changer version; mounts to tone-arm shell ..... \$3.95

#### Cassette Head Cleaner

Ribbon of cleaning cloth in standard cassette

shell. #31A ..... \$1.59

#### Cassette Tape Splicer

Makes diagonal and butt splices; rocker clamps hold down tape; non-slip base. #30A .. \$4.95

#### Stylus Balance

Non-magnetic; calibrated from 1/4 g to 5 g, accurate within 1/4 g; balance type. #32A .. \$4.95

#### Record Level

Dual bubble levels at right angles; fits over turntable center spindle. #44 ..... \$3.95

#### Anti-Static Hi-Fi Cleaner

Cleaning solution for cleaning tape heads, record styli, glass and plastic. #69A ..... \$1.29

#### Record Dust Off

Brush to gently clean records; can be used dry or dampened with Bib liquid cleaner. #71B ... \$2.99

#### Cassette Fast Hand Tape Winder

Crank winder; allows winding one cassette while listening to another; saves battery drain with portable recorders; fast gearing winds C90 cassette in 60 sec. #78 ..... \$3.95

#### Stylus Cleaner

Stylus cleaning fluid and brush. #103A. \$2.50

#### #109 Deluxe Cassette Care Kit

Contains cassette head cleaner, splicer, piercer, winder, roll of splicing tape, re-record tabs and extractor, replacement title labels. \$15.95

#### #108 Cassette Opener and Salvage Kit

Contains spare cassette shell, opener for welded cassettes, screwdrivers, tweezers ... \$6.95

### CALIBRON

#### Clean-Sweep Record and Stylus Care

CS-125. Record and stylus care fluid ... \$2.00

CS-150. Same, with inspection mirror .. \$3.00

CS-100. Recorder purifier brush ..... \$4.00

CS-303. Total system containing all the above .. \$7.00

#### Clean-Track Cassette Cleaning Kit

Head-cleaner cassette, Clean-Track fluid, housing brush for removal of dust from internal deck components. CT-2010 ..... \$3.75

CT-2020. Same, except with head-cleaning cartridge for 8-track players ..... \$4.00

CT-3010. Above cassette items, plus inspection mirror and absorbant cleaning probes, storage case ..... \$7.50

CT-3020. Above cartridge items, plus head-cleaner loops, replaceable probes ..... \$6.50

CT-1000. Refill of Clean-Track fluid and probes ..... \$2.50

#### Tape Coordinator

Storage box with handle; holds 12 eight-track tapes, 24 boxed or 48 unboxed cassettes. UC-1248 ..... \$5.00

#### Record Organizer

Smoke plastic, 8-compartment browser bin/carrying tray for up to 50 records. RO-50 ..... \$4.00

### CERWIN-VEGA

#### DB-10 Bass "Excavator"

Two-channel active device designed to be inserted in tape monitor circuit of receiver or between preamp and power amp; switch selects either of two response curves (Pos. #1 10 dB boost at 32 Hz, decreasing to 6 dB at 40 Hz; Pos. #2 40 dB boost at 32 Hz, decreasing to 3 dB at 50 Hz); filters out signals below 20 Hz caused by warped records, turntable rumble, acoustic feedback, etc.; standard RCA inputs and outputs; compact steel enclosure. \$50.00

### CROWN INTERNATIONAL

#### OC-150A Stereo Output Control Center

Designed to increase system flexibility in

# Introducing The Competition.



Competition is what our new Record Conditioner is all about. Because the Record Conditioner by Fidelitone is simply a better product. It has a more effective cleaning fluid. The Purifier Fluid. It leaves no residue, increases output sensitivity and reduces static charge.

Record Conditioner has a unidirectional pile pad and our exclusive cherry wood handle that's contoured not to slip or roll. And a matching wood holder we don't charge extra for.

Here's the real clincher. Record Conditioner has a surprisingly lower price than the leading brand. Ask your hi-fi dealer for Record Conditioner by Fidelitone. The most popular brand isn't always the best.

## Record Conditioner with Purifier Fluid by Fidelitone

Fidelitone, Inc., 207 North Woodwork Lane, Palatine, Ill. 60067

©1977, Fidelitone, Inc.

# 14 ACCESSORIES

sophisticated audio installations; provides output monitoring capabilities supplied by two 3 1/2-in 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 1/2" x 17" x 8 1/8" ..... \$349.00  
**5R. Cabinet** ..... \$45.00

## DISCWASHER

**03 Record Cleaning System**  
 System comprises a two-part kit containing special fluid and soft-pile fiber brush. Removes micro-dust, fingerprints, and cigarette smoke. Also eliminates destructive biological growth. Leaves no residue. Complete kit ..... \$15.00  
 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" ..... \$45.00

**D'Stat II Mat**  
 Very thin fiber turntable mat which polarizes record surface to reduce static during playback ..... \$7.95

**SC-1 Stylus Cleaner**  
 Stylus cleaning brush of calculated density nylon; won't snag cantilevers; silvered mirror magnifies stylus and cartridge for examination; cleaning and magnifying system retracts into walnut handle. .... \$6.00

**Zerostat**  
 Total anti-static system which emits millions of (+) ions upon trigger squeeze and equal number of (-) ions on trigger release; never needs element replacement ..... \$20.00

**Gold-ens**  
 Gold-plated connector cables; gold-flashed connector pins will never corrode or add resistance with age; protective steel strain reliefs; ultra-low-capacitance cords; per 1-meter length matched pair ..... \$8.00

**DiscTraker**  
 Damping device; attaches to tonearm head; to reduce tonearm/cartridge and record-warp resonance; attaches to cartridge mounting screws ..... \$29.00  
 Mounting kit (for tonearm heads without top-accessible mounting screws) ..... \$0.75

## DUBIE

**CD-5 Recording Control System**  
 Combines mixing, fading facilities to integrate up to three recorders; frequency response d.c. to 100 kHz on all functions; input and output imp. for use with most amp/recorder combinations; max. input signal 10 V at 1 kHz; recorder control: four-position rotary control with off/

amp. in/out positions for each recorder for signal routing; monitor control: five-pos., select control, off/rec. #1, #2, #3/mix; fade control: two separately controllable stereo inputs; no patchcords required ..... \$69.95  
**CD-10.** Same as CD-5 but will handle six recorders; has eight-pos. monitor control; 4" H x 13 1/16" W x 5 3/8" D ..... \$129.95

## DYMEK

**DA5 BCB Directional Antenna**  
 Shielded ferrite-rod directional AM broadcast-band antenna; can be used with any AM tuner or receiver with or without internal antenna; table-top mounting; provides gain and tuning through improved tuner/receiver sensitivity; rotatable and tilting ferrite-rod head; base contains r-f tuned circuits and solid-state preamp.; frequency range 540-1600 kHz medium-wave band; 11" H x 13" W x 9" D; ferrite rod length 12"; head tilt range 53 degrees; rotational range 270 degrees. Kit ..... \$110.00  
 Assembled ..... \$175.00  
**DA7.** Same except frequency range 150-300 kHz long-wave plus 540-1600 kHz medium-wave bands. Kit ..... \$120.00  
 Assembled ..... \$195.00

**DA 100 All-Wave**  
 Omnidirectional antenna system in two modules: outdoor, weatherproof head amplifier and 4-ft whip mount; indoor power and control module; response claimed to equal or out-perform 100-ft long-wire antennas; covers 50 kHz to 30 MHz; control module dimensions 5" H x 9" W x 9" D ..... \$135.00  
 Marine version, with fiberglass whip .. \$165.00

## EDITALL

**KP-2 Editing Kit**  
 Complete kit includes plastic splicing block, 30 CX-1 EDItabs; for 1/4-in audio tape .. \$4.50

**KS-2 Editing Kit**  
 For 1/4-in tape, includes a 4" x 3/4" x 1 1/4" block, 30 CX-1 EDItabs ..... \$12.00

**KS-3 Editing Kit**  
 Same as KS-2 except includes larger block (5 3/4" x 1" x 3/8") with countersunk mounting holes ..... \$14.00

**KS-1 Editing Kit**  
 For cassettes, 0.15 mil audio tape; S-I aluminum splicing block (5 3/4" x 1" x 3/8"); 30 CX-3 EDItabs ..... \$14.00

**EDItab Pre-Cut Splicing Tabs**  
 For splicing open-reel, cartridge, and cassette tapes; eliminates trimming of tape overhang; smooth, tapered edges prevent wow.  
**CX-1.** 1/2-in tabs for 1/4-in tape; for open-reel and cartridge machines; 50 tabs ..... \$2.50  
**CX-2.** 1/4-in metallized tabs for 1/4-in tape; for automatic reverse and/or automatic stop; metal foil sensing; 50 tabs ..... \$2.75  
**CX-3.** 0.15 mil tabs for cassettes; 60 tabs ..... \$2.50

## ELECTROMEDIA DESIGN

**Control One Switch**  
 Signal-activated control center for hi-fi component systems; shuts down system ten minutes after signal is lost; less than ten minutes and time-constant is automatically reset; front-panel "on" switch turns system on again; "off" switch can shut-off entire system; switching relay contact rating 550 W; can handle 1000 W systems; matte black and walnut enclosure with satin aluminum panel; 2 1/2" H x 12 3/4" W x 4 1/4" D ..... \$60.00

## ELECTRONIC SPECIALISTS

**Speaker Interference Filter**  
 Reduces amplifier pickup of CB and other radio

interference through speaker leads ..... \$9.95 pr.

## FIDELITONE

**Fidelistat #3044**  
 Plush record cleaner designed to reduce static and remove grit from records ..... \$3.99

**Disc Jockey #3045**  
 Attaches to turntable; soft bristle brush removes dust; plush pad sweeps away dust; supplied with anti-static fluid ..... \$5.99  
**3050.** Replacement fluid ..... \$1.49

**Stylus Cleaner #3040**  
 Special cleaning fluid which is applied to stylus with brush ..... \$1.99

**Fidelicare Kit #3051**  
 Contains Fidelistat and stylus cleaner .. \$5.99

**Intensive Care Kit #3052**  
 Contains Fidelistat, anti-static fluid, Disc Jockey, and stylus cleaner ..... \$10.99

**Spin and Clean #3056**  
 Record washer; removes grease, dirt and static charge, leaves no residue ..... \$19.95

**Record Conditioner**  
 Plush record cleaner with unidirectional pile, solid wood handle with bottle storage compartment for Purifier fluid (supplied); wood storage tray ..... \$20.95

## GUSDORF

**Home Entertainment Etagere**  
 Etagere with four open shelves for components or other equipment, sliding-door cabinet below with removable record dividers; pressure sensitive retainers provided for wires and cables; three shelves adjustable in 2-in increments; chrome corner posts, safety-glass shelves, simulated plank walnut plank veneer with black trim; 73" H x 29 1/8" W x 15" D. #1520. \$119.95

**Component File**  
 Cabinet with four open shelves (23 3/4" and 19 1/2" W x 17 3/4" D) adjustable for height in 2-in increments; base cabinets with doors, removable record dividers; pressure sensitive retainers provided for wires and cables; assembly tool provided; 47 3/4" H x 45 1/8" W x 17 3/4" D. #1420 ..... \$109.95

**Home Entertainment Center**  
 All-in-one stereo center; center section has lower compartment with door and removable record dividers; center shelves 27" W x 15" D; side compartments for speakers up to 26 1/4" H x 16" W x 15" D; overall, 31 3/8" H x 61 1/2" W x 15" D. #1760 ..... \$82.95

**VRT/TV/Audio Component Center**  
 Low, rolling cabinet for video recorders and other large components; two-compartment side-by-side cabinet with doors and removable record dividers; two-side-by-side shelves above; 21 1/2" H x 52 3/8" W x 15" D. #2410 ... \$79.95

**Home Entertainment Center**  
 Compact cabinet; shelf on top for two components (shelf 38" W x 14 3/4" D); compartments below for two speakers up to 23" H x 13 3/16" W x 14 3/4" D; space between speakers for record albums; overall 38" W x 14 3/4" D x 29 1/16" H. #1730 ..... \$34.05

## HADCOCK

**GH Uni-Lift MkIII**  
 Tonearm raising and lowering device; rate of descent adjustable; for most turntables and arms ..... \$20.00

## HAMMOND INDUSTRIES

### Audio Kare

#### Cassette Editor and Winder

Metal base containing cassette-tape splicer and manual fast-winding sprocket; supplied with splicing tape, tape cutter, spare empty cassette shell and instructions. AK-84 ..... \$14.95

#### Groov-Stat

Anti-static gun for record cleaning; destroys static charges. AK-3 ..... \$19.95

#### Groov-Kleen

Record-cleaning arm with self-adhesive base and armrest, adjustable counterweight; velvet roller and sable brush track record as it is played; separate brush provided for cleaning roller ..... \$8.95  
AK-42 ..... \$8.95

#### Tape Head Maintenance Kit

Kit of anti-static cleaning liquid, cleaning brush, cleaning cloth inspection mirror, cleaning pads, interchangeable-head cleaning tool for access to recessed tape heads. AK-99 ..... \$7.99

#### The Quiet One

Record lubricant, last up to 1,000 plays; aerosol and applicator. AK-4 ..... \$6.95  
AK-102. Anti-static turntable mat ..... \$8.95  
AK-103. Deluxe stylus cleaning kit ..... \$2.95

## 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 two- and four-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 ..... \$249.95

ARA-1500-1. Walnut-stained veneer cabinet ..... \$24.95

#### TM-1626 Mixer Console Kit

Stereo mike mixer console; frequency response 40-20,000 Hz  $\pm 1$  dB; 0.5% max. dist.; hum and noise -50 dB from 20-20,000 Hz (controls set at max.); input sensitivity for 1 V output: 1 mV (lo-Z mike), 14 mV (hi-Z mike), 150 mV (aux.); input impedance 1100 ohms (lo-Z mike), 170,000 ohms (hi-Z mike), 100,000 ohms (aux.); output impedance 150 ohms; six inputs; back-lighted meters and peak-indicating LED indicators; 120/240-V a.c., 60/50 Hz, 15 W; 5 7/16" H x 16" W x 9 7/8" D.

Kit ..... \$129.95

## INNOTECH

#### SF-2 Stereo Subsonic Filter

Active filter to remove harmful subsonics due to record warp, rumble, etc.; 12 dB/octave below 22 Hz ..... \$50.00

## 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 VSWR; 300-ohm impedance match (convertible to 75 ohms by means of Color Shield-82 coaxial cable and 300 ohm/75 ohm

matching transformer); gold anodized aircraft aluminum construction.

**LPL-FM-10** Ten cell system for far fringe reception. Gain 9.9 dB  $\pm 0.6$  dB/half wavelength dipole; "E" plane half-power beamwidth 43 degrees; VSWR median 1.5:1, front-to-back ratio median 26 dB; turning radius 97"; 166" long x 112" W ..... \$62.16

**LPL-FM8A**. Eight cell system for fringe reception. Gain 8.7 dB; half-power bandwidth 46 degrees; VSWR 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 beamwidth 48 degrees; VSWR 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; VSWR median 1.6:1; front-to-back

ratio median 16.6 dB; turning radius 63"; 63" long x 112" W ..... \$24.85

**AFM175**. FM omnidirectional stereo-cone ..... \$25.70

**AFM150**. Similar, with brackets ..... \$21.75

**AFM475**. "S"-shaped FM omnidirectional attachable antenna kit ..... \$13.00

**AFM450**. Similar to AFM475 ..... \$9.00

#### FM500 Electronic FM Antenna

Has omnidirectional condensed dipole element; balanced output feeds directly into solid-state r-f amplifier; provides up to 8 dB average gain over standard reference folded dipole; shielded coax cable; 75-300 ohm matching transformer; 11-in dia.; comes with power supply, 10-ft coax, mounting hardware; can be installed in attic or on shelf, wall, or eaves ..... \$37.00

Optional outdoor mounting kit with 75-ft coax. .... \$14.40

INTRODUCING THE **LE-BO**

stat-brush



The brush with the velvet touch!

Your stylus and record surfaces last longer, produce purer sound.

Neutralizes static charge. Safely removes dust. Keeps records clean, sound clear.

The LE-BO® Stat Brush uses a piezoelectric discharge brush to neutralize static in a single sweep across the record. Absolutely reliable and safe.

- **Reliable • Durable • Safe**
- **No Batteries Needed**
- **3-year Guarantee**

Suggested retail price

**\$24.95**

The **LE-BO** 4-in-1 Attache

Not just another pretty case!

- Designer attache or overnight case
- Carrying case for 8-track tapes or cassettes
- Home storage for your tapes or cassettes
- Removable organizer Inserts for 32 tapes or cassettes
- Treated with Zepel Stain repeller. Suggested list price: **\$40.**

Ask about the TA-230, the Le-Bo 4-in-1 at your audio dealer or record store or write: Le-Bo Products, 58-60 Grand Ave., Maspeth, N.Y. 11378



# 14 ACCESSORIES

## KIRSCH

### SH-885 Vertical Stereo Shelf Unit

Includes five full shelves, 16 twelve-inch shelf-separating spindles, four finals and four feet; 33 1/2" W x 56" H ..... \$99.95

### SH-899 Stereo Shelf Unit

Pre-finished shelf unit to house turntable, amplifier, speakers and records; can be assembled without tools or glue; wood-grain walnut vinyl laminate finish; 63" W x 29" H .. \$79.95

## KMAL

### Record Sweeper

Brush assembly with adjustable counterweight control over tracking force; needle-bearing pivot for low friction; squirrel hair brush; all metal construction; grounding wire to remove static charges; adjustable height; adjustable eccentric platform ..... \$16.00

### Microphone Floor Stand

Microphone floor stand with boom; choice of colors ..... \$93.35

### Wheeled Studio Stand

With boom and extension ..... \$233.35

## LE-BO

### Stat-Brush

Incorporates piezoelectric circuit to neutralize static electricity buildup on record surfaces, thereby allowing easy removal of dust and dirt particles; velvet cleaning surface collects loosened dirt; pressing and releasing control button activates piezoelectric circuit; supplied with small brush to clean Stat-Brush surface and test lamp for periodic checking of circuit ..... \$24.95

## LUX

### 5E24 LED Peak Indicator

Two-channel peak level indicator; each display consists of 12 LED's with turn-on points calibrated in 3-dB increments from -30 to +3 dB; metering ranges switchable for preamplifier (0 dB = 1 V and 0 dB = 0.316 V) and amplifier (0 dB = 20 W, 0 dB = 200 W); peak-hold button retains highest level reading until released, while continuing to display instantaneous peaks; a.c. convenience outlet; rack-mount and simulated wood-grain cabinet available; 2 3/16" H x 17 1/16" W x 15 3/4" D ..... \$295.00

## MAGNESONICS

### Erase-Sure Tape Eraser

Will erase a cassette or 8-track cartridge to -65 dB from 0 reference. Battery operated (four "AA" cells, included); 4" x 3 1/2" x 2 3/4" .. \$19.95  
A.C. adapter ..... \$7.50

### Rapid Rewind

Will rewind a C-60 cassette in 30 seconds. Battery operated (four "AA" cells, included). 4" x 3 1/2" x 2 3/4" ..... \$19.95  
A.C. adapter ..... \$7.50

## METROSOUND

### M11 Stylus Cleaning Kit

Combines a non-residue-producing fluid and finely cut brush ..... \$2.98

### M26 Ionizer Record Cleaner

Plush velvet record cleaner/static discharger .. \$3.99

M34. Ionizer fluid for above ..... \$1.99

### M52 Metrocare Kit #2

Contains small version of Ioniser, anti-static fluid, stylus brush ..... \$4.98

### M53 Total Hi-Fi Care Kit

Ionizer cleaner and fluid, stylus cleaning fluid and stylus brush, in plastic storage case ..... \$8.49

### M55 Autochange Groovemaster

Similar to Super Groovemaster but for automatic turntables; attaches to tonearm with adhesive shoe; brush/shoe assembly add 1 1/2 g of weight ..... \$4.49

### M60 Manual Record Cleaner

Light-tracking, height-adjustable, counter-balanced cleaning arm; no fluids required .. \$7.99

### M64 Phono Cartridge Kit

Kit includes stylus microscope, stylus cleaning fluid, all tools to change and install cartridges and styli ..... \$10.99

### M66 Stylus Balance Kit

Kit consists of base pivot, flat spatula, weighing mechanism complete with bubble level to balance tonearm with movable counterbalance weight; tracking force measurements within 0.1 g ..... \$12.99

### M81 Metrostatic

Hand-held record cleaning device; cylinder uses two different fabrics to remove dust and dirt and to remove static charge; spring-loaded release mechanism controls rotation and position of cylinder ..... \$9.99  
M86. Tape head cleaning kit ..... \$2.99

### M90 Super Lin-Track

Removes dust while record is being played; fits any turntable; straight-line tracking across radius of disc; requires no chemicals; exerts 1/2-g force maximum ..... \$12.99

### M91 All-In-One Compact Cleaning Kit

Consists of M52 kit, M55 Autochange Groovemaster, non-abrasive cassette head cleaner, and plastic storage case ..... \$12.99

## MURA

### Muradapter

Converts cassette into 8-track cartridge; cassette loads directly into unit, which then functions as regular 8-track cartridge; includes fast-forward ..... \$59.95

## NAGY

### TS250 Shearing Tape Splicer

Semi-automatic 1/4-in magnetic tape splicer; cuts by shearing; positions and cuts measured amount of 7/32-in splicing tape and simultaneously cuts magnetic tape; self-sharpening shears; adjustable; supplied with mount holes and rubber base; aluminum block 3/4" x 1 1/2" x 3 3/4" ..... \$49.95  
TS150. Same but for cassette tape ... \$69.95  
TS500. Same but for 1/2-in tape ..... \$89.95

### H-50-S Shearing Tape Splicer

Designed to splice 1/2-in magnetic tape; cuts by shearing; Teflon-coated flat springs insure proper tape positioning; non-slip rubber base and countersunk mounting holes; aluminum block 1/2" x 1 1/2" x 3 3/4" ..... \$24.95

### 6S25 Shearing Tape Splicer

Designed to splice 1/4-in magnetic tape; cuts by shearing; dovetail groove secures tape in block; non-slip rubber base and countersunk mounting holes; self-sharpening shear; adjustable; extension rod for marking tape for editing; aluminum block 1/2" x 1 1/2" x 3 3/4" ..... \$16.96  
6S15. Same but for cassette tape ..... \$16.96  
25STS. Same as 6S25 but with holder for 7/32-in splicing tape ..... \$24.95

15STS. Same but for cassette tapes .. \$24.95

## NAKAMICHI

### Head Demagnetizer

Slim-line, easy-to-use recorder head demagnetizer, specially designed for the company's cassette decks ..... \$16.00

## NATURAL SOUND

### Waterloo Platter Pad

Damps out vibrations and resonances ..... \$24.95

## NETRONICS

### Acousti-Mount Turntable Platform

Designed to reduce acoustic feedback caused by sound waves and vibrations from speakers reaching the phono cartridge; consists of four specially designed springs and dampers mounted on 3/4-in platform; 4-Hz resonance in both horizontal and vertical planes; said to improve isolation 20-40 dB; 16" x 13 1/2" ..... \$15.00  
19" x 13 1/4" ..... \$17.50

### Acousti-Mount Speaker Pods

Isolating feet for use under speakers; provides up to 40 dB isolation; set of four for speakers under 45 lbs (two sets required for stereo); speakers over 45 lb require two extra pods per 15 lbs weight ..... \$11.95

## 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 .... \$111.20  
5602. Low imp., 90 mH, 100  $\mu$ in gap spacer; for use with vacuum-tube or transistor circuits; no-mount type ..... \$111.20  
5603. Medium imp., 370 mH, 100  $\mu$ in gap spacer; for use with vacuum-tube or transistor circuits; no mount type ..... \$111.20

### Head Demagnetizers

QM202. Head demagnetizer ..... \$18.50  
QM203. 220-250 V version ..... \$20.50  
QM206. Car-stereo version, 12 V ..... \$19.95  
QM240. Demagnetizer in cassette shell ..... \$10.50  
QM280. Demagnetizer in 8-track cartridge shell with head cleaner ..... \$9.70  
QM281. 12 V version for car use ..... \$12.40

### Bulk Erasers

QM211. Bulk eraser, 110-120 V a.c. .. \$30.00  
QM212. 220-250 V version ..... \$36.50  
QM230. Cassette bulk eraser ..... \$24.00

### Tape-Head Cleaners

QM102. Liquid, 2-oz bottle ..... \$2.40  
QM108. Same, 8-oz ..... \$4.00  
QM122. Headsaver, 1.7-oz ..... \$1.98  
QM103. Spray cleaner, with 5-in extension nozzle, 3 oz. net ..... \$3.00  
QM116. Same, 16 oz. net ..... \$4.95  
QM104. Tape head lubricant; 2-oz. bottle ..... \$2.40  
QM140. Cassette Head Cleaner; non-abrasive belt in cassette shell ..... \$2.70  
QM141. Cassette Life Extender. Same as QM140, but includes liquid cleaner for removing heavier dirt ..... \$3.30  
QM180. 8-track cartridge version of QM140. .... \$2.90  
QM181. 8-track version of QM141 ..... \$3.50  
QM182. 8-track head and capstan cleaner; one end of 8-track cartridge shell cleans heads, other cleans capstan ..... \$3.60  
QM504. Maintenance brush ..... \$3.10  
QM505. Cellular foam swabs, package of 25 .. \$3.10

..... \$7.00  
**QM506** Inspection mirror with light ..... \$5.10

### Editing aids

**QM333.** Splicer for 1/4-in tape and cassette tapes; built-in blades slit rather than chop tapes; easy-to-obtain blades ..... \$14.95  
**QM311.** Professional Splicing block with adhesive back; for 1/4-in tapes ..... \$12.50  
**QM312.** Same, for 0.15-in cassette tapes ..... \$12.50  
**QM313.** Same, for 1/2-in tapes ..... \$19.80  
**QM521.** Splicing tabs for 1/4-in tape; pkg. of 50 ..... \$3.00  
**QM522.** Cassette splicing tabs; pkg. of 50 ..... \$3.00  
**QM553.** Splicing tabs for 1/2-in tape; pkg. of 200 ..... \$21.65  
**QM524.** Metal-sensing tabs for 1/4-in tape; pkg. of 50 ..... \$3.50  
 (Above tabs also available in packages of 200 and 1000.)  
**QM501.** Mylar splicing tape; 1/2-in x 150-in roll ..... \$2.60

### Alignment tapes

**AT120.** 1/4-in open-reel; 7.5 ips ..... \$38.00  
**AT200.** Cassette alignment tape; splice-free, 1st-generation master version; zero reference, DIN frequency response test; supplied with individual response graph; 3kHz tone for speed and flutter tests ..... \$34.00  
**AT210.** Quality-duplicated cassette alignment tape ..... \$9.60  
**AT820.** 8-track cartridge alignment tape; includes channel and program identification; track height; azimuth, frequency response; speaker phasing; tape speed; wow and flutter; switching and crosstalk tests ..... \$10.00  
**QM601.** Magview, magnetic tape developer; makes recording visible; easily wipes off after use; aerosol spray, 4-oz net ..... \$4.95

### Cassette Storage/Carrying cases.

Book-like cases for storing unboxed cassettes; cassette and hub locked in place when inserted.  
**QM408.** For 8 cassettes ..... \$5.50  
**QM412.** For 12 cassettes ..... \$6.20  
**QM416.** For 16 cassettes ..... \$7.00

### NUCLEAR

#### 3C500 Staticmaster

Soft-hair retractable brush with extra-strength polonium element; designed to neutralize static and remove dust from records ..... \$14.95  
 Replacement cartridge ..... \$9.95

### OPTONICA

#### SY-800U Audio Component Cabinet

Cabinet with four shelves (three removable) for components, two-shelf record storage cabinet; component shelves 18 1/2" W x 16" D; heights vary from 6 1/16" to 8 1/16" with all shelves in place; record storage compartment for over 200 albums, 2 shelves 14-in W, with record dividers; magnetically latched glass door keeps dust from records, leaves album titles visible; in rosewood-vinyl covered particle board; overall dimensions 33 1/8" H x 37 3/8" W x 17 1/2" D ..... \$149.95

### OSAWA

#### DISK-SE22 Turntable Mat

Replacement turntable mat with high density (specific gravity 2.2) to inhibit vibration pickup and add to turntable's flywheel effect for lessened wow and flutter; surface is slightly concave to support warped discs; smooth texture for easy cleaning ..... \$20.00

### PICKERING

#### PST-2 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 (included) as indicator; easily resets after 1000 hours; mounts on turntable under tonearm; 1" H x 1" W x 2 7/8" D... \$15.95

### PIONEER

#### MA-62 6-Channel Mixer

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). 5 3/16" H x 15 3/4" W x 10 3/8" D... \$250.00

#### U-24 Program Source Selector

Push-button selection of: three phono inputs, two aux inputs, four tape-monitor/external-processor inputs/outputs; three power amps; tape-to-tape dubbing among all four decks; 3 3/32" H x 16 1/16" W x 12 1/16" D ..... \$200.00

### POLK AUDIO

#### Sound Cable

Transmission-line type speaker cable with 9-ohm characteristic impedance (lamp-cord impedance is typically 100 ohms); braided construction to minimize self-inductance and reactance; multiconductor construction for reduced high-frequency resistance.

12-ft cable pair ..... \$29.95  
 20-ft ..... \$39.95  
 28-ft ..... \$49.95

### POWERCOM

#### Program Control Center

Program control center has 10 switchable inputs and four output channels; inputs and outputs may be reversed; mono/stereo switch; output level switch; accepts standard phono-type plugs ..... \$19.95

### RECOTON

#### RBM-8 Record Cleaning Kit

With revolving record cleaning pad and 9 fluid oz. of anti-static record cleaning solution with applicator ..... \$7.49

#### RBM-9 "Total Magic" Record Care

Record maintenance kit with automatic record cleaning arm, slow-drying anti-static cleaning solution, needle brush in cleaning solution, super-soft nylon-pile cleaning roller... \$15.99

#### RBM-50 Clean Sound System

Clean-sound applicator and solution... \$15.00

#### RBM-40 Magic Cassette Kit

Cassette maintenance package including 10-ft non-abrasive cassette head cleaner, 3/4 oz. Magic Tape Dew cleaning fluid, Recoton Magic and applicator with 6 replacement pads ..... \$4.99

**RBM-410.** Magic cartridge kit; similar to RBM-40, but with "Magic Cartridge" head cleaner that also acts as capstan cleaner, and tests track selector, speaker phasing and channel balance ..... \$4.99

#### RBM-42 Magic Tape Cleaning Kit

Combines Magic Tape Dew cleaning fluid, Magic Wand Applicator and replacement pads ..... \$2.99

#### RBM-43 Magicare Tape Editing Kit

For cassette and reel-to-reel; dual-purpose splicing block, leader tape, splicing tabs, 12 blank cassette labels, razor blade ..... \$8.99

#### RBM-44 Magicare Demagnetizer

With tape head cleaner; 110 V; UL approved... \$9.99

**RBM-44.** Magicare cassette demagnetizer; 110 V ..... \$8.99

### Gold Connection

Low-capacitance, polarized cords with gold-plated connectors for low contact resistance; flexible strain reliefs at each connector.

**RBM-20.** 3-foot cord ..... \$7.99  
**RBM-21.** 6-foot cord ..... \$9.99

### ROBINS

#### 8-Track Tape Cleaner

Cleans tape within 8-track cartridge; removes dirt, grime and oil picked up from use in automobiles; utilizes power from tape player. #30-001 ..... \$7.99

#### "Wcodee" Cleaning/Anti-Static System

Eliminates static and removes dust; corduroy velvet pad mounted on oak wood handle; anti-static fluid; cleaner brush. #41-060... \$11.95

#### Tape Recorder Head Demagnetizer

Reduces residual magnetism which causes noise build-up; interchangeable tips accommodate all open-reel, cassette, and cartridge equipment; built-in switch; 110-120 V a.c. #25-011; UL listed ..... \$9.95  
**Economy Model.** Features plastic-shielded probe. #25-013; UL listed ..... \$6.29

#### "Groovie" Automatic Record Cleaner

Automatically removes dirt and dust from record surfaces and grooves while record plays; vertical-bristle brush; rotatable velvet roller. #41-037 ..... \$6.99

#### "Whiskee" Record Cleaner Kit

Record cleaning kit includes portable record cleaner; stylus cleaner and fluid. #40-061... \$5.79

#### 8-Track Demagnetizer and Cleaner

Cordless cleaner for operation with home or auto units; four-pole rotary magnet; magnetic window; non-abrasive cleaning tape. #46-015 ..... \$4.29

#### Cleaner and Anti-Static System

Uses velvet-covered roller to remove dust and dirt; sliding partition stores water or anti-static fluid which moistens roller. #41-046... \$3.99

#### Cassette Maintenance Kit

Demagnetizes tape heads of home and auto cassette players/recorders; cordless design; employs four-pole rotary magnet; includes non-abrasive head-cleaning tape; designed to be used after every 15-20 hours of player/recorder use; cordless. #36-008 ..... \$3.49

#### Stylus Pressure Gauge

Measures phono stylus pressure to within 1/10 g. #41-073 ..... \$2.59

#### "Disc Cleaner" Record Cleaner

Stops static and removes dust and grime; soft velvet-cushioned cylinder; comes with storage tube and cleaning brush. #41-195 ..... \$1.99

#### Phono Cartridge Maintenance Kit

Contains stylus microscope, screwdriver, tweezers, stylus fluid and brush; supplied in kit box. #41-039 ..... \$7.49

### ROTEL

#### RK-100 Rolling Record Cleaner

Removes dirt, dust and fingerprints from records; washable ..... \$20.00

**RK-88A.** Arm-type record cleaner ..... \$15.00

**RK-77W.** Wet-type record cleaner ..... \$7.00

**RK-66.** Dry, velvet-cushion record cleaner ..... \$3.50

### ROYAL SOUND

#### Add 'n' Stac Storage Modules

Modular storage systems for recordings; modules interlock in any desired configuration with others of same type, and can be stacked or attached to wall; available in a variety of colors; cassette module; holds 8 boxed cassettes...

# 14 ACCESSORIES

- ..... \$2.50
- 8-track module; holds 6 8-track cartridges ... \$2.75
- LP module; holds 25 12-in LP's ..... \$8.00

## RUSSOUND

### QT-1 Audio Control Center/Patchbay

Allows multi-component stereo or 4-channel systems to be permanently connected by audio cables with switching and patching functions handled by front-panel switches and use of 16 patchcords; permits interconnection of up to four recorders, noise-reduction units, graphic equalizers, matrix or CD-4 decoders for straight listening, recording off air, copying, editing, dubbing, original recording sessions, etc; walnut-finished cabinet; 4 $\frac{3}{4}$ " H x 14" W x 5" D ... \$249.95

SP-1. Similar to QT-1 but two channel ..... \$149.95

### TMS-2 Tape Recorder Selector

Allows up to five 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 ..... \$69.95

TM-1. Simplified economy model in utility steel cabinet ..... \$34.95

### MP-2 Speaker/Amplifier Control Center

Feeds either of two amplifiers to up to four sets of stereo speakers without overloading amplifier output stage. Separate constant-impedance L-pad for each set of speakers. Uses any combination of 8 or 16 ohm speakers and handles the output of any component amplifier designed for the home. Walnut cabinet ..... \$84.95

### SWB-2W Speaker/Amp Selector Switch

Permits either of two amplifiers to drive any one, two, or three sets of stereo speakers of 8 or 16 ohms impedance without overloading output. Can be used to connect multiple speaker systems to amps having only one set of speaker terminals. Maintains proper load imp. on amplifier irrespective of number of speakers or their impedance. Can also be used for making A-B tests of any two amps or speakers systems. Walnut cabinet ..... \$25.95

SWB-2. Same but in utility steel cabinet ..... \$14.95

## SONIC RESEARCH

### Pixoff Record Cleaner

Roller-type, using specially-formulated adhesive tape to remove dust and dirt; pliable surface reaches into grooves; adhesive will not stick to record ..... \$17.50

Tape refill for above ..... \$3.00

## SONY from SUPERSCOPE

### MX-650 Stereo/Mono Mixer

12-input (six mike, six line/phono) four-output (two high, two low) active mixer; two VU meters with meter light button; each channel has input selector switch and straight line gain controls; four output channel selectors; straight line master gain control; two rear-panel cascade inputs; external d.c. input terminal; a.c./d.c. operation with optional adapter; two pan pot controls; battery check and meter light buttons; 400 Hz calibration signal; 12-V d.c.; 3 $\frac{3}{8}$ " H x 17 $\frac{1}{8}$ " W x 10" D ..... \$249.95

### MX-510 Stereo/Mono Mixer

Active five-channel mixer with variable pan pot; a.c./d.c. operation (with optional AC-12 power adapter); five channels in, two channels out; slide master volume control; input selector (ea. ch.): mic in/line in 1, 2, and 5; mic in/phono in 3 and 4; -20 dB mic attenuator (ea. ch.); two VU meters; stereo headphone jack; pan pot (channel 5); battery check button; slide indicator for straight-line level control; comes with one RK-74 patchcord, eight "C" cells; 3" H x 13 $\frac{3}{4}$ " W x 9 $\frac{1}{2}$ " D ..... \$169.95

## SOUND GUARD

### Record Preservation Kit

Dry lubricant spray; provides record surfaces with a strong protective coating without impairing record fidelity; kit includes special-formulation liquid, buffing pad, pump spray; one kit treats about 30 LP's both sides ..... \$7.99

Sound Guard fluid refill; 2 oz ..... \$4.99

### Record Cleaner Kit

For both heavy-duty record cleaning and light touch-up work; kit includes special cleaner formulation, pump spray, cellulose contaminant-extractor pad, velvet cleaning pad, foam grooming pad and instruction booklet .. \$7.99

Record cleaner refill; 2 oz ..... \$4.99

Total Record Care System. Combines both above kits ..... \$14.99

## TASCAM

### Model 1 Mixer

8-in/2-out line level mixer; independent gain and pan for each input channel; master gain; foldback for each channel; aux. outputs in parallel with line outputs; separate buss inputs; contains 1-W amp with level control for two stereo headphone feeds; S/N 78 dB weighted; frequency response 30-20,000 Hz  $\pm$ 1 dB; crosstalk -50 dB at 1 kHz; 0.3% THD max.; 117-V a.c., 60 Hz, 8 W ..... \$150.00

## TEAC

### Model 2 Audio Mixer

Features six inputs (mike or line in any combination), four outputs; level controls for each input channel; master output level control; cue out jack on each input channel; accessory send/receive patch points on each output bus for reverb units, graphic equalizer, limiters,

compressors, noise-reduction units, other signal processing equipment; four aux. outputs in parallel with four line outputs; selectable high-cut filters at 5 kHz or 10 kHz; low-cut filters at 100 Hz or 200 Hz; color-coded push-push channel assignment buttons with pan on each channel; 3 $\frac{1}{2}$ " H x 13 $\frac{1}{4}$ " W x 10 $\frac{1}{4}$ " D ..... \$350.00

### MB-20 Meter Bridge

For line-level applications; four VU meters; LED peak-level indicator; built-in 4x2 monitor mixer; headphone amp; independent monitor switches; variable input sensitivity selector ... \$175.00

## TECHNICS

### SH-9020 Peak/Average Meter Unit

Stereo level meter; two preamp-level (2.45-24.5 V) inputs, 1 power-amp-level input (0.01 mW-1000 W); inputs switch-selectable; switch-selectable average, peak or peak-hold metering modes; peak-hold up to 25 min with only 3 dB drop;  $\pm$ 20-dB sensitivity switch; high-velocity sensing circuits need only one waveform cycle to indicate exact level at 10 kHz; rack-mount design with handles; speaker-impedance adjustment on rear panel; a.c. convenience outlet; 3 $\frac{3}{8}$ " H x 17 $\frac{1}{16}$ " W x 14 $\frac{7}{8}$ " D .... \$299.95

## VOR INDUSTRIES

### Vac-O-Rec Deluxe Model 1100

Revolves record through natural mohair fibers to loosen dust while fan vacuums loosened dust away; rectangular, wood-grain finish case; removable, wahsable dust filter cartridge ..... \$44.95

### VOR "Clean Machine" Model 100

Similar, but curved case, no removable filter .. \$29.95

## C. E. WATTS

### 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 ..... \$5.95

PA-MK4 Hi-Fi Parastat ..... \$16.50

PA-MK11A Manual Parastat ..... \$14.95

NF Anti-Static Formula Fluid ..... \$3.00



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## BLANK TAPE

### ADVENT

#### Chromium-Dioxide Cassettes

Comes in screw-type housing with special leader tape that cleans heads.

|      |        |
|------|--------|
| C60  | \$3.10 |
| C90  | \$3.98 |
| C120 | \$5.20 |

### AMPEX

#### 364 Series 20/20+ Cassettes

|                   |        |
|-------------------|--------|
| 364-C45. 45 min   | \$3.09 |
| 364-C60. 60 min   | \$3.49 |
| 364-C90. 90 min   | \$5.09 |
| 364-C120. 120 min | \$6.79 |

#### 363 Series Chromium-Dioxide Cassettes

|                 |        |
|-----------------|--------|
| 363-C60. 60 min | \$3.49 |
| 363-C90. 90 min | \$5.19 |

#### 370 Series Cassettes

Low-noise/high output type.

|                   |        |
|-------------------|--------|
| 370-C45. 45 min   | \$1.79 |
| 370-C60. 60 min   | \$1.99 |
| 370-C90. 90 min   | \$2.89 |
| 370-C120. 120 min | \$4.19 |

#### 350 Series "Super" Cassettes

|                   |        |
|-------------------|--------|
| 350-C45. 45 min   | \$1.19 |
| 350-C60. 60 min   | \$1.49 |
| 350-C90. 90 min   | \$1.99 |
| 350-C120. 120 min | \$3.19 |

#### 371 Plus Series Cassettes

Extended low-noise/high-output type.

|                   |        |
|-------------------|--------|
| 371-C45. 45 min   | \$2.49 |
| 371-C60. 60 min   | \$2.89 |
| 371-C90. 90 min   | \$4.19 |
| 371-C120. 120 min | \$5.79 |

#### 381 Series 8-Track Cartridges

|                 |        |
|-----------------|--------|
| 381-45E. 45 min | \$1.99 |
| 381-90E. 90 min | \$2.29 |

#### 382 Plus Series Cartridges

Extended low-noise/high-output type.

|                |        |
|----------------|--------|
| 382-45. 45 min | \$2.89 |
| 382-90. 90 min | \$3.39 |

#### 388 Series 20/20+ Cartridges

|                 |        |
|-----------------|--------|
| 388-45E. 45 min | \$3.39 |
| 388-90E. 90 min | \$3.99 |

#### 372/373+ Series Open-Reel Tapes

Back-coated professional mastering tape.

|                                            |         |
|--------------------------------------------|---------|
| 372-15. 1200 ft, 7" reel, 1.5 mil          | \$7.79  |
| 373-15. 1800 ft, 7" reel, 1.0 mil          | \$9.69  |
| 373-17. 3600 ft, 10 1/2" NAB reel, 1.0 mil | \$26.39 |

#### 332/342 Plus Series Open-Reel Tapes

Extended low-noise/high-output type.

|                                       |        |
|---------------------------------------|--------|
| 332-151111. 1200 ft, 7" reel, 1.5 mil | \$5.89 |
| 342-151111. 1800 ft, 7" reel, 1.0 mil | \$7.79 |

#### PRT Series Open-Reel Tapes

High-frequency polyester.

|                                   |        |
|-----------------------------------|--------|
| 331-13. 600 ft, 5" reel, 1.5 mil  | \$3.09 |
| 341-13. 900 ft, 5" reel, 1.0 mil  | \$3.49 |
| 331-15. 1200 ft, 7" reel, 1.5 mil | \$4.69 |
| 341-15. 1800 ft, 7" reel, 1.0 mil | \$5.89 |

|                                   |         |
|-----------------------------------|---------|
| 351-15. 2400 ft, 7" reel, 0.5 mil | \$10.29 |
| 361-15. 3600 ft, 7" reel, 0.5 mil | \$10.49 |

#### Demagnetizer/Head Cleaner

|                                         |        |
|-----------------------------------------|--------|
| E3220BL. For cassette players/recorders | \$6.29 |
| E3228BL. For 8-track players/recorders  | \$7.49 |

### BASF

#### Professional Series Reel-to-Reel

|                   |         |
|-------------------|---------|
| 7" x 1800 ft      | \$14.99 |
| 10 1/2" x 3600 ft | \$29.99 |

#### Studio Series Reel-to-Reel

|                   |         |
|-------------------|---------|
| 7" x 1800 ft      | \$9.99  |
| 7" x 2400 ft      | \$14.99 |
| 10 1/2" x 3600 ft | \$19.99 |

#### Performance Series Reel-to-Reel

|              |         |
|--------------|---------|
| 7" x 1800 ft | \$7.49  |
| 7" x 2400 ft | \$9.99  |
| 7" x 3600 ft | \$15.99 |

#### Chromium-Dioxide Cassettes

|         |        |
|---------|--------|
| 60 min  | \$2.99 |
| 90 min  | \$4.49 |
| 120 min | \$5.99 |

#### Studio Series Cassettes

|         |        |
|---------|--------|
| 60 min  | \$2.99 |
| 90 min  | \$4.49 |
| 120 min | \$5.99 |

#### Performance Series Cassettes

|         |        |
|---------|--------|
| 45 min  | \$2.29 |
| 60 min  | \$2.49 |
| 90 min  | \$3.59 |
| 120 min | \$4.99 |

#### Studio Series Cartridges

|        |        |
|--------|--------|
| 45 min | \$3.29 |
| 64 min | \$3.59 |
| 90 min | \$3.99 |

#### Performance Series Cartridges

|        |        |
|--------|--------|
| 45 min | \$2.89 |
| 64 min | \$3.19 |
| 90 min | \$3.49 |

#### Accessories

|                        |        |
|------------------------|--------|
| 8-track head cleaner   | \$1.99 |
| Cassette head cleaner  | \$1.79 |
| 7" plastic storage box | \$2.69 |
| 7" plastic reel        | \$1.59 |

### CAPITOL

#### Capitol 1 Cassettes

|                       |        |
|-----------------------|--------|
| C-45. 22.5 min/side   | \$0.89 |
| C-60. 30 min/side     | \$0.99 |
| C-90. 45 min/side     | \$1.49 |
| C-120. 60 min/side    | \$1.99 |
| C-30. Three pack      | \$1.99 |
| C-60. Three pack      | \$2.39 |
| Cassette head cleaner | \$0.99 |

#### Capitol 1 8-Track Cartridges

|               |        |
|---------------|--------|
| 32 min/150 ft | \$1.69 |
|---------------|--------|

|                        |        |
|------------------------|--------|
| 40 min/190 ft          | \$1.79 |
| 64 min/300 ft          | \$1.99 |
| 80 min/380 ft          | \$2.09 |
| 100 min/470 ft         | \$2.49 |
| 4 pk of 40 min         | \$4.99 |
| 4 pk of 60 min         | \$5.49 |
| 4 pk of 80 min         | \$5.99 |
| 4 pk of 90 min         | \$6.39 |
| Cartridge head cleaner | \$1.09 |

#### Capitol 1 Open-Reel Tape

Standard play, 1.5-mil polyester.

|                  |        |
|------------------|--------|
| 600 ft, 5" reel  | \$2.69 |
| 1200 ft, 7" reel | \$3.49 |

Extra play, 1.0-mil polyester.

|                                |        |
|--------------------------------|--------|
| 900 ft, 5" reel                | \$2.89 |
| 1800 ft, 7" reel               | \$3.99 |
| 0.5-mil polyester, tensilized. |        |
| 1800 ft, 5" reel               | \$4.19 |
| 2400 ft, 7" reel               | \$5.19 |

#### "the music tape" Cassettes

High-output/low noise with "cushion-aire" backing.

|                               |        |
|-------------------------------|--------|
| C 45. 45 min                  | \$1.79 |
| C 60. 60 min                  | \$2.19 |
| C 90. 90 min                  | \$3.29 |
| C 120. 120 min                | \$4.39 |
| C 45. Stak-pak (2 cassettes)  | \$3.59 |
| C 60. Stak-pak (2 cassettes)  | \$4.39 |
| C 90. Stak-pak (2 cassettes)  | \$6.99 |
| C 120. Stak-pak (2 cassettes) | \$8.79 |

#### Chromium-Dioxide

|              |        |
|--------------|--------|
| C 60. 60 min | \$2.79 |
| C 90. 90 min | \$4.09 |

#### "the music tape" Cartridges

High-output/low noise.

|                      |        |
|----------------------|--------|
| 8T-45. 45 min        | \$2.29 |
| 8T-60. 60 min        | \$2.49 |
| 8T-90. 90 min        | \$2.69 |
| 8T-100. 100 min      | \$2.79 |
| 8T-120. 120 min      | \$3.39 |
| 4 min test cartridge | \$2.09 |

#### "the music tape" Open-Reel

High-output/low noise, "cushion-aire" backing.

|                                 |         |
|---------------------------------|---------|
| FDS-1200. 1200 ft, 7" reel      | \$5.79  |
| FDS-1800. 1800 ft, 7" reel      | \$6.99  |
| FDS-2500. 2500 ft, 10 1/2" reel | \$17.29 |
| FDS-3600. 3600 ft, 10 1/2" reel | \$19.98 |

### 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       | \$1.99 |
| 2CB-80060. 60 min       | \$2.29 |
| 2CB-80090. 90 min       | \$3.49 |
| 2CB-80012. 120 min      | \$4.49 |
| 2CB-800HC. Head cleaner | \$1.49 |

#### 8-Track Tapes with "ConvertaQuad"

Back-lubricated high-output/low-noise gamma-

# 15

## BLANK TAPE

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" slug.

|                         |        |
|-------------------------|--------|
| 8CB-80740. 40 min       | \$2.29 |
| 8CB-80750. 50 min       | \$2.59 |
| 8CB-80780. 80 min       | \$2.99 |
| 8CB-80710. 100 min      | \$3.49 |
| 8CB-807HC. Head cleaner | \$1.49 |

### FUJI

#### FC Chromium-Dioxide Cassettes

|                     |        |
|---------------------|--------|
| C60-FC. 30 min/side | \$5.25 |
| C90-FC. 45 min/side | \$7.05 |

#### FX Cassette Series

Low-distortion, wide-dynamic-range tape for music recording and reproduction.

|                    |        |
|--------------------|--------|
| C46FX. 23 min/side | \$4.65 |
| C60FX. 30 min/side | \$5.25 |
| C90FX. 45 min/side | \$2.05 |

#### FL Low-Noise Cassettes

|                     |        |
|---------------------|--------|
| C30FL. 15 min/side  | \$3.00 |
| C60FL. 30 min/side  | \$3.75 |
| C90FL. 45 min/side  | \$5.40 |
| C120FL. 60 min/side | \$7.50 |

#### 8-Track Cartridges

|       |        |
|-------|--------|
| 8T-45 | \$4.80 |
| 8T-90 | \$6.30 |

#### FB-151 Audiophile Open-Reel Tapes

Ultra-low-noise, high-output, back-coated master recording tape; for use on tape recorders equipped with bias selector.

|                             |         |
|-----------------------------|---------|
| 1200-ft, 7" reel            | \$12.75 |
| 1800-ft, 7" reel            | \$16.50 |
| 3600-ft, 10 1/2" metal reel | \$45.00 |

### IRISH

#### 200 Series Professional Tape

Standard, 1 1/2-mil, polyester base, 1/4".

|                            |        |
|----------------------------|--------|
| 231-131. 600 ft., 5" reel  | \$3.25 |
| 231-151. 1200 ft., 7" reel | \$4.95 |

Extra-length, 1-mil, polyester base, 1/4".

|                                              |         |
|----------------------------------------------|---------|
| 241-131. 900 ft., 5" reel                    | \$3.60  |
| 241-151. 1800 ft., 7" reel                   | \$6.10  |
| 241-173. 3600 ft., 10 1/2" NAB aluminum reel | \$19.55 |

Double-length, 1/2-mil polyester tensilized base.

|                            |         |
|----------------------------|---------|
| 251-151. 2400 ft., 7" reel | \$10.60 |
|----------------------------|---------|

0.5-mil, polyester tensilized base, 1/4".

|                            |         |
|----------------------------|---------|
| 261-151. 3600 ft., 7" reel | \$10.95 |
|----------------------------|---------|

#### 270 Series Tape

Low-noise, high-output, back coated.

|                                             |         |
|---------------------------------------------|---------|
| 276-151. 1200 ft, 7" reel                   | \$8.75  |
| 276-173. 2500 ft, 10 1/2" NAB aluminum reel | \$22.45 |
| 276-273. 2500 ft, 10 1/2" NAB aluminum reel | \$34.15 |
| 277-151. 1800 ft, 7" reel                   | \$11.50 |
| 277-173. 3600 ft, 10 1/2" NAB aluminum reel | \$27.00 |

#### Professional-Series Cassettes

In album/mailer.

|                          |        |
|--------------------------|--------|
| 261-C45. 22 1/2 min/side | \$1.15 |
| 261-C60. 30 min/side     | \$1.40 |
| 261-C90. 45 min/side     | \$2.10 |
| 261-C120. 60 min/side    | \$3.25 |

#### Low-Noise, Extended-Range Cassettes

Flip-top plastic box.

|                          |        |
|--------------------------|--------|
| 262-C45. 22 1/2 min/side | \$1.85 |
| 262-C60. 30 min/side     | \$2.10 |
| 262-C90. 45 min/side     | \$3.10 |

#### Chromium-Dioxide Cassettes

Flip-top plastic box.

|                      |        |
|----------------------|--------|
| 263-C60, 30 min/side | \$3.65 |
| 263-C90, 45 min/side | \$5.35 |

#### 8-Track Cartridges

|              |        |
|--------------|--------|
| 8T42, 42 min | \$2.00 |
| 8T84, 84 min | \$2.30 |

#### Cassettes in Polybag

|            |        |
|------------|--------|
| Three C-60 | \$2.95 |
| Three C-90 | \$3.49 |

### LAFAYETTE

#### Criterion XHE Reel-to-Reel Tapes

On plastic reels. For recorders with switchable bias and equalization.

|                           |        |
|---------------------------|--------|
| 1200 ft, 7" reel, 1.5 mil | \$5.79 |
| 1800 ft, 7" reel, 1.0 mil | \$6.99 |

#### Criterion XHE Series Cassettes

Low-noise, (XHE) extra high energy, high-output. Wide dynamic range with high-frequency response of 30-20,000 Hz. Gamma ferric-oxide formulation. Hard, clear plastic storage box.

|                    |        |
|--------------------|--------|
| C-60. 30 min/side  | \$2.99 |
| C-90. 40 min/side  | \$3.99 |
| C-120. 60 min/side | \$4.99 |

#### Criterion XHE 8-Track Cartridges

|        |        |
|--------|--------|
| 45 min | \$2.69 |
| 90 min | \$3.39 |

#### Criterion Cassettes

|                    |        |
|--------------------|--------|
| C-60. 30 min/side  | \$1.49 |
| C-90. 40 min/side  | \$1.99 |
| C-120. 60 min/side | \$2.49 |

#### Low-Noise Cassettes

|                    |        |
|--------------------|--------|
| C-60. 30 min/side  | \$0.99 |
| C-90. 40 min/side  | \$1.49 |
| C-120. 60 min/side | \$1.99 |

#### 8-Track Low-Noise Cartridges

|        |        |
|--------|--------|
| 45 min | \$1.99 |
| 90 min | \$2.49 |

### MAXELL

#### UD-XL I Epitaxial Cassettes

Normal bias; 120-μs equalization.

|                   |        |
|-------------------|--------|
| C-60. 30 min/side | \$4.60 |
| C-90. 45 min/side | \$6.50 |

#### UD-XL II Epitaxial Cassettes

Chrome type; high-level bias; 70-μs equalization.

|                   |        |
|-------------------|--------|
| C-60. 30 min/side | \$4.60 |
| C-90. 45 min/side | \$6.50 |

#### Ultra-Dynamic Cassettes (High Bias)

|                      |        |
|----------------------|--------|
| UDC-46. 23 min/side  | \$3.25 |
| UDC-60. 30 min/side  | \$3.60 |
| UDC-90. 45 min/side  | \$5.30 |
| UDC-120. 60 min/side | \$7.20 |

#### Ultra-Dynamic 8-Track (High Bias)

|                     |        |
|---------------------|--------|
| UD8T-46. 46 minutes | \$4.10 |
| UD8T-90. 90 minutes | \$5.00 |

#### Low-Noise Cassettes (Normal Bias)

|                      |        |
|----------------------|--------|
| LNC-46. 23 min/side  | \$2.10 |
| LNC-60. 30 min/side  | \$2.35 |
| LNC-90. 45 min/side  | \$3.75 |
| LNC-120. 60 min/side | \$5.00 |

#### Low-Noise Tape (Normal Bias)

1.5 mil polyester

|                                   |         |
|-----------------------------------|---------|
| LNE-50-60. 1200 ft, 7" reel       | \$7.35  |
| LNE-50-120. 2500 ft, 10 1/2" reel | \$16.10 |

1-mil polyester

|                                   |         |
|-----------------------------------|---------|
| LNE-35-90. 1800 ft, 7" reel       | \$8.00  |
| LNE-38-180. 3600 ft, 10 1/2" reel | \$22.00 |

0.5-mil polyester

|                              |         |
|------------------------------|---------|
| LNE 25-120. 2400 ft, 7" reel | \$12.35 |
|------------------------------|---------|

0.5-mil polyester

|                              |         |
|------------------------------|---------|
| LNE-18-180. 3600 ft, 7" reel | \$15.35 |
|------------------------------|---------|

#### Back-Coated Extended-Range

Back-coated, ultra-dynamic, high-energy, high-

bias type.

1.5-mil polyester

|                                  |         |
|----------------------------------|---------|
| UD50-60B. 1200 ft, 7" reel       | \$9.60  |
| UD50-120B. 2500 ft, 10 1/2" reel | \$28.50 |

1-mil polyester

|                                  |         |
|----------------------------------|---------|
| UD35-90B. 1800 ft, 7" reel       | \$11.35 |
| UD35-180B. 3600 ft, 10 1/2" reel | \$32.30 |

#### Extended-Range Tape (High Bias)

Ultra-dynamic, high-energy type.

1.5-mil polyester

|                                  |         |
|----------------------------------|---------|
| UD50-60. 1200 ft, 7" reel        | \$8.05  |
| UD50-1200. 2500 ft, 10 1/2" reel | \$21.70 |

1-mil polyester

|                                 |         |
|---------------------------------|---------|
| UD35-90. 1800 ft, 7" reel       | \$9.35  |
| UD35-180. 3600 ft, 10 1/2" reel | \$25.00 |

#### 8-Track Cartridges (Normal Bias)

|                     |        |
|---------------------|--------|
| LN8T-46. 46 minutes | \$3.10 |
| LN8T-60. 60 minutes | \$3.35 |
| LN8T-90. 90 minutes | \$3.75 |

### MEMOREX

#### "Quantum" Open-Reel Tape

|                            |         |
|----------------------------|---------|
| 90. 1800 ft, 7" reel       | \$8.59  |
| 120. 2400 ft, 7" reel      | \$11.39 |
| 180. 3600 ft, 10 1/2" reel | \$21.49 |

#### Low-Noise, High-Output Tape

Standard play. 1.5-mil polyester, 1/4".

|                  |        |
|------------------|--------|
| 1200 ft, 7" reel | \$5.49 |
|------------------|--------|

Long-play, 1-mil polyester, 1/4".

|                  |        |
|------------------|--------|
| 1800 ft, 7" reel | \$6.59 |
|------------------|--------|

Double-play, tensilized polyester, 1/4".

|                  |        |
|------------------|--------|
| 2400 ft, 7" reel | \$8.99 |
|------------------|--------|

#### MRX<sub>2</sub> Cassettes

|                       |        |
|-----------------------|--------|
| C-30. 15 min/side     | \$2.19 |
| C-45. 22 1/2 min/side | \$2.39 |
| C-60. 30 min/side     | \$2.59 |
| C-90. 45 min/side     | \$3.69 |
| C-120. 60 min/side    | \$5.09 |

#### Chromium-Dioxide Cassettes

|                       |        |
|-----------------------|--------|
| C-45. 22 1/2 min/side | \$2.99 |
| C-60. 30 min/side     | \$3.19 |
| C-90. 45 min/side     | \$4.69 |

#### 8-Track Cartridges

|        |        |
|--------|--------|
| 45 min | \$2.99 |
| 60 min | \$3.29 |
| 90 min | \$3.59 |

### MERITON

#### Ferri-Chrome Cassette

|                        |        |
|------------------------|--------|
| FeCr C-60. 31 min/side | \$3.79 |
|------------------------|--------|

#### Chromium-Dioxide Cassette

|                                    |        |
|------------------------------------|--------|
| CrO <sub>2</sub> C-60. 31 min/side | \$3.19 |
|------------------------------------|--------|

#### Low-Noise, High-Output Cassettes

|                      |        |
|----------------------|--------|
| LH C-60. 31 min/side | \$2.49 |
| LH C-90. 46 min/side | \$3.59 |

#### Low-Noise Cassettes

|                       |        |
|-----------------------|--------|
| LN C-60. 31 min/side  | \$1.49 |
| LN C-90. 46 min/side  | \$2.29 |
| LN C-120. 61 min/side | \$3.49 |

### NAKAMICHI

#### EX Cassette Tapes

Specially formulated ferrocystal tape for improved frequency response, S/N ratio, and dynamic range; special binder for even particle distribution and reduced head wear.

|      |        |
|------|--------|
| C-60 | \$3.70 |
| C-90 | \$4.80 |

#### EX II Cassette Tapes

Single-coated ferricobalt formulation; has same bias and EQ (120 μs) as EX; extra-low noise, high output.

|      |        |
|------|--------|
| C-60 | \$4.40 |
| C-90 | \$5.80 |

## SX Cassette Tapes

Single-coated formulation of ionized cobalt and ferric oxide; high coercivity permits use of chromium-dioxide bias and EQ (70  $\mu$ s).

|      |        |
|------|--------|
| C-60 | \$4.60 |
| C-90 | \$6.00 |

## RECOTON

### Cassettes

Low-noise, ferric-oxide tape.

|                 |        |
|-----------------|--------|
| CD-40. 40 min   | \$1.49 |
| CD-60. 60 min   | \$1.79 |
| CD-90. 90 min   | \$2.29 |
| CD-120. 120 min | \$2.79 |

### 8-Track Cartridges

|                 |        |
|-----------------|--------|
| 8T-35. 35 min   | \$2.25 |
| 8T-40. 40 min   | \$2.45 |
| 8T-70. 70 min   | \$2.95 |
| 8T-80. 80 min   | \$3.25 |
| 8T-100. 100 min | \$3.75 |

## ROYAL SOUND

### Chromium Dioxide Cassettes

|                |        |
|----------------|--------|
| CDC-60. 60 min | \$2.99 |
| CDC-90. 90 min | \$4.49 |

### Ultra-Linear Cassettes

High-density ferric-oxide tape.

|                |        |
|----------------|--------|
| ULC-60. 60 min | \$3.50 |
| ULC-90. 90 min | \$5.00 |

### Low-Noise Cassettes

|                          |        |
|--------------------------|--------|
| APC-30. 30 min           | \$1.49 |
| APC-45. 45 min           | \$1.75 |
| SPC-60. 60 min           | \$1.98 |
| APC-90. 90 min           | \$2.98 |
| APC-120. 120 min         | \$3.98 |
| APC-CH Auto head cleaner | \$2.00 |

### 8-Track Cartridges

|                        |        |
|------------------------|--------|
| 45 min                 | \$2.50 |
| 60 min                 | \$3.00 |
| 90 min                 | \$4.00 |
| Automatic head cleaner | \$1.95 |

### Open-Reel Tape

Polyester, 1-mil extra play.

|                          |        |
|--------------------------|--------|
| AP5900. 5" reel, 900-ft  | \$3.60 |
| AP7180. 7" reel, 1800-ft | \$6.20 |

Polyester, 1/2-mil tensilized.

|                                      |        |
|--------------------------------------|--------|
| AP7240. 7" reel, 2400-ft double play | \$9.50 |
|--------------------------------------|--------|

Polyester, 1/2-mil standard play.

|                          |        |
|--------------------------|--------|
| AP5600. 5" reel, 600-ft  | \$2.85 |
| AP7180. 7" reel, 1200-ft | \$4.25 |

## SCOTCH

### Master Cassettes

Features professional oxide; improved cassette shell for critical mechanical performance and three-head recorder design; "Posi-Trak" back treatment; album or "C-Box" packaging (40 cents additional for C-60 and C-90 "C-Box").

|         |        |
|---------|--------|
| 45 min  | \$2.69 |
| 60 min  | \$2.99 |
| 90 min  | \$3.99 |
| 120 min | \$5.49 |

### Master II Cassettes

Features chrome equivalent modified ferric oxide for use with recorders operating in the CrO<sub>2</sub> or 70  $\mu$ sec equalization position; improved cassette shell for critical mechanical performance and three-head recorder equipment; 3-dB S/N improvement over current CrO<sub>2</sub> cassettes; album or "C-Box" packaging (40 cents additional for "C-Box" packaging).

|                     |        |
|---------------------|--------|
| 45 min (album only) | \$3.69 |
| 60 min              | \$3.99 |
| 90 min              | \$4.99 |

### Master III Cassettes

Features improved FeCr dual-layer construction which provides 3-dB improvement in output at low frequencies, 2-dB boost at high frequencies over existing tapes; improved cassette shell for critical mechanical performance and

three-head recording equipment; album or "C-Box" packaging (40 cents additional for "C-Box" packaging).

|                     |        |
|---------------------|--------|
| 45 min (album only) | \$3.69 |
| 60 min              | \$3.99 |
| 90 min              | \$4.99 |

### Dynarange Low-Noise/High-Density

Multi-purpose cassette featuring full dynamic range throughout the audible sound spectrum; "Posi-Trak" back treatment; album package (60 and 90 also in "C-Box" package for 35 cents additional).

|         |        |
|---------|--------|
| 45 min  | \$2.19 |
| 60 min  | \$2.49 |
| 90 min  | \$3.49 |
| 120 min | \$4.99 |

Highlander/Low-Noise

For all-purpose cassette use; polyester base.

|         |        |
|---------|--------|
| 45 min  | \$1.29 |
| 60 min  | \$1.49 |
| 90 min  | \$2.19 |
| 120 min | \$4.35 |

### 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  | \$2.29 |
| 60 min  | \$2.59 |
| 90 min  | \$3.59 |
| 120 min | \$4.99 |

### 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)

No. 207. Polyester base, "Posi-Trak" backing, leader, and trailer, 1-mil. 90 min at 7 1/2 ips (7" reel)

Low-Noise/Dynarange

Provides high-fidelity recording even at 3 3/4 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 at 7 1/2 ips (7" reel)

No. 212. 1.0-mil. 45 min at 7 1/2 ips (5" reel);

90 min (7" reel)

No. 213. 0.5-mil tensilized. 120 min at 7 1/2 ips (7" reel)

No. 214. 0.5-mil tensilized. 90 min at 7 1/2 ips (5" reel)

180 min (7" reel)

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)

No. 229. 1-mil. 90 min at 7 1/2 ips (7" reel)

"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)

CL-7R90. 1.0-mil, 90 min. at 7 1/2 ips (7" reel)

CL-7R120. 0.5-mil, 120 min. at 7 1/2 ips (7" reel)

CL-10R120. 1.5-mil, 120 min. at 7 1/2 ips (10" reel)

CL-10R180. 1.0-mil, 180 min at 7 1/2 ips (10" reel)

CL-10R240. 0.5-mil, 240 min at 7 1/2 ips (10" reel)

"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 | \$3.79 |
| 8TR-90. 90 min | \$4.49 |

### 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.

|                      |        |
|----------------------|--------|
| 8TR-45 HO/LN. 45 min | \$3.29 |
| 8TR-90 HO/LN. 90 min | \$3.99 |

Low-Noise/Dynarange

All-purpose cartridge.

|                |        |
|----------------|--------|
| 8TR-45. 45 min | \$2.79 |
| 8TR-90. 90 min | \$3.49 |

### ERK-130 Cassette Edit/Repair Kit

Contains precision splicing block; spindle for manually winding cassette tape; six polyester picks (adhesive tipped for retrieval of tape ends lost in housing); six 130-mil splicing tabs; detailed instruction booklet

### Pre-Cut Tabs

SPT-7/32.36. 36 pre-cut 1.0-mil polyester splicing tabs

SST-7/32-18. 18 pre-cut aluminized sensing tabs

### Head Cleaners

S-C-HC. Cassette head cleaner

S-8TR-HC. 8-track head cleaner

### "Classic" Tape Indexing System

1" x 8" x 8 1/2" bookshelf index for cataloging 288 tapes; easy access to any tape through complete cross reference to individual titles by artist or music/sound style; CL-TIS

### C-Box Cassette Storage System

Stackable/interlocking cassette storage/carrying boxes with pushbutton drawers; easy access and index label for quick identification.

Sleeve of three empty C-Box units

C-Box wall bracket

C-Box carrying handle

Box of 10 empty "C-Box" units with handle and bracket

25 drawer labels and insert cards

SONY from SUPERSCOPE

## 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

PR-150-9. 900 ft, 5" reel, 1 mil

PR-150-18. 1800 ft, 7" reel, 1 mil

PR-150-36. 3600 ft, 10 1/2" reel, 1 mil

### Low-Noise, High-Output Tape

On 1-mil polyester base.

SLH-180-18. 1800 ft, 7" reel

SLH-180-36. 3600 ft, 10 1/2" reel

### Low-Noise Cassette Tape

C-45 Plus 2. 23 min/side

C-60 Plus 2. 31 min/side

C-90 Plus 2. 46 min/side

C-120 Plus 2. 61 min/side

### Ultra-High-Fidelity Cassette Tape

UHFC-60 Plus 2. 31 min/side

UHFC-90 Plus 2. 46 min/side

UHFC-120 Plus 2. 61 min/side

### Chromium-Dioxide Cassettes

CRO-60. 60 min

CRO-90. 90 min

### Ferri-Chrome Cassettes

FeCr-60 Plus 2. 31 min/side

FeCr-90 Plus 2. 46 min/side

# 15

## BLANK TAPE

- 8-Track Cartridges**  
 8T-40 Plus 2. 21 min/side ..... \$3.49  
 8T-80 Plus 2. 41 min/side ..... \$4.49

- Ferri-Chrome Recording Tape**  
 FeCr-11-3600. 3600 ft ..... \$39.95

- Ferri-Chrome 1/4-in Elcaset**  
 FeCr-LC-60. 30 min/side ..... \$9.95

- Low-Noise, High-Output 1/4-in Elcaset**  
 SLH-LC-60. 30 min/side ..... \$6.95

### TDK

#### "Super Avilyn" Cassettes

Features new magnetic particle (Avilyn); high S/N; low distortion; uses CrO<sub>2</sub> bias and eq.  
 SA-C60. 60 min ..... \$3.29  
 SA-C90. 90 min ..... \$4.79

#### "Audua" Cassettes

Normal bias tape with superior performance; added high-end brilliance; broad dynamic range; high output; minimum noise; uses high or normal bias and equalization settings.  
 AD-C60. 60 min ..... \$2.69  
 AD-C90. 90 min ..... \$3.99

#### "Dynamic" Cassettes

Features dynamic performance and durable mechanics; polyester back.  
 D-C30. 30 min ..... \$1.49  
 D-C45. 45 min ..... \$1.69  
 D-C60. 60 min ..... \$1.89  
 D-C90. 90 min ..... \$2.59  
 D-C120. 120 min ..... \$3.29  
 D-C180. 180 min ..... \$4.79

#### "Endless" Cassettes

Endless-loop design with safety features to prevent accidental reversal; usable in conventional cassette machines; polyester backing; packed in plastic boxes.  
 EC-20S. 20 sec ..... \$3.99  
 EC-30S. 30 sec ..... \$3.99  
 EC-1. 1 min ..... \$3.99  
 EC-3. 3 min ..... \$4.19  
 EC-6. 6 min ..... \$4.59  
 EC-12. 12 min ..... \$5.49

#### "Audua" 8-Track Cartridges

Full-fidelity 8-track cartridges with gamma ferric oxide; frequency response 20-23,000 Hz; high saturation and output level (MOL); has broad dynamic range; high S/N.  
 8TR-45AD. 45 min ..... \$2.99  
 8TR-90AD. 90 min ..... \$3.99

#### Dynamic 8-Track Cartridges

Full-fidelity 8-track cartridges.  
 8TR-45D. 45 min ..... \$2.29  
 8TR-90D. 90 min ..... \$2.79

#### "Audua-L" Open-Reel Tape

High-density ferric-oxide coating for high output, low noise, stability, and durability.  
 L1200. 1200 ft, 7" low-torque reel .... \$4.99  
 L-1800. 1800 ft, 7" reel ..... \$5.99  
 L-3600P. Plastic reel ..... \$15.49  
 L-3600M. Metal reel ..... \$19.95

#### "Audua-LB" Open-Reel Tape

Back-treated open-reel tape; high bias/eq.  
 LB-1800. 1800-ft, 7" plastic reel ..... \$8.69  
 LB-3600. 3600-ft, 10 1/2" NAB metal reel ..... \$22.95

#### S Open-Reel Tape

Open-reel tape with reproduction characteristics of SD cassettes.  
 S-1200 ..... \$4.99  
 S-1800 ..... \$5.99  
 S-3600P. Plastic reel ..... \$13.99  
 S-3600M. Metal reel ..... \$17.49

## DIRECTORY OF MANUFACTURERS

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- SOUND GUARD**, Ball Corp.  
 345 S. High St., Muncie, Ind. 47305
- SOUNDCRAFTSMEN**  
 1721 Newport Circle, Santa Ana, Cal. 92705
- SOURCE ENGINEERING**  
 Box 506, Wilmington, Mass. 01887
- SP**, Grafyx Audio Products, Inc.  
 1550F W. Fullerton Ave., Addison, Ill. 60101
- SPEAKERKIT**  
 Box 12, Menomonie, Wis. 54751
- SPEAKERLAB, INC.**  
 5500 35th N.E., Seattle, Wash. 98105
- SPECTRO ACOUSTICS**  
 3200 George Washington Way, Richland, Wash. 99352
- STANTON MAGNETICS, INC.**  
 Terminal Dr., Plainview, N.Y. 11803
- STAX**, American Audioport, Inc.  
 1407 N. Providence Rd., Columbia, Mo. 65201
- SUPEREX ELECTRONICS CORP.**  
 151 Ludlow St., Yonkers, N.Y. 10705
- SUPERSCOPE, INC.**  
 20525 Nordhoff St., Chatsworth, Cal. 91311
- SWTP**, Southwest Technical Products Corp.  
 219 W. Rhapsody, San Antonio, Tex. 78216
- SYNERGISTICS**  
 Box 1245, Canoga Park, Cal. 91304
- TANBERG OF AMERICA, INC.**  
 Labriola Ct., Armonk, N.Y. 10504
- TANNOY**, Tannoy-Ortolon, Inc.  
 55 Ames Ct., Plainview, N.Y. 11803
- TDK ELECTRONICS CORP.**  
 755 Eastgate Blvd., Garden City, N.Y. 11530
- TEAC CORP. OF AMERICA**  
 7733 Telegraph Rd., Montebello, Cal. 90640
- TECHNICS BY PANASONIC**, Matsushita Electric Corp. of America  
 One Panasonic Way, Secaucus, N.J. 07094
- TELEX COMMUNICATIONS, INC.**  
 9600 Aldrich Ave., Minneapolis, Minn. 55420
- THORENS**, Elpa Marketing Industries, Inc.  
 Thorens Building, New Hyde Park, N.Y. 11040
- THRESHOLD CORP.**  
 1832 Tribute Rd., Suite E., Sacramento, Cal. 95815
- TOSHIBA AMERICA, INC.**  
 280 Park Ave., New York, N.Y. 10017
- TURNER DIVISION**, Conrac Corp.  
 909 17th St. N.E., Cedar Rapids, Ia. 52402
- UHER OF AMERICA, INC.**  
 621 S. Hindry Ave., Inglewood, Cal. 90301
- ULTRALINEAR LOUDSPEAKERS**, Div. of Solar Audio Prod. Inc.  
 3228 E. 50th St., Los Angeles, Cal. 90058
- UTAH ELECTRONICS**, Div. of Utah-American Corp.  
 1124 E. Franklin St., Huntington, Ind. 46750
- VAC-O-REC**, VOR Industries  
 1440 S. State College Blvd., Unit 5H, Anaheim, Cal. 92806
- VAN ALSTINE AUDIO SYSTEMS**  
 2202 River Hills Dr., Burnsville, Minn. 55337
- VERIT SPEAKERS**  
 11131 Dora St., Sun Valley, Cal. 91352
- VIDEOTON**, Kelso Import, Inc.  
 41 Madison Ave., New York, N.Y. 10010
- VISONIK OF AMERICA**  
 1177 65th St., Oakland, Cal. 94608
- WATTS, C.E.**, Elpa Marketing Industries, Inc.  
 Thorens Building, New Hyde Park, N.Y. 10040
- WEBCOR**, Leisurecraft Products Ltd.  
 Plainview, N.Y. 11803
- WHARFEDALE**, Rank Hi-Fi U.S.A.  
 22 Bushes La., Elmwood Park, N.J. 07407
- WHITE INSTRUMENTS, INC.**  
 Box 698, Austin, Tex. 78767
- YAMAHA INTERNATIONAL CORP.**  
 Box 6600, Buena Park, Cal. 90620
- ZENITH RADIO CORP.**  
 1000 Milwaukee Ave., Glenview, Ill. 60025

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# THE WORLD'S MOST POWERFUL RECEIVER.

**250 WATTS PER CHANNEL (MINIMUM RMS AT 8 OHMS, 20-20,000 HZ) WITH NO MORE THAN 0.05% THD!**

Not everyone can afford the Marantz Model 2500. In fact, you'll find that you have to spend a little more for any Marantz audio product. But when you do you'll possess the finest audio equipment in the world because you're buying better engineering and better quality.

What makes the Marantz Model 2500 worth more are innovations like the **Toroidal Power Transformer** that has been especially designed to give you **two independent power supply sections**, allowing each channel to perform at maximum efficiency and **remain unaffected** by the power demands of the other channel. Plus, our **tunnel "pin fin" heat sink** is the most efficient cooling system ever used in a high fidelity receiver or amplifier.

The Model 2500 includes virtually the most sophisticated amplifier section on the market today: a **full complementary symmetry direct-coupled output**. The result is the highest possible day-in, day-out operating reliability and lowest Total Harmonic Distortion: **no more than 0.05%**.

The Model 2500 also includes the most impressive performance feature package ever engineered into one receiver. You get a **built-in oscilloscope**, for precise signal display.

**Plug-in optional Dolby\* FM noise reduction circuitry** for lowest noise possible with FM reception. And the most advanced noise filtering system ever developed. First, the **18 dB per octave Bessel-derived high filter**—the most advanced in audio—reduces high frequency noise with a more natural, less colored sound. The **18 dB per octave 15 Hz sub-sonic Butterworth low filter** assures that all your power is used to reproduce only actual program material, not wasted on unwanted noise or rumble. **2 LED peak power indicators** let you know when transients drive the amplifier to full output. **5-gang FM tuning capacitor**, and **dual-gate MOS FET FM front end** ensure superior linearity and rejection of spurious signals with an IHF usable sensitivity of 1.5 microvolts and a 50 dB "quieting sensitivity" figure in stereo of **25 microvolts**—the finest such specification ever obtained in a receiver—or even a separate tuner.

For music lovers who will accept nothing less than the very finest... and are willing to spend a little more to get it... the Model 2500 is the most significant receiver ever developed.

**marantz.**  
We sound better.

\*TM Dolby Labs, Inc. © 1977 Marantz Co., Inc., a subsidiary of Superscope, Inc., 20525 Nordhoff St., Chatsworth, CA 91311. Prices and models subject to change without notice. Consult the Yellow Pages for your nearest Marantz dealer.

# Select what you want in a record cleaner.

## Convenience in use and storage.

You shouldn't need a separate shelf, elaborate motions or an act of Congress to clean your records. A comfortable, hand-held instrument that works best on a rotating turntable is ideal.

## Effectiveness against micro-dust.

Tiny, invisible dust particles hide in delicate record grooves and can be ground into the vinyl. Only a slanted (directional) fiber using special ultra-small fiber tips can scoop up, rather than rearrange, this micro-dust contamination.

## Effectiveness against chemical contamination.

Fingerprints and vapor-borne oils will deposit into channels of a record groove. Such contamination hides from adhesive rollers and all dry cleaning systems. Only a special fluid plus micro-fibers can safely remove such audible, impacted deposits.

## Total removal of contamination/fluid.

Capillary action—the lifting of fluid by small fiber surface tension—is totally effective. You want to get contamination off the record, along with any fluid traces.

## Lasting construction.

You want quality. A record cleaner can last a lifetime. A plastic wonder can crack into oblivion—or you can purchase the hand-rubbed elegance of milled walnut befitting the rest of your audio system.

## Ultimate economy.

The value of a truly fine record cleaner is justified by the cost of replacing your record collection. Fifteen dollars is a small investment in long-term protection.

## All of the above.

**DISCWASHER, the Superior  
Record Cleaner.**

See the finer audio dealers for a demonstration.



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